

CA construction anchors, inc.

Concrete Supplies & Building Materials

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PRODUCTS & SPECIAL ORDERS

Due to the wide variety of products available for distribution to the construction industry, it is not possible to include all the products in our catalog. **If you do not see a product you are looking for, give us a call... we can find it!**

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All shipments are F.O.B. Shipping Point unless otherwise agreed upon. We will select the best shipping method to assure prompt delivery where method of shipment is not specified.

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Returns may not be made without prior approval.

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IN MEMORY ROBERT L. SCHENKE 1928–2005



**We will continue to uphold the standards
upon which this company was founded.**

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Helpful Information

Weights And Measures		
U.S. Units		
Length		
1 foot	12 inches	
1 yard	3 feet	36 inches
1 mile	1,760 yards	5,280 feet
1 mile	8 furlongs	80 chains
1 fathom	2 yards	6 feet
1 rod	5.5 yards	16.5 feet
Area		
1 sq. foot	144 sq. inches	
1 sq. yard	9 sq. feet	1296 sq. inches
1 acre	4,840 sq. yards	43,560 sq. feet
1 sq. mile	640 acres	
Volume		
1 quart	2 pints	32 fluid ounces
1 gallon	4 quarts	128 fluid ounces
1 gallon	231 cubic inches	
1 cubic foot	1,728 cubic inches	7.48 gallons
1 cubic yard	27 cubic feet	202 gallons
Weight		
1 pound	16 ounces	
1 short ton	2,000 pounds	
Temperature		
C = (F-32) / 1.8 F = (1.8 x C) + 32		

Epoxy Mortar		
Approximate Yield		
Resinous Binder (gallons)	Silica Sand (gallons)	Mortar Yield (gallons)
1	1	1.6
1	2	2.2
1	3	2.8
1	4	3.4
1	5	4
Approximate Coverage		
1 Gallon Of Mortar		
Depth (inches)	Coverage (sq ft)	
1/8	12.8	
1/4	6.4	
3/8	4.3	
1/2	3.2	

Coatings Or Membranes	
Approximate Coverage	
Thickness of Coating (1000 mils = 1 inch)	Coverage Per 1 U.S. Gallon (100% solids system)
250 mils (1/4 in)	6.4 sq. ft.
187 mils (3/16 in)	8.5 sq. ft.
125 mils (1/8 in)	12.8 sq. ft.
100 mils (1/10 in)	16.0 sq. ft.
63 mils (1/16 in)	25.5 sq. ft.
31 mils (1/32 in)	50.0 sq. ft.
16 mils (1/64 in)	102.0 sq. ft.
5 mils (1/200 in)	320 sq. ft.

Note: If the coating contains a solvent which will evaporate, the thickness of the coating will be reduced by the same percentage as the solvent content. For example a 50% solids / 50% solvent material will lose half its wet thickness.

Temperature Effects On Curing epoxy
Lower Temperatures For every 18 F below 77 F, cure time is roughly doubled.
Higher Temperatures For every 18 F above 77 F, cure time is roughly halved.

Helpful Information

U.S Units - Metric Units		Metric Units - U.S. Units	
Length		Length	
1 inch	2.54 centimeters	1 centimeter	0.3937 inches
1 foot	30.48 centimeters	1 meter	39.37 inches
1 yard	.9144 meters	1 meter	3.2808 feet
1 mile	1.609 kilometers	1 meter	1.0936 yards
		1 kilometer	0.6214 miles
Area		Area	
1 sq. inch	6.452 sq. centimeters	1 sq. centimeter	0.155 sq. inches
1 sq. foot	0.0929 sq. meters	1 sq. meter	10.764 sq. feet
1 sq. yard	0.836 sq. meters	1 sq. meter	1.196 sq. yards
1 sq. mile	2.5899 sq. kilometers	1 sq. kilometer	0.3861 sq. miles
		1 sq. kilometer	247.1 acres
Weight		Weight	
1 ounce	28.35 grams	1 gram	0.03527 ounces
1 pound	0.4536 kilograms	1 kilogram	2.2 pounds
Volume		Volume	
1 gallon	3.785 liters	1 liter	0.2642 gallons
1 cubic inch	16.38716 cubic centimeters	1 liter	.0353 cubic feet
1 cubic foot	28.317 liters	1 liter	61.023 cubic inches
1 cubic foot	0.02832 cubic meters	1 cubic centimeter	0.061 cubic inches
1 cubic yard	0.7645 cubic meters	1 cubic meter	35.314 cubic feet
		1 cubic meter	1.308 cubic yard

Requirements For Filling Joint Slots										
Lineal Feet Per Gallon										
width/depth	1/8	1/4	3/8	1/2	5/8	3/4	7/8	1	1 1/4	1 1/2
1/8	1232									
1/4	616	308								
3/8	410	205	136							
1/2	306	154	102	77						
5/8	246	123	82	61	49					
3/4	205	102	68	51	41	34				
7/8	176	88	58	44	35	29	25			
1	154	76	51	38	31	25	22	19		
1 1/4	123	61	41	31	24	20	17	15	12	
1 1/2	102	50	34	25	19	17	14	12	10	8

Manufacturers' Web Sites

Advanced Building Products	advancedflashing.com	Owens Corning	owenscorning.com
Armor Tile	armor-tile.com	Pecora	pecora.com
Bar Splice	barsplice.com	Powers	powers.com
Barrier Bac	barrierbac.com	ProSoCo	prosoco.com
Bunyan	bunyanusa.com	R Max	maxinc.com
Carlisle	carlisle-ccw.com	Rapid Set	rapidset.com
Conspec	conspecmkt.com	RJD Industries	rjdindustries.com
Dayton/Richmond	daytonsuperior.com	Sika	sikausa.com
EmSeal	emseal.com	Solomon Colors	solomoncolors.com
Gates	gatesconcreteforms.com	Sonoco	sonotube.com
Heckman	heckmanbuildingproducts.com	Spec Formliner	specformliners.com
Hohmann Barnard	h-b.com	Spec Mix	specmix.com
Hyload	hyloadflashing.com	Stego	stegoindustries.com
Insulfoam	insulfoam.com	Strongwell	strongwell.com
Karnak	karnakcorp.com	Tamko	tamko.com
Linq	linq.com	Tamms	tamms.com
Meadow Burke	meadowburke.com	Tenax	tenaxus.com
Metal Forms	metalfoms.com	Trus Joist	trusjoist.com
Metzger/McGuire	metzgermcguire.com	Universal	universalformclamp.com
MFG	mfgcp.com	Victory Bear	fukuvi-usa.com
Mortar Net	mortarnet.com	Vynlex	vynlex.com
Olympic Plywood	olypanel.com	York	yorkmfg.com



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Geotextiles

Division 2



Nonwoven Needleponched Geotextiles Drainage, Erosion Control, Asphalt Overlay, Geomembrane Protection

LINQ Nonwoven Needleponched Geotextiles provide high permittivity (water flow) and a fine pore structure that allow water to flow through freely while preventing fine soils from piping through.

Meets AASHTO M-288-00 requirements.

140EX for Class 3 Subsurface Drainage, Class 3 Separation, Class 3 Stabilization and Paving Fabric
150EX for Class 2 Subsurface Drainage, Class 2 Separation and Class 2 Stabilization
180EX for Class 1 Stabilization and Class 1 Permanent Erosion Control

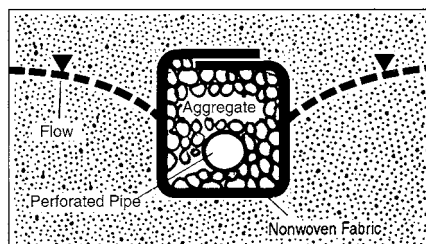
Minimum Average Roll Values (MARV)

Properties	ASTM Test Method	Drainage				Erosion Control & Geomembrane Protection					
		125EX	130EX	140EX	150EX	160EX	180EX	225EX	250EX	275EX	350EX
Grab Tensile (Lbs.)	D4632	90	105	120	165	180	200	215	270	300	380
Elongation (%)	D4632	50	50	50	50	50	50	50	50	50	50
Trapezoid Tear (Lbs.)	D4533	40	45	50	65	70	75	85	100	115	145
Puncture (Lbs.)	D4833	55	60	65	90	90	100	115	150	170	240
Mullen Burst (PSI)	D3786	185	210	230	310	320	330	360	450	550	750
Permittivity (Sec-1)	D4491	1.6	1.4	1.1	1.1	1.1	1	0.9	0.7	0.6	0.5
Flow (GPM/Sq. Ft.)	D4491	120	105	80	80	80	80	65	55	45	35
Permeability (cm/sec.)	D4491	0.2	0.2	0.2	0.2	0.2	0.25	0.25	0.25	0.25	0.25
AOS (US sieve no.)	D4751	70	70	70	80	80	80	80	100	100	100
Ultra-Violet Stability (% strength retained) (500 hour exposure)	D4355	70	70	70	70	70	70	70	70	70	70
Weight (Oz./Sq. Yd.)	D5261	3.5	4	4.5	6	6.5	8	9	10	12	16
Thickness (mils)	D5199	50	55	60	70	70	80	85	100	120	150

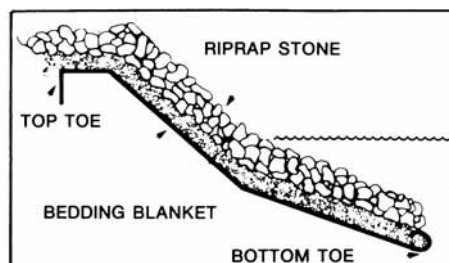
Polymer Composition

Polypropylene

Properties	Drainage				Erosion Control & Geomembrane Protection					
	125EX	130EX	140EX	150EX	160EX	180EX	225EX	250EX	275EX	350EX
Width (Ft.)	12.5/15	12.5/15	12.5/15	12.5/15	12.5/15	12.5/15	12.5/15	12.5/15	15	15
Length (Ft.)	360/300	360/300	360/300	360/300	360/300	360/300	360/300	360/300	300	150
Area (Sq. Yd.)	500	500	500	500	500	500	500	500	500	250
Weight (Lbs.)	120	130	145	200	215	230	260	335	395	250
Diameter (In.)	15/14	17/15	18/16	19/17	19/17	20/18	21/19	23/21	23	19



Drainage



Erosion Control & Geomembrane Protection

TOLL FREE 800-892-7224
800-821-7735

CA construction
anchors, inc.

LOCAL 816-525-3640
FAX 816-525-4533

Geotextiles



Silt and Sedimentation Control, Separation, Stabilization

LINQ Woven Geotextiles provide the maximum tensile strength and modulus for separation and reinforcement applications. They are also used in temporary silt fence applications.

Meets AASHTO M-288-00 requirements.

GTF 190 for Temporary Silt Fence
GTF 200 for Class 3 Separation
GTF 300 for Class 2 Separation and Class 1 Stabilization

Minimum Average Roll Values (MARV)

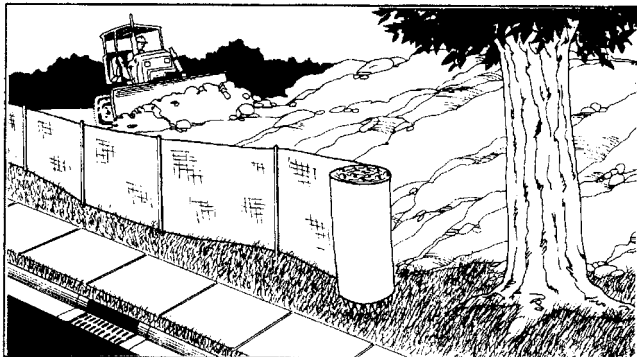
Properties	ASTM Test Method	Silt Fence			Separation & Stabilization		
		GTF 170	GTF 180	GTF 190	GTF 200S	GTF 200	GTF 300
Grab Tensile (Lbs.)	D 4632	80	100	101	180	200	315
Elongation (%)	D 4632	15	15	<50	15	15	15
Trapezoid Tear (Lbs.)	D4533	50	50	60	70	75	115
Puncture (Lbs.)	D 4833	45	60	50	80	100	145
Mullen Burst (PSI)	D3786	260	280	280	305	400	600
Permittivity (Sec-1)	D 4491	0.05	0.05	0.05	0.07	0.07	0.02
AOS (US sieve no.)	D 4751	20	20	30	50	40	40
Ultra-Violet Stability (% strength retained) (500 hour exposure)	D4533	90	90	70	90	90	90

Polymer Composition

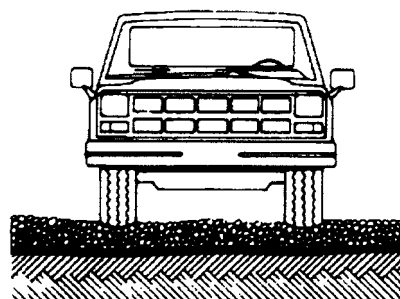
Polypropylene

Properties	Silt Fence		
	GTF 170	GTF 180	GTF 190
Width (In.)	36	25/36/45	36
Length (Ft.)	3000+	3000+	3000+

Properties	Separation & Stabilization		
	GTF 200S	GTF 200	GTF 300
Width (Ft.)	12/15/17.5	12/15/17.5	12.5/15/17.5
Length (Ft.)	600/480/411	432/360/309	600
Area (Sq. Yd.)	800	600	600
Weight (Lbs.)	240	220	265
Diameter (In.)	14/13/12	14/13/12	14/13/12



Silt Fence



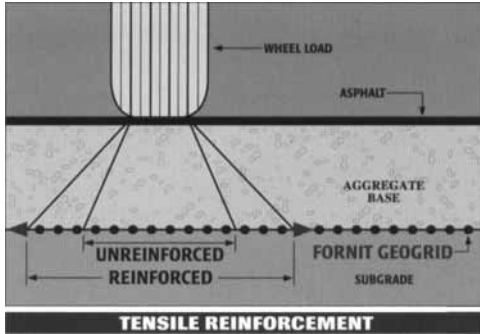
Stabilization

Geogrids

Fornit® Biaxial Geogrid Reinforcement

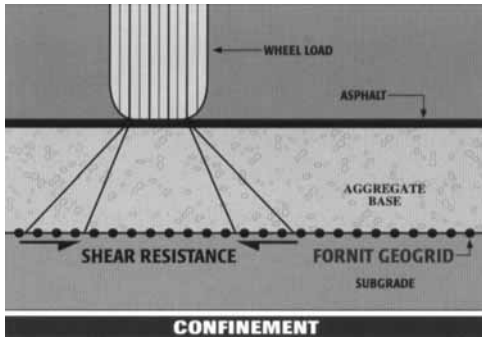


Fornit Geogrids are comprised of polypropylene yarns crafted into a stable, interlocking pattern with a protective polymeric coating. They provide tensile reinforcement, confinement and separation to base and subbase aggregate layers for both paved and unpaved roads.



Tensile Reinforcement

Fornit Geogrids provide excellent tensile reinforcement to the aggregate base and subbase layers of both paved and unpaved roads. With a tensile element that distributes the load over a greater area, Fornit geogrids reduce the bearing capacity requirements of underlying soils. In fact, pullout tests simulating roadway conditions prove Fornit Geogrids mobilize their strength in soils with minimum displacement, offering superior tensile reinforcement.



Confinement

There is no question, to maintain the integrity of the roadway under repeated wheel loadings, Fornit Geogrids are the answer. They provide interlocking of the aggregate to give you maximum confinement of the base course and maintain the desired thickness by reducing lateral displacement. This increased confinement is demonstrated by interface shear strength tests.



Separation

Finally, Fornit Geogrids are manufactured with an aperture size designed to optimally separate typical base course and finer subbase materials. The engineered aperture size enables interlock of the geogrid with the aggregate layer, yet still provides separation. The ribs create a superior support structure for the aggregate to interlock and bridge, reducing vertical deformation of the base layer. This results in a product that provides unparalleled geogrid separation along with tensile reinforcement and confinement.

Fornit Geogrid Physical Properties

	Weight Oz./Sq. Yd.	Aperture Size In.	Wide Width Tensile Strength		Elongation at Break	Tensile Strength at 2%		Tensile Modulus at 2%	
			MD	CMD		MD	CMD	MD	CMD
	ASTM D-5261	-	ASTM D-6637		ASTM D-6637	ASTM D-6637		ASTM D-6637	
Fornit 20	4.5	.6 x .6	900 lb/ft	1400 lb/ft	6%	343 lb/ft	480 lb/ft	17,150 lb/ft	19,200 lb/ft
Fornit 30	6.5	.6 x .6	1700 lb/ft	2200 lb/ft	6%	411 lb/ft	617 lb/ft	20,550 lb/ft	30,850 lb/ft

Note: Standard Roll Size: 17.06' W x 328.1' L = 822 sq. yds.

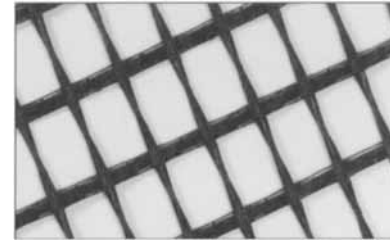
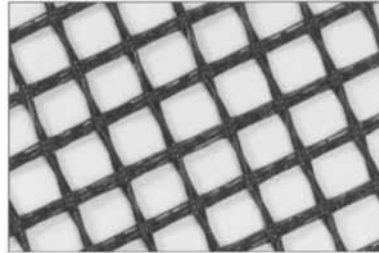
MD = Machine Direction; CMD = Cross Machine Direction

Geogrids

Fortrac® Geogrids

Geogrid Reinforcement for Retaining Walls, Slopes and Landfills

Fortrac Geogrids are manufactured from high-modulus, low-creep synthetic yarns and have a protective polymer coating. The combination of fiber composition and proprietary manufacturing procedures results in geogrids with extraordinarily high tensile strength, junction capacity, chemical durability and low strains to minimize time-dependent creep.



Fortrac Geogrid Physical Properties

Geogrid Type	Wt. Oz./Sq. Yd.	Aperture Sz. In. (ASTM D5261)	Ultimate Tens. Strgth. Lb./Ft. (ASTM D6637)	Elongation at Break (ASTM D6637)	Long-Term Design Str. Lb./Ft. (Sand)	Std. Roll Dim. Ft.	Std. Roll Size Sq. Yds.
High Tenacity Polyester (PET) Geogrids							
20/13-20	5	0.8 x 0.8	1500	10	762	12 x 656	885
35/20-20	7	0.8 x 0.8	2400	10	1322	12 x 262	354
55/30-20	8	0.8 x 0.8	3700	10	1936	12 x 328	443
80/30-20	14	0.8 x 0.8	5380	10	2815	12 x 328	443
110/30-20	16	0.8 x 0.8	7400	10	3872	12 x 328	443
Polyvinyl Alcohol (PVA) Geogrids							
20 MP	5	0.8 x 1.2	1600	4 to 6	934	12 x 656	885
35 MP	7	0.8 x 1.2	2600	4 to 6	1400	12 x 262	354
55 MP	8	0.8 x 1.2	3700	4 to 6	2160	12 x 328	443
80 MP	11	0.8 x 1.2	5480	4 to 6	3200	12 x 328	443

Comtrac® Geotextiles

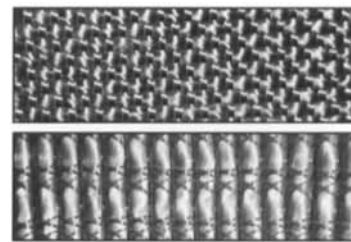
Knitted and Woven Geotextiles that Reinforce Weak Soils

The Comtrac reinforced soil system consists of polymer geotextiles arranged in a soil structure in a manner designed to resist movement of the reinforced soil mass. The technique enables stable embankments to be constructed over weak foundation soils and permits the construction of steep slopes and retaining walls. The Comtrac system offers increased factors of safety, greater site flexibility and up to 60% cost savings over conventional construction methods.

Comtrac geotextiles are composed of woven or knitted high-tenacity polyester yarn. Polyester provides superior creep resistance and high tensile modulus. This makes Comtrac a natural choice for earthwork reinforcement.

Other Comtrac Features

- Comtrac absorbs tension at low strain because its high-tenacity polyester yarns are placed in a linear manner. This allows immediate soil-to-geotextile load transfer. this transfer provides the tensile strength required in the soil structures.
- Comtrac's high specific gravity makes it easy to install on land or under water.
- Comtrac geotextiles exhibit better soil interaction and higher cross-plane permeability when compared to conventional geotextiles.
- Finally, Comtrac can be produced to exact engineering or contractor specifications.



Top Photo: Woven geotextile. Woven fabrics provide excellent performance for basic soil reinforcement applications.

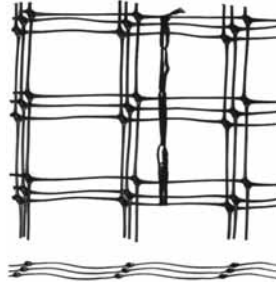
Bottom Photo: Knitted geotextile. Longitudinal and transverse yarns are placed atop each other and secured with an additional knitting yarn. Because the high-strength yarns are placed in linear fashion, these load-bearing members require less elongation to achieve full tensile strength.

Geogrids



For Soil Stabilization & Base Reinforcement

Tenax MS220 and MS330 geogrids are composed of two and three layers of high strength, extruded biaxially oriented polypropylene grid, respectively. The layers are rolled and stitched together without superimposing the meshes creating a geogrid with random-sized apertures designed to accommodate a variety of fill materials. The random aperture geometry, many tensile elements and multiple layers of the geogrid enhance soil/geogrid interaction. This greatly improves the geogrid's interlocking capacity, distributes applied loads and prevents localized shear failure.



Structure of Tenax MS™ 330, multi-layered geogrid

Tenax multi-layered geogrids differ from other geogrids because of:

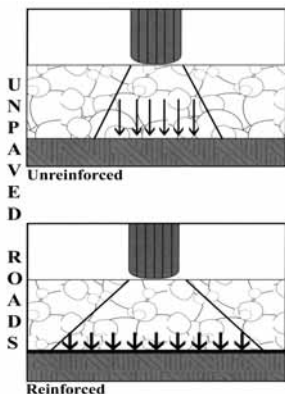
Greater Number of Tensile Elements

Physical Properties	Test Method	Unit	MS 220 Test Direction		Notes
			MD	TD	
Peak tensile strength	GRI-GG1	lb./ft. (kN/m)	925 (13.5)	1400 (20.5)	a, c, e
Tensile strength at 2% strain	GRI-GG1	lb./ft. (kN/m)	300 (4.4)	445 (6.5)	a, c, e
Tensile modulus at 2% strain	GRI-GG1	lb./ft. (kN/m)	15000 (220)	22260 (325)	a, c, e
Tensile strength at 5% strain	GRI-GG1	lb./ft. (kN/m)	615 (9.0)	890 (13.0)	a, c, e
Tensile strength at 5% strain	GRI-GG1	lb./ft. (kN/m)	12330 (180)	17800 (260)	a, c, e
Yield point elongation	GRI-GG1	%	12	11	b, c, e
Junction strength	GRI-GG2	lb./ft. (kN/m)	835 (12.2)	1315 (19.2)	a, e

Dimensional Properties	Test Method	Unit	MS 220	Notes
Number of layers			2	
Aperture size – MD, TD		in. (mm), in. (mm)	1.65 (42), 1.96 (50)	b, d, e
Open area		%	75	a
Unit weight	ASTM D 5261	oz./sq.yd. (g/sq.m)	6.5 (220)	b
Roll dimensions (W x L)		ft. x ft. (m x m)	12.5 x 164 (3.8 x 50)	b
Roll area		sq.yd. (sq.m)	455 (380)	b
Gross roll weight		lbs. (kg)	217 (98.5)	b

Notes:

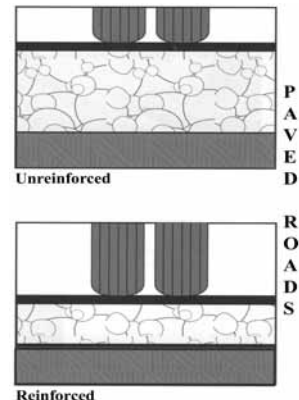
- a) 95% lower confidence limit values, ISO 2602
- b) Typical value
- c) Tests performed using extensometers
- d) Single layer dimension
- e) MD = machine direction (longitudinal to the roll)
TD = transverse direction (across the roll)



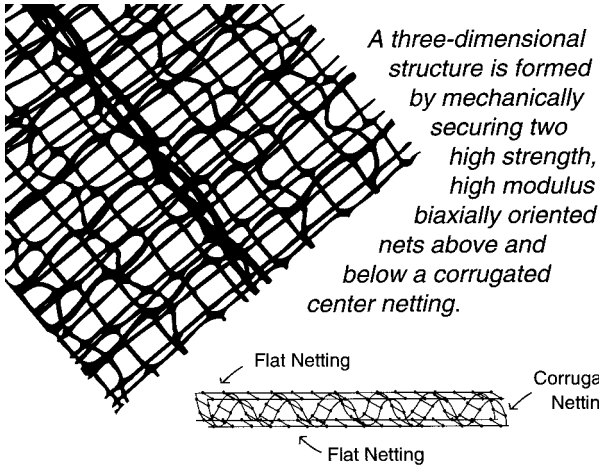
Tenax MS™ 220 and MS™ 330 geogrids distribute applied loads over a greater area reducing vertical pressure on the subgrade. This allows for a longer design life compared with a similar unreinforced section. If designed for a specific lifetime, this allows for significant reductions in base course thickness.

Material Savings

Tenax geogrids allow up to a 30% reduction of base course material thickness in flexible pavement systems.



TENAX



Multimat 100

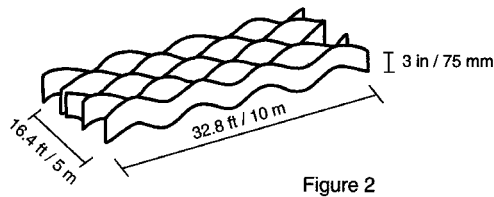
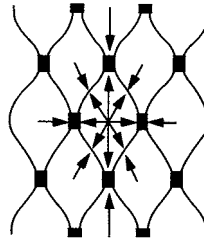
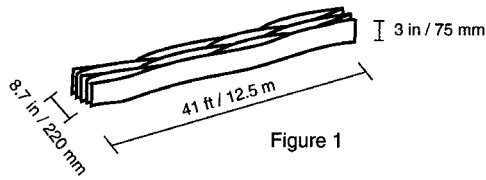
Turf Reinforcement Matrix (TRM) and Erosion Control Revegetation Matrix (ECRM)

Tenax Multimat 100 provides excellent performance as a TRM due to its high tensile strength which firmly holds vegetation and resists applied shear stresses. Additionally, Multimat 100's high modulus ensures that reinforcement is provided at very low elongations to keep deformation to an absolute minimum.

When placed above seeded soil and used as an ECRM, Multimat 100's complex design -- with its corrugated center, top and bottom nets -- affords optimum ground cover to provide excellent erosion protection from raindrop impact and surface flow without inhibiting the growth of vegetation.

Tenweb Geocells

Cellular Confinement Systems



Tenax Tenweb is a three dimensional structure manufactured from continuously extruded polyethylene without subsequent joining. It is therefore inert to chemical agents and atmospheric conditions and is also of exceptional strength.

Tenweb is supplied in collapsed panels for maximum ease of transport and storage (Figure 1).

Once extended to the maximum width and filled with compacted material, it becomes both stable and inextensible (Figure 2 & 3).

Mesh Size

1Ω x 1^o in / 3.8 x 3.2 cm



Roll Size

Roll Size	Colors
4 x 50 Ft. / 1.2 x 15.2m	Orange
4 x 100 Ft. / 1.2 x 30.5m	Orange
5 x 50 Ft. / 1.5 x 15.2m	Orange
6 x 50 Ft. / 1.8 x 15.2m	Orange

Safety Fence

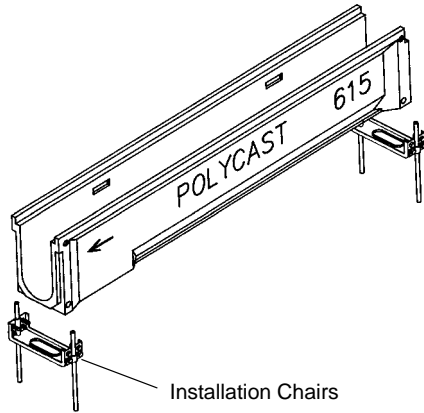
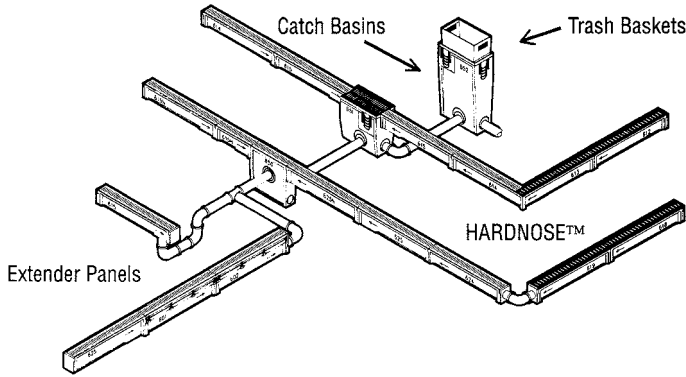
To enclose work sites as required by OSHA and local governments.

Polymer: Polyethylene (HDPE)

Stabilizer: UV stabilizer

POLYCAST

Presloped Trench Drain Systems



Polycast Presloped Drain Systems are designed for a variety of applications, both indoors and outdoors. Polycast is made of a high strength, chemical resistant composite material. As a result, Polycast drains offer a high degree of chemical resistance and have a water absorption value of less than one percent (ASTM C140).

Rapid drainage, durability and resistance to freeze/thaw cycles make polycast ideal for outdoor applications. Polycast is more than four times stronger than ordinary concrete. The 24" and 48" components make Polycast extremely versatile. With the proper components, a flow rate of 900 GPM per outlet is attainable.

Applications

Industrial	Commercial
Manufacturing Chemical Plants Food Processing (USDA Approved)	Vehicle Maintenance Airports Highways and Roads Pools

Channel Lengths 24" and 48"
 Available in Polyester or Vinyl Ester Polymer Concrete

600 Series

Presloped Heavy Duty/Light Duty

Ideally suited for a variety of commercial and industrial application (pneumatic tire traffic only). It is designed to have flow rates equal to or greater than most larger poured-in-place trench drains.

700 Series Hardnose

Presloped Extra Heavy Duty

Designed for heavy commercial and military aircraft traffic, hard wheel forklifts, pallet jacks, solid wheel carts, construction equipment, off-road vehicles at moderate speeds. The 700 Series assembly consists of cast iron frames inlaid on the 600 Series channel and fitted with either Cast Iron or Ductile Iron slotted grates.

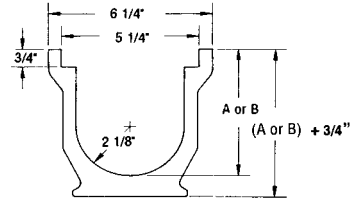
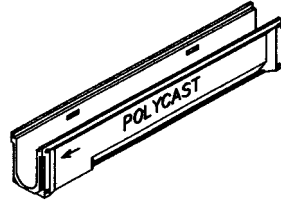
800 Series Maxi

Heavy Duty

Designed for those high volume situations that exceed the capacity of the 600 Series. The 825 Section is a neutral channel (no slope) and has a width of 12 inches.

Drainage

POLYCAST

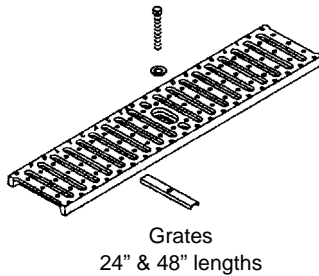


600 Series Channel Data

Channel No.	Wt. Lbs.	Inlet Dim. In. A	Outlet Dim. In. B
600N (nonsloped)	37	4-1/16	4-1/16
601	38	4-1/16	4-3/8
602	43	4-3/8	4-11/16
603	43	4-11/16	5
604	44	5	5-5/16
605	45	5-5/16	5-5/8
605N (nonsloped)	46	5-5/8	5-5/8
605H (nonsloped 24")	22	5-5/8	5-5/8
606	47	5-5/8	5-15/16
607	50	5-15/16	6-1/4
608	51	6-1/4	6-9/16
609	52	6-9/16	6-7/8
610	54	6-7/8	7-3/16
611	55	7-3/16	7-1/2
612	56	7-1/2	7-13/16
613	57	7-13/16	8-1/8

Channel No.	Wt. Lbs.	Inlet Dim. In. A	Outlet Dim. In. B
614	59	8-1/8	8-7/16
615	60	8-7/16	8-3/4
615N (nonsloped)	61	8-3/4	8-3/4
615H (nonsloped 24")	30	8-3/4	8-3/4
616	61	8-3/4	9-1/16
617	62	9-1/16	9-3/8
618	63	9-3/8	9-11/16
619	64	9-11/16	10
620	67	10	10-5/16
621	68	10-5/16	10-5/8
622	71	10-5/8	10-15/16
623	73	10-15/16	11-1/4
624	75	11-1/4	11-9/16
625	76	11-9/16	11-7/8
625N (nonsloped)	77	11-7/8	11-7/8
625H (nonsloped 24")	38	11-7/8	11-7/8

Note: 700 Series Hardnose and Duraguard frames add 1-3/16" to dimensions A or B.

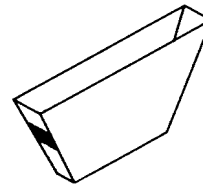


Materials Available

- Galvanized Steel
- Fiberglass
- Cast Iron
- HD Polyethylene

Designs Available

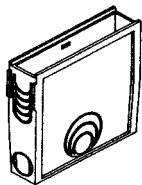
- Slotted
- Perforated
- Solid



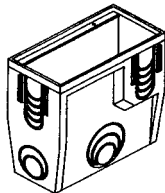
Materials Available

- Plastic
- Polypropylene
- Galvanized Steel

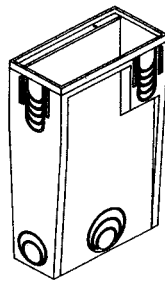
Trash Baskets



650



651
Catch Basins



652

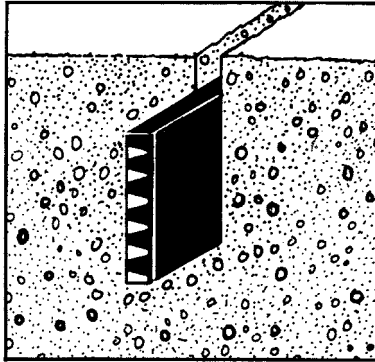
Catch basins are manufactured with the same high strength, corrosion resistant polyester and vinyl ester polymer concrete used for the Polycast drain channels. Catch basins are designed to accommodate all drain channel sizes and have cut-outs designed specifically for channels with catalog numbers ending in 5, 0, N and H.

The 650 catch basin is available with any of the gratings available for the 600 series.

The 651 and 652 catch basins are available with cast iron or fiberglass gratings.

Drainage

Akwadrain Highway Edge Drain



Akwadrain is a two-part prefabricated drainage material consisting of a formed polymeric core covered on both sides with a nonwoven, needle-punched polypropylene filter fabric. The fabric allows water or other liquids to pass into the drain core while restricting the movement of soil particles which might clog the core. The core allows water to flow to the designated drainage exits.

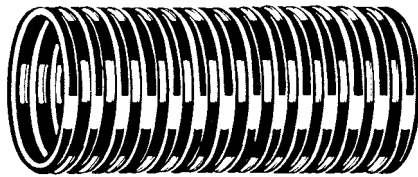
Drain Properties

Compressive Strength: 6000 to 9000 lbs./sq. ft.
In-plane flow width: 21 GPM/ft.

Dimensional Data

Thickness of 1"
Standard widths of 12", 18" & 24"
Roll length of 500 ft.
Roll diameter of 7 ft.

Corrugated Polyethylene Plastic Drainage Pipe



3/4" x 1/16" Slots



Available with filter sock

Stocked @ CA

4" & 6" diameters, 100-ft. long coils

Meets AASHTO M252



Snap Coupling



90° Elbow



Snap Tee



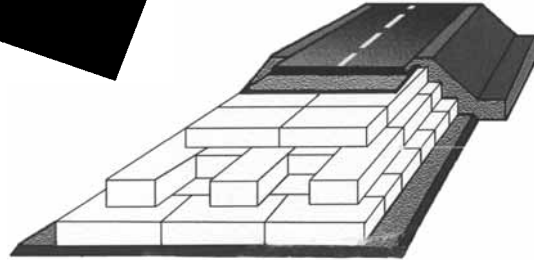
End Cap

Geofoam

Insulfill EPS Geofoam is used in ground fill applications where a lightweight fill material is required to reduce stresses on underlying soils.

EPS Geofoam has been used in like applications worldwide for over 30 years. Using Insulfoam EPS Geofoam maximizes on-site installation efficiency – material arrives ready to place with no weather delays; materials can be fabricated, no staging required; material can be inventoried, production efficiency improved; easy to handle.

INSULFILL



Composition and Materials:

Insulfill EPS Geofoam is a cellular plastic material that is strong, but has very low density (1% of traditional earth materials). It is a manufactured block material meeting the engineered product specification standards of ASTM C578 and CGSB 51.20. Standard densities range from 11 kg/ cu. m (.7 lb./cu. ft.) to 32 kg/cu. m (2 lb./cu. ft.) which have typical compressive strengths of 35 kPa (25 PSI) (at 10% deformation) under short-term loading conditions. Other strength materials are available.

Insulfill EPS Geofoam is unaffected by normally occurring weather at time of installation and will retain its physical properties under pre-engineered conditions of use. Insulfoam EPS Geofoam is made under a Quality Assured manufacturing process monitored by a third party laboratory.

Size and Shape:

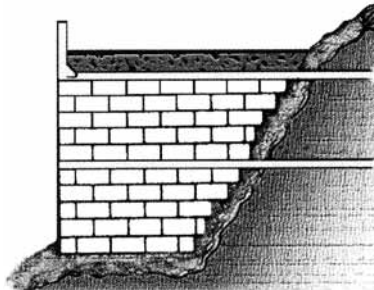
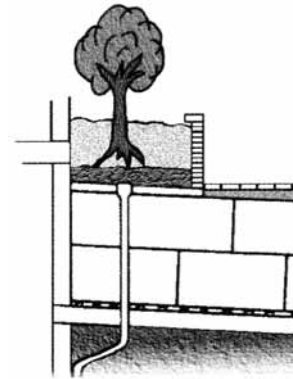
Insulfill EPS Geofoam is produced in block form and is easily positioned at the work site. It is available in standard sizes from 508mm (20") to 762mm (30") thicknesses; 1220mm (4') widths; and from 2440mm (8') to 4880mm (16') lengths. Other sizes and fabrication can be provided by the manufacturer.

Environmentally Safe:

Insulfill EPS Geofoam contains no CFCs, HCFCs, HFCs or formaldehyde. It is inert, non-nutritive and highly stable, and therefore will not decompose, decay or produce undesirable gases or leachates. Insulfill EPS is recyclable and safe for WTE Systems and landfills.

Architectural & Structural

- Landscape
- Plaza decks
- Bermed structures
- Structural fill (foundations, etc.)
- Earth retaining structures

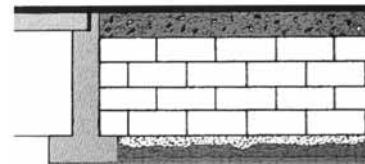


General Earthworks

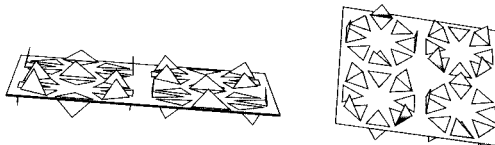
- Flood control levees
- Dikes/Berms

Transportation Earthworks

- Approach fill (bridge abutments)
- General fill (roadways, parkway, etc.)
- Embankments
- Side-hill fill
- Median and sound barriers



Insulgrip Plates



Notes

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TOLL FREE 800-892-7224
800-821-7735



LOCAL 816-525-3640
FAX 816-525-4533



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Concrete Reinforcement

Welded Wire Fabric



Rolls

In stock: 6 x 6 x 6 x 6; 6 x 6 x 10 x 10
Roll: 5' x 150'

Sheets

In stock: 6 x 6 x 6 x 6; 6 x 6 x 10 x 10
Sheet: 8' x 20'

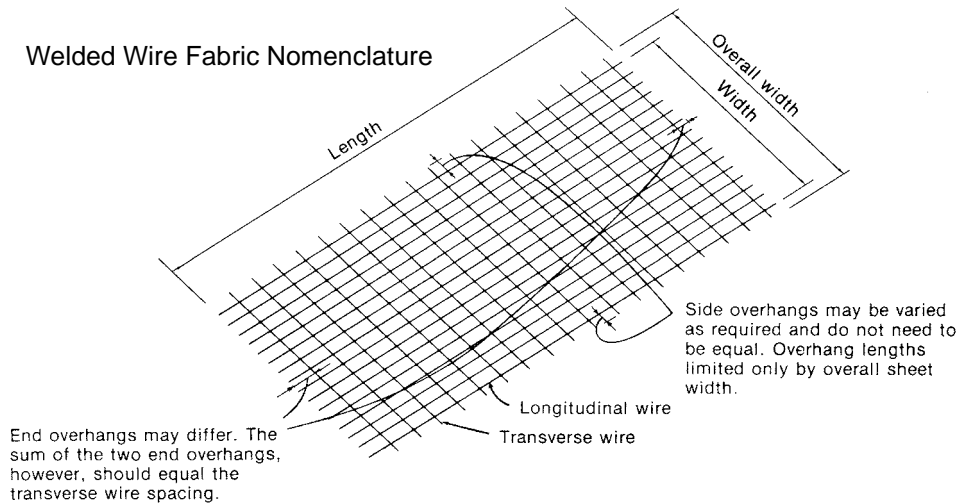
Common Stock Styles of Welded Wire Fabric

Style Designation		Steel Area		Weight
New Designation (By W-Number)	Old Designation (By Steel Wire Gauge)	Sq. In. Per Ft. Longit.	Trans.	Approx. Lbs. Per 100 Sq. Ft.
Rolls				
6x6-W1.4x@1.4	6x6-10x10	.028	.028	21
6x6-W2.0xW2.0	6x6-8x8*	.040	.040	29
6x6-W2.9xW2.9	6x6-6x6	.058	.058	42
6x6-W4.0xW4.0	6x6-4x4	.080	.080	58
4x4-W1.4xW1.4	4x4-10x10	.042	.042	31
4x4-W2.0xW2.0	4x4-8x8*	.060	.060	43
4x4-W2.9xW2.9	4x4-6x6	.087	.087	62
4x4-W4.0xW4.0	4x4-4x4	.120	.120	85
Sheets				
6x6-W2.9xW2.9	6x6-6x6	.058	.058	42
6x6-W4.0xW4.0	6x6-4x4	.080	.080	58
6x6-W5.5xW5.5	6x6-2x2†	.110	.110	80
4x4-W4.0xW4.0	4x4-4x4	.120	.120	85

* Exact W-number size for 8 gauge is W2.1.

† Exact W-number size for 2 gauge is W5.4.

Welded Wire Fabric Nomenclature



Concrete Reinforcement



REBAR Reinforcing Steel Bars – Grade 60

In-stock sizes: #3, #4, #5, and #6. 20-ft. lengths.

ASTM Standard Reinforcing Bars

Bar Size	Imperial		Weight Lb. / Ft.	Bar Size	Soft Metric	
	Fraction	Decimal			Dia. mm	Weight Kg / Ft.
#3	3/8	0.375	0.376	#10M	9.5	0.171
#4	1/2	0.500	0.668	#13M	12.7	0.303
#5	5/8	0.625	1.043	#16M	15.9	0.473
#6	3/4	0.750	1.502	#19M	19.1	0.681
#7	7/8	0.875	2.044	#22M	22.2	0.927
#8	1	1.000	2.670	#25M	25.4	1.211
#9	1-1/8	1.128	3.400	#29M	28.7	1.542
#10	1-1/4	1.270	4.303	#32M	32.3	1.952
#11	1-3/8	1.410	5.313	#36M	35.8	2.410
#14	1-3/4	1.693	7.650	#43M	43.0	3.470
#18	2-1/4	2.257	13.600	#57M	57.3	6.169

Grades and Minimum Yield Strengths

Grade	Imperial		Grade	Soft Metric	
	Min. Yield Strength	Min. Yield Strength		Min. Yield Strength	Min. Yield Strength
40	40,000 PSI	300	300 MPa (43,400 PSI)		
60	60,000 PSI	420	420 MPa (60,900 PSI)		
75	75,000 PSI	520	520 MPa (75,400 PSI)		

Round Nail Stakes (3/4", 7/8")



Lengths available:
18", 24", 30" and 36"

Nails

Types available:



Box



Common



Duplex



Concrete

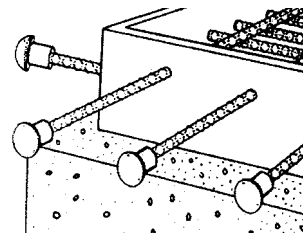
Rebar Covers

Exposed rebar, pipe, threaded rod, shebolts, etc., create potential hazards which can result in employee injury and lost time.



OSHA Approved

Bar Guards



Division 3

Mechanical Bar Splicers



Dowel Bar Splicer System

Dowel Bar Splicer (DB-SAE):

The DB-SAE Splicer is a one-piece unit, integrally forged from Grade 60 rebar material. It is available in #4 through #11 sizes and is designed to achieve 150% of specified yield (full mechanical ultimate).



DB-SAE's are available straight (cut to length), hooked, double-ended and bolt-headed in plain or epoxy coated finish. It is also possible to order the Splicer with a reduced washer and/or a clipped washer.

Dowel-In (DI):

The Dowel-In is manufactured from Grade 60 rebar material and is available in sizes corresponding to the DB-SAE Splicer. The end of the Dowel-In is enlarged by forging before threading so that the cross-sectional area of the bar is not



reduced during threading operations – thus assuring 150% of yield.

Completed Splice:

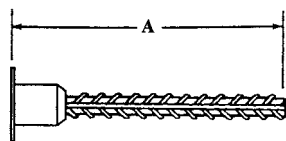
Both pieces of the completed splice are manufactured from one single size of rebar material. The System does not require bars of different sizes or special, super-strength material, yet it still offers 150% of yield.



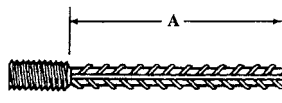
The System is forged from 100% rebar material and requires no welding, couplers, extra pieces, etc. No special tools are required for installation. It is simple two piece splice that will save you time and labor.

Specified or Required Dowel Bar Size				Recommended Dowel Bar Splicer and Dowel-In Sizes						
Bar Size	Grade 60 Rebar Loads Lbs.			System Thread Size*	DB-SAE Bar Size	Dowel-In Bar Size	Min. System Stress Area	Grade 60 Rebar Loads Lbs.		
	Py	1.25 Py	P ult					Py	1.25 Py	P ult
#4	12,000	15,000	18,000	5/8"-11	#4	#4	.20	12,000	15,000	18,000
#5	18,600	23,250	27,900	3/4"-10	#5	#5	.31	18,600	23,250	27,900
#6	26,400	33,000	39,600	7/8"-9	#6	#6	.44	26,400	33,000	39,600
#7	36,000	45,000	54,000	1"-8	#7	#7	.60	36,000	45,000	54,000
#8	47,400	59,250	71,100	1-1/8"-8	#8	#8	.79	47,400	59,250	71,100
#9	60,000	75,000	90,000	1-1/4"-8	#9	#9	1.00	60,000	75,000	90,000
#10	76,200	95,250	114,300	1-7/16"-8	#10	#10	1.27	76,200	95,250	114,300
#11	93,600	117,000	140,400	1-9/16"-8	#11	#11	1.56	93,600	117,000	140,400

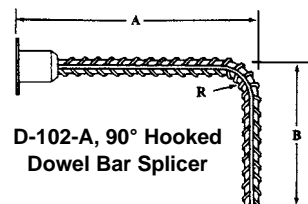
* 5/8", 3/4", 7/8" & 1" sizes have UNC threads. 1-1/8" & larger sizes equipped with UN threads.



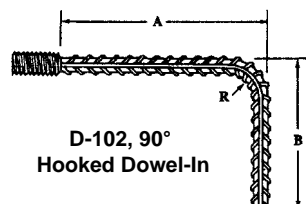
D-101-A, Straight Dowel Bar Splicer



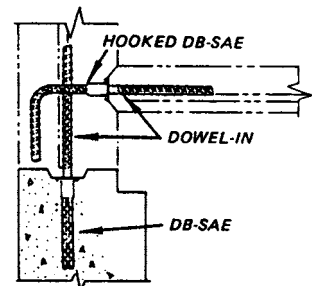
D-101, Straight Dowel-In



D-102-A, 90° Hooked Dowel Bar Splicer



D-102, 90° Hooked Dowel-In



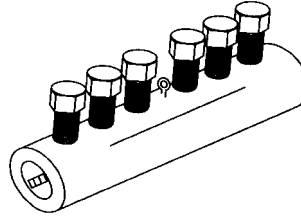
Mechanical Bar Splicers



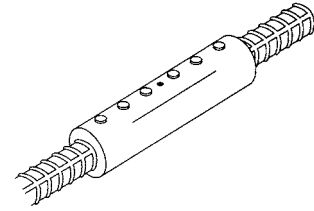
Bar-Lock Coupler System

D-250 Bar-Lock S-Series Coupler

The D-250 Bar-Lock S-Series Couplers are designed for use in most tension and compression applications. They are available in rebar sizes #4 through #18 and exceed 125% of specified yield of Grade 60 rebar. The S-Series couplers are approved for use by most State DOTs, are recognized as an ICBO Type 1 Splice and meet ACI specifications. S-Series couplers are also available in transition sizes, as a weldable half coupler and epoxy coated.



D-250 Bar-Lock S-Series Coupler

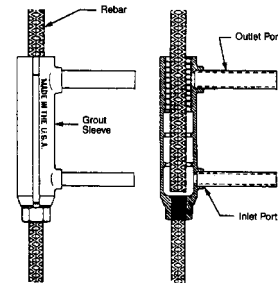
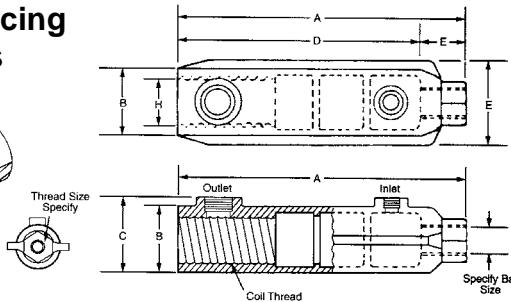
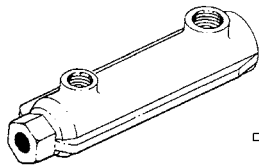


Typical Bar-Lock Coupler System Splice

D-250 Bar-Lock S-Series Couplers

Coupler Designation	For Rebar Size In. mm	Barrel Stamp ID	Tube Specifications			Bolt Specifications			Meets or Exceeds		
			OD In.	Lgth. In.	Wt. Lbs.	Qty.	Head Size In.	Nom. Shear Torque Ft.-Lbs.	Min % Fy	CAL TRANS Service	ICBO Type1
4S	#4-13M	4S...CA	1.3	3.9	1.0	2	0.5	40	135	X	X
5S	#5-16M	5S...CA	1.7	4.5	1.8	2	0.5	80	135	X	X
6S	#6-19M	6S...CA	1.9	6.3	3.5	3	0.5	80	135	X	X
7S	#7-22M	7S...CA	1.9	8.0	4.1	4	0.5	80	135	X	X
8S	#8-25M	8S	2.2	8.0	5.7	3	0.625	180	125		X
9S	#9-29M	9S...CA	2.9	9.0	11.4	3	0.75	280	135	X	X
10S	#10-32M	10S...	2.9	9.0	11.5	3	0.75	350	125		X
11S	#11-36M	11S...	3.1	11.5	17.0	4	0.75	350	125		X
14S	#14-43M	14S...CA	3.5	16.5	26.0	6	0.75	350	135	X	X
18S	#18-57M	18S...CA	4.3	27.1	60.0	10	0.75	475	135	X	X

Grouted Splicing Systems



Completed DB Grout Sleeve Splice

D-119 DB Grout Sleeve

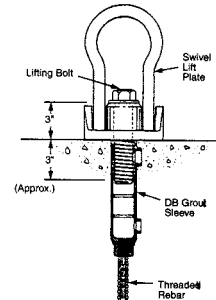
ICBO Evaluation Report No. 5261

The Dayton-Richmond D-119 DB Grout Sleeve provides a two-piece splicing technique for splicing rebar of like size or different sizes. The mechanical connections can accommodate bar sizes #4 through #14. Typical applications include splicing rebar in precast concrete construction and cast-in-place concrete structures. The DB Grout Sleeve is a ductile casting with a minimum yield strength of 55,000 PSI and a minimum tensile strength of 80,000 PSI. The grout sleeve system exceeds all known building codes and agency standards. The 160% Fy strength criterion is achieved by using a specially formulated, non-shrink, high strength grout and the Dayton-Richmond method of upsized threads on the splice bars.

Unique Application:

The D-119 Grout Sleeve is unique in that it can also be utilized to lift, handle and place precast concrete elements. The grout sleeves will accept coil thread lifting bolts, as shown in the chart.

Sleeve Size	Dim. In.					Coil Thread Dia. In.
	A	B	C	D	E	
#4-#6	8.875	2.000	2.375	7.500	2.625	1-1/2
#5-#9	11.609	2.500	2.875	9.453	3.000	2
#8-#11	13.781	3.000	3.375	11.422	3.500	2
#11-#14	19.500	3.500	3.938	16.531	4.000	3



DB Grout Sleeve Lifting Application

Mechanical Bar Splicers



BPI Standard Barsplicer System

BarSplice Products BARSPLICER is supplied as a two-piece mechanical dowel bar replacement "DBR" for concrete structures. Bars are manufactured from American made ASTM A 615 Grade 60 [420] reinforcing steel to develop more than 125% of the specified yield strength of grade 60 reinforcing bar. Our BARSPLICER fully complies with ACI 318 specifications. The system saves time, provides flexibility on the job site, reduces form work and increases safety by eliminating protruding rebars.

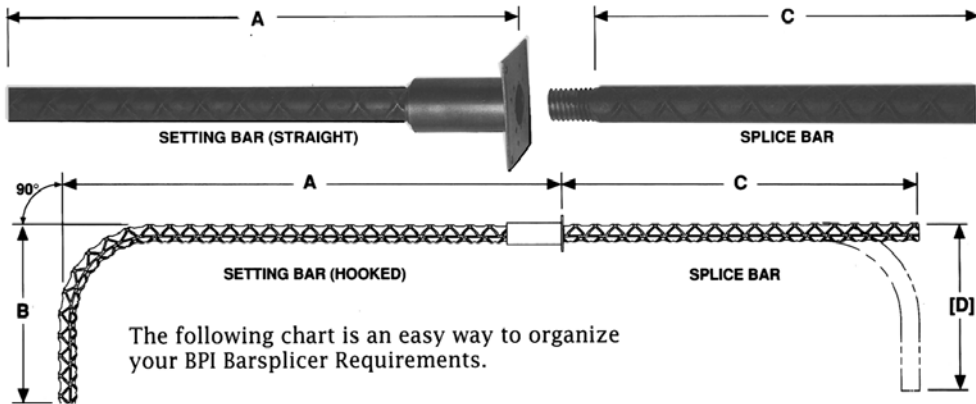
A BARSPLICER is composed of setting bar and a splice bar. At your option, setting bars are supplied with or without a flange on the coupler. Couplers on the setting bars are power-locked by BPI to be integral with rebar. Our couplers will not loosen during transportation, placing and service.

Standards and Test Data

Bar No.	Weight Lbs. Per Linear Ft.	Nom. Dia. In.	Cross-Sectional Area Sq. In.	Min. Load Lbs.	
				Specified Yield (Py)	1.25 Py*
#4 (13)	0.668	0.500	0.20	12,000	15,000
#5 (16)	1.043	0.625	0.31	18,600	23,250
#6 (19)	1.502	0.750	0.44	26,400	33,000
#7 (22)	2.044	0.875	0.60	36,000	45,000
#8 (25)	2.670	1.000	0.79	47,400	59,250
#9 (29)	3.400	1.128	1.00	60,000	75,000
#10 (32)	4.303	1.270	1.27	76,200	95,250
#11 (36)	5.313	1.410	1.56	93,600	117,000

Coupler Size	Thread Size	Coupler Wt. Lbs.	Coupler Lgth. In.	Coupler OD In.	Flange
					Size Sq. In.
4 (13)	1/2"-13NC	0.20	1-3/4	7/8	2 x 2
5 (16)	5/8"-11NC	0.25	2	1	2 x 2
6 (19)	3/4"-10NC	0.35	2-1/8	1-1/8	2 x 2
7 (22)	7/8"-9NC	0.50	2-1/2	1-1/4	2 x 2
8 (25)	1"-8NC	0.90	3	1-3/4	3 x 3
9 (29)	1-1/8"-7NC	1.50	3-1/2	1-3/4	3 x 3
10 (32)	1-1/4"-7NC	2.35	4	2	3 x 3
11 (36)	1-3/8"-6NC	2.40	4-1/2	2	3 x 3

*Py= specified yield; fy x Cross Sectional Area



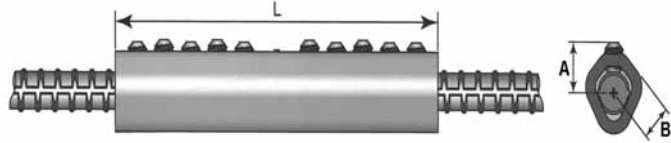
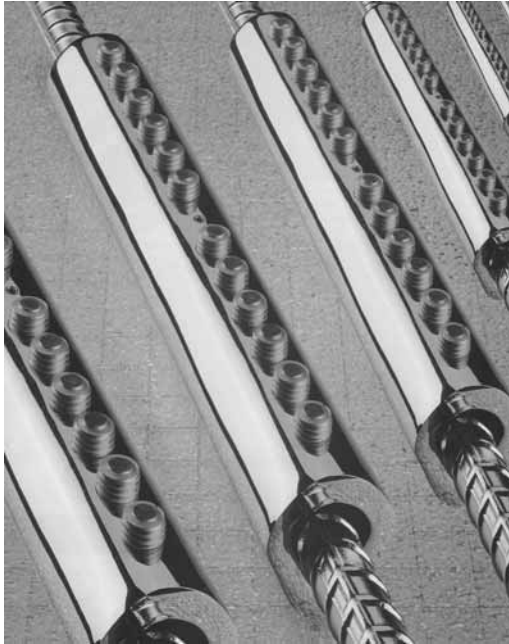
Qty.	Size	Epoxy or Black	Flange Y/N	Setting Bar		Splice Bar	
				"A" Feet - Inches	"B" Feet - Inches <small>if needed</small>	"C" Feet - Inches	"D" Feet - Inches <small>if needed</small>
				-	-	-	-
				-	-	-	-
				-	-	-	-

FOR OTHER REBAR CONFIGURATIONS SUPPLY A SKETCH OR PLAN DRAWING.
BENDS WILL BE PER ACI DETAILING MANUAL SP-66 UNLESS OTHERWISE REQUESTED.

Mechanical Bar Splicers



ZAP SCREWLOK®



TYPE 2 SERIES DIMENSIONS

Rebar Size US	Nom. Coupler Wt. Lbs.	Dim. In.			No. Screws Per Bar	Torque Ft.-Lbs.
		L	A	B		
#3	1.0	5	13/16	5/8	2	50
#4	1.9	7	1-1/16	11/16	3	50
#5	3.7	9	1-1/8	3/4	4	50
#6	5.2	11	1-3/16	15/16	5	50
#7	7.6	13	1-1/4	1-1/16	5	100
#8	10.3	15-1/4	1-5/16	1-1/16	6	100
#9	16.9	16-3/4	1-5/8	1-1/4	6	200
#10	24.7	21-1/2	1-13/16	1-1/2	8	200
#11	24.7	21-1/2	1-13/16	1-1/2	8	200

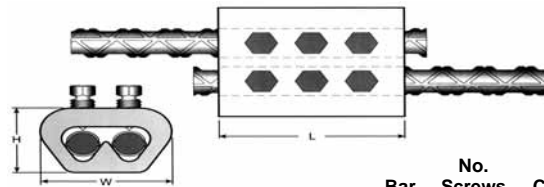
ZAP 'SL' Series

Rebar Size US	Nom. Coupler Wt. Lbs.	Dim. In.			No. Screws Per Bar	Torque Ft.-Lbs.
		L	A	B		
#7 (22)	6.0	10-3/4	1-1/4	1-1/16	4	100
#8 (25)	9.5	13	1-5/16	1-1/16	5	100
#9 (29)	13.5	13-7/8	1-5/8	1-1/4	4	200
#10 (32)	18.0	16-1/2	1-11/16	1-7/16	5	200
#11 (36)	22.5	19-1/8	1-13/16	1-1/2	6	200
#14 (43)	39.5	22-1/4	2-1/4	1-7/8	7	350

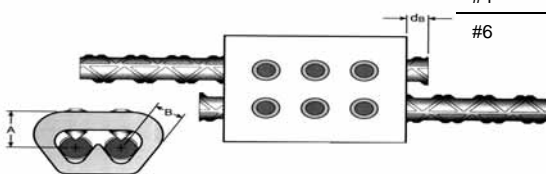
ZAP SCREWLOK® – A positive full tension and compression mechanical splice system whose strength is independent of the concrete which surrounds it and capable of developing the specified tensile strength of the spliced bar.

Double Barrel Zap Screwlok®

COUPLER BEFORE INSTALLATION



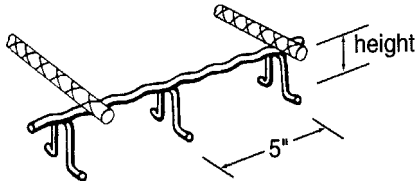
INSTALLED SPLICE



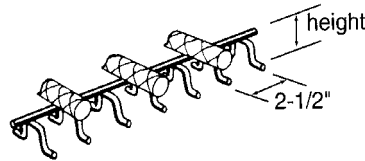
Bar Size	No. Screws Per Side	Coupler Wt. Lbs.	Dim. In.					
			W	H	L	Dia.	A	B
#4	2	1.34	2-3/8	1-5/8	2-1/8	1/2	1-1/16	1/2
#4	3	2.29	2-5/8	1-3/4	3	5/8	1-1/8	5/8
#6	4	3.24	2-3/4	1-7/8	3-7/8	3/4	1-3/16	3/4

Division 3

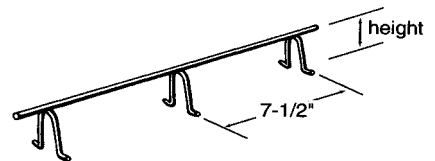
Bar Supports



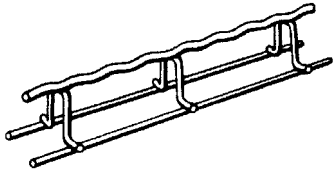
SB – Slab Bolster



BB – Beam Bolster



CNC – Continuous High Chair

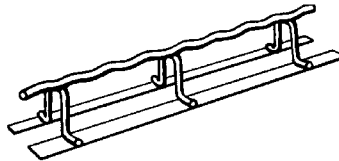


SBU – Slab Bolster Upper

CHCU – Cont. High Chair Upper

Upper

BBU – Beam Bolster Upper



SBP – Slab Bolster with Plate

CHCP – Continuous High Chair with Plate

BBP – Beam Bolster with Plate

Available In:

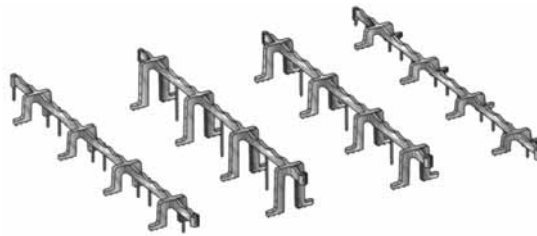
- Bright Basic
- Plastic Protected Legs
- Epoxy Coated
- Stainless Steel
- Galvanized

Division 3

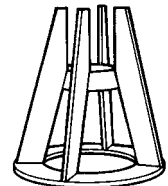
All Plastic



Composite Chairs
1/2" – 10-1/4"

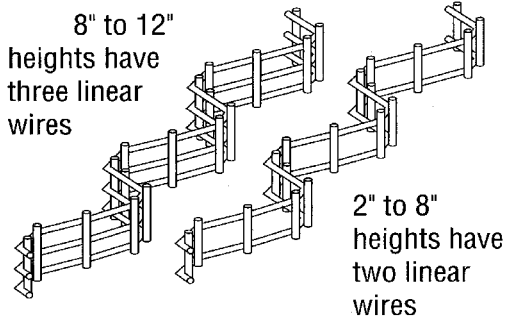


Composite Slab Bolsters
3/4" – 4"



Intersectional Chairs

Zig Zag



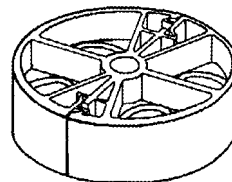
Ideal For Mesh

Zig Zag is an 8 ft. wire mesh strip bent into a "zig zag" pattern that is 6' 8" long by 8" wide. It is available in 2" to 12" heights in 1/2" increments. The wire gauge ranges from 4 ga. to 8 ga., depending on the height and the customer's strength requirements. All heights are shipped as 6' 8" lengths, and will support approximately 32 sq. ft. of mesh when properly installed.

SHAFTSPACER™

A guide and alignment system for bar reinforcement positioning within caissons, drilled shafts and other geotechnical construction applications.

SHAFTSPACER™ is currently available in four models.



Clearance Requirements

- SS505 for 2.5"
- SS406 for 3"
- SS808 for 4"
- SS612 for 6"

Concrete Accessories

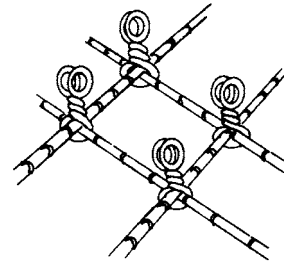
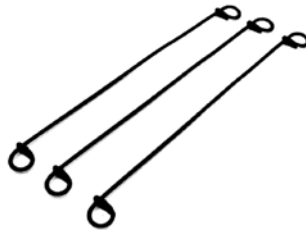
Bar Ties

Available in stock sizes:

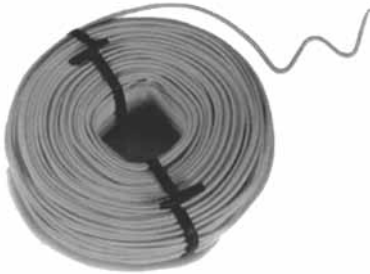
16 ga. Black Annealed
#4, #5, #5-1/2, #6, #7, #8

16 ga. PVC Coated
#5-1/2, #6, #8

5000/bundle



Tywire



16 ga. Black Annealed
16 ga. PVC Coated
"Gator Wire"
20 rolls/case

Tywire Reels



Wire Tie Table

BAR TIE LENGTH FOR STANDARD REINFORCING BARS

Bar Nos.	2	3	4	5	6	7	8	9	10	11	
Bar Sizes	1/4"	3/8"	1/2"	5/8"	3/4"	7/8"	1"	1-1/8"	1-1/4"	1-3/8"	
Length in inches of Tie Required											
2	1/4	3	3-1/2	4	4-1/2	5	5-1/2	6	6	6-1/2	7
3	3/8	3-1/2	4	4-1/2	5	5-1/2	6	6-1/2	6-1/2	7	7-1/2
4	1/2	4	4-1/2	5	5	5-1/2	6	6-1/2	7	7-1/2	8
5	5/8	4-1/2	5	5	5-1/2	6	6-1/2	7	7	7-1/2	8
6	3/4	5	5-1/2	5-1/2	6	6-1/2	6-1/2	7-1/2	7-1/2	8	8-1/2
7	7/8	5-1/2	6	6	6-1/2	6-1/2	7	7-1/2	8	8-1/2	8-1/2
8	1	6	6-1/2	6-1/2	7	7-1/2	7-1/2	8	8-1/2	9	9
9	1-1/8	6	6-1/2	7	7	7-1/2	8	8-1/2	8-1/2	9	9
10	1-1/4	6-1/2	7	7-1/2	7-1/2	8	8-1/2	9	9	9	10
11	1-3/8	7	7-1/2	8	8	8-1/2	8-1/2	9	9	10	10

Tying Tools



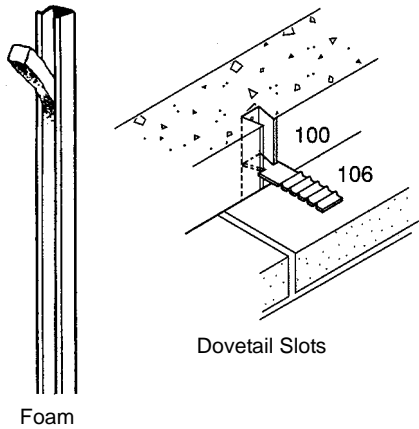
Annealed Wire



Available in stock sizes: #9, #11, #12

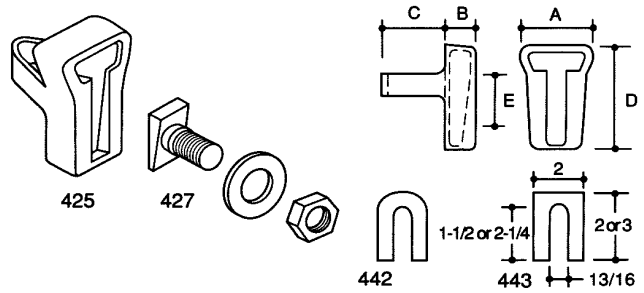
Concrete Accessories

Dovetail Anchor Slot



Standard Dovetail Slot. 1" wide x 1" deep x 5/8" throat, 26, 24 or 22 gauge mill galvanized steel. 26 gauge stainless steel. Use with standard 1" wide dovetail anchors.

Wedge Inserts



Wedge Inserts 425

Dim. In.

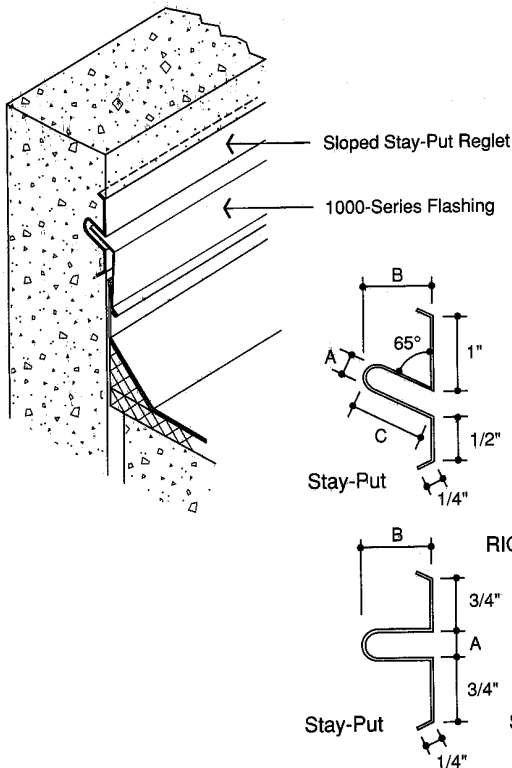
No.	Bolt Dia.	A	B	C	D	E ¹
425.5	5/8	2-1/4	1-1/32	1-15/16	3-5/8	1-5/8
425.6	3/4	2-5/16	1-3/16	2-1/2	3-7/8	1-3/4
425.6L ²	3/4	2-1/4	1-1/4	2-3/8	5-1/2	3

Askew Head Bolts 427

No.	Bolt Dia.	Available Lengths ³
427.5	5/8	1-1/2, 2, 2-1/2, 3
427.6	3/4	1-1/2, 2, 2-1/2, 3, 3-1/2

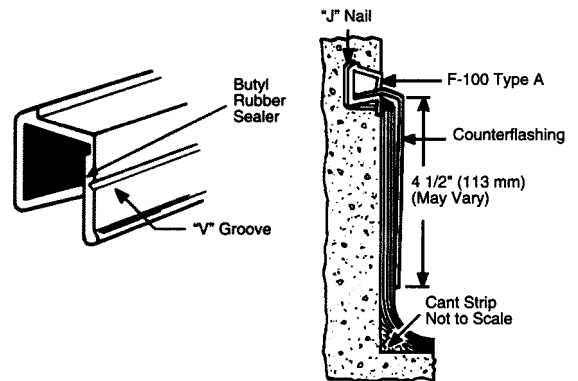
- "E" is length of vertical adjustment for Askew Head Bolts.
- Long Inserts provide greater adjustability and can be placed near bottom of concrete beams. Anchor loops are 3-1/2" above bottom of Insert and can be secured to bottom layer of beam reinforcing.
- Bolt extends beyond face of Insert approx. 1/4" less than specified length.

Reglets



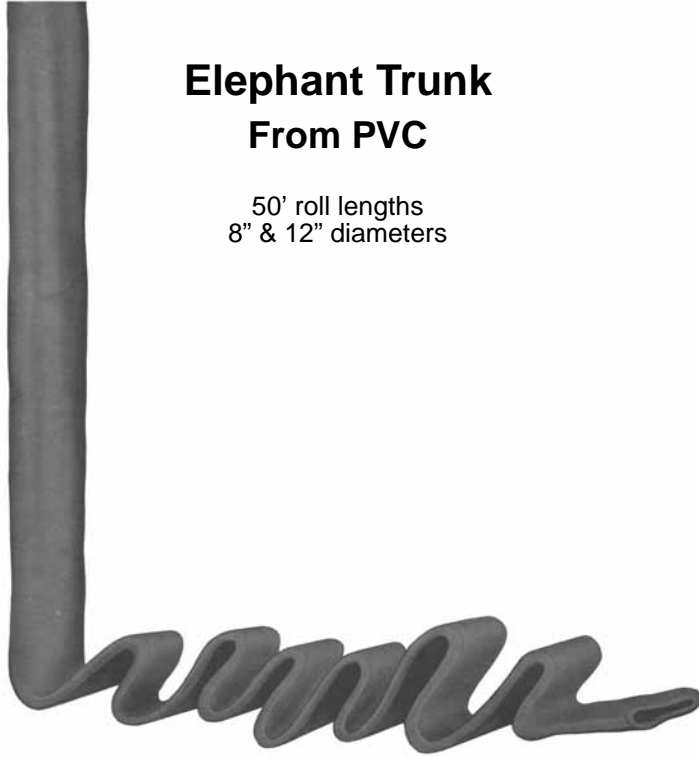
Materials: 26 gauge mill galvanized steel is standard. Stay-Put Reglets are also fabricated in 26 gauge stainless steel and 16-oz. copper. Do not use Reglets with dissimilar metal flashings if potential for galvanic corrosion exists.

F-100 Cushion-Lock® Reglet



- PVC plastic is inert – no reaction with concrete, concrete additives or any metal.
- Comes prefilled with butyl rubber sealer.
- No concrete can ever enter reglet.
- Safe, rapid installation of reglet and counterflashing in all kinds of weather.
- No exposed nails or reglet surfaces.
- **Note:** Not recommended for use on top of parapet walls as roof leaks may occur.

Concrete Accessories



Elephant Trunk From PVC

50' roll lengths
8" & 12" diameters

Polyethylene Hoppers



37" square

Discharge Size: 6" - 8" - 12"
Lightweight 20 lbs

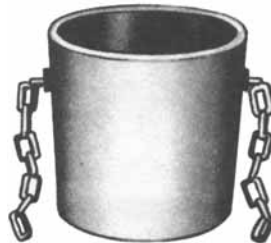
Division
3

Test Cylinders



- 6" I.D. x 12" Long
- Test cylinder mold is non-absorptive
- Molded single unit for consistent dimensional uniformity
- Top rim eliminates deformation
- Smooth molded plastic allows quick, easy stripping
- Strong, durable

Steel Collar



Steel Clamp



Polyethylene Tremie Pipe



4' lengths

9" to 8" diameter
13" to 12" diameter

Concrete Accessories



Each Dreyer vibrator is designed to maintain a minimum of 10,000 VPM in low slump concrete. Select your Dreyer vibrator by motor size, shaft length and head diameter to fit your job requirements, and know you've got the performance leader.

At Dreyer, concrete vibration is not a side line, it's our specialty.

• Heavy-Duty Universal Electric Motor
120V AC/DC

• Aluminum Castings

Special aluminum alloy motor frames for tough job punishment and easy cleanup.

• Double Life Casings

Both ends of standard casings are identical. When one end becomes worn, the casing can be reversed, doubling the service life.

• Extension Shafts

Require no additional bearings or special coupling devices.

• Replaceable Steel Tips

For applications where there is excessive tube wear. Does not expose internal bearings when replacing.

• Shoulder Strap

Included at no extra charge.

• Tapered Round Heads

Dreyer head and shaft connections are smooth with no abrupt offsets to avoid hangups.

• Innovative Pneumatic Vibrator

Capable of running small diameter heads with shafts that interchange with our electric units.

• Rubber Tip Heads & Coated Heads

Protect expensive forms and coated rebar from being damaged.

• Factory Support

Technical information on choosing the proper vibrator, maintenance on units to avoid downtime on the jobsite, and general operation procedures.

• Warranty

One year on all new Dreyer products to be free from any defects.

Dreyer shafts are available in any length, up to the maximum working length.



Model JE - 1 1/2 hp Motor Maximum Working Length - 20' Net Weight - 15 lbs. Extension Shafts J7X - 7 FOOT J10X - 10 FOOT <i>*JE shafts are interchangeable with Model BE-2 1/2 hp Motor</i>	JE Head Size Options 13/16" 1 1/8" 1 3/8" 1 3/4"
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Model QE - 2 1/2 hp Motor Maximum Working Length - 45' Net Weight - 24 lbs. Extension Shafts Q7X - 7 FOOT Q10X - 10 FOOT Q14X - 14 FOOT	QE Head Size Options 1 3/8" 1 3/4" 2 1/8" 2 1/2"
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Model BE - 2 1/2 hp Motor Maximum Working Length - 45' Net Weight - 24 lbs. <i>*Interchanges with shafts and heads used on Model JE - 1 1/2 hp Motor</i>	BE Head Size Options 1 3/8" 1 3/4" 2 1/8" 2 1/2"
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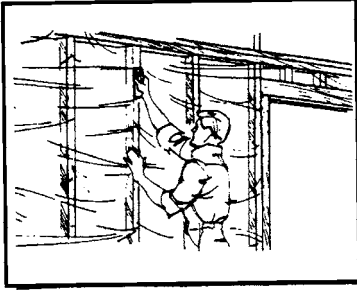


Model RA - Pneumatic Vibrator Maximum Working Length - 20' Net Weight - 8.5 lbs. 40 CFM / 90 PSI Extension Shafts J7X - 7 FOOT J10X - 10 FOOT	RA Head Size Options 13/16" 1 1/8" 1 3/8" 1 3/4"
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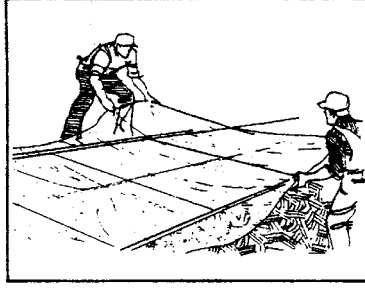
You've heard it said – "they don't make tools that last like they used to" – Dreyer still does!

Division 3

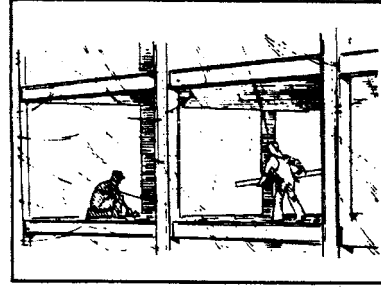
Concrete Winter Protection



Wall Construction



Concrete Curing



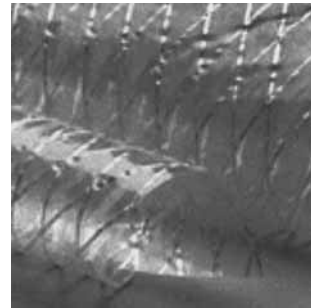
Building Enclosures



Insulated Blankets for Concrete Curing

Woven poly cover with 1/2" closed cell foam filled.

Available in stock sizes:
6' x 25'
12' x 25'



Woven Reinforced Poly

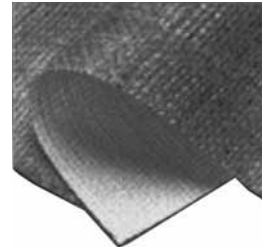
Available in stock sizes:
8' x 100' up to 40' x 100'

Also available: String reinforced poly.



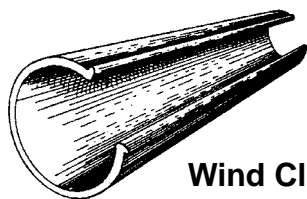
Burlap

Available in stock - 10 oz.
10' x 28' and 5' x 300'
Also available: String reinforced poly.



Curelap – Poly Coated Burlap

A combination of 10 oz. burlap and 5 mil white opaque poly. The 5 mil polyethylene is extruded onto the 10-ounce burlap. The result is a lightweight summer curing blanket that can be used over and over again. The burlap layer distributes the water evenly over the covered surface, while the white opaque poly reflects the intense rays of the sun. In this way, the concrete is allowed to cure... perfectly.



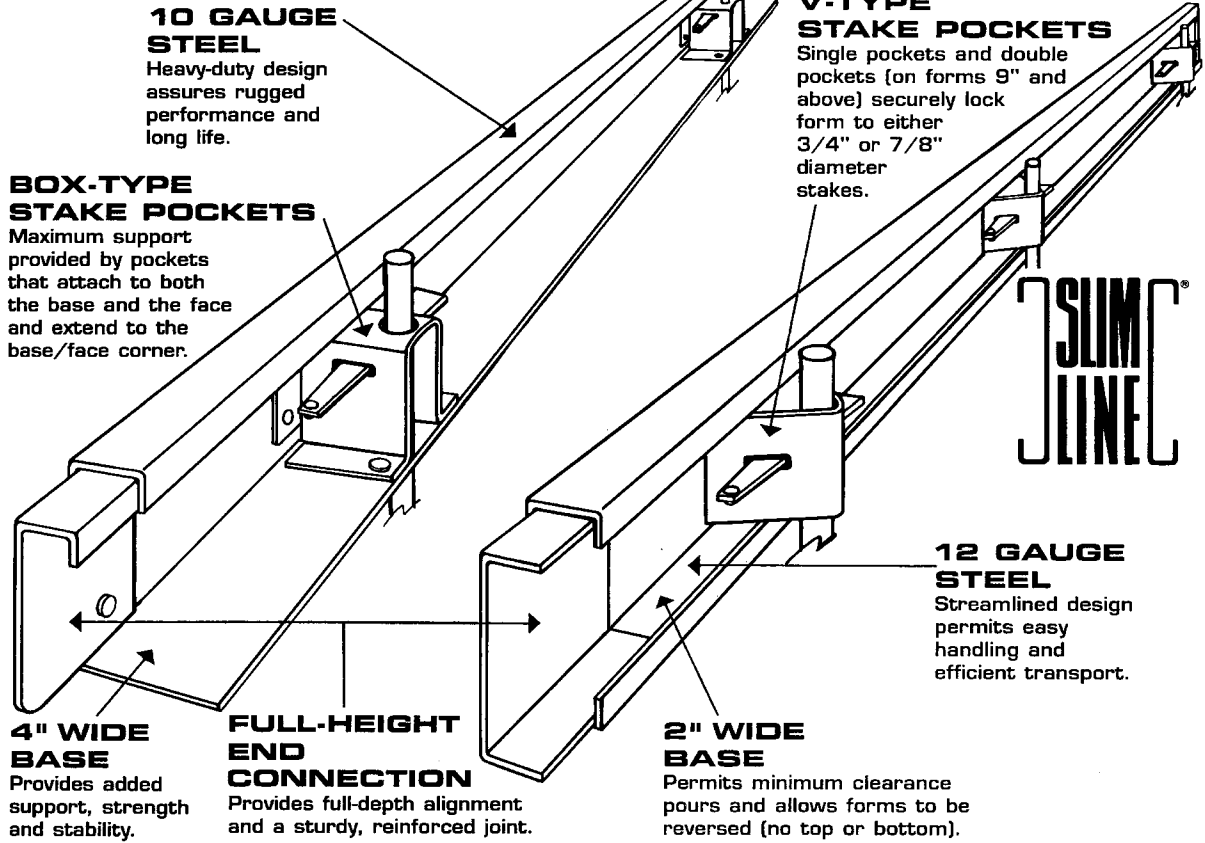
Wind Clips



Curb and Gutter Forms

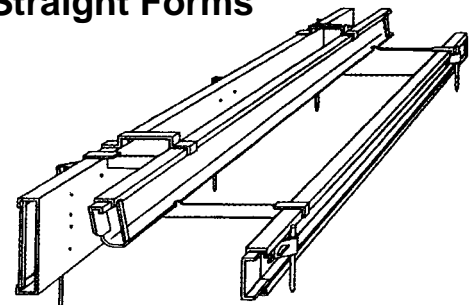
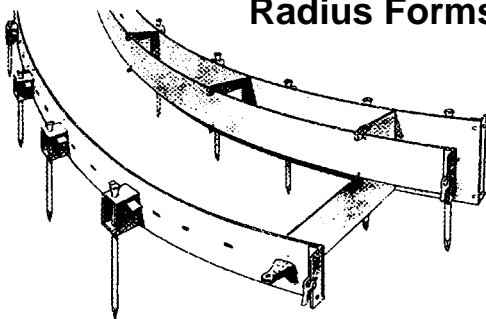
Heavy-Duty

Lightweight



Radius Forms

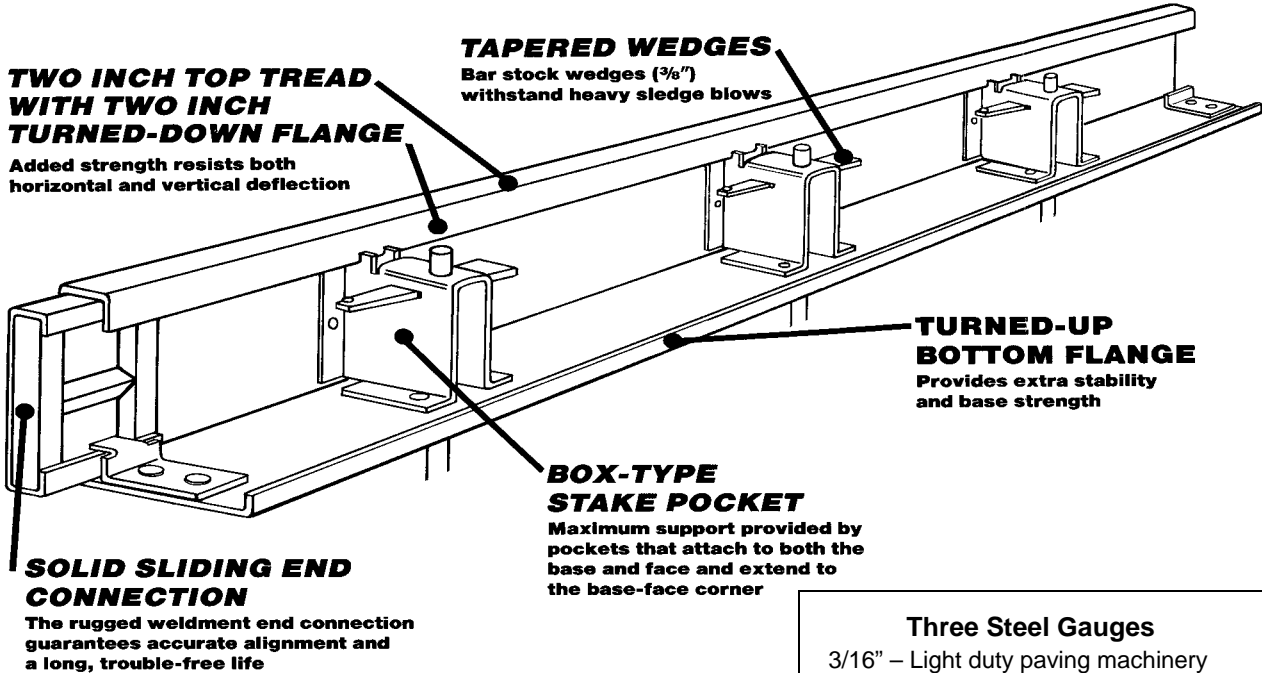
Straight Forms



Division 3



Rugged, Heavy-Duty Forms for Paving Streets, Highways and Airports

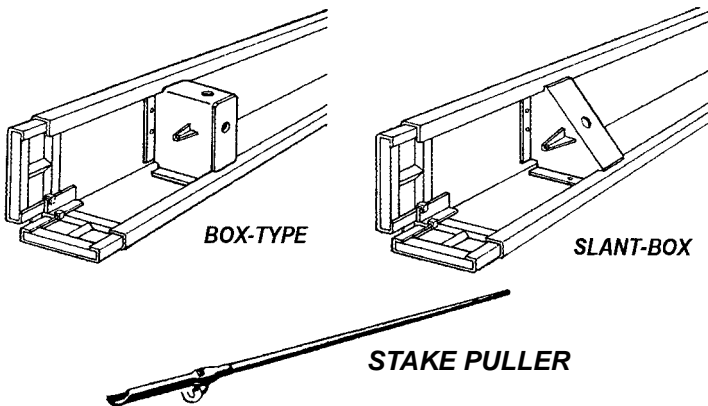


Division 3

Three Steel Gauges
 3/16" – Light duty paving machinery
 1/4" – Standard paving machinery
 5/16" – When max. strength is required

Dual Paving Forms

These "two for one" forms permit the placement of two slab thicknesses with one reversible form



Stringline Stakes & Accessories

Stringline
Available in 1,000', 3,000' and 5,000' rolls

Line Rod
Solid steel, 18" long, notched for stringline

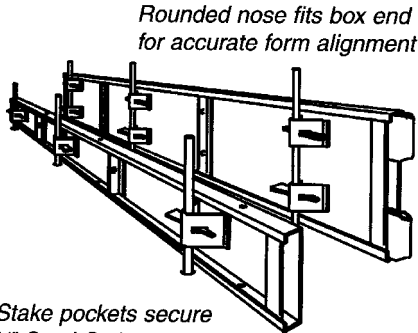
Line Block
Several styles available -- all fully adjustable on any 3/4" dia. stake

Stakes
Solid, 3/4" dia. in lengths up to 48" -- and longer

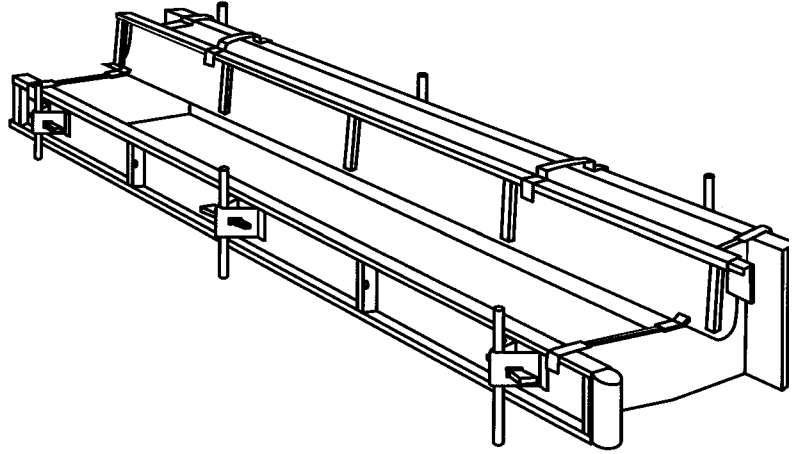
Concrete Paving & Flatwork



Curb Smart Forming System



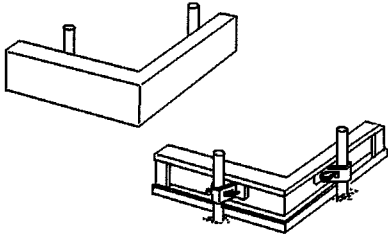
G-60 Straight Form
(3-pocket design)



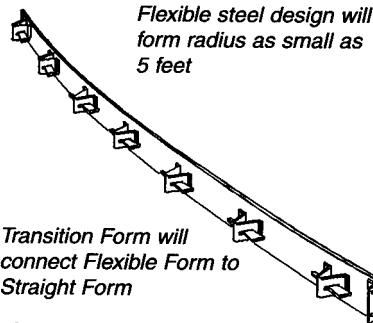
Division 3

Curb and Gutter Configuration

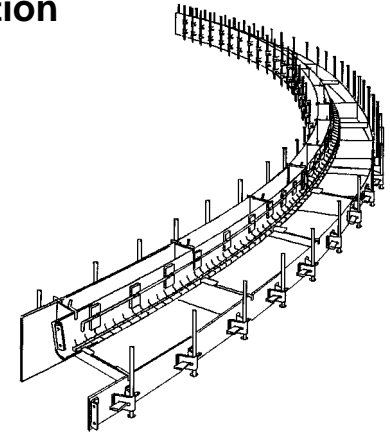
Used with Straight Forms for exact dimension slabs



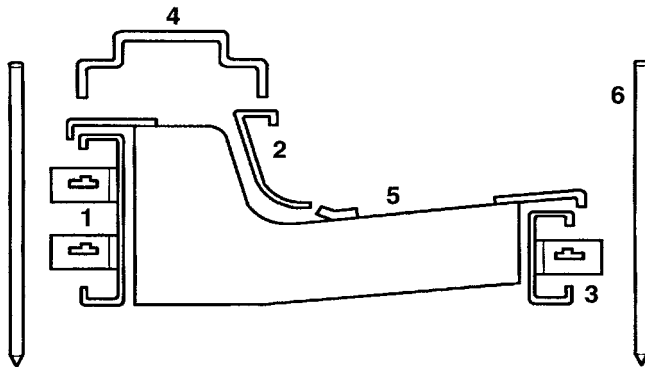
G-67 Inside and Outside Corner Form



G-61 Flexible Form
(7-pocket design)



G-61 Flexible Forms

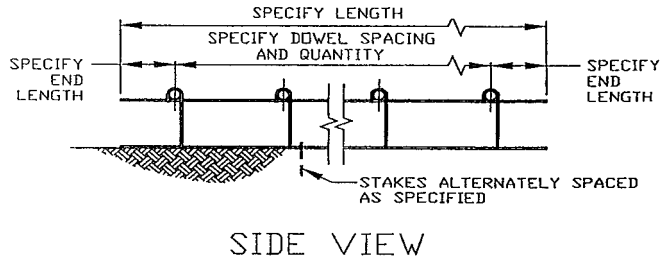
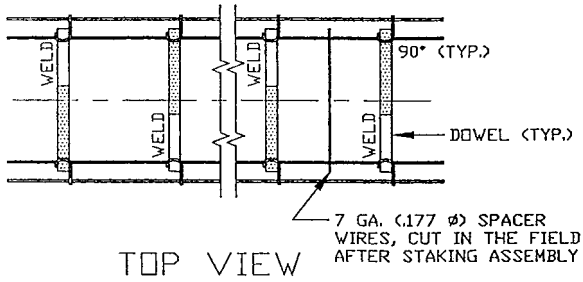
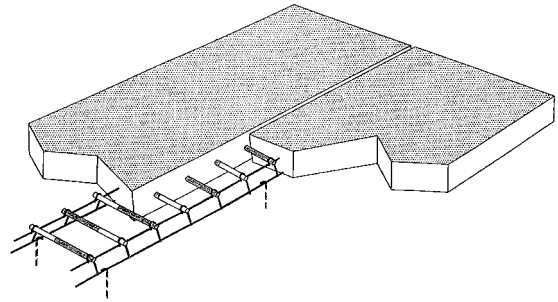
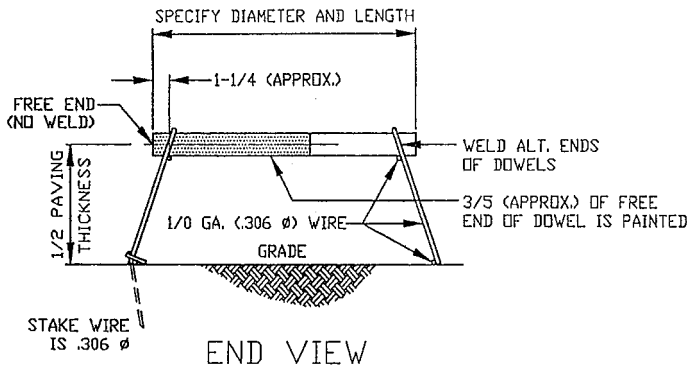


Basic Components

1. G-60 Straight Form (for back)
2. G-62 Curb Face Form
3. G-60 Straight Form (for front)
4. G-63 Top Spreader
5. G-64 Division Plate
6. G-27 Round Steel Stake

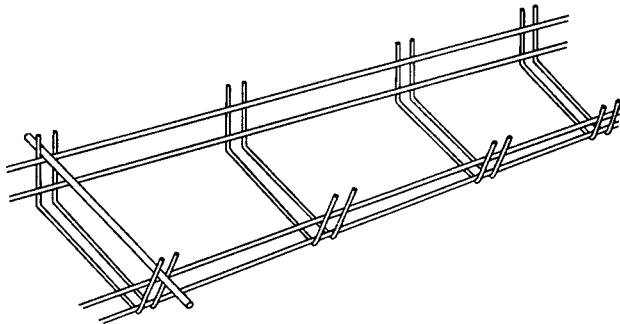
Concrete Paving & Flatwork

Welded Dowel Assembly For Contraction Joints

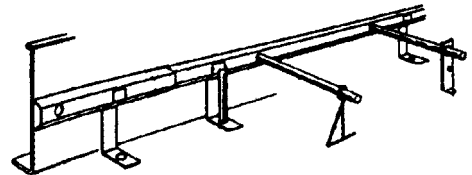


Division 3

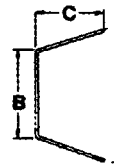
DB-9 Dowel Bar Support Baskets



Metal Keyway

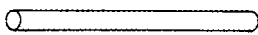


24 gauge and 18 gauge 10 ft. standard length. 7/8" dia. holes standard.



3 legs per 10 ft. length. 30" centers, hole spacing.

Loose Dowels



ASTM A-36 or ASTM A-615 GR, 60. Available plain, part or fully coated, epoxy coated.



Metal

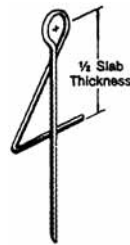


Plastic

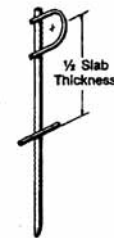
Dowel Bar Stakes



Mud Jack Tube



DC-16 FS-Stake



DC-15 HD Chair



DC-12 Spade Chair

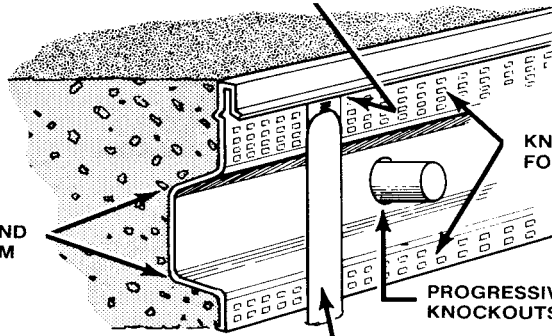
KEY-LOC® Joint System



13 ga HRPO
STEEL STAKES
FOR KEY-LOC
JOINT SYSTEM
AVAILABLE.
12", 15", 18", 21", 24"

ONE STEP PATENTED JOINT STAKE INTERLOCK!
ELIMINATES JOINT FLOATING

RADIUS FORMED
KEY TO MINIMIZE
SHARP ANGLES AND
ACHIEVE MAXIMUM
LOAD TRANSFER

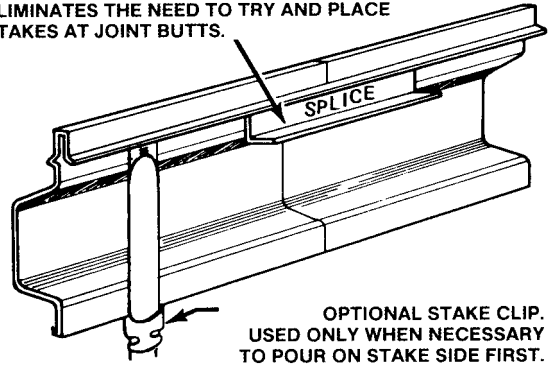


KNURLED AREAS
FOR RIGIDITY

PROGRESSIVELY LARGER
KNOCKOUTS . . . 7/8" - 1 1/8"

EASY STAKE PLACEMENT

"SNAP-IN" JOINT SPLICE GIVES PERFECT ALIGNMENT.
ELIMINATES THE NEED TO TRY AND PLACE
STAKES AT JOINT BUTTS.



OPTIONAL STAKE CLIP.
USED ONLY WHEN NECESSARY
TO POUR ON STAKE SIDE FIRST.
ADDS STRENGTH TO SCREED AND ELIMINATES
NEED TO TIE WIRE OR NAIL TO STAKE OR PEG.

Material

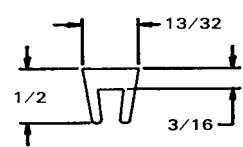
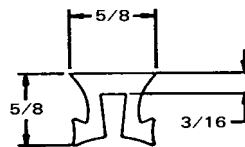
Key-Loc® Joint is of 24 gauge galvanized steel with dowel knockouts 6" on centers. It is furnished in 10 ft. lengths for 4", 5", 6", 8" and 10" to 12" slabs.

Supporting ratchet top stakes manufactured from 13 gauge steel available in 12", 15", 18", 21" and 24" lengths.

Slab Thickness	Keyway Height
3"	2-1/4"
4"	3-1/8"
5"	4-1/8"
6"	5-1/8"
8"	7-1/4"
10"-12"	9-1/8"

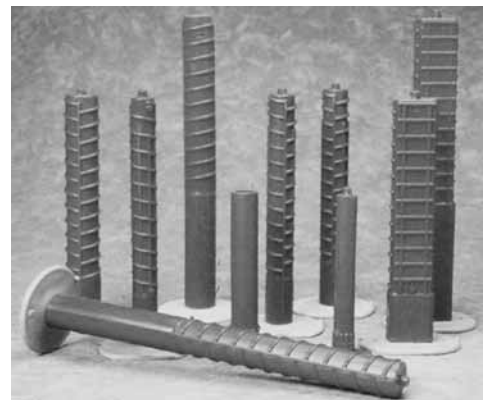
Stay-In-Place Cap

Removable Cap



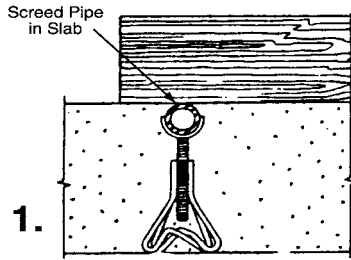
Speed Dowel™ is the superior choice for slab on grade and vertical wall construction joints.

Speed Dowel™ is a two component system consisting of a sleeve and an attachment base. Bases are reusable; consider this when determining requirements.

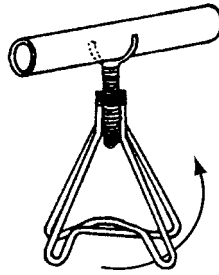


Concrete Paving & Flatwork

Methods of Screeding

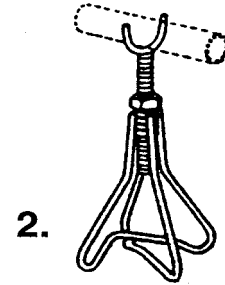


Typical Screenshot Detail



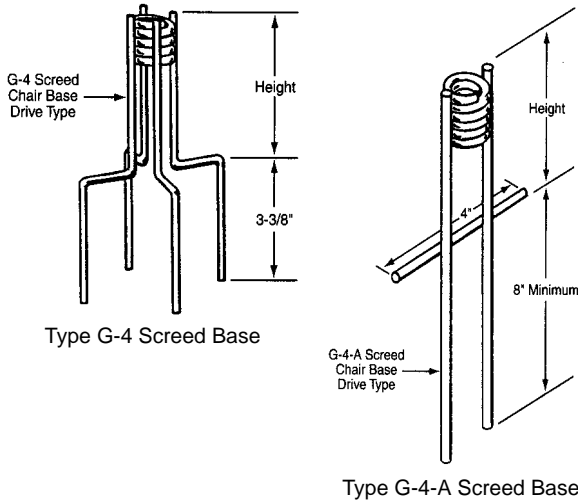
Adjusting to Grade

1. Turn base for final adjustment.
2. Turn coil nut for final adjustment on "free-fit" type bases.



2.

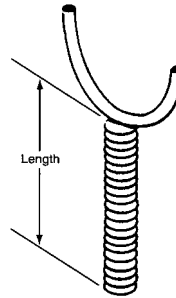
G-4 and G-4-A Screenshot Bases, Drive Type



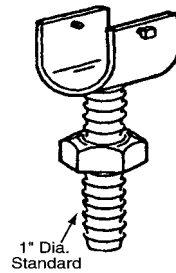
Type G-4 Screenshot Base

Type G-4-A Screenshot Base

G-1 Pipe Holder

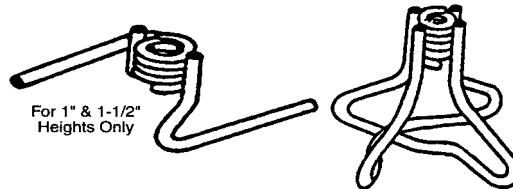


G-14 Heavy Duty Screenshot Holders



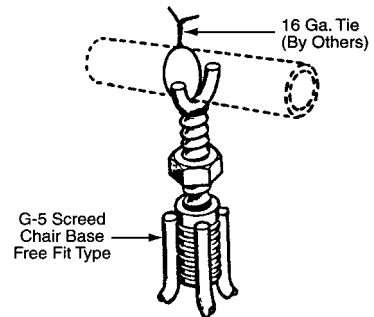
1" Dia. Standard

G-2 Screenshot Chair Bases



For 1" & 1-1/2" Heights Only

G-5 Screenshot Chair Base, Free Fit Type



G-5 Screenshot Chair Base Free Fit Type

G-2 Screenshot Chair Size Chart

Dim. In.	Cradle Head		Slab - 1" Pipe		Slab - 1-1/2" Pipe		Suggested Working Load Less Than 1/10" Def. lbs.	
	Height	Width	Ajust. Length In.	Min.	Max.	Min.		Max.
1"	2-3/4"	1"	1"	2-1/4"	2-3/4"	2-1/4"	2-3/4"	900
1-1/2"	2-3/4"	1-1/2"	1-1/2"	3"	3-1/2"	3-1/2"	4"	900
1-1/2"	2-3/4"	2-1/2"	2-1/2"	3-3/4"	4-1/2"	4-1/4"	5"	900
2-1/2"	3-1/2"	3"	3"	4-1/2"	6"	5"	6-1/2"	800
3-1/2"	4-1/2"	4"	4"	5-1/2"	8"	6"	8-1/2"	900
4-1/2"	4-1/2"	4"	4"	6-1/2"	9"	7"	9-1/2"	850
5-1/2"	4-1/2"	6"	6"	7-1/2"	12"	8"	12-1/2"	800
7-1/2"	7-1/2"	8"	8"	9-1/2"	16"	10"	16-1/2"	600
10"	7-1/2"	12"	12"	13-1/2"	22-1/2"	14"	23"	500

* 1" cradle head accepts 3/4" screed pipe, only.

Division 3

Bunyan striker tube

Here's How the System Works

The Striker is a hydraulically driven, bare steel tube drawn across the strike area at 230 RPM. The tube rotates in the opposite direction of travel creating a positive grasp or friction on the bottom side of the tube that gathers up to 6 inches of concrete and rolls it in front of the tube.

Division
3



Self-Contained Pump Unit

Powered by a Honda 11 horsepower OHV gasoline engine.

Hydraulic Driver

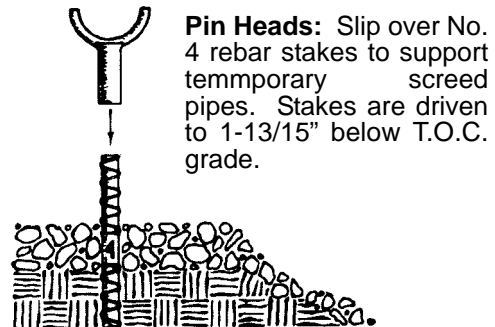
Gives stop, forward and reverse control of the tube at the operators fingertips.

Hose & Fittings

Standard length is 40 feet. Extra lengths available. The hose is banded, twin line, rigged with #8JIC fittings.

Striker Tube

5" and 6" diameters available, lengths vary.



Pin Heads: Slip over No. 4 rebar stakes to support temporary screed pipes. Stakes are driven to 1-13/15" below T.O.C. grade.

Concrete Detectable Warning Tiles

Armor-Tile Tactile Systems

5 types of models to choose from in a variety of sizes and colors:

- **CAST-IN-PLACE TILES**

This unique patented system allows tiles to be set directly in new concrete for substantial time and cost savings.

- **SURFACE APPLIED TILES**

The solution of choice for facilities needing to upgrade for the visually impaired.

- **MODULAR PAVERS**

Tiles are filled with concrete and laid as regular paving stones.

- **DETECTABLE DIRECTIONAL TILES**

Bar tiles create a tactile induction line to assist the visually impaired in finding their way to destinations.

- **DETECTABLE GUIDANCE STRIPS**

For guiding the visually impaired across roadways, such as at multi-modal transit centers and pedestrian crossings at intersections.

Detectable Warning Tiles

Armor-Tile is the world leader in detectable warning systems.

Manufactured of diamond-hard vitrified polymer, Armor-Tile truncated dome tiles are the industry standard for durability, weather resistance and wear resistance.

The world's largest selection of detectable warning products for:

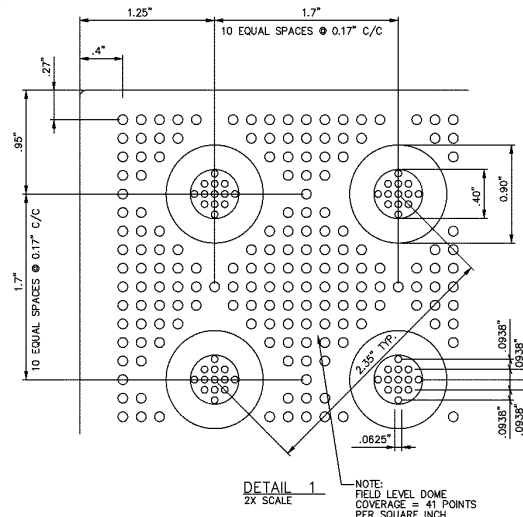
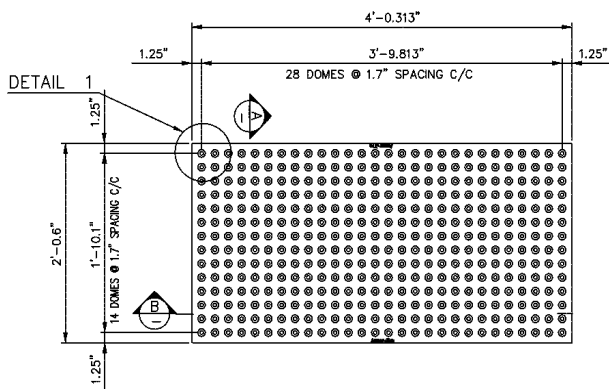
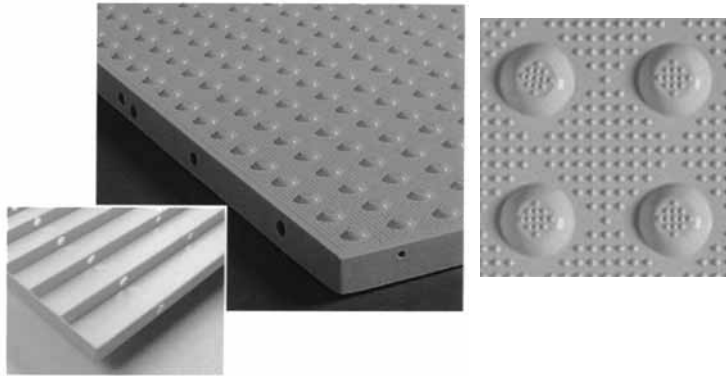
- Curb Ramps
- Vehicular Ways
- Parking Areas
- Stairwells
- Pedestrian Crossings
- Escalator Approaches
- Transit Platforms
- Multi-Modal Transit

Division 3

Cast In Place System

Only Armor-Tile offers the cost effective option of setting detectable warning tiles directly in newly poured concrete.

- Unique patented system available only from Armor-Tile.
- Installed for a fraction of the cost of surface applied tiles.
- Tiles are set seamlessly into newly poured concrete.
- No glue, no screws, no caulking.
- No costly preparation of the concrete surface.
- Set by concrete pourers with negligible labor cost and time.
- Standard sizes – 12" x 12", 24" x 24", 24" x 36", 24" x 48", 24" x 60", 36" x 48" (other sizes available).



Concrete Void Forms

SAVWAY Carton Forms

Description

Grade carton forms create a void beneath concrete slabs or beams which allows space for soil upheaval. Standard forms may be ordered set up or knocked down (KD) depending on freight requirements.

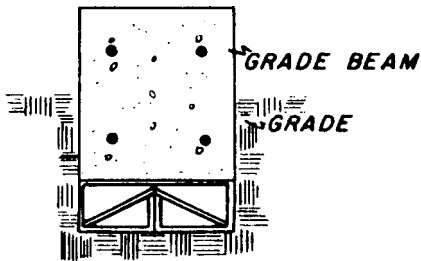
Standard Sizes

Widths of 6" - 7" - 8" - 10" - 12"
 Depths of 4" - 6" - 8"
 Lengths of 96"

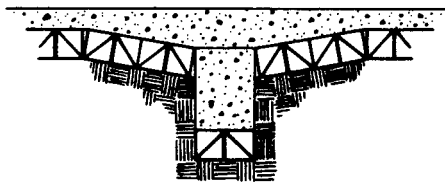
Material and Load Bearing Strength

All soffit forms are designed to carry a uniformly distributed top load of 1000 PSF when in dry conditions. Material used in the manufacture of Savway Carton Forms is of 275 lbs. test corrugated Kraft fibreboard, completely wax impregnated throughout, with water resistant paraffin and polyethylene. Interior medium and exterior liners are laminated with a resinol adhesive for moisture resistance.

Division 3

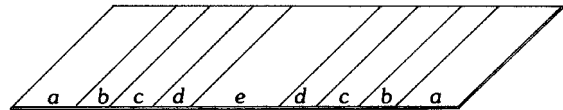


Carton Form under grade beam

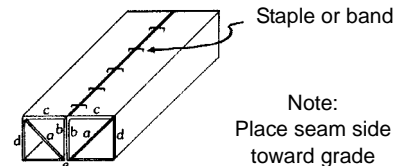
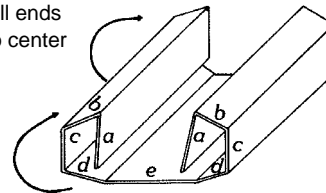


Typical interior grade beam and slab

Carton Form Assembly Process

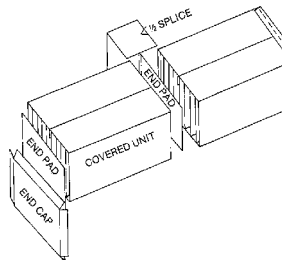
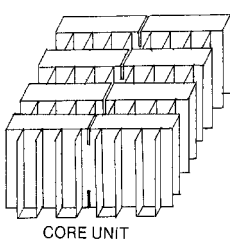


Roll ends into center



Note:
Place seam side toward grade

Heavy Duty Forms



Standard Sizes

Widths of varies with loading
 Depths of 8" - 12" typical
 Lengths of 96"

Load Bearing Strength

Heavy Duty Forms are designed to carry a uniformly distributed load up to 2500 PSF depending on job requirements.

Concrete Vapor Barriers



Through years of research and design, Barrier-Bac developed the only mechanical interface vapor retarder that exceeds ASTM E 1745 Class A on the market today.

Barrier-Bac vapor retarders are manufactured to the highest standards by using three layer co-extruded, cross-laminated virgin polyolefin resins. Our products are independently tested to ensure that our customers get the highest quality vapor retarder every time. Life expectancy 100 years plus.

By developing the ribbed membranes on our vapor retarders, we have created a mechanical interface. When Barrier-Bac membranes are overlapped and sealed, it locks the membrane in place and reduces the chances of shifting. The engineered sealing tape takes the same profile as our ribbed membrane and produces an excellent mechanical and adhesive seal that complies with the ASTM E 1643 specification. This double sealing process greatly reduces the water vapor drive between our membranes over the traditional flat membrane.

VB-250 (11 mil)	VB-350 (16 mil)	Sealing Tape
12.75' x 200' rolls	12.75' x 150' rolls	4' x 100' rolls

Summary of VB Series Membrane Specifications ASTM E 1745 – 96 Standard Test Methods, per ASTM E 154-93

Test Type ASTM Standard / ASTM Method	VB-350 Test Results	VB-250 Test Results	Class A Requirements	Class B/C Requirements
Baseline water vapor permeance (Perms) ASTM E 96 / Procedure B, Section 7 of ASTM 154	.009 (Perms)	.012 (Perms)	.30 (Perms)	.30 (Perms)
Permeance after wetting, drying and soaking (Perms) ASTM E 154 - 93, Section 8	.009 (Perms)	.013 (Perms)	.30 (Perms)	.30 (Perms)
Tensile strength after soaking (MD & TD average) ASTM E 154 - 93, Section 9	63.0 Lbf / in.	48.84 Lbf / in.	45.0 Lbf / in.	30.0 Lbf / in.
Resistance to puncture (grams) ASTM E 154 - 93, Section 10	2226 grams	2408 grams	2200 grams	1700/475 grams
Resistance to plastic flow & elevated temperature (Perms) ASTM E 154 - 93, Section 11	.025 (Perms)	.019 (Perms)	.30 (Perms)	.30/.30 (Perms)
Effect of low temperature on bending (Perms) ASTM E 154 - 93, Section 12	.011 (Perms)	.015 (Perms)	.30 (Perms)	.30/.30 (Perms)
Resistance to organisms & substrates in contact with soil (Perms) ASTM E 154 - 93, Section 13	.013 (Perms)	.015 (Perms)	.30 (Perms)	.30/.30 (Perms)
Resistance to petroleum and soil poison (Perms) ASTM E 154 - 93, Section 14	.014 (Perms)	.014 (Perms)	.30 (Perms)	.30/.30 (Perms)

Barrier-Bac VB-250 and VB-350 meet and/or exceed all ASTM E 1745 Class A requirements.

Division
3

Concrete Vapor Barriers

Uses: Stego Wrap is used as a below-slab vapor barrier and as a protection course for below grade waterproofing applications.

Composition: Stego Wrap Vapor Barrier is a multi-layer plastic extrusion manufactured with only the highest grade of prime, virgin, polyolefin resins.



Stego® Wrap 15-mil Class A
Stego® Wrap 10-mil Class A
Stego® Wrap 10-mil Class C

Division 3

Physical Properties of Stego Wrap

Property & Test	15 mil	10 mil	10 mil
Underslab Vapor Retarders, ASTM E 1745	Class A	Class A	Class C
Water Vapor Permeance, ASTM E 96 & ASTM F 1249	0.012 perms (*0.006 WVTR)	0.036 perms	0.037 perms
Tensile Strength, ASTM D 882	76.6 lbf./in.	54.4 lbf./in.	35.2 lbf./in.
Puncture Resistance, ASTM D 1709	2445 grams	2340 grams	1109 grams
Chemical Resistance, ASTM E 154	Unaffected	Unaffected	Unaffected
Life Expectancy, ASTM E 154	Indefinite	Indefinite	Indefinite
Roll Size	14' x 140'	14' x 210'	14' x 210'

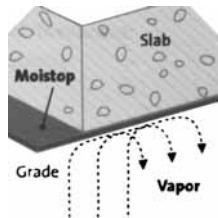
Stego® Mastic
5-Gal. pails.



Stego® Tape
4" x 180' Rolls.
12/case.



Fortifiber Building Systems Group™
MOISTOP
 UNDERSLAB VAPOR RETARDER



Polyethylene Film

Stock Sizes @ CA

4 mil	4', 8', 10', 12', 16', 20'
6 mil	8', 10', 12', 16', 20', 24', 40'
8 mil	20'
10 mil	20'

Standard Rolls of 100 linear ft.

10 mil has the following properties:

Puncture Resistance
ASTM D 1709, 475 grams

Water Vapor Permeance
ASTM E 96, .076 perms

Moistop® Underslab

Moistop sets the industry standard for Underslab Vapor Retarders. With a water vapor permeance of less than .30 perms, it exceeds ASTM E-1745 requirements for water vapor permeance, providing an extremely effective barrier to moisture vapor transmission through concrete slabs.

Moistop Ultra® Family

The Moistop Ultra family represents a new generation of concrete underslab products designed to provide incredible durability on the jobsite and lasting protection against moisture. With a water vapor permeance of .02 perms and a tensile strength and puncture resistance that outperforms even thicker membranes, Moistop Ultra 15, Ultra 10 and Ultra 6 exceed ASTM E-1745 standards for Class A, B and C underslab vapor retarders.

TOLL FREE 800-892-7224
800-821-7735

CA

construction
anchors, inc.

LOCAL 816-525-3640
FAX 816-525-4533

Concrete Joint Fillers

Fiber Expansion Joint – composed of cellular fibers bonded together with a uniform impregnation of bituminous binder and performer in sheets.

Sponge Rubber – produced to a uniform thickness and density from gray colored blown sponge rubber.

Homex 300 – produced from recycled wastepaper and additives, then performed into sheets.

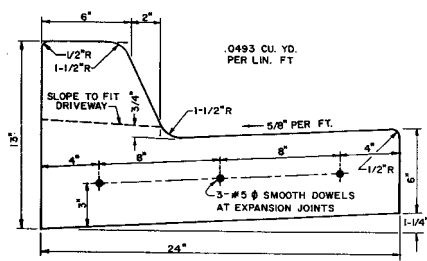
Self-Expanding Cork – produced from clean, selected granulated cork, formed and compressed under heat and pressure to permit expansion up to 140%.

Standard Cork – produced from clean, selected granulated cork bonded with phenolic resin.

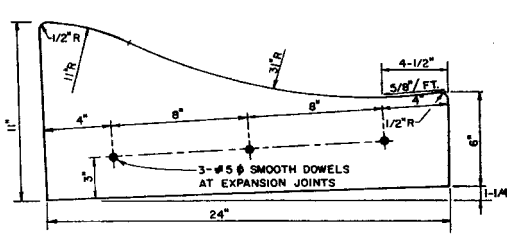
Closed Cell Plastic Foam – produced from closed cell polyethylene foam, non-absorbent.

TYPE	CONFORMS TO OR MEETS SPECIFICATIONS	THICKNESS
Fiber	ASTM D 1751	1/4"
	AASHTOM213	3/8"
	FAA Specification Item P610-2.7	1/2"
	Corps of Engineers CDR-C 508	3/4"
	Federal Specification HH-F-341 F, Type I	1"
Sponge Rubber	ASTM D 1752, Type I	1/4"
	Federal Specification HH-F-341 F, Type II, Class A	1/2"
	AASHTO M 153 TType I	5/8"
	Corps of Engineers CDR-C 509, Type I	3/4"
	FAA Specification Item P-610-2.7	1"
Cork	MoDOT 1057.2.4	1/4"
	ASTM D 1752, Type II	1/4"
	Federal Specification HHF-341 F, TType II, Class B	3/8"
	AASHTO M 153, Type II	1/2"
	Corps of Engineers CDR-C 509, Type II	3/4"
Self-Expanding Cork	FAA Specification Item P-610-2.7	1"
	ASTM D 1752, Type III	1/2"
	Federal Specification HH-F-341 F, Type II, CClass C	3/4"
	AASHTO M 153, Type III	1"
	Corps of Engineers CDR-C 509, Type III	1"
Homex 300	FAA Specification Item P-610-2.7	1"
	ASTM D 1751	1/2"
	AASHTO M 213	3/4"
Closed Cell Plastic Foam	Federal Specification HH-F-341 F, Type I	1"
	ASTM D 1752, Modified	1/4"
		3/8"
		1/2"
	3/4"	
	1"	

Division 3

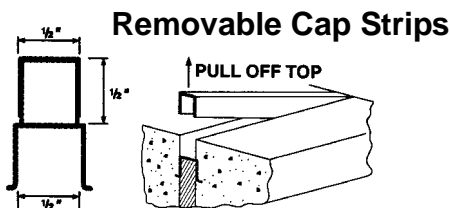


Straight & Back Curb & Gutter (Type CG-1)

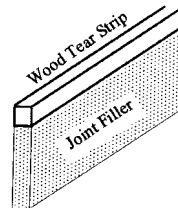


Roll Back Curb & Gutter (Type CG-2)

In Stock @ CA:
CG-1 & CG-2 Fiber Joint
1/2" & 3/4" thickness



Removable Cap Strips



Removable Wood Tear Strips
For 1/2" & 3/4" Joint Fillers

Form Oils



React S

React S is a chemically reactive form release agent especially formulated to meet the demanding requirements of architectural forming in any environment. **React S** is VOC compliant.

Benefits

Will not stain the concrete

Has no deleterious effect on bonding characteristics of secondary toppings or coatings

May be used on concrete structures that will store potable water

Application Rates

1500 sq. ft. per gal. for BB plyform
2000 sq. ft. per gal. for MDO plywoods
2500 sq. ft. per gal. for HDO plywoods, steel and plastic

Available in 5-gal. pails and 55-gal. drums.

React VOC

React VOC is a chemically reactive, positive barrier form release agent especially formulated to meet the demanding requirements of architectural forming in any environment. **React VOC** is VOC compliant.

Benefits

Will not stain the concrete

Has no deleterious effect on bonding characteristics of secondary toppings or coatings

Application Rates

1200 sq. ft. per gal. for BB plyform
1500 sq. ft. per gal. for MDO plywoods
2000 sq. ft. per gal. for HDO plywoods, steel and plastic

Available in 5-gal. pails and 55-gal. drums.

Form Guard VOC

Form Guard VOC is a copolymer system of modified polyurethane resins for sealing plywood panels used in concrete forming.

Form Guard VOC will increase plywood life and produce a smoother, denser concrete finish.

Application Rate

100-200 sq. ft. per gal.

Available in 5-gal. pails.

Ultra

Ultra is a clear and odorless chemically reactive form release agent especially formulated to release hardened concrete from most forming materials. Contains no diesel fuel, common lubricating oils, waxes or kerosene. **Ultra** is VOC compliant.

Benefits

Will not stain the concrete

Has no deleterious effect on bonding characteristics of secondary toppings or coatings

May be used on concrete structures that will store potable water

Application Rates

1500 sq. ft. per gal. for BB plyform
2000 sq. ft. per gal. for MDO plywoods
2500 sq. ft. per gal. for HDO plywoods, steel, plastic and elastomeric form liners

Enviroform

Enviroform is a chemically reactive architectural concrete form release blended from natural "environmentally friendly" raw materials. Contains no diesel fuel, common lubricating oils, waxes or kerosene. **Enviroform** is 100% biodegradable.

Benefits

Will not stain the concrete

Will not retard, etch or soften concrete surfaces even if overapplied

Application Rates

750 sq. ft. per gal. for BB plyform
1000 sq. ft. per gal. for MDO plywoods
2000 sq. ft. per gal. for HDO plywoods, steel and plastic

Available in 5-gal. pails and 55-gal. drums.

Dyatic VOC

Dyatic VOC is a chemically active material formulated to soften and remove concrete buildup and prevent new concrete buildup on concrete forms, hardware, tools, mortar mixers, etc. **Dyatic VOC** is VOC compliant.

Available in 5-gal. pails and 55-gal. drums.

Cures & Sealers



DOT Cure WW DSSCC White Wax	High solids, waterbase, white-pigmented wax cure 200-300 sq. ft. per gal.	ASTM C-309, Type II, Class A AASHTO-M-148, Type II, Class A CRD-C-300 available
City White Cure	Waterbase, white-pigmented wax cure 200-300 sq. ft. per gal.	ASTM C-309, Type II, Class A AASHTO-M-148, Type II, Class A
FAA Cure WW	Waterbase, white-pigmented wax cure 200-300 sq. ft. per gal.	ASTM C-309, Type II, Class A AASHTO-M-148, Type II, Class A
DOT Resin Cure White	Water-emulsified white-pigmented resin cure 200 sq. ft. per gal.	ASTM C-309, Type II, Class A & B AASHTO-M-148, Type II
DOT Resin Cure DSSCC Resin Cure	Water-emulsified resin cure 200 sq. ft. per gal.	ASTM C-309, Type I, Class A & B AASHTO-M-148, Type I Type ID (red dye) available
RX Cure WB	Water-emulsified rapid dissipating resin cure 200 sq. ft. per gal.	ASTM C-309, Type I, Class A & B AASHTO-M-148, Type I Type ID (red dye) available
WB Resin Cure	Water-emulsified rapid dissipating resin cure 200 sq. ft. per gal.	ASTM C-309, Type I, Class A & B AASHTO-M-148, Type I Type ID (red dye) available
Cure & Seal VOC	Medium solids acrylic curing, sealing, hardening and dustproofing 200-400 sq. ft. per gal.	ASTM C-309, Type I, Class A & B AASHTO-M-148, Type I
Conspec #1-30 Solids	Water-emulsified rapid dissipating resin cure 200-400 sq. ft. per gal.	ASTM C-309, Type I, Class A & B AASHTO-M-148, Type I ASTM C-1315, Type I, Class B
Sealcure #1315	High solids color-stable acrylic curing & sealing compound 300-500 sq. ft. per gal.	ASTM C-1315, Type I, Class A
High Seal	Medium solids, water-emulsified acrylic curing & sealing compound 200-400 sq. ft. per gal.	ASTM C-309, Type I, Class A & B AASHTO-M-148
Conspec #21	Waterbase silicate curing & dustproofing compound 200-400 sq. ft. per gal.	-
Aquafilm	Evaporation retardant & finishing aid 150-250 sq. ft. per gal.	As recommended by ACI 302 Evaporation Retardant / Monomolecular Film

**D
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Bondbreakers



Tilt-Eez VOC™

Tilt-Eez VOC is a resin based, membrane forming cure and bondbreaker compound. It contains no silicones, waxes or cheapening agents.

Tilt-Eez VOC dissipates or can easily be removed to allow for the effective application and performance of penetrating floor sealers/hardeners such as Conspec's Intraseal.

Cure Application:

One coat at 300 sq. ft./gal.

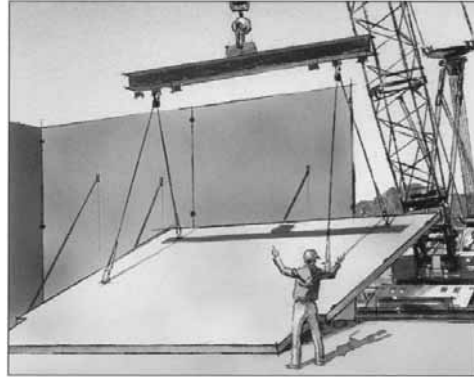
Bondbreaker Application:

Two coats, each coat at 600 to 900 sq. ft./gal.

Applicable Standards:

ASTM C-309, Type 1D, Class A & B

Available in 5 gal. pails and 55 gal drums.



Bondbreaker Application Tips

A power or hand sprayer with a fan type nozzle that applies about a half gallon per minute.

Apply in two coat application. Apply second coat at right angles to first coat. Allow first coat to dry a minimum of 2 hours between coats.

A good indicator for parting qualities of a bondbreaker coat is to sprinkle water on a dry, dust free area. The water should bead up and roll around as it would on a newly waxed car.

Tilt-Eez WB™

Tilt-Eez WB is a water based, membrane forming cure and bondbreaker compound. It contains no silicones, waxes or cheapening agents.

Tilt-Eez WB dissipates or can easily be removed to allow for the effective application and performance of penetrating floor sealers/hardeners such as Conspec's Intraseal.

Cure Application:

One coat at 250 sq. ft./gal.

Bondbreaker Application:

Two coats, each coat at 400 to 600 sq. ft./gal.

Applicable Standards:

ASTM C-309, Type 1D, Class A & B

Available in 5 gal. pails and 55 gal drums.

CST VOC

CST VOC is a chemically reactive concrete cure and bondbreaker compound. CST VOC is a balanced blend of aliphatic polymers. The high solid content and positive internal concrete sealing make it ideal for use as a curing and bondbreaking compound.

Cure Application:

One coat at 400 sq. ft./gal.

Bondbreaker Application:

Two coats, each coat at 400 to 600 sq. ft./gal.

Available in 5 gal. pails and 55 gal drums.

Super Maxi Tilt™

Super Maxi Tilt is a premium grade, non-membrane forming, waterproofing type bondbreaker and curing compound for tilt-up and lift-slab construction. Super Maxi Tilt offers an effective cure and superior parting characteristics. It is a proprietary blend of organic polymers in a virgin hydrocarbon carrier.

Cure Application:

One coat at 200 to 400 sq. ft./gal.

Bondbreaker Application:

Two coats, each coat at 400 to 600 sq. ft./gal.

Available in 5 gal. pails and 55 gal drums.

Hardeners



Liquid Hardeners

Intraseal

Intraseal is a penetrating water-based reactive silicate solution specifically designed for protecting concrete floors against abrasion, dusting and spillage.

Intraseal penetrates deeply creating an integral matrix that won't tear away. It imparts a low gloss satin sheen that builds with use and won't scratch, peel or discolor.

Intraseal is applied by spray, squeegee, broom or roller to a clean dry concrete surface.

Apply at 200 to 350 sq. ft./gal. (hard trowled).
Apply at 150 to 250 sq. ft./gal. (broom).

Available in 5 gal. pails and 55 gal. drums.



Intraseal.

Integral Concrete Sealer and Hardener

Dry Shake Hardeners

Conshake 500 Natural™

Conshake 500 Natural is a ready to use silica quartz aggregate surface hardener. It increases the impact and abrasion resistance up to twice that of plain concrete.

Conshake 500 Natural is recommended for interior or exterior applications such as warehouse floors, loading docks, aircraft hangers, dairies, auditoriums, etc.

Apply at .75 to 1.5 lbs./sq. ft. In 50 lb. bags.

Use Conshake 600 for colored hardener.

Conplate 1000 Natural™

Conplate 1000 Natural is a ready to use iron surface hardener. It increases the impact and abrasion resistance up to 8 times that of plain concrete.

Conplate 1000 Natural is recommended for interior use on industrial floors, manufacturing facilities, high traffic aisles, equipment repair areas, etc.

Apply at 1 to 3 lbs./sq. ft. In 50 lb. bags.

Use Conshake 1100 for colored hardener.

Conspec Emery Hardener

Conspec Emery Hardener is comprised of a blend of 100% pure emery, special additives and Portland cement. It increases the impact and abrasion resistance up to 10 times that of plain concrete.

Conspec Emery Hardener is completely non-corrosive and rustproof and thus can be used either inside or outside.

Apply at 1 to 1.5 lbs./sq. ft. In 50 lb. bags.



Shake On Hardeners

Apply dry shakes after bleed water leaves.

It is recommended to apply in 2 applications. Use 2/3 required in first application and float into surface. Immediately apply remaining 1/3 and finish.

Conshake 700™

Conshake 700 (light reflective) is a ready to use, finely graded, silica aggregate surface hardener. It increases the impact and abrasion resistance up to twice that of plain concrete.

Use Conshake 700 where light reflectivity requirements are 60% and an increased wear resistant surface is desired. Areas such as airport hangers, warehouses, industrial facilities, etc.

Apply at 1 to 1.5 lbs./sq. ft. In 50 lb. bags.



CLEARSEAL® Concrete Cure, Sealer & Hardener

Clearseal is a transparent, modified acrylic curing, sealing and hardening compound. It is a proprietary formulation of acrylic resins and special blends of petroleum distillates.

Clearseal 150 – apply at 250 sq. ft./gal.
ASTM C-309, Type 1, Class A & B
AASHTO M-148, Type 1, Class A & B

Clearseal STD – apply at 350 sq. ft./gal.
ASTM C-309, Type 1, Class A & B
AASHTO M-148, Type 1, Class A & B

Clearseal 300 – apply at 400 sq. ft./gal.
ASTM C-309, Type 1, Class A & B
AASHTO M-148, Type 1, Class A & B

Available in 5-gal. pails and 55-gal. drums



CLEARSEAL® WB Water-Based Concrete Cure, Sealer & Hardener

Clearseal WB is a water-based, modified acrylic curing, sealing and hardening compound. It is a VOC compliant formulation which provides a clear protective film over new or existing concrete.

Clearseal WB 150 – apply at 200 sq. ft./gal.
ASTM C-309, Type 1, Class A & B
AASHTO M-148, Type 1, Class A & B

Clearseal WB STD – apply at 300 sq. ft./gal.
ASTM C-309, Type 1, Class A & B
AASHTO M-148, Type 1, Class A & B

Clearseal WB 300 – apply at 400 sq. ft./gal.
ASTM C-309, Type 1, Class A & B
AASHTO M-148, Type 1, Class A & B
ASTM C-1315

Available in 5-gal. pails and 55-gal. drums

LUSTERSEAL® WB Non-Yellowing, Water-Based Sealer & Curing Compound

Lusterseal WB is a water-based, non-yellowing acrylic sealer used as a curing and sealing compound. It is VOC compliant. Lusterseal WB is designed to protect and give a “wet look” to concrete surfaces.

Lusterseal WB 150 – apply at 200 sq. ft./gal.
ASTM C-309, Type 1, Class A & B

Lusterseal WB STD – apply at 300 sq. ft./gal.
ASTM C-309, Type 1, Class A & B

Lusterseal WB 300 – apply at 400 sq. ft./gal.
ASTM C-309, Type 1, Class A & B

Available in 5-gal. pails and 55-gal. drums

LUSTERSEAL® 300 Clear, Non-Yellowing Concrete Cure & Seal

Lusterseal 300 is a solvent-based, clear modified acrylic sealer used as a curing and sealing compound. It is a proprietary formulation of methyl methacrylate copolymer resin in a solvent blend. Lusterseal 300 is designed to protect and give a “wet look” to concrete surfaces. It is VOC compliant.

Lusterseal 300 – apply at 300 sq. ft./gal.
ASTM C-1315, Type 1, Class A

Available in 5-gal. pails and 55-gal. drums

TRI-DAR® 33, 44 Linseed Oil Emulsion Compounds

Tri-Dar emulsions are patented, single application curing, sealing and anti-scale compounds. They are linseed oil emulsions and contain no aromatic solvents.

Tri-Dar 33 Series – general purpose
33/1 is nonpigmented
33/2 is white pigmented

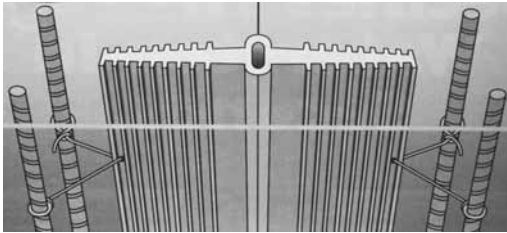
Tri-Dar 44 Series – extreme service
44/1 is nonpigmented
44/2 is white pigmented
44 Series are formulated with high-viscosity heat bodied linseed oil for greater protection.

Available in 5-gal. pails and 55-gal. drums

Concrete Waterstop



Cut Your Waterstop Worries and Costs with Pre-Punched Vinyex® Kwik-Tie® Waterstop



Codes

All Vinyex finished Waterstops are designed to meet or exceed requirements of:

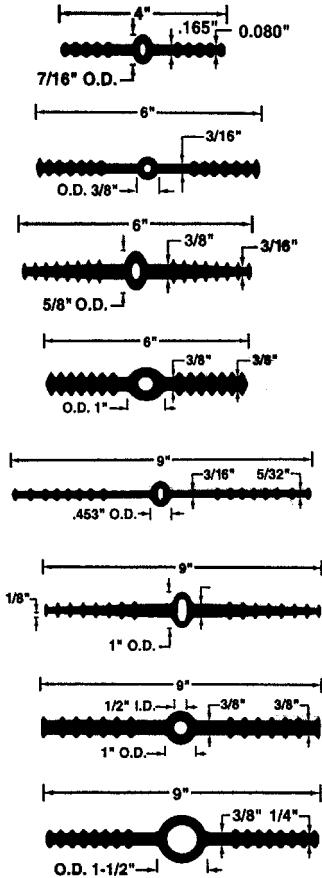
- Corps of Engineers CRD C-572
- T.V.A. Spec No. PF-1026
- Bureau of Reclamation Soil Conservation Service
- Various State Highway and Departments of Public Works
- Ontario Hydro-Electric Power Commission

Technical Properties

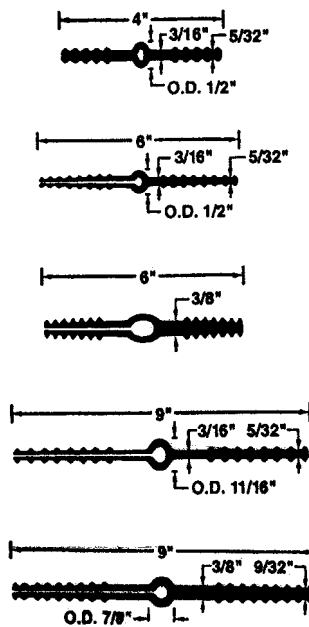
Property	Test Method	Typical Results
Tensile Strength		
Finished Waterstop (Avg.)	ASTM D-638	2100
Ultimate Elongation		
Finished Waterstop	ASTM D-412	350%
Hardness-Shore A/10	ASTM D 2240	82 ± 3
Stiffness in Flexure	ASTM D-747	1200 psi
Tear Resistance	ASTM D-624	314 lb./in.
Modulus of Elasticity	ASTM D-638	900 psi
Low Temperature Brittleness @ -35°F	ASTM D-746	Passed
Cold Bend, 1/4" Mandrel @ -30°F	TVA PF1026	Passed
Low Temperature Flexibility @ -30° F	TVA PF1026	Passed
Low Temperature Impact @ -30°F	TVA PF1026	Passed
Water Absorption		
24 Hours	ASTM 570	0.051%
48 Hours	ASTM 570	0.077%
Accelerated Extraction	CRD C-572	Passed
Effect of Alkali	CRD C-572	Passed

Division 3

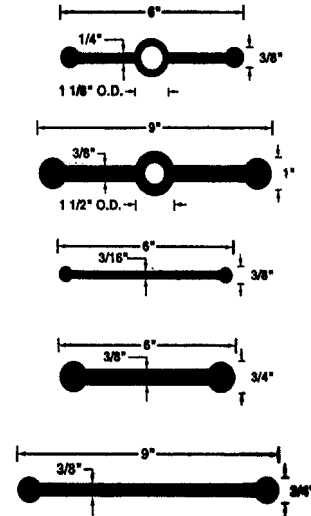
Ribbed w/ Center Bulb



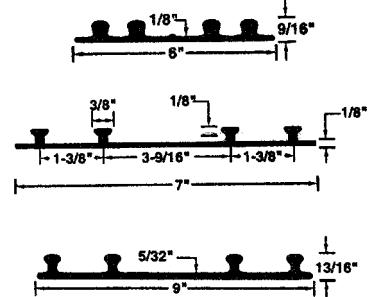
Split Ribbed



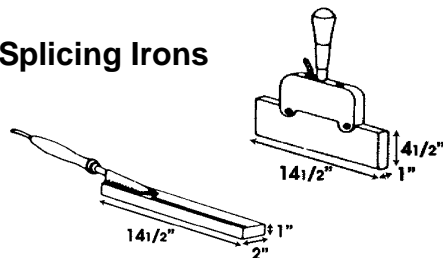
Dumbbell



Base Seals



Splicing Irons



Concrete Waterstop

PETROSTOP

Chemical Resistant Waterstop

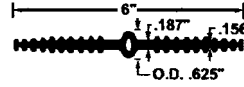
Basic Use: PetroStop is designed for use in any concrete secondary containment structure which contains joints and could be exposed to hazardous chemicals on one face of the structure. It prevents controlled substance movement through concrete joints in secondary containment structures.

Composition and Materials: Vinlex Petrostop is a specially formulated Thermoplastic Elastomeric Rubber (TPER) designed to resist a wide range of:

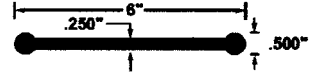
- Oils
- Organic Solvents
- Automotive Fluids
- Aqueous Solutions
- Industrial Fluids
- Acids & Alkalis
- 98% Sulfuric Acid
- Gasoline & Jet Fuel

VINYLEX CORPORATION

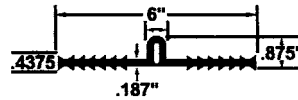
VRB6-316



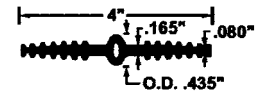
VD6-14



VTWB6-316



VRB4-316



Division 3

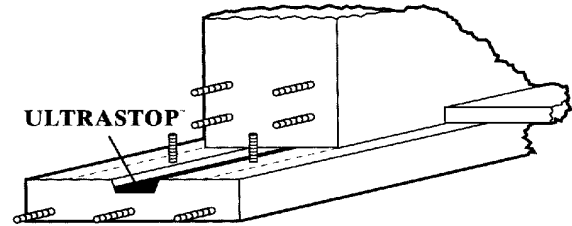
ULTRASTOP

UltraStop is a preformed, asphalt plastic, adhesive waterstop ideal for concrete construction joints.

- Is easily installed and spliced
- Bonds to concrete as a result of the heat during concrete cure
- Does not swell, so it cannot cause joint cracking or expand prematurely.
- Flexible – slight joint movement due to normal foundation settlement will not affect performance.
- Resistant to water, acid, alkali and sewage.
- No lost performance due to wet/dry cycles.

UltraStop is 1" nominal square, packaged in easy to handle 3 foot lengths, 105 feet per box.

Asphalt Plastic Waterstop

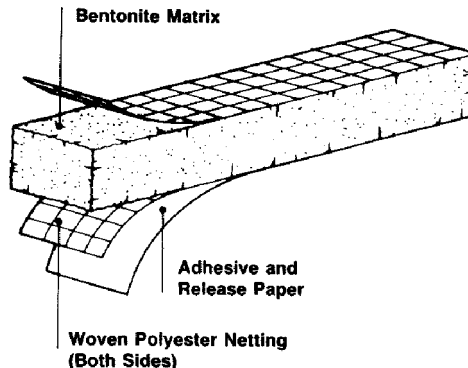
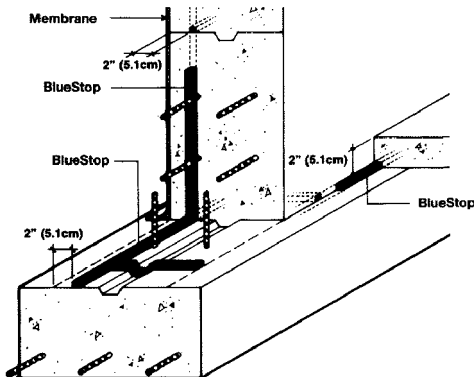


To ensure a proper bond, use only UltraStop® Primer

BlueStop

Applications for Cold Joints & Construction Joints in:

- Water & Sewage Treatment Plants
- Precast Vaults
- Precast Panel Systems
- Basements
- Tunnels
- Below Grade Walls



Materials: BlueStop is a multi-layer laminate of bentonite, polyester netting and polypropylene non-woven materials.

Available in 1/2" and 3/4" sizes. CCW MiraSTOP is a self-adhering, flexible, coiled strip of butyl rubber and expandable bentonite clay water-proofing joint compound.

TOLL FREE 800-892-7224
800-821-7735

CA construction anchors, inc.

LOCAL 816-525-3640
FAX 816-525-4533

Concrete Waterstop

CCW MiraSTOP

Description:

CCW MiraSTOP prevents infiltration of below grade moisture in non-moving joints. When water comes in contact with CCW Mira STOP it swells to form a strong compression seal.

Installation:

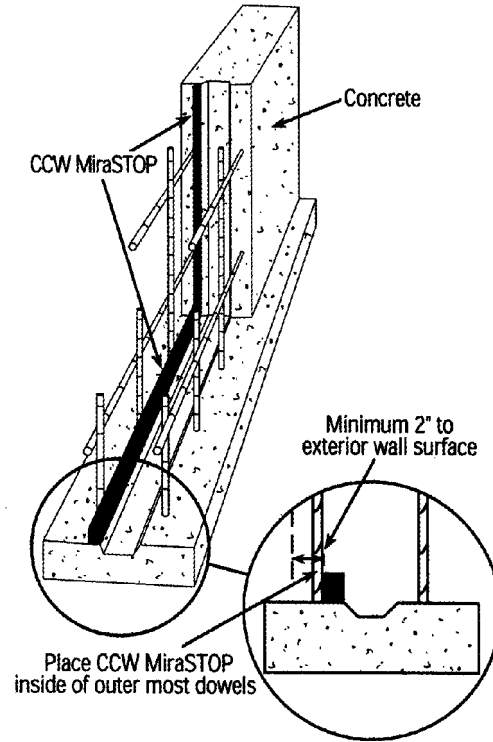
Remove dust, dirt, loose particles or any other materials which might cause areas of poor adhesion of the CCW Mira STOP. Apply CCW-702 or CCW AWP Primer two inches wide continuously along the joint. Allow the primer to dry prior to application of CCW Mira- STOP. (Drying time will be approximately 30 minutes. Dry primer will not transfer when touched.) Apply CCW MiraSTOP on the same day as the primer.

Remove one side of the release paper and firmly press CCW MiraSTOP in place over primed substrate. Press and butt ends of CCW MiraSTOP together to ensure no separation or air pockets. Place CCW MiraSTOP in maximum practical lengths. Square cut ends to fit splices together without overlaps.

Remove the remaining release paper from CCW MiraSTOP immediately prior to the second pour of concrete.

Packaging:

MiraStop is available in 1" x 3/4" x 16.66 ft. rolls.



Division 3

ConSeal™ CS-231*

Controlled Expansion Waterstop Sealant



ConSeal CS-231 Waterstop differs from other expanding waterstop sealants due to its controlled expansion characteristics.

CS-231 3/4" x 14'-6" Rolls 116'/ctn.

ConSeal CS-231 Waterstop is a unique sealing compound which expands in a controlled fashion when exposed to moisture. ConSeal CS-231 Waterstop is manufactured utilizing a specialized mixing process which encapsulates hydrophilic materials into a rubber base creating a controlled, moisture-activated sealant. ConSeal CS-231 Waterstop has the structural integrity of a rubber-based sealant as well as the ability to expand to create a self-healing joint material.

The controlled-expansion properties engineered into ConSeal CS-231 Waterstop reduce the internal pressures created in cast-in-place applications. Internal pressures can act to cause spalling in foundations and wall structures.

ConSeal™ Primer CS-50 In 1-Gal. Pails

Concrete Formliners

Architectural Formliners

Formliners provide an economical means for adding interest and visual appeal to almost any concrete structure.

Formliners are ideal for texturing tilt-up, cast-in-place, and precast architectural concrete. These liners are attached to the casting bed or formwork prior to placing concrete.

Most patterns are available in three different types of materials.

Single Use – High Impact Polystyrene (HIPS) for tilt-up or cast in place jobs where the liner will be used once.

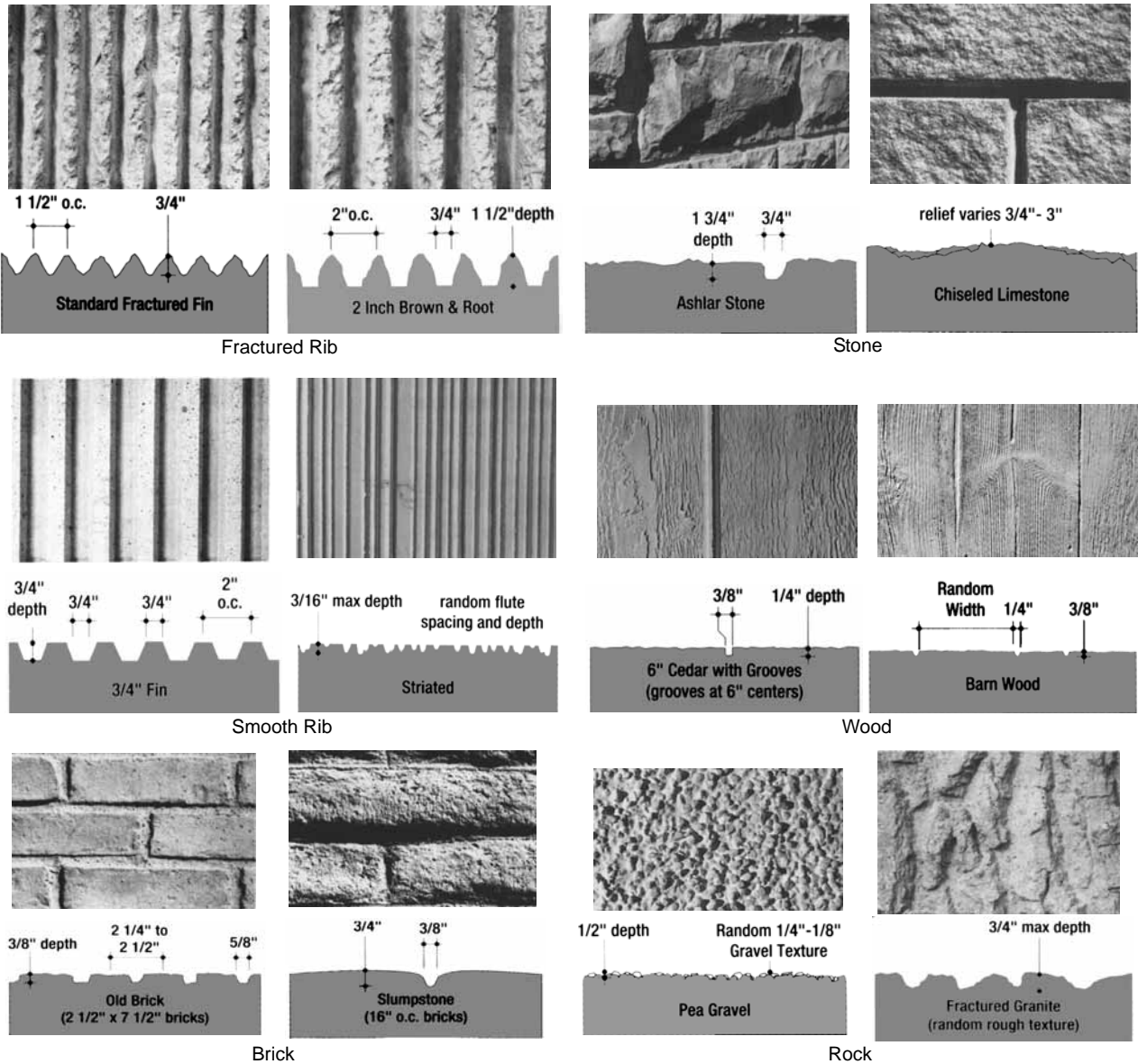
Multi Use – Acrylonitrile Butadiene Styrene (ABS) for cast-in-place or precast jobs where the liner needs to be used several times.

Elastomeric – Polyurethane Elastomer (Rubber) for cast-in-place or precast jobs where the liner needs to be used many times. Typically 40 to 100 uses can be expected depending on the grade of rubber.

Single & Multi-Use Liners: rigid plastic, 4' x 10' sheets

Elastomeric Liners: typically custom sizes

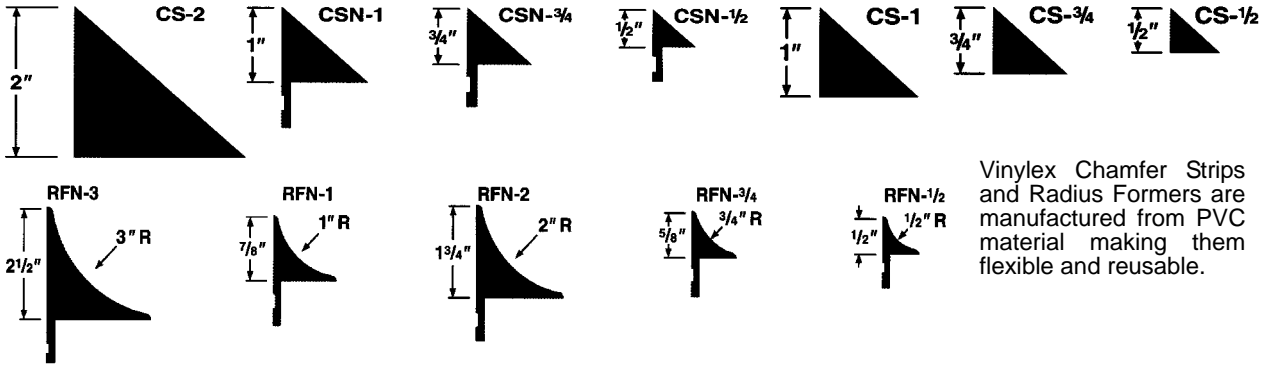
These are just a sampling of patterns available.



Concrete Chamfer Strips

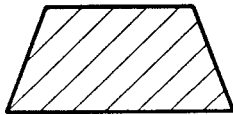


Radius Formers & Chamfer Strips

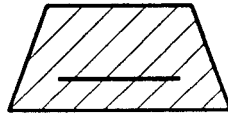


Vinylex Chamfer Strips and Radius Formers are manufactured from PVC material making them flexible and reusable.

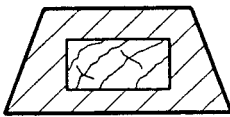
Rustification Strips from Urethane Rubber for Maximum Reuse



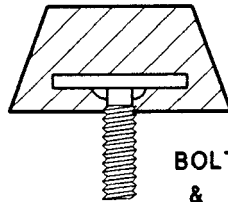
SOLID



SHEET METAL



WOOD CORE

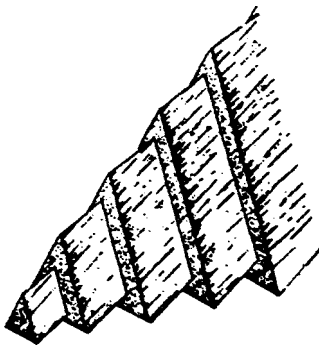


BOLTS & STEEL

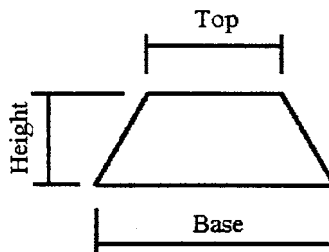
- Solid
- Tough
- Reusable
- Flexible

Wood Chamfer & Rustification Strips

From Clear Banak, Free of Knots

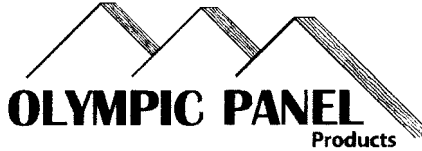


Sizes Available 1/2" x 1/2" thru 2" x 2"



Chamfer Cutter Hand Tool

Concrete Forming



Products

MultiPour® Plus	Basic HDO
MultiPour® HDO	B-Matte™ 333 MDO
Classic HDO	Basic MDO

Basic HDO Form

Basic HDO Form is designed to balance initial cost, multiple reuse and concrete appearance. Basic HDO Form is an economical plywood panel for concrete forming applications where the superior surface uniformity and higher reuse of OPP's Classic HDO or MultiPour HDO is not needed.

Basic HDO Form delivers a tough, abrasion resistant surface with standard alkalinity resistance to provide cost effective multiple reuses.

General Specifications

Width: 4' only
Length: 8' only
Thicknesses: 1/2", 5/8" - 5 ply; 3/4" - 7 ply
Working Surface: Yellow/buff colored high density phenolic resin impregnated cellulose sheet (HDO). Available with one working surface only.
Back Surface: HDO backer sheet for balance and moisture resistance.

B-Matte™ 333

B-Matte™ 333 features an advanced overlay that provides a superior matte finish and delivers seven times more alkalinity resistance than standard MDOs.

B-Matte™ 333 is a work-horse concrete forming panel designed to deliver a smooth matte concrete surface.

General Specifications

Width: 4' & 2' standard
Length: 8' standard; 10' available
Thicknesses: 5/8" - 5 ply and 7 ply; 3/4" - 7 ply; 1-1/8" - 11 ply
Working Surface: Medium density phenolic resin impregnated cellulose sheet (MDO). One working surface standard. 2-side available.

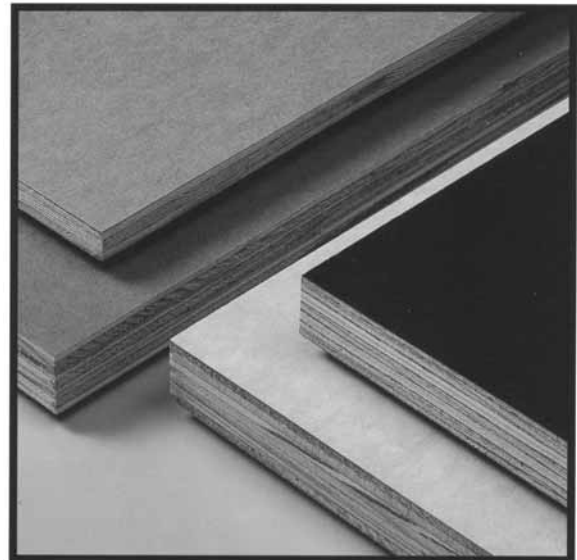
B-Matte™ 333 Load Span Tables – Basic HDO

Load Span Tables – Wet Conditions
 Recom. Max. psf on Class 1 Panels or Equivalent (V412)

Face Grain <i>Perpendicular</i> to Supports*								
Support Spacing	Plywood Thickness - Allowable Pressure (psf)							
	1/2"		5/8"		3/4"		1-1/8"	
	I/360	I/270	I/360	I/270	I/360	I/270	I/360	I/270
8"	1000	1000	1320	1320	1580	1580	2230	2230
12"	455	495	710	710	885	885	1380	1380
16"	195	260	325	400	445	505	1000	1000
19.2"	110	150	190	255	270	350	740	820
24"	-	-	100	130	145	190	425	530

Face Grain <i>Parallel</i> to Supports*								
Support Spacing	Plywood Thickness - Allowable Pressure (psf)							
	1/2"		5/8"		3/4"		1-1/8"	
	I/360	I/270	I/360	I/270	I/360	I/270	I/360	I/270
8"	392	434	747	747	1175	1175	1819	1819
12"	145	167	409	466	596	648	1167	1167
16"	-	-	167	213	273	364	749	749
19.2"	-	-	121	163	194	216	404	448
24"	-	-	-	-	100	135	241	289

* Plywood continuous across two or more spans. These are total loads (weight of panel should be considered in horizontal applications).



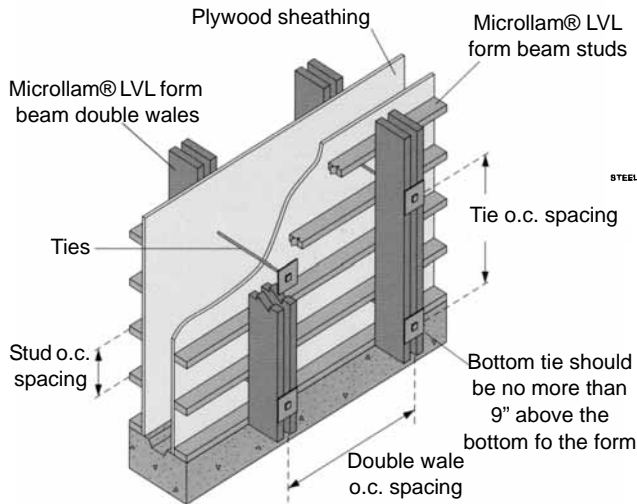
**HDO/MDO
PLYWOOD**

Concrete Forming

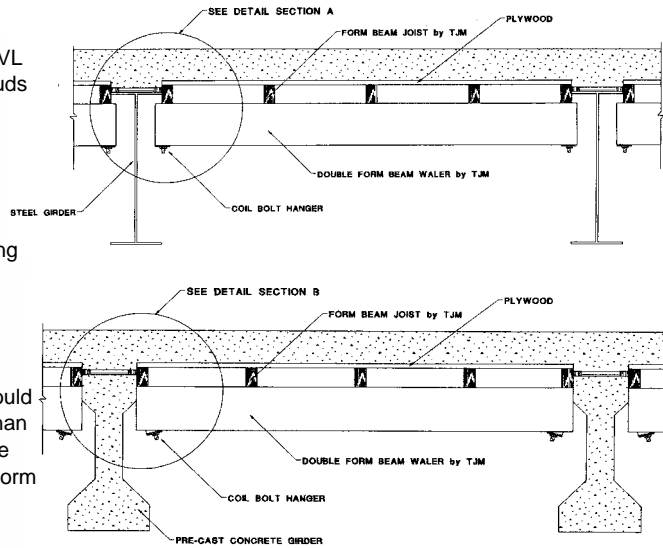


Microllam® LVL Concrete Form Beam

Typical Wall Form Assembly



Typical Bridge Deck Formwork Systems

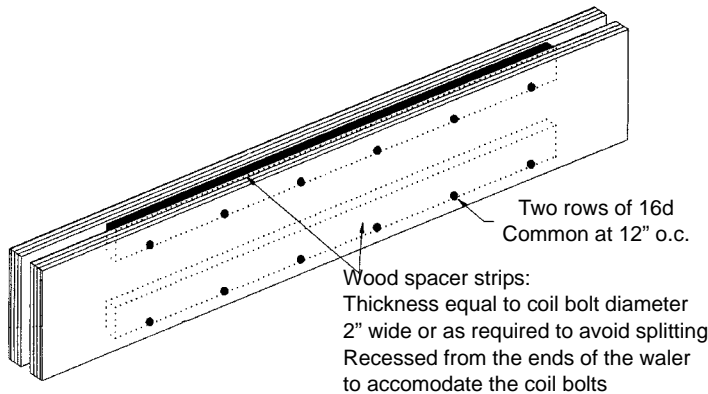


Division 3

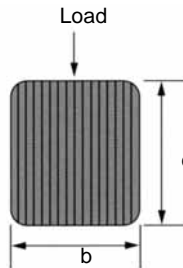
2.0E Microllam® Lvl Form Beams⁽⁴⁾

Allowable Design Stresses (Dry Use, 100% Load Duration)

Shear modulus of elasticity	$G = 125,000$
Modulus of elasticity	$E = 2.0 \times 10^6 \text{ PSI}$
Flexural stress	$F_b = 2750 \text{ PSI}^{(1)}$
Compression perpendicular to grain	$F_{Cl} = 750 \text{ PSI}^{(2)(3)}$
Compression parallel to grain	$F_{Cl} = 2635 \text{ PSI}$
Horizontal shear perpendicular to glue line	$F_v = 285 \text{ PSI}$



3-1/2" x 3-1/2"	2-1/2" x 3-1/2"	2-1/2" x 5-1/2"
$V_{allow} = 1746 \text{ lbs.}$	$V_{allow} = 1870 \text{ lbs.}$	$V_{allow} = 2939 \text{ lbs.}$
$M_{allow} = 2178 \text{ ft.-lbs.}$	$M_{allow} = 1556 \text{ ft.-lbs.}$	$M_{allow} = 3613 \text{ ft.-lbs.}$
$EI = 22509 \text{ k-sq. in.}$	$EI = 16078 \text{ k-sq. in.}$	$EI = 62391 \text{ k-sq. in.}$
$b = 3.5"$	$b = 2.5"$	$b = 2.5"$
$d = 3.5"$	$d = 3.5"$	$d = 5.5"$



- (1) For 12" depth. For others, multiply by $[12/d]^{0.136}$
- (2) F_{Cl} shall not be increased for duration of load
- (3) $F_{Cl} = 880 \text{ PSI}$ for thicknesses greater than 1-3/4"
- (4) Values are for new or like-new product

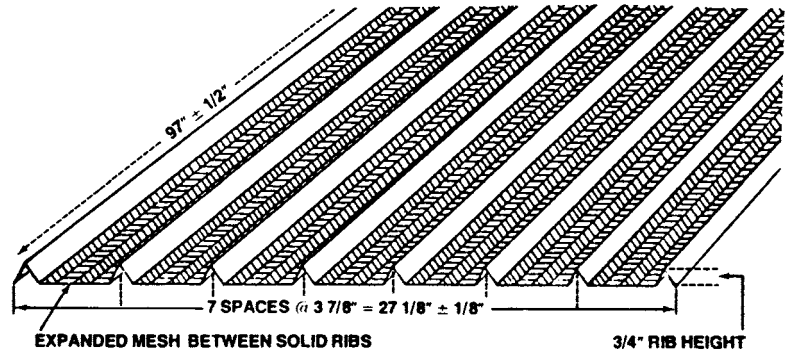
Concrete Forming



STAY-FORM®

Stay-Form is manufactured from hot-dipped galvanized sheet steel.

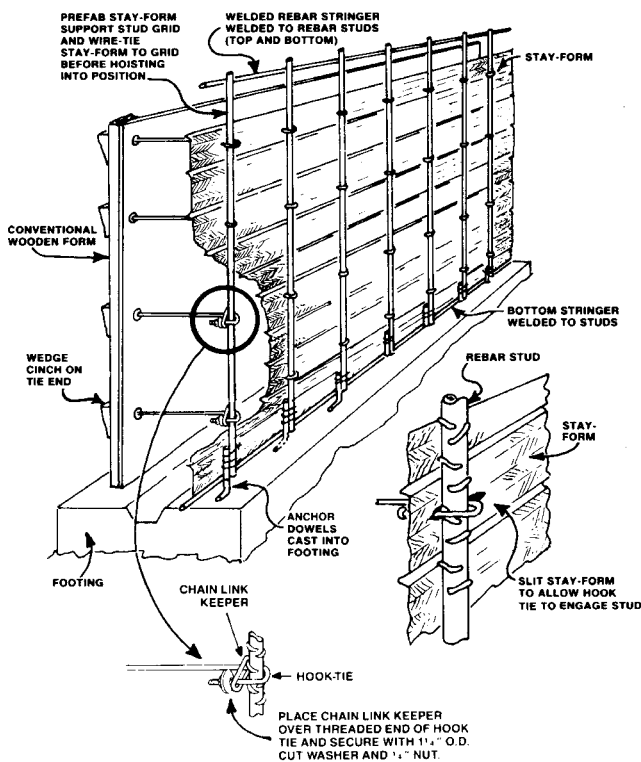
26 ga. Standard Grade
25 ga. Heavy Grade
Sheet Size 27" x 97"



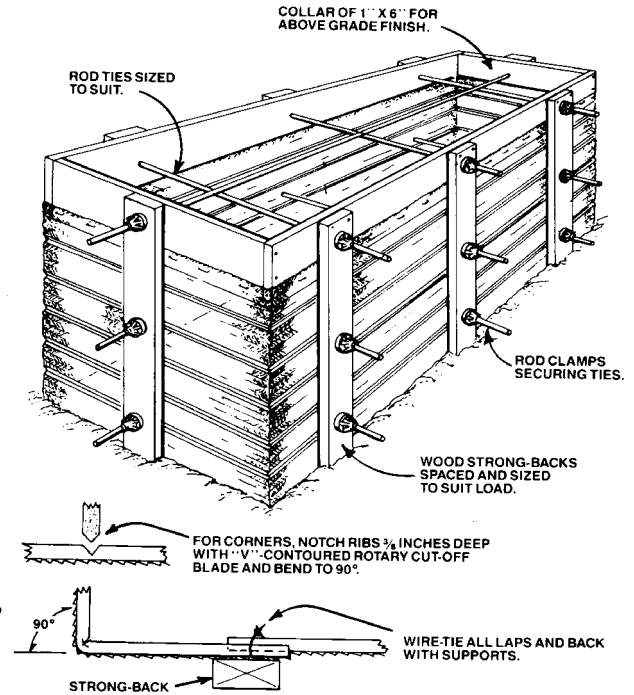
Division 3

- Reduces labor cost in difficult forming applications.
- Joint scabbling is eliminated in most cases.
- Eighty percent labor savings in stripping.
- Easy rebar and service conduit penetration.
- Continuous placement of rebar.
- Visual inspection of the pour.
- Easy formulation to fit curvatures.
- Reduces grade removal for below-ground use.
- Cut to size in multiples with power saw using abrasive blades.
- Does not require special formulation of concrete.

Forming Blind-Side Walls



Forming Pile Caps



Concrete Forming

Sonotube Fibre Forms



Sonotube Fibre Form "A" Coated

The original form, made from many layers of tough, high-quality fibre spirally wound and laminated with a water resistant adhesives.

Produces a column with spiral seams.

Seamless Sonotube

A mid grade form with a specially finished inner ply.

Minimizes but does not completely eliminate the spiral seam appearance.

Sonotube Plus

Fitted with a plastic liner that imparts a smoother architectural finish to round columns.

One vertical seam on columns up to 24 inch diameter and only 2 vertical seams or columns over 24 inch diameter.

Premium Sonotube Fibre Forms

This is a new product that is uniquely designed and coated inside.

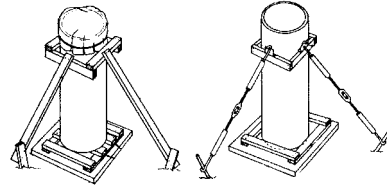
Virtually eliminates the spiral seams and ridges.

Placing

A tremie pipe should be used in the pouring operation. National average pour rate is 15 feet per hour, but **not to exceed 3000 PSF**. The concrete can be vibrated as required, but use care to prevent vibrator from damaging tube. A release agent must always be used with Seamless Sonotube forms and will facilitate stripping if used with "A" Coated Forms.

Stripping

Strip form as soon as possible after concrete has set. Recommended time is 24 to 48 hours, and should not exceed 5 days. Use saw or knife to make vertical cuts and remove form.



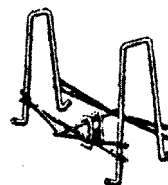
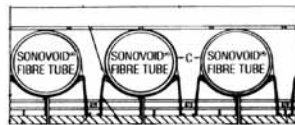
Bracing

Sonotube forms are easily brought to plumb, and only minimal bracing is required (brace tube every 8 feet). Use plastic brace plates, scaffolding or lumber.

Sonovoid Fibre Tubes

Sonovoid Fibre Tubes are laminated tubular forms specifically developed to provide an economical means of forming voids in precast or cast-in place concrete slabs. Typical end closures are metal up to 12 inch diameter and wood thereafter.

Sonovoid O.D.	Maximum Support Spacing	Maximum Spacing Between Hold Down
2.25 to 18.00	4' O.C.	18" from end of tube, then every 4'
18.7 to 22.85	3' O.C.	18" from end of tube, then every 3'
24.85 to 36.9	2' O.C.	12" from end of tube, then every 2'



Support

Concrete Forming



MFG

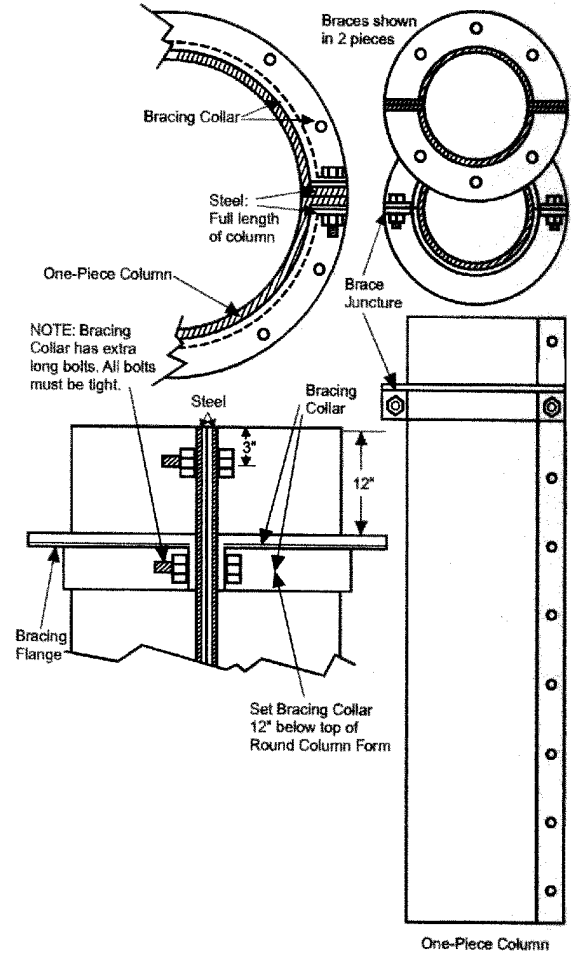
One-Piece Round Column Forms

An economical method for producing beautiful concrete

- Lightweight. Easy handling and placement.
- Produce beautiful, clean, smooth concrete.
- Easy to strip.
- Are designed to be reused repeatedly.
- Available on a sale or rental basis.
- Weatherproof.
- Units nest. Use less storage and shipping space.
- Complete with bracing collar and "fast" bolts.

Sizes

Column Diameter	Length Up To	Approx. Wt. Per Lineal Ft.	Approx. Vol. of Concrete Per Lineal Ft.
12"	20'	9.9 lbs.	.8 cu. ft.
14"	20'	10.0 lbs.	1.0 cu. ft.
16"	20'	11.1 lbs.	1.4 cu. ft.
18"	20'	12.3 lbs.	1.8 cu. ft.
20"	20'	13.1 lbs.	2.2 cu. ft.
22"	20'	14.2 lbs.	2.6 cu. ft.
24"	20'	15.2 lbs.	3.1 cu. ft.
26"	20'	16.2 lbs.	3.6 cu. ft.
28"	20'	17.3 lbs.	4.2 cu. ft.
30"	20'	18.4 lbs.	4.9 cu. ft.
32"	20'	19.5 lbs.	5.5 cu. ft.
34"	20'	20.5 lbs.	6.3 cu. ft.
36"	20'	21.5 lbs.	7.0 cu. ft.
38"	20'	22.6 lbs.	7.9 cu. ft.
40"	20'	23.7 lbs.	8.7 cu. ft.
42"	20'	24.8 lbs.	9.6 cu. ft.
44"	20'	25.8 lbs.	10.6 cu. ft.
46"	20'	26.8 lbs.	11.5 cu. ft.
48"	20'	27.9 lbs.	12.6 cu. ft.



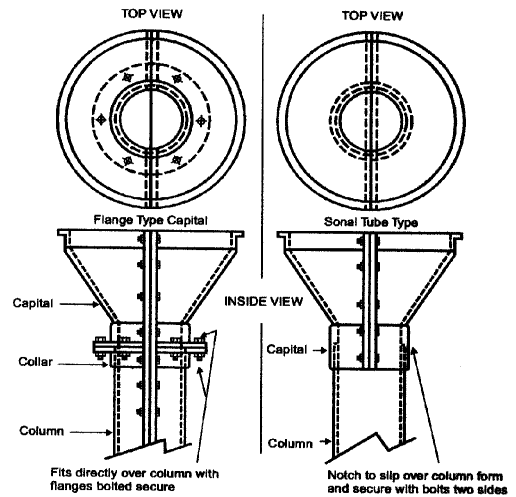
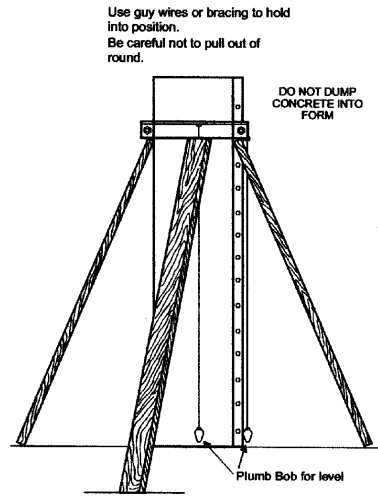
Division 3

MAXIMUM LATERAL PRESSURE FOR MFG ROUND COLUMN FORMS:
It is recommended that maximum lateral pressure should not exceed 2,250 psf.

MAXIMUM RATE OF POUR:
Based on Table 5-5, page 5-13, *Formwork For Concrete* Fifth edition, Maximum Rate Of Pour would be:

At 90°F:	20 feet per hour
At 80°F:	18 feet per hour
At 70°F:	16 feet per hour
At 60°F:	14 feet per hour
At 50°F:	11 feet per hour
At 40°F:	9 feet per hour

Applies only for normal weight concrete made with Type 1 cement, no admixtures or pozzolans, slump no more than 4 inches, and vibration depth limited to 4 feet or less.



Concrete Forming



Heavy-Duty Steel Column Form

Deslauriers heavy-duty steel column forms develop an exceptionally smooth, hard surface remarkably free of voids and with a minimum number of indistinct seams.

- All standard column diameters from 14" to 60".
- Standard column lengths are 8' 0", 4' 0", 2' 0" and 1' 0".
- You can eliminate form inventory and keep working capital available by leasing Deslauriers heavy-duty forms when needed.
- FORM DESIGN 3000 PSF ON FORMS THROUGH 36" DIAMETER OR 2000 PSF ON FORMS OVER 36" DIAMETER.

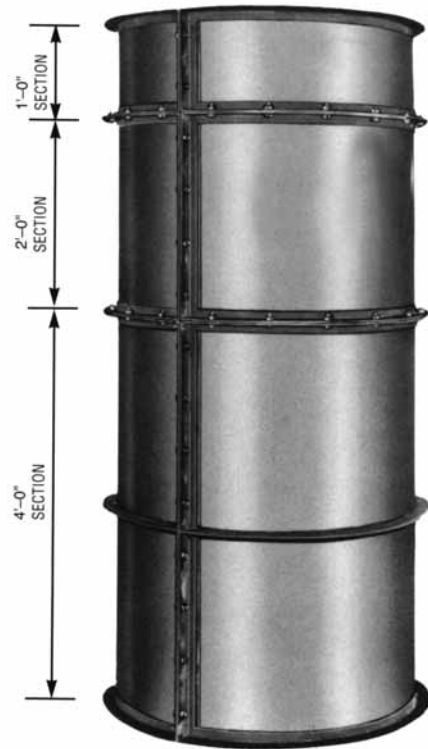
Forms are galvanized constant radius steel half round sections and quarter round sections (for forms over 48" in diameter) bolted into units for crane handling on the jobsite. Each component is framed with flange angles die-cut and punched for accurate flush butt joints without protrusion on the contact surface. Vertical and horizontal seams, opened and closed with each pour, are connected with high-speed bolts to speed setting and stripping. Curing time permitting, one column per form can be produced each working day.

Division
3

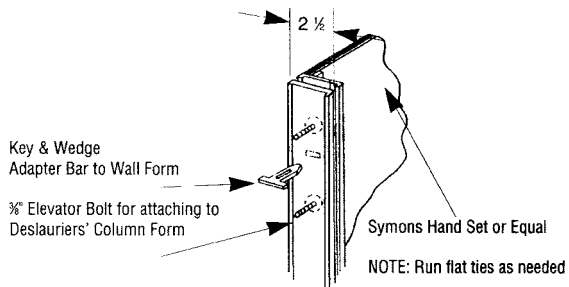
**LATERAL PRESSURE SHOULD NOT EXCEED 3000 PSF
ON FORMS THROUGH 36" DIAMETER OR 2000 PSF
ON FORMS OVER 36" DIAMETER**

Maximum rate of pour is based on ACI SP-4 4th edition.

Temperature °F	Ft. Per Hour	
	F2000PSF	F3000PSF
40	8	13
50	10	16
60	12	20
70	14	24
80	16	26
90	18	30



Deslauriers' Adapter Bar



Concrete Forming



UNI-PLY

Quick Assembly · Lightweight · Easy to Maintain and Reuse

1000 PSF SYSTEM

Exact corner joints eliminate tolerance build-up over large areas.

Available in 100/30 or 120/120 1/2" plywood is riveted to the angle struts. Plywood tolerance is closely maintained to assure long form life. With our premium birch plywood, contractors can expect up to 200 reuses before plywood replacement.

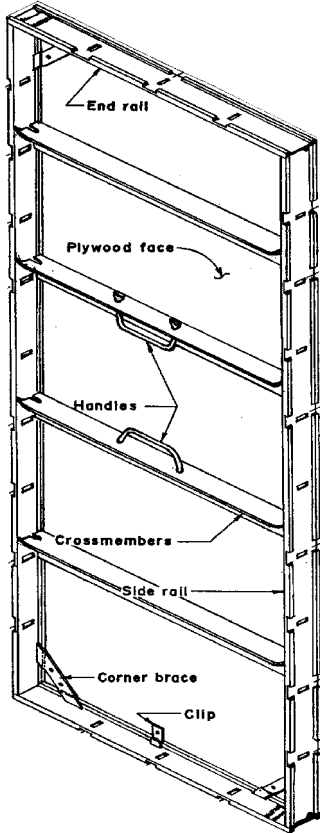
Side and end rails are rolled from 55,000 PSI steel and welded continuously at corners for maximum strength.

Angle struts are spaced on 12" centers to provide strength, uniform concrete and minimize deflection.

Handles are provided on panels for easy handling in setting and stripping forms.

2" wide angle strut provides greatest frame and plywood strength on the market.

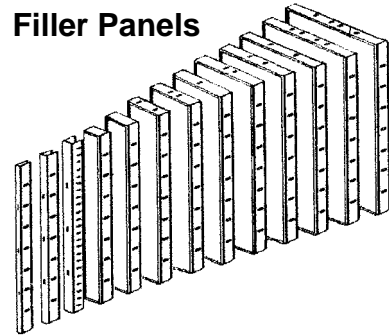
Dado slots on face of form allow tie spacing at 12" on center. Rear-side and end-rail dados are located at 6" on center to allow optimum accessory location. Front and rear-side rail contact points prevent grout seepage and permit true form alignment with adjacent panels.



BASIC PANEL AND FILLER SIZES:

- Panels: 24" W x 3', 4', 5', 6', 8', 9' or 10' H
- Filters 4" to 22" W x 3', 4', 5', 6', 8', 9' or 10' H
- Metal Fillers: 1", 1.5" & 2" W x 3', 4', 5', 6', 8', 9' or 10' H
- Inside Corner (metal): 6" x 6" & 4" x 4" x 3', 4', 5', 6', 8', 9' or 10' H
- Outside Corner: 3', 4', 5', 6', 8', 9' or 10' H
- Filler Angles: 3', 4', 5', 6', 8', 9' or 10' H
- Pilaster Panels: 3', 4', 5', 6', 8', 9' or 10' H
- Culvert Forms: 3', 4', 5', 6', 8', 9' or 10' H
- Inside & Outside Bay Corners: 3', 4', 5', 6', 8', 9' or 10' H
- Hinge Corners: 3', 4', 5', 6', 8', 9' or 10' H

Filler Panels

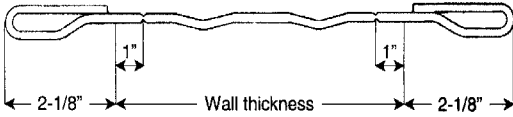


Concrete Forming

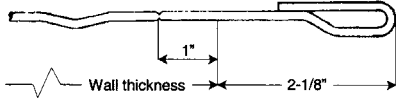


UNI-PLY

LOOP TIE – STANDARD & HEAVY DUTY

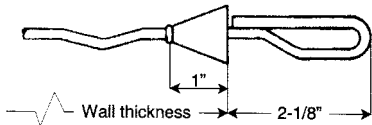


GANG LOOP TIE – STD. & HEAVY DUTY



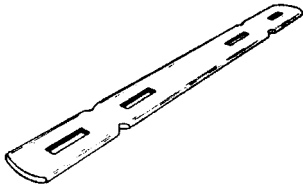
Capacity	Wire Size	SWL (lbs.)
STD.	.225	2550
HD	.243	3000

Safety Factor 2:1



Also available with 1" x 1" plastic cone

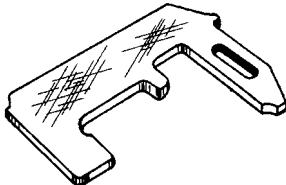
"X" FLAT TIES



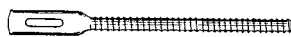
Capacity	SWL (lbs.)
STD.	3000
HD	3375

Safety Factor 2:1

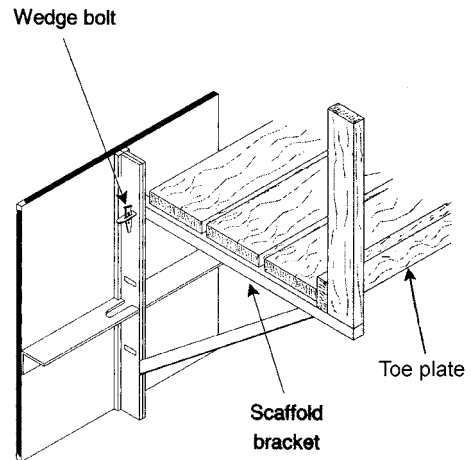
GANG FORM BOLT



PLY-LAG

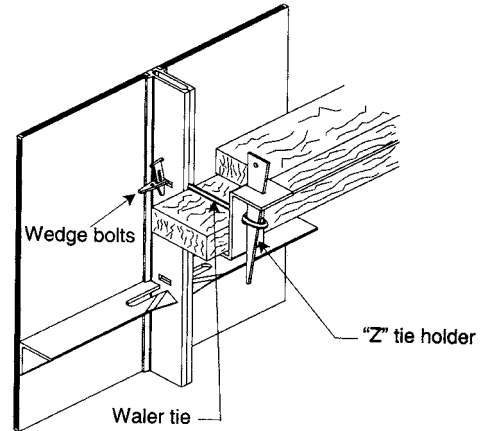


SCAFFOLD BRACKETS

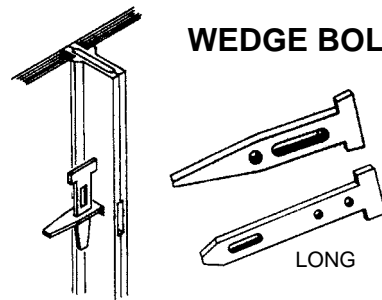


This Scaffold bracket is designed for worker access only and has a rating of 500 lbs. The maximum spacing is 8 ft. on center.

"Z" TIE HOLDER



WEDGE BOLTS



WALER TIE



Division 3

Concrete Forming



Supertie Fiberglass formtie systems

Fiberglass Formtie Systems Light (6000 lbs.) and Medium (15,000 lbs.) Systems

**Saves Labor! Cuts Cost in a Snap!
Provides Superior Finishes!**



Rod, Gripper and Wedge – The basic components of the Light (6000 lbs.) and Medium (15,000 lbs.) SuperTie Systems.

Setup

1. Cut fiberglass rod to length required, using abrasive blade in a circular saw. Length of rod is width of structure (a) plus width of forms (b + b₂) plus 16 inches (c₁ + c₂). Use 18" for Medium system.

The SuperTie Fiberglass Formtie Systems are used to secure concrete formwork during concrete placement and initial hydrations with a formtie system which would not have the inherent limitations of previously popular steel formtie systems. The SuperTie Systems eliminate the possibility of rust stains and deterioration of the structure that is often caused by failure of patching for steel formtie holes.

The SuperTie Systems are appropriate for use in all forming applications, but are especially beneficial in situations such as architectural finishes, since an aesthetically pleasing finish is attained with tremendously reduced labor expenditures. It also reduces costs in battered wall and "odd sized" tie situations, since the rod is cut to the length required at the job site.

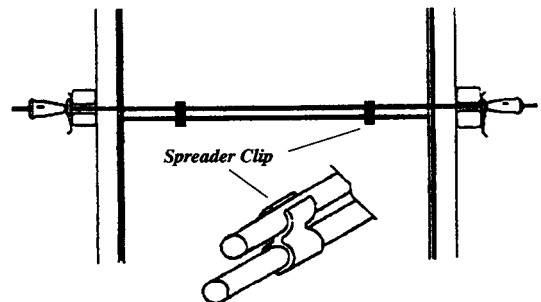
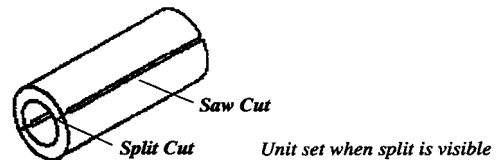
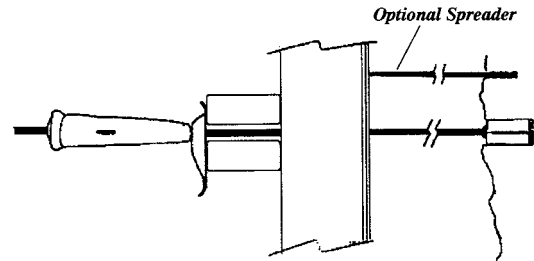
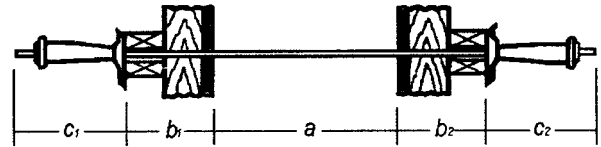


Table 1 – Typical Spacing/Placement Rates

Tie Spacing Data			Rate of Placement at Concrete Temp.			Form Pressure	Actual Load On Tie
Horiz.	Vert.	Area	40°	60°	80°	lbs./sq.ft.	Lbs.
Light – 6,000 Lbs. Ultimate Tensile Strength System							
16"	16"	1.78ft. ²	6'9"	10'	10'	1685	3000
24"	12"	2.00ft. ²	6'	10'	10'	1500	3000
24"	16"	2.67ft. ²	4'4"	6'6"	10'	1123	3000
24"	24"	4.00ft. ²	2'8"	4'	6'4"	750	3000
Medium – 15,000 Lbs. Ultimate Tensile Strength System							
30"	24"	5.00ft. ²	6'	10'	10'	1500	7500
30"	30"	6.25ft. ²	4'8"	7'	10'	1200	7500
30"	36"	7.50ft. ²	3'9"	5'8"	9'	1000	7500
30"	36"	9.00ft. ²	3'	4'6"	6'	833	7500

Note: It is the responsibility of the contractor to control concrete mix design and concrete placement to assure that the maximum allowable form and form tie design loads are not exceeded.

SuperTie has an ultimate tensile strength of 6000 lbs.; the ACI's recommended 2:1 safety factor advises safe working load of 3000 lbs. SuperTie XV has an ultimate tensile strength of 15,000 pounds, swl is 750 lbs. at 2:1.

Division 3

Concrete Forming

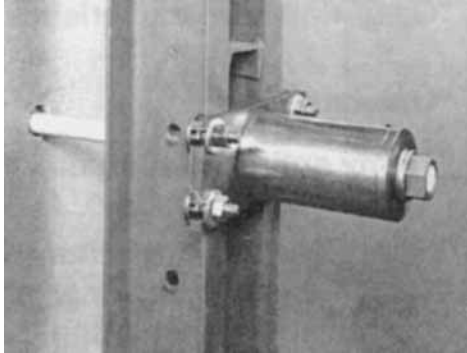


RJD Industries, Inc.

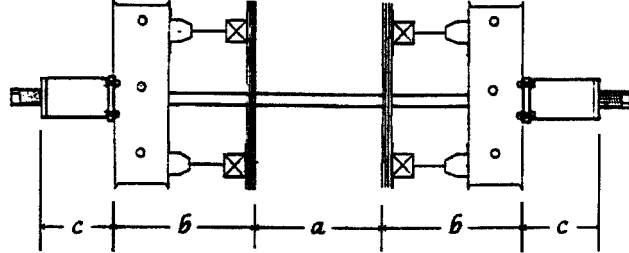
SuperTie

Fiberglass formtie systems

Fiberglass Formtie Systems Heavy (50,000 lbs.) Systems

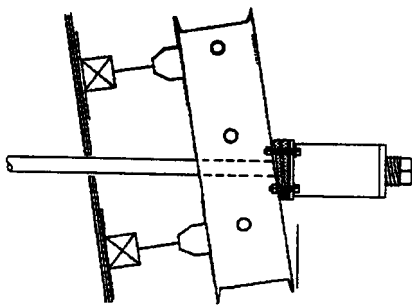


Supertie 50K, a 50,000 lbs (ultimate tensile strength) system, mounted on commercially available form.

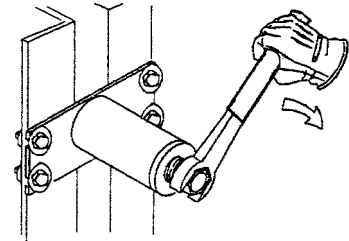
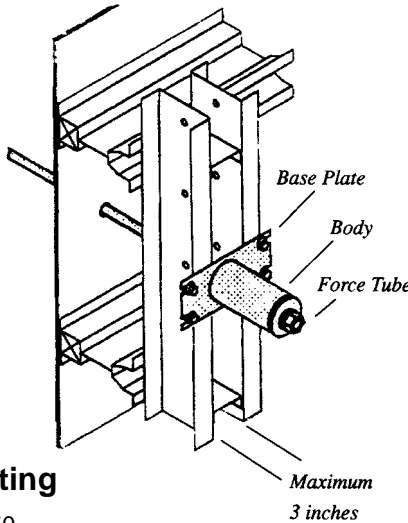


Length of rod equals width of structure (a), plus width of forms (b), plus 12" for the Grippers (c). Add an additional 6 inches to one side if JD50K Jacking Device is to be used.

Division 3



Mounting of Gripper on battered wall form (with Grippers mounted horizontal). Use one shim for each 3° of batter.



Turn clockwise to engage locking mechanism using a "cheater bar" to apply 125 to 200 ft. lbs. of force to the Force Tube ("good and snug").

Note: The Base Plate must be securely attached to the formwork. As concrete is placed, the Force Tubes will become loose. Do not re-tighten.

4.5 – Synopsis of Certified Testing

Meets requirements of ACI 303, 347 and 350.

4.5.1 – Tensile, Shear and Elongation

Testing Agency – Smith-Emery Company, Los Angeles, California

Testing Agency – Twining Laboratories, Long Beach, California

Testing Criteria – ACI 347, Formwork for Concrete

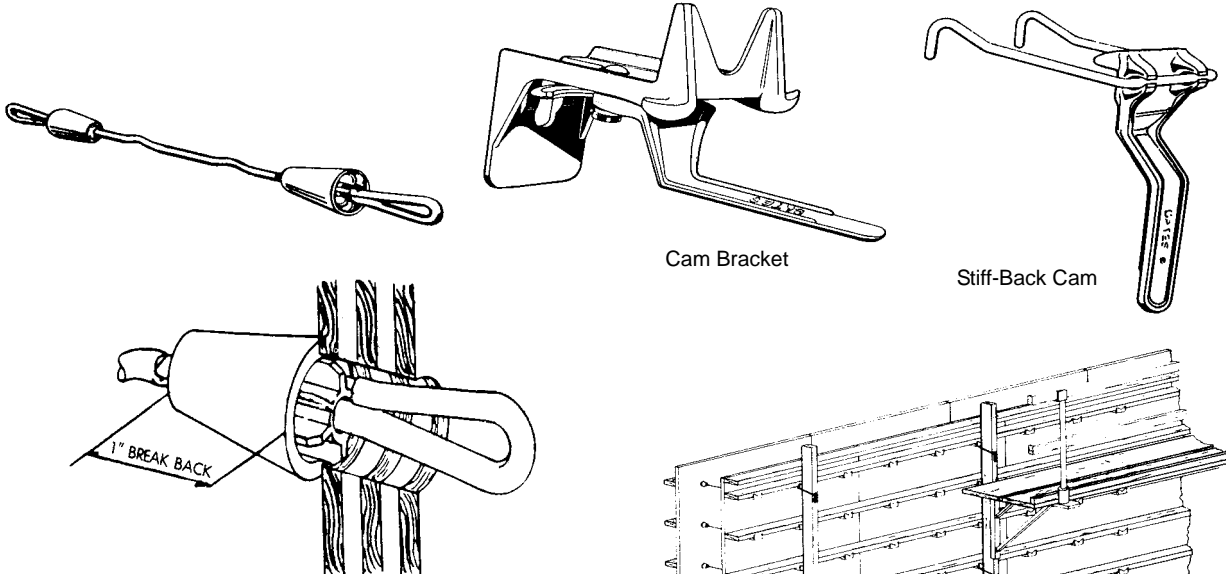
Test Stand – Insitu tensile testing of the SuperTie 6000 lbs. ultimate strength system was performed utilizing a standard configuration wood form system consisting of 3/4" sheathing with 2" x 4" strongbacks and wales, and SuperTie Grippers and Wedges. The SuperTie 15,000 and 50,000 lbs. ultimate strength systems were tested utilizing steel plates and SuperTie XV and SuperTie 50K Grippers. Both systems were loaded axially utilizing a calibrated universal testing machine. Shear testing was performed utilizing a fixture to develop single shear.

Rod Dia. In.	Average Load Lbs.	Test Results			
		Elongation %	Failure Mode	Average Load Lbs.	Failure Mode
.308	7053	0.06	Tensile	3720	Shear
.500	15,590	0.09	Tensile	6700	Shear
1.0	53,193	0.08	Tensile	28,700	Shear

Concrete Forming

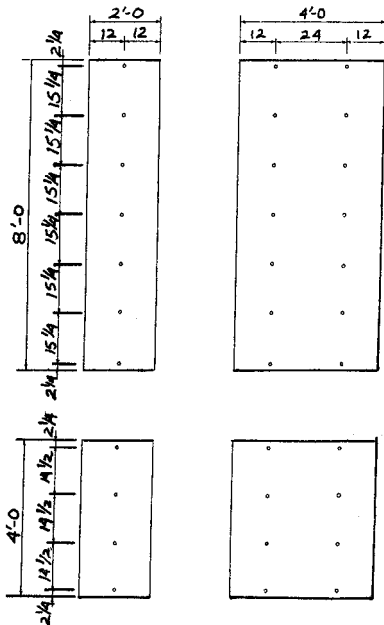
Gates Cam-Lock Forming System

Division 3



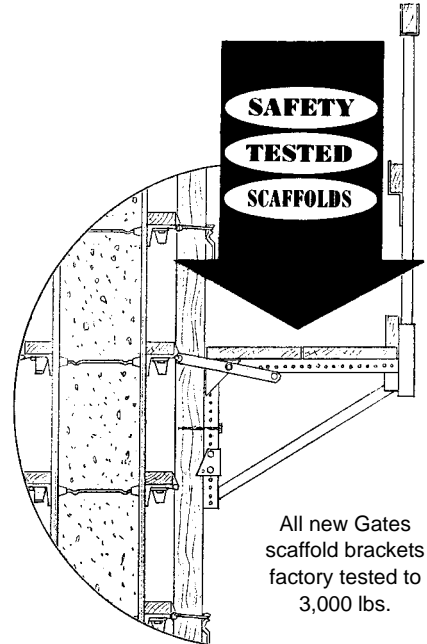
1" dia. cushion cone.
1" break back, self-centering tapered cone for 13/16" hole.

PANEL TIE SPACING



Drill 13/16" Tie Holes.

Uses flexible, inexpensive forming materials.
S4S - 2" x 4"s with 4' x 8' x 3/4" plywood sheets.



All new Gates scaffold brackets factory tested to 3,000 lbs.

TOLL FREE 800-892-7224
800-821-7735

GA construction anchors, inc.

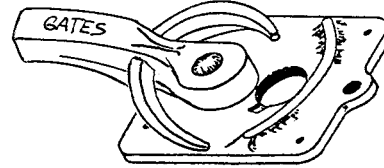
LOCAL 816-525-3640
FAX 816-525-4533

Gates

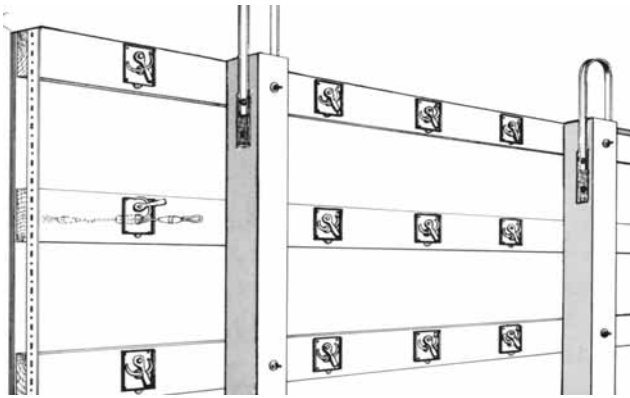
Anchor-Lock Forming System

Advantages of Gang Forming

- Lower Construction Costs
- No Loose Hardware
- Gang Form Both Sides
- Pass-Thru Form Ties

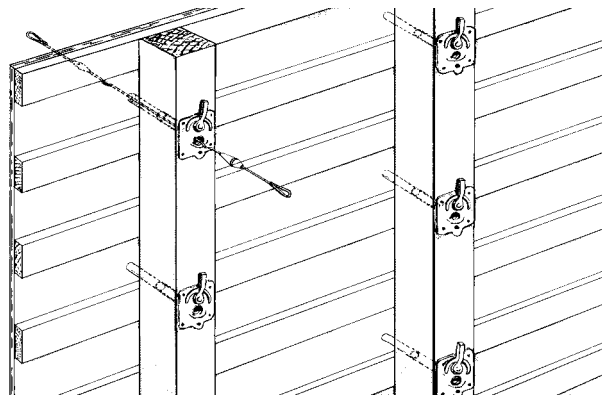


#3 Forming System

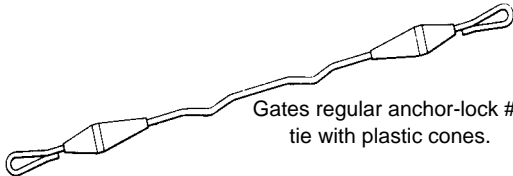


The Gates regular anchor-lock #3 system uses 3/4" plywood with 2 x 6 flat walers on 16" centers, crossed by 4 x 4 stiffbacks on 4'-0" to 8'-0" centers depending on height of gang form. Gates anchor-locks are spaced 24" along the 2 x 6 walers making a tie spacing of 24" x 16" (2-2/3 sq. ft. per tie).

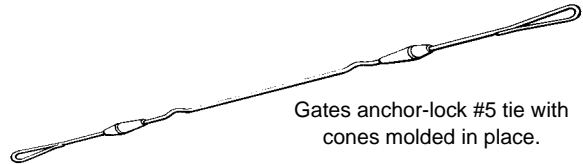
#5 Forming System



The Gates anchor-lock #5 system uses 3/4" plywood with the 2 x 6 flat walers on 12" centers, crossed by 4 x 4s on 24" centers to minimize the unsupported plywood span. Gates anchor-locks are spaced 24" x 24" (4 sq. ft. per tie.)



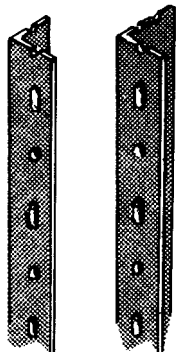
Gates regular anchor-lock #3 tie with plastic cones.



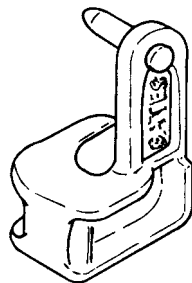
Gates anchor-lock #5 tie with cones molded in place.

2" x 3" and 2" x 2" x 3/16" angles are bolted with flat-head bolts at each end of the gang form. The angles are then locked together with U-clamps for vertical alignment of the two gang forms.

Gates Pick-Up Loops must always be used with Extension straps (A) and secured with three bolts (B,C,D) as shown at right.



2" x 2" Angles 2" x 3" Angles



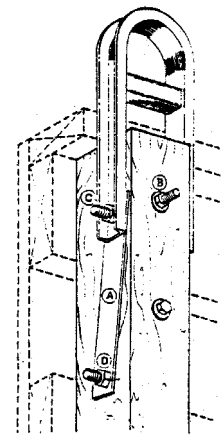
U-Clamp

Designed working load not to exceed 2,000 lbs., with a three-to-one safety factor.



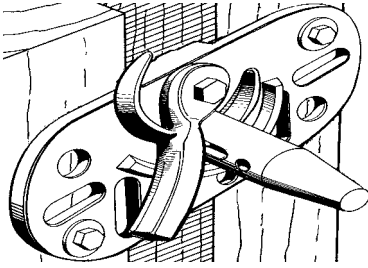
Flat Head Bolts

5/16" x 3" 3/8" x 6-1/2"
3/8" x 5-1/2" 3/8" x 8-1/2"



Division 3

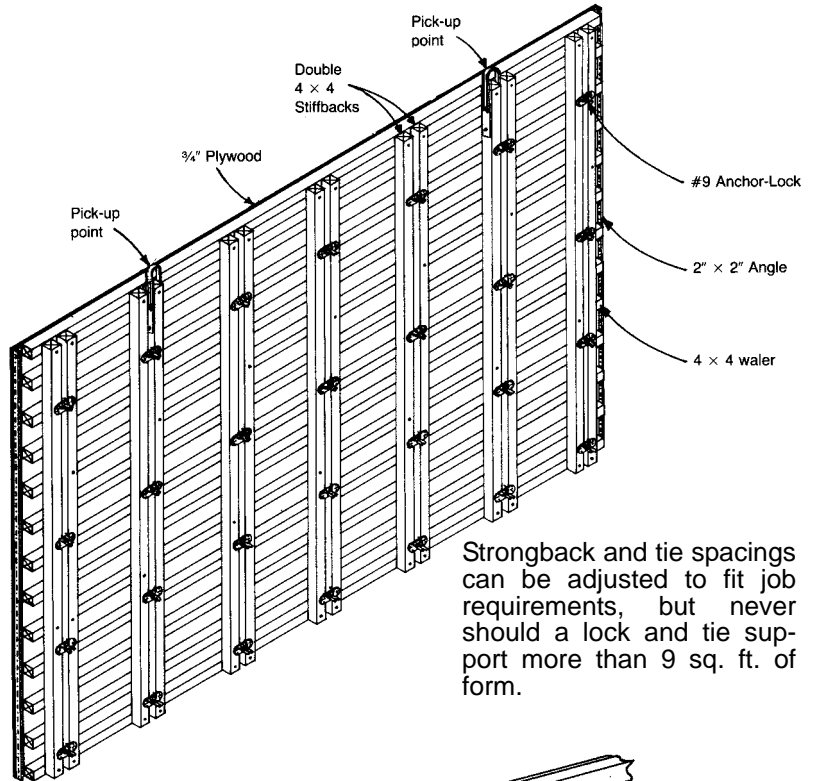
Gates #9 Anchor-Lock Gang Forming



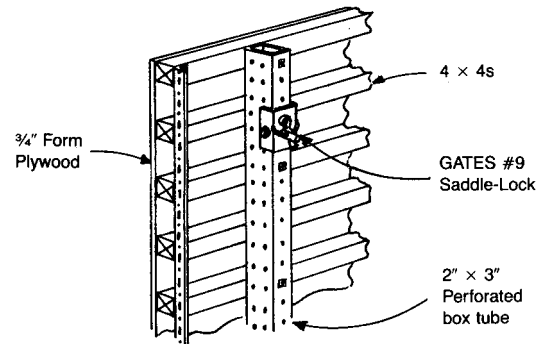
The standard Gates #9 Anchor-Lock Gang Form is made up of four main parts:

1. 4 x 8 x 3/4" BB grade or plastic-faced plywood panels
2. Horizontal 4 x 4 walers on 12" centers
3. Double 4 x 4 strongbacks 1 ft. from each end and then on approximately 3-ft. centers
4. Gates' heavy-duty #9 Anchor-Lock hardware.

By spacing the Anchor-Locks 3-ft. along the vertical strongbacks, a tie pattern of approximately 3 ft. x 3 ft. is obtained. Multiple holes in the face of the Anchor-Lock plate allow for easy lock alignment over the tie holes with lag screws.



Strongback and tie spacings can be adjusted to fit job requirements, but never should a lock and tie support more than 9 sq. ft. of form.



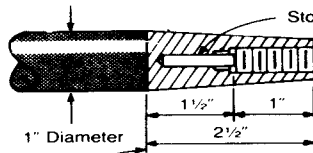
Tie Combinations



One-piece taper tie with slotted ends to be withdrawn for repeated use. Additional slot for two wall sizes.



'A' Ends



Face of concrete

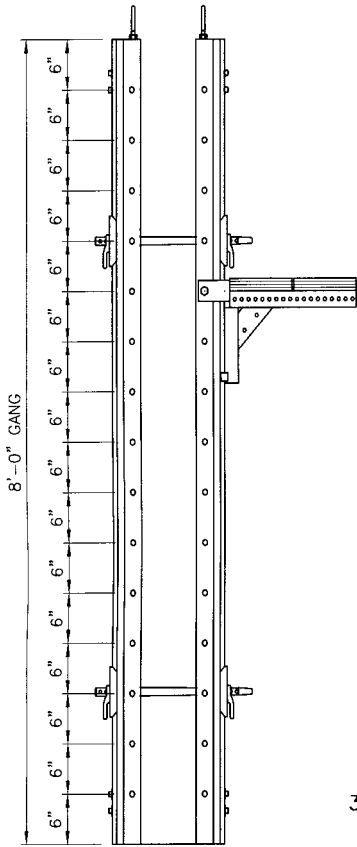
Stop Pin
Tie ends provide 1 1/2" setback of inner tie from face of concrete wall.



1/2" Inner tie, 1" of thread, each end. Flat anchor near center.

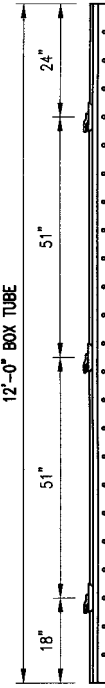
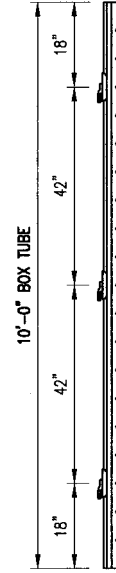
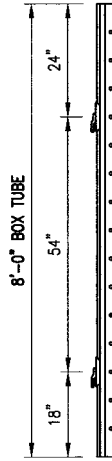
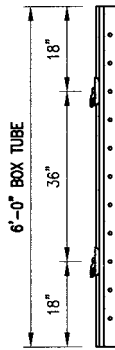
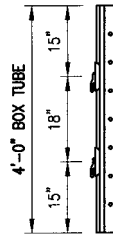
#9 Saddle-Lock & Perforated Box Tube

Gates Steel Frame Gang Form Adapter

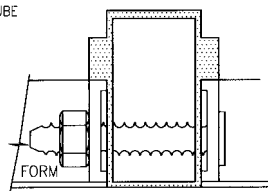
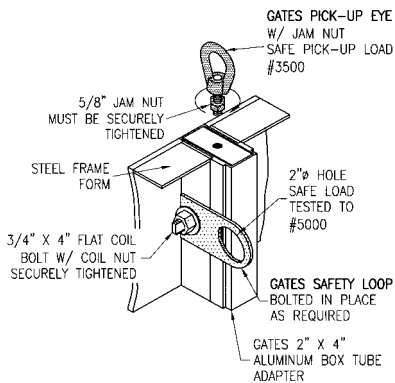


2 Locks on 8'-0" Tubes

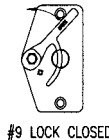
Now you can gang form your steel frame panels just as they are with Gates box-tube adapter, with all locks attached.



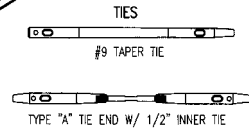
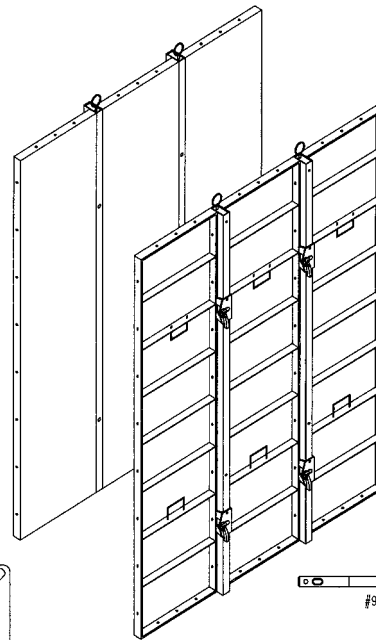
GATES COIL THREADED
3/4" X 4" FLAT CONNECTING
BOLT 1/4" THICK



FOR REPEATED USE WE SUGGEST
3/4" X 4" FLAT COIL BOLTS.



#9 LOCK CLOSED

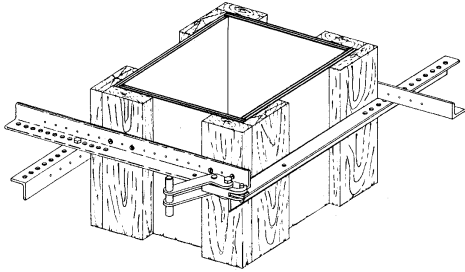


Isometric of strong-back and steel frame form

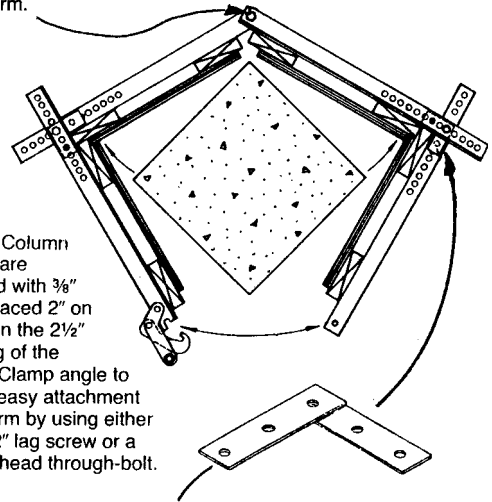
Division 3

Gates Lok-Fast Column Clamp

- Can be job-built
- Gang formed
- Minimum labor costs
- Designed for rapid placement of concrete
- Rapid locking action
- No loose pieces

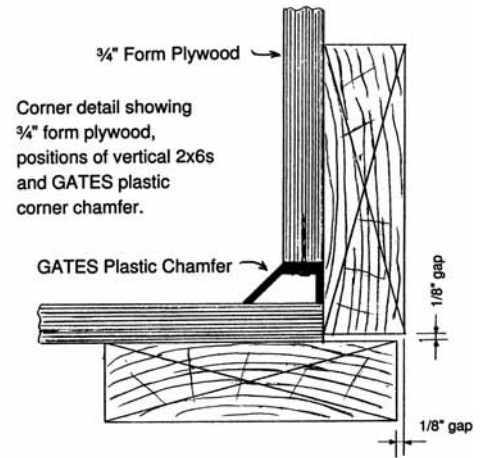
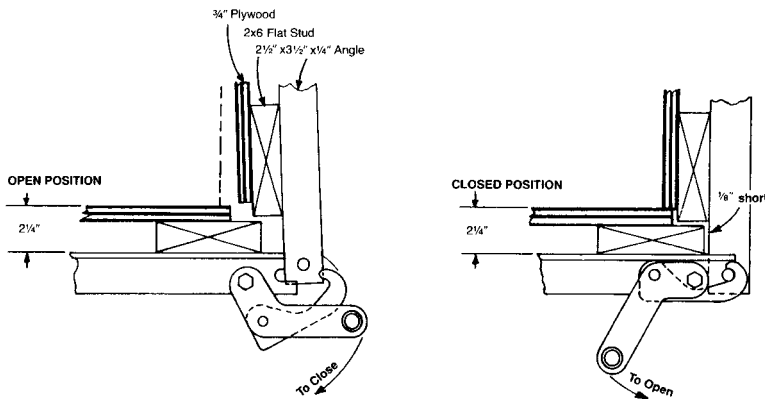
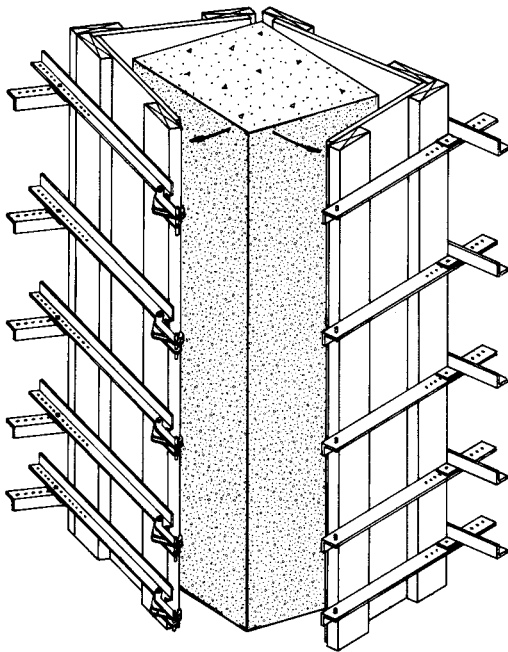


The diagonal corner, from the locking corner, acts as the hinge point for easy opening and resetting of the GATES Lok-Fast Column Form.



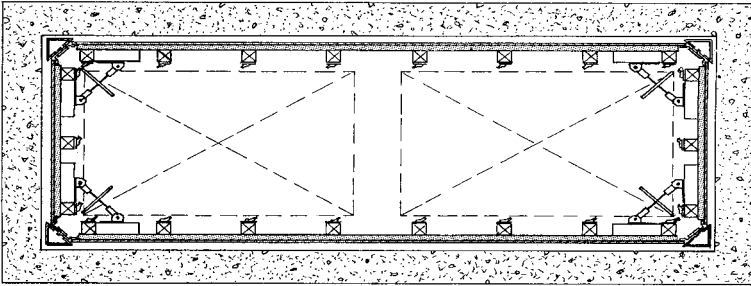
GATES Column Clamps are designed with $\frac{3}{8}$ " holes spaced 2" on centers in the $2\frac{1}{2}$ " down leg of the Column Clamp angle to provide easy attachment to the form by using either a $\frac{5}{16}$ " x 2" lag screw or a $\frac{5}{16}$ " flat-head through-bolt.

Squaring corners may be installed in opposite corners of the Column Clamp to help stabilize the Column Form while setting and stripping. *Do Not* depend on the GATES squaring corner to completely square the Column Form. Check and brace the Column Form, after setting making sure it is plumb and square.



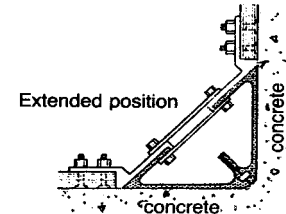
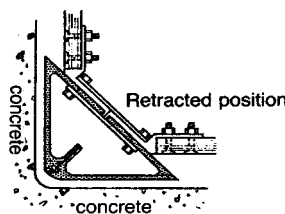
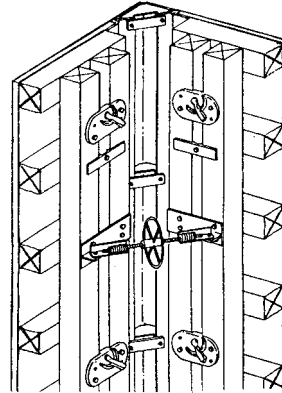
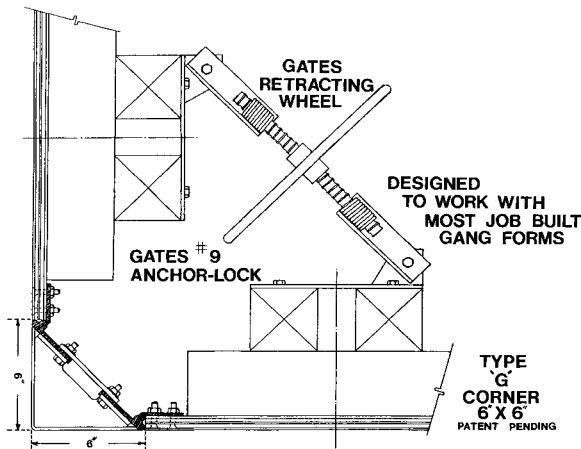
Division 3

Gates Retractable Inside Corner

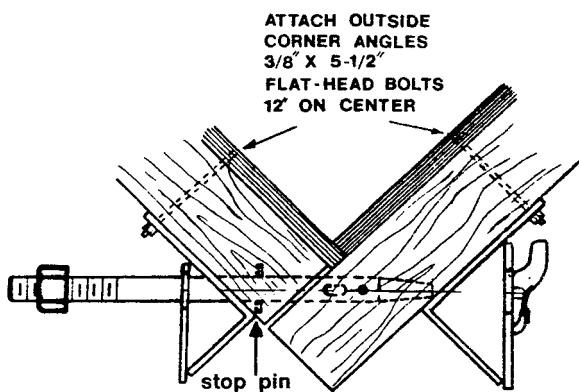


Gates Retractable Aluminum I.S. Corner

For elevator or stair gang form use, provides 5/8" clearance on each side at all four corners. To retract, loosen all bolts on vertical cross bars spaced on 24" centers using a speed wrench. Rotate turnbuckles in unison, drawing forms away from concrete walls. Lift gang forms and reset.

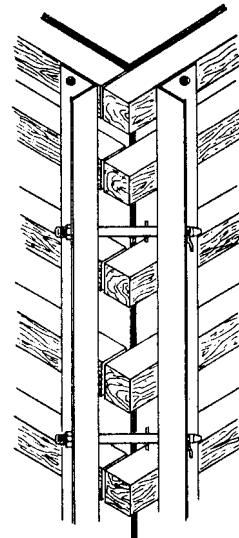


NEW – Pin'N Lock Outside Corner



You can have leakproof corners using Gates adjustable Pin'N Lock heavy duty, outside steel corners with no loose parts.

- Tight Outside Corners
- No Loose Parts
- Adjustable Locking Pin
- Fast, Easy to Use

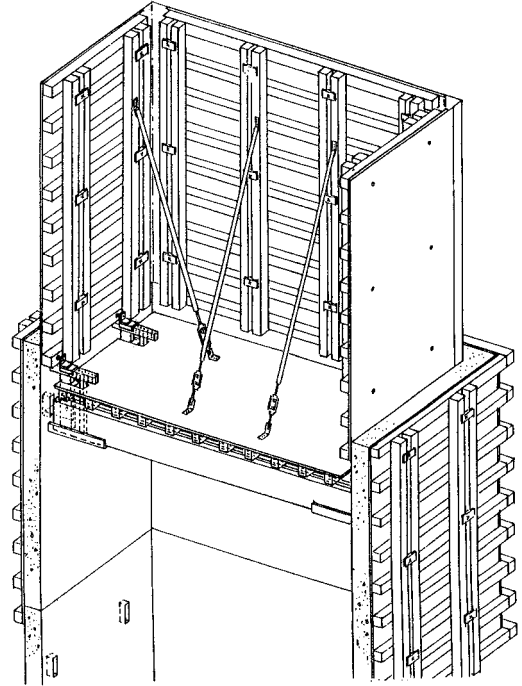
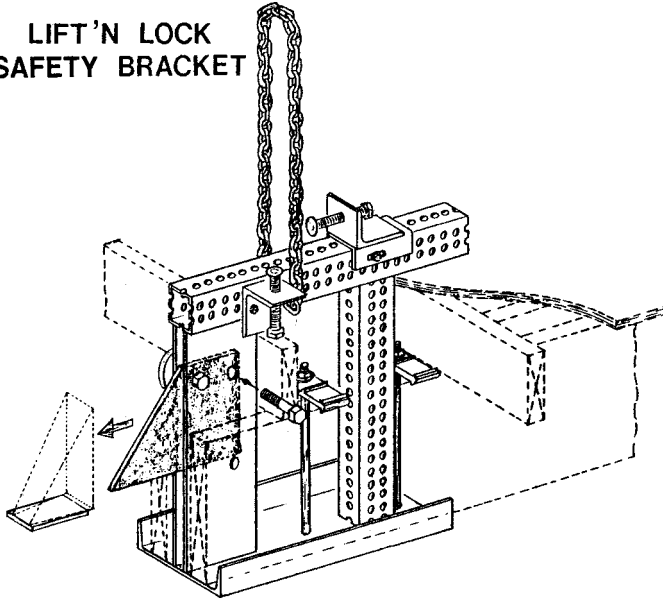


Division 3

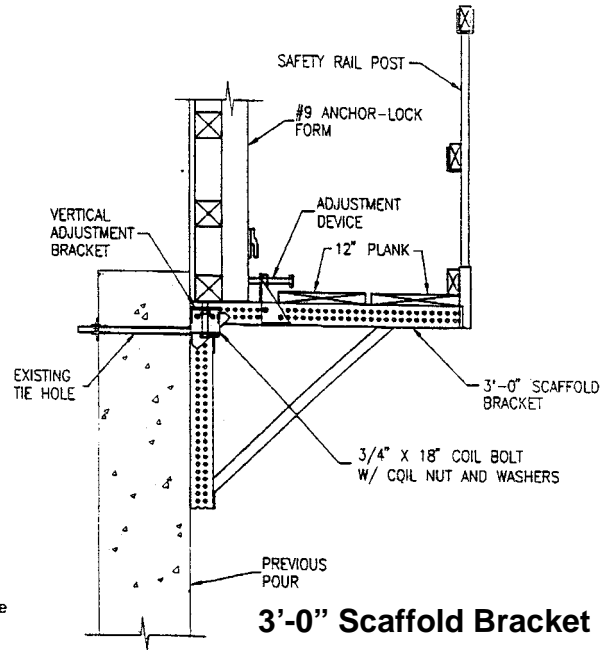
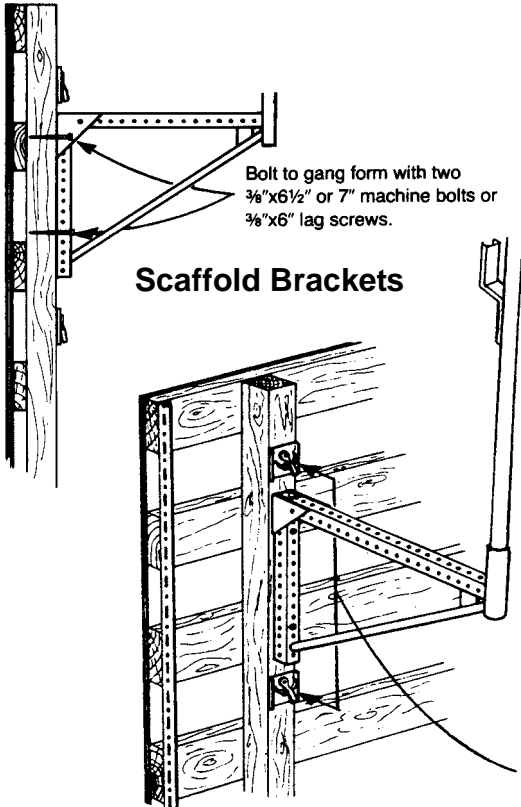
Gates

Lift'N Lock Safety Platform

LIFT'N LOCK
SAFETY BRACKET

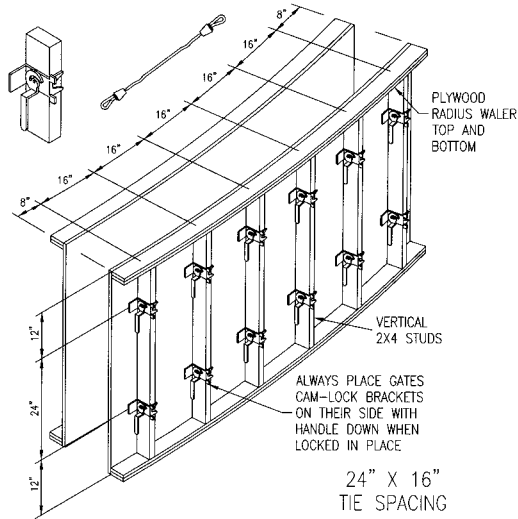


Division 3



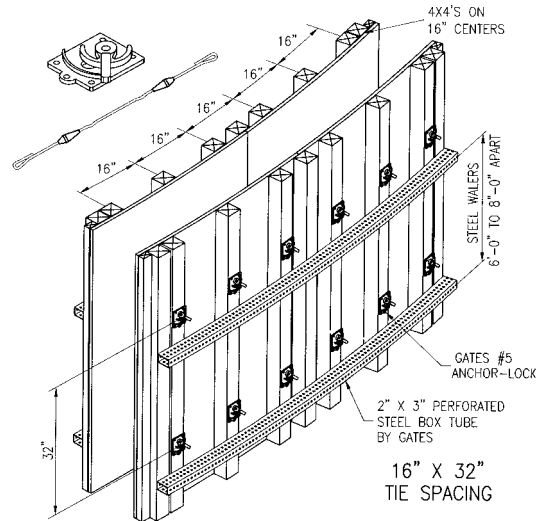
Concrete Forming

Gates

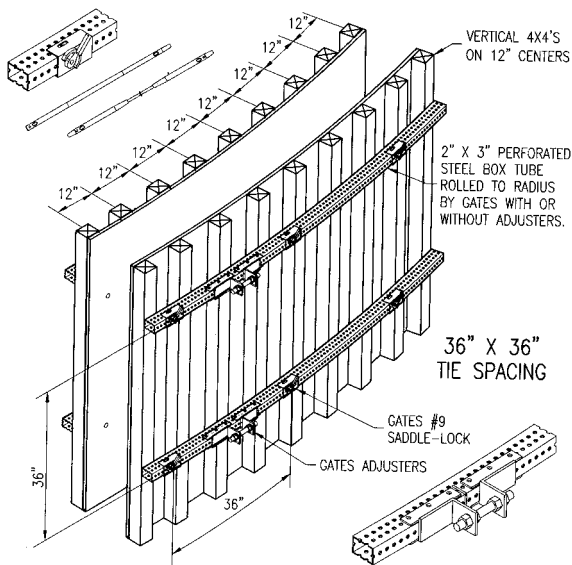


Suggested Cam-Lock Radius Forming Details

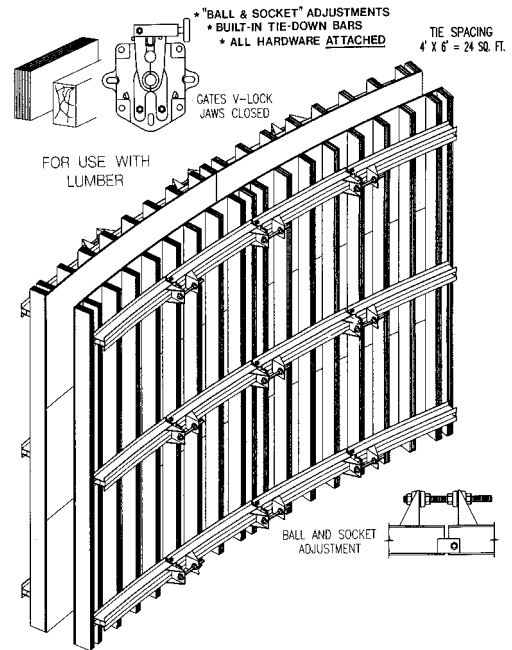
Radius Wall Forming



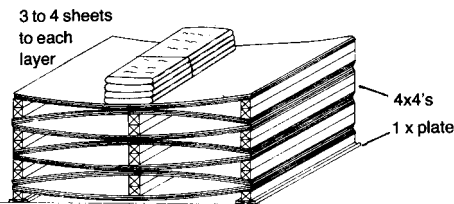
Suggested #5 Anchor-Lock Forming Details



Suggested #9 Anchor-Lock Forming Details



Educated Radius Walers



Prebending Plywood Panels

Plywood Bending		
20'-0" Dim.	3 Pieces	1/4"
30'-0" Dim.	2 Pieces	3/8"
40'-0" Dim.	2 Pieces	3/8"
50'-0" Dim.	1 Piece	5/8"
60'-0" Dim.	1 Piece	3/4"

And Larger

Division 3

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13900 E. 350 Highway
Kansas City, MO 64138

Concrete Forming

Basic Pressure Formulas

Wall Pours

CONCRETE PRESSURE GENERAL NOMENCLATURE

P = Lateral Pressure (PSF)

R = Rate of Placement
(feet per hour)

T = Ambient Temperature,
unless controlled (degrees F).
See note 2.

h = Height of Fresh Concrete
above specified point of interest
(feet).

General Formula:

$$P = 150 \frac{9,000R}{T}$$

(Maximum "P" value 2,000 PSF, minimum 600 PSF, in no case greater than 150h). See note 2.

Modified Formula:

$$P = 150 + \frac{43,400}{T} + \frac{2,800R}{T}$$

(Maximum "P" value 2,000 PSF, minimum 600 PSF, in no case greater than 150h). See note 2.

Notes:

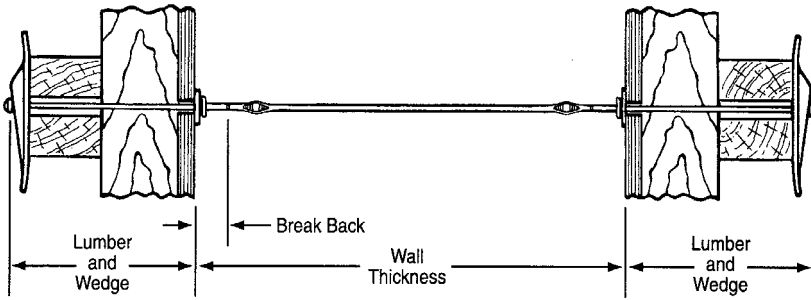
1. The background and reference for these equations and restrictions may be found in "Recommended Practice for Concrete Formwork", American Concrete Institute (ACI), Standard 347R-88.

2. The 150 used in the formulas is pounds per cubic foot, the recognized concrete weight for formwork design.

3. All uncontrolled placements faster than 7'-0" per hour and controlled wall pours exceeding 10'-0" per hour with 4'-0" or less layered placements should be analyzed per full liquid head, 150h.

Division 3

Snap Ties

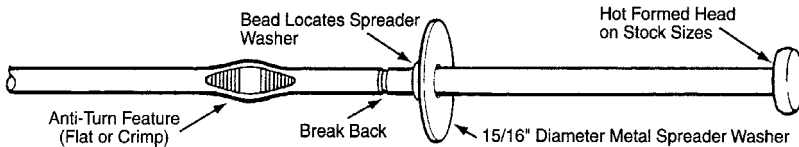


Standard Snap Tie

2,250 Lbs.
Safe Working Load

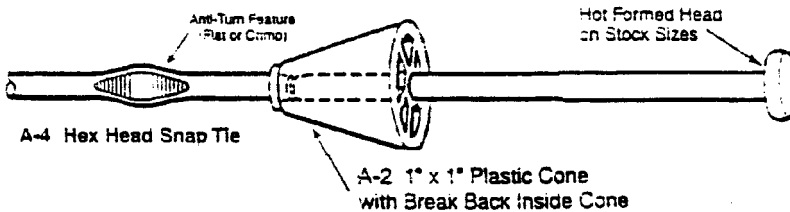
Heavy Snap Tie

3,350 Lbs.
Safe Working Load



Washer Type

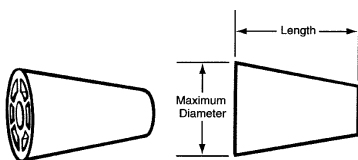
Standard End Dimensions
4-3/4" Short Ends
8-1/4" Long Ends



Cone Type

Special End Dimensions
Available.

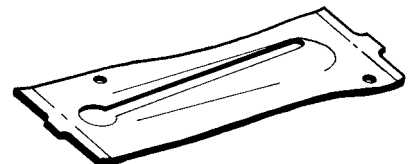
Plastic Cones



A-2 Plastic Cone Selection Chart

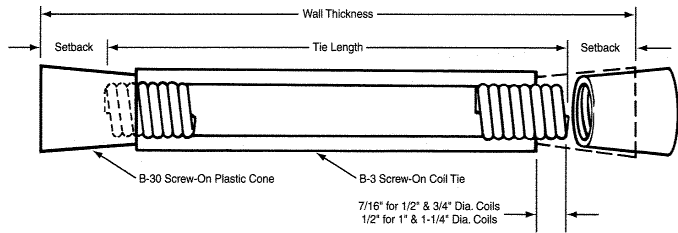
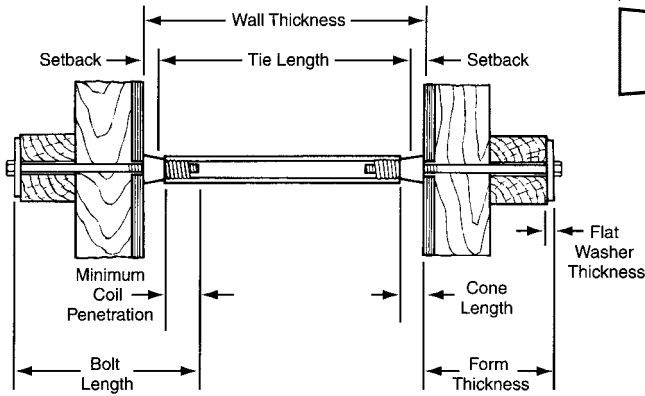
Diameter	Length
3/4"	1", 1-1/2"
1"	1", 1-1/2"
1-1/4"	1-1/2", 2"

Omni Wedge



Concrete Forming

Coil Ties

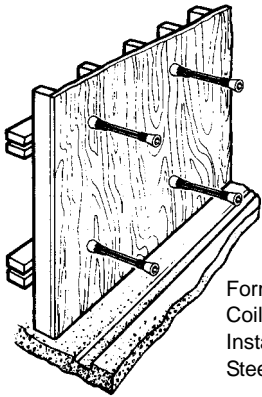


B-3 Screw-On Coil Tie

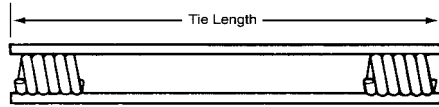
B-3 Screw-On Coil Tie Selection Chart

Type	Bolt Diameter	Number of Working Struts	Safe Working Load Tension Lbs.
B-3 Standard	1/2"	2	4,500
B-3 Heavy	1/2"	2	6,750
B-3 Standard	3/4"	2	6,750
B-3 Heavy	3/4"	2	9,000
B-3 Standard	1"	2	13,500
B-3 Standard	1"	4	18,000
B-3 Standard	1-1/4"	4	27,000

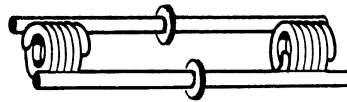
SWL provides a factor of safety of approximately 2 to 1.



Form Panel Showing B-3 Coil Ties in Place Prior to Installation of Reinforcing Steel and Closure Form

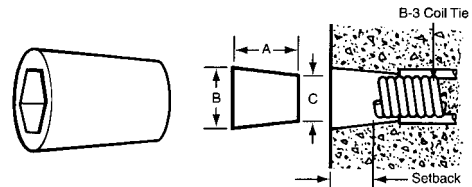


B-1 Two Strut Coil Tie



B-4 Water Seal Coil Tie

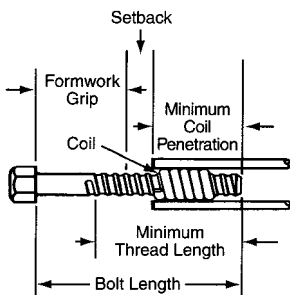
B-30 Screw-On Plastic Cones



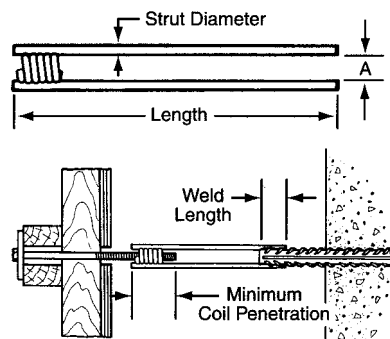
B-30 Screw-On Selection Chart

Bolt Dia.	Setback	A	B	C
1/2"	1"	1-3/8"	1-1/4"	1"
1/2"	1-1/2"	1-7/8"	1-1/4"	1"
1/2"	2"	2-3/8"	1-1/4"	1"
3/4"	1"	1-1/2"	1-5/8"	1-7/16"
3/4"	2"	2-1/2"	1-3/4"	1-7/16"
1"	2"	2-1/2"	2-1/8"	1-13/16"
1-1/4"	2"	2-1/2"	2-3/8"	2-1/8"

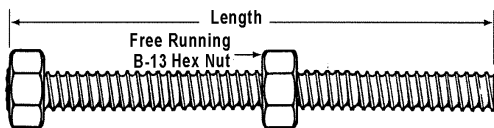
B-14 Coil Bolts



B-6 Welding Coil Tie

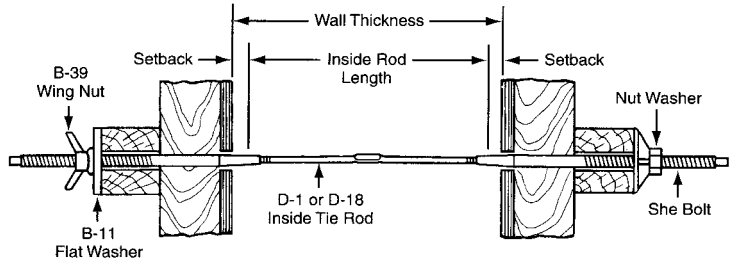
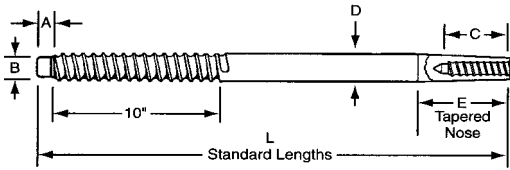


B-14-A Adjustable Coil Bolts



Concrete Forming

D-2 and D-30 She-Bolts



D-2 and D-3 She-Bolt Selection Chart

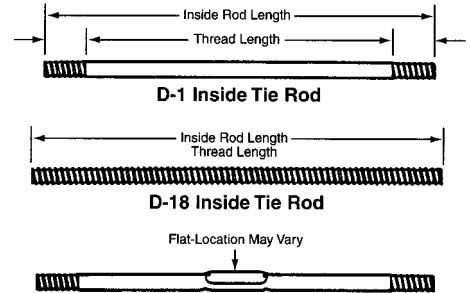
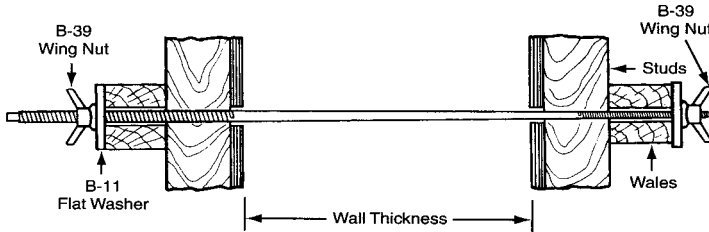
Type	Safe Working Load Tension Lbs.	She-Bolt External Thread		Inside Tie Rod Thread		Dimensions						External Hardware Required
		Dia.	Type	Dia.	Type	A	B	C	D	E	L	
D-2	9,000	3/4"	Acme	1/2"	NC	5/8"	1/2"	1-1/4"	3/4"	3"	20"	3/4" Dia. D-6
D-30	9,000	7/8"	Coil	1/2"	Coil	1"	1/2"	1-1/2"	7/8"	2-3/4"	18", 20", 24"	7/8" Dia. B-27 or B-39
D-30	12,000	7/8"	Coil	5/8"	Coil	1"	1/2"	1-1/2"	7/8"	2-3/4"	18", 20", 24"	7/8" Dia. B-39
D-30	18,000	1-1/4"	Coil	3/4"	Coil	1"	3/4"	2"	1-1/4"	4"	20", 24", 30", 35"	1-1/4" Dia. B-39
D-30	37,500	1-1/2"	Coil	1"	Coil	1"	3/4"	2"	1-1/2"	4"	20", 24", 30", 35"	1-1/2" Dia. B-39
D-30 HS	56,000	1-1/2"	Coil	1-1/4"	Coil	1"	3/4"	2-3/4"	1-3/4"	4"	20", 24", 30", 35"	1-1/2" Dia. B-39

Division 3

D-1 and D-18

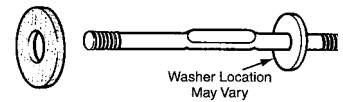
Inside Tie Rods

D-9 Taper Ties



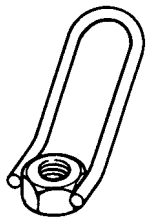
D-9 Taper Ties Selection Chart

Safe Working Load Tension Lbs.	Large End of Tie		Small End of Tie		Standard Tie Lengths	Tapered Body Dia.
	Coil Thread Dia.	Length of Thread	Coil Thread Dia.	Length of Thread		
7,500	3/4"	10"	1/2"	2"	34", 43", 52"	.670" to .500"
18,000	1"	10"	3/4"	6"	30", 36"	.884" to .750"
34,000	1-1/4"	10"	1"	6"	42", 48"	1.113" to 1.00"
50,000	1-1/2"	10"	1-1/4"	6"	54", 60", 72"	1-1/2" to 1-1/4"
75,000	1-3/4"	10"	1-1/2"	6"	36", 48", 60", 72"	1-3/4" to 1-1/2"

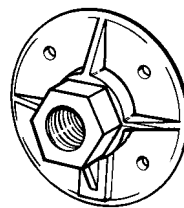


D-33 Waterseal Washer

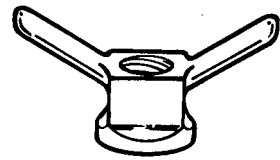
SWL provides a factor of safety of approximately 2 to 1.



B-32 Handle Coil Nut



B-27 Nut Washer



B-39 Wing Nut

Concrete Forming

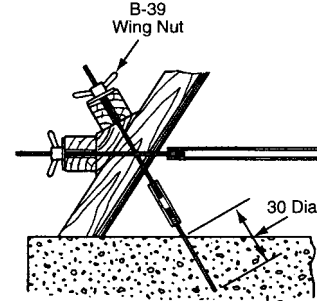
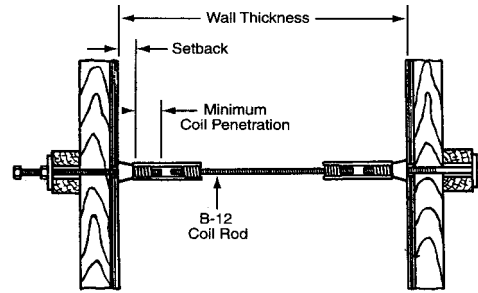
B-12 Coil Rod



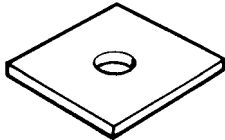
B-12 Coil Rod Selection Chart

Coil Rod Dia.	Safe Working Loads Lbs.		Minimum Root Area Sq. In.	Tensile Strength PSI	Yield Stress PSI	Minimum Coil Penetration
	Tension	Shear				
1/2"	9,000	6,000	.1385	130,000	110,000	2"
5/8"	12,000	8,000	.2124	113,000	96,000	2-1/4"
3/4"	18,000	12,000	.3079	117,000	100,000	2-1/4"
7/8"	31,000	20,600	.4477	117,000	100,000	2-1/2"
1"	38,000	25,300	.5410	140,000	120,000	2-1/2"
1-1/8"	45,000	30,000	.7163	126,600	105,000	2-1/2"
1-1/4"	56,000	37,500	.9161	123,000	105,000	2-1/2"
1-1/2"	68,000	45,300	1.3892	98,000	85,000	3"

SWL provides a factor of safety of approximately 2 to 1.



B-11 Flat Washers



B-11 Flat Washer Selection Chart

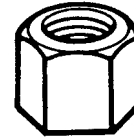
Bolt Diameter	Type	Safe Working Load Lbs.		Size
		Standard	Heavy	
1/2"	Standard	4,500	3" x 4" x 1/4"	
1/2"	Heavy	6,750	4" x 5" x 1/4"	
3/4"	Standard	6,750	4" x 5" x 1/4"	
3/4"	Heavy	9,000	5" x 5" x 3/8"	
1"	Standard	18,000	5" x 5" x 7/16"	
1"	Heavy	37,500	7" x 7" x 3/4"	
1-1/4"	Standard	27,000	5" x 5" x 7/16"	
1-1/4"	Heavy	37,500	7" x 7" x 3/4"	
1-1/2"	Standard	37,500	5" x 5" x 3/4"	
1-1/2"	Heavy	37,500	7" x 7" x 3/4"	

SWL provides a factor of safety of approximately 2 to 1.

B-13 Coil Nut & B-25 Heavy Coil Nut



B-13 Standard Coil Nut



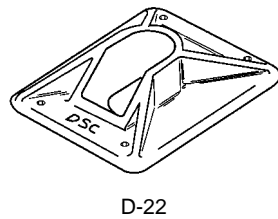
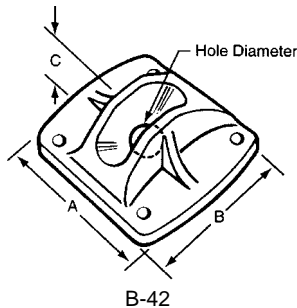
B-25 Heavy Coil Nut

B-13 Coil Nut and B-25 Heavy Coil Nut Selection Chart

Coil Nut Type	Dia.	Approx. Height	Width Across Flats A	Safe Working Load Tension Lbs.	
				Using One B-13 Nut	Using Two B-13 Nuts or One B-25 Heavy Nut
B-13	1/2"	7/16	7/8	6,000	9,000
B-25	1/2"	1-3/16	1-1/8	-	9,000
B-13	3/4"	5/8	1-1/8	9,000	18,000
B-25	3/4"	1-3/16	1-1/8	-	18,000
B-13	1"	1	1-5/8	18,000	37,500
B-25	1"	2	1-3/8	-	37,500
B-13	1-1/4"	1-1/4	2	27,000	56,250
B-13	1-1/4"	1-1/2	2-3/8	40,500	67,500

SWL provides a factor of safety of approximately 2 to 1.

B-42 and D-22 Batter Washers



B-42 and D-22 Batter Washer Selection Chart

Type	Bolt Dia.	Hole Dia.	A	B	C
B-42	1/2"	9/16"	3-9/16"	3"	1"
B-42	3/4"	7/8"	3-7/8"	4-3/4"	1-1/2"
B-42	1"	1-1/16"	6-3/4"	5-1/4"	1-3/4"
D-22	1-1/4" - 1-3/8"	1-5/8"	6"	7"	1-7/8"
D-22	1-1/2" - 1-5/8"	1-3/4"	6-1/2"	7-3/4"	2"

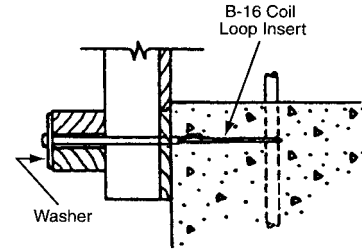
Concrete Forming

B-16 Coil Loop Insert Straight Selection Chart

Bolt Diameter	Insert Length	Wire Strut Diameter	Safe Working Load Tension Lbs.	Minimum Concrete Strength PSI
1/2"	3"	.223	4,500	2,000
1/2"	4"	.223	4,500	2,000
1/2"	6"	.306	7,500	2,000
3/4"	4"	.223	4,500	2,000
3/4"	6"	.306	7,500	2,000
1"	6"	.306	7,500	2,000
1"	8"	.306	7,500	2,000

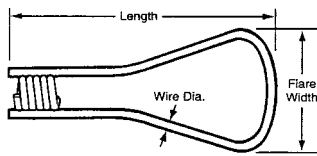


B-16 Coil Loop Insert

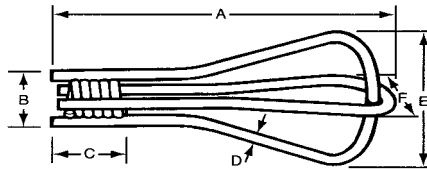


SWL provides a factor of safety of approximately 2 to 1.

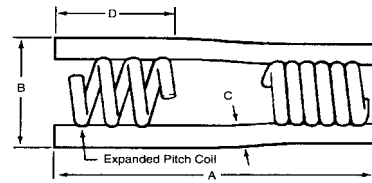
SWL may vary with concrete weight and strength, as well as with insert setback and edge distance. Contact the Dayton/Richmond Technical Service Department for variables.



B-18 Single Flared Coil Insert



B-33 Double Flared Criss Cross Coil Loop Insert

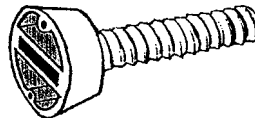


F-56 Expanded Coil Insert for Coil Threaded Bolts

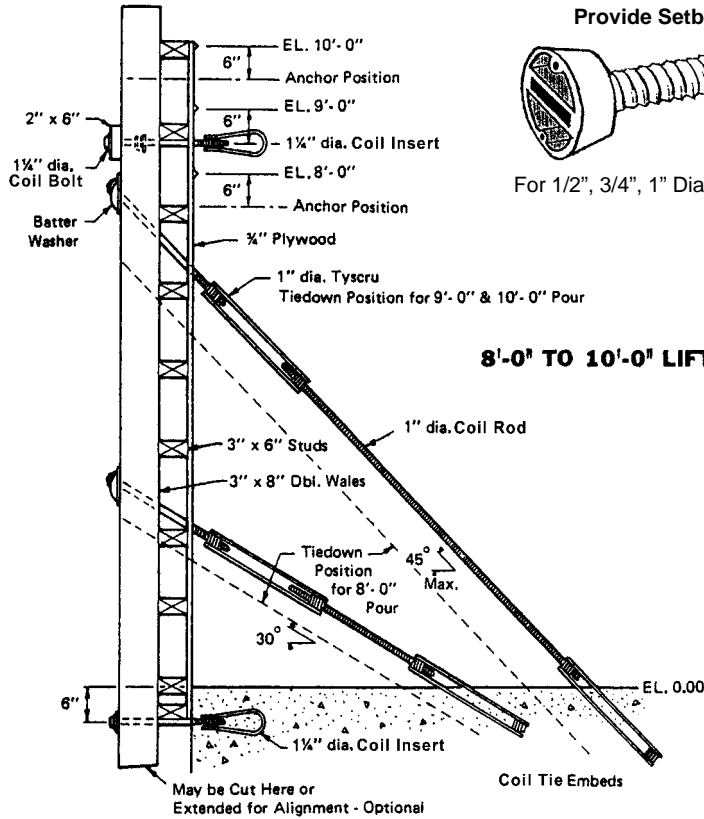
Division 3

Coil Loop Protectors

Install Coil Inserts.
Provide Setback.

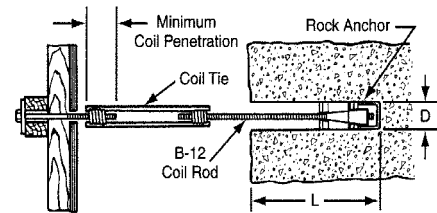
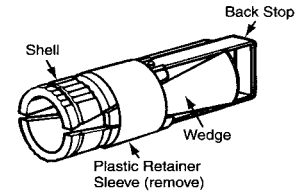


For 1/2", 3/4", 1" Dia. Inserts



8'-0" TO 10'-0" LIFT.

B-31 Rock Anchor



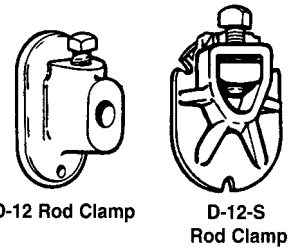
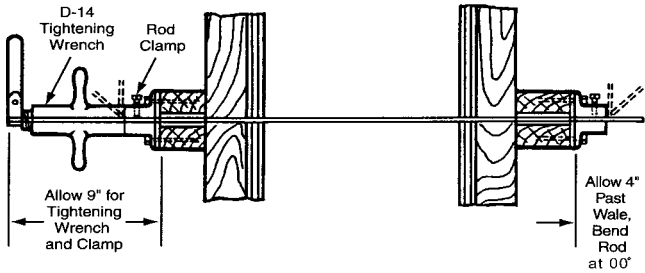
B-31 Rock Anchor Selection Chart

Coil Rod Diameter	Min. Hole Depth "L"	Req. Hole Dia. "D"	Safe Working Load Tension Lbs.
1/2"	6"	1-3/8"	4,500
3/4"	8"	1-5/8"	9,000
1"	10"	1-3/4"	18,000

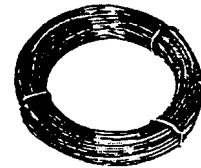
SWL provides a factor of safety of approximately 2 to 1.

Concrete Forming

D-12 and D-12-S Rod Clamps



Pencil Rod

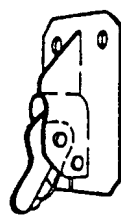


Coils or Straight

D-12 and D-12-S Rod Clamp Selection Chart

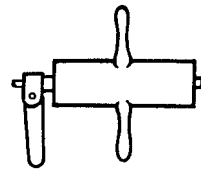
Type	Rod Diameter	Safe Working Load Tension Lbs.
D-12	1/4"	1,125
D-12-S	1/4"	1,125
D-12	3/8"	2,250
D-12-S	3/8"	2,250
D-12	1/2"	3,750

D-12 Form Clamp

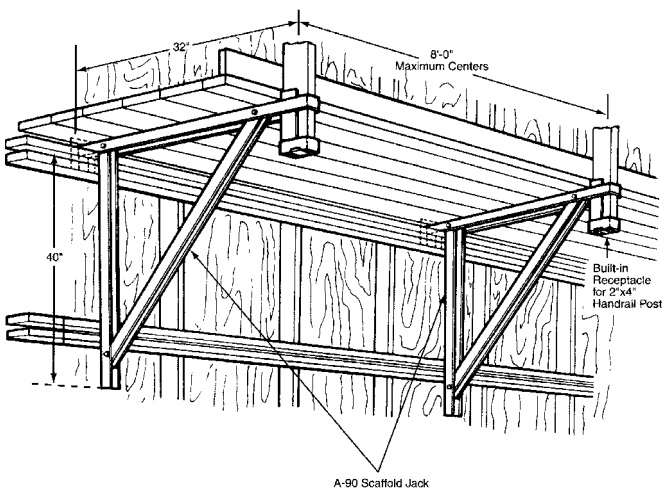
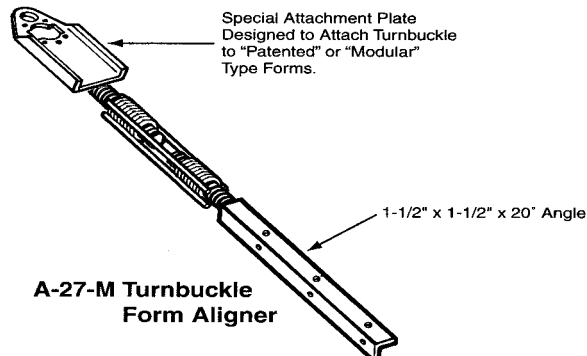
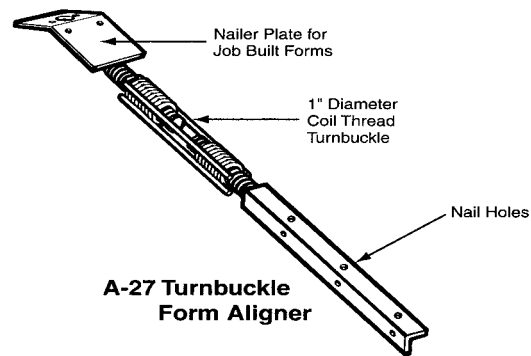


Rod Size	Approx. Safe Working Load
1/4"	1,250
3/8"	3,000
1/2"	5,000
5/8"	7,500

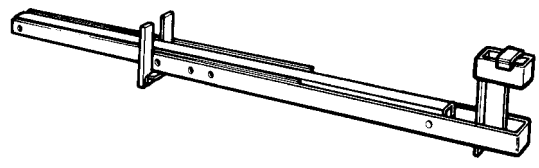
D-14 Tightening Wrench



A-27 and A-27-M Turnbuckle Form Aligners



A-90 Scaffold Bracket Jack



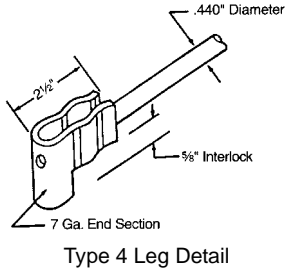
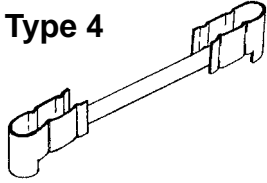
Division 3

Concrete Bridge Forming

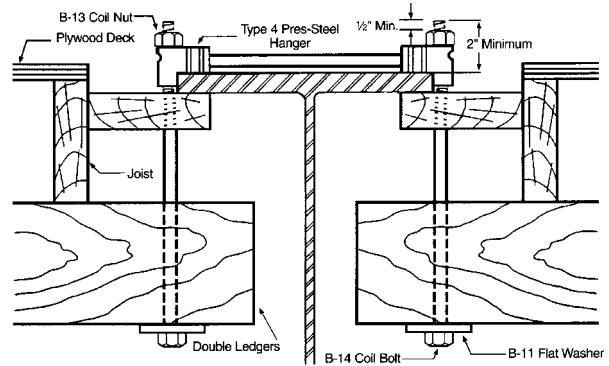
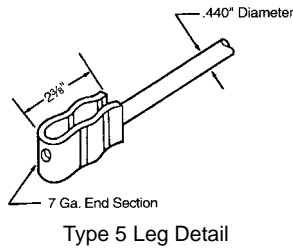


C-60 Pres-Steel Hangers

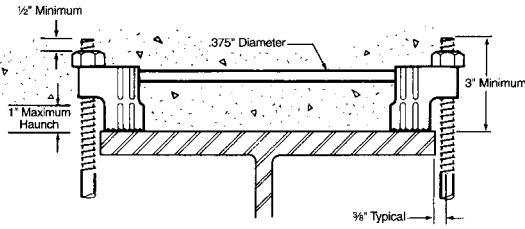
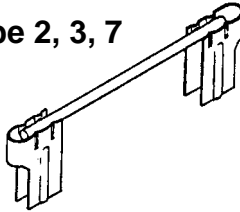
Type 4



**Safe Working Load
6000 lbs. per Side**

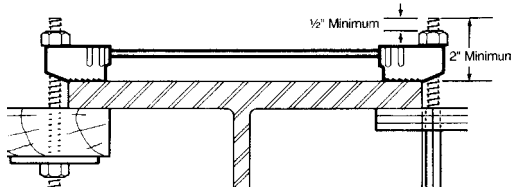
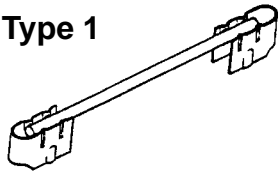


Type 2, 3, 7



Type	Safe Working Load per Side	Maximum Haunch
2	2375 lbs.	1"
3	2500 lbs.	2-1/2"
7	2375 lbs.	1-1/2"

Type 1



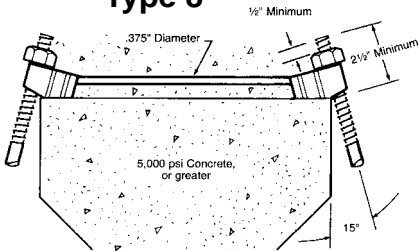
**Safe Working Load
3500 lbs. per Side**

HANGERS

SWL provides a safety factor of approximately 2:1.

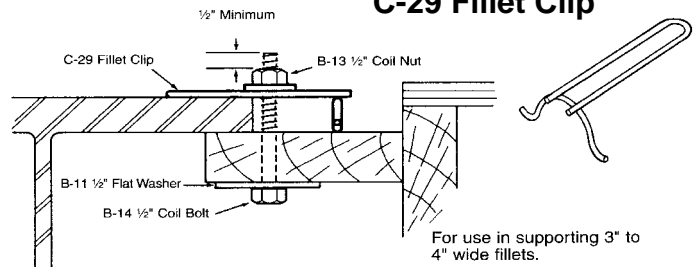
Warning: Hangers must be equally loaded on both sides.

Type 8



**Safe Working Load
Standard – 4500 lbs.
Heavy – 6000 lbs.**

C-29 Fillet Clip



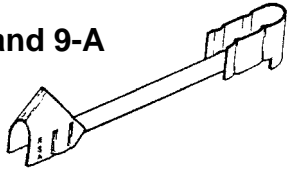
Division 3

Concrete Bridge Forming

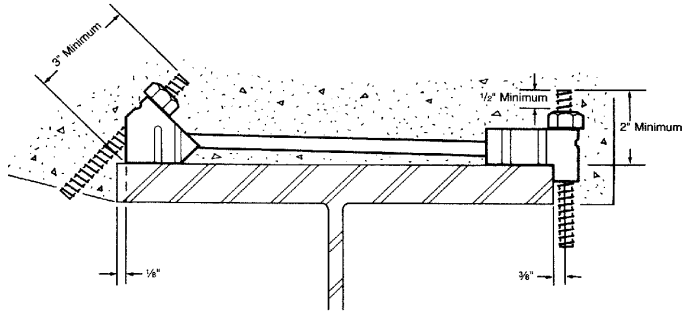


C-60 45° Pres-Steel Hangers

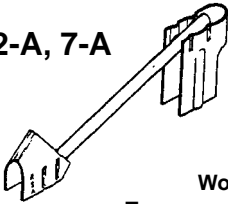
Type 4-A, 5-A and 9-A



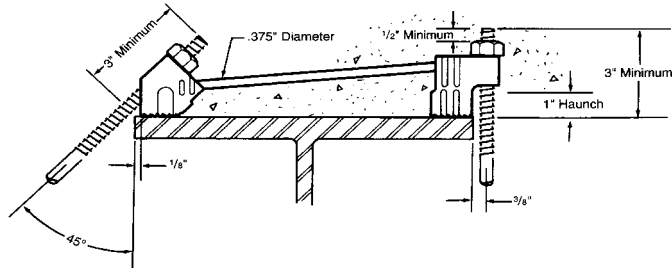
Type	SWL	Bolt Diameter	
		45° End	90° End
4-A	6000 lbs. per Side	1/2"	1/2"
5-A	6000 lbs. per Side	3/4"	1/2"
9-A	11,300 lbs. per Side	3/4"	3/4"



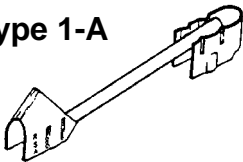
Type 2-A, 7-A



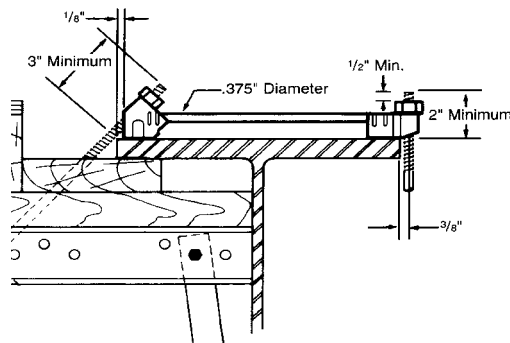
Type	Safe Working Load	
	per Side	Maximum Haunch
2-A	2375 lbs.	1"
7-A	2375 lbs.	1-1/2"



Type 1-A



**Safe Working Load
3500 lbs. per Side**



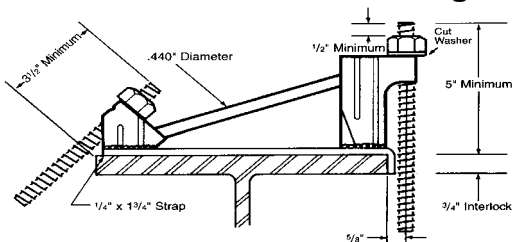
HANGERS

SWL provides a safety factor of approximately 2:1.

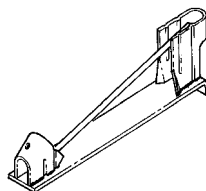
Type 1-A, 2-A, 7-A, 8-A

Warning: It is recommended that this hanger be used to support overhang brackets only when the weight of concrete finishing machines and/or conveyor machines is supported directly on the bridge exterior beam.

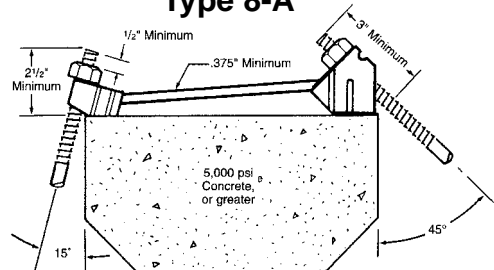
C-62 45° Pres-Steel Hanger



**Safe Working Load
4000 lbs. on 45° Side
2800 lbs. on 90° Side**



Type 8-A



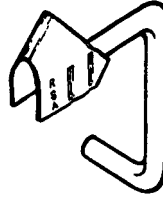
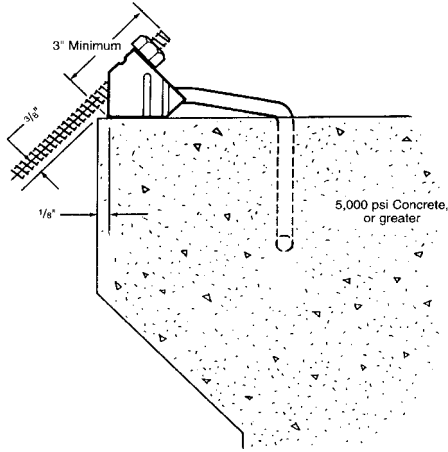
**Safe Working Load
4500 lbs. per Side**

Division 3

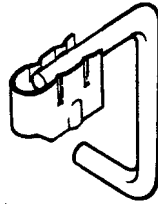
Concrete Bridge Forming



C-24 Precast Half Hangers



C-24 45°



C-24 90°

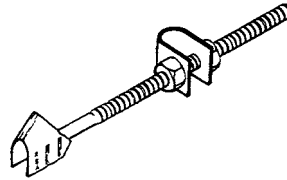
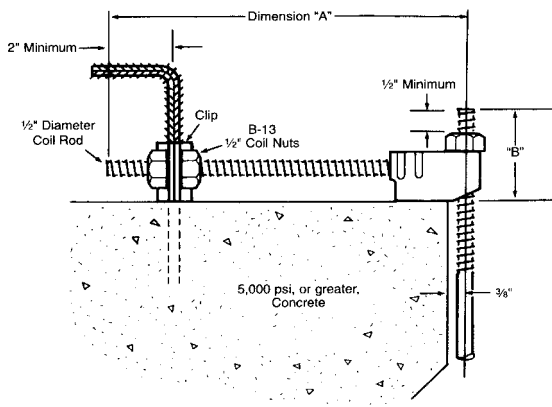
C-24 Selection Chart

Hanger Type	Safe Working Load
45°	
4-AP	3300 lbs.
4-APR	6000 lbs.
90°	
1-PR	3000 lbs.
4-PR	6000 lbs.

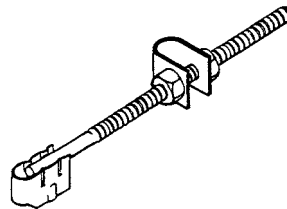
SWL provides a safety factor of approximately 2:1

Division 3

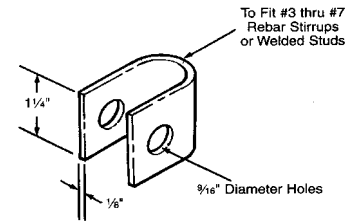
C-25 Adjustable Half Hangers



C-25 45°



C-25 90°

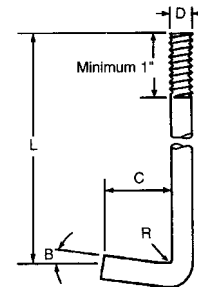
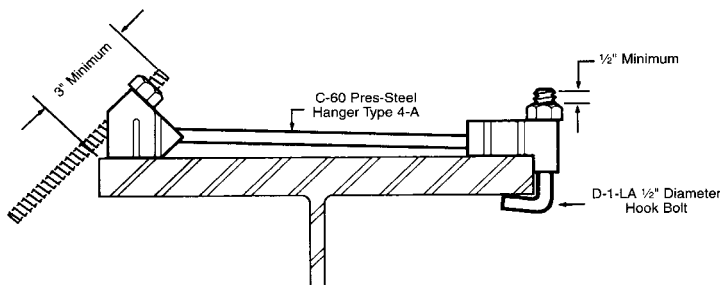


Clip Detail

Safe Working Load
1100 lbs. with One Clip
3000 lbs. with Two Clips

SWL provides a safety factor of approximately 2:1

D-1-LA Hook Bolt

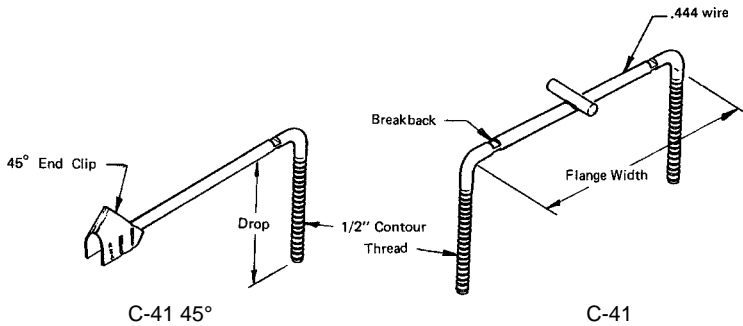


Note: Recommended dimensions when used with Type 4-A Pres-Steel Hangers: L = As Required; C = 1-1/2"; T = 2"; R = 1/4" and B = 5° maximum.

Concrete Bridge Forming



C-41 Coil Rod Hangers

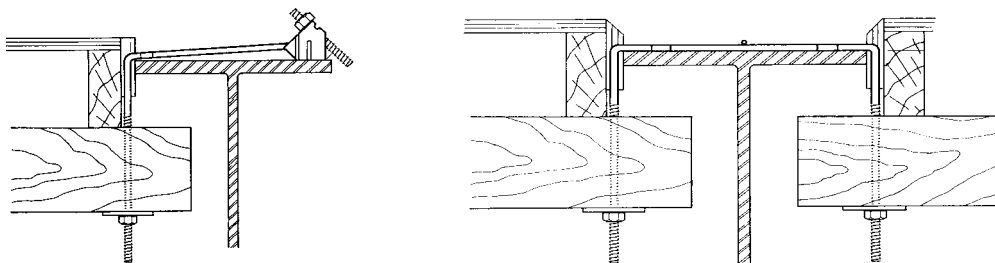


Safe Working Load
4500 lbs. per Side

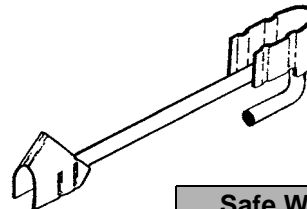
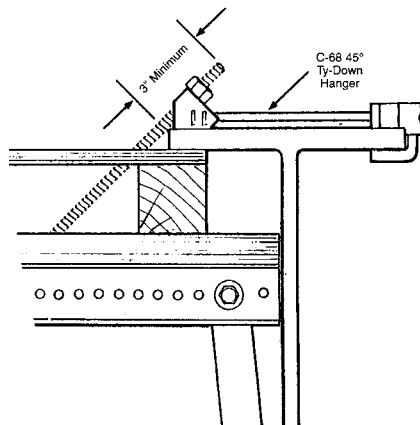
SWL provides a safety factor of approximately 2:1.

When ordering, specify flange width, drop and thread length.

Note: Hanger is fabricated 1/2" wider than flange width specified.



C-68 45° Ty-Down Hanger

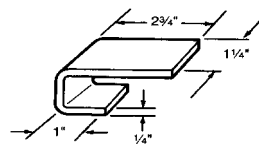
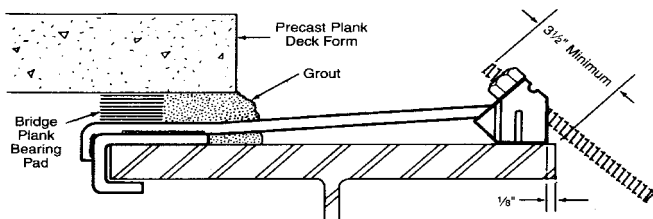


Safe Working Load
6000 lbs. per Side

SWL provides a safety factor of approximately 2:1.

When ordering, specify flange width and thickness.

C-63 45° Pres-Steel Hook Hanger



C-63 Pres-Steel Hanger Selection Chart

Type	Safe Working Load	Bolt Diameter
4-AB	5000 lbs.	1/2"
5-AB	5000 lbs.	3/4"

SWL provides a safety factor of approximately 2:1.

When ordering, specify flange width and thickness.

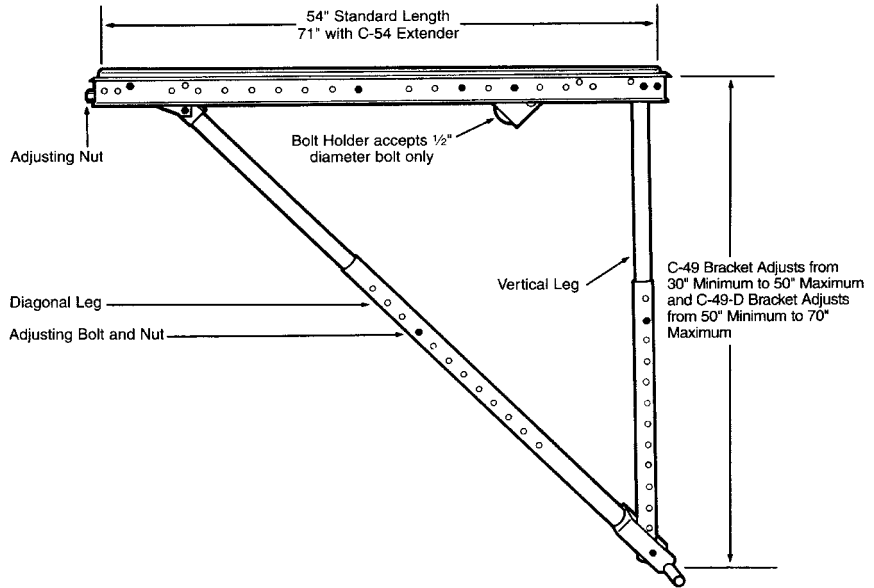
Division
3

Concrete Bridge Forming

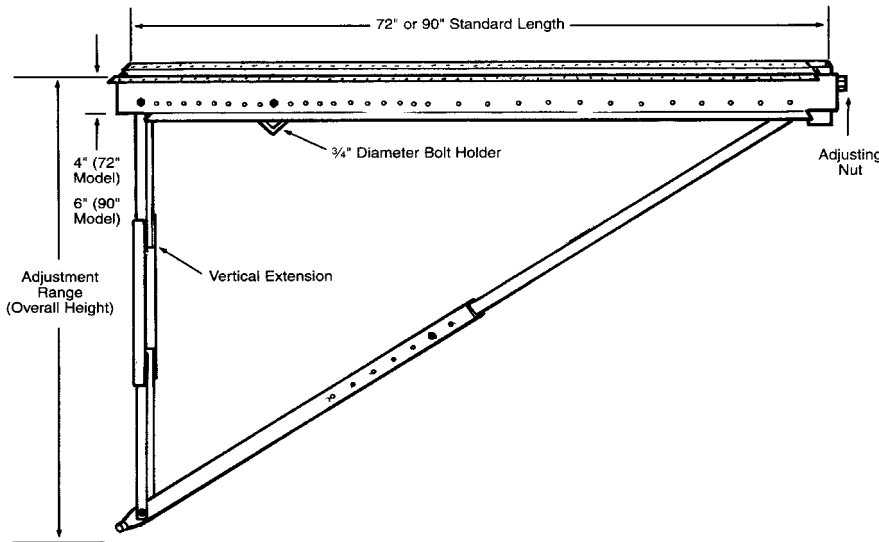


C-49 and C-49-D Bridge Overhang Brackets

Dayton/Richmond Bridge Overhang Brackets are designed with maximum adjustability to meet the varied overhang-forming requirements on structural steel and precast/prestressed concrete beams. The C-49 and C-49-D Bridge Overhang Brackets accommodate an adjustment range of 30" to 70" and can be mounted to steel beams, precast concrete beams and concrete box beams with the appropriate hanger devices. Both of the bracket models can be easily and quickly pre-set on the ground and then set in place as needed.



C-89 and C-89-L Heavy-Duty Bridge Overhang Brackets



Dayton/Richmond C-89 and C-89-L Heavy-Duty Bridge Overhang Brackets are designed for maximum adjustment and strength to meet the rigors of heavy cantilever/overhang applications. The C-89 bracket features 72" long, four-inch horizontal channels and an overall vertical adjustment range of 27-5/8" to 66-3/4". The C-89-L bracket has 90" long, six-inch horizontal channels and an overall vertical adjustment range of 29-5/8" to 68-3/4".

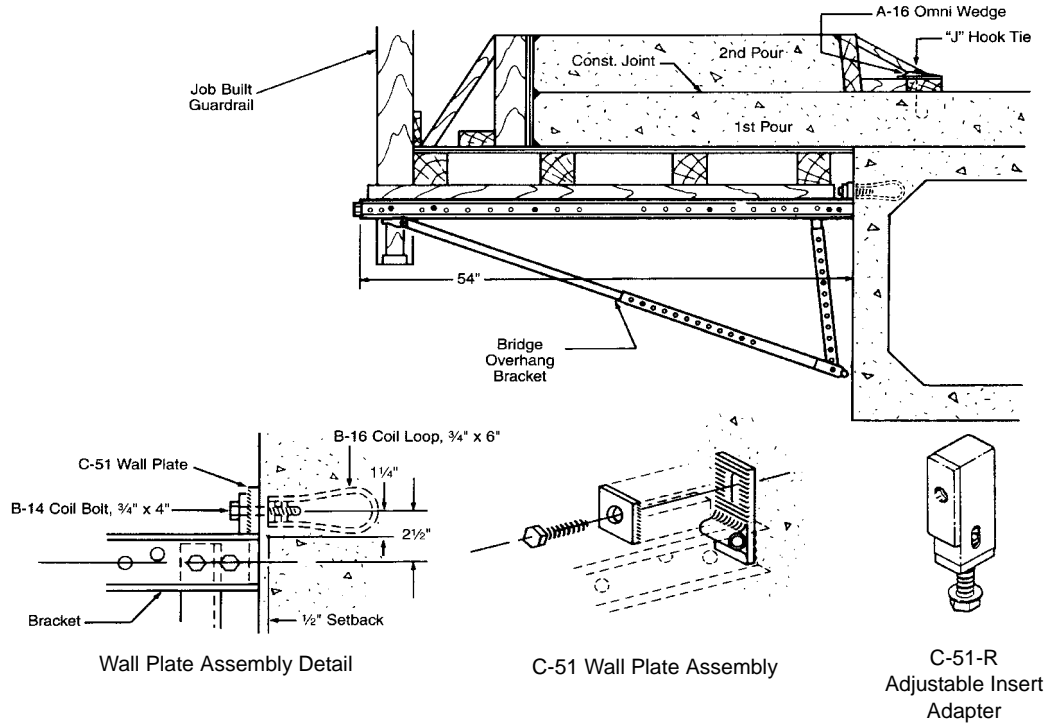
Both brackets come equipped with nail holes in the top of the horizontal channels for attaching 2x6 or 2x8 lumber (flat), and both brackets have built-in guardrail receptacles for 2x4 guardrail posts.

The C-89 and C-89-L brackets can be used equally well on steel or precast concrete bridge girders with the appropriate 3/4" C-60 45° Pres-Steel Hanger (Type 9-A). The brackets can be shipped "knocked down" for easier handling and shipping, and then preset on the ground at the job site.

Concrete Bridge Forming

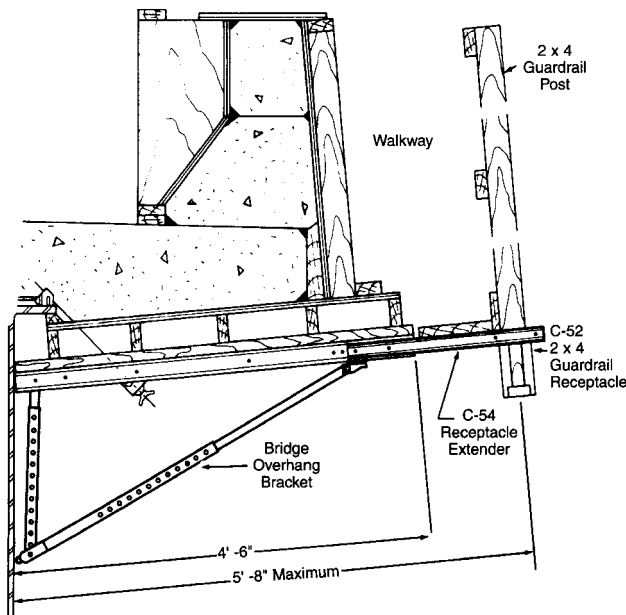


C-51 Wall Plate Assembly and C-51-R Adjustable Insert Adapter



Division 3

The C-51 Wall Plate Assembly and C-51-R Adjustable Insert Adapter are used to mount a C-49 Overhang Bracket directly to a 3/4" diameter insert cast in a precast/prestressed concrete box girder.



C-54 Bridge Overhang Bracket Extender

The C-54 Bridge Overhang Bracket Extender attaches to the end of the C-49 or C-49-D bracket's horizontal member to extend the usable working surface of the bracket. When used to support a walkway, each overhang bracket is required to have an extender.

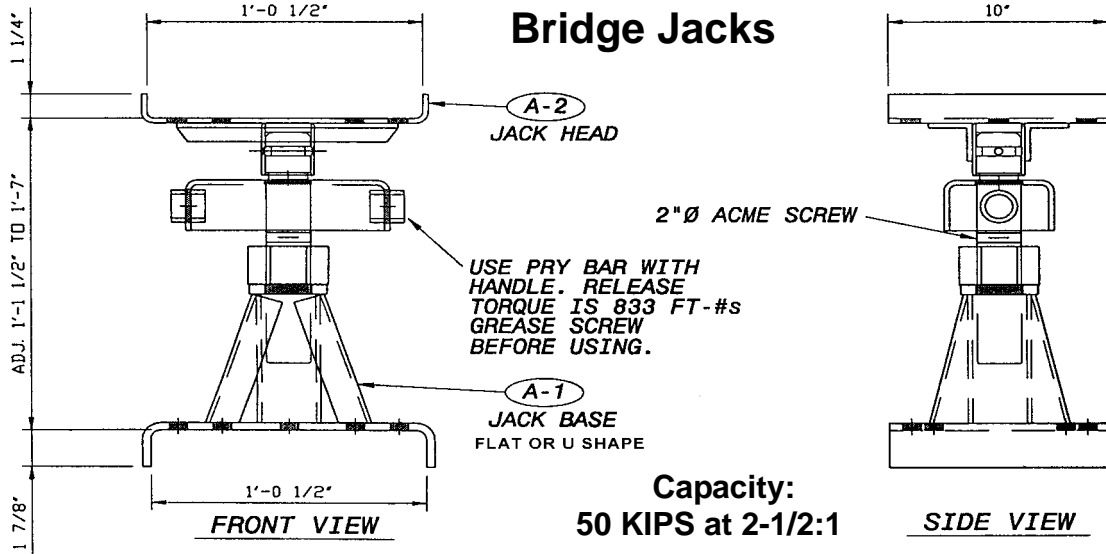
C-52 and C-53 Guardrail Receptacles

The C-52 and C-53 Guardrail Receptacles are designed to facilitate placement of guardrail posts on the exterior formwork. The C-52 receptacle bolts securely to the C-54 Bridge Overhang Bracket Extender and accepts 2x4 guardrail posts. The C-53 receptacle attaches to the flat 2x6 which is nailed to the channels of the overhang bracket, and accepts 2x6 guardrail posts.

Concrete Bridge Forming

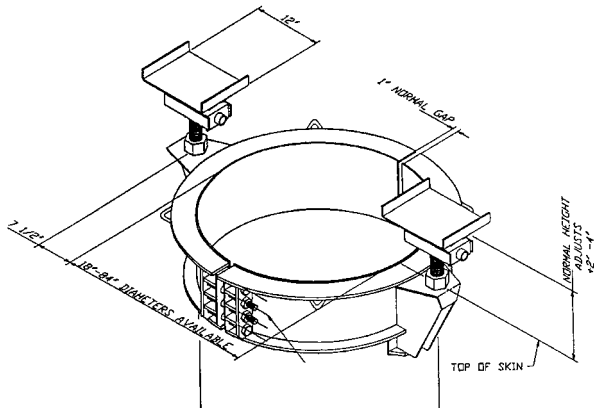
Division 3

Bridge Jacks



Capacity:
50 KIPS at 2-1/2:1

Friction Collars



Friction Collar Models

Capacity Per Screw	18k	27k	36k	54k	72k	108k	144k
Diameter of Screw	1-1/2	1-3/4	2	2-1/4	2-1/2	3	3-1/2
Tension Bolt Diameter	7/8	7/8	7/8	1-1/4	1-1/4	1-1/4	1-1/4
Qty. of Tension Bolts	4	6	8	6	8	12	16
Normal Height For Head	7-1/2	8	8-1/2	9	10	11	13

- All capacities have 3:1 safety factor to ultimate strength.
- The friction collar should be field tested to 1-1/2 times the maximum intended load for each job.
- Both sides of the friction collar must be loaded equally.

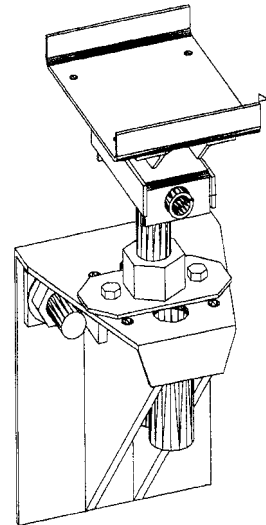
Bracket Jacks

Bracket Jack Models

Capacity Per Screw	20k	30k	45k	60k	80k	105k	125k
Diameter of Screw	1-1/2	1-3/4	2	2-1/4	2-1/2	3	3
Thru-Bolt Diameter	1	1-1/4	1-1/2	1-3/4	2	2-1/4	2-1/2
Torque Thru-Bolt Ft.-Lbs.	260	450	780	1400	2100	2900	3900
Thru-Bolt Centers	7"	8"	9"	10"	11"	12-1/4"	13-1/2"
Set Back From Wall	4-1/2, 7-1/2, 10-1/2	4-1/2, 7-1/2, 10-1/2	4-1/2, 7-1/2, 10-1/2	4-1/2, 7-1/2, 10-1/2	4-1/2, 7-1/2, 10-1/2	7-1/2, 10-1/2	7-1/2, 10-1/2
Height Adjustment Ft.*	7 to 13	8 to 14	9-1/2 to 15-1/2	11 to 17	12 to 18	14 to 20	14 to 20

* Center of thru bolt to top of jack.

All capacities have 3:1 safety factor to ultimate strength.

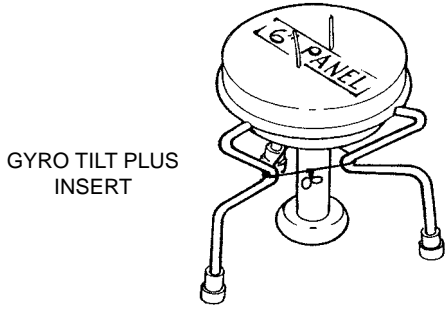


Concrete Tilt-Up

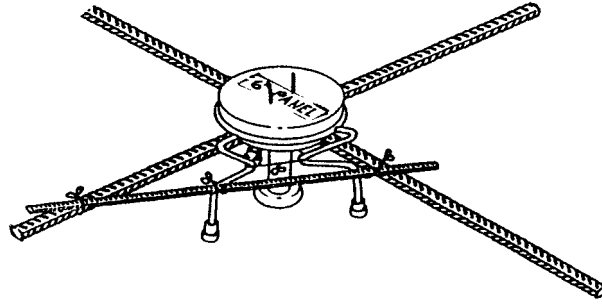
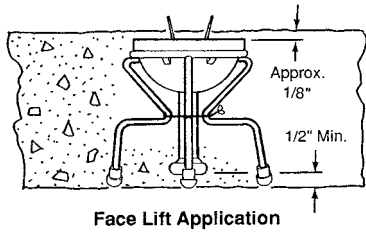
Gyro Tilt Plus™ System



T-49 Gyro Tilt Plus™ Face Lift Insert



The Dayton/Richmond T-49 Gyro Tilt Plus Face Lift Insert is a 3/4" diameter insert manufactured from high quality steel. The hot forged head is engaged by the system hardware. The insert assembly is complete with plastic void and plastic protected wire base. The insert assembly is easily positioned and tied to the rebar mat and requires no special orientation.



T-49 Gyro Tilt Plus™ Face Lift Insert Selection Chart

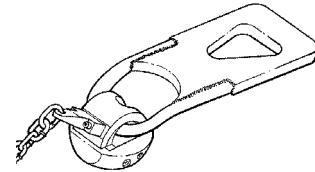
Structural Panel Thickness	5"	5-1/2"	6"	6-1/4"	6-1/2"	7	7-1/4"	7-1/2"	8"
Gyro Tilt Plus™ Anchor Length	3-3/4"	4-1/4"	4-3/4"	4-3/4"	5-1/4"	5-3/4"	5-3/4"	6-1/4"	6-3/4"
Insert Safe Working Load (Lbs.)	8,000	10,000	12,000	12,000	13,000	15,000	15,000	15,000	16,000

Warning! SWL provides a safety factor of approximately 2 to 1 in 2,500 PSI weight concrete.

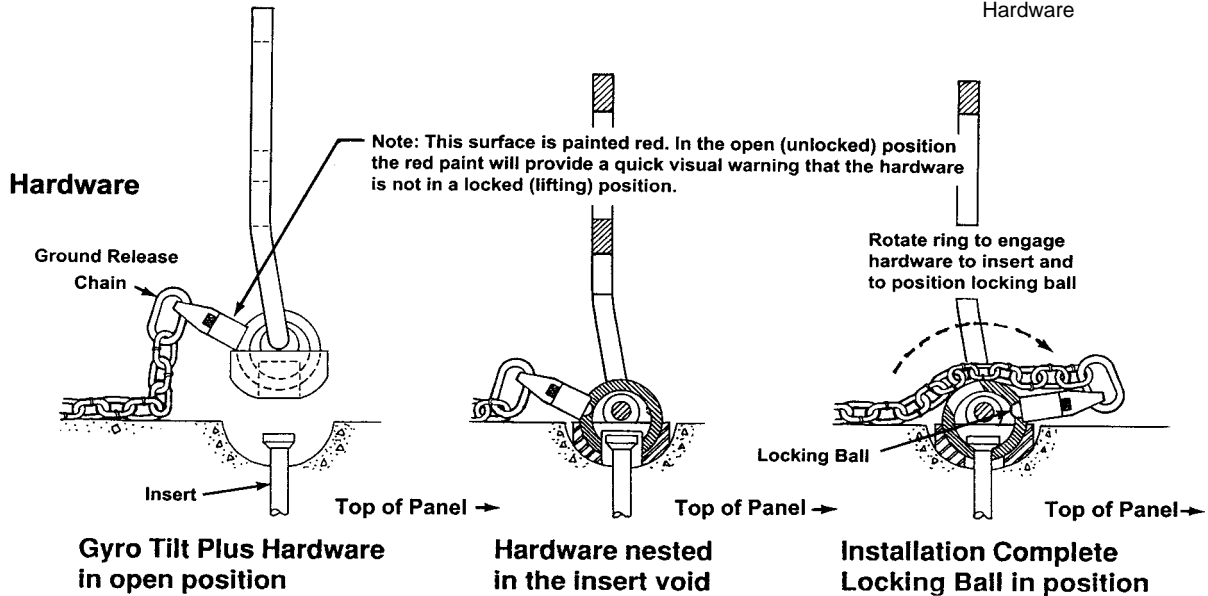
Note: Special inserts are available sized for panel thicknesses other than those listed in the chart above.

T-50 Gyro Tilt Plus™ Hardware

The Dayton/Richmond T-50 Gyro Tilt Plus Hardware is designed to accomplish the task of lifting and handling tilt-up panels quickly and efficiently. High safe working load, ease of operation and positive ground release provide tilt-up effectiveness.



T-50 Gyro Tilt Plus™
Hardware

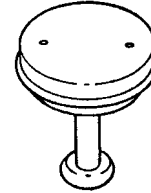


Concrete Tilt-Up



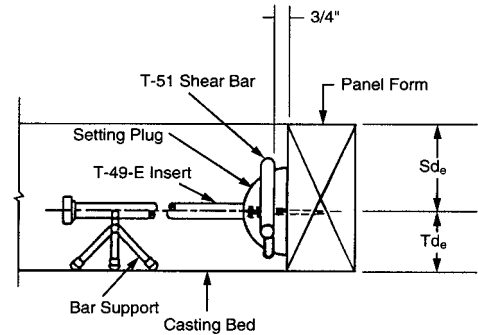
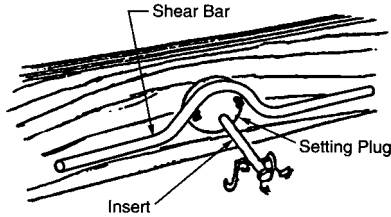
T-49-E Gyro Tilt Plus Edge Lift Insert

The Dayton/Richmond T-49-E Gyro Tilt Plus Edge Lift Insert is the same basic insert as the face lift insert, but is furnished without the wire base. This allows the plastic void to be nailed directly to the panel form. Standard T-49-E insert is 3/4" x 9-1/2", other lengths are available on request.



T-49-E Gyro Tilt Plus Edge Lift Insert

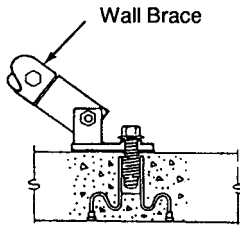
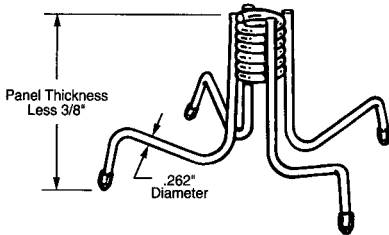
Edge Lift Insert Installation



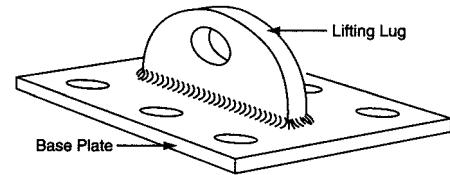
Sd_e = Minimum edge distance in the direction of applied shear load.
 Td_e = Minimum edge distance for tension loading.

T-6-A Brace Anchor

The Dayton/Richmond T-6-A Brace Anchor is a 3/4" diameter coil insert designed to be easily positioned and tied into the rebar mat of a tilt-up panel. The T-6-A anchor is available with plastic dipped, plastic tipped or stainless steel feet with a T-21 or T-22 locator plug factory installed.

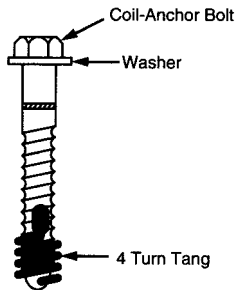


T-75 Special Drill-In Lift Plate



T-13 Coil-Anchor

The Dayton/Richmond T-13 Coil-Anchor is a drill-in expansion anchor designed for use in the floor slabs of tilt-up buildings to attach and anchor wall braces. Each T-13 plug includes the bolt, one cut washer and one tang. Available in 3/4" diameter x 4-1/2" or 6" lengths as specified.



Number of T-13 Drill-In Expansion Anchors	Tension or Shear Safe Working Load
4 Bolts (2 per each side)	8,500 lbs.
6 Bolts (3 per each side)	15,000 lbs.

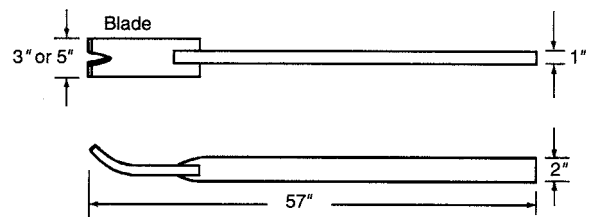
Note: Insert SWL's are based on approximately a 2 to 1 factor of safety. Lift plate develops approximately a 5 to 1 factor of safety based on a maximum SWL of 15,000 lbs.

The tension safe working load (SWL), as well as the maximum brace load per T-13 Coil-Anchor is shown below:

Floor Slab Thickness	Maximum Brace Load	SWL Tension Per Anchor	Minimum Torque Per Anchor
6" or thicker	9,000 lbs.	10,400 lbs.	200 ft. lbs.

Notes: Safe working loads are based on an approximate factor of safety of 2:1. This assumes a minimum slab compressive strength of 2,500 PSI and a properly installed T-13 anchor as detailed above.

A-95 Dayton Bar

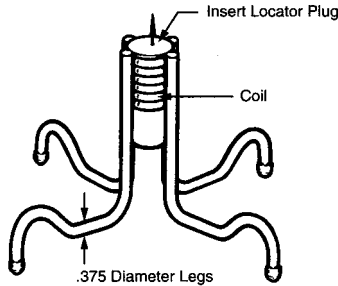


Division 3

Concrete Tilt-Up



T-1 Single Pickup Insert



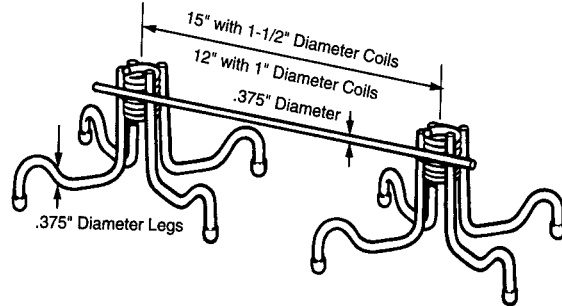
Available in 3/4" or 1" dia. For use as a strong-back insert.

Panel Thickness and Safe Working Load Per Insert (Lbs.)

Coil Diameter	4"	5"	5-1/2"	6"	7"	8"
1-1/4	4,200	7,000	8,400	10,200	12,000	13,500
1-1/2	4,700	7,800	9,400	11,200	12,500	14,000

SWL provides a factor of safety of approximately 2 to 1 in 2,500 PSI concrete.

T-2 Double Pickup Insert

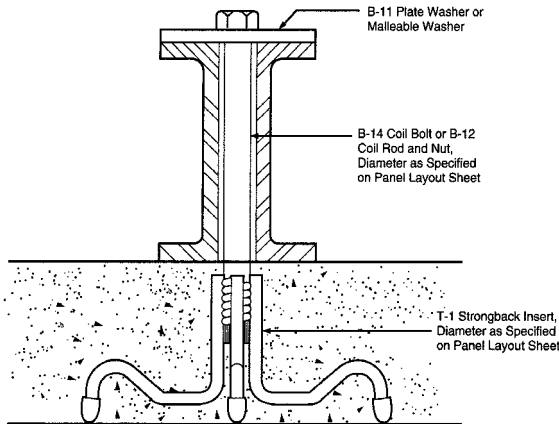


Panel Thickness and Safe Working Load Per Insert (Lbs.)

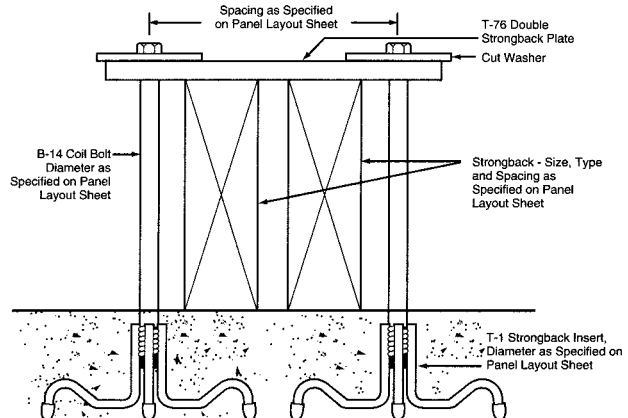
Coil Diameter	4"	5"	5-1/2"	6"	7"	8"
1	5,400	8,100	9,400	10,800	13,500	16,000
1-1/2	-	-	-	12,600	15,000	18,000

SWL provides a factor of safety of approximately 2 to 1 in 2,500 PSI concrete.

Strongback Attachment



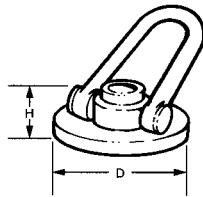
Single Strongback Insert and Bolt



Double Strongback Insert and Bolt

T-26 Double Swivel Lifting Plate

The T-26 Double Swivel Lifting Plate is designed to be used with 1", 1-1/4" and 1-1/2" diameter coil bolts and to permit a full 360° horizontal plane rotation and 180° vertical plane rotation. The duo swivel feature is designed for use with a single bolt to engage a single lifting insert. Safe working load for the 1" unit is approximately 9,000 pounds and for the 1-1/4" and 1-1/2" units, approximately 13,500 pounds.



T-12 Swivel Lifting Plate

The Dayton/Richmond T-12 Swivel Lifting Plate consists of a heavy steel casting and a drop-forged ball that is pinned to allow a full 180° swivel. The T-12 lift plate is available in two styles. The lighter unit is designed for 1" bolt diameter and the heavier unit for 1-1/4" and 1-1/2" bolt diameters. 1" bushings are available for the heavy unit, allowing it to be used with the smaller bolt.



Division 3

Concrete Tilt-Up

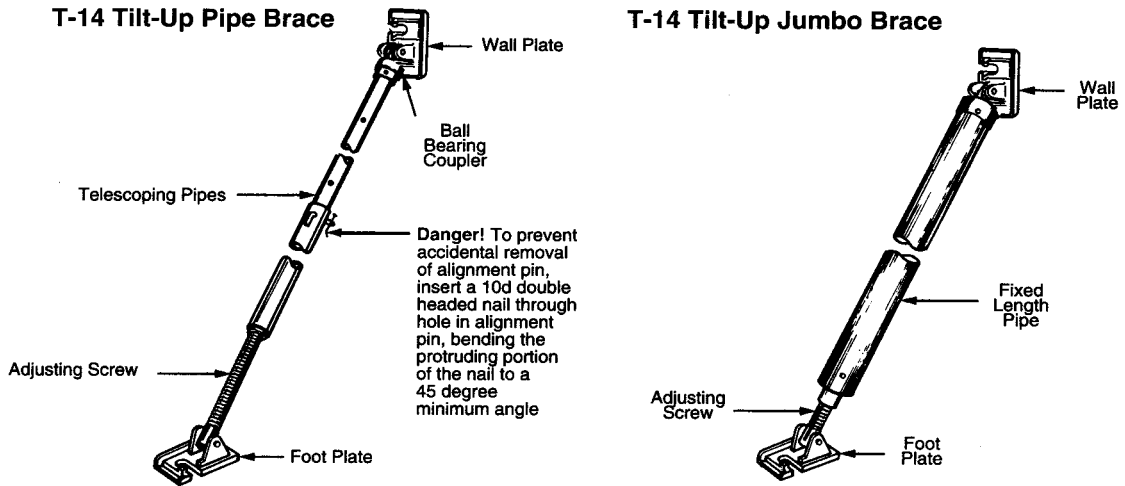


T-14 Tilt-Up Wall Braces

The Dayton/Richmond T-14 Tilt-Up Wall Braces are all steel, heavy-duty wall braces designed to quickly and easily align and brace tilt-up wall panels. Rough adjustment of the T-14 braces is easily accomplished by telescoping the pipes to the nearest incremental hole.

Final adjustment is then achieved by simply turning the brace on the stationary stud. Dayton/Richmond wall braces are available in numerous sizes to provide a continuous range of tilt-up panel heights of fifty feet or more. Refer to the chart below for additional information.

Division 3

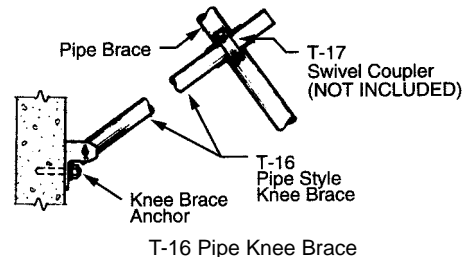
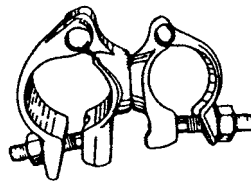


Tilt-Up Pipe Brace Selection Chart

Type	Description	Minimum & Maximum Brace Length
T-14, B2	Regular Pipe Brace	13'-0" to 20'-6"
T-14, B-4	Heavy Duty Regular Pipe Brace	14'-6" to 23'-6"
T-14, B-5	Heavy Duty Long Pipe Brace	22'-6" to 39'-0"
T-14, B-6	Short Pipe Brace	10'-0" to 14'-0"
T-14, B-8	Jumbo Brace	22'-0" Fixed Length
T-14, B-9	Jumbo Brace with 5'-0" Extension	27'-0" Fixed Length
T-14, B-10	Jumbo Brace with 10'-0" Extension	32'-0" Fixed Length
T-14, B-11	Tru-ltt Brace	25'-6" to 40'-0"
T-14, B-12	Jumbo 5-1/2"	32'-0" Fixed Length

T-17 Swivel Coupler

The Dayton/Richmond T-17 Swivel Coupler is designed to attach standard 1-1/2" diameter knee braces to 2" or 2-1/2" diameter wall braces.



T-16 Pipe Knee Brace

The Dayton/Richmond T-16 Pipe Knee Brace is an all steel, 1-1/2" diameter knee brace available in 10'-6" and 14'-6" lengths. The T-16 knee brace is used in conjunction with the T-17 Swivel Coupler to add strength and stability to standard wall braces.

Concrete Tilt-Up



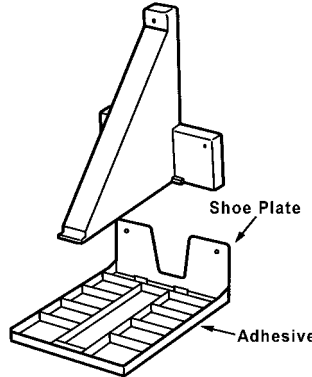
T-66 Tilt Bracket™

Tilt-Up Forming System

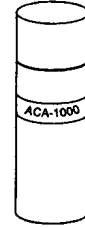
The Tilt Bracket™ Forming System consists of light-weight, reusable plastic brackets and an adhesive backed shoe plate. The bracket snaps into the shoe plate that is held firmly to the casting slab by the adhesive base.

The bracket is available in three sizes and can be utilized to fasten vertical or battered form members. The smaller size is 4-7/8" high for 4-7/8" to 6-7/8" forming members. The mid size is 7" high for 7" to 9" forming members and the large size is 9-3/8" high for members 9-3/8" to 12".

The system is easy to use and requires no drilling or hole patching.



T-66 Tilt Bracket™

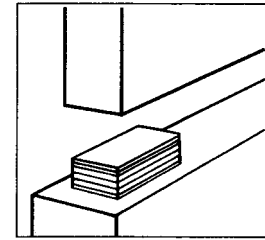


T-68 ACA-1000 Construction Spray Adhesive

Vers-A-Shim®

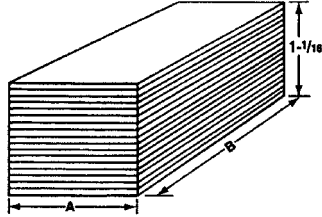
High Impact Plastic Shims

Vers-A-Shims® are molded from an engineered copolymer plastic material which combines high compression strength and superior load bearing surface contact characteristics. They assure accurate placement of precast and pre-stressed concrete walls, floors, architectural and structural concrete members.



Vers-A-Packs®

- Pre-assembled packages of shims designed for precise placing of large load bearing precast units.
- Eliminates correction of elastometric drift.
- Can be compressed sufficiently at post tensioning to allow load transfer to the grout.
- 17 pieces; 1/16" thick, heat-sealed together on adjacent sides.
- Peel off shims in 1/16" increments to obtain the correct height adjustment.

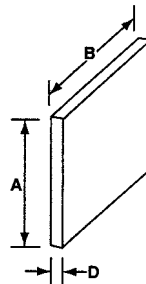


Catalog No.	A	B	Packs/Ctn.
SP33VS	3	3	50
SP44VS	4	4	50
SP46VS	4	6	50
SP55VS	5	5	25
SP66VS	6	6	20

Special sizes available.

Shim Strips

- Assures accurate placing and leveling of pre-cast panels, tilt-up walls, structural and architectural components.
- Has excellent stability, eliminates rust, stained concrete, etc.
- Less expensive and more versatile than steel.
- Convenient thicknesses, lengths and widths.
- Will not rust, rot, stain or leach concrete
- Available in convenient thicknesses, lengths and widths which permit precise leveling and alignment.



Catalog No.	A	B	D	Std. Pkg.
PC6216			1/16	500
PC6218	6	2	1/8	500
PC6214			1/4	250
PC4216			1/16	1M
PC4218	4	2	1/8	1M
PC4214			1/4	500
PC4416			1/16	500
PC4418	4	4	1/8	500
PC4414			1/4	250
PC3316			1/16	1M
PC3318	3	3	1/8	1M
PC3314			1/4	500
PC2216			1/16	1M
PC2218	2	2	1/8	1M
PC2214			1/4	1M

Other sizes available.

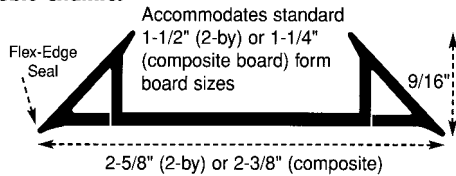
Division 3

Concrete Tilt-Up

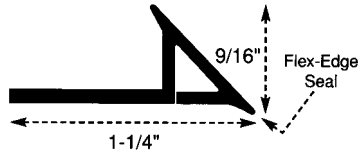
Chamfers

The Victory Bear single- and double-chamfers are ideal for use in tilt-up and precast construction to create chamfered contours along the finished edges of wall sections. The chamfers are designed to support standard 1.5" (2-by) or 1.25" (form board) wood sizes and are available in single- and double-chamfer configurations. Victory Bear chamfers are manufactured from nonstick PVC and will add dollars to your bottom line by reducing your installation and overall costs.

Double Chamfer



Single Chamfer

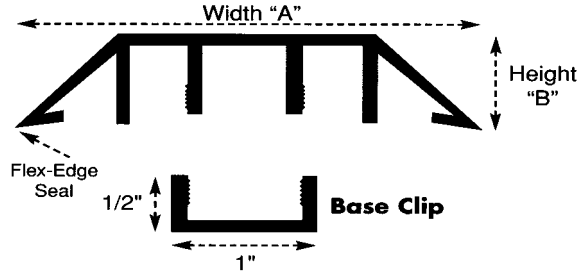


VICTORY BEAR PRODUCTS

Building Solutions

Rustication

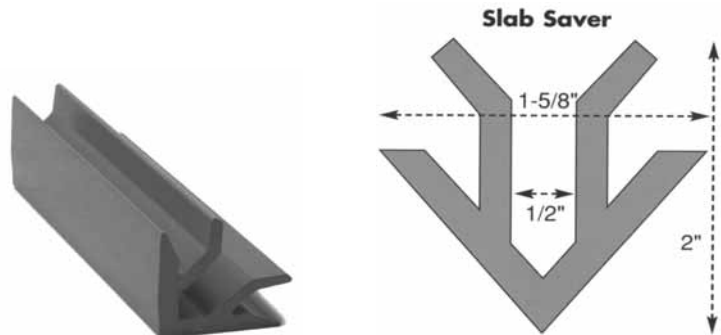
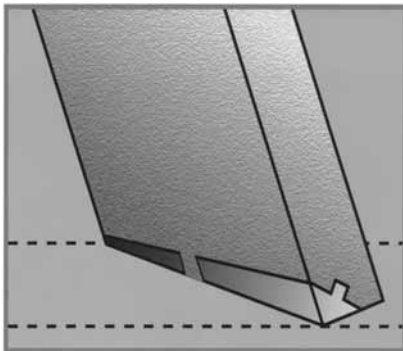
Victory Bear rustications form smooth, clean rustication bands (reveals) in concrete walls. They are manufactured from nonstick PVC for long life and easy clean-up.



Part Name	Height "B"	Width "A"	Chamfer Angle	Pieces		LF Per Box	Std. Lengths
				Per Box	Weight Lb/LF		
Standard Height							
2.5 Rustication	.75"	2.5"	45°	36	0.19	432	12'
3.5 Rustication	.75"	3.5"	45°	16	0.27	192	12'
5.5 Rustication	.75"	5.5"	45°	14	0.40	168	12'
11.5 Rustication	.75"	11.5"	45°	6	1.00	72	12'
Low Profile Height							
2LP Rustication	.5"	2"	60°	42	0.15	504	12'
3LP Rustication	.5"	3"	60°	35	0.22	420	12'
Base Clip							
				Pieces			
Part Name	Per Box	Wt. Lb/LF	LF Per Box	Std. Lgth.			
Base Clip	60	0.07	720	12'	* Be sure to order 1' of base clip for each 1' of rustication.		
Base ClipLP	60	0.065	720	12'			

Slab Savers

Victory Bear Slab Savers are a great way to protect concrete floors when tilting up poured walls. Slab savers are made from rigid, durable PVC and will not scratch valuable new floors.



Concrete Tilt-Up

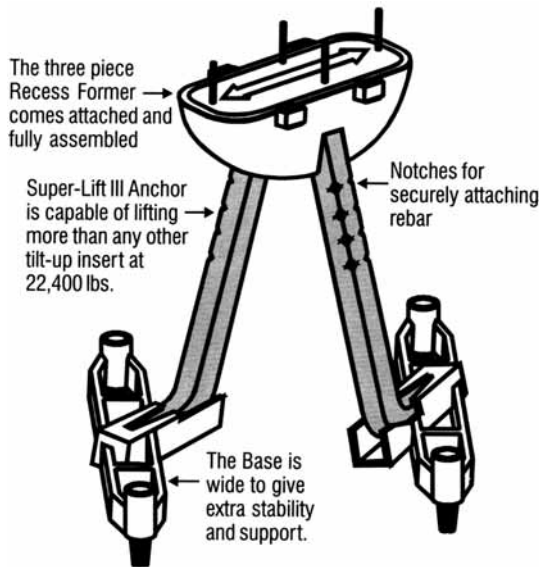
Super-Lift III

The Complete Tilt-Up System



The Burke Super-Lift III Tilt-Up Insert (patented) with a maximum lifting capacity of 22,400 lbs. (2.0:1 factor of safety) is capable of safely lifting more than any other tilt-up insert in the marketplace. The Burke Super-Lift III Insert is sold assembled and ready to use with void-former and base attached. See Engineering Data Sheet for working loads in various panel thicknesses. An oval void requires minimum patching. The Burke Super-Lift III Insert also has notches for rebar typing. An easy to use Burke Double Bar (patented) is available for double insert requirements.

Super-Lift III Insert



Super-Lift III Insert

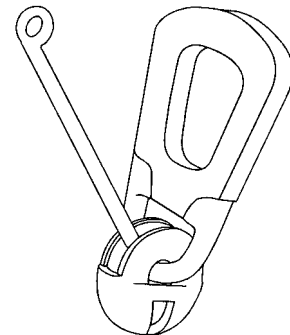
Working Loads In Lbs.-In. 2500 PSI Concrete, 2.5:1 Safety Factor

Item Number	Conc. Thick. In.	Face Tension	Face Shear
45SL3050	5"	7,400	12,800
45SL3052	5-1/4"	7,930	12,970
45SL3055	5-1/2"	8,470	13,150
45SL3060	6"	9,540	13,500
45SL3062	6-1/4"	10,230	14,470
45SL3065	6-1/2"	10,920	15,440
45SL3070	7"	12,290	17,380
45SL3072	7-1/4"	12,750	18,030
45SL3075	7-1/2"	13,210	18,690
45SL3080	8"	14,140	20,000
45SL3085	8-1/2"	15,460	21,870
45SL3090	9"	16,790	22,420
45SL3092	9-1/4"	17,450	22,420
45SL3095	9-1/2"	18,110	22,420
45SL3097	9-3/4"	18,770	22,420
45SL3100	10"	19,440	22,420
45SL3105	10-1/2"	20,760	22,420
45SL3110	11"	22,090	22,420
45SL3112	11-1/4"	22,420	22,420
45SL3115	11-1/2"	22,420	22,420
45SL3120	12"	22,420	22,420

Division 3

Meadow Burke Super-Lift Ring Clutch

The Burke Super-Lift III Clutch (patented) has a safe lifting capacity of 22,400 lbs. (5:1 factor of safety). The industry proven Burke clutch assembly was developed with a high strength casting and a forged handle which has been lengthened, to make for safer lifts and easier ground releases. The oval cross section prevents clutch rotation during handling, lifting and release. The Burke Super-Lift III Clutch is sold with chain and lanyard attached ready for jobsite use. There are no moving parts to bind against the concrete during engagement and release. The Burke Super-Lift III Clutch and Burke Super-Lift III Insert combine to provide the strongest, simplest and safest lifting system available in the market today.



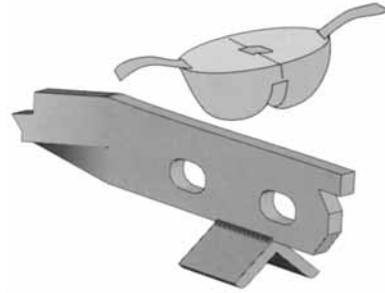
Concrete Tilt-Up

Super-Lift III

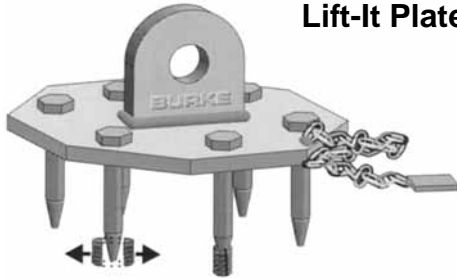
The Complete Tilt-Up System

The Burke Super-Lift III Edge Lift Insert (patent pending), specially engineered for use with the Burke Super-Lift III Clutch, gives the contractor a "no spall" solution to edge lifting panels. The attached shear plate reduces jobsite labor and the chance of installing an insert without a shear bar. The insert comes complete with a disposable void. Easy to install, the Burko Edge Lift Insert Void may be easily nailed to wooden forms.

Super-Lift III Edge Lift Insert



Lift-It Plate



The Burke Super Lift-It Plate has been designed by Burke Engineering for the Burke Super-Lift III load range to provide a safe method for lifting a panel which has a misplaced or displaced insert. The plate comes complete with six 3/4" diameter taper bolts, gage chained to the plate and instructions for use. The Burke Lift-It Plate has been designed with the contractor in mind.

B-75 Wall Brace Insert



The Burke Super Brace Insert with the Burke E-See Cap (patented) for easy location is specifically designed to be used when casting tilt-up panels. The Burke Super Brace Insert comes either for casting with the brace side up or inverted for the brace side down. Also available is the Burke 3/4" x 4" Coil Bolt for making the brace connection.

3/4" diameter coil insert height is 1/2" less than panel thickness. Available in 1/2" increments from 5" through 12".

Super Patches

The Burke Super Patch (patented) is the modern method to permanently and aesthetically cover insert holes on tilt-up panels. There's no need to waste time and money-consuming mortar-mix patches when Burke Super Patch can do the same job in less time, with unskilled labor, and at a lower overall cost. The Burke Super Patch is available for Burke Super-Lift III Inserts and also Burke Super-Lift III Super Brace Inserts. They both are gray with concrete-texture finish which allows blending into the panel surface.

Super Patch / 7" Diameter
B-75 Patch / 3" Diameter



Burke Bars

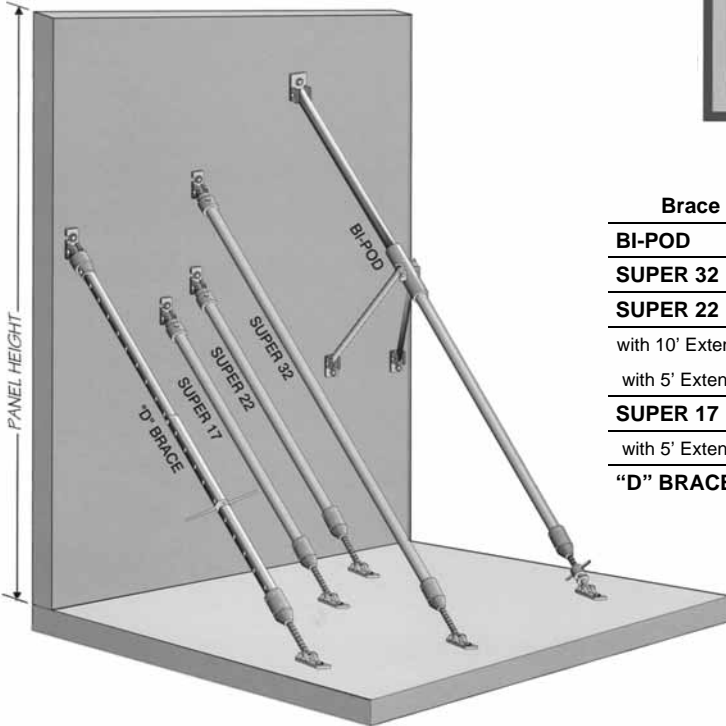


Thermal polyester finish

Engineered curve on blade yields 9° more leverage than the competition.

Concrete Tilt-Up

Super-Lift III
The Complete Tilt-Up System

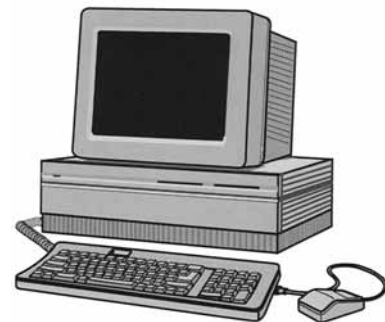


Brace	Nominal Brace Length	Range Of Panel Height	Ultimate Strength (Lbs.)
BI-POD	32', 42'-6"	31' to 65'	11,000
SUPER 32	32'	31' to 46'	13,000
SUPER 22	22'	17' to 31'	11,000
with 10' Extension	32'	31' to 46'	5800
with 5' Extension	27'	31' to 40'	8850
SUPER 17	17'	9' to 25'	13,000
with 5' Extension	22'	17' to 31'	11,000
"D" BRACE	14' to 20'	9' to 29'	VARIABLE

- Super Braces are Strong and Light.
- Greater Strength means fewer Braces and fewer Inserts.
- Bi-Pod Eliminates Knee Braces and Cross Lacing

Engineering

In addition to designing the Super-Lift III components, Burke Engineering has incorporated the features of Super-Lift III in their analysis for tilt-up erection engineering. Burke's engineers use state-of-the-art computer analysis and innovative techniques to minimize the panel lifting stresses, keeping added erection reinforcing to a minimum, saving you time and money. Burke has over 3,000,000 panels safely lifted. Burke provides computer-generated scaled panel drawings that are accurate, with all information clearly shown. The cable and spreader bar lengths are shown on each detail sheet to eliminate guesswork and increase safety. Brace requirements and dimensions are also on each panel detail to speed layout and reduce field error. The erection engineering can be customized to fit your project needs and erection preferences. Burke Engineering continues to be the "Tilt-Up Technology Leader."



Division 3



Utility Anchor Lifting System

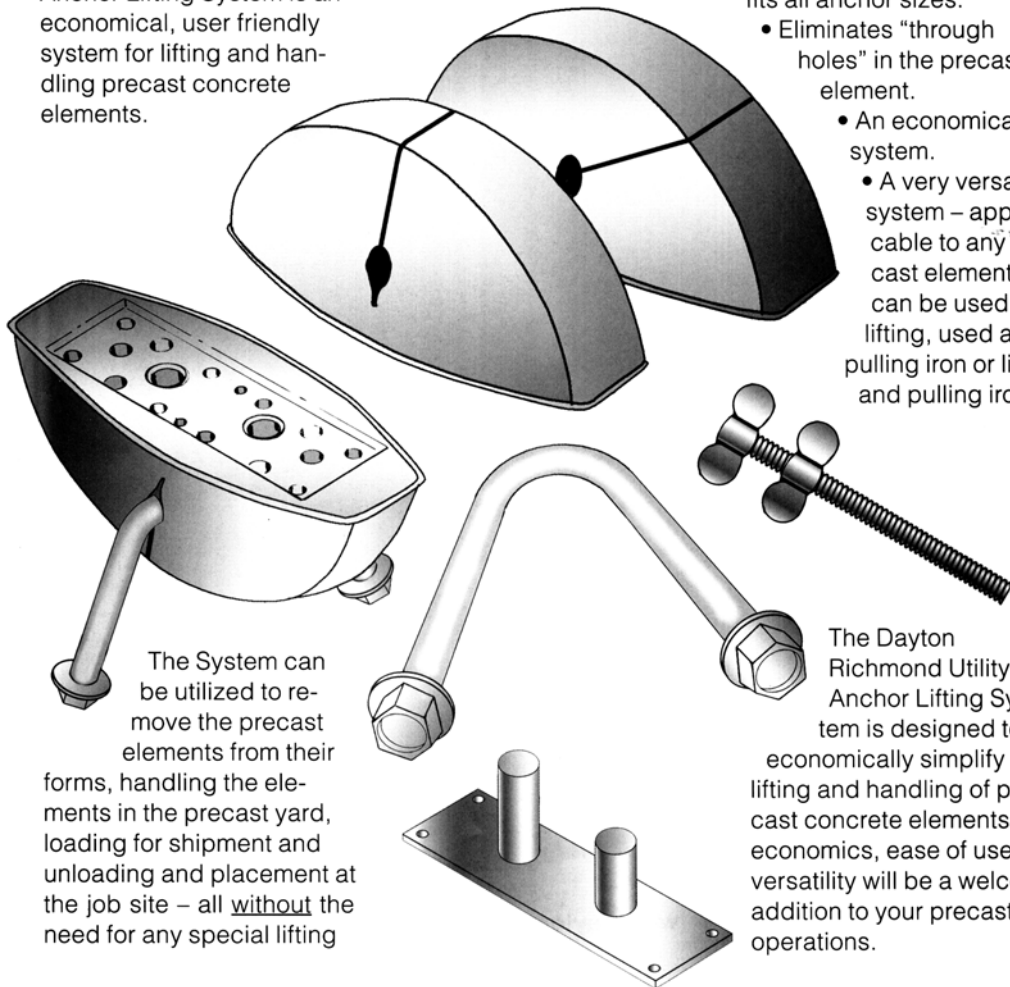
The Dayton Richmond Utility Anchor Lifting System is an economical, user friendly system for lifting and handling precast concrete elements.

equipment or hardware. Simply use a standard hook or clevis to connect to the Utility Anchor for a safe lift.

An added benefit of the easy to use System is a design feature that enables the unit to be used effectively as a pulling iron.

Key Advantages of the Utility Anchor Lifting System:

- High strength – Up to 10,000 lbs. SWL with an approximate 4 to 1 safety factor.
- Used with a standard hook or clevis - no special lifting hardware required.
- Easy to install and use. Utilizes reusable 90° and 45° polyurethane setting plugs – one size plug fits all anchor sizes.
- Eliminates "through holes" in the precast element.
- An economical system.
- A very versatile system – applicable to any precast element, can be used for lifting, used as pulling iron or lifting and pulling iron.



The System can be utilized to remove the precast elements from their forms, handling the elements in the precast yard, loading for shipment and unloading and placement at the job site – all without the need for any special lifting

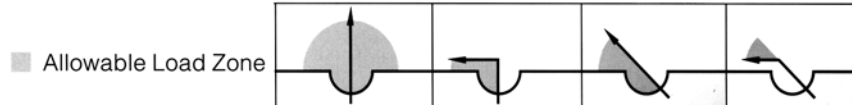
The Dayton Richmond Utility Anchor Lifting System is designed to economically simplify the lifting and handling of precast concrete elements. Its economics, ease of use and versatility will be a welcome addition to your precast operations.

Division 3

Precast Concrete



Utility Anchor



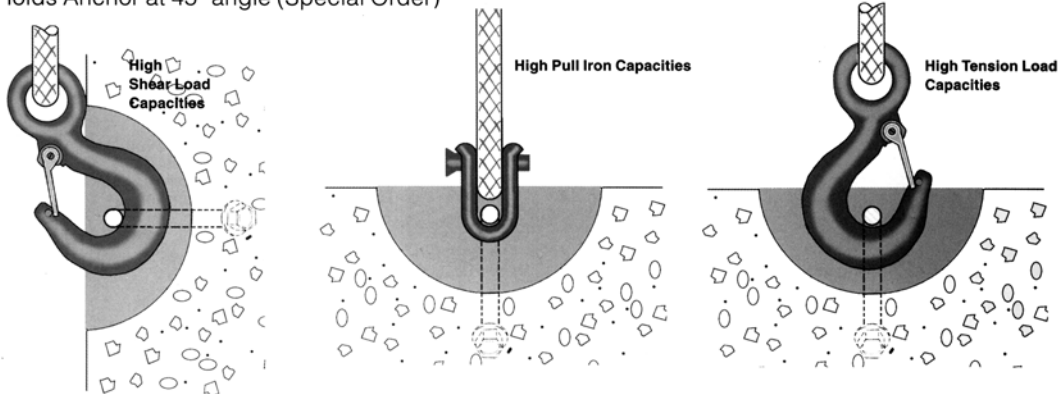
Product Code	Slab Min. at 90°	Slab Min. at 45°	SWL at 90° Tension	SWL at 45° Shear	SWL at 45° Tension	SWL at 45° Shear
4UA444	4"	3-1/2"	1,125	1,750	795	795
6UA444	5-5/8"	4-1/2"	4,000	9,000	2828	2828
6UA671	5-5/8"	4-1/2"	5,000	10,000	3535	3535
8UA671	7-5/8"	6"	10,000	12,000	7070	7070

Note: Safe Working Load provides a factor of safety of approximately 4:1
 Table is based on a minimum concrete compressive strength of 4,000psi.

P-75 Anchors and accessories:

Utility Anchor	Product Code	A	B	C	Weight Ea.
	4UA444	5.25"	3.125"	.444"	5 oz.
	6UA444	7.375"	4.75"	.444"	12 oz.
	6UA671	7.375"	4.75"	.671"	1 lb.
	8UA671	9.684"	6.75"	.671"	1-1/2 lb.
Setting Plug	Product Code	D	E	F	Weight Ea.
	UASP90	6.98"	3.25"	3"	1-1/4 lb.
	UASP45*	6.98"	3.25"	3"	1-1/4 lb.

* Holds Anchor at 45° angle (Special Order)



Division 3

Swift Lift System

The SWIFT LIFT (SL) SYSTEM is a quick connect/disconnect system which allows precast concrete units to be handled repeatedly with speed, safety and economy. The system is a non-welded system and also avoids threaded connections, which are time-consuming, subject to thread wear and damage, and the further risk of not being fully engaged, with consequent reduction of the safe working load. The reusable SL Lifting Eye is free of these disadvantages and by virtue of its quality and heavy-duty construction will give years of use.

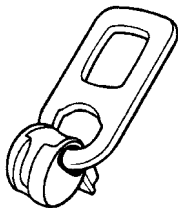
The Swift Lift System is available with safe load ratings of 1, 1.3, 2, 2.5, 4, 5, 8, 10 and 20 tons. Each component is clearly marked in tons, with the maximum safe rating load. The system is extremely versatile in use, being suitable for vertical or diagonal pull. It can also be used to raise concrete units from the horizontal to the vertical position without the aid of a tilting table.

Components of the Swift Lift System

The Swift Lift System consists of the following items:

- P-50 SL Universal Lifting Eyes
- P-51 SL Lifting Eye
- P-52 SL Anchor
- P-53 SL Lifting Eye Anchor
- P-55 SL Narrow Recess Plug with Stud and Wing Nut
- P-55 SL Round Recess Plug with Stud and Wing Nut
- P-56 SL Narrow Recess Plug Only
- P-56 SL Round Recess Plug Only
- P-56-R SL Round Recess Plug Only for Steel Forms
- P-57 SL Steel Recess Plug
- P-58 SL Rubber Ring for Steel Recess Plug
- P-59 SL Shear Bar
- P-60 SL Tension Bar
- P-61 SL Setting Plate
- P-62 SL Countersunk Screw
- P-63 SL Stud
- P-63-R SL Attachment Stud
- P-64 SL Wing Nut
- P-65 SL Safety Pin with Washer
- P-66 SL Tapped Plate
- P-66-R SL Attachment Nut
- P-69 SL Edge Lifting Eye

SL Lifting Eyes



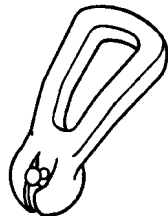
P-50 SL Universal Lifting Eye

The **P-50 SL Universal Lifting Eye** consists of a flat-sided spherical lifting body and a high-strength bail. The lifting body has a T-shaped slot which permits rapid attachment and release of the lifting eye onto Swift Lift anchors, even while wearing work gloves.

The design of the P-50 Universal Lifting Eye permits the ball to freely rotate 180°, while the complete lifting eye may rotate through a 360° arc. This design feature allows your precast concrete elements to be turned, tilted and/or rotated under load.

The P-50 SL Universal Lifting Eye is **not recommended for edge lifting of thin precast concrete panels**. Instead, consider using either the P-51 SL Lifting Eye or the P-69 SL Edge Lifting Hardware.

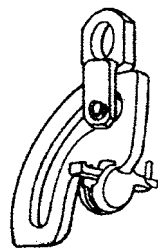
The P-50 SL Universal Lifting Eye is available in load ranges to fit all sizes of SL anchors.



P-51 SL Lifting Eye

The **P-51 SL Lifting Eye** is a high-quality steel casting, hardened and tempered with a minimum breaking strength of more than five times the rated load. Its ball-shaped lower end fits into the recess formed in the concrete and has a T-shaped slot which engages the spherical head of the anchor. Connection to the anchor head can only be made when the lifting eye is positioned face down to the concrete. Accidental disengagement is prevented by a gravity-action safety pin which must be raised before the SL Lifting Eye can be removed.

The P-51 SL Lifting Eye is available in load ranges of 1 to 1.3, 1.5 to 2.5, 3 to 5 and 6 to 10 tons.



P-69 SL Edge Lifting Eye

The **P-69 SL Edge Lifting Eye** is specifically manufactured for the edge lifting or tilting up of thin precast wall panels from the flat to the vertical position. As the panel is rotated into the vertical position, the hardware's roller block transfers the load on the anchor from shear into tension. The unique design of this lifting eye does not allow the body of the hardware to move or bear against the concrete. Due to the effectiveness of this design, no shear bars are required for use with Swift Lift Anchors when using the P-69 hardware.

Either the P-50 or P-51 SL Lifting Eyes may be used to handle the panel once the panel has been tilted up and placed into storage. This means that the P-69 SL Edge Lifting Eye is used only in the production of thin wall panels.

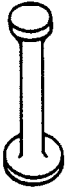
The P-69 SL Edge Lifting Eye is available in load ranges of 1 to 1.3, 1.5 to 2.5, and 3 to 5 tons.

Designed for use with a spreader or equalizer beam and vertical slings only. Do not use with V-type rigging arrangements. Design may vary from that shown.

Precast Concrete

Swift Lift System

Swift Lift Anchors



P-52 SL Anchor



P-53 SL Eye Anchor

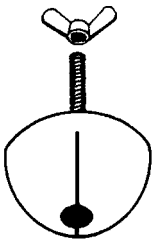
P-52 SL Anchor is fabricated from carbon steel which has a minimum ultimate tensile strength of 75,000 PSI. Both ends of the bar are hot forged; the formed head provides a spherical seating onto which the SL Lifting Eye engages, while a disc-shaped foot is provided at the lower end and is embedded in the concrete. Laboratory tests have proven that such a safe working load is clearly visible on the head of the anchors for easy recognition of the safe lifting capacity, even when embedded in concrete. Stainless steel SL anchors are available on special order.

P-53 SL Eye Anchor is available in 1.3, 2.5, 5, 10 and 20 ton capacities. It is fabricated with an eye at the foot of the anchor and thereby allows P-60 tension bars to be attached. The SL Eye Anchor is used primarily in very thin sections, thin panels constructed with lightweight concrete, or in shapes that must be handled at very low compressive strength (less than 2000 PSI). The **MAXIMUM** safe working load in tons is embossed on the head of the anchor.

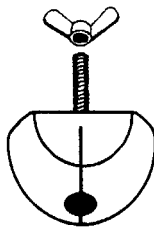
These anchors have the same head and shaft diameters as our 2, 4, 8 and 20 ton SL anchors. This allows them to work with our SL Lifting Hardware and related SL accessories.

Swift Lift Accessories

P-55 Recess Plug with Stud & Wing Nut



Round Recess Plug

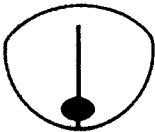


Narrow Recess Plug

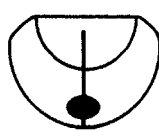
P-55 SL Recess Plug is available in two styles; round and narrow. The round recess plug is used in most situations, while the narrow plug is used in thin-wall conditions, such as in the top edge of highway safety barriers. The system is designed so that the anchor head lies approximately 1/2 inch below the surface of the concrete in a recess which can be easily patched after the precast unit is in its final position. One of the resulting advantages is that rusting of the anchor and surface staining of the concrete are prevented. The cavity is formed with the SL Recess Plug which is attached to the side of the mold by means of the stud and wing nut provided and in which the anchor is securely held during casting.

The SL Recess Plug has a slit which facilitates insertion of the anchor head and withdrawal when the formwork is stripped or the concrete has achieved final set. When removing the plug, plain rods or screwdrivers can be introduced into two holes provided in the top surface of the recess plug, which is then pried open and removed from the concrete. SL Recess Plugs are made of a combination of rubber and neoprene (Nitrile Butadiene) and are ideal for use in conditions requiring temperature or oil resistance.

P-56 Recess Plug Only



Round Recess Plug



Narrow Recess Plug

P-56 SL Recess Plugs are identical to the P-55 Recess Plugs, except they are supplied as replacement recess plugs without stud and wing nut.

P-57 SL Steel Recess Plug

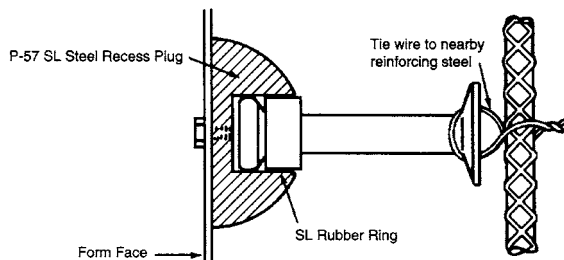


P-57 SL Steel Recess Plug is drilled and tapped at the top surface for attachment to forms that have repetitive uses, such as battery molds, steel forms that have a collapsible stripping feature, etc. If it is not feasible to drill holes in the forms, the Steel Recess Plug may be glued or tack welded to the form surface. The SL Steel Recess Plug should not be used in the top surface of concrete elements.

P-58 SL Rubber Ring for Steel Recess Plug



P-58 SL Rubber Ring is placed on the shaft of the SL anchor and is seated into the SL Steel Recess Plug, providing a holding action for the anchor. Anchors used in this manner should be supported at their ends to prevent dislodgement.



Division 3

Precast Concrete

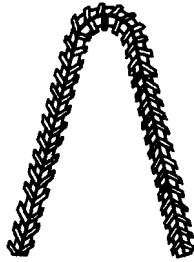
Swift Lift System

Swift Lift Accessories



P-59 SL Shear Bar

P-59 Shear Bar. When edge lifting thin precast wall panels from flat to vertical, the P-59 Shear Bar is used to transfer the applied shear load deeper into the panel. In order for the shear bar to work properly, it must be secured tightly against the recess plug.



P-60 SL Tension Bar

P-60 Tension Bar. The P-53 SL Eye Anchor requires the use of the P-60 Tension Bar in order for the anchor to develop its load carrying capacity. Dayton Superior does not recommend the use of the P-53 SL Eye Anchor without a correctly installed tension bar.



P-61 SL Setting Plate

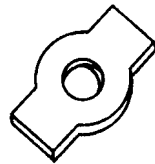
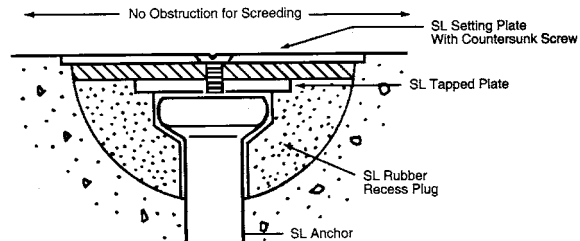
P-61 SL Setting Plate is available in two sizes; a 4" diameter plate for use with 4-ton anchors, and a 5" diameter plate for use with 8-ton anchors.

P-62 SL Countersunk Screw. The 5/16"-18 NC threaded x 3/4" long screw is used with the 4-ton setting plate, while the 7/16"-14 NC threaded x 3/4" long screw is used with the 8-ton plate.



P-62 SL Countersunk Screw

P-66 SL Tapped Plate. This special plate is designed to be used with the P-62 SL Countersunk Screw.



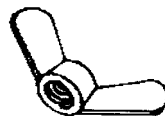
P-66 SL Tapped Plate

P-61 SL Setting Plate. When used in conjunction with the P-62 SL Countersunk Screw and P-66 SL Tapped Plate, provides a means of placing an SL anchor into the surface of a flat panel without any obstruction for screeding purposes.



P-63 SL Stud

P-63 SL Stud is identical to the studs supplied with the P-55 Recess Plug, except it is a replacement item. Available with 5/16"-18 NC threads for use with 1-ton recess plugs, or 7/16"-14 NC threads for use with all other P-55 Recess Plugs.



P-64 SL Wing Nut

P-64 SL Wing Nut is a replacement wing nut for the nut supplied with the P-55 SL Recess Plug. This nut is available in two different thread sizes. The 5/16"-18 NC threaded wing nut is designed for use with the 1-ton P-63 SL Stud, while the 7/16"-14 NC threaded unit works with the 2, 4, 8 and 20-ton studs.

NOTE: These wing nuts will not fit the P-63-R SL Attachment Stud.

Division 3

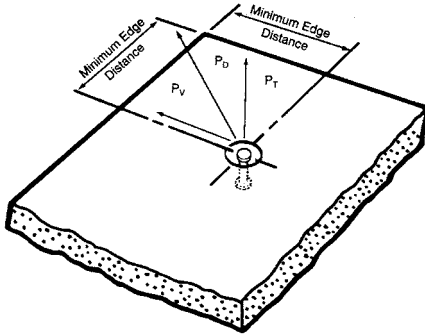
Precast Concrete

Swift Lift System



P-52 SL Anchor Tensile & Shear Capacity

When anchors are used in the face of flat slabs



The following table lists the P-52 Swift Lift Anchors that are currently manufactured. Other sizes and lengths are available on special order. However, we have found that the sizes and lengths of anchors shown will handle the majority of flat precast concrete elements.

When the P-52 Swift Lift Anchor is properly embedded in normal weight concrete, the tabulated working loads are applicable for any direction of load. This applies even if the direction of load is parallel to the axis of the anchor, perpendicular to it or at any other angle.

Minimum distance between anchors is twice the minimum edge distance.

It is critical to remember that in order to obtain the safe working loads listed in the table below, the normal weight concrete must have obtained the minimum concrete strength shown – prior to the initial load application.

Swift Lift Anchor Ton x Length	Safe Working Load	Minimum Concrete Strength	Minimum Edge Distance
1 ton x 2-5/8" (67mm) long	1700 lbs. / 7.6 kN	3500 PSI / 24 MPa	8" / 220mm
1 ton x 3-3/8" (86mm) long	2000 lbs. / 9.0 kN	2200 PSI / 15 MPa	10" / 250mm
1 ton x 4-3/8" (111 mm) long	2000 lbs. / 9.0 kN	1600 PSI / 11 MPa	10" / 250mm
1 ton x 8" (203mm) long	2000 lbs. / 9.0 kN	1600 PSI / 11 MPa	10" / 250mm
1 ton x 9-1/2" (241mm) long	2000 lbs. / 9.0 kN	1600 PSI / 11 MPa	10" / 250mm
2 ton x 2-3/4" (70mm) long	2100 lbs. / 9.4 kN	3500 PSI / 24 MPa	8" / 220mm
2 ton x 3-3/8" (86mm) long	2900 lbs. / 13.0 kN	3500 PSI / 24 MPa	10" / 250mm
2 ton x 5-1/2" (139mm) long	4000 lbs. / 17.9 kN	1600 PSI / 11 MPa	13" / 330mm
2 ton x 6" (152mm) long	4000 lbs. / 17.9 kN	1600 PSI / 11 MPa	13" / 330mm
2 ton x 6-3/4" (171mm) long	4000 lbs. / 17.9 kN	1600 PSI / 11 MPa	13" / 330mm
2 ton x 11" (279mm) long	4000 lbs. / 17.9 kN	1600 PSI / 11 MPa	14" / 350mm
4 ton x 3-3/4" (95mm) long	4000 lbs. / 17.9 kN	3500 PSI / 24 MPa	12" / 300 mm
4 ton x 4-1/4" (108mm) long	4900 lbs. / 22.0 kN	3500 PSI / 24 MPa	13" / 330mm
4 ton x 4-3/4" (121mm) long	5800 lbs. / 26.0 kN	3500 PSI / 24 MPa	14" / 350mm
4 ton x 5-1/2" (139mm) long	7400 lbs. / 33.2 kN	3500 PSI / 24 MPa	17" / 430mm
4 ton x 7-1/8" (153mm) long	8000 lbs. / 35.8 kN	1800 PSI / 12 MPa	20" / 500mm
4 ton x 9-1/2" (241mm) long	8000 lbs. / 35.8 kN	1600 PSI / 11 MPa	17" / 430mm
4 ton x 14" (356mm) long	8000 lbs. / 35.8 kN	1600 PSI / 11 MPa	18" / 450mm
4 ton x 19" (483mm) long	8000 lbs. / 35.8 kN	1600 PSI / 11 MPa	20" / 500mm
8 ton x 4-3/4" (121mm) long	6400 lbs. / 28.7 kN	3500 PSI / 24 MPa	16" / 400mm
8 ton x 6-3/4" (171mm) long	11,200 lbs. / 50.2 kN	3500 PSI / 24 MPa	21" / 530mm
8 ton x 10" (254mm) long	16,000 lbs. / 71.7 kN	3500 PSI / 24 MPa	19" / 480mm
8 ton x 13-3/8" (340mm) long	16,000 lbs. / 71.7 kN	1600 PSI / 11 MPa	23" / 580mm
8 ton x 26-3/4" (679mm) long	16,000 lbs. / 71.7 kN	1600 PSI / 11 MPa	27" / 680mm
20 ton x 10" (254mm) long	25,000 lbs. / 112.0 kN	3500 PSI / 24 MPa	24" / 610mm
20 ton x 19-3/4" (502mm) long	40,000 lbs.* / 179.2 kN	3500 PSI / 24 MPa	31" / 780mm

SWL's provide a factor of safety approximately 4 to 1 in normal weight concrete.

* SWL's provide a factor of safety approximately 3 to 1 in normal weight concrete.

SWL is based on anchor setback from face of concrete "X" dimension, as shown on next page.

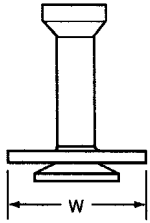
Division 3

Precast Concrete

Swift Lift System



P-52-W SL Anchor Tensile & Shear Capacity When anchors are used in the face of thin concrete elements

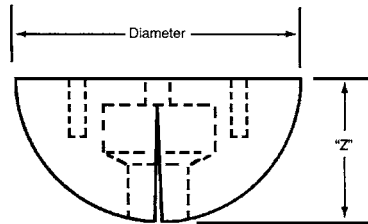
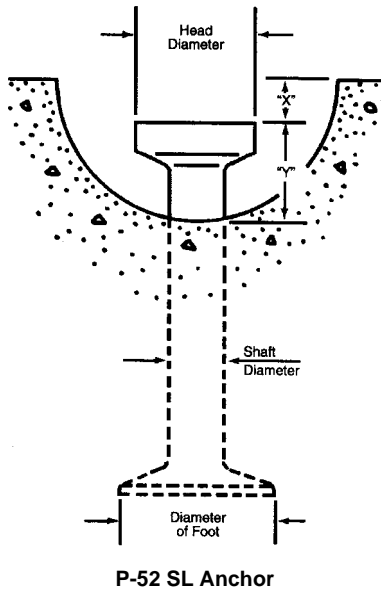


The P-52-W Swift Lift Anchors are the shortest 2-ton and 4-ton Swift Lift Anchors available and have been specially modified. A Type W plain washer is placed on the anchor's foot where it is welded into position. This modification has been made in order to increase the SWL of these short SL anchors in thin precast concrete elements.

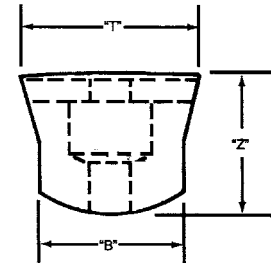
Swift Lift Anchor Tons x Length	Safe Working Load	Minimum Concrete Strength	Minimum Edge Distance	W
2 tons x 2-3/4" (70mm)	3700 lbs. / 16.5 kN	3500 PSI / 24 MPa	8" / 200mm	2-1/2" / 64mm
4 tons x 3-3/4" (95mm)	5700 lbs. / 25.4 kN	3500 PSI / 24 MPa	12" / 300mm	2-3/4" / 70mm

Division 3

P-52 SL Anchor and Recess Plug Dimensions



SL Round Recess Plug



SL Narrow Recess Plug

SL Recess Plug Dimensions

Swift Lift Anchor	Recess Plug Diameter	Dimension "Z"	Dimension "T"	Dimension "B"
1 or 1.3 Tons	2-3/8" / 70mm	1-3/16" / 30mm	1-21/32" / 42mm	1-11/32" / 34mm
2 or 2.5 Tons	3" / 76mm	1-7/16" / 37mm	2-1/32" / 52mm	1-23/32" / 44mm
4 or 5 Tons	3-3/4" / 95mm	1-13/16" / 46mm	2-3/4" / 70mm	2-9/32" / 58mm
8 or 10 Tons	4-3/4" / 120mm	2-5/16" / 59mm	3-11/32" / 85mm	2-15/16" / 75mm
20 Tons	6-3/8" / 162mm	3-1/8" / 79mm	4-15/16" / 125mm	4-7/16" / 113mm

Note: Length of the narrow recess plug is the same as the diameter of the round recess plug.

P-52 SL Anchor Dimensions

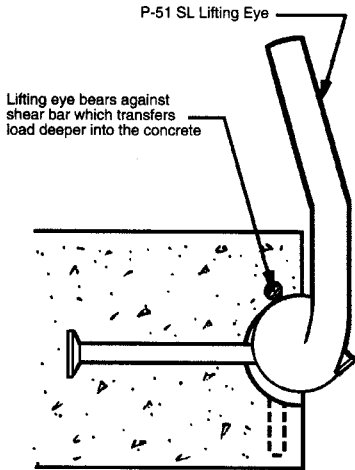
Swift Lift Anchor	Dimension "X"	Dimension "Y"	Shaft Diameter	Foot Diameter	Head Diameter
1 or 1.3 Tons	5/16" / 8mm	7/8" / 22mm	3/8" / 9mm	1" / 25mm	11/16" / 17mm
2 or 2.5 Tons	7/16" / 11mm	1-1/16" / 27mm	9/16" / 14mm	1-3/8" / 35mm	31/32" / 24mm
4 or 5 Tons	9/16" / 14mm	1-5/16" / 33mm	3/4" / 19mm	2" / 50mm	1-11/32" / 34mm
8 or 10 Tons	9/16" / 14mm	1-5/8" / 41mm	1-3/32" / 27mm	2-3/4" / 70mm	1-7/8" / 47mm
20 Tons	9/16" / 14mm	2-5/8" / 67mm	1-1/2" / 38mm	3-3/4" / 95mm	2-3/4" / 69mm

Precast Concrete

Swift Lift System



P-52 SL Anchors for Edge Lifting



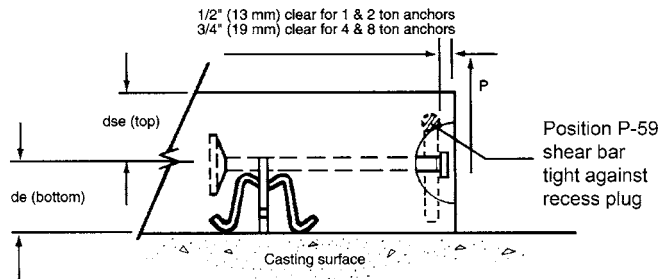
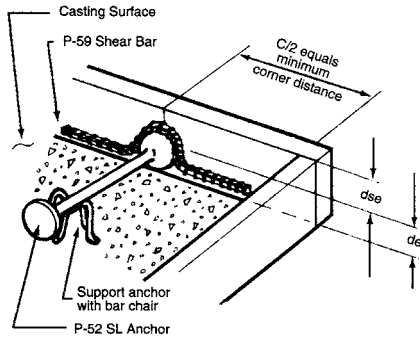
The P-52 SL Anchors and P-51 SL Lifting Eyes are useful for raising precast concrete panels from their horizontal casting position to a vertical position for handling and shipping. When Swift Lift anchors are used in thin precast panels and under shear loading conditions, a special shear bar must be used.

The applied shear load tends to bend the SL anchor, allowing the lifting eye to apply load to the thin concrete section above the recess plug. A properly installed shear bar captures the applied load and transfers it deeper into the concrete.

When raising precast panels from a horizontal position to a vertical position, always check both shear and tension safe working loads.

In order to develop the SL anchor's shear safe working load, the minimum spacing between SL anchors is two times the corner distance listed. Please see the **P-51 SL Lifting Eye Shear Capacity in Thin Walls** chart for minimum corner distance $C/2$.

Dayton Superior does not recommend the P-50 SL Universal Lifting Eye for use in edge lifting thin precast panels.

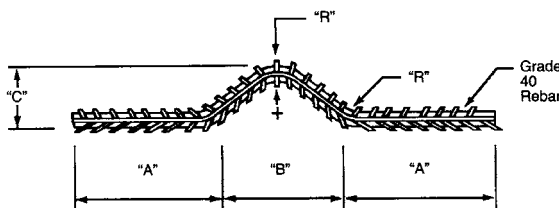


Notes:

Properly installed shear bars are required to develop SWL's shown in chart.
 $2x de$ equals effective wall thickness for tensile loads.

P-59 Shear Bar Dimensions

Anchor Rated Load Tons	A	B	C	R	Rebar Size
1	7" / 178mm	5" / 127mm	2-1/2" / 64mm	1" / 25mm	#4 / #10M
2	9" / 229mm	7" / 178mm	3" / 76mm	1-7/16" / 37mm	#4 / #10M
4	10" / 254mm	9" / 229mm	3-3/4" / 95mm	1-3/4" / 44mm	#4 / #10M
8	12" / 305mm	10" / 254mm	3-3/4" / 95mm	2-1/4" / 57mm	#6 / #20M



Division 3

Precast Concrete

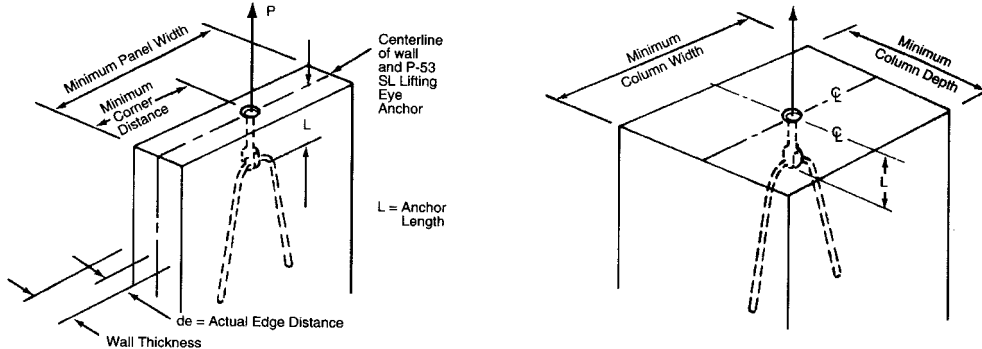
Swift Lift System



P-53 SL Lifting Eye Anchor for Lifting and Handling

The P-53 SL Lifting Eye Anchor is designed for use with the P-60 reinforcing bar to be placed through the eye of the anchor. This combination of SL Eye Anchor and P-60 Rebar allows the anchor's full rated tensile load to be developed in thin narrow wall conditions. The anchor should be located at the centerline of the wall. **When two or more anchors are required, the minimum spacing between anchors must be equal to the minimum panel width.**

This combination of P-53 SL Lifting Eye Anchor and P-60 Rebar is also an excellent system to use for setting precast columns into position.



P-53 SL Anchor Effective Tensile Capacity

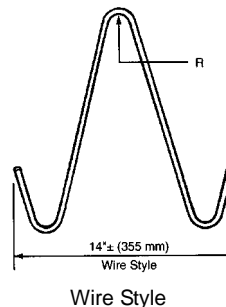
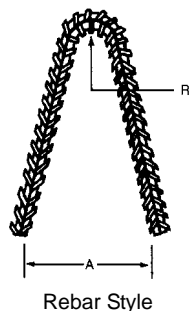
Anchor Rated Load Tons	Anchor Length "L"	Minimum Thickness or Depth 2 de	Actual Edge Distance de	Minimum Corner Distance	Minimum Panel Width	Tensile Safe Working Load per Anchor
1.3	2-1/2" / 63mm	3" / 75mm	1-1/2" / 38mm	8" / 200mm	16" / 400mm	2600 lbs. / 11.1 kN
2.5	3-1/2" / 89mm	3" / 75mm	1-1/2" / 38mm	4" / 100mm	8" / 200mm	5000 lbs. / 22.2 kN
5	4-3/4" / 120mm	3-3/4" / 95mm	1-7/8" / 47mm	5" / 125mm	10" / 250mm	10,000 lbs. / 44.4 kN
10	7-1/16" / 180mm	4-3/4" / 120mm	2-3/8" / 60mm	7" / 175mm	14" / 350mm	20,000 lbs. / 88.9 kN
20	9-7/8" / 250mm	6-3/8" / 160mm	3-3/16" / 80mm	8-1/2" / 215mm	17" / 430mm	40,000 lbs. / 117.9 kN

SWL provides a safety factor approximately 3:1 in 2000 PSI (14 MPa) normal weight concrete.

Note: Contact Dayton Superior's Technical Service Department for safe working loads when the P-53 Eye Anchor is used with straight lengths of rebar.

P-60 Reinforcing Bar Dimensions

Anchor Rated Load Tons	Grade 60 Rebar Size	Rebar Overall Length	"A"		"R"
			Standard	Maximum	
1.3	.306" (7.8mm) Dia.	40" / 1000mm	14" / 355mm	-	3/4" / 19mm
2.5	#3	24" / 610mm	5" / 127mm	7-1/2" / 190mm	1-1/8" / 28mm
5	#5 / 15M	24" / 610mm	6-1/4" / 158mm	10" / 250mm	1-7/8" / 47mm
10	#6 / 20M	48" / 1220mm	9-1/2" / 240mm	15" / 381mm	2-1/4" / 57mm
20	#8 / 25M	86" / 2180mm	12-1/2" / 317mm	20" / 508mm	3" / 76mm



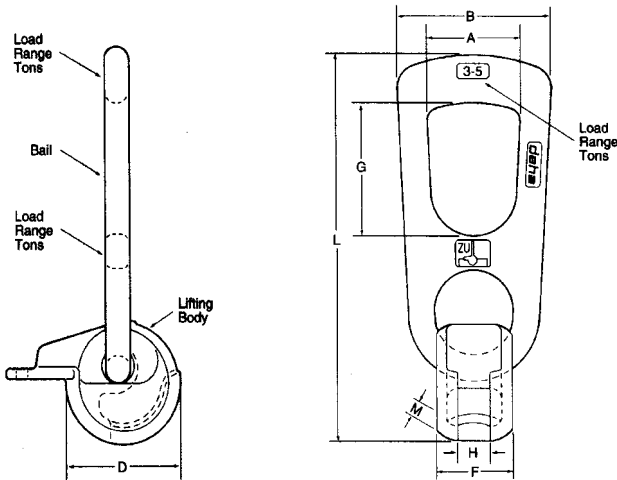
Note: For use with 1.3 ton P-53 Eye Anchors only.

Precast Concrete

Swift Lift System



P-50 SL Universal Lifting Eye



The SL Universal Lifting Eye consists of a flat-sided spherical lifting body and a high-strength ball. The lifting body has a T-shaped slot which permits rapid attachment and release of the lifting eye onto Swift Lift anchors, even while wearing work gloves.

The design of the P-50 Universal Lifting Eye permits the bail to freely rotate 180°, while the complete lifting eye may rotate through a 360° arc. This design feature allows your precast concrete elements to be turned, tilted and/or rotated under load.

Dayton Superior does not recommend the use of this lifting eye for tilting of thin precast concrete panels.

Division 3

General Information – Dimensions of P-50 SL Universal Lifting Eye

Rated Load Tons	Load Range Tons	A	B	D	F	G	L
1	1 to 1.3	1.87" / 48mm	2.95" / 75mm	2.20" / 64mm	1.26" / 32mm	2.80" / 71mm	7.40" / 188mm
2	1.5 to 2.5	2.34" / 60mm	3.58" / 91mm	2.68" / 68mm	1.61" / 41mm	3.41" / 87mm	9.06" / 230mm
4	3 to 5	2.76" / 70mm	4.65" / 118mm	3.46" / 88mm	2.22" / 57mm	3.46" / 88mm	11.14" / 283mm
8	6 to 10	3.47" / 88mm	6.30" / 112mm	4.41" / 112mm	2.83" / 72mm	4.52" / 115mm	15.79" / 401mm
16	12 to 20	4.18" / 106mm	7.09" / 152mm	6.00" / 152mm	4.29" / 110mm	5.31" / 135mm	20.00" / 508mm

The rated load provides a safety factor of approximately 5:1 – ultimate to rated load.

Inspection and Maintenance

The SL Universal Lifting Eye may be subjected to wear, misuse, overloading, and many other factors which may affect the lifting eye's rated load. Therefore, the lifting eye must be inspected by the user at least once a month to determine its general condition and degree of wear.

During your monthly inspection, check for evidence of heat application. If evidence of heat application is found, the unit must be scrapped. Check for bent or twisted bails. Discard all units with bent or twisted bails. Also, check to make certain that the bail can rotate freely in all directions.

At least once every three months, dimensions "H" and "M" on each unit should be checked. The upper limits are shown in the chart. If either of these limits is exceeded, the SL Universal Lifting Eye must be removed from service and destroyed.

The proper method to use in scrapping a lifting eye is to cut through the bail with a cutting torch.

No repairs to the P-50 SL Universal Lifting Eye are permitted. No welding to the lifting eye is allowed.

Limiting Dimensions on P-50 SL Universal Lifting Eye

Rated Load Tons	Load Range Tons	Maximum Width H	Minimum Thickness M
1	1 to 1.3	0.512" / 13mm	0.217" / 5.5mm
2	1.5 to 2.5	0.709" / 18mm	0.236" / 6.0mm
4	3 to 5	0.984" / 25mm	0.315" / 8.0mm
8	6 to 10	1.260" / 32mm	0.472" / 12.0mm
16	12 to 20	1.811" / 46mm	0.709" / 18.0mm

Swift Lift System



P-51 SL Lifting Eye Inspection and Maintenance

While appreciable wear does not normally occur, the P-51 SL Lifting Eye may be subjected to wear, misuse, overloading and other factors which may affect the lifting eye's rated load. Therefore, the lifting eye must be inspected by the user at least once a month to determine its general condition and degree of wear.

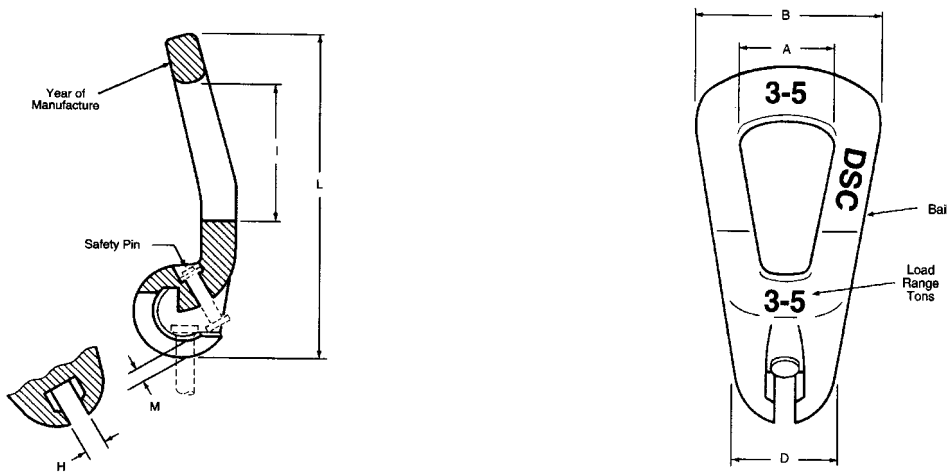
During your monthly inspection, check for evidence of heat application. If evidence of heat application is found, the unit must be scrapped. You should also check to make certain that the bail is not bent or twisted. Discard all units that have a bent or twisted bail.

Check to make certain that the safety pin is in good condition and that it moves freely at all times. Also, check for a bent or missing safety pin and replace the pin as required.

At least once every three months, dimensions "H" and "M" on each unit should be checked. The upper limits are shown in the chart. If either of these limits is exceeded, the SL Lifting Eye must be removed from service and destroyed.

The proper method to use in scrapping a lifting eye is to cut through the bail with a cutting torch.

Other than replacing the safety pin, no repairs to the P-51 SL Lifting Eye are permitted. In particular, welding is not permissible.



Limiting Dimensions on P-51 SL Lifting Eye

Rated Load Tons	Load Range Tons	Maximum Width H	Minimum Thickness M
1	1 to 1.3	0.512" / 13mm	0.217" / 5.5mm
2	1.5 to 2.5	0.709" / 18mm	0.236" / 6.0mm
4	3 to 5	0.984" / 25mm	0.315" / 8.0mm
8	6 to 10	1.260" / 32mm	0.472" / 12.0mm

General Information

Dimensions of P-51 SL Lifting Eye

A	B	D	I	L
1.97" / 50mm	3.62" / 92mm	1.77" / 45mm	2.95" / 75mm	6.61" / 170mm
2.64" / 67mm	4.52" / 115mm	2.36" / 60mm	3.74" / 95mm	8.43" / 215mm
3.00" / 76mm	5.06" / 129mm	2.83" / 72mm	4.96" / 126mm	10.35" / 260mm
3.54" / 90mm	5.98" / 152mm	3.70" / 94mm	5.60" / 143mm	12.87" / 325mm

Rated load provides a safety factor of approximately 5:1 – ultimate to rated load.

Division 3

Fleet-Lift System



System Description

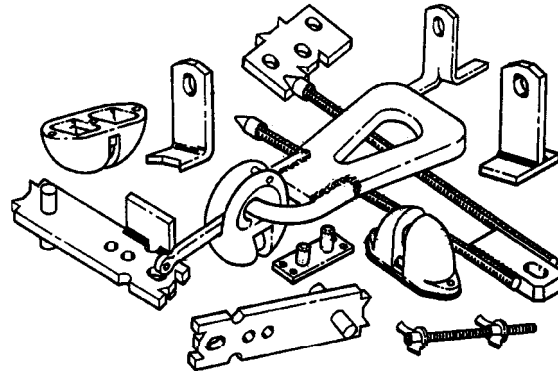
The Fleet-Lift System is an economical, quick connect/disconnect system which allows precast concrete units to be handled repeatedly with speed and safety. The Fleet-Lift Ring Clutch is easily connected to the anchor. The high-quality and heavy-duty construction of the Fleet-Lift Ring Clutches will give years of safe use.

Fleet-Lift Anchors are available in 1, 2, 3, 4, 6 and 8 ton capacities. Each system component is clearly marked in tons with the maximum safe working load. The system is extremely versatile, being suitable for vertical and diagonal pulls. It can be used to raise concrete units from the horizontal to the vertical without the aid of a tilting table.

Components of the Fleet-Lift System

The Fleet-Lift System consists of the following items:

- P-91 Fleet-Lift Ring Clutches
- P-92 Fleet-Lift Erection Anchors
- P-93 Fleet-Lift L-Anchors
- P-94 Fleet-Lift T-Anchors
- P-95 Fleet-Lift Plate and Flat Foot Anchors
- P-96 Fleet-Lift Two Hole Anchors
- P-97 Fleet-Lift Specialty Anchors (Double Tee Anchors)
- P-98 Fleet-Lift Shear Bars and Tension Bars
- P-99 Fleet-Lift Recess Members
- P-100 to P-103 Fleet-Lift Accessories

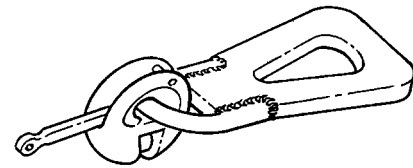


Fleet-Lift System Components

Division
3

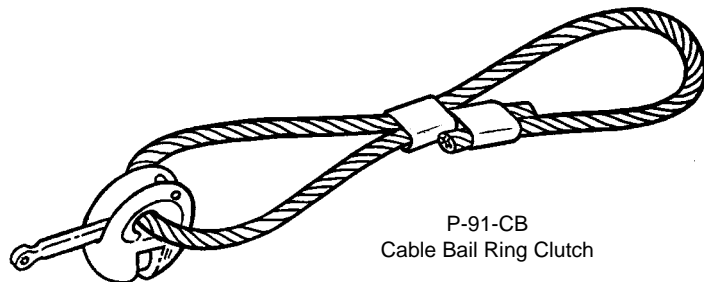
P-91 Fleet-Lift Ring Clutches

The P-91 Fleet-Lift Ring Clutch consists of a clutch body, curved bolt, and a high-strength steel or cable bail. Attachment is as simple as sliding the curved bolt to the open position, placing it over the anchor head and sliding the bolt to the closed position.



P-91
Standard Ring Clutch

The design of the steel bail permits full 360° rotation and the cable bail adds even more flexibility. Either bail will align itself with the rigging, allowing the safest position for lifting. Once engaged and under at least 400 pounds of load, the clutch cannot be intentionally or accidentally disengaged. When a remote release is required, it can be easily accomplished with a lanyard after the load has been removed from the rigging.



P-91-CB
Cable Bail Ring Clutch

Fleet-Lift Ring Clutches can be employed for face lifting and edge lifting when used with any of the Fleet-Lift erection-type anchors.

Fleet-Lift Ring Clutches are available in 2, 4, and 8-ton load ranges.

Fleet-Lift System



P-92 Fleet-Lift Erection Anchors

P-92 Fleet-Lift Erection Anchors are engineered from high-strength steel. All P-92 Erection Anchors have a special head design to control ring clutch pressure so it never bears on the concrete, helping to eliminate spalling during edge lifting. All P-92 Erection Anchors are available in plain finish, hot-dipped galvanized or the durable and economical epoxy E-Coating.

P-92 Erection Anchors come in many different styles. The most popular is the standard P-92 Erection Anchor. This anchor is used with a Fleet-Lift Shear Bar to safely lift precast elements from the edge in shear and transfer to tension.

The P-92-P Erection Anchor with Shear Plate eliminates the need for the Shear Bar. The shear plate accomplishes the same function as the standard erection anchor and shear bar.

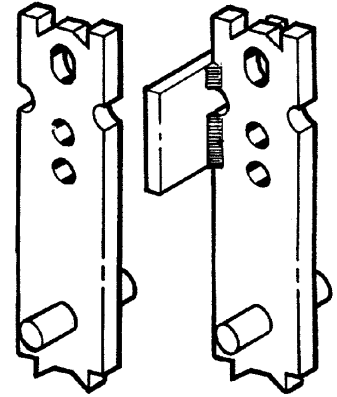
The P-92-S Sandwich Erection Anchor uses the anchor head and two tension bars to lift precast sandwich panels from the edge to vertical.

The P-92-H Two Hole Erection Anchor, the most economical erection anchor, uses a shear bar or shear plate to resist shear and a required tension bar to safely lift and handle precast units from the edge.

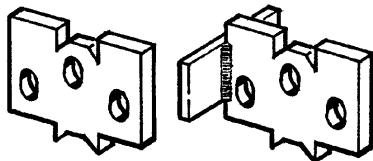
P-92 Erection Anchors are available in 2, 4, 6 and 8-ton capacities.

The P-92-AH Erection Anchor with 45° head and shear plate is designed to lift directly from a 45° mitered edge.

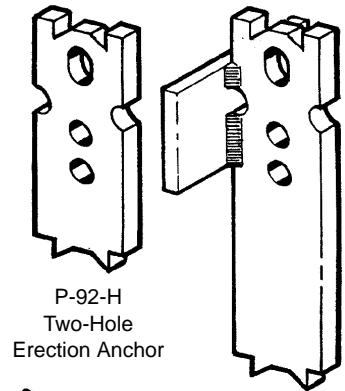
The P-92-DP Erection Anchor with double shear plate/pin is designed to take shear loads in both directions.



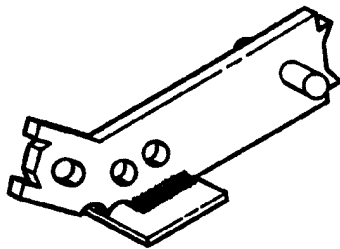
P-92 Erection Anchor P-92-P Erection Anchor w/ Shear Plate



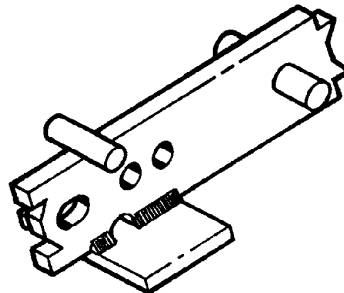
P-92-S Sandwich Panel Erection Anchor P-92-SP Sandwich Panel Erection Anchor w/ Shear Plate



P-92-H Two-Hole Erection Anchor P-92-HP Two-Hole Erection Anchor w/ Shear Plate



P-92-AH Erection Anchor w/ 45° Head and Shear Plate



P-92-DP Erection Anchor w/ Double Shear Plate/Pin

Division 3

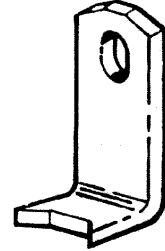
Fleet-Lift System



P-93 Fleet-Lift L-Anchors

The P-93 Fleet-Lift L-Anchor has a simple but efficient design capable of high pullout strengths. The P-93 L-Anchor is designed for face or edge lifting, and due to its strength and economy, is used commonly in earth-retaining type panels.

The P-93 L-Anchor is only available in 1-ton capacity. A special recess member with a narrow anchor slot is used in conjunction with this anchor.



P-93 L-Anchor

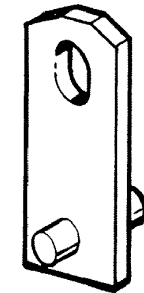
P-94 Fleet-Lift T-Anchors

P-94 Fleet-Lift T-Anchors are designed with a steel pin to resist pullout. The versatility is increased with the availability of many different anchor lengths and capacities.

P-94 T-Anchors are available in plain finish, hot-dipped galvanized, or durable epoxy E-Coating.

P-94 T-Anchors are normally used in the panel face for stripping panels from the back. They can be used in beams, columns, panel edges or median barriers.

P-94 T-Anchors are available in 2, 4, 6 and 8-ton capacities.



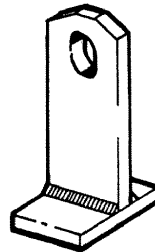
P-94 T-Anchor

P-95 Fleet-Lift Plate and Flat Foot Anchors

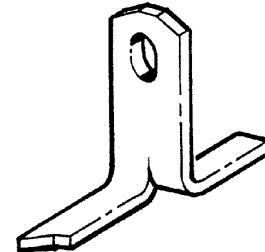
P-95 Fleet-Lift Flat Foot and P-95-P Fleet-Lift Plate Anchors are designed to be installed in the back of thin panels. These anchors have high tension and shear capacities and are easy to reinforce when required.

P-95-P Plate Anchors are available in 2, 4 and 8-ton capacities.

P-95 Flat Foot Anchors are available in 2 and 3-ton capacities. When higher capacities are required, a plate or T-anchor should be used.



P-95-P
Plate Anchor

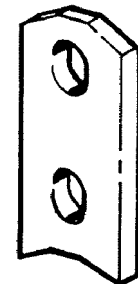


P-95
Flat Foot Anchor

P-96 Fleet-Lift Two-Hole Anchors

P-96 Fleet-Lift Two-Hole Anchors are capable of resisting high tension loads in thin-walled concrete. These anchors always require the use of a tension reinforcement. They are often used when the precast unit is handled at very low concrete strengths (less than 2000 PSI) or to handle heavy beams or columns.

The P-96 Two-Hole Anchors are available in 2, 4 and 8-ton capacities.



P-96
Two-Hole Anchor

Division
3

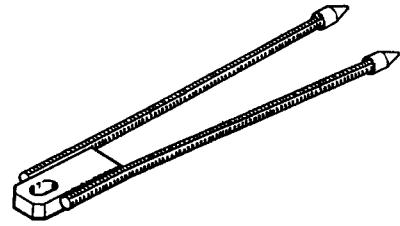
Fleet-Lift System



P-97 Fleet-Lift Specialty Anchors

P-97 Fleet-Lift Specialty Anchors are engineered to meet specific project needs. All P-97 Specialty Anchors are manufactured to meet or exceed the 4:1 safety factor required when lifting precast units.

An example of a P-97 Specialty Anchor is the P-97-DT Double Tee Anchor which is made on special order to fit 18", 24" or deeper double-tee concrete units. All P-97 Specialty Anchors are available in plain finish or hot-dipped galvanized.

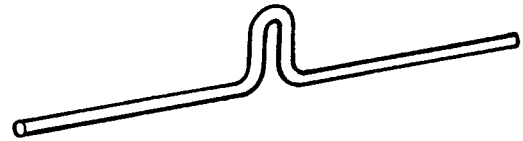


P-97-DT
Double Tee Anchor

P-97 Specialty Anchors are available in 2, 4, 6 and 8-ton capacities, depending on the type of anchor and the application.

P-98-S Fleet-Lift Shear Bars

P-98-S Fleet-Lift Shear Bars are designed specifically to fit Fleet-Lift Erection Anchors. Manufactured to tight tolerances, the P-98-S Shear Bar will work with the erection anchor to achieve the highest shear capability. Shear bars are available in plain finish, hot-dipped galvanized or epoxy E-Coating.

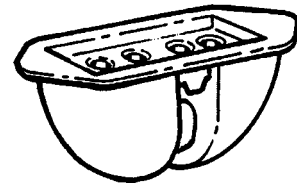


P-89-S
Shear Bar

Fleet-Lift Shear Bars are available in 2, 4 and 8-ton capacities.

P-99 to P-103 Fleet-Lift Recess Members and Accessories

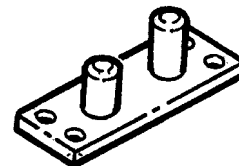
Fleet-Lift Recess Members and Accessories are specially designed to hold Fleet-Lift Anchors securely in place during the placement of concrete. The recess holds the anchor at the proper depth below the concrete surface and creates a void for the ring clutch. The small void is easily patched to prevent exposure of the anchor to the elements. Available in durable elastomeric urethane or cast iron with a steel wedge.



P-99 Plastic Recess Member
(Reusable Urethane)

Each Fleet-Lift Recess Member is manufactured with a stainless steel insert threaded with durable 3/8" coil threads to accept the 3/8" holding rod. For convenience, all Fleet-Lift Recess Members utilize the same P-101 Holding Rod.

A P-100 Fleet-Lift Holding Plate can also be used to secure the recess members to the form. Nails can also be used to secure the cast iron recess member.



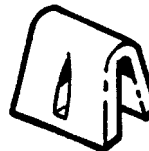
P-100
Holding Plate

Fleet-Lift Recess Members are available in 1, 2/1, 2, 4 and 8-ton capacities.

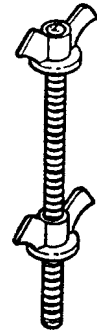
The disposable recesses can be used on erection or standard anchors. The cover doubles as a patch or can be used to keep debris, water, snow, sand and ice out of the recess during storage, sandblasting or shipping. Color: gray.



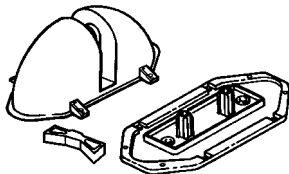
P-102
Steel Wedge



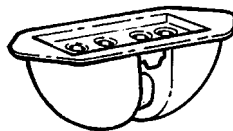
P-103
Foam



P-101
Holding Rod



P-99-D
Disposable Recess Member



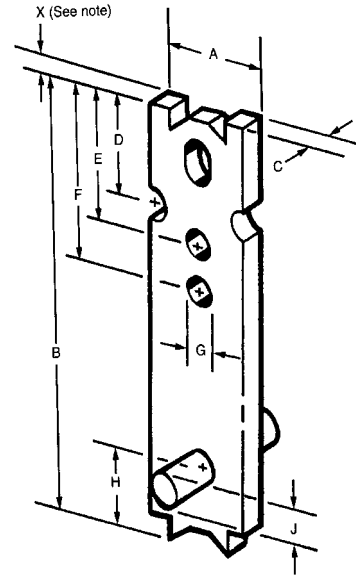
P-99-C
Cast Iron Recess Member

Fleet-Lift System



P-92 Fleet-Lift Erection Anchor 2-Ton, 4-Ton, 6-Ton, 8-Ton

P-92 Fleet-Lift Erection Anchors are specifically designed for horizontal to vertical edge lifting and handling of thin-walled precast concrete elements. Two steel protrusions or "ears" on the head of the anchor provide protection against spalling. These protrusions restrict the ring clutch rotation during lateral pulls. As a result, lateral forces are transmitted directly to the edge of the anchor instead of the concrete. The body of the erection anchor is shaped to allow full reinforcement for secure support and spall-free rotation.



P-92 Erection Anchor

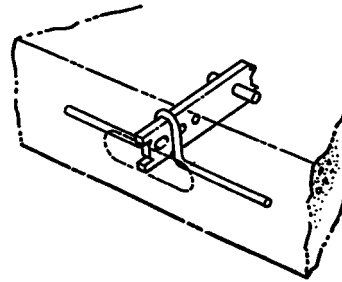
SHEAR REINFORCEMENT

Stress is caused during the shear lift of a thin panel, making reinforcement in the direction of the lift necessary. P-98-S Fleet-Lift Shear Bars are designed expressly for this purpose. Place the shear bar in the side notch of the anchor as shown in the illustration below.

Rated loads and minimum panel thicknesses can be found in the table on the next page.

TENSION REINFORCEMENT

Once the panel has been rotated to vertical, the tension lift is initiated. Fleet-Lift Erection Anchors are designed with a steel tension pin for increased tension capacities. During the tension phase of the lift, the erection anchor will work like the standard P-94 T-Anchor or the P-96 Two-Hole Anchor if tension reinforcement is added. The table on the next page shows two sets of data with regard to tension loads. If the higher loads are desired, tension bars should be placed through the lower hole of the anchor. Consult the reinforcement tables for rebar length, diameter and bend angle.



Typical P-92 Fleet-Lift Erection Anchor/Shear Bar Application

Prod. Code	A	B	C	D	E	F	G	H	J	Ultimate Mech. Cap. Lbs.	Weight Per Piece Lbs.
2-Ton Ring Clutch System (2-Ton Anchor)											
FL047	2"	8"	3/8"	1-13/16"	2-1/4"	3-3/16"	9/16"	1-1/8"	1/2"	16,000	1.80
4-Ton Ring Clutch System (4-Ton Anchor)											
FL048	2-1/2"	10-7/16"	5/8"	2-1/2"	3-3/16"	4-9/16"	3/4"	1-1/4"	3/4"	32,200	4.61
8-Ton Ring Clutch System (6-Ton Anchor)											
FL349	3-3/4"	13-1/4"	5/8"	3-1/8"	4"	5-7/8"	1"	1-3/4"	3/4"	48,000	7.97
8-Ton Ring Clutch System (8-Ton Anchor)											
FL049	3-3/4"	13-1/4"	3/4"	3-1/8"	4"	5-7/8"	1"	1-3/4"	3/4"	64,000	9.65

Note: X = dimension from surface of concrete to anchor. 1/4" for 2-ton system, 3/16" for 4-ton system and 1/4" for 8-ton system.

Division 3

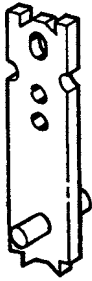
Precast Concrete

Fleet-Lift System



P-92 Fleet-Lift Erection Anchor w/ Shear Bar 2-Ton, 4-Ton, 6-Ton, 8-Ton

Division 3



Product Code	Panel Thickness	Shear Safe Working Load	Tension Safe Working Load	Tension (With Tension Bar) Safe Working Load
2-Ton Ring Clutch System (2-Ton Anchor)				
FL047	4" Min.	1650 lbs.	2575 lbs.	4000 lbs.
	5"	1875 lbs.	3350 lbs.	4000 lbs.
	5-1/2"	2000 lbs.	3750 lbs.	4000 lbs.
	6"	2125 lbs.	3850 lbs.	4000 lbs.
	7"	2400 lbs.	4000 lbs.	4000 lbs.
	8"	2700 lbs.	4000 lbs.	4000 lbs.
	9"	2925 lbs.	4000 lbs.	4000 lbs.
	10"	3275 lbs.	4000 lbs.	4000 lbs.
	11"	3575 lbs.	4000 lbs.	4000 lbs.
	12"	3975 lbs.	4000 lbs.	4000 lbs.
4-Ton Ring Clutch System (4-Ton Anchor)				
FL048	5-1/2" Min.	2400 lbs.	4700 lbs.	8000 lbs.
	6"	3075 lbs.	5075 lbs.	8000 lbs.
	7"	3250 lbs.	5825 lbs.	8000 lbs.
	8"	3425 lbs.	6600 lbs.	8000 lbs.
	9"	3825 lbs.	7350 lbs.	8000 lbs.
	10"	4250 lbs.	8000 lbs.	8000 lbs.
	11"	4650 lbs.	8000 lbs.	8000 lbs.
	12"	5050 lbs.	8000 lbs.	8000 lbs.
8-Ton Ring Clutch System (6-Ton Anchor)				
FL349	7-1/2" Min.	4000 lbs.	7500 lbs.	12,000 lbs.
	8"	4200 lbs.	7775 lbs.	12,000 lbs.
	9"	4550 lbs.	8300 lbs.	12,000 lbs.
	10"	4950 lbs.	8800 lbs.	12,000 lbs.
	11"	5050 lbs.	10,000 lbs.	12,000 lbs.
	12"	5175 lbs.	11,300 lbs.	12,000 lbs.
8-Ton Ring Clutch System (8-Ton Anchor)				
FL049	7-1/2" Min.	4000 lbs.	7500 lbs.	16,000 lbs.
	8"	4200 lbs.	7775 lbs.	16,000 lbs.
	9"	4550 lbs.	8300 lbs.	16,000 lbs.
	10"	4950 lbs.	8800 lbs.	16,000 lbs.
	11"	5050 lbs.	10,000 lbs.	16,000 lbs.
	12"	5175 lbs.	11,300 lbs.	16,000 lbs.

Note: Safe Working Load provides a safety factor of approximately 4:1.
Table is based on a minimum concrete compressive strength of 3500 PSI.

Fleet-Lift System



P-92-P Fleet-Lift Erection Anchor w/ Shear Plate 2-Ton, 4-Ton, 6-Ton, 8-Ton

P-92-P Fleet-Lift Erection Anchor with Shear Plate is specifically designed for horizontal to vertical edge lifts and the shear rotation of thin-walled elements. Two steel protrusions or “ears” on the head of the anchor provide protection against spalling. These protrusions restrict the ring clutch rotation during lateral pulls. As a result, lateral forces are transmitted directly to the edge of the anchor instead of the concrete. The body of the erection anchor is shaped to allow full reinforcement for secure support and spall-free rotation.

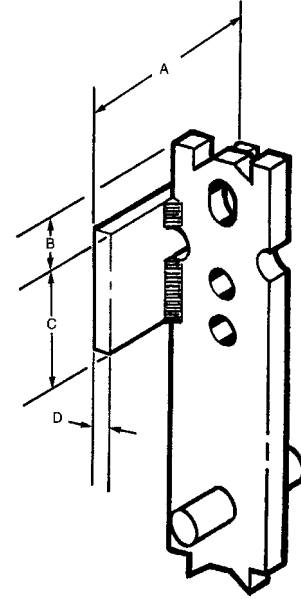
SHEAR PLATE

Stress is caused during the shear lift of a thin panel, making reinforcement in the direction of the lift necessary. The factory-installed shear plate resists these shear loads, eliminating the need for a shear bar.

The rated loads and minimum panel thicknesses can be found in the table on the next page.

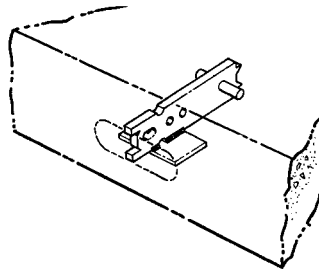
TENSION REINFORCEMENT

Once the panel has been rotated to vertical, the tension lift is initiated. Fleet-Lift Erection Anchors are designed with a steel tension pin for increased tension capacities. During the tension phase of the lift, the erection anchor will work like the standard P-94 T-Anchor or the P-96 Two-Hole Anchor if tension reinforcement is added. The table on the next page shows two sets of data with regard to tension loads. If the higher loads are desired, tension bars should be placed through the lower hole of the anchor. Consult the reinforcement tables for rebar length, diameter and bend angle.



P-92-P Erection Anchor w/ Shear Plate

Division 3



Typical P-92-P Fleet-Lift Erection Anchor w/ Shear Plate Application

Product Code	A	B	C	D	Ultimate Mech. Cap. Lbs.	Weight Per Piece Lbs.
2-Ton Ring Clutch System (2-Ton Anchor)						
FL147	2-1/2"	3/4"	3"	1/4"	16,000	2.25
4-Ton Ring Clutch System (4-Ton Anchor)						
FL148	2-1/2"	1-1/4"	3"	3/8"	32,200	5.41
8-Ton Ring Clutch System (6-Ton Anchor)						
FL449	3"	1-5/8"	3-1/2"	3/8"	48,000	9.09
8-Ton Ring Clutch System (8-Ton Anchor)						
FL149	3"	1-5/8"	3-1/2"	3/8"	64,000	10.46

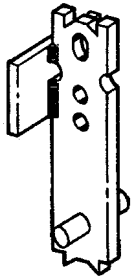
Precast Concrete

Fleet-Lift System



P-92-P Fleet-Lift Erection Anchor w/ Shear Plate 2-Ton, 4-Ton, 6-Ton, 8-Ton

Division 3



Product Code	Panel Thickness	Shear Safe Working Load	Tension Safe Working Load	Tension (With Tension Bar) Safe Working Load
2-Ton Ring Clutch System (2-Ton Anchor)				
FL147	3-1/2" Min.	1450 lbs.	2575 lbs.	4000 lbs.
	4"	1625 lbs.	2575 lbs.	4000 lbs.
	5"	2050 lbs.	3350 lbs.	4000 lbs.
	5-1/2"	2200 lbs.	3750 lbs.	4000 lbs.
	6"	2350 lbs.	3850 lbs.	4000 lbs.
	7"	2625 lbs.	4000 lbs.	4000 lbs.
	8"	2850 lbs.	4000 lbs.	4000 lbs.
	9"	3050 lbs.	4000 lbs.	4000 lbs.
	10"	3225 lbs.	4000 lbs.	4000 lbs.
	11"	3425 lbs.	4000 lbs.	4000 lbs.
	12"	3675 lbs.	4000 lbs.	4000 lbs.
4-Ton Ring Clutch System (4-Ton Anchor)				
FL148	4" Min.	2150 lbs.	3450 lbs.	8000 lbs.
	5"	2625 lbs.	4250 lbs.	8000 lbs.
	6"	3100 lbs.	5075 lbs.	8000 lbs.
	7"	3525 lbs.	5825 lbs.	8000 lbs.
	8"	3925 lbs.	6600 lbs.	8000 lbs.
	9"	4275 lbs.	7350 lbs.	8000 lbs.
	10"	4600 lbs.	8000 lbs.	8000 lbs.
	11"	4900 lbs.	8000 lbs.	8000 lbs.
	12"	5150 lbs.	8000 lbs.	8000 lbs.
8-Ton Ring Clutch System (6-Ton Anchor)				
FL449	6" Min.	4000 lbs.	5580 lbs.	12,000 lbs.
	6-1/2"	4125 lbs.	6220 lbs.	12,000 lbs.
	7"	4250 lbs.	6870 lbs.	12,000 lbs.
	7-1/2"	4350 lbs.	7500 lbs.	12,000 lbs.
	8"	4475 lbs.	7775 lbs.	12,000 lbs.
	9"	4725 lbs.	8300 lbs.	12,000 lbs.
	10"	4950 lbs.	8800 lbs.	12,000 lbs.
	11"	5200 lbs.	10,000 lbs.	12,000 lbs.
	12"	5450 lbs.	11,300 lbs.	12,000 lbs.
8-Ton Ring Clutch System (8-Ton Anchor)				
FL149	6" Min.	4000 lbs.	5580 lbs.	16,000 lbs.
	6-1/2"	4125 lbs.	6220 lbs.	16,000 lbs.
	7"	4250 lbs.	6870 lbs.	16,000 lbs.
	7-1/2"	4350 lbs.	7500 lbs.	16,000 lbs.
	8"	4475 lbs.	7775 lbs.	16,000 lbs.
	9"	4725 lbs.	8300 lbs.	16,000 lbs.
	10"	4950 lbs.	8800 lbs.	16,000 lbs.
	11"	5200 lbs.	10,000 lbs.	16,000 lbs.
	12"	5450 lbs.	11,300 lbs.	16,000 lbs.

Note: Safe Working Load provides a safety factor of approximately 4:1.
Table is based on a minimum concrete compressive strength of 3500 PSI.

TOLL FREE 800-892-7224
800-821-7735



LOCAL 816-525-3640
FAX 816-525-4533

Precast Concrete

Fleet-Lift System



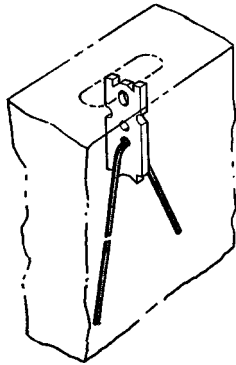
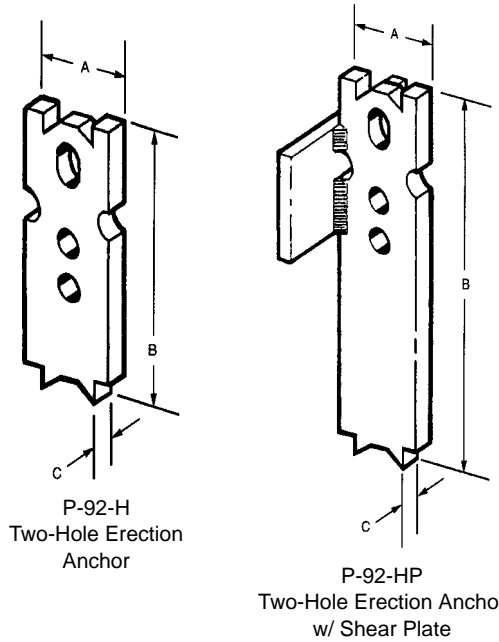
P-92-H Fleet-Lift Two-Hole Erection Anchor and P-92-HP Fleet-Lift Two-Hole Erection Anchor w/ Shear Plate 2-Ton, 4-Ton, 6-Ton, 8-Ton

Fleet-Lift Two-Hole Erection Anchors combine the strength and spall-resistant performance of the erection anchor with the high tension capacity of a two-hole anchor. Two-hole erection anchors are used to lift whenever the lift direction applies a shear load to the precast element.

P-98-T tension reinforcement is always required with a Fleet-Lift Two-Hole Erection Anchor. Shear is resisted by a P-98 Fleet-Lift Shear Bar used in conjunction with the P-92-H or by the integral shear plate on the P-92-HP model.

Shear and tension capacities for P-92-HP Fleet-Lift Two-Hole Erection Anchors with Shear Plates are the same as the P-92-P Fleet-Lift Erection Anchors with Shear Plate.

For Tension Bar information see next page.



Typical P-92-H Fleet-Lift Erection Anchor Application

Division 3

Product Code	Type	A	B	C	Ultimate Mech. Cap. Lbs.	Weight Per Piece Lbs.
2-Ton Ring Clutch System (2-Ton Anchor)						
FL403	H	2"	4-1/4"	3/8"	16,000	0.72
FL423 (w/ Plate)	HP	2"	4-1/4"	3/8"	16,000	1.18
FL903	H	2"	8"	3/8"	16,000	1.62
FL403L (w/ Plate)	HP	2"	8"	3/8"	16,000	2.08
4-Ton Ring Clutch System (4-Ton Anchor)						
FL075	H	2-1/2"	7-7/16"	5/8"	32,000	2.80
FL275 (w/ Plate)	HP	2-1/2"	7-7/16"	5/8"	32,000	3.66
FL975	H	2-1/2"	10-7/16"	5/8"	32,000	4.19
FL175L (w/ Plate)	HP	2-1/2"	10-7/16"	5/8"	32,000	5.05
8-Ton Ring Clutch System (6-Ton Anchor)						
FL385L	H	3-3/4"	13-1/4"	5/8"	48,000	7.69
8-Ton Ring Clutch System (8-Ton Anchor)						
FL185L	H	3-3/4"	13-1/4"	3/4"	64,000	9.23
FL285L (w/ Plate)	HP	3-3/4"	13-1/4"	3/4"	64,000	10.29

Precast Concrete

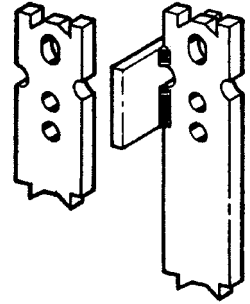
Fleet-Lift System



P-92-H Fleet-Lift Two-Hole Erection Anchor and P-92-HP Fleet-Lift Two-Hole Erection Anchor w/ Shear Plate 2-Ton, 4-Ton, 6-Ton, 8-Ton

Division 3

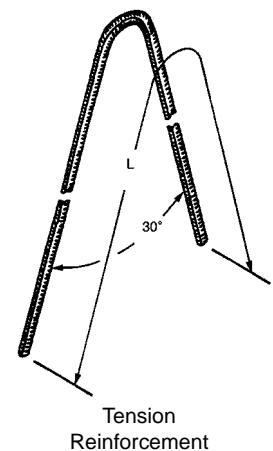
Product Code	Panel Thickness	Shear Safe Working Load	Tension (With Tension Bar) Safe Working Load
2-Ton Ring Clutch System (2-Ton Anchor)			
FL403 & FL423 (w/ Plate)	4"	1325 lbs.	4000 lbs.
	5"	1525 lbs.	4000 lbs.
	5-1/2"	1650 lbs.	4000 lbs.
	6"	1750 lbs.	4000 lbs.
	7"	1900 lbs.	4000 lbs.
	8"	2075 lbs.	4000 lbs.
FL903		Same as FL047	
FL403L (w/ Plate)		Same as FL147	
4-Ton Ring Clutch System (4-Ton Anchor)			
FL075 & FL275 (w/ Plate)	5-1/2"	2025 lbs.	8000 lbs.
	6"	2250 lbs.	8000 lbs.
	6-1/2"	2425 lbs.	8000 lbs.
	7"	2600 lbs.	8000 lbs.
	7-1/2"	2800 lbs.	8000 lbs.
	8"	3000 lbs.	8000 lbs.
	9"	3375 lbs.	8000 lbs.
FL975		Same as FL048	
FL175L (w/ Plate)		Same as FL148	
8-Ton Ring Clutch System (6-Ton Anchor)			
FL385L		Same as FL349	
8-Ton Ring Clutch System (8-Ton Anchor)			
FL185L		Same as FL049	
FL285L (w/ Plate)		Same as FL149	



Note: Safe Working Load provides a safety factor of approximately 4:1.
Table is based on a minimum concrete compressive strength of 3500 PSI.
* Tension reinforcement must be used with all two-hole erection anchors listed.

Minimum Required Tension Reinforcement

Anchor Capacity	2-Ton	4-Ton	8-Ton
Rebar Size	#3	#4	#6
Concrete Strength	Overall Length – "L" Dimension		
1500 PSI	3' 0"	4' 0"	6' 0"
2000 PSI	2' 9"	3' 6"	5' 6"
3000 PSI	2' 6"	3' 0"	4' 6"



Precast Concrete

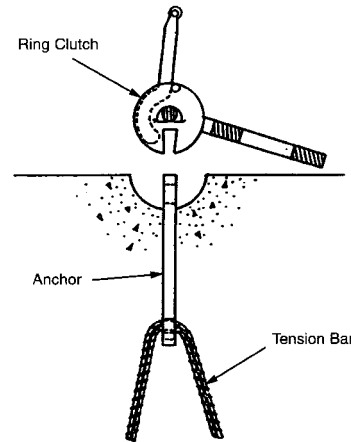
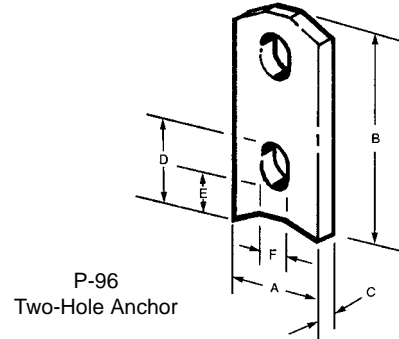
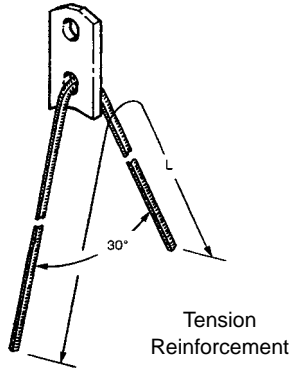
Fleet-Lift System



P-96 Fleet-Lift Two-Hole Anchor 2-Ton, 4-Ton, 8-Ton

The second hole in the P-96 Two-Hole Anchor accepts additional reinforcement. Adding rebar distributes the lifting loads deep into the concrete. The distribution of lifting stresses allows the lifting of very thin-walled panels and concrete elements, especially at low compressive strength.

When edge lifts involve shear forces, use the P-92 Two-Hole Erection Anchor.



Minimum Required Tension Reinforcement

Anchor Capacity	2-Ton	4-Ton	8-Ton
Rebar Size	#3	#4	#6
Concrete Strength	Overall Length – "L" Dimension		
1500 PSI	3' 0"	4' 0"	6' 0"
2000 PSI	2' 9"	3' 6"	5' 6"
3000 PSI	2' 6"	3' 0"	4' 6"

Product Code	A	B	C	D	E	F	Reinf. Tension Load Lbs.	Ultimate Mech. Cap. Lbs.	Weight Per Piece Lbs.
2-Ton Ring Clutch System (2-Ton Anchor)									
FL122	1-1/4"	4"	3/8"	1-5/8"	7/8"	9/16"	4000	16,000	0.42
FL190	1-1/4"	2-3/4"	3/8"	1-3/16"	5/8"	9/16"	4000	16,000	0.27
4-Ton Ring Clutch System (4-Ton Anchor)									
FL124	1-1/2"	5-1/2"	5/8"	1-13/16"	1"	1"	8000	32,000	1.23
8-Ton Ring Clutch System (8-Ton Anchor)									
FL125	2-1/2"	7"	3/4"	2-5/8"	1-7/16"	1"	16,000	64,000	3.31

Note: Safe Working Load provides a safety factor of approximately 4:1.
Table is based on minimum concrete compressive strength of 3500 PSI.

Division 3

Precast Concrete

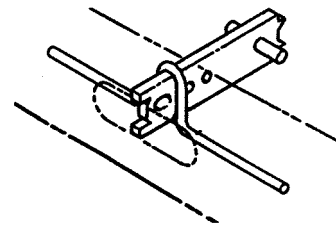
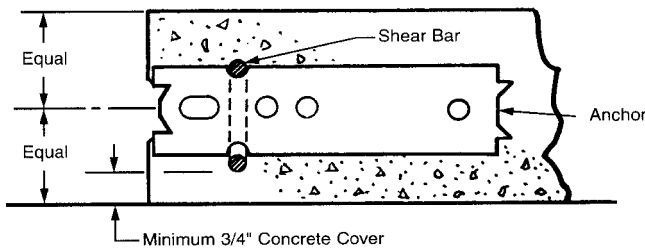
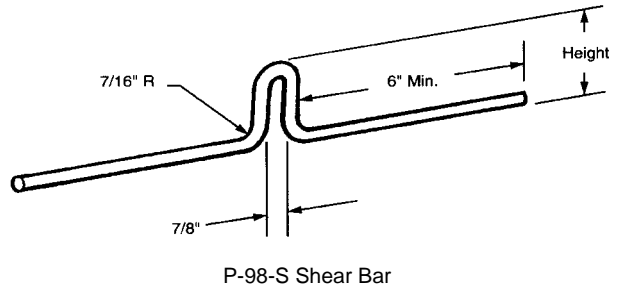
Fleet-Lift System



P-98-S Fleet-Lift Shear Bars for Fleet-Lift Erection Anchors

P-98-S Fleet-Lift Shear Bar is specially engineered and manufactured to be a simple and economical reinforcement for Fleet-Lift Erection Anchors. The P-98-S Shear Bar fits over the erection anchor and distributes the shear load laterally in the concrete.

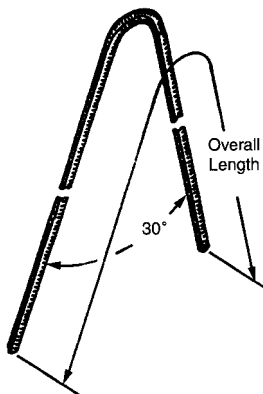
For the shear bar to work properly, it must be secured tightly in the side notch of the anchor. P-98 Shear Bars are available in 2, 4, and 8-ton capacities.



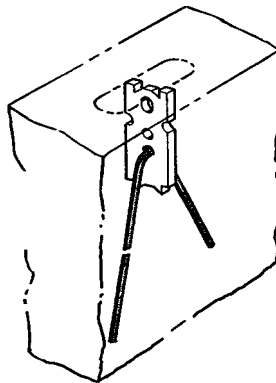
Typical Shear Bar Application

Nominal Clutch System	Product Code	Height	Wire Diameter	Minimum Panel Thickness	Weight Per Piece Lbs.
2-Ton	FL140	2-1/2"	1/2"	4"	0.98
4-Ton	FL141	3-5/16"	1/2"	5-1/2"	1.07
8-Ton	FL142	4-15/16"	1/2"	7-1/2"	1.23

P-98-T Tension Reinforcement



P-98-T Tension Bar



Typical Tension Reinforcement Application

Tension reinforcement is used with various Fleet-Lift anchors to provide a simple, inexpensive method of distributing tension loads into the precast element.

Nominal Clutch System	Rebar Size*	Overall Length		
		1500 PSI Concrete	2000 PSI Concrete	3000 PSI Concrete
2-Ton	#3	3' 0"	2' 9"	2' 6"
4-Ton	#4	4' 0"	3' 6"	3' 0"
8-Ton	#6	6' 0"	5' 6"	4' 6"

* Grade 60 rebar material.

Division 3

Fleet-Lift System



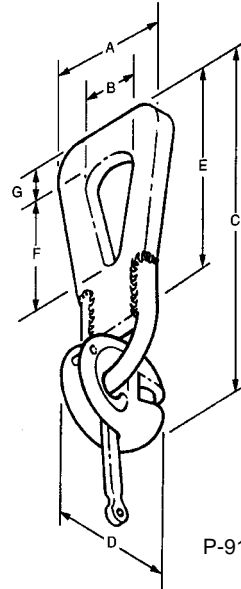
P-91 Fleet-Lift Standard Ring Clutch

The P-91 Fleet-Lift Ring Clutch consists of a clutch body, curved bolt, and a high-strength bail. Installation and release is safe and simple. After the clutch is inserted over the anchor head and into the recess, the curved bolt is rotated through the anchor "eye" and does not come in contact with the concrete.

Rotation of the standard bail is a full 360°. Once engaged and under at least 400 pounds of load, the clutch cannot be released.

Inspection and Maintenance

The P-91 Fleet-Lift Ring Clutch may be subjected to wear, misuse, overloading and many other factors which may affect the clutch's rated safe working load. Therefore, the ring clutch must be inspected by the user at least once a month to determine its general condition and degree of wear. Also check to make sure the bail can rotate freely in all directions. During the monthly inspection, check for evidence of heat application. If evidence of heat application is found, the clutch must be scrapped. Check for bent or twisted bails. Discard any unit that has a bail that has been bent or twisted.* The proper method to use in scrapping a clutch with a bad bail is to cut off and remove the bail. No repair or welding of Fleet-Lift Ring Clutches is permitted. The rated safe working load provides a safety factor of approximately 5:1 – ultimate to rated load.



P-91 Ring Clutch

* Bail replacement available; contact nearest customer service.

Ring Clutch System	Product Code	A	B	C	D	E	F	G	Weight Per Piece Lbs.
2-Ton	FL001	3-3/4"	2-5/8"	10-3/8"	2-3/4"	7-3/8"	2-5/8"	1"	4.60
4-Ton	FL002	4-5/8"	2-5/8"	12-1/2"	3-11/16"	8-1/2"	3-3/8"	1-3/8"	9.00
8-Ton	FL003	5-7/8"	3-5/8"	16-1/2"	5-5/16"	11"	4-7/8"	1-3/4"	20.00

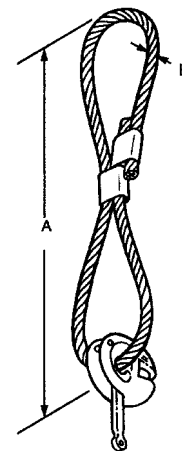
P-91-CB Cable Bail Ring Clutch

The additional flexibility of the P-91-CB Fleet-Lift Cable Bail Ring Clutch can be the solution to many difficult situations involving lifting and rotating to vertical. Cable Bails can also be used to replace bent or damaged bails on standard ring clutches. The rated safe working load provides a safety factor of approximately 5:1 – ultimate to rated load.

Maintenance of the Cable Bail Ring Clutch

After every use, inspect the wire cable for damage or extreme wear, bends or kinks, fraying or loosening of outer strands in the free length, squeezings in the free length or support area, and tuberculations. Inspect for cable ruptures in excess of four runners in 3 diameters of the cable, six runners in 6 diameters of the cable, or sixteen runners in 30 diameters of the cable.

If the cable is damaged according to the criteria above, it must be replaced. Dayton/Richmond can arrange for cable replacement. Contact customer service for information and cost.



P-91-CB Cable Bail Ring Clutch

Ring Clutch System	Product Code	A	B	Weight Per Piece Lbs.
2-Ton	FL001C	24"	1/2"	4.60
4-Ton	FL002C	24"	5/8"	9.00
8-Ton	FL003C	29"	3/4"	20.00

Division 3

Precast Concrete

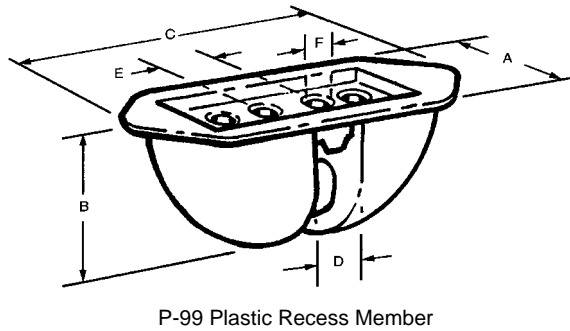
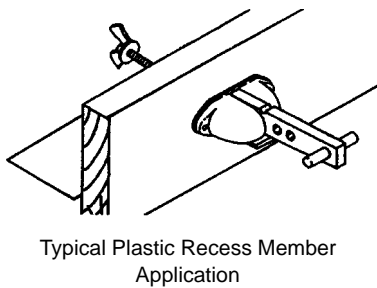
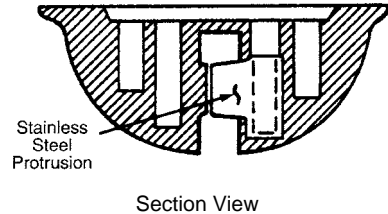
Fleet-Lift System



P-99 & P-99-N Plastic Recess Members (Reusable Urethane)

The P-99 and P-99-N Fleet-Lift Plastic Recess Members are molded from elastomeric thermal-set urethane. It is resistant to heat and form-release agents, and is designed for multiple reuses. Embedded in the highly durable material is a stainless steel protrusion that engages the anchor and secures it in position during concrete placement.

Attachment is made with the P-100 Fleet-Lift Holding Plate or the 3/8" P-101 Holding Rod. Note that all Fleet-Lift recess members use the same holding rod to simplify system use.

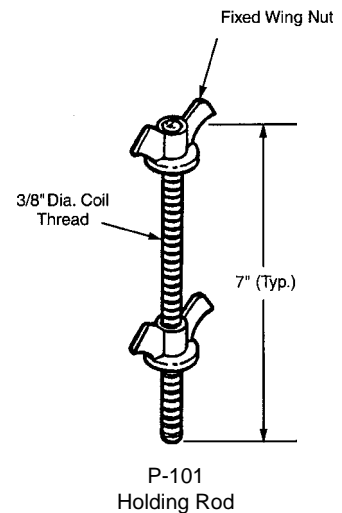
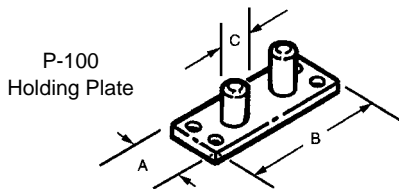


Division 3

Ring Clutch System	Anchor Size	Product Code	A	B	C	D	E	F	Weight Per Piece Lbs.
P-99-N 2-Ton	1-Ton	FL051	1-11/16"	1-3/4"	4-1/16"	3/16"	1-3/16"	3/8"	0.21
P-99 2-Ton	2-Ton	FL200	1-11/16"	1-3/4"	4-1/16"	3/8"	1-3/16"	3/8"	0.20
P-99 4-Ton	4-Ton	FL062	2-1/8"	2-5/16"	5-3/16"	5/8"	1-11/32"	3/8"	0.50
P-99 8-Ton	8-Ton	FL121	3-1/8"	3-5/16"	7-13/16"	3/4"	1-31/32"	3/8"	1.50

Note: The P-99-N Recess Member is used in conjunction with the P-93 L-Anchor only.

P-100 Fleet-Lift Holding Plate and P-101 Fleet-Lift Holding Rod



Recess Member	Product Code	A	B	C	Weight Per Piece Lbs.
P-100 Holding Plate					
2-Ton	FL160	5/8"	2-3/4"	10mm	0.14
4-Ton	FL144	1-1/4"	3-3/8"	10mm	0.24
8-Ton	FL111	1-3/4"	4-7/8"	12mm	0.58
P-101 Holding Rod					
All	FL131	7"	3/8" Dia. Contour Thread		0.24

Note: 3/8" Coil Rod may be special ordered in longer lengths.

Precast Concrete

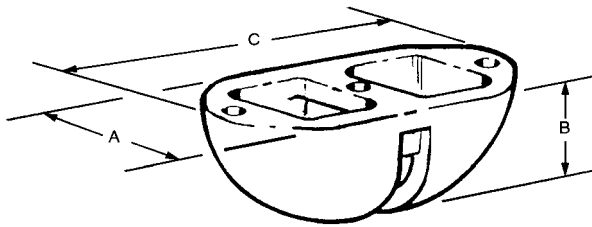
Fleet-Lift System



P-99-C Fleet-Lift Cast Iron Recess Members

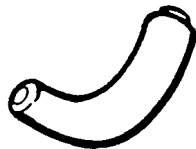
The P-99-C Fleet-Lift Cast Iron Recess Member is designed for high reuse and high curing temperatures. The cast iron recess member uses a steel wedge through the anchor eye to secure the anchor in place, and a foam strip that fits over the head to prevent concrete from entering the void.

The P-99-C Cast Iron Recess Member assembly is secured to the formwork with either the 3/8" coil thread P-101 Fleet-Lift Holding Rod or simply nailed to the formwork. Optional 1/2" diameter coil thread is available on special order.



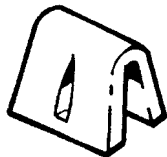
P-99-C Cast Iron Recess Member

Ring Clutch System	Product Code	A	B	C	Weight Per Piece Lbs.
2-Ton	FL078	1-7/16"	1-3/4"	4"	0.72
4-Ton	FL100	1-7/8"	2-3/8"	5"	1.22
8-Ton	FL015	2-3/4"	3-1/4"	7-1/4"	3.50



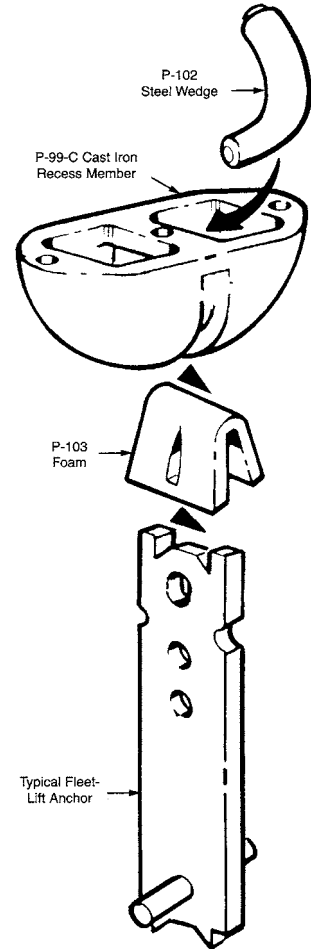
P-102 Steel Wedge

Recess Load Range	Product Code	Weight Per Piece Lbs.
2-Ton	FL017	0.13
4-Ton	FL084	0.38
8-Ton	FL085	0.94



P-103 Foam

Anchor Load Range	Product Code	Units Per Package	Weight Per Package Lbs.
1 & 2-Ton	FL087	1000	5.00
3 & 4-Ton	FL069	1000	5.00
6 & 8-Ton	FL091	500	10.00



P-99-C Cast Iron Recess Member Assembly Sequence

Division 3

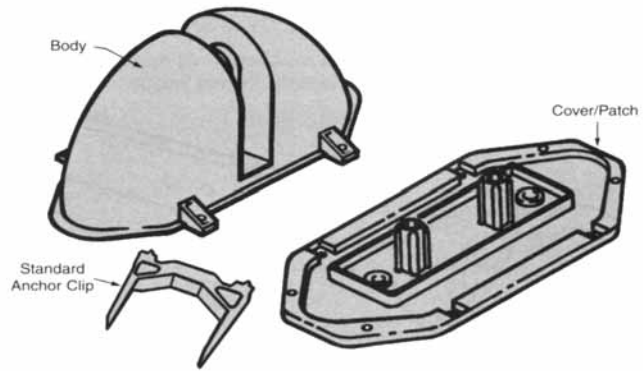
Precast Concrete

Fleet-Lift System



P-99-D Disposable Recess Members (PVC)

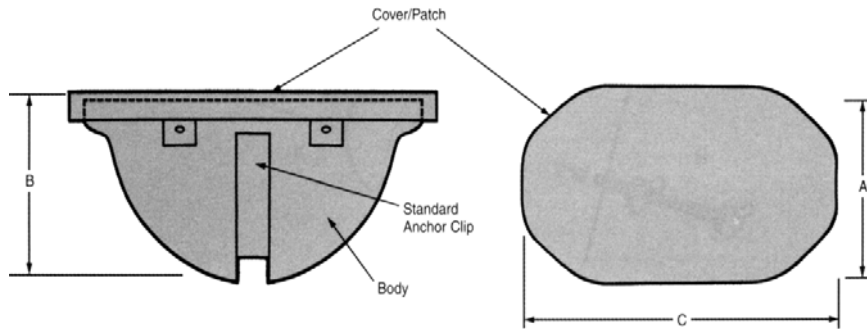
The new Fleet-Lift Disposable Recess Members are the most versatile units available. They can be used to edge install an erection anchor, preset a T-anchor with wire base, or "wet set" a standard T-anchor. The cover/patch also installs tightly over the reusable recesses to fully protect the unit without the use of tape. The cover/patch is "concrete gray" in color and can be used as a patch over the recess opening temporarily or permanently.



Disposable Recess Set

Recess Member Components

Disposable Recess Members can be ordered in sets consisting of a body with a preinstalled clip and a lid, or as individual pieces. This gives the system the versatility to meet your requirements without having to order parts that are not needed.



P-99-D Disposable Recess Member

Ring Clutch System	Anchor Size	Product Code	Description	A	B	C	Weight Per Piece Lbs.
2-Ton	2-Ton	FL066 B	Body	-	-	-	0.10
2-Ton	2-Ton	FL066 L	Lid	2-5/16"	-	4-1/4"	0.10
2-Ton	2-Ton	FL066 S	Set	2-5/16"	2"	4-1/4"	0.20
4-Ton	4-Ton	FL067 B	Body	-	-	-	0.15
4-Ton	4-Ton	FL067 L	Lid	2-3/4"	-	5-1/2"	0.12
4-Ton	4-Ton	FL067 S	Set	2-3/4"	2-1/2"	5-1/2"	0.27
8-Ton	8-Ton	FL068 B	Body	-	-	-	0.25
8-Ton	8-Ton	FL068 L	Lid	3-3/4"	-	8-1/8"	0.35
8-Ton	8-Ton	FL068 S	Set	3-3/4"	3-1/2"	8-1/8"	0.60

Division 3

Grouts



SikaGrout® 300 PT

Description: SikaGrout 300 PT is a non-shrink, cementitious grout with a unique 2-stage shrinkage compensating mechanism. It is non-metallic and contains no chlorides. With a special blend of shrinkage-reducing and plasticizing/water-reducing agents, SikaGrout 300 PT compensates for shrinkage in both the plastic and hardened states.

Where to Use:

- For horizontal and vertical grouting of ducts within bonded, post-tensioned structures.
- To grout and fill or repair voids within ducts of post-tensioning strands for corrosion protection.
- For grouting tight clearances.

Coverage: Approximately 0.50 cu. ft./bag. Use between 11.5 and 13 pints of water per 50 lb. bag in order to achieve the proper flow.

Packaging: 50 lb. multi-wall bags; 40 bags/pallet.

SikaGrout® 212

Description: SikaGrout 212 is a non-shrink, cementitious grout with a unique 2-stage shrinkage compensating mechanism. It is non-metallic and contains no chlorides.

With a special blend of shrinkage-reducing and plasticizing/water-reducing agents, SikaGrout 212 compensates for shrinkage in both the plastic and hardened states. A structural grout, SikaGrout 212 provides the advantage of multiple fluidity with a single component. SikaGrout 212 meets Corps of Engineers' Specification CRD C-621 and ASTM C-1107 (Grade C).

Where to Use:

- For structural grouting of column base plates, machine base plates, anchor rods, bearing plates, etc.
- On grade, above grade and indoors or out.
- Multiple fluidity allows easy of placement; ram in place as a dry pack, trowel-apply as a medium flow, pour or pump as high flow.

Coverage: Approximately 0.44 cu. ft./bag at high flow.

Packaging: 6 lb. pail, 6/case, 36/pallet; 50 lb. multi-wall bags, 36 bags/pallet.

Sikadur® 42, Grout-Pak

Description: Sikadur 42, Grout-Pak is a 3-component, 100% solids, moisture-tolerant, epoxy baseplate grouting system.

Where to Use:

- Precision seating of baseplates.
- Grouting under equipment, including heavy impact and vibratory machinery, reciprocating engines, compressors, pumps, presses, etc.
- Grouting for "pour-back" anchorage on post tensioning projects (E.g. Segmental Bridge).
- Grouting under crane rails.

Packaging: 0.5 cu. ft. kit: contains 0.9 gallons epoxy (Component 'A' and Component 'B') in a 5 gallon pail, separated with a topline; and 50 lb. aggregate (Component 'C') in a multi-wall bag.

Intraplast-N®

Description: Intraplast-N is a balanced blend of expanding, fluidifying, and water-reducing agents for portland cement grouts. It produces a slow, controlled expansion prior to the grout hardening.

Application:

- Horizontal prestressed tendons.
- Machinery base plates.
- Pre-packed aggregate cavities.
- Rock fissures and bolting.

Packaging: 50 lb. multi-wall bag.

Product	Size of Openings			
	1/4" or less		Larger than 1/4"	
Cement 1	2 parts	1 part	2 parts	1 part
Fly Ash 2	1 part	none	1 part	none
Sand 3	none	none	3 parts	1 part
Water 4	4 - 5	4 - 5	4-1/2 - 5-1/2	4-1/2 - 5-1/2
Intraplast-N 5	1%	1%	1%	1%

Division 3

Grouts



Enduro 50 Grout™

Enduro 50 Grout is a non-stick, non-metallic grout specially designed for damp pack to fluid applications. It is a blend of Portland cement and natural aggregates with cementitious expansive agents.

Enduro 50 Grout is recommended for grouting of equipment bases, column bases, precast walls, tilt-up panels, tie holes, anchor bolts, etc. It is non-staining and will not rust.

Plastic Mix: 10,500 PSI @ 28 days; 6.5 to 7 pints water.

Flowable Mix: 8,600 PSI @ 28 days; 7 to 8 pints water.

Fluid Mix: 7,200 PSI @ 28 days; 8 to 9.1 pints water.

Applicable Standards:
Corps of Engineers CRD C-621
ASTM C-1107 (Modified Test)
ASTM C-827

Available in 50 lb. bags; yield of .45 cu. ft./50 lb.

Specgrout H.S.

Specgrout H.S. is a 3 component, 100% solids, high-strength epoxy grout designed to support heavy machinery subjected to heavy dynamic loads.

Specgrout H.S. offers added chemical resistance, high bond strength and rapid strength gain to maximize durability while minimizing downtime.

Specgrout H.S. is ideal in high stress applications such as heavy reciprocating equipment, rail grouting, compressor and milling equipment. It offers good chemical resistance for areas subjected to chemical attack such as chemical processing plants and refineries. It offers high modulus of elasticity, compressive, bond and tensile strength for foundation plates and high stress anchoring applications.

Specgrout H.S. achieves minimum 7-day compressive strengths of 13,500 PSI.

Available in .5 cu. ft. unit
.75 gal. part A, .25 gal. part B, 60 lb. bag part C.

2 cu. ft. unit
3 gal. part A, 1 gal. part B, four 60 lb. bags part C.

Conspec 100

Conspec 100 Grout is a high performance, non-shrink precision grout designed for a wide range of consistencies from damp pack to high fluidity. Meets the most demanding job conditions with an extended work-time providing maximum fluidity and high strength. It is a blend of portland cement, specially blended aggregates and cementitious agents, and can be easily pumped.

Conspec 100 Grout is recommended for precision grouting of machinery bases, structural grouting of steel and precast columns, anchor bolts, dowels, crane rails, and hand rails which require non-shrink, high fluidity, high strength performance.

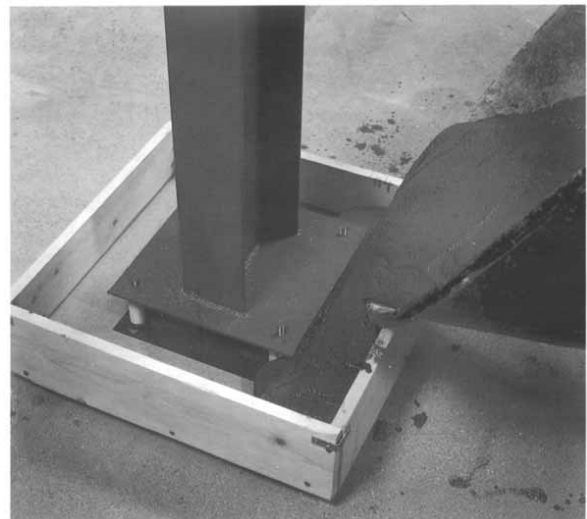
Plastic Mix: 11,500 PSI @ 28 days; 6.5 to 7.5 pints water.

Flowable Mix: 8,400 PSI @ 28 days; 7.5 to 8.65 pints water.

Fluid Mix: 7,700 PSI @ 28 days; 8.65 to 9 pints water.

Applicable Standards:
Corps of Engineers CRD C-621
ASTM C-1107, Grade C

Available in 50 lb. bags; yield of .45 cu. ft./50 lb.



Concrete Repair



Conpatch V/O

Conpatch V/O is a single component, cement based, polymer modified patching and repair mortar for vertical and overhead applications. Due to excellent durability and strength, the mortar also can be used for horizontal and any other structural applications.

Conpatch V/O's unique rapid setting, non-shrink formulation offers excellent durability and ease of application without the use of forms.

Available in 50 lb. bags; yield of .41 cu. ft./50 lb.

Pave Patch 3000

Pave Patch 3000 is a specially formulated patching material for concrete pavement repairs. It sets fast, develops high early strength and expands slightly. Useable in temperatures down to 32°F. Resistant to freeze thaw cycles, salt and heavy traffic.

Available in 50 lb. bags; yield of .41 cu. ft./50 lb.

Pave Patch Concentrate DBM

Pave Patch Concentrate DBM is a rapid setting, high early strength repair material that when mixed with sand, stone and water, produces a permanent repair for concrete.

Typical mix proportions and yield for 1 cu. yd.:

DBM cement	750 lbs.
Sand	1125 lbs.
3/8" Stone	1875 lbs.
Water	26 gal.

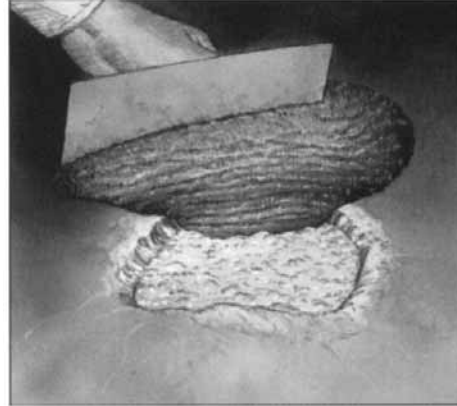
Available in 50 lb. bags or 3000 lb. super sacks.

Aurora Top

Aurora Top is a pourable, semi self-leveling, "Neutral Light" colored cementitious topping and repair mortar for smoothing and leveling concrete.

Aurora Top is ideal for patching or topping concrete surfaces, leaving a durable repair that will cure to a natural "light" appearance.

Available in 50 lb. bags; yield of .41 cu. ft./50 lb.



Special Patch

Special Patch is a polymer-modified, cementitious, two component repair mortar for use in thin and thick section concrete patching and overlays.

Special Patch provides excellent freeze-thaw resistance, superior adhesion and resistance against the penetration of deicing salts and other contaminants. Ideal for repairing interior warehouse slabs or exterior concrete pavements.

Unit contains 50 lb. powder and 1 gal. bonder; yield of .41 cu. ft./unit.

Conflow

Conflow is a self-leveling and self-finishing polymer modified cementitious underlayment. Use Conflow as an underlayment for interior applications only. Use of Prime Flow to seal surfaces prior to applying Conflow is critical.

Available in 45 lb. bags; coverage of 22 sq. ft./45 lb. @ 1/4".

Rub Crete

Rub Crete is a one-part, polymer modified material specially formulated for rubbing, smoothing, resurfacing, repairing and restoring concrete surfaces. Rub Crete is designed with a chemical additive to ensure superior bonding characteristics.

Available in 40 lb. bags; yield of .42 cu. ft./40 lb.



SPEED CRETE® RED LINE Fast-Setting Patching Material

Speed Crete Red Line is a fast-setting concrete and masonry patching compound that requires only potable water for mixing. It achieves initial set in 8 to 10 minutes and final set within 20 minutes. After initial set, it may be shaved to conform to the contours of the surrounding surface. It is used on vertical, overhead and horizontal surfaces without forming.

Available in 50-lb. bags; yield of .5 cu. ft. / 50 lb.



TAMMSPATCH Two-Component Concrete Repair Mortar

Tammspatch is a user-friendly, two-component repair mortar packaged in convenient preproportioned kit. It has a long working time and is a high-performance, general purpose concrete repair product useful for applications from feather-edge to one inch.

Kit contains 50 lbs. of powder and 1 gal. of bonder;
yield of .45 cu. ft. / 50 lb. kit

FLOORSTONE Cementitious Leveling Underlayment

Floorstone products are used to fill and level low areas and to patch floor surfaces before traffic-bearing floor coverings are installed.

Floorstone Supreme is used for skim coats and thin fills up to 1/4" thick, and is mixed with Lastex liquid polymer binder.

Floorstone N.I.F. is mixed with water and used for fills beginning at 1/4" up to maximum 2" in thickness.

Available in 50-lb. bags; yield of .5 cu. ft. / 50 lb.

SPEED CRETE® 2028 Rapid-Setting Mortar

Speed Crete 2028 is a cement-based, ready to use patching and repair mortar which achieves rapid strength gain – 2600 PSI within 1 hour at 75°F. Used for patching of horizontal concrete such as highways, bridge decks, parking decks and runways.

Available in 50-lb. bags; yield of .42 cu. ft. / 50 lb.
(neat)

TAMMS THIN PATCH Feather-Edge to 1 Inch Polymer Modified Patching Mortar

Tamms Thin Patch is a one-component, polymer modified cement-based product formulated for patching and repairing concrete and masonry from feather-edge to one inch thickness.

Available in 50-lb. bags; yield of .4 cu. ft. / 50 lb.

AKKRO®-7T Liquid Bonding Admixture

Akkro-7T is a non-reemulsifiable high solids, liquid bonding admixture for improving the physical properties, cure and adhesion of Portland cement or gypsum mixes. Typical mix is 1 part Akkro-7T with 3 parts water.

Available in 1-gal. and 5-gal. pails

SPEED PLUG Quick-Setting Hydraulic Cement

Speed Plug is a quick-setting hydraulic cement compound used to instantly stop running water or seepage leaks in masonry or concrete. It requires only potable water for mixing and achieves initial set in 1 to 3 minutes.

Available in 50-lb. pails; yield of .5 cu. ft. / 50 lb.

Concrete Repair



What is Rapid Set® Cement?

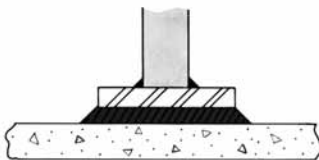
Rapid Set® Cement is a hydraulic cement. It is similar to Portland Cement in manufacture and use. The chemical constituents of Rapid Set® Cement are the same as used in ASTM Type K Shrinkage Compensated Cement. However, Rapid Set® Cement Concrete does not expand. Rapid Set® Cement Concrete and Grouts set up and rapidly gain strength at low temperatures (to 22°F).

	Compressive Strength PSI	Applicable Standards
<p>Rapid Set® Cement: A pure hydraulic cement designed to replace Portland Cement in your high performance grout, mortar and concrete mixtures. Just add water and your choice of aggregates. Packaged in 88-lb. (40kg) bags; also available in bulk.</p> <ul style="list-style-type: none"> • Formulate grout, mortar and concrete mixtures • Ideal for Precasters • Ready Mix applications: <ul style="list-style-type: none"> Fast-track Pavement Flowable Fill, Latex Overlays 	<p>2100 @ 1 Hr. 3700 @ 3 Hr. 5400 @ 24 Hr. 7400 @ 28 Days</p>	<p>ASTM C-150 ASTM C-1157 ASTM C-597</p>
<p>Rapid Set® Cement All™ Non-Shrink Multi-Purpose Grout: a mixture of Rapid Set® Cement and quality sand. Ideal for all types of concrete projects. Packaged in 55-lb. (25kg) bags and 10-lb. (4.5kg) and 25-lb. (11kg) boxes.</p> <ul style="list-style-type: none"> • Concrete Repair • Anchoring • Grouting • Floor Underlayment • Concrete Patching • Underwater applications 	<p>2200 @ 1 Hr. 4800 @ 3 Hr. 7000 @ 24 Hr. 8500 @ 28 Days</p>	<p>ASTM C-1107 ASTM C-928 State & Local Approvals LA RR 24654 CRD C 621</p>
<p>Rapid Set® D.O.T. Repair Mix: A blend of Rapid Set® Cement, specially graded sand, and performance additives. Produces the highest strength Rapid Set® material. May be extended 100% with 3/8" aggregate. Packaged in 55-lb. (25kg) bags.</p> <ul style="list-style-type: none"> • High strength concrete repair • Restoring bridges & highways • Parking deck & slab repair • Doweling & anchoring • Concrete overlays 	<p>2300 @ 1 Hr. 5100 @ 3 Hr. 8200 @ 24 Hr. 10,500 @ 28 Days</p>	<p>ASTM C-1107 ASTM C-928 State & Local Approvals</p>
<p>Rapid Set® 3/8" Concrete Mix: A mixture of Rapid Set® Cement, graded sand, and coarse aggregate. May be applied in thicknesses from 1 inch to 2 feet. Packaged in 60-lb. (27kg) bags. <i>A premium industrial-grade construction product.</i></p> <ul style="list-style-type: none"> • Build and repair concrete • Set posts & pour footings • Repair pavement & walkways • Construct steps & ramps • Structural repairs 	<p>2000 @ 1 Hr. 3600 @ 3 Hr. 5500 @ 24 Hr. 7700 @ 28 Days</p>	<p>ASTM C-928 ASTM C-387</p>

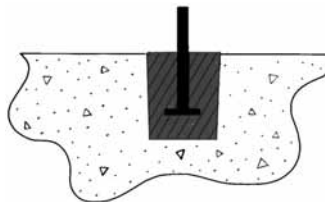
Division 3



Product Yield		
Product	Size	Yield
Rapid Set Cement	88 lb.	1 cu. ft.
Rapid Set Cement All	55 lb.	.5 cu. ft.
Rapid Set D.O.T. Repair Mix	55 lb.	.5 cu. ft.
Rapid Set Concrete Mix	60 lb.	.5 cu. ft.



Precision Grout Under Column, Machine Base Plates & Precast Columns



Grouting in Anchor Bolts, Rebar and Railing



Floor & Pavement Repairs

Concrete Repair



SikaTop® 122 PLUS

Description: SikaTop 122 PLUS is a two-component, polymer-modified, Portland cement, fast-setting, trowel-grade mortar. It is a high performance repair mortar for horizontal and vertical surfaces and offers the additional benefit of FerroGard 901, a penetrating corrosion inhibitor.

Where to Use:

- On grade, above, and below grade on concrete and mortar.
- On horizontal surfaces.
- As a structural repair material for parking structures, industrial plants, walkways, bridges, tunnels, dams and ramps.
- To level concrete surfaces.
- As an overlay system for topping/resurfacing concrete.
- Overlay in cathodic protection systems.

Yield: 0.51 cu. ft./unit mortar; 0.75 cu. ft./unit concrete (SikaTop 122 + 42 lbs. 3/8 pea gravel)

Packaging: **Component 'A'** - 1 gal. plastic jug; 4/carton. **Component 'B'** - 61.5 lb. multi-wall bag.

SikaTop® 123 PLUS

Description: SikaTop 123 PLUS is a two-component, polymer-modified, Portland cement, fast-setting, non-sag mortar. It is a high performance repair mortar for vertical and overhead surfaces, and offers the additional benefit of FerroGard 901, a penetrating corrosion inhibitor.

Where to Use:

- On grade, above and below grade on concrete and mortar.
- On vertical and overhead surfaces.
- As a structural repair material for parking structures, industrial plants, water/waste water treatment facilities, roads, walkways, bridges, tunnels, dams, ramps, etc.
- Approved for repairs over cathodic protection systems.

Yield: 0.39 cu. ft./unit.

Packaging: **Component 'A'** - 1 gal. plastic jug; 4/carton. **Component 'B'** - 44 lb. multi-wall bag.

Sika MonoTop® 611

Description: Sika MonoTop 611 is a one-component, silica fume-enhanced, polymer-modified, portland cement mortar.

Where to Use:

- On grade, above and below grade on concrete and mortar.
- On horizontal, vertical and overhead surfaces.
- As a structural repair material for parking facilities, industrial plants, walkways, bridges, tunnels and dams.
- Free-flowing repair mortar for hard-to-reach areas.
- Filler for voids and cavities.
- Leveling mortar.

Yield: Approximately 0.42 cu. ft./unit. Approximately 0.67 cu. ft./unit (50 lbs. of MT 611+42 lbs. 3/8" pea gravel)

Packaging: 50-lb. multi-wall bag.

Sika MonoTop 615

Description: Sika MonoTop 615 is a one-component, polymer-modified, silica fume enhanced, cementitious, non-sag mortar. It is a multi-purpose mortar which can be applied by trowel or low pressure wet spray.

Where to Use:

- On buildings, facades, and balconies.
- On grade, above and below grade on concrete and mortar.
- On vertical, overhead and horizontal surfaces.
- As a general purpose repair mortar for use on concrete structures in a mild or moderate service environment.

Yield: 0.55 cu. ft./bag.

Packaging: 50 lb. multi-wall bag.

Concrete Repair



Sikacrete® 211

Description: Sikacrete 211 is a one-component, Portland cement concrete containing factory blended coarse aggregate.

Where to Use:

- Full depth repairs.
- On grade, above and below grade on concrete.
- On horizontal, vertical and overhead surfaces.
- As a structural repair material for parking facilities, industrial plants, walkways, bridges, tunnels, dams and balconies.
- Filler for voids and cavities.

Yield: Approximately 0.65 cu. ft./unit.

Packaging: 80 lb. multi-wall bag.

SikaRepair® 222

Description: SikaRepair 222 is a one-component, early strength gaining, cementitious patching material for horizontal repair of concrete.

Where to Use:

- On grade, above and below grade on concrete and mortar.
- As a repair material for spalled horizontal concrete surfaces, walkways, ramps, steps, etc.

Yield: Approximately 0.42 cu. ft. Approximately 0.62 cu. ft. (222+32 lbs. of 3/8" pea gravel).

Packaging: 50 lb. multi-wall bag. SikaLatex R - 1 gal. plastic jug; 4/carton, 5 gal. pails.

SikaRepair® 223

Description: SikaRepair 223 is a one-component, early strength gaining, cementitious patching material for vertical and overhead repair of concrete.

Where to Use:

- On grade, above and below grade on concrete and mortar.
- As a repair material for vertical and overhead concrete surfaces.

Yield: Approximately 0.41 cu. ft.

Packaging: SikaRepair 223 - 50 lb. multi-wall bag. SikaLatex R - 1 gal. plastic jug; 4/carton, 5 gal. pails.

SikaRepair® 224

Description: SikaRepair 224 is a one-component, pre-packaged, ready-to-use, cementitious, silica fume, fiber reinforced, high strength shrinkage-compensated mortar. Formulated for application by trowel or low pressure spray. It is designed especially for repair of overhead and vertical surfaces.

Where to Use: A high performance repair mortar for wet spray application. Suitable for new construction, repairs and maintenance work. Typical applications include:

- On grade, above and below grade on concrete and mortar.
- On vertical and overhead surfaces
- Structural repair material for parking structures, industrial plants, walkways, bridges, tunnels, ramps, dams, etc.
- Potable water tank. (NSF approved in Marion, OH and Santa Fe Springs, CA).

Yield: Yield in service will vary. Average yield is approximately 0.40 cu. ft./bag. Estimating should be based on prior experience or actual field evaluation.

Packaging: 50 lb. multi-wall bag.

Concrete Repair



SikaQuick® 1000

Description: SikaQuick 1000 is a one-component, rapid-hardening, early strength gaining, cementitious patching material for concrete.

Where to Use:

- On grade, above and below grade on concrete.
- Highway overlays and repairs.
- Structural repair material for concrete roadways, parking structures, bridges, dams and ramps.
- Full depth patching repairs.
- Economical patching material for horizontal repairs of concrete and mortar.

Coverage: Approximately 0.43 cu. ft. When extended with 25 lbs. of 3/8" gravel, yield is approximately 0.60 cu. ft.

Packaging: 50 lb. multi-wall bag.

SikaQuick® 2500

Description: SikaQuick 2500 is a one-component, very rapid hardening, early strength gaining, cementitious patching material for concrete.

Where to Use:

- On grade, above and below grade on concrete.
- Highway overlays and repairs.
- Structural repair material for concrete roadways, parking structures, bridges, dams and ramps.
- Full depth patching repairs.
- Economical patching material for horizontal repairs of concrete and mortar.

Coverage: Approximately 0.43 cu. ft. When extended with 25-30 lbs. of 3/8" gravel, yield is approximately 0.60-6.63 cu. ft.

Packaging: 50 lb. multi-wall bag.

SikaSet® Roadway Patch

Description: SikaSet Roadway Patch is a one-component, very rapid hardening, early strength gaining, cementitious patching material for concrete.

Where to Use:

- On grade, above and below grade on concrete.
- Structural repair material for pot holes in concrete roadways, parking structures, bridges, dams and ramps.
- Economical patching material for horizontal repairs of concrete and mortar.

Note: SikaSet Roadway Patch contains High Alumina Cement (HAC).

Coverage: Approximately 0.45 cu. ft. When extended with 42 lbs. of 3/8" gravel, yield is approximately 0.70 cu. ft.

Packaging: 60 lb. multi-wall bag.

SikaSet® Roadway Patch 2000

Description: SikaSet Roadway Patch 2000 is a one-component, very rapid hardening, early strength gaining, cementitious patching material for concrete.

Where to Use:

- Highway overlays and repairs.
- Structural repair material for concrete roadways, parking structures, bridges, dams and ramps.
- Full depth patching repairs.
- Economical patching material for horizontal repairs of concrete and mortar.

Coverage: Approximately 0.43 cu. ft. When extended with 25 lbs. of 3/8" gravel, yield is approximately 0.60 cu. ft.

Packaging: 50 lb. multi-wall bag.

Concrete Repair



Structural Strengthening

Fiber reinforced polymers (FRP) are a proven technology for upgrading and strengthening concrete, masonry, timber and steel structures. These advanced composite materials have exceptionally high strengths, yet are very lightweight and easy to work with. They are used for increasing the capacity of existing buildings and bridges, seismically upgrading structures, correcting design or construction errors, and allowing modifications or changes in use. In addition, the FRP materials offer the following advantages:

- Economy and durability
- Ease of application
- Extremely high tensile strength
- Outstanding fatigue behavior
- Absolute corrosion resistance
- Ability to upgrade structure while in use
- Upgrades possible even with limited access



SikaWrap Hex® 100G

Description: SikaWrap Hex 100G is a unidirectional E-glass fiber fabric. Material is field laminated using Sikadur 300, Sidatur Hex 300 or Sidatur Hex 306 epoxy to form a glass fiber reinforced polymer (GFRP) used to strengthen structural elements.

Packaging: **Rolls:** 50 in. x 30 ft.; 50 in. x 150 ft. **Kits:** Pre-measured kits containing 50 in. x 30 ft. (125 sq. ft.) roll of fabric and 4 gallons of Sidatur Hex 300/306 epoxy.

SikaWrap Hex® 103C

Description: SikaWrap Hex 103C is a high-strength, unidirectional carbon fiber fabric. Material is field laminated using Sikadur 300, Sikadur Hex 300 or Sidatur Hex 306 epoxy to form a carbon fiber reinforced polymer (CFRP) used to strengthen structural elements.

Packaging: **Rolls:** 25 in. x 50 ft.; 25 in. x 300 ft. **Kits:** Pre-measured kits containing 25 in. x 50 ft. (104 sq. ft.) roll of fabric and 4 gallons of Sidatur Hex 300/306 epoxy.

SikaWrap® Hex 300/306

Description: Sikadur Hex 300 and Sikadur Hex 306 are two-component, 100% solids, moisture-tolerant, high-strength, high-modulus epoxies. Sikadur Hex 300/306 is approved for use by ICBO/ICC (ER 5558).

Coverage: As a sealer: 100 sq. ft./gal.
As an impregnating resin: 60 sq. ft./gal.

Packaging: 4 gallon units.

Bonding Agents



Strong Bond

Strong Bond is a ready to use, high solids acrylic latex emulsion that is non-reemulsifiable, non-oxidizing and ultraviolet stable. White in color, but dries clear.

Strong Bond is a one-part film-forming adhesive that becomes an integral part of the interface between cementitious material and the surface to be bonded. Apply with brush, roller or sprayer. Do not let dry. Immediately apply cementitious materials.

Applicable Standards

- Corps of Engineers CE 204.01
- GSA specification for bond adhesive
- Complies with MIL-B-19235A (docks)

Coverage

200-300 sq. ft. per gal. Available in 5-gal. pails and 55-gal. drums.

Spec Bond 50

Spec Bond 50 is a 50% solids, two-component, high modulus, moisture tolerant structural epoxy bonding adhesive. Primary use is for bonding fresh concrete to hardened concrete and for bonding steel to fresh concrete.

Spec Bond 50 has excellent adhesion to most construction materials. Apply by brush, roller or spray, and work into the substrate. While Spec Bond 50 is still tacky, apply fresh concrete. Do not let dry.

Applicable Standards

ASTM C-881, Type I, II, IV and V, Grade 1, Classes B & C

Coverage

80 sq. ft. per gal. Available in 1-gal., 3-gal. and 15-gal. units.



Spec Bond 100

Spec Bond 100 is a 100% solids, two-component, high modulus, moisture tolerant structural epoxy bonding adhesive. Primary use is for bonding fresh concrete to hardened concrete and for bonding steel to fresh concrete. Spec Bond 100 can also be used for the anchoring of bolts, dowels and reinforcing steel in concrete.

Spec Bond 100 has excellent adhesion to most construction materials. Apply by brush, roller or spray, and work into the substrate. While Spec Bond 100 is still tacky, apply fresh concrete. Do not let dry.

Applicable Standards

ASTM C-881, Type I, II, IV and V, Grade 2, Classes B & C

Coverage

80 sq. ft. per gal. Available in 1-gal., 2-gal. and 10-gal. units.

Weldtight

Weldtight is a general purpose rewettable bonding agent, for use when delayed timing is necessary to apply new concrete, stucco, plaster or cementitious repair mortars to existing concrete and masonry surfaces. Use only on dry interior areas. Apply with brush, roller or sprayer, and work into surface. Drying time is usually 2 to 3 hours.

Applicable Standards

ASTM C-1059, Type I

Coverage

200-400 sq. ft. per gal. Available in 5-gal. pails and 55-gal. drums.

Bonding Agents



Bonding Agents

The weakest portion of patched concrete is usually the bond line between the original concrete and the patching material. To ensure a durable patch, a bonding agent should be used to strengthen the adhesion of cement-based patching materials to existing concrete. A variety of bonding agent options are available, including scrub coats of the patching product, re-dispersible emulsions such as Hornweld and multi-purpose epoxy adhesives such as Duralbond or Duralprep AC. Consult the Technical Data Sheets for these products for additional information.

Hornweld® Redispersible Latex Bonding Agent for Concrete

Description: Hornweld is a ready to use, high build, film forming, reemulsifiable, liquid bonding agent and polymer modifier for cement mortars. As a bonding agent, Hornweld bonds new cementitious materials to existing surfaces. When fresh cementitious materials are applied to a Hornweld coated surface, the Hornweld rewets and develops a tenacious mechanical and chemical bond between the new material and the existing surface. As a polymer modifier, Hornweld increases the strength and durability of cementitious mortar when compared with the unmodified mix.

Coverage: 200-250 square feet per gallon on dense surfaces (4.9 to 6.1 square meters per liter). On porous surfaces, more material may be required. Do not exceed 300 square feet per gallon (7.3 square meters per liter).

Hornweld meets the following specification: ASTM C-1059, Type I.

Available in 1 gallon and 5 gallon pails.

Duralbond Epoxy Bonding/Grouting Compound

Description: Duralbond is a multi-purpose, two part, 100% solids, moisture insensitive epoxy bonding/grouting adhesive compound.

Uses: Duralbond is used to bond fresh plastic concrete to hardened concrete, brick, heavyweight concrete block or steel. It is ideal for use in bonding extensions to concrete, pavements, coating rebars and as a general purpose adhesive to bond concrete, wood or metal. It can be used neat or with aggregate to grout bolts, dowels or pins in concrete. It can also be used to grout horizontal cracks in concrete.

Compliance: Duralbond meets or exceeds the following standards:

AASHTO M235-88, Type II
ASTM C881-90, Type I, II, IV, V
Grade 2, Class B & C

Federal Specification MMM-A-001993, Type I.

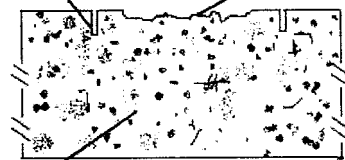
Coverage: As bonding compound for fresh to old concrete 80-90 sq. ft./gal. For anchoring, 1 neat gal. yields 231 cu. in. of grout. 1 gal. neat Duralbond with 1 gal dry 20-40 mesh silica sand will yield approximately 410 cu. in. of mortar. Coverage will vary depending on surface texture, porosity and temperature.

Available in 4 gallon case, 10 gal. unit.

Preparation

Preparation of the area to be patched is a critical part of the restoration procedure.

2 INCH SAW CUT SCALED SURFACE



CONCRETE

The first step should be a 2-inch saw cut around the perimeter of the patch.

The distressed concrete should be moved using chipping hammers, bush hammers, abrasive blasting or mechanical abrasion until a sound surface is found.

PREPARED SURFACE



CONCRETE

The area to be patched should then be cleaned using compressed air or water to remove all loose or foreign materials. It is important that the surface is completely clean to ensure adhesion of the patching material.

PATCHING MATERIAL



CONCRETE

BONDING AGENT

All bonding agents should be sprayed or scrubbed into the surface with a stiff brush. Do not allow excess bonding agent to accumulate in the patch. All the bonding agents should be used within their "open time", otherwise the bonding agent may actually weaken the bond. Bonding agents should not be applied to any surface that the new patch should not bond to, for example at a control joint.

Bonding Agents



Sika Armatec® 110 EpoCem®

Description: Sika Armatec 100 EpoCem is a 3-component, solvent-free, moisture-tolerant, epoxy-modified, cementitious product specifically formulated as a bonding agent and an anti-corrosion coating.

Where to Use:

- As an anti-corrosion coating for reinforcing steel in concrete restoration.
- As added protection to reinforcing steel in areas of thin concrete cover.
- As a bonding agent for repairs to concrete and steel.
- As a bonding agent for placing fresh, plastic concrete to existing hardened concrete.

Advantages:

- Excellent adhesion to concrete and steel.
- Acts as an effective barrier against penetration of water and chlorides.
- Long open time – up to 16 hours.
- Not a vapor barrier.
- Can be used exterior on-grade.
- Contains corrosion inhibitors.
- Excellent bonding bridge for cement or epoxy based repair mortars.
- High strength, unaffected by moisture when cured.
- Spray, brush or roller application.
- Non-flammable, solvent free.

Coverage: **Bonding agent:** minimum (theoretical) on smooth, even substrate 80 sq. ft./gal. (= 20 mils thickness). Coverage will vary depending on substrate profile and porosity.
Reinforcement Protection: 40 sq. ft./gal. (= 20 mils thickness) (2 coat application).

Packaging: 3.5 gal. unit (47.6 fl. oz. Comp. A + 122.1 fl. oz. Comp. B + 46.82 lb. Comp. C) Comp. A + B in carton, Comp. C in multi-wall bag.
1.65 gal. unit. (22.7 fl. oz. A + 57.6 fl. oz. B + 4 bags @ 5.5 lb.) Factory-proportioned units in a pail.

Sikadur® 32, Hi-Mod

Description: Sikadur 32, Hi-Mod is a multi-purpose, 2-component, 100% solids, moisture-tolerant structural epoxy adhesive. It conforms to the current ASTM C-881 and AASHTO M-235 specifications.

Where to Use:

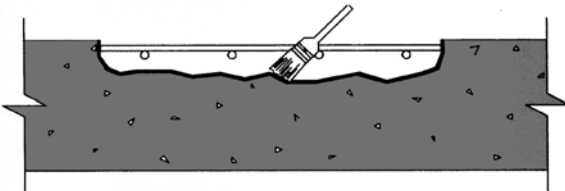
- Bond fresh, plastic concrete to hardened concrete and steel.
- Grout bolts, dowels, and pins, etc.
- Grout horizontal cracks in structural concrete and wood by gravity feed.
- Machinery and 'robotic' base-plate grout.
- Structural adhesive for concrete, masonry, metal, wood, etc.

Advantages:

- Super-strength bonding/grouting adhesive.
- Tolerant to moisture before, during and after cure.
- Excellent adhesion to most structural materials.
- Convenient easy-to-mix ratio A:B = 1:1 by volume.
- Easy-to-use for bonding/grouting applications.
- Fast initial set; rapid gain to ultimate strengths.
- USDA-certifiable for use in food plants.

Coverage: **Bonding Adhesive** - 1 gal. covers approximately 80 sq. ft. on smooth surface.
Base Plate Grout - 1 gal. mixed with 1.5 parts oven-dried aggregate by loose volume yields approximately 420 cu. in. of grout.
Adhesive and anchoring grout - 1 gal. yields 231 cu. in. of grout.

Packaging: 2 and 4 gal. units; 1 kg. unit (25.6 fl. oz.), 6/case, 75/pallet; 2.5 kg. unit (63.8 fl. oz.), 2/case, 90/pallet.



Sika Armatec 100 - apply by stiff-bristle brush or broom. Spray apply with Goldblatt Pattern Pistol or equal equipment. Work the bonding slurry well into the substrate to ensure complete coverage. Apply the patching mortar or concrete with the recommended open time.

Sikadur 32, Hi-Mod - apply by brush, roller, broom or spray. Place concrete while Sikadur 32, Hi-Mod is still tacky.

Epoxies



Sikadur® 22, Lo-Mod

Description: Sikadur 22, Lo-Mod is a two-component, 100% solids, moisture-tolerant, epoxy resin binder. It conforms to the current ASTM C-881 and AASHTO M-235 specifications.

Where to Use: Use neat as the binder resin for a skid-resistant broadcast overlay. Use also as the binder resin for epoxy mortar and concrete for patching and overlays.

Coverage: 1 gal. yields 231 cu. in.
Mortar Binder - 1 gal. of mixed Sikadur 22 Lo-Mod with the addition of 5 gal. by loose volume of an overdried sand, yields approximately 808 cu. in. of epoxy mortar.

Packaging: 4 gal. units.

Sikadur 31®, SBA

Description: Sikadur 31, SBA is a unique high-modulus, two-component, moisture-tolerant, solvent-free, epoxy resin system available in three application temperature ranges. A unique high-modulus structural adhesive for bonding hardened concrete to hardened concrete for segmental bridge construction. The mixed material has the consistency of paste and is a concrete gray color. It conforms to the current ASTM C-881, Type VI requirements, and ASBI guidelines.

Coverage: Approximately 12 sq. ft./gal. or 36 sq. ft./3 gal. unit.

Packaging: 3 gal. units.

Sikadur® 31, Hi-Mod Gel

Description: Sikadur31, Hi-Mod Gel is a two-component, 100% solids, moisture-tolerant, high-modulus, high-strength structural epoxy paste adhesive. It conforms to the current ASTM C-881 and AASHTO M-235 specifications.

Where to Use:

- Structural bonding of concrete, masonry, metals, woods, etc. to a maximum glue line of 1/8" (3 mm).
- Grout bolts, dowels, pins, vertical and overhead, etc.
- Seals cracks and around injection ports prior to pressure-injection grouting.
- Interior, vertical and overhead repair of concrete as an epoxy mortar binder.
- As a pick-proof sealant around windows, doors, lock-ups etc., inside correctional facilities.

Coverage: 1 gal. yields 231 cu. in. of epoxy paste adhesives and grout. 1gal. mixed with 1 gal. by loose volume of oven-dried aggregate yields approximately 346 cu. in. of epoxy mortar.

Packaging: 3-gal. units; 12 fl. oz. units, 12/case.

Sikadur® 33

Description: Sikadur 33 is a two-component, 100% solids, moisture-tolerant, high-modulus, high-strength, structural smooth-paste epoxy adhesive. It conforms to the current ASTM C-881 and AASHTO M-235 specifications, except for gel time.

Where to Use:

- To seal cracks and to secure injection ports in structural concrete and wood trusses prior to pressure-injection grouting.
- Anchor grouting of bolts, dowels, pins and special fasteners.

Coverage: 1 gal. yields 231 cu. in. of paste adhesive.

Packaging: 2 gal. unit.

Sikadur® 35, Hi-Mod LV

Description: Sikadur 35, Hi-Mod LV is a two-component, 100% solids, moisture-tolerant, low-viscosity, high-strength, multi-purpose epoxy resin adhesive. It conforms to the current ASTM C-881 and AASHTO M-235 specifications.

Where to Use:

- Pressure-injection of cracks in structural concrete, masonry, wood, etc.
- Grouting bolts, dowels, pins, etc.
- Gravity-feed of cracks in horizontal concrete and masonry.
- Epoxy resin binder for epoxy mortar patching and overlay of interior, horizontal surfaces.
- Seal interior slabs and exterior above-grade slabs from water, chlorides and mild chemical attack; also improves wearability.

Coverage: 1 gal. yields 231 cu. in. of adhesive and grout. 1 gal. of adhesive, when mixed with 5 gal. by loose volume of oven-dried aggregate, yields approximately 808.5 cu. in. of epoxy mortar.

Packaging: 3 gal units; 1 gal. units, 2/case; 12 fl. oz. units, 12/case.

Epoxies



Sikadur Epoxy Resins for ASTM C881-90 Specification

Type I	Grade 1	Sikadur 35, Hi Mod LV
	.....	Sikadur 35, Hi Mod LV LPL
	.....	Sikadur 52 (1)
	Grade 2	Sikadur 32, Hi Mod
	.....	Sikadur 32, Hi Mod LPL (2)
	Grade 3	Sikadur 31, Hi Mod Gel
.....	Sikadur Injection Gel	
.....	Sikadur 33 (1)	
Type II	Grade 1	Sikadur 35, Hi Mod LV
	.....	Sikadur 35, Hi Mod LV LPL
	.....	Sikadur 52 (1)
	Grade 2	Sikadur 32, Hi Mod
	.....	Sikadur 32, Hi Mod LPL (2)
	Grade 3	Sikadur 31, Hi Mod Gel
.....	Sikadur Injection Gel	
.....	Sikadur 33 (1)	
Type III	Grade 2	Sikadur 22, Lo Mod (3)
Type IV	Grade 1	Sikadur 35, Hi Mod LV
	.....	Sikadur 35, Hi Mod LV LPL
	.....	Sikadur 55 SLV
	Grade 3	Sikadur 31, Hi Mod Gel
	.....	Sikadur Injection Gel
.....	Sikadur 33 (1)	
Type V	Grade 1	Sikadur 35, Hi Mod LV
	.....	Sikadur 35, Hi Mod LV LPL
	Grade 3	Sikadur 31, Hi Mod Gel
.....	Sikadur Injection Gel	
Type VI	Sikadur 31, SBA	
	(3 Temp. Ranges)	
Type VI	Sikadur 31, Slow Set SBA	
	(3 Temp. Ranges)	

Definitions

Type I - For use in non-load bearing applications for bonding hardened concrete to hardened concrete and other materials, and as a binder in epoxy mortars or epoxy concretes.

Type II - For use in non-loaded bearing applications for bonding freshly mixed concrete to hardened concrete.

Type III - For use in bonding skid resistant materials to hardened concrete, and as a binder in epoxy mortars or epoxy concretes used on traffic bearing surfaces (or surfaces subject to thermal or mechanical movements).

Type IV - For use in load bearing applications for bonding hardened concrete to hardened concrete and other materials and as a binder for epoxy mortars and concretes.

Type V - For use in load bearing applications for bonding freshly mixed concrete to hardened concrete.

Type VI - For bonding and sealing segmental precast elements with internal tendons and for span-by-span erection when temporary post tensioning is applied.

Type VII - For use as a non-stress carrying sealer for segmental precast elements when temporary post tension is not applied as in span-by-span erection.

Grade 1 - Low viscosity

Grade 2 - Medium viscosity

Grade 3 - Non-sagging consistency

(1) Except for Gel time 20 minutes vs. 30 minutes (required).

(2) Except for Tensile Strength 4,800 psi vs. 5,000 psi (required).

(3) Except for Tensile Elongation 22.7% vs. 30% (required) and Compressive Modulus 140,000 psi vs. 130,000 psi (required).



Division 4 Index

MASONRY

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Cement



Preblended Mortar & Grout In 80-lb. and 3000-lb. Bags

Mortar – Type I Portland cement, Type S lime, and brick sand

- **Type PLN** – ASTM C-270-00 proportion specification, Type N design mix
- **Type PRS** – ASTM C-270-00 property specification, Type S design mix
- **Type PLS** – ASTM C-270-00 proportion specification, Type S design mix.

Grout – Type I Portland cement, fine and coarse aggregates

- **Fine Grout** – ASTM C-476-99 specification
- **Coarse Grout** – ASTM C-476-99 specification



80-lb. Bags



3000-lb. Bulk Bags



Division 4

TOLL FREE 800-892-7224
800-821-7735



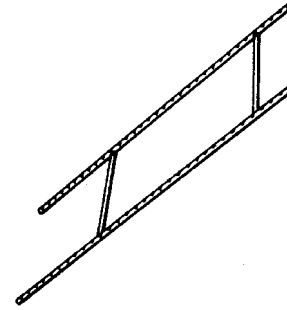
LOCAL 816-525-3640
FAX 816-525-4533

Masonry Wall Reinforcing

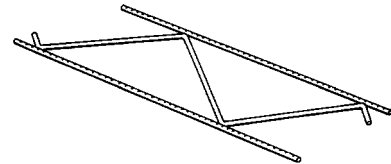
ASTM A 82 Wire Requirements (for cold drawn steel wire)

QQ-W461 f Finish 1 Wire Requirements (for hard tempered wire)

Tensile Strength	80,000 PSI	
Yield Point	70,000 PSI minimum	
Reduction of Area	30 %	
Wire Gauges	<i>Side Rods</i>	<i>Cross Rods</i>
Standard	9 Gauge (.148 in)	9 Gauge
Medium	8 Gauge (.162 in)	9 Gauge
Heavy Duty	3/16" (.187 in)	9 Gauge
Extra Heavy Duty	3/16" (.187 in)	3/16"
<i>Finishes</i>	<i>Description</i>	
Plain	Uncoated	
Mill Galvanized	Zinc Coated (0.10 oz per sq ft)	
Hot Dipped Galvanized After Fabrication	Zinc Coated ASTM A 153 Class B2 (1.50 oz per sq ft)	
Stainless Steel	ASTM 580 Type 304	
<p>ACI Code recommends mill galvanized ASTM A641 (0.1 oz/ft²) (0.031 kg/m²) for joint reinforcement in interior walls. For cavity and exterior walls hot dipped galvanized ASTM A153 (1.5 oz/ft²) (0.046 kg/m²) is recommended for joint reinforcement, wire ties, and anchors. Hot dipped is also recommended for interior walls exposed to a mean relative humidity exceeding 75%.</p> <p>All wire conforms to ASTM A951-96. Class I ASTM A641 (0.4 oz/ft²) and Class III (0.8 oz/ft²) are no longer recommended by ACI 530 for interior walls.</p> <p>Epoxy coating is not recommended as a protective coating for joint reinforcement, anchors and ties. Manufacturer recommends Stainless Steel Type 304 for maximum corrosion protection.</p>		

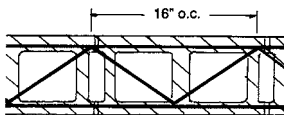


Ladder Type. Cross rods at 16" center-to-center. Provided in 10' 8" lengths; 500 LF per bundle.

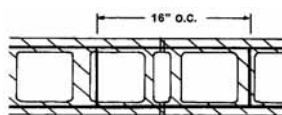


Truss Type. Cross rods at 16" center-to-center. Provided in 10' lengths; 500 LF per bundle.

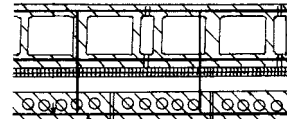
Common Types of Reinforcing



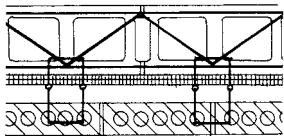
Truss Type



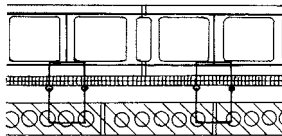
Ladder Type



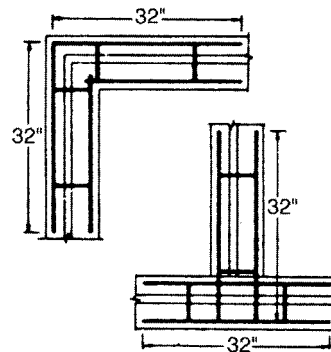
Ladder Tri-Rod



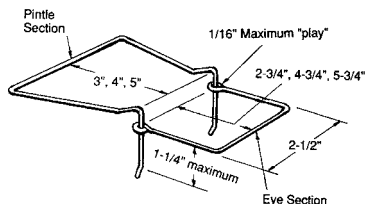
Truss Eye



Ladder Eye



Corners & Tees

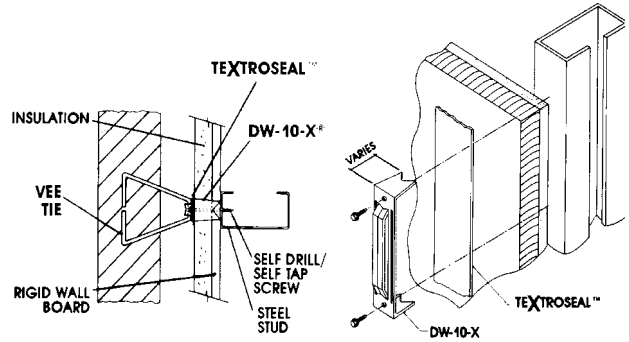
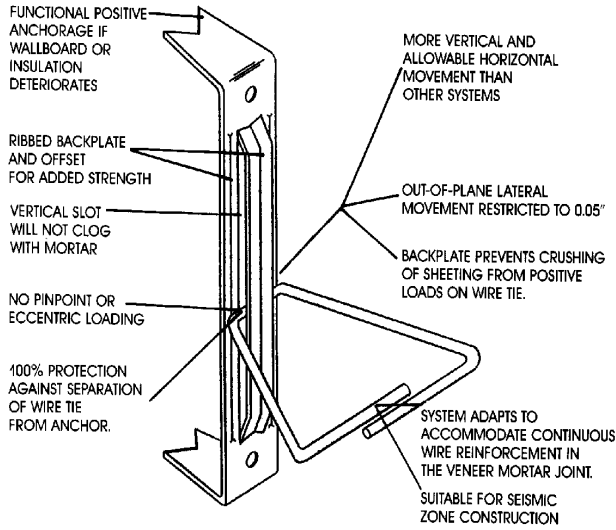


Division 4

Masonry Anchors



DW-10® Series Veneer Anchors



TeXtroseal™

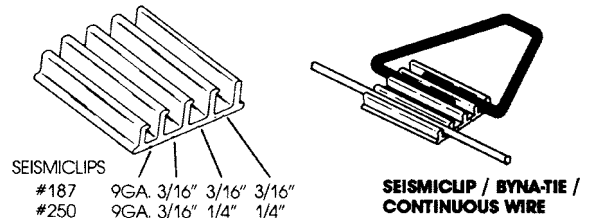
- Self-sealing. Seals around shaft of screw and legs of DW-10-X at the moment of penetration.
- Retardant. Retards diffusion of moisture vapor.
- Dual-Barrier Membrane. 40 mil thick multi-ply polyethylene/polymer-modified asphalt.

DW-10-X® Anchor

(Shown with Byna-Tie®)

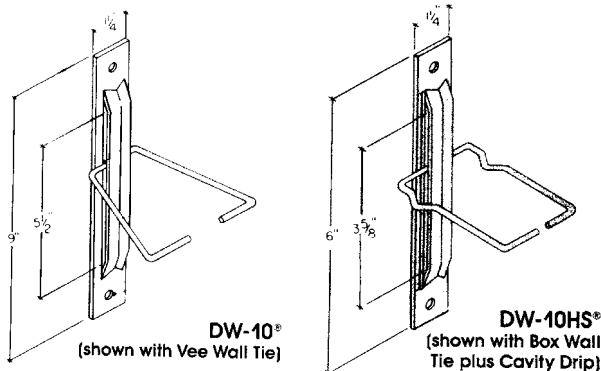
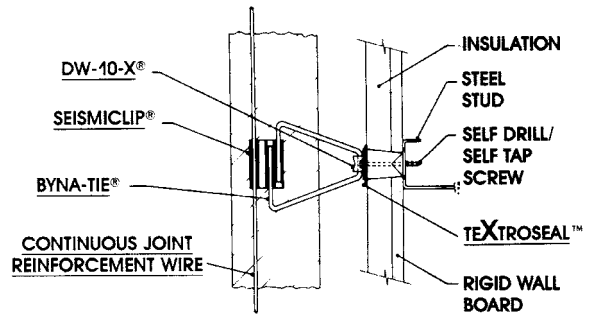
- Bend sizes from 1/2" to 3" available.
- 3-5/8" vertical adjustability.
- Installation after insulation is in place.
- Available mill galvanized, hot dip galvanized or stainless steel.
- Available to accept either 3/16" or 1/4" dia. wire tie (specify when ordering)
- Conformance to applicable specifications.

SeismiClip Interlock System



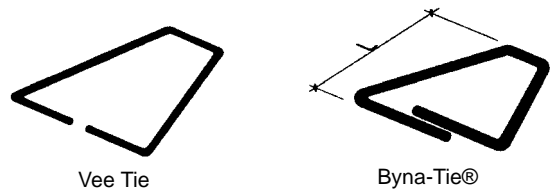
DW-10® & DW-10HS®

DW-10 and DW-10HS anchors have all the features of the DW-10-X as shown above, but without the prolonged-leg design. They are primarily for use when there is no insulation and little potential for wallboard deterioration.



Masonry Wire Ties

- Standard lengths 3", 3-1/2", 4", 4-1/2" and 5".
- Special sizes and shapes available on request.
- Available in 3/16" or 1/4" diameter.



The DW-10-X®, Byna-Tie® and SeismiClip® interlock system has been tested and evaluated for use in Seismic Zones 3 & 4 in accordance with ICBO guidelines.

TOLL FREE 800-892-7224
800-821-7735

GA construction
anchors, inc.

LOCAL 816-525-3640
FAX 816-525-4533

Masonry Anchors



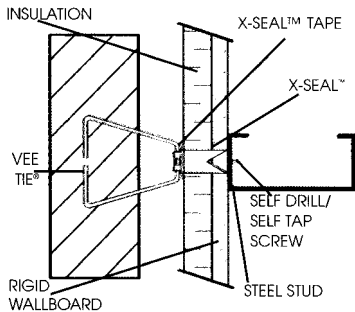
DW-10® Series Veneer Anchors

X-Seal™ Anchor

The X-Seal™ Anchor is the latest generation veneer anchor. The original DW-10-X® anchor was developed to address the problem of possible long-term deterioration of the insulation or wallboard. The pronged legs bridge the sheathing and abut the steel stud, affording independent, positive anchorage. Compression of the sheathing by positive loads is also prevented. The X-Seal Anchor improves upon the DW-10-X by moving the horizontal pronged legs in from each end, enabling the backplate portion of the anchor to effectively seal the wallboard/insulation. This helps to maintain the integrity of the vapor barrier and prevents the ingress of air and moisture through the sheathing. The pronged legs are now also rib-stiffened and oriented closer to each other than on the original DW-10-X, thus enhancing the compressive strength.

The X-Seal™ Anchor can be ordered with legs to accommodate from 1/2" to 3" combination wallboard/insulation. When ordering, use the proper designation, determined by the total thickness of the wallboard and/or insulation. **For example:** for 1/2" wallboard, use X-SEAL (1/2). For 1/2" wallboard with 1" insulation, use X-SEAL (1-1/2).

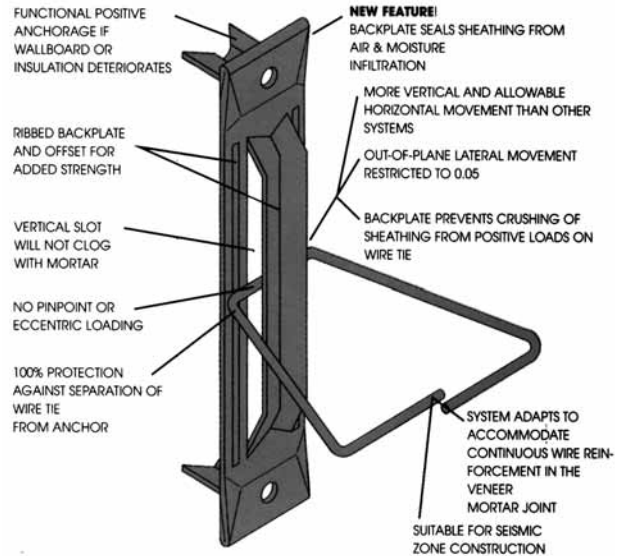
Patents Pending



X-Seal™ Anchor (Shown with Byna-Tie®)

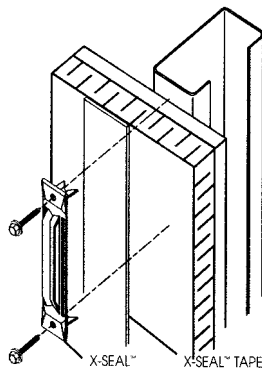
Other Features:

- Leg sizes from 1/2" to 3" available.
- 3-3/8" vertical adjustability.
- Installation after insulation is in place.
- Available hot dip galvanized or stainless steel.
- Available to accept either 3/16" or 1/4" dia. wire tie (specify when ordering)
- Conformance to applicable specifications.



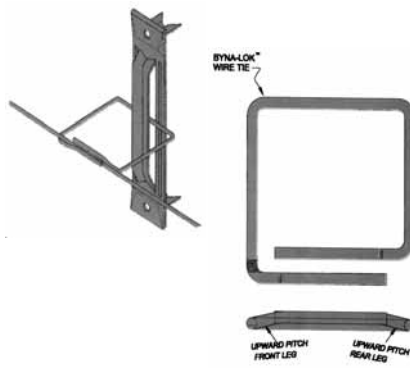
The X-Seal™ Anchor meets or exceeds requirements of the Commonwealth of Massachusetts State Building Code for air leakage and water penetration.

Division 4



X-Seal™ Tape

Self-sealing. Grips around shaft of screw and legs of X-Seal™ Anchor at the point of penetration. Cross-linked polyethylene foam conforming to ASTM D4819, D3575 and D412.



Byna-Lok™ Wire Tie

Why specify the Byna-Lok™ Wire Tie?

- Swage and mild pitch on legs provide an integral track for the continuous joint reinforcing wire. Suitable for standard 3/8" mortar joint.
- More surface engagement of the continuous wire and integral track than any other system on the market. Reduces potential for incorrect placement or disengagement of the continuous wire due to workmanship error.
- Hassle-free installation of continuous wire into Byna-Lok Wire Tie.
- Economical; add continuous wire to masonry walls at little additional cost.
- Suitable for use with a variety of H&B anchors.
- Available in 3/16" diameter x 3", 4" or 5" long, hot dip galvanized or Type 304 stainless steel.
- System includes heavy-duty continuous wire.

Visit Us on the Web!

www.ConstructionAnchors.com



13900 E. 350 Highway
Kansas City, MO 64138

Masonry Anchors



D/A 213 – Veneer Anchor Assembly (patented)

D/A 5213 – Retrofit Veneer Anchor Assembly

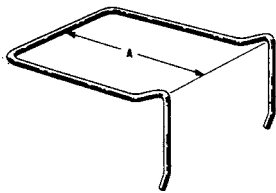
Anchor brick or block veneer to steel studs or existing construction with or without board-type insulation present in cavity.



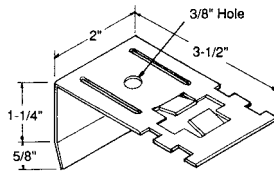
D/A 213



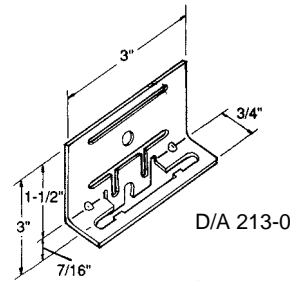
D/A 213 Seismic Design



3/16" Wire Pintle
3", 4", 5", 6" & 7"

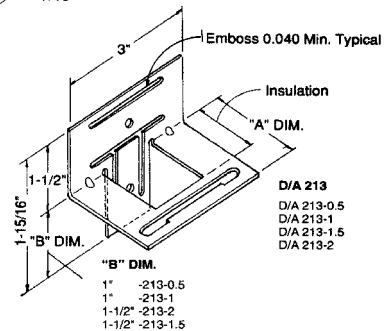


Pintle Plate
11 ga. & 12 ga.

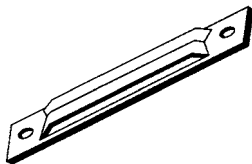


Anchor Plates
12 ga. & 14 ga.

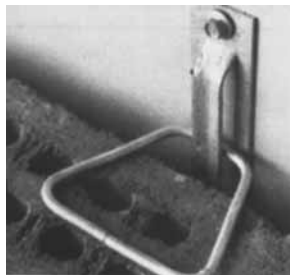
D/A 213-0



D/A 210 Veneer Anchor Screw-On Plate

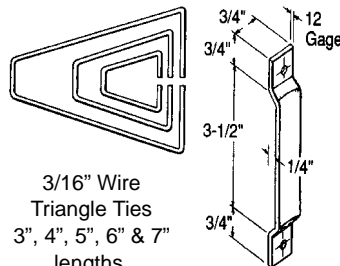


Anchor Plate
1-1/2" wide x 6" long
12 ga. & 14 ga.

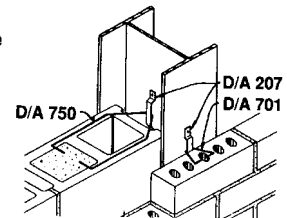


D/A 210 w/ Tri-Tie™

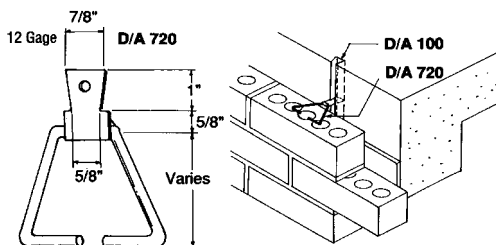
Screw-On or Weld-On Column Anchor Assembly



D/A 207



D/A 100 & D/A 720 Dovetail Slot / Triangle Anchor System



Self-Drilling HWH Fasteners

All Jetna Fastech #10, #12 & #14 dia. fasteners have High Hex Heads, drastically improving driving stability. Standard size is #10-16 x 1-1/2" HWH, zinc finish.

Available with bonded rubber washer. Available with XLCoat finish, a fluorocarbon/aluminum, polymer teflon coating. Meets salt spray requirements ASTM B117, 1000 hours.



Masonry Anchors



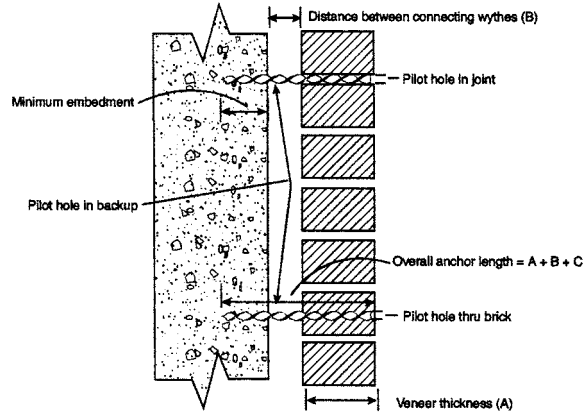
Flexible Wall Stabilizing Anchor



A non-corrosive masonry anchoring system uniquely designed to withstand axial loads and provide flexible in-plane wythe movement. This anchor concept can be used in either new or restoration anchoring situations. The Dur-O-Flex can be attached to a structure via adhesives or with friction. The method of installation is simple and utilizes the common practice of incorporating Dur-O-Pair Epoxy and wire mesh screens to create a flexible wall tie. The spirally shaped anchor is made from a split stainless steel coil which is twisted to form a continuous spiral section.

The material used to produce the Dur-O-Flex anchor is from austenitic steel type 304. The cross-sectional area of the Dur-O-Flex is about .022" with an effective diameter of 9/32".

Dur-O-Flex Friction Pin



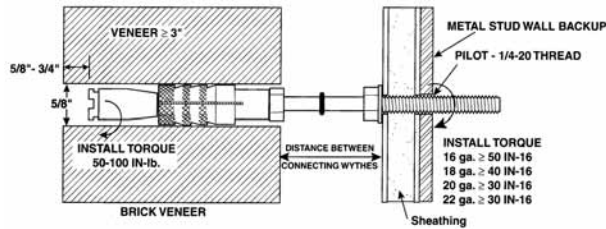
Brick to concrete (mortar joint or solid brick)
Note: Pilot hole should be greater than anchor length by 1" min.

Repair Anchor

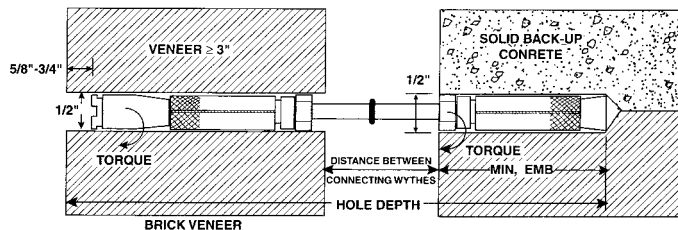
The Dur-O-Wal Repair Anchor is the closest replication of quality wall ties and anchors used in masonry construction. It is a mechanically activated re-anchoring system that utilizes torque and/or hammer-set expansion to create preload within existing wythes of masonry. This style of fastening provides proof positive of anchorage and does not create tension forces between wythes.

Anchor components are manufactured of non-corrosive materials; either brass or austenitic stainless steel. They are installed in pre-drilled holes of common sizes located at intersecting mortar joints in masonry facades. Typical installations leave no brick scars or exposed hardware, and are easily concealed by a matching mortar plug.

Inspection and quality assurance are easily performed for the independently activated connectors without destroying the integrity of the fasteners.

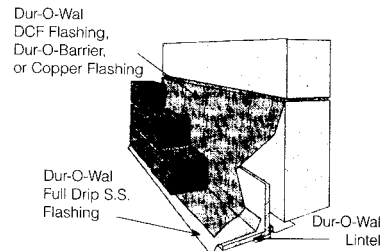
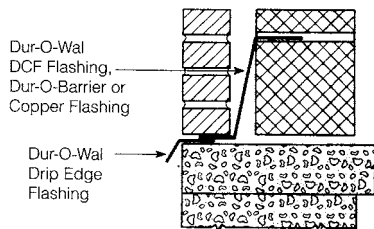


Series 5105



Series 5000

Stainless Steel Drip Edge Type 304 Stainless Steel Factory-Formed Hemmed Edge



Division 4

Masonry Anchors



Heckmann
Building Products Inc.

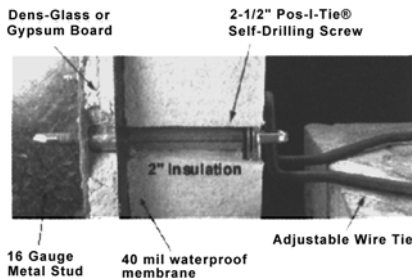
2-Piece Adjustable Brick Veneer Anchoring System



US Patents
#4473984 #4764069
Canada Patent #1224344

No. 75HE Pos-I-Tie® Advantages Over Other Systems

- 1) Pos-I-Tie® Single Screw System fully complies with the ACI 530 Code. The barrel screw is one piece. No more plates, screws and gaskets. It screws into the backup in seconds.
- 2) Uses consistent screw. Screw is provided as part of the Pos-I-Tie® system; no inferior screws can be substituted.
- 3) Provides positive connections. Screw actually penetrates gypsum board and makes a positive lateral connection with the backup for transfer of compression and tension loads to structural backup.
- 4) Enables speedy, cost-saving installation. Only one screw needs to be placed, not two.
- 5) Corrosion resistant. Pos-I-Tie® seals the hole it makes when it seats itself in the backup. Barrel section is made of ZAMAC 2, a 92% zinc alloy. Screws are zinc electroplated, coated twice, and baked in STALGARD®.
- 6) Slotted barrel allows for differential movement due to temperature variations. Tie design provides for allowable ACI 530 code vertical adjustment.
- 7) Allows for use of 4' x 8' insulation sheets. The Pos-I-Tie® holds the insulation in place.



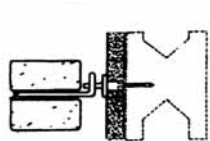
6 Barrel Lengths

- 5/8" for 1/2" and 5/8" gypsum.
- 1" for 1" insulation.
- 1-1/2" for 1" insulation over gypsum.
- 2" for 2" insulation.
- 2-1/2" for 2" insulation over gypsum.
- 3" for 2-1/2" insulation over gypsum.

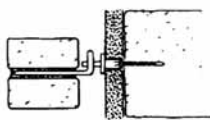
Complies with the energy conservation requirements of the Massachusetts State Building Code (780 CMR 13 Envelope).



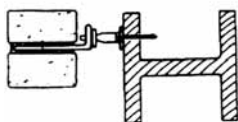
3 Types of Screws



SELF DRILLING SCREW FOR BRICK VENEER TO STEEL STUDS



TAPCON® SCREW FOR BRICK VENEER TO CONCRETE, CMU, WOOD OR BRICK



DRIL-IT® SCREW FOR BRICK VENEER TO STRUCTURAL STEEL



Wire Ties



Triangle Wire Tie

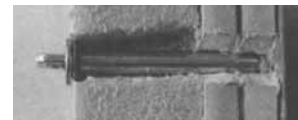


Seismic Wire Tie



Single Wire Tie

NEW! 1/4" (6.35mm) extensions for conditions requiring a double layer of gypsum to increase the R-value of wall.



Standard wire ties are 3" (76mm), 3-1/2" (89mm), 4" (102mm) or 5" (127mm) long in 3/16" diameter wire. Mill galvanized, hot dip galvanized, or stainless steel.

Special lengths available on request.

Stone Anchors



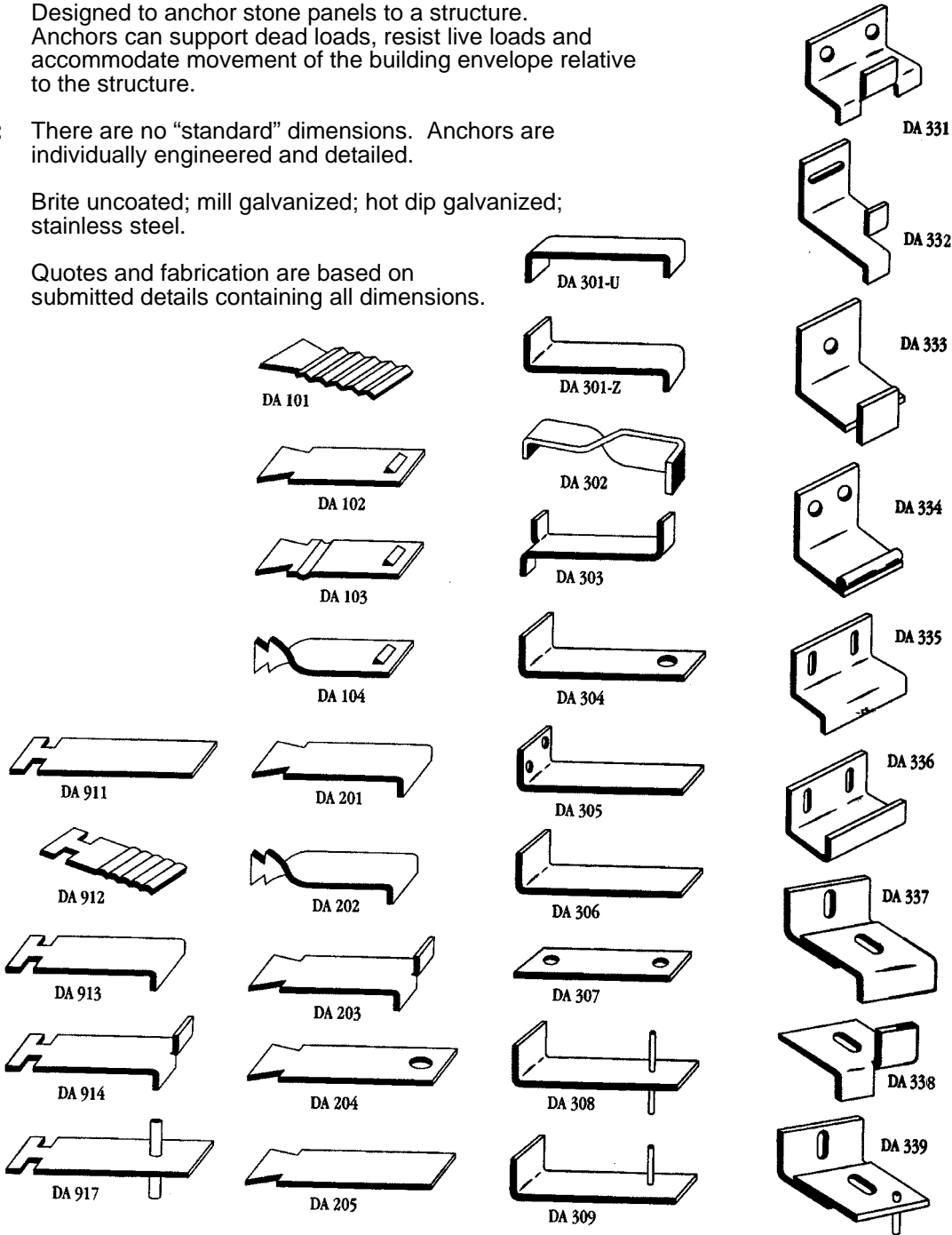
Stone Anchors

Function: Designed to anchor stone panels to a structure. Anchors can support dead loads, resist live loads and accommodate movement of the building envelope relative to the structure.

Dimensions: There are no "standard" dimensions. Anchors are individually engineered and detailed.

Finishes: Brite uncoated; mill galvanized; hot dip galvanized; stainless steel.

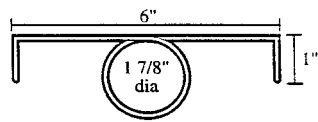
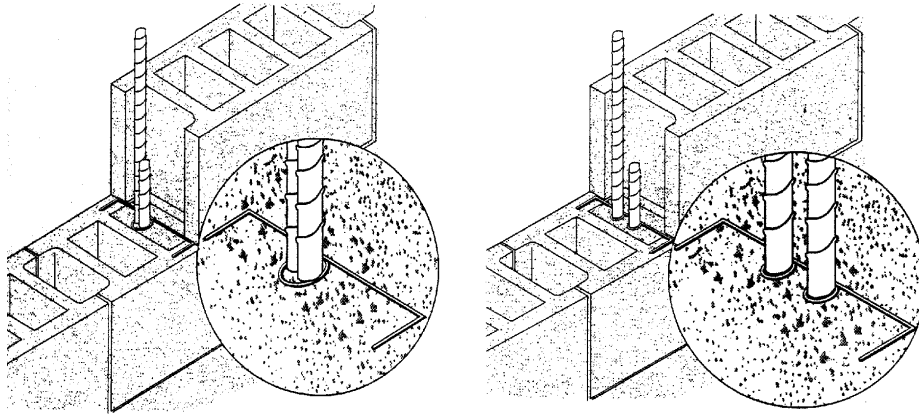
Notes: Quotes and fabrication are based on submitted details containing all dimensions.



Division 4

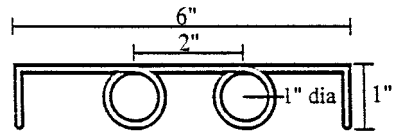
Rebar Positioners

CA Rebar Positioners

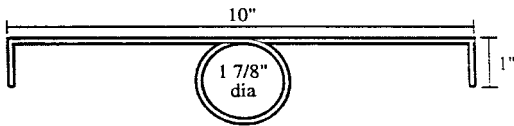


#8 Rebar Positioner Single Loop

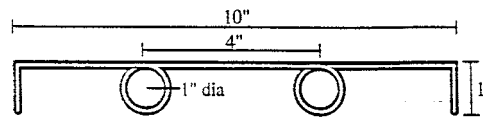
9-ga. Wire
Mill Galvanized
Hot Dip Galvanized



#8 Rebar Positioner Double Loop



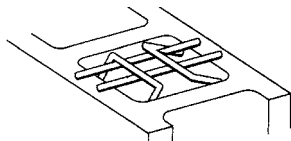
#12 Rebar Positioner Single Loop



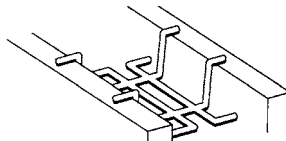
#12-4 Rebar Positioner Double Loop

Division 4

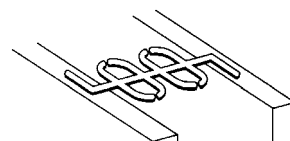
DUR-O-WAL®
A DAYTON SUPERIOR COMPANY



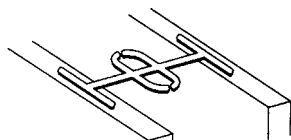
DA 810



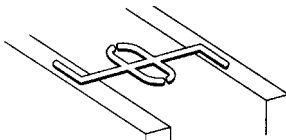
DA 812



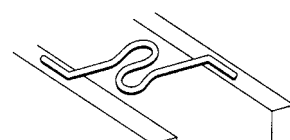
DA 816



DA 811



DA 815

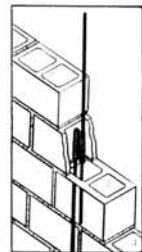


DA 817

Spyra-Lox® Rebar Lap-Joint Tie

US Patent No. 5,379,562

- No tools; eliminates cumbersome procedure of tying lap-jointed rebars together in reinforced walls.
- Increases worker productivity.
- Reduces lifting height of block over rebars.
- Flow-through design allows grout to uniformly encase rebars at overlap.
- Correct installation procedure allows for systematic placement of rebars to accommodate varying overlap requirements.
- Available for 3/8", 1/2", 5/8" and 3/4" rebars.
- Available in Brite Basic or Mill Galvanized.



Call for 4-page catalog including installation method and details.

TOLL FREE 800-892-7224
800-821-7735

CA construction
anchors, inc.

LOCAL 816-525-3640
FAX 816-525-4533

Dovetail Anchors & Weeps

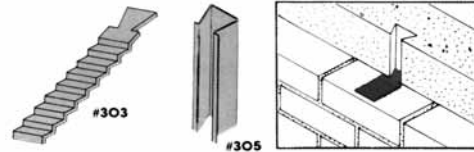


#303 – Corrugated Dovetail Brick Tie

#305 – Dovetail Slot

- Mill galvanized / hot galvanized / stainless steel.
- Standard #303 is 1" wide x 16 ga., 14 ga. or 12 ga. thick x 3-1/2" or 5-1/2" long. Other lengths and widths available on request.
- #305 Slot is available in 24, 22, 18 or 16 ga.
- Slots are standard 10-ft. lengths, foam filled.

IMPORTANT: We are not responsible for incompatibility if ties or slots are interchanged with those of other manufacturers.

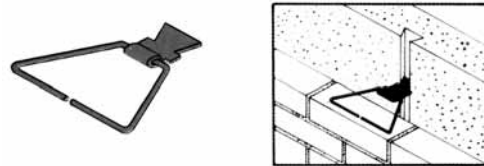


#315 – Flexible Dovetail Brick Tie

- Mill galvanized / hot dip galvanized / stainless steel.
- Dovetail end is 16 ga. or 12 ga. thick x 1" wide (specify when ordering).
- Vee Wall Tie is 3/16" diameter x 3", 3-1/2", 4", 4-1/2", 5", 7" or 9" long (specify when ordering).
- Other sizes available on request.

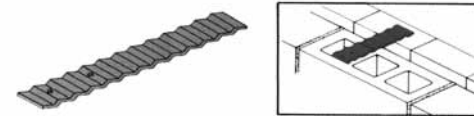
Dovetail head fits H&B #305 Anchor Slot. Compatibility with dovetail slots from other manufacturers is not guaranteed.

Permits horizontal and vertical movement of masonry wall while restraining the wall from moving laterally out of its plane.



#CWT – Corrugated Wall Tie

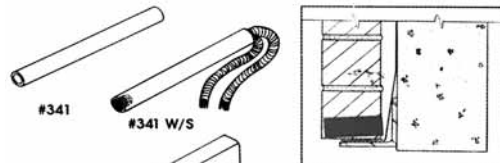
- Mill galvanized / hot galvanized / stainless steel.
- Standard size is 7/8" wide x 7" long.
- Available in 22, 18 and 16 ga.
- Other widths, lengths and gauges available on request.



#341 Series Round Plastic Weep Holes

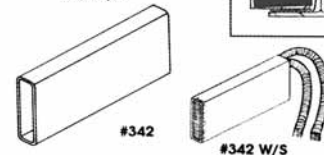
Manufactured from medium-density polyethylene (white).

- #341 – 1/4" or 3/8" OD x 4" long.
- #341W – 3/8" OD x 4" long. Provided with cotton wick attached.
- #341S – 3/8" OD x 4" long. Provided with screen insert (brass or stnls steel).
- #341W/S – 3/8" OD x 4" long. Provided with wick and screen.



#342 Rectangular Plastic Weep Holes

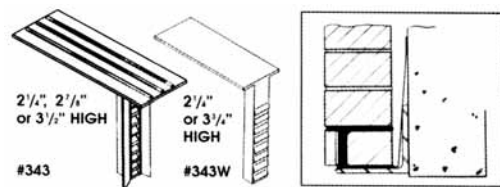
- #342 – 3/8" x 1-1/2" x 3-1/2".
- #342W – Provided with cotton wick attached.
- #342S – Provided with screen insert (brass or stnls steel).
- #342W/S – Provided with wick and screen.



#343 Louvered Weep Hole

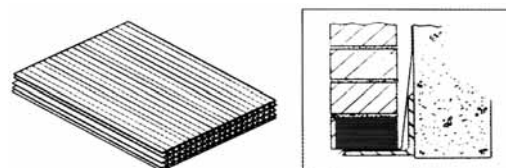
#343W – Wilko™ Weep Hole

- Injection-molded flexible PVC (#343) or painted aluminum (#343W).
- Configuration of louvers directs passage of water from cavity to outside of building, while preventing reverse passage of water.
- Design permits air passage into cavity, thus aiding pressure equalization and reducing suction which can cause water penetration.
- Rectangular closure strip prevents mortar droppings from clogging openings (#343).
- Compressible flanges accommodate joint widths from 1/2" to 3/4" (#343).
- #343 available in gray only. #343W available in gray or white.



#QV – Quadro-Vent™

- Honeycomb design allows passage of moisture from cavity to building exterior while restricting ingress of insects and debris.
- Vent allows passage of moisture up to its 2-1/2" height, important in the event of mortar droppings at bottom of cavity.
- Polypropylene tested in conformance with ASTM specifications.
- Available in gray or white.
- Standard size 3/8" x 2-1/2" x 3-3/8". Jumbo size 3/8" x 3-1/2" x 3-1/2". Other heights and widths available on request.

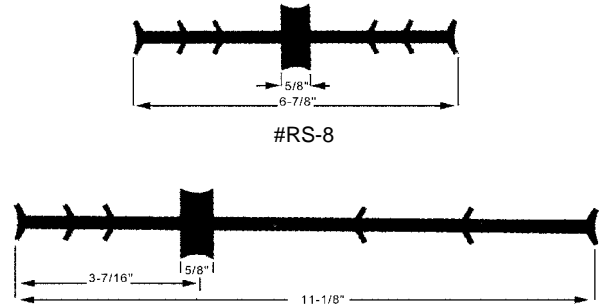
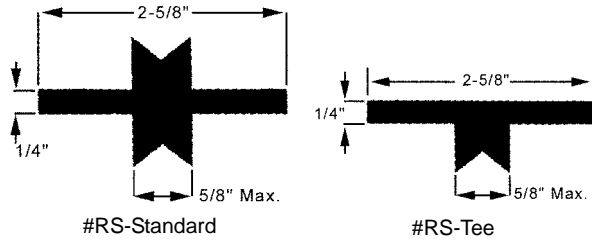


Division 4

Control Joints & Scaffold Planks

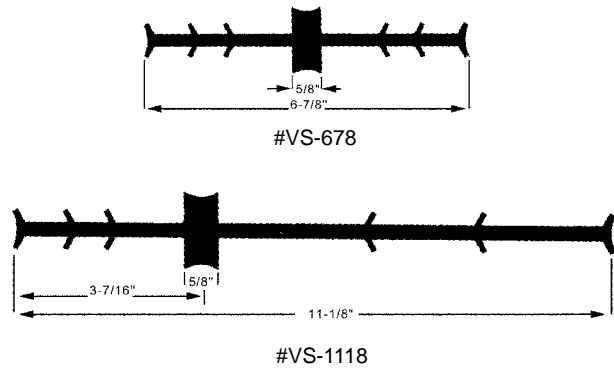
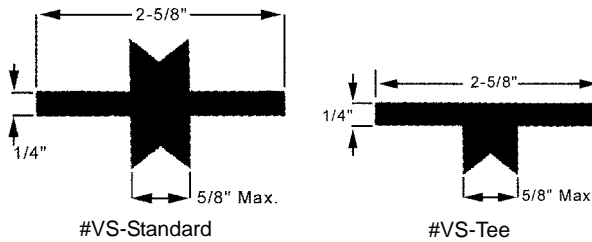
#RS Series – Rubber Control Joint

- Extruded rubber material designed for masonry walls at control joints.
- Rubber material conforms to ASTM D-2000 2AA-805 with a durometer hardness of 80 (±5) when tested in conformance with ASTM D-2240.
- Length per piece is 4 ft.



#VS Series – PVC Control Joint

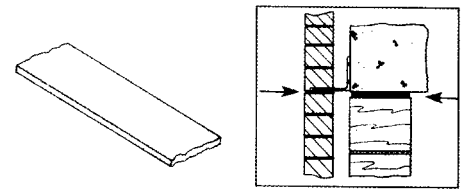
- Complete line of polyvinyl chloride control joints suitable for various wall conditions. The PVC material conforms to ASTM D-2287 (Type PVC 654-4) with a durometer hardness of 85 (±5) when tested in conformance with ASTM D-2240.
- Length per piece is 4 ft.



Division 4

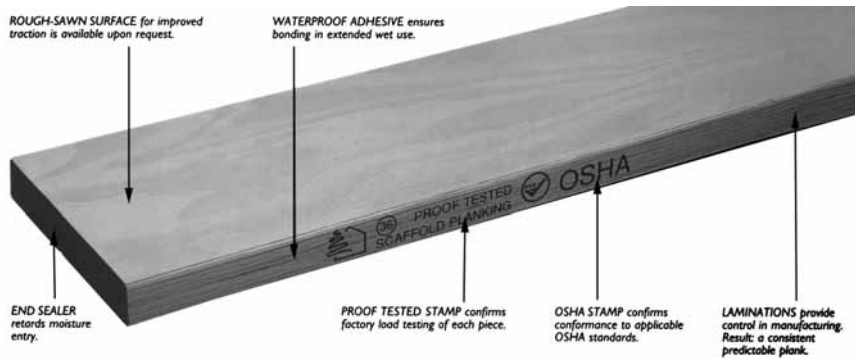
#NS – Closed Cell Neoprene Sponge

- Available in 1/4", 3/8" or 1/2" thickness (others available on request).
 - Standard width is 3". Other widths cut as required.
 - Available with adhesive backing.
 - Available with tear-strip on request.
 - Conforms to ASTM D-1056 Grade 2A1.
- For placing horizontally beneath relieving angle, or in the vertical expansion joint to act as a control joint. Also prevents clogging of expansion joint with mortar.



Note: Also available in solid neoprene for bearing pad conditions – ASTM D-2000 (60 durometer standard).

LVL Scaffold Plank



Available in both 1.90E and 2.15E grades. Stocked size is 1-1/2" x 9-1/4" x 16 ft.

MICROLLAM™ LVL SCAFFOLD PLANKS: STRONG SUPPORT

Mortar Color & Accelerator

MORSET® Non-Chloride, Non-Corrosive Set Accelerator for Mortar

Description

Morset® is a non-chloride, non-corrosive admixture that accelerates cement hydration, resulting in shortened setting times and increased early strengths. Morset is an aqueous solution of organic and inorganic compounds and does not contain any chloride compounds such as calcium chloride. Morset is manufactured to comply with the requirements of ASTM C494 as a Type C admixture. Morset weighs approximately 1.32 kg/L (11 lb./gal.).

Product Uses

Morset is used wherever it is desirable to reduce the setting time or increase the early strength of mortar or stucco. This results in a savings in masonry construction time during cold weather. Morset is not intended to prevent mortar from freezing, however, the time required for protection from freezing may be substantially reduced. Cold weather masonry construction practices must be followed.

Packaging

Morset is available in 19-liter (5 gal.) pails, 208-liter (55 gal.) drums, and 1250-liter (330 gal.) mini-tote containers.

Minimum Addition Rates mL/bag of cement (oz/bag of cement approx.)

Air Temp. °C (°F)	Portland	Masonry (N)
10 (50)	500 (16)	250 (8)
0 to 10 (32 to 50)	1000 (32)	500 (16)
-7 to 0 (20 to 32)	1500 (48)	750 (24)
Less than -7 (20)	2000 (64)	1000 (32)



SGS Concentrated Mortar Colors A, H and X Series

Composition & Materials

SGS Concentrated Mortar Colors are products of pure natural and/or synthetic iron oxides which are finely milled (95 to 99% minus 325 mesh particle size) and blended under strict quality control procedures, producing uniform and consistently strong tinting strength for maximum coloring power.

Basic Use

SGS Concentrated Mortar Colors are pure mineral pigments designed to be used with all cementitious material, whether it may be a Type N, S, M or O strength masonry cement or Portland and lime mixture. The pre-measured unit concept of SGS colors provides uniform color control with the flexibility of utilizing local masonry and/or Portland and lime cements to achieve the proper strength and mix design for brick, stucco or stone unit construction.

Packaging

All SGS Concentrated Mortar Colors are packaged in sealed Color Unit bags; bag count and the approximate number of standard brick units laid per case, using a 3/8" (9.5mm) mortar joint are:

- A Series case – 6 unit bags / 900 brick
- H Series case – 12 unit bags / 1800 brick
- X Series case – 18 unit bags / 2700 brick

Each unit bag is clearly identified with color name, number and weight, plus complete mixing instructions.

SGS Color Units Required For Specification Mortar Mixes

ASTM C270 Specification for Mortar	Number of SGS Color Units to be Added with Mortar Mix		
	A Series Color	H Series Color	X Series Color
Prepared masonry cements, ASTM C91, Types N, S or M: One 70 to 80-lb. (32 to 36 kg) bag masonry cement, ASTM C91, Type 1 3 cu. ft. (.08 m3) sand, ASTM C144	One A Unit	One H Unit	One X Unit
Portland cement / lime mortars, Type N, 750 PSI (5168 kPA): One 94-lb. (43 kg) bag Portland cement, ASTM C150 One 50-lb. (23 kg) bag hydrated lime, ASTM C207 6 cu. ft. (.17m3) sand, ASTM C144	Two A Units	Two H Units	Two X Units
Portland cement / lime mortars, Type S, 1800 PSI (12,400 kPA): Two 94-lb. (43 kg) bags Portland cement, ASTM C150 One 50-lb. (23 kg) bag hydrated lime, ASTM C207 9 cu. ft. (.17m3) sand, ASTM C144	Three A Units	Three H Units	Three X Units

Division 4

Flashing

Copper Fabric Flashing

A full single sheet of 2, 3, 5 or 7-oz. copper, bonded on both sides to asphalt-coated glass fabric with a ductile asphalt.

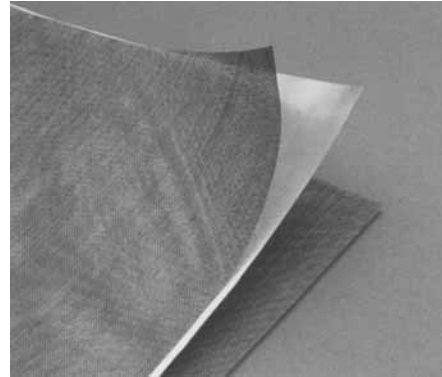
Size: Rolls 36" wide x 25 ft. long; will slit to multiple widths.



Cop-R-Kraft Duplex

A full single sheet of 1, 2, 3 or 5-oz. copper, bonded on both sides by asphalt to heavy waterproofed creped kraft paper.

Size: Rolls 36" wide x 60 ft. long; will slit to multiple widths.

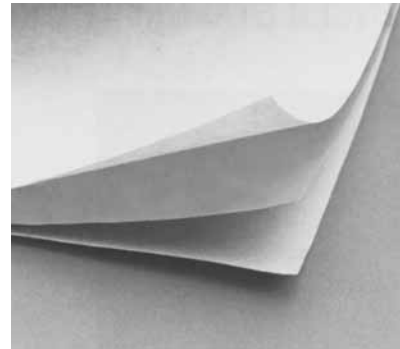


Copper Fabric Flashing

Cop-R-Kraft

A full single sheet of 1, 2, or 3-oz. copper, bonded on one side by asphalt to heavy waterproofed creped kraft paper.

Size: Rolls 36" wide x 60 ft. long; will slit to multiple widths.



Cop-R-Kraft Duplex

Copper Sealtite 2000

A full single sheet of 3-oz. and 5-oz. copper, bonded on both sides to glass fabric with non-asphalt adhesive.

Size: Rolls 36" wide x 60 ft. long; will slit to multiple widths.

Moistseal

A polyvinyl chloride sheet available in 10, 20, 30 or 60 mils.

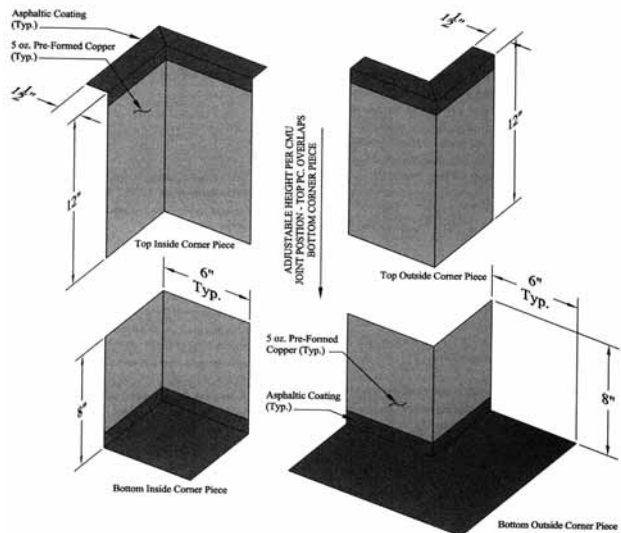
Size: Rolls 20 mil @ 48" wide x 150 ft. long
Rolls 60 mil @ 48" wide x 50 ft. long
Will slit to multiple widths.

Cop-R-Tite Mastic



A trowel-grade fibrated mastic for use with copper flashings to ensure proper sealing.

Size: 5-gal. pails and 30-oz. tubes.



Cop-R-Corners

Flashing

TAMKO

Tamko® TW Thru-Wall Flashing

Description

Tamko TW Thru-Wall Flashing is a flexible 40-mil, self-adhering sheet membrane consisting of a self-adhering rubberized asphalt, a siliconized release film and a high-density 8-mil polymeric film as the top surface.

Uses

TW Thru-Wall Flashing is an in-wall flashing membrane for use with concrete, masonry, gypsum or wood wall construction.

Advantages

- Excellent tensile, elongation and permeance characteristics.
- The rubberized asphalt sheet has high adhesive quality.
- Puncture resistant, non-removable surface film.
- Sheet available in full roll size or 12", 18" or 24" widths.

Limitations

- TW Thru-Wall Flashing cannot be left exposed to sunlight longer than 60 days.
- Do not install when temperatures are below 35°F.
- All surfaces to receive TW Thru-Wall Flashing should be primed with TWP-1 quick-dry primer.
- Membrane should not be brought into contact with products containing coal-tar pitch.



Perm-A-Barrier® Wall Flashing

Basic Use

Perm-A-Barrier Wall Flashing is a self-sealing, self-healing, fully adhered composite flexible flashing. It is designed for use as a wall flashing applied to masonry, concrete, steel, gypsum and wood.

Composition & Materials

Perm-A-Barrier Wall Flashing system consists of a membrane component, a surface conditioner and a mastic. It is designed to be used with Bituthene Mastic and Perm-A-Barrier WB Primer, and Bituthene Primer B2 when needed.



Perm-A-Barrier Wall Flashing is a 40-mil self-adhesive, cold-applied sheet consisting of rubberized asphalt integrally bonded to an 8-mil, high-density, cross-laminated polyethylene film. The rolls are interwound with a disposable silicone-coated release sheet.

Sizes: 75-ft. long rolls in widths of 12", 18", 24", or 36".

Bituthene Mastic is a rubberized, asphalt-based mastic designed to be used at all laps, seams, top edges and cuts in the flashing, and around all penetrations through the flashing.

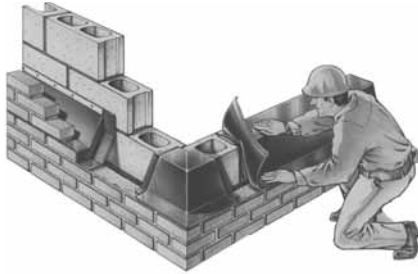
Perm-A-Barrier WB Primer is a water-based formula designed to prepare substrates for Perm-A-Barrier Wall Flashing.

Bituthene Primer B2 is a rubber-based primer in solvent, specially formulated for use on green concrete or damp substrates.

Flashing

HYLOAD

Hyload Flashing System



- Three unique flashing membranes.
- Preformed three-dimensional shapes (cloaks).
- Sealant Compatibility.
- UV Stability.
- Four colored membranes – gray, tan, white, black.

Hyload Flashing Membrane

Is built into backup wall or attached with a termination bar, which is optional. This tough waterproof masonry flashing, when combined with cloaks, provides an excellent moisture barrier. The 40-mil membrane is fiber-reinforced to resist job-site conditions.

Hyload Surface-Adhered (SA) Membrane w/ Drip

Can be surface mounted to block, gypsum/stud or concrete backup wall. The 40-mil composite membrane is 25 mil of the Hyload Membrane and 15 mil of rubberized asphalt with release paper. The drip is formed by holding back the rubberized asphalt 1-1/2" from the exterior edge of the membrane. This allows for the proper construction of the soft joint detail at the relieving angle and eliminates costly and dangerous metal drip edges. A termination bar is optional.

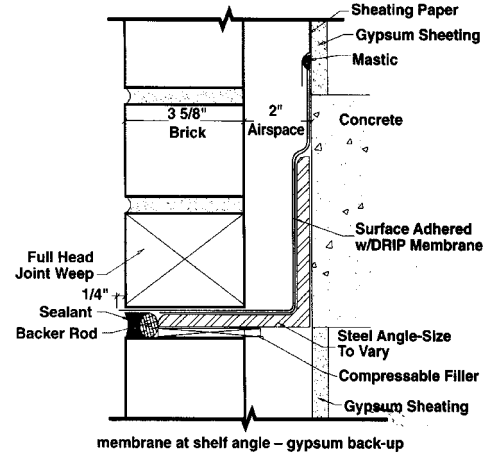
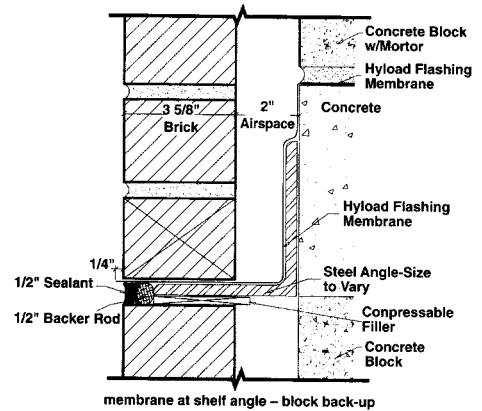
Hyload Surface-Adhered (SA) Membrane w/o Drip

A 40-mil membrane comprised of 25 mil of Hyload Membrane and 15 mil of rubberized asphalt with release paper. A stainless steel drip edge should be used to bring the flashing membrane through the wall. A termination bar is optional.

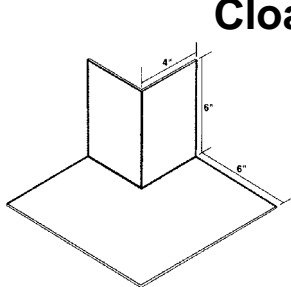
Roll Sizes: 12", 18", 24" or 36" wide x 75 ft. long.

Accessory Materials: Membrane Adhesive, Membrane Mastic, H2O Primer, Dens-Glass Primer.

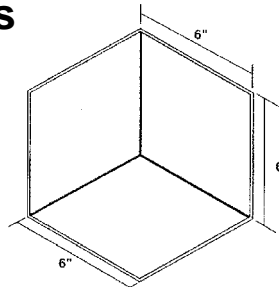
Common Details



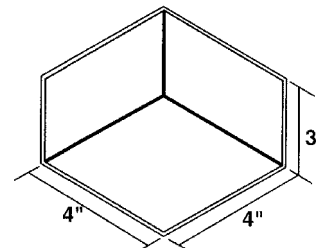
Cloaks



Outside Corner 90



Inside Corner 90



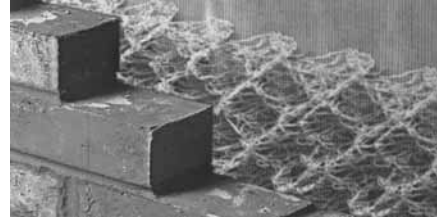
End Dam 4"

Mortar Deflection Devices

Mortar Break®

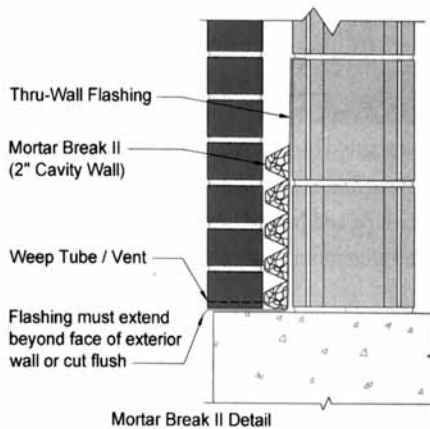


- Breaks up and deflects mortar droppings away from weep holes.
- Allows moisture in the cavity to flow down through the geomatrix design and out through mortar maze weep vents.
- Easy and economical to install; up to 50% labor savings over conventional methods.
- Unlike other more expensive designer shaped mortar deflection devices, mortar droppings cannot bridge the cavity.



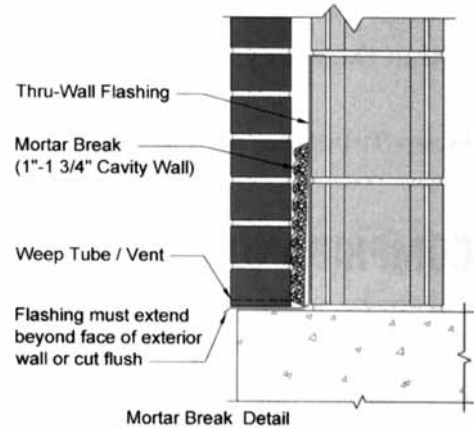
Mortar Break and Mortar Break II are of a polymer core geomatrix design, composed of high-density polyethylene strands woven into a mesh. They are resistant to acid and alkali present in fresh mortar mix and are non-absorbent.

Mortar Break II®



Mortar Break II is 1.5" thick and designed for use in 2" cavities.
Size: 10" x 35 ft. rolls.

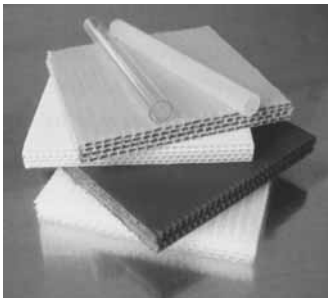
Mortar Break®



Mortar Break is .8" thick and designed for use in 1" cavities.
Size: 10" x 50 ft. rolls.

Division 4

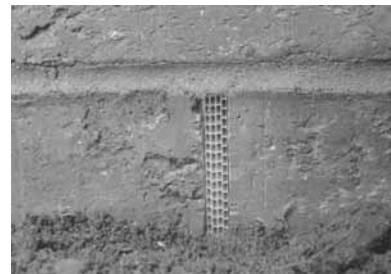
Mortar Maze Cell Vents



Mortar Maze Cell Vents ensure positive drainage in all cavity wall construction. Made from durable polypropylene, Mortar Maze weep vents are available in a range of colors to match the surrounding mortar.

Size: 3/8" x 2-1/2" x 3-3/8" or 3/8" x 3-1/2" x 3-1/2".

Colors: gray, clear, tan or brown.



Mortar Deflection Devices

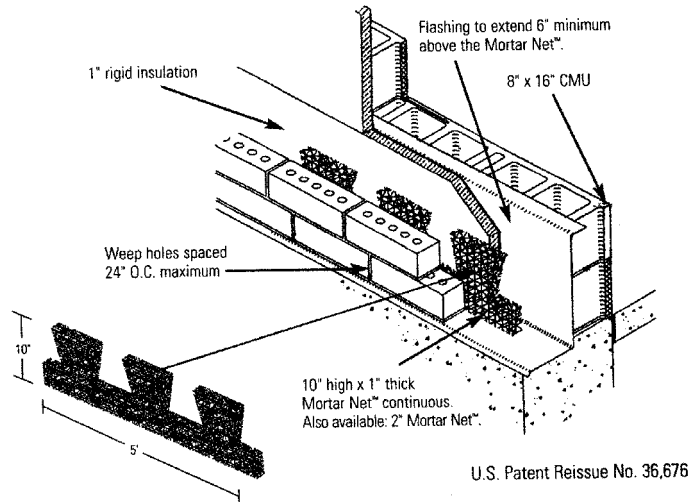


Mortar Net

The Difference Is In *The Cut.*

Features and Benefits

- Suspends mortar above flashings and weeps.
- Prevents mortar damming for proper water flow and air circulation.
- Lightweight for inexpensive transporting; eliminates fasteners and adhesives.
- Unique patented design and mesh material permit air and water to move through.
- Compressible to allow for cavity wall size variations.
- Durable, non-reactive material lasts the life of the building.



U.S. Patent Reissue No. 36,676

Mortar Net is the leading mortar dropping collection product providing the solution for clogged weep holes in brick cavity construction. Featuring a patented design and 90% open-mesh weave, Mortar Net catches and suspends mortar droppings and other debris above the weep holes. Mortar Net prevents the mortar from forming a barrier against necessary flow, allowing for the free migration of moisture from the wall to the weep holes.

Mortar Net .4" and 1" material is made of high-density polyethylene.

Mortar Net 2" is made of 100% recycled polyester. This material will not oxidize, rot, promote mold or fungus, or react with common building materials such as mortar, cement, asphalt, modified bitumen, PVC, copper or galvanized metal, thereby ensuring long-term performance for all materials.

Mortar Net™ Sizes

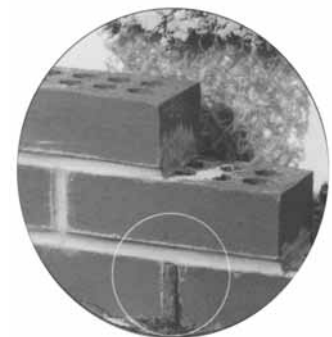
Width	Height	Length	Pkg. Qty.
.4"	10"	5 ft.	250
1"	10"	5 ft.	100
2"	10"	5 ft.	100

Mortar Net™ Weep Vents

Mortar Net Weep Vents are the easy way to ensure brick cavity and single wythe block construction masonry walls maintain their finished appearance and drain correctly for life.

For years, weep holes have been blocked by insects or debris, resulting in efflorescence and other damage caused by water or improper air movement. To ensure walls always breathe, drain, and dry quickly, and to keep out insects, specify Mortar Net Weep Vents for all your buildings.

Just 2.5" x 3.5" x .5", Weep Vents could not be easier or quicker to install. Made from 100% recycled polyester with a 90% open mesh and bonded with a flame-retardant adhesive to provide resilience and strength, they're available in a choice of attractive colors to match the mortar being used – white, brown, tan, gray, almond or red. Their installation adds to the beauty of the wall by duplicating the texture and color of mortar, thus eliminating open holes and dark shadows. Special sizes are available on request.



Masonry Cleaners

PROSOCO
SINCE 1939



600 Detergent

Sure Klean® 600 Detergent is a general purpose, concentrated acidic cleaner for brick, tile and concrete surfaces. 600 Detergent dissolves mortar smears and construction dirt quickly, leaving the masonry clean and uniform with no acid burning or streaking.

Advantages

- The #1 selling proprietary cleaner for new masonry.
- Proven effective through years of use.
- Recommended by many brick, tile and mortar manufacturers.
- Safer than muriatic acid for new masonry surfaces.
- Fast and easy to apply – use with cold water rinse.
- Special wetting agents let larger masonry surfaces be cleaned at one time, eliminating streaking.

Limitations

May not be suitable for cleaning buff-colored brick and brick, stone or tile with manganese or other metallic additives. See product literature on Sure Klean® Vana Trol®.

Vana Trol®

Sure Klean® Vana Trol® is a concentrated acidic cleaner for new masonry surfaces that are subject to vanadium, manganese and other metallic stains. Vana Trol® is designed to simplify rinsing and reduces potential for efflorescence.

Advantages

- Clings to masonry surface and softens excess mortar and job dirt.
- Slow-drying, so it rinses clean without streaking.
- Controls green vanadium and brown manganese staining on color-sensitive brick and tile.
- Safe for use on most unpolished natural stone or cast stone.
- Designed for use with colored mortar.

Limitations

Repeated applications may leave a detergent residue. To reduce potential for detergent residue, always prewet; rinse thoroughly; do not exceed two applications.

Safety Klean

Enviro Klean® Safety Klean is an effective, safe alternative to acidic compounds for cleaning brick, tile and concrete surfaces. Safety Klean rids new masonry construction of excess mortar, dirt and other common jobsite soiling. It's ideal for projects where traditional acidic cleaners are not allowed. Non-fuming Safety Klean contains no hydrochloric or other traditional inorganic acids, and is safe for use on and around most metal surfaces, indoors or out. It is up to 70 percent more effective than citric and glycolic acids, and 50 percent more effective than phosphoric acid.

Advantages

- Proven effective for cleaning mortar smears and other common construction soiling.
- Replaces traditional mineral and organic acid products.
- Low odor and water-rinsable.
- Non-fuming.
- Environmentally responsible.
- Suitable for interior cleaning.

101 Lime Solvent

Sure Klean® 101 Lime Solvent is a concentrated acidic cleaner for dark-colored brick and tile surfaces which are not subject to metallic oxidation. Safely removes excess mortar and construction dirt.

Advantages

- Removes construction dirt and excess mortar with simple cold water rinse.
- Safer than muriatic acid on colored mortar and dark-colored new masonry surfaces.
- Proven effective since 1954.

Limitations

- Not generally effective in removal of atmospheric stains and black carbon found on older masonry surfaces. Use the appropriate Sure Klean® restoration cleaner to remove atmospheric staining from older masonry surfaces.
- Not for use on polished natural stone.

Custom Masonry Cleaner

Sure Klean® Custom Masonry Cleaner removes concrete splashes, excess mortar, mud, retarders, heavy efflorescence, embedded stains, rust and surface soiling from textured custom masonry surfaces.

This concentrated, general-purpose acidic cleaner improves the color and uniformity of most custom masonry and colored concrete. When used in strong solutions, Custom Masonry Cleaner can be used for additional aggregate exposure ("weathering").

Advantages

- Improves color brightness, depth and uniformity.
- Removes mortar smears, heavy efflorescence and embedded stains.
- Designed for colored concrete.
- Designed for use with pressure water rinsing.
- Improves bond of color coatings.
- Improves penetration of protective treatments.

Burnished Custom Masonry Cleaner

Sure Klean® Burnished Custom Masonry Cleaner removes common construction and atmospheric staining from custom masonry and other architectural concrete surfaces. This general-purpose, non-etching acidic cleaner removes rust, mud, oil, atmospheric dirt, mortar smears and other stains without altering the surface texture. Burnished Custom Masonry Cleaner adds depth to colors and brightens white matrices and exposed aggregate.

Advantages

- Improves color uniformity and enhances appearance.
- Contains no muriatic acid.
- Removes common construction stains and atmospheric dirt.
- Safe for most pigmented concrete and colored mortar.
- Water rinsable.

Limitations

May damage polished masonry, some non-masonry and acid-sensitive surfaces.

Masonry Cleaners

PROSOCO
SINCE 1939



Restoration Products

Restoration Cleaning	
Stain	Product
Algae, lichen	BioKlean™ BioWash
Asphalt, tar	Asphalt & Tar Remover Fast Acting Stripper Safety Peel 1, 3
Carbon crust	766 Limestone & Masonry Prewash/Afterwash Safety Peel 2
Clear coatings	Fast Acting Stripper Heavy Duty Paint Stripper Safety Peel 1, 3
General light soiling	2010 All Surface Cleaner Light Duty Restoration Cleaner Restoration Cleaner
Graffiti	Graffiti Wipe Heavy Duty Paint Stripper Fast Acting Stripper Safety Peel 1, 2, 3
Lime run	Heavy Duty Concrete Cleaner (unpolished surfaces) Custom Masonry Cleaner
Moderate to heavy carbon	Restoration Cleaner Heavy Duty Restoration Cleaner EK Restoration Cleaner 766 Limestone & Masonry Prewash/Afterwash
Oil, grease	Degreaser Asphalt & Tar Remover Fast Acting Stripper Safety Peel 1,3 2010 All Surface Cleaner
Paint splatters	Fast Acting Stripper Graffiti Wipe Safety Peel 1, 2, 3
Rubber tire marks	Asphalt & Tar Remover Degreaser
Rust stains	Ferrous Stain Remover (unpolished surfaces) 800 Stain Remover
Urine stains	BioWash 2010 All Surface Cleaner
Wax-heavy accumulation	Fast Acting Stripper Safety Peel 1,3

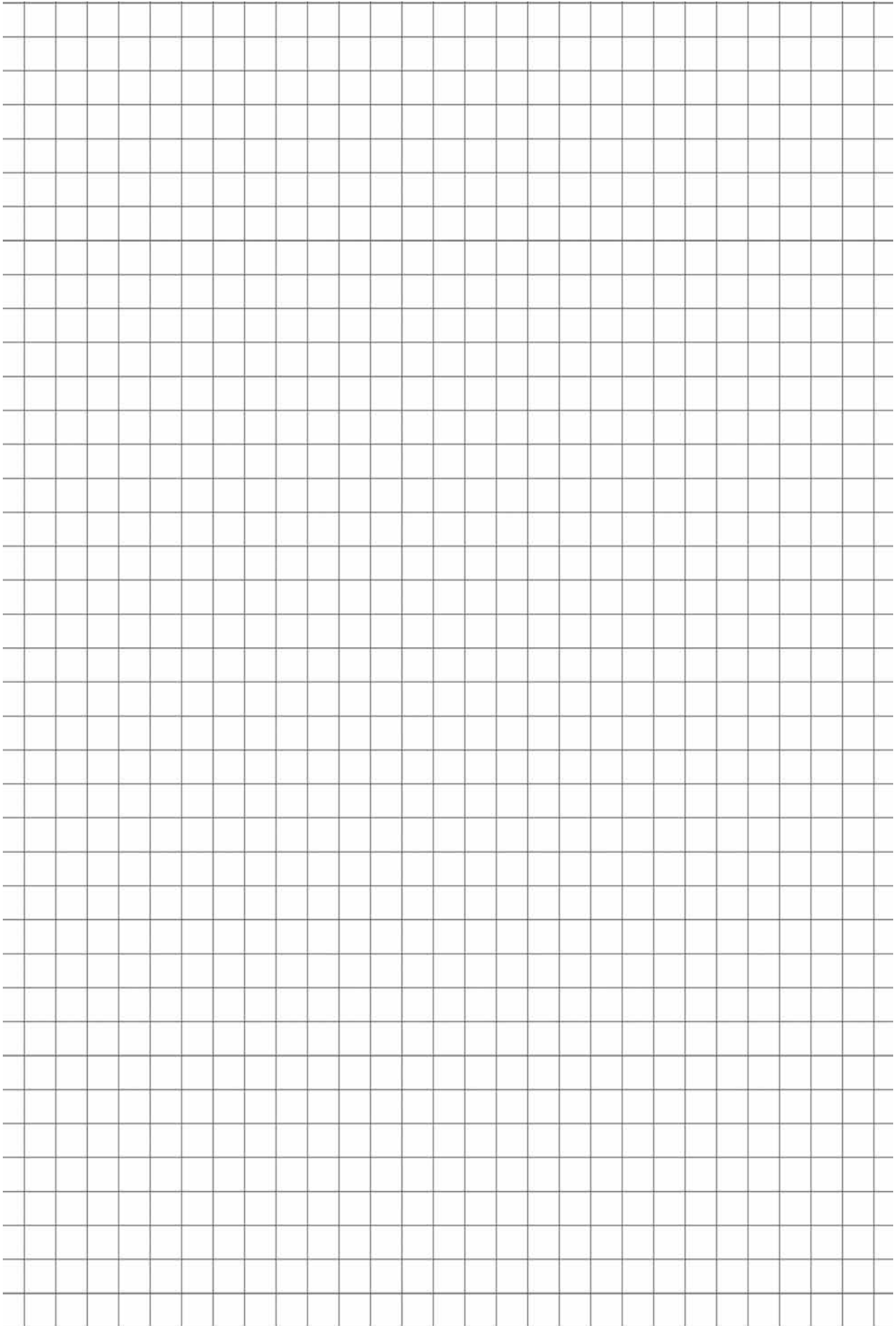
Paint & Coatings Removal	
Coating	Product
Elastomeric coatings	Fast Acting Stripper Heavy Duty Paint Stripper Safety Peel 1, 2, 3
Graffiti-resistant coatings	Fast Acting Stripper Heavy Duty Paint Stripper Safety Peel 1, 2, 3
Latex/house paint	Fast Acting Stripper Heavy Duty Paint Stripper Safety Peel 1, 2, 3
Lead-based paint	Heavy Duty Paint Stripper Safety Peel 1, 2, 3
Multiple layers/ heavy accumulation	Heavy Duty Paint Stripper Safety Peel 2
Oil-based paint	Fast Acting Stripper Heavy Duty Paint Stripper

Graffiti Removal <i>Unprotected surfaces</i>	
Stain	Product
Graffiti shadows	Fast Acting Stripper Graffiti Wipe Safety Peel 1, 2, 3
House paint	Fast Acting Stripper Graffiti Wipe Safety Peel 1, 2, 3
Lipstick	Graffiti Wipe Heavy Duty Paint Stripper Fast Acting Stripper
Marking pen	Graffiti Wipe (dense surfaces) Fast Acting Stripper
Paint-over & heavy graffiti accumulations	Heavy Duty Paint Stripper Safety Peel 1, 2
Shoe polish	Fast Acting Stripper Graffiti Wipe Safety Peel 1, 2
Spray paint	Heavy Duty Paint Stripper Graffiti Wipe (dense surfaces) Safety Peel 1, 2, 3 Fast Acting Stripper

Always test to ensure desired results and proper dilution where appropriate. Additional specialized stain removers are available. Contact your PROSOCO representative or Customer Care at 1-800-255-4255.

Always test to ensure desired results and proper dilution where appropriate. Additional specialized stain removers are available. Contact your PROSOCO representative or Customer Care at 1-800-255-4255.

Notes





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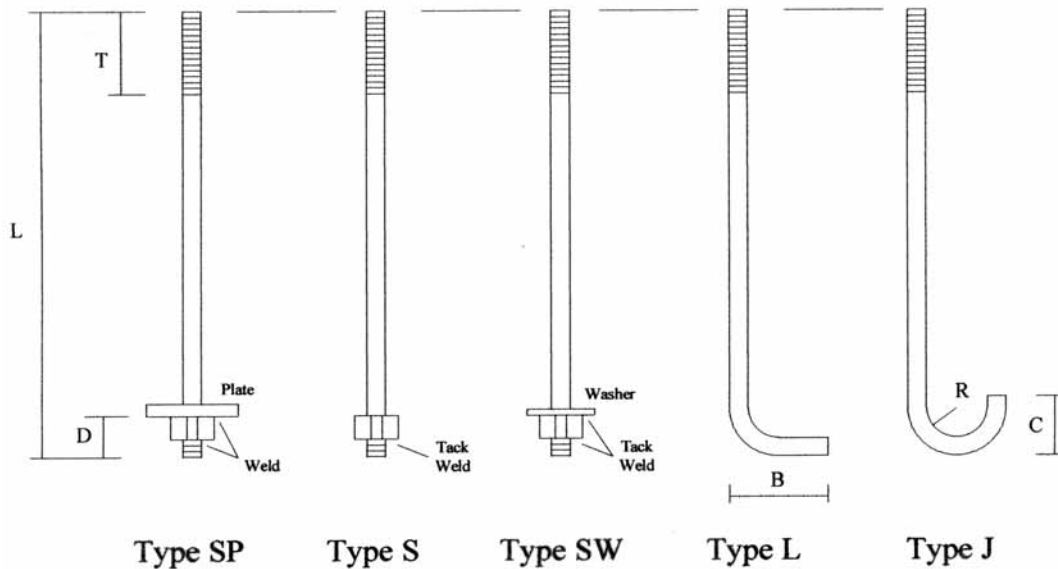
METALS

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Anchor Bolts

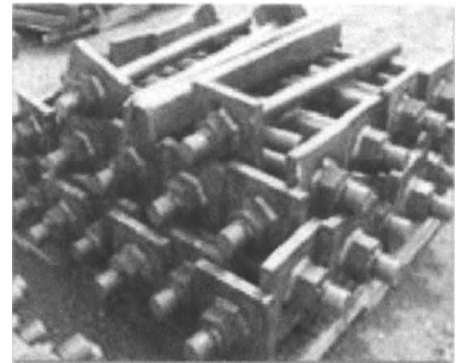
Custom Anchor Bolts

Made to Order at Construction Anchors, Inc.



Construction Anchors has the ability to provide custom shape anchor bolts cut, threaded and bent to your exact specifications. We can in-house fabricate anchor bolts from 5/8" to 1/2" diameters.

Being a small company, Construction Anchors can react to your needs and delivery schedules for fast track projects.



Division 5



Wilson Anchor Bolt Sleeves

Wilson Anchor Bolt Sleeves are used as an in-place form to provide a grout pocket around anchor bolts. Manufactured from high impact plastic, they are non-rusting, non-conductive and lightweight.

For bolt diameters 1/2" thru 3".

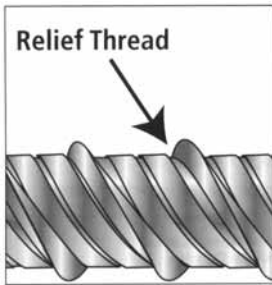
Concrete Anchors



Wedge-Bolt®

Base Material: Concrete, block, brick, stone.
Size Range: 3/16" x 1-1/4" to 3/4" x 8".
Anchor Material: Heat treated, high strength carbon steel.

The Wedge-Bolt anchor is a one-piece, heavy-duty anchor with either a finished hex head or countersunk Phillips flat head. It is easy to identify, removable and vibration resistant. The Wedge-Bolt anchor also has many unique features and benefits that make it well suited for almost every application. Optimum performance is obtained using a combination of patented design concepts. The benefit to the designer is higher load capacities while the benefit to the user is ease of installation.



Low Installation Torque.
 A specially designed relief thread formed in the body of the anchor allows easy tightening at a reduced torque level and provides dust relief to help reduce jamming of the anchor.

Wedge-Bit™

For proper performance, all blue tipped Wedge-Bolt anchors must be installed with a blue Wedge-Bit. The Wedge-Bit has a special matched tolerance range designed to provide optimum performance for the anchor. The available shank styles are shown below.



Spline Wedge-Bit



SDS-Plus Wedge-Bit



Heavy-Duty Straight Shank Wedge-Bit



Tilt Wall Wedge-Bolt®

Ideal for brace shoes used to support tilt-up wall panels. The new Powers Tilt Wall Wedge-Bolt anchors are specifically engineered for high load Tilt-up applications. Tilt Wall Wedge-Bolt anchors can be used in systems such as those manufactured by Meadow Burke.

Cat. No.	Size	Color	Thread Lgth.	Std. Ctn.	Std.
7296	3/4" x 6"	Black	5"	20	60
7298	3/4" x 8"	Black	6"	10	40

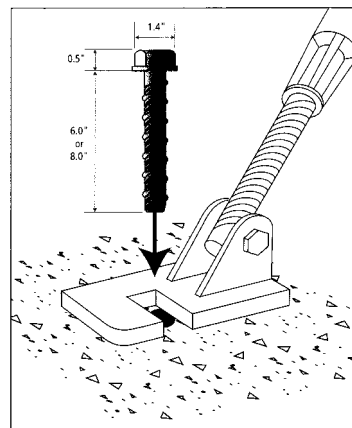
Advantages:

- One-piece design
- Safe controlled installation methods
- Low installation torque
- Easy to read length identification
- Vibration resistant
- Fast, easy, high speed installation
- Cost effective
- Immediate high strength loading

Performance Data

Concrete PSI	Embed. Depth Lbs.	Tension Lbs.	Shear Lbs.	60° Comb. Load Lbs.
3/4" x 6"				
2000	5	13,500	21,825	14,780
4000	5	18,705	26,780	16,150
3/4" x 8"				
2000	7	17,750	28,030	22,750
4000	7	22,610	30,550	24,855

The values listed above are ultimate load capacities which should be reduced a minimum safety factor of 2 or greater to determine allowable working load.



Approvals

Meadow Burke Products (pending)
 Install a Til-Up Brace Shoe by anchoring with the Powers Tilt Wall Wedge-Bolt.

Division 5

Concrete Anchors



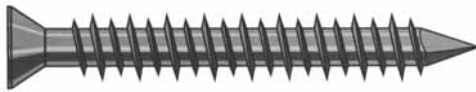
Hammer-Capsule®

Base Material: Solid concrete.

Size Range: 3/8" to 1" anchor rod, No. 3 to No. 8 reinforcing bar.

Anchor Material: Ester based resin.

The Hammer-Capsule System consists of a self contained, single use, two-part glass capsule into which threaded anchor rod or reinforcing bars can be directly driven without the need for a chisel point or spinning action. It is designed for use in the installation of 3/8" through 1" diameter threaded rod in solid concrete and masonry materials. It can also be used to install reinforcing bars. A mixture of hardener and quartz aggregate is contained in the upper portion of the capsule while the lower portion contains an epoxy acrylate resin. Unlike traditional capsule anchors which require the use of chisel pointed anchor rod and special installation tools, the Hammer-Capsule is designed for use with straight cut anchor rod.



Tapper® Concrete Screw

Base Material: Concrete, block, brick applications.

Size Range: 3/16" x 1-1/4" to 3/8" x 6".

Anchor Material: Carbon steel, Type 304 and 410 stainless steel.

The Tapper Anchoring System is a family of screw anchors, specially designed drill bits, and installation tools designed to meet the needs of most light to medium-duty applications in concrete, block and brick.

The Tapper concrete screw anchor is produced in either hex washer head or Phillips head styles from Perma-Seal™ coated or zinc plated carbon steel and Type 304 stainless steel. The Perma-Seal™ version is available in various lengths in both 3/16" and 1/4" diameters. 1/2" Type 304 and Type 410 stainless steel Tapper concrete screw anchors are also available. For heavy-duty applications, the 3/8" size is made in zinc plated carbon steel. The anchor is fast and easy to install providing a neat, finished appearance.



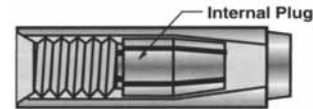
Steel Dropin

Base Material: Solid concrete, solid block, hard stone.

Size Range: 1/4" to 3/4" standard thread; 1/2" and 3/4" coil thread.

Anchor Material: Carbon steel and Type 303 or 316 stainless steel.

The Steel Dropin is an all-steel, machine bolt anchor available in carbon steel and two types of stainless steel. It can be used in solid concrete, hard stone, and solid block base materials. A coil-thread version for forming applications is also available. FMRC & UL listings make this anchor appropriate for overhead applications.



Performance Data

Anchor Size In.	Drill Bit Size In.	Embed. Depth In.	Tension Lbs.	Shear Lbs.
2000 PSI Concrete				
1/2	5/5	2	4105	6400
3/4	1	3-3/16	8580	15,680
4000 PSI Concrete				
1/2	5/8	2	5760	6400
3/4	1	3-3/16	14,405	15,680
6000 PSI Concrete				
1/2	5/8	2	6585	6400
3/4	1	3-3/16	17,300	15,680



Power Stud™ Wedge Type Expansion Anchor

Base Material: Concrete, stone.

Size Range: 1/4" x 1-3/4" to 1-1/4" x 12"

Anchor Material: Carbon steel, Type 304 or 316 stainless steel.

The Power-Stud anchor (formerly known as the Rawl-Stud) is a one-piece, wedge type expansion anchor available in carbon steel and stainless steel. Threaded, Rod Hanger and Tie-Wire versions are designed for use in solid concrete. The drill bit diameter needed for proper installation is the same as the anchor diameter.

Epoxy Anchoring



Spec•Bond 201

High Modulus, Fast-Setting Epoxy Gel Adhesive

Description

Spec•Bond 201 is a fast-set, two-component, 100% solids, high modulus, epoxy gel adhesive that is moisture tolerant and meets the requirements of ASTM C-881. Spec•Bond 201 is available in dispensing cartridges or larger gallon units.

Use

Spec•Bond 201 primary use is for anchoring bolts, dowels and reinforcing steel in concrete, where a fast-set, high strength adhesive is required. Spec•Bond 201 may also be used for vertical and overhead structural bonding and patching, sealing of cracks and setting of injection ports.

Benefits

- High strength structural adhesion
- Ideal for anchoring of dowels and bolts, and reinforcing steel
- Easy dispensing; no mixing with prefilled cartridges
- Moisture tolerant
- Very fast setting
- Gel consistency
- Excellent adhesion

Applicable Standards

ASTM C-881, Type I, II, IV & V, Grade 3, Classes B & C



Packaging

Unit sizes:

- 1 quart (.95L)
- 1 gal. (3.8L)
- 2 gal. (7.6L)
- 10 gal. (37.8L)
- 22oz. dual cartridge (.65L)

Spec•Bond 201 Pull Out Chart

Threaded Rod B-12 Diameter	Hole Diameter	Embedment	Avg. Tensile Load ASTM E-488	Avg. Shear Load ASTM E-488
3/8"	1/2"	3"	9800 lbs.	3900 lbs.
1/2"	5/8"	4"	16,100 lbs.	7600 lbs.
5/8"	3/4"	5-1/2"	22,100 lbs.	15,700 lbs.
3/4"	7/8"	6-1/2"	32,300 lbs.	24,100 lbs.
7/8"	1"	8"	38,200 lbs.	32,000 lbs.
1"	1-1/8"	9"	53,500 lbs.	38,700 lbs.

Concrete strength = 4000 PSI Epoxy cure time = 19 hours Temperature = 65°F

Estimating Guide

Bolt Diameter Rebar Size	Hole Diameter	Hole Depth	Anchors per 22 Fl. Oz. Cartridge (.65L)	
			Threaded Rod	Rebar/Dowel
3/8"-#3 (1 cm)	1/2" (1.3 cm)	4" (10.2 cm)	101	115
1/2"-#4 (1.3 cm)	5/8" (1.6 cm)	5" (12.7 cm)	51	70
5/8"-#5 (1.6 cm)	3/4" (1.9 cm)	6" (15.2 cm)	26	33
3/4"-#6 (1.9 cm)	7/8" (2.2 cm)	7" (17.8 cm)	17	23
7/8"-#7 (2.2cm)	1" (2.5 cm)	8" (20.3 cm)	12	17
1"-#8 (2.5 cm)	1-1/8" (2.8 cm)	9" (22.9 cm)	9.3	13
1-1/4"-#10 (3.2 cm)	1-1/2" (3.8 cm)	9" (22.9 cm)	5.9	5.9

Division 5

Epoxy Anchoring



Sikadur® AnchorFix-1 Modified Acrylic Anchoring Adhesive

Description Sikadur AnchorFix-1 is a two-component, solvent- and styrene-free, modified acrylic anchoring adhesive.

Where to Use As a fast-curing anchoring adhesive for all grades of rebars, threaded rods, bolts and special fastening systems. Install in concrete and masonry base materials.

Packaging 10 fl. oz. (300mL) or 20 fl. oz. (550 mL) two-component collapsible “cartridge in cartridge” system. Ready to use with a standard, good quality caulking gun (10 fl. oz.) or sausage gun (20 fl. oz.).

Gel and Curing Times

Application Temperature	Gel Time	Cure Time
86°F (30°C)	3 min.	25 min.
68°F (20°C)	7 min.	50 min.
50°F (10°C)	22 min.	150 min.
41°F (5°C)	50 min.	200 min.
14°F (-10°C)	80 min.	24 hrs.



Sikadur® AnchorFix-1

- Fast-curing
- Styrene-free, solvent-free
- Low odor
- Low waste

Sikadur® AnchorFix-4 Sikadur Injection Gel – High Modulus, High Strength, Smooth Epoxy Paste Anchoring Adhesive

Description Sikadur AnchorFix-4 is a two-component, solvent-free, moisture tolerant, high modulus, high strength structural epoxy. When mixed, it gives a smooth, nonabrasive paste adhesive. It conforms to the current ASTM C-881 and AASHTO M-235 specifications.

Where to Use

- Structural crack repairs not exceeding 1/4" (6mm) width.
- Mechanical grouting – bolts, dowels, pins, machine and robotic base plates, bearing pads
- Waterproofing tunnels, cable vaults, tanks, basements, etc.
- Re-anchoring of veneer masonry.
- Wood-truss repairs.
- Preventative maintenance – grouting large cracks on new or existing structures to seal off reinforcing steel from the elements of corrosion.
- Anchor grouting – bolts, dowels, pins and special fasteners in concrete and masonry.
- As a pick-proof sealant around windows, doors, lock-ups, etc. inside correctional facilities.

Packaging 22 fl. oz. (650mL) side-by-side cartridge or 55 fl. oz. (1628mL) side-by-side cartridge.

Gel and Curing Times

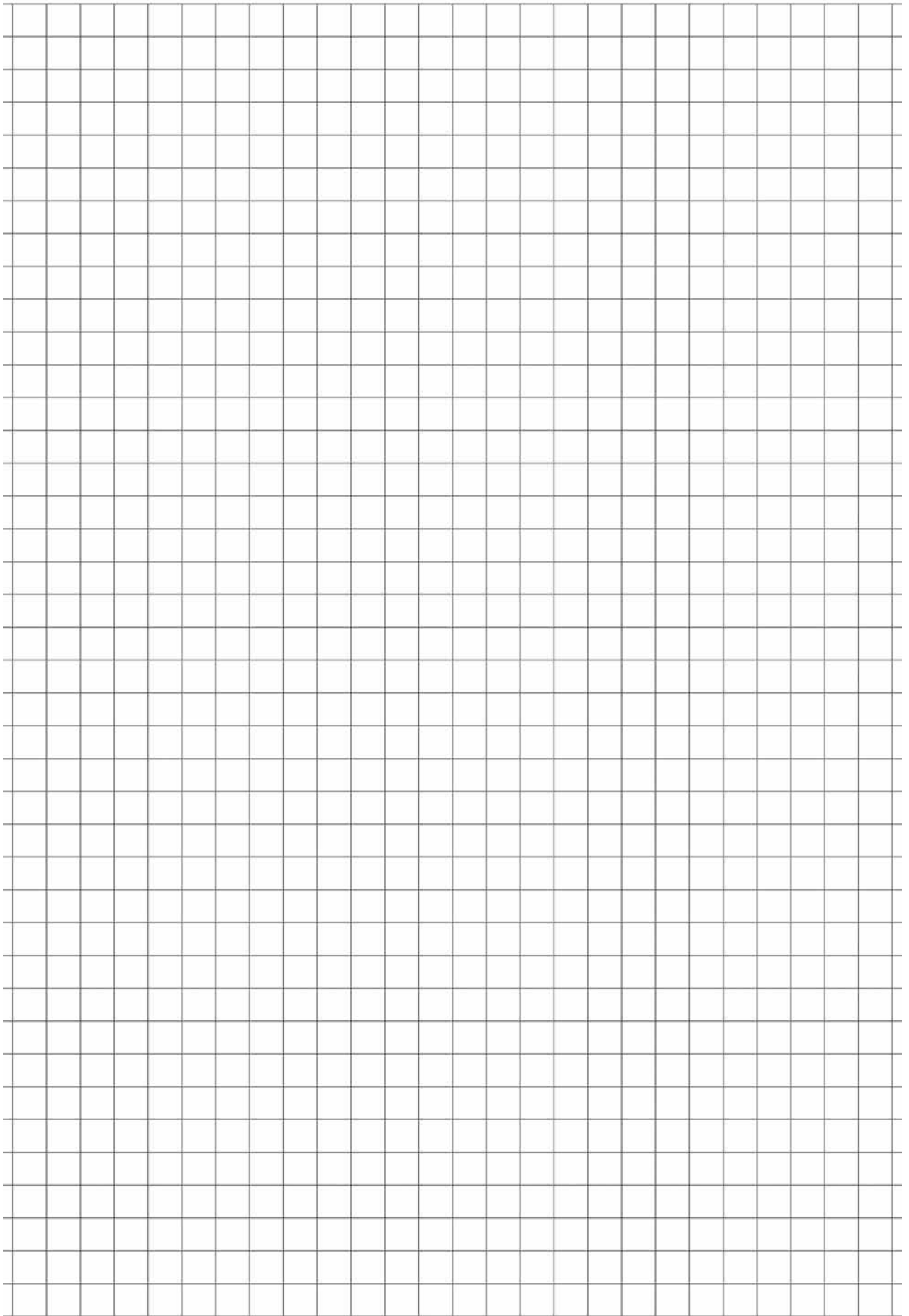
Application Temperature	Gel Time	Cure Time
40°F (4°C)	60 min.	48 hrs.
60°F (15°C)	45 min.	36 hrs.
73°F (23°C)	35 min.	24 hrs.
90°F (32°C)	20 min.	24 hrs.



Sikadur® AnchorFix-4

- High strength
- Styrene-free
- Low odor
- Low waste
- Moisture tolerant
- ICC/ICBO ER 618

Notes





Division 7 Index

THERMAL & MOISTURE PROTECTION

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Insulation

Extruded Polystyrene Insulation
FOAMULAR®

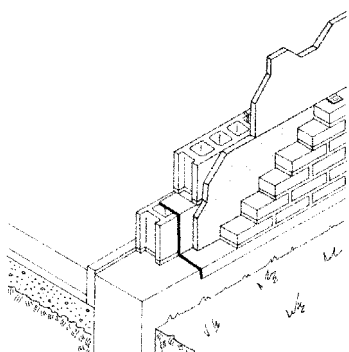


Resists moisture, whatever the source – Owens Corning’s patented process technology makes it possible. The process gives FOAMULAR Insulation a tight, closed-cell structure and continuous skin surface, front and back, that’s highly resistant to moisture of all kinds – water leakage, humidity, condensations, ground water, wet soil, freeze/thaw cycling, etc.

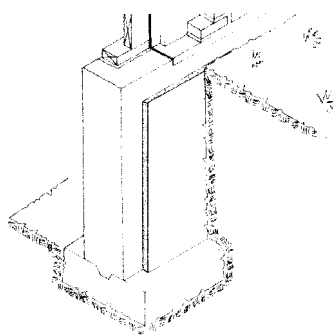
Year after year, FOAMULAR retains its high R-value – Because of FOAMULAR Insulation’s unique closed-cell structure, it’s R-value of 5 per inch of thickness won’t diminish over time, as other insulations do. Year after year, FOAMULAR Insulation keeps on insulation - and saving - even after prolonged exposure to moisture.

FOAMULAR® Extruded Polystyrene Insulation Typical Physical Properties

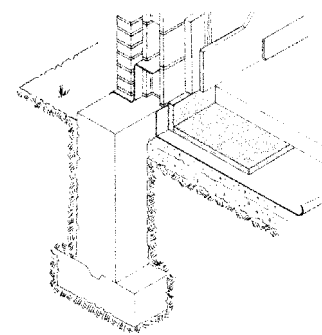
Property	ASTM Method	Product Values				
		FOAMULAR 150	FOAMULAR 250	FOAMULAR 400	FOAMULAR 600	FOAMULAR 1000
Thermal Conductivity - “k” (Btu • in/sq ft • hr • °F, max) @ 75°F mean temperature	C 518	0.20	0.20	0.20	0.20	0.20
@ 40°F mean temperature		0.18	0.18	0.18	0.18	0.18
Compressive Strength minimum value (lb/sq. in.)	D 1621	15	25	40	60	100
Flexural Strength (Lb/sq. in., min.)	C 203	60	75	75	105	150
Water by Absorption (% by volume, max)	C 272	0.10	0.10	0.05	0.05	0.05
Water Vapor Permeance (perm, max.)	E 96	1.10	1.10	1.10	1.10	1.10
Water Affinity	–	Hydrophobic	Hydrophobic	Hydrophobic	Hydrophobic	Hydrophobic
Water Capillarity	–	None	None	None	None	None
Dimensional Stability (% linear change, max.)	D 2126	2.0	2.0	2.0	2.0	2.0
Linear Coefficient of Thermal Expansion (in/in/°F, max.)	–	2.7 x 10 ⁻⁵	2.7 x 10 ⁻⁵	2.7 x 10 ⁻⁵	2.7 x 10 ⁻⁵	2.7 x 10 ⁻⁵
Flame Spread	E 84	5	5	5	5	5
Smoke Developed	E 84	45 - 175	45 - 175	45 - 175	45 - 175	175
Oxygen Index, min.	D 2863	24	24	24	24	24
Type Classifications	C 578	Type X	Type IV	Type VI	Type VII	Type V



Cavity Wall
Formular 150, 250



Perimeter Foundation
Foamular 150, 250



Under Slab
Foamular 250, 400, 600, 1000

Insulation

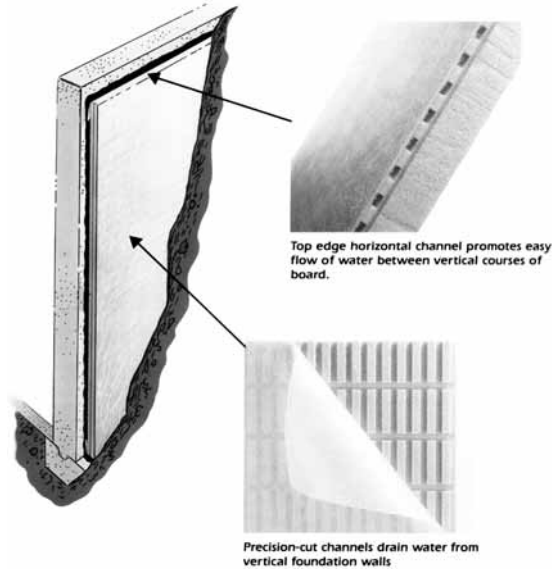


Insul-Drain is a FOAMULAR extruded polystyrene product that incorporates the features of insulation, drainage and protection board in a single product. It's easy to install, without the need for special tools or equipment and the product's superior compressive strength and long-term moisture resistance properties mean years of reliable performance on below grade foundation walls even under extremely harsh conditions.

Foamular Physical Properties

Property	Insul-Drain		
	1"	1-1/2"	2-1/4"
R-value, min °F x sq ft x h/Btu @ 75°F	4.4	6.9	10.6
Compressive Strength, min. (lb/sq ft)*	3600	3600	3600
Flow Rate, min. (gal/min/in ft)	12	12	12

* Minimum foam core value. The bearing surface of the product should be considered when designing for specific applications.



PINKCORE™ XPS Rigid Foam Insulation & Ties

PINKCORE XPS rigid foam insulation and ties are specifically designed for use in site-cast or precast insulated concrete sandwich wall panels. These products provide a fast, efficient, cost-effective method of improving the thermal performance of commercial buildings. Typical concrete wall panels must be insulated after casting and erection. Using PINKCORE insulation and ties, the panel is insulated during casting, prior to erection. Thus, the insulation is integral to the wall, which results in easier and faster construction.

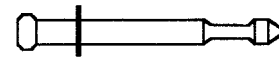
In addition, since the insulation is "sandwiched" between the interior concrete wythe and the fascia wythe, the panel maintains hard, durable concrete surfaces, both inside and out.

Installation

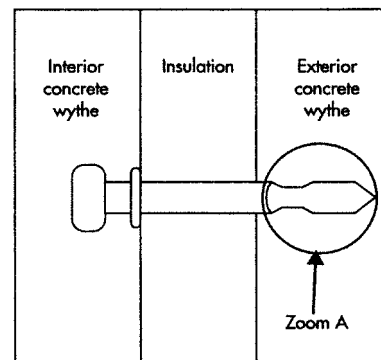
PINKCORE insulation and ties are specifically designed for fast, accurate installation. The PINKCORE insulation is clearly marked with a 16-inch on center dot pattern to ensure accurate placement of the PINKCORE connector ties into the insulation. After casting the exterior concrete wythe, the PINKCORE insulation and ties are placed in the fresh concrete. The design of the connector tip also ensures easy penetration through the foam, as well as a mechanical interlock into the concrete once it cures.

Once the PINKCORE insulation and ties are in place, construction of the inner concrete wythe continues. Reinforcement, imbeds and lifting inserts are all set in place on top of the PINKCORE insulation and then the concrete is poured. With a compressive strength of 25 psi (3600 psf).

Low-Conductivity Ties



For insulation thicknesses between 2" and 4". Pushed through the foam layer until properly seated, immediately after the bottom wythe of concrete is placed.



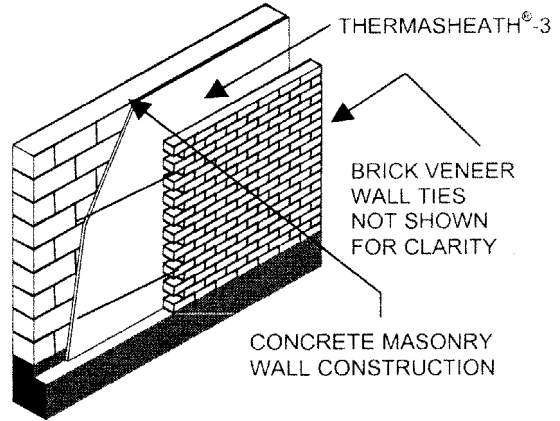
PINKCORE tie in concrete sandwich panel.

Insulation

Thermasheath® - 3 Sheathing Insulation

Rmax Thermasheath®-3 is a rigid foam plastic thermal insulation board composed of polyisocyanurate foam bonded to reinforced aluminum foil facers on each side. Thermasheath®-3 utilizes a new HCFC free blowing agent. This sheathing insulation is suitable for use in walls and some limited roofing applications in new commercial, residential, agricultural and industrial buildings and in thermal retrofit construction within existing buildings.

Applicable Standards: Thermasheath®-3 is manufactured to conform to the physical property requirements of Product Specification ASTM C1289, Type I.



Technical Data Thermasheath-3

TYPICAL PHYSICAL PROPERTIES:		
Property	Test Method	Results
Density, Overall, Nominal	ASTM D1622	2.0 pcf
Compressive Strength	ASTM D1621	20 psi (Avg.)
Flame Spread, Core	ASTM E84	25
Smoke Developed	ASTM E84	75-160
Water Vapor Transmission	ASTM E96	< 1 perm
Water Absorption	ASTM C209	< 1% Vol.
Dimensional Stability	ASTM D2126 7 days, 158°F, 98% rh	< 2% Linear Change
Service Temperatures		-40°F to +250°F

Note: Physical Properties shown are based on data obtained under controlled conditions and are subject to normal manufacturing tolerances. Flame spread numbers are shown for comparison purposes only and are not intended to represent the performance of Thermasheath®-3 and related components under actual fire conditions.

THERMAL PROPERTIES/PRODUCT DATA					
"R" means resistance to heat flow. The higher the R-value, the greater the insulating power					
Nominal Thickness	Thermal ¹ R-Value	Bundle Data (48" x 96")		Truckload Data (48" x 96")	
		Pieces	Sq. Ft.	Pieces	Sq. Ft.
1.00"	5.9	48	1536	1536	36864
1.25"	7.7	38	1216	912	29184
1.50"	9.4	32	1024	768	24576
1.75"	11.2	27	864	648	20736
2.00"	12.9	24	768	576	18432
2.50"	16.4	19	608	456	14592
3.00"	19.9	16	512	384	12288
3.50"	23.3	13	416	312	9984
4.00"	26.8	12	384	288	9216

TSX-8500 Insulation for Exposed Use

Rmax TSX-8500 is a rigid thermal insulation board composed of a HCFC free, polyisocyanurate foam core bonded to a glass fiber reinforced 1.5 mil aluminum foil facer on the exposed side of the board. TSX-8500 is designed for use without a thermal barrier in pre-engineered metal buildings, laminate panel products and other similar applications.

TSX-8500's aluminum foil facer provides an attractive interior finish.

Applicable Standards: Product Specification ASTM C 1289 Type I, Class I.



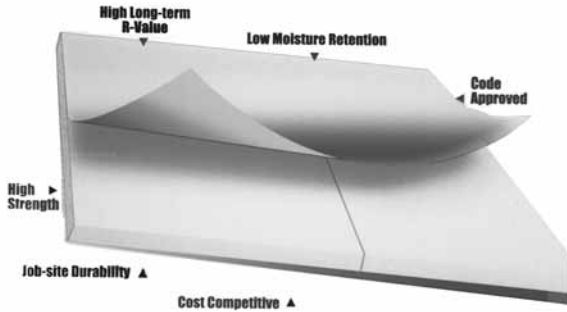
T108 All Purpose Construction Adhesive

A waterproof mastic for installation of a variety of wall panels to solid sub surfaces. Provides immediate grab yet allow sample positioning time.

Coverage: 50 to 60 sq. ft./gallon with notched trowel; 1/4" x 1/4" x 3/4" or 3/16" x 3/16" x 5/16"; 3/8" bead - 39 linear feet per 29 oz. cartridge.

Division 7

Insulation



Fanfold Protection Board

R-TECH is expanded polystyrene foam laminated with two plastic facers. Comes in convenient fanfold configuration. Each bundle is 4' x 50' and available in 1/4", 3/8" and 1/2" thickness.

Perimeter/Foundation Cavity Wall

R-GARD is expanded polystyrene foam heat laminated to a polyethylene film face. Excellent resistance to moisture and a minimum compressive strength of 1440 psf.

R-GARD performs the specific job of insulating long term without overstating density and PSI strengths.

A Choice of Strengths

Expanded Polystyrene meets the requirements of ASTM C-578 Types I, II, VIII and IX.

Expanded Polystyrene

Specification Reference Property	Units	ASTM C578-91 ASTM Test	Type I 1#	Type VIII 1.25#	Type II 1.5#	Type IX 2#	
Density, Minimum	(PCF)	C303 or D1622	0.90	1.15	1.35	1.80	
Thermal Conductivity K Factor	at 25°F at 40°F at 75°F	BTU (hr.) (sq. ft.)(F/in.)	C177 or C518	0.23 0.24 0.26	0.22 0.235 0.255	0.21 0.22 0.24	0.20 0.21 0.23
Thermal Resistance Values (R)	at 25°F at 40°F at 75°F	per inch thickness	—	4.35 4.17 3.85	4.54 4.25 3.92	4.76 4.55 4.17	5.00 4.76 4.35
Strength Properties							
Compressive 10% Deformation	psi	D1621	10-14	13-18	15-21	25-33	
Flexural	psi	C203	25-30	32-38	40-50	55-75	
Tensile	psi	D1623	16-20	17-21	18-22	23-27	
Shear	psi	D732	18-22	23-25	26-32	33-37	
Shear Modulus	psi	—	280-320	370-410	460-500	600-640	
Modulus of Elasticity	psi	—	180-220	250-310	320-360	460-500	
Moisture Resistance							
WVT	perm. in	E96	2.0-5.0	1.5-3.5	1.0-3.5	0.6-2.0	
Absorption (vol.)	%	C272	less than 4.0	less than 3.0	less than 3.0	less than 2.0	
Capillarity	—	—	none	none	none	none	
Coefficient of Thermal Expansion	in/(in.)(F)	D696	0.000035	0.000035	0.000035	0.000035	
Maximum Service Temp.	°F	—					
Long-term			167	167	167	167	
Intermittent			180	180	180	180	

Properties based on data provided by Nova Chemical Co., BASF Corp. and Huntsman Chemical Company. Polyethylene skins provide a moisture barrier for the EPS at less than .11 perms.

Water Resistant Barriers



Tyvek®

CommercialWrap®

Dupont Tyvek is continuous spunbonded non-woven sheeting with a fibrous structure that naturally allows moisture vapor transmission. The microscopic pores are large enough for moisture vapor to pass through but small enough to resist air and liquid.

Roll Sizes: 10' x 125' and 5' x 200' (special order).



Water Resistant Barrier

A. Spunbonded olefin, non-woven, non-perforated.

B. Performance Characteristics:

1. ASTM E-1677 Type I Air Retarder
Air leakage at 25 mph (75 Pa) wind pressure of less than .06 cfm/sq. ft.
2. Water Vapor Transmission of greater than 20 perms in accordance with ASTM E-96-90, Method B.
3. Water penetration resistance of 200 cm minimum in accordance with AATCC-127.



Tape



PINKWRAP® Housewrap

Weather Resistive

Stands up to wind, rain and nails.



PINKWRAP® Housewrap is typically installed over wood or insulating sheathing and under siding or other exterior covering. It creates a protective barrier against air infiltration and unwanted liquid moisture. In addition to sealing out air, it is designed to allow damaging moisture to escape from inside the home. PINKWRAP Housewrap also helps provide protection from the elements for homes under construction. Manufactured to be tough enough to meet demanding construction conditions, PINKWRAP Housewrap is also translucent to make precise nail and staple location simple.

Product Data: PINKWRAP Housewrap is a woven polyolefin fabric engineered to be a weather resistant barrier. PINKWRAP reduces the air infiltration through residential and commercial exterior side wall construction while permitting trapped moisture to escape from the wall to the exterior. PINKWRAP has been rated by the building code evaluation services as equivalent to Grade D building paper.

Dimensions: Thickness: 8.0 mils (0.2mm)
Nominal
Length: 100', 150' and 195'
Width: 3' (0.9m), 4.5' (1.37m),
9' (2.7m) and 10' (3.05m) Nominal

Standard Roll Size: 10' x 150', 9' x 195', 9' x 150',
9' x 100', 4.5' x 100' and
3' x 100'

Waterproofing Membranes



CCW MiraDRI 860/861

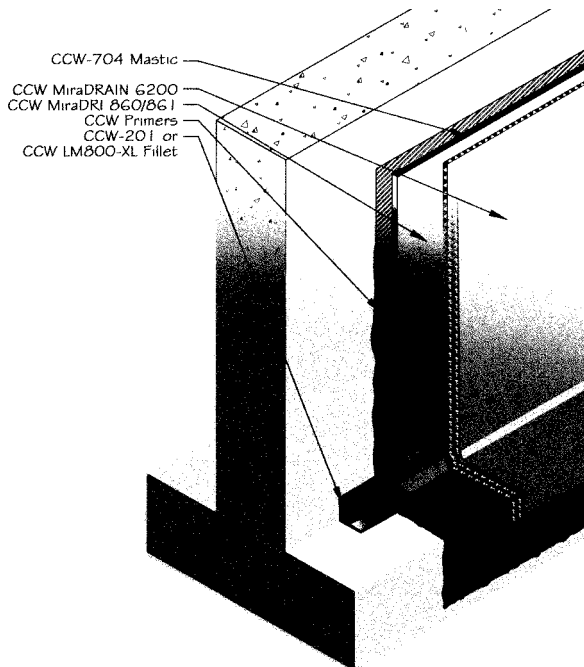
Sheet Membrane Waterproofing Systems

CCW MiraDRI 860/861 are self-adhering sheet membranes consisting of 56 mils (1.4 mm) of rubberized asphalt laminated to 4 mils (0.1 mm) of polyethylene to form a minimum 60 mil (1.5 mm) membrane. CCW MiraDRI 860 membrane is a summer grade material, suitable for installations where the ambient temperature is 40°F (4.4°C) or above. CCW MiraDRI 861 should be used for applications between 25°F (-3.9°C) and 65°F (18°C). The combination of these two excellent waterproofing materials provides a high-performance, extremely durable waterproofing barrier.

CCW MiraDRI 860/861 membranes are used for vertical and horizontal waterproofing on structural foundation walls and decks. Below-grade foundation walls, tunnels, split slabs, plaza decks and parking decks are all areas where CCW MiraDRI 860/861 may be applied. CCW MiraDRI 860/861 also may be used in interior areas such as mechanical rooms, laboratories, kitchens and bathrooms. CCW MiraDRI 860/861 should be covered with either CCW 200V/300HV Protection Course, CCW Protection Board or CCW MiraDRAIN® drainage composites.

CCW MiraDRI 860/861-36 = 36" W x 67' roll (200 sq. ft.).
25 rolls per pallet (5000 sq. ft.) - Weight = 80 lb/roll (approximate).

CCW MiraDRI® 860/861



**Self-Adhered Waterproofing
From the Moisture Protection Experts**

Advantages of CCW MiraDRI

- **Fully adhered membrane** – Eliminates water migration which can otherwise cause leakage through cracks.
- **Factory controlled thickness** – Eliminates thin spots which could be easily penetrated, allowing leakage.
- **Preformed sheet** – Eliminates pinholing.
- **Flexibility over cracks** – Elastomeric properties accommodate normal expansion and contraction of the substrate.
- **Resists Hydrostatic Pressure.**
- **Mechanically strong.**
- **Easy to apply.**
- **Cost-competitive** – The highest performance system with the best life cycle cost.
- **The CCW MiraDRI/MiraDRAIN Systems Guarantee** – A safe waterproofing choice from a reliable company backed by a combined CCW systems warranty.

Waterproofing Membranes



CCW MiraDRI Accessories

CCW-704

Mastic

Carlisle CCW-704 is a solvent base, rubberized bitumen mastic. After evaporation of the solvent, the remaining compound is a rubber-like material that adheres tenaciously to the polyethylene face of the sheet membrane.

Typical Uses

CCW-704 Mastic is used as a secondary seal on the seams, T-joints, overlaps and other terminations/penetrations of the CCW sheet membrane systems. It is designed for use on the top surface and edges of the CCW Sheet Membrane and should never be used underneath the membrane.

Coverage Rate

A 1/2" bead yields approximately 100 linear feet per gallon. Estimate one 30 oz. tube for "T" joint and end lap treatment for every 200 sq. ft. of membrane.

Packaging

30 oz cartridges/12 cartridges per case.
Five gallon pails/45 pails per pallet.

CCW 200V/300HV

Protection Fabrics

CCW 200V and 300HV Protection Fabrics are extremely tough nonwoven polypropylene protection courses, specifically designed by Carlisle Coatings & Waterproofing to protect CCW waterproofing membranes.

Typical Uses

CCW 200V Protection Fabric is a specifically designed product to cushion and protect the CCW MiraDRI 860/861, CCW-525 and CCW Butyl waterproofing membranes in vertical applications.

CCW 300HV Protection Fabric is a thick nonwoven cushioning fabric that provides the ultimate solution for horizontal applications. CCW 300HV is engineered to be placed over CCW MiraDRI 860/861, CCW-525 and CCW Butyl Membrane waterproofing membranes in horizontal and vertical applications.

Packaging

200V:
40" x 200' (102cm x 61m), 54 lbs (24 kg);
12.5' x 200' (3.8m x 61m), 140 lbs (63 kg)

300HV:
40" x 200' (102cm x 61m), 58 lbs (26 kg);
12.5' x 200' (3.81m x 61m), 195 lbs (90 kg)

CCW-Primer

For Use with Sheet Membranes

CCW-702 is a quick drying, solvent based, high-tack primer specifically designed to promote maximum adhesion of CCW Sheet Membrane Waterproofing products.

Apply by long nap roller or brush in an even film at 300 to 350 square feet per gallon. Allow Primer to dry for 20 minutes minimum at 75°F. Primer has a satisfactory cure when surface is tacky, but will not transfer when touched. Prime only areas to be waterproofed the same day. Reprime if area becomes dirty or wet. When used in adverse climatic conditions (i.e. humid, cool, etc.) or on a porous substrate, additional time will be required.

CCW LM-800XL

Liquid Mastic

CCW LM-800XL Liquid Mastic is a fast-drying elastomeric, single component, cold-applied liquid.

Typical Uses

CCW LM-800XL is an accessory product used in conjunction with CCW MiraDRI 860/861 membranes. CCW LM-800XL is designed to be used as a fillet and reinforcement under CCW MiraDRI 860/861 membranes at footing foundation wall junctures or other inside corners; and between footing and foundations when tying in slab waterproofing with the foundation wall. Other applications include terminations and flashing to protrusions from horizontal and vertical surfaces; terminations at drains; and detailing of the substrate prior to CCW MiraDRI 860/961 membrane application.

Application

CCW LM-800XL should be applied directly from the gallon with a putty knife at 40 to 50 mil thickness unless otherwise specified. When used as a fillet under CCW MiraDRI 860/861, use a 3/4" (1.9cm) fillet and continue the CCW LM-800XL out 6" (15cm) in each direction. At membrane terminations, use 60 mils of CCW LM-800XL as a flashing and apply minimum of 2" (5cm) wide over the CCW membrane, and minimum of 1" (2.5cm) onto the surface being waterproofed. CCW MiraDRI 860/961 can be placed over CCW LM-800XL within one hour. Allow CCW LM-800XL to cure 24 hours before flood testing. Do not use CCW LM-800XL in applications subject to more than 57.8 ft (17.6) head of water. Coverage rate at 3/4" fillet is 20' per 29 oz tube. Coverage rate at 40 to 50 mil is 20 to 25 sq. ft. per gallon.

Waterproofing Membranes

CCW-525 Liquid Applied Waterproofing Membrane

CCW-525 is a one part, cold applied liquid material. Its modified polyurethane properties cure to form a strong, flexible membrane for various below grade applications.

CCW-525 is ideally suited for waterproofing on below grade foundation walls, tunnels, planters and other areas where seamless, elastomeric waterproofing is required.

CCW-525 is available in three viscosities (H, R & V) for application to horizontal and vertical surfaces.

Apply at 25 sq. ft./gal to achieve a 60 mil coating.



Features and Benefits

- Liquid-applied membrane
- Single component
- Moisture cured
- Coal-Tar free
- Cures to an elastomeric, monolithic membrane
- Vertical or horizontal application
- Provides tenacious adhesion
- Perfect for planters
- Can be used on smaller areas and detail work



Barricoat-S Spray-Applied Waterproofing Membrane

Barricoat is a water-based, asphalt emulsion modified with a blend of synthetic rubbers and special additives. It cures rapidly to a monolithic, highly flexible membrane.

For difficult to waterproof below grade substrates, Barricoat-S is the solution. Barricoat-S consists of a water-based modified asphalt emulsion, which is catalyzed to form a seamless, monolithic waterproofing membrane. Perfect for large jobs, Barricoat-S utilizes a convenient spray delivery system that provides a fast application with high mobility which improves overall job site efficiency. Barricoat-S can also be applied to green concrete and damp surfaces, which reduces job site down time.



Features and Benefits

- Performs as a vapor and water barrier
- May be applied to greenconcrete, damp surfaces and EPS forms
- Non-flammable, solvent free
- Excellent elongation and recovery
- Good tensile strength
- Exceptional bonding
- Creates a seamless membrane



CCW-500R Reinforced Hot-Liquid Applied Waterproofing Membrane

CCW-500 is a single component, hot-applied, rubberized asphalt compound that cures to form a strong, flexible, fully adhered, monolithic waterproofing and roofing membrane. The double-layer, reinforced CCW-500R system adheres tenaciously to virtually any structural surface, vertical or horizontal, to assure that water will not migrate beneath the membrane in the event of physical damage. CCW-500R allows for applications on a wide variety of substrate conditions and enhances crack bridging capability.



Waterproofing Membranes

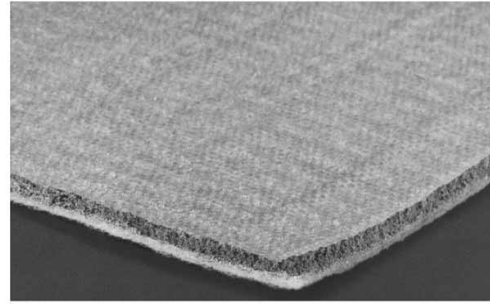
CCW MiraCLAY Bentonite Clay Below-Grade Waterproofing System

CCW MiraCLAY is specially constructed, flexible, below-grade foundation waterproofing system which utilizes sodium bentonite clay. The CCW MiraCLAY geotextile panel consists of sodium bentonite clay sandwiched between two layers of woven and non-woven, puncture resistant polypropylene fabric. CCW MiraCLAY is needlepunched together using the Infrabond™ process.



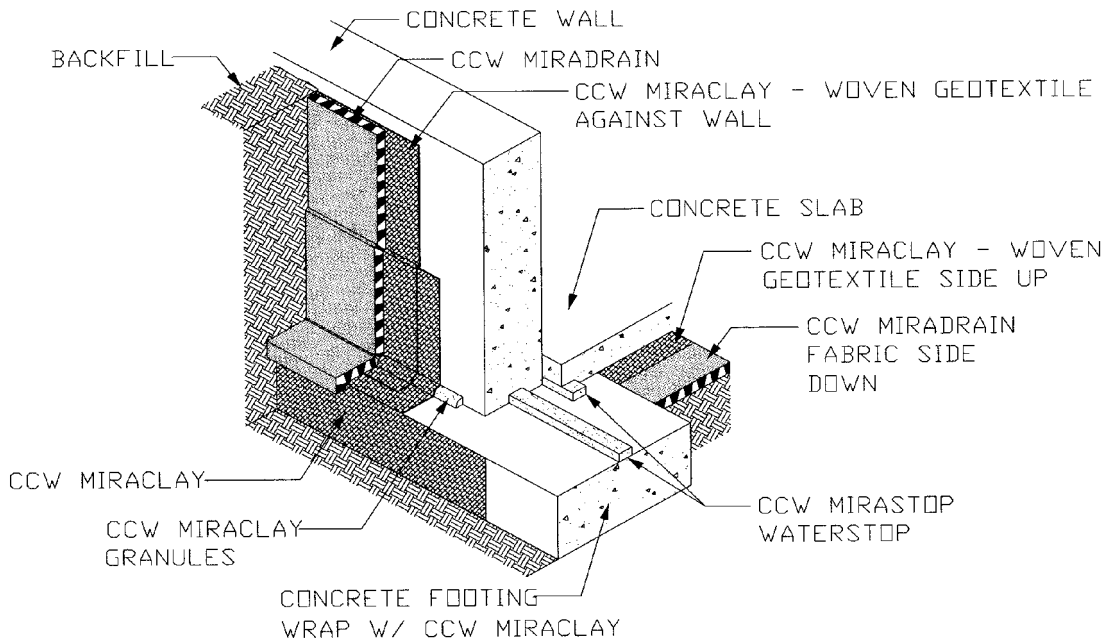
Features & Benefits

- High shear construction
- Impermeable waterproofing barrier when hydrated
- Self-sealing when punctured or penetrated
- Can be applied to wet surfaces
- Totally flexible
- Resistant to most chemicals
- Non-toxic, non-polluting, no fumes
- Economical and easy to install
- Cold weather application



Physical Properties

Bentonite Content: 1.0 lb./sq. ft. @ 12% moisture
 Dry Thickness: .25 inches
 Sheet Size: 4.5' x 15.5' (70 sq. ft.)
 Weight: 79 lb.



CCW MiraCLAY Mastic

A trowel-grade mastic of sodium bentonite. Use as a detail mastic at termination bars, soldier piles and pipe penetrations. A gallon of mastic will do 10 to 15 linear feet of 3/4" trowel bead.

CCW MiraCLAY Granules

Bentonite clay granules poured at the base of foundation wall and footing. A 50 lb bag will cover approximately 30 linear feet at a 1-1/2" fillet.

Drainage Composites

CCW Miradrain 2000

Intermediate flow rate and compressive strength.
Residential and commercial applications.

CCW Miradrain 6000 & 6200

High-compressive strength.
High-flow rate.
Vertical applications, single sided drainage.
6200 recommended over waterproofing.

CCW Miradrain 6000XL & 6200XL

Higher-strength fabric than 6000 & 6200 drains.
Improved filtration.
Greater long term performance.

CCW Miradrain 9000

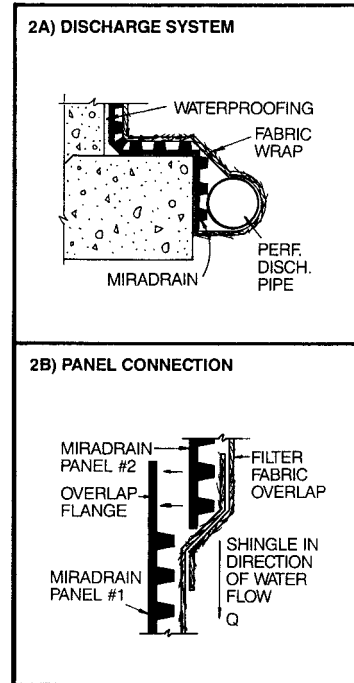
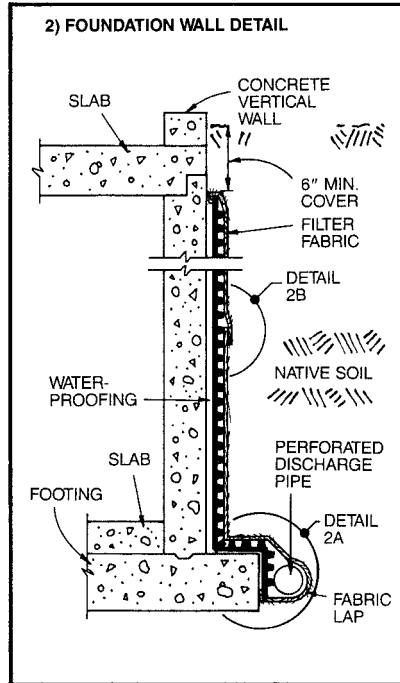
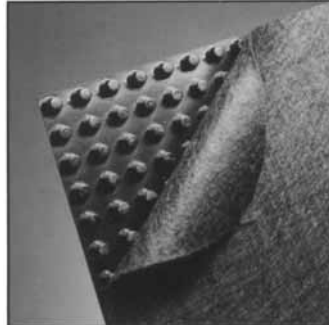
High-compressive strength plastic core.
High-strength woven fabric.
Plaza decks, parking decks, split slabs.

CCW Miradrain 9080

Better filtration than 9000 drain.
Green roofs, landscaping & planters.

CCW Miradrain 9900

Highest compressive strength drain available.
Plaza decks, parking decks, split slabs.



Physical Properties

4' x 50' standard roll size.

Drain Property	Test	Unit	2000	6000/6200	6000/6200XL	9000	9800	9900
Core			Typical Values					
Thickness	ASTM D 1777	in (mm)	0.25 (6.35)	0.40 (10.16)	0.40 (10.16)	0.40 (10.16)	0.40 (10.16)	0.25 (6.35)
Compressive Strength	ASTM D 1621	psf (kN/m ²)	10,800 (517)	15,000 (719)	16,500 (790)	18,000 (862)	18,000 (862)	33,000 (1650)
Maximum Flow Rate*	ASTM D 4716	gpm/ft (l/min/m)	12.5 (155)	17 (211)	17 (211)	21 (260)	17.5 (219)	13 (161)
Installed Vertically†	ASTM D 4716		8.5 (106)	12.5 (155)	14.5 (180)	18.5 (230)	15.5 (193)	X
Installed Horizontally‡	ASTM D 4716		X	X	X	3.8 (37)	3.0 (38)	2.4 (30)
Fabric								
Apparent Opening Sz	ASTM D 4751	US Std Sieve (mm)	70 (0.21)	70 (0.21)	70 (0.21)	40 (0.42)	80 (0.18)	40 (0.42)
Water Flow Rate	ASTM D 4491	gpm ft ² (l/min/m ²)	140 (5698)	140 (5698)	110 (4477)	145 (5907)	95 (3866)	145 (5907)
Grab Tensile Strength	ASTM D4632	lbs (kN)	100 (0.45)	100 (0.45)	160 (0.71)	365 (1.62)	205 (0.90)	265 (1.62)
Grab Elongation	ASTM D 4632	%	50	50	50	24	50	24
Pressure Resistance	ASTM D4833	lbs (kN)	65 (0.30)	65 (0.30)	95 (0.42)	100 (0.44)	130 (0.58)	100 (0.44)
System								
Performance Index		-	14,050	18,250	24,100	27,198	31,325	42,198

Roof Underlayment



CCW WIP 300HT

HIGH TEMPERATURE
WATER & ICE PROTECTION *self adhering roofing underlayment*

High Temperature Formulation
CCW WIP 300HT will resist temperatures up to 240°F (116°C) without degradation of the adhesive.

Moisture & Air Barrier
CCW WIP 300HT protects the roof structure from water seepage caused by ice dams and wind driven rains.

Self Sealing
CCW WIP 300HT membranes seal around roofing nails, screws, staples and clips used to install the primary roofing system.

Self Adhering
CCW WIP 300HT membranes bond directly to the roof substrate for fast and easy installation without the need for any adhesives.

Dual Barrier Protection
CCW WIP 300HT provides maximum waterproofing protection. The composite membrane consists of rubberized asphalt laminated to an impermeable, high tensile strength, polyethylene film.

Skid Resistant
CCW WIP 300HT features a unique skid-resistant surface for safe and easy installation.

Permanent Protection & Low Life Cycle Cost
CCW WIP 300HT will not crack, dry out or rot, resulting in long term waterproofing performance.

Aesthetically Pleasing
CCW WIP 300HT is a concealed waterproofing system that will not detract from the architectural aesthetics of the primary roofing system.

CCW WIP 300HT Water and Ice Protection is a high tensile strength rubberized asphalt underlayment specifically designed to withstand temperatures up to 240°F.



CCW WIP 100/200

WATER & ICE PROTECTION *self adhering roofing underlayment*

Applications:
CCW Water and Ice Protection (WIP) 100/200 are used as shingle underlayments on critical roof areas like eaves, ridges, valleys, dormers and skylights. CCW WIP membranes protect both the roofing structures and interior spaces from water penetration.

CCW WIP 100
CCW WIP 100 is a flexible, rubberized asphalt, fiberglass reinforced membrane with a granular surface providing maximum skid resistance during installation. Ideal for under tile or slate.

CCW WIP 200
CCW WIP 200 is a composite membrane consisting of fiberglass reinforced, rubberized asphalt laminated to an impermeable polyethylene film layer, providing dual-barrier moisture protection. Ideal for shingle or shakes.

Bituminous Dampproofing

KARNAK

Dampproofing Non-Asbestos Products



220AF Fibered Emulsion Dampproofing (brush or spray)

920AF Fibered Emulsion Mastic (trowel grade)

General purpose coatings, manufactured with refined asphalt, clay emulsifiers and selected non-asbestos fibers. The dried film cures to a tough, flexible, durable finish and will resist variations in temperature and weather.

Used as a protective coating against dampness on the exterior face of interior walls in cavity wall construction and exterior surfaces of concrete, metal and wood above or below grade.

Coverages: For 1 coat, apply @ 4 to 6 galls per 100 sq. ft.
For 2 coats, apply each coat @ 2 to 3 gallons per 100 sq. ft.

Specifications: ASTM D-1227 Type II Class I
ASTM D-1187 Type I Type II
SS-R-1781
MIL-R 3472A

118AF Black Asphaltum (brush or spray)

A special formulated quick-drying general purpose black asphalt paint. Manufactured with refined asphalt, carefully admixed with a pure hydrocarbon solvent to a paint consistency.

Coverages: Apply @ 1 to 1.5 gallons per 100 sq. ft.

Specifications: TT-C-494
FF-H-C-494
MIL-C 16173D

Tamms

Dehydratine® 75, 85 and 95 Emulsified Asphalt Dampproofing Compounds

Dehydratine 75, 85 and 95 are water based compounds designed to damp proof concrete and masonry. The Dehydratine products are VOC compliant materials and are effective above and below grade. Dehydratine 75 is highly effective and is easily applied by trowel or spray. Dehydratine 85 is fiber reinforced but can still be sprayed. Dehydratine 95 contains longer fibers and is formulated for trowel application.

Composition & Material: Dehydratine 75, 85 and 95 are formulations derived from mineral colloid asphalt base clay emulsions which utilize a water carrier. These products are "breather" type compounds which meet or exceed the following specifications.

- They do not contain solvents
- They do not present a fire hazard and are environmentally safe
- They adhere tenaciously to damp or "green" surfaces
- They breathe to allow water vapor to escape and reduce blistering
- They are flexible and will not crack as a result of normal contraction and expansion
- They are asbestos free

Dehydratine	75	85
ASTM D-1227 Type III	X	
ASTM D-1227 Type IV		X

	Coverage sq. ft./gallon		
	Dehydratine 75	Dehydratine 85	Dehydratine 95
One Coat Application			
Not more than	33	33	25
Two Coat Application			
1st Coat	50	50	50
2nd Coat	50	50	50

Cementitious Dampproofing

Tamms

Tammoseal Cement Based Waterproof Finish

Tammoseal is a cement based coating applied by brush or spray to concrete and masonry surfaces. Fills and seals the pores and voids in the surface but still allows for breathing. Strong enough to withstand low levels of hydrostatic pressure on interior wall surfaces below grade. Excellent base coat for decorative and protective finishes.

Use **Akkro-7T** in the mixing liquid.

Packaged in 50 lb. bags. Covers 16 sq. ft./bag.

Concrete Finisher Cement Based Decorative and Damp Proofing Coating

Concrete Finisher is a cement based dampproofing for filling, sealing, leveling and finishing concrete or masonry surfaces. Uneven surfaces can be leveled and desired textures created with trowel and float techniques. Apply by trowel or spray.

Use **Akkro-7T** in the mixing liquid.

In 70 lb. bags. Coverage 50 sq. ft./bag.

Tammscoat® Textured Decorative and Protective Coating

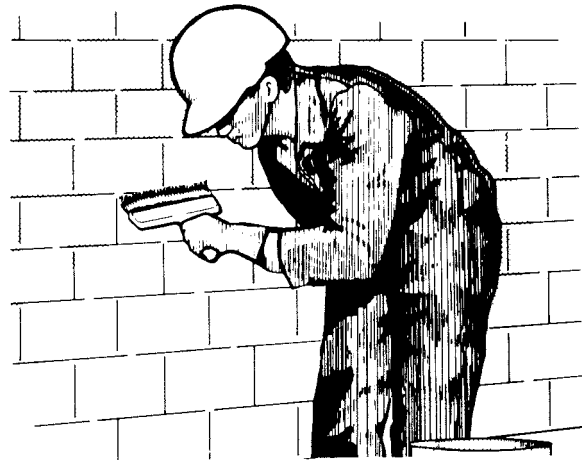
Tammscoat is a decorative, high build, flat, water-based acrylic emulsion coating for concrete and masonry surfaces. Used on interior and exterior surfaces. Tammscoat has superior adhesive, cohesive and color retention characteristics.

Sold in 5 gallon pails. Covers 75 sq. ft./gallon.

Tammolastic® Elastomeric Decorative and Protective Coating

Tammolastic is a protective, decorative, flexible coating designed to waterproof, bridge hairline cracks and enhance the aesthetic appearance of vertical concrete, stucco and masonry surfaces.

Sold in 5 gallon pails. Covers 45 sq. ft./gal.



Hey'Di K-11 Cement Based, Crystalline Waterproofing System

Hey'Di K-11 is a two part, polymer modified, cement based system for waterproofing concrete and masonry through a crystallization process. Is applied to above or below grade surfaces, interior or exterior.

Use **Hey'Di SB** in the mixing liquid.

Packaged in 50 lb. bags. Covers 100 sq. ft./bag.

Hey'Di Powder X System Waterproofing System for Active Leaks

Hey'Di Powder X System is a combination of cementitious and silicate based materials used on negative side surfaces to stop and seal active leaks caused by hydro-static pressure. Hey'Di Powder X is a dry powder that hardens in seconds when exposed to water. Hey'Di Sealing Liquid penetrates through the powder into the capillaries of the substrate and reacts with moisture to form crystals.

Aquastain® T-96 Water Based, Decorative, Penetrating Stain

Aquastain T-96 is a water based, liquid polymer penetrating stain. It retains the natural texture of the concrete or masonry surface without leaving a painted look.

Sold in 5 gallon pails. Covers 100 sq. ft./gallon.

Sealants



Polyurethane Sealants

Sikaflex®-2c SL

- High-performance joint sealant
- Self-leveling
- 2-Component
- +/- 50% joint movement
- Over 40 colors with color paks
- 1.5 gal units and 3 gal units
- Limestone gray color available pre-pigmented base



Packaged in 2-gallon pails which includes catalyst. Yield - 1.5 gallons. Color-paks and traffic grade components added separately. Special order 3 gallon units.

Sikaflex®-2C NS

- High-performance joint sealant
- 2-Component
- Non-sag
- +/- 50% joint movement
- Over 40 colors with color paks
- 1.5 gal units and 3 gal units
- Limestone gray color available pre-pigmented base



Sikaflex Sealants

Federal

Federal Spec TT-S-00230C, Type II, Class A-	Sikaflex-1a Sikaflex-15LM *
Federal Spec TT-S-00230C, Type I, Class A (for mortar)	Sikaflex-1CSL
Federal Spec TT-S-001543A, Type NS-	Sikaflex-15LM * +
Federal Spec TT-S-00227E, Type II, Class A-	Sikaflex-2c NS **
Federal Spec TT-S-00227E, Type I, Class A-	Sikaflex-2c SL **

ASTM

ASTM C-920, Type M, Grade NS, Class 25-	Sikaflex-2c NS **
ASTM C-920, Type M, Grade P, Class 25- Use T, NT, M, G, A, O	Sikaflex-2c SL **
ASTM C-920, Type S, Grade NS, Class 25- Use T, NT, M, G, A, O	Sikaflex - 1a
ASTM C-920, Type S, Grade NS, Class 25- Use T***, NT, M, G, A, O	Sikaflex -15LM *
ASTM C-920, Type S, Grade P, Class 25- Use T, M	Sikaflex -1CSL
ASTM C-920, Type S, Grade NS, Class 12*- Use T, NT, M, A	Sikaflex TR

Linear Feet of Sealant per Gallon

		Depth					
		¼	½	¾	1	1¼	1½
Width	¼	308.0					
	½	154.0	77.0				
	¾	102.7	51.3	34.2			
	1	77.0	38.5	25.7	19.3		
	1¼	61.6	30.8	20.5	15.4	12.3	
	1½	51.3	25.7	17.1	12.8	10.3	8.6

Definitions

ASTM Specifications

Type S	A single-component sealant
Type M	A multi-component sealant
Grade P	A pourable or self-leveling sealant
Grade NS	A non-sag or gunnable sealant

Federal Specifications

Type I	Self-leveling, pour grade
Type II	Non-sag, gun grade
Type NS	Non-sag, gun grade
Class A	+25%, -25% expansion/contraction

Class 25 - A sealant that, when tested for adhesion or cohesion under cyclic movement shall withstand an increase and decrease of at least 25% of the joint width as measured at the time of application and, in addition, meet all the requirements of this specification.

Class 12 - A sealant that, when tested for adhesion and cohesion under cyclic movement shall withstand an increase and decrease of at least 12% of the joint width as measured at the time of application and, in addition, meet all the requirements of this specification.

Sealants



Polyurethane Sealants

Sikaflex®-1a

- All purpose sealant
- 1-Component
- Non-sag
- +/- 25% joint movement
- 10.3 fl. oz. cartridges, 24/case
- 20 fl. oz. sausages, 20/case



Sikaflex®-1CSL

- Horizontal joint sealant
- Self-leveling
- 1-Component
- +/- 25% joint movement
- 30 fl. oz. cartridges
- 5 gallon pails



Sikaflex®-15LM

- Low-Modulus
- Joint sealant
- 1-Component
- Non-sag
- +100%/-50% joint movement
- 10.3 fl. oz. cartridges, 24/case
- 20 fl. oz. sausages, 20/case



Typical Technical Properties of Sika Sealants

	<i>Sikaflex 1a</i>	<i>Sikaflex 15LM</i>	<i>Sikaflex 1CSL</i>	<i>Sikaflex 2c NS/SL</i>
Service Range	-40° to 170° F	-40° to 170° F	-40° to 170° F	-40° to 170° F
Tack-Free Time	4 hrs	6-8 hrs	1-2 hrs	6-8 hrs
Final Cure	4-7 days	7-10 days	3-5 days	3 days
Elongation	500%	700%	700%	650%
Tensile Strength	200 psi	125 psi	550 psi	175 psi
Hardness, Shore A	40±5	20±5	45±5	25±5/40±5
Adhesion in Peel Bond Strength (Unprimed Concrete)	20 lb	30 lb	30 lb	25 lb/30 lb
Joint Movement Capability	+25% -25%	+100% -50%	+25% -25%	+50% -50%
Colors	Seven standard colors, Special colors available upon request	Fourteen standard colors, Special colors available upon request	Concrete Grey	40 standard. Pre-pigmented limestone. Over 320 special colors available upon request.

Sikaflex Sealants

- Will not revert
- Consistent quality
- Fast tack-free time
- Fast strength build-up
- Paintable and sandable
- High movement capabilities
- Water immersible
- Wide color selection
- Extremely tear resistant
- High resistance to dirt pick-up
- Pre-tinted base for Sikaflex 2c
- Excellent durability and weather resistance
- Chemical resistance
- Bonds to most substrates without the use of primers

Sealants



Sikaflex® Sealant/Adhesive Primers

260/205, 429/202, 449/203

- Description:** Sikaflex primers are special materials formulated to improve the bond of Sikaflex urethane sealants when applied to specific substrates.
- Sikaflex Primer 260/205:** Sikaflex Primer 260/205 promotes adhesion of urethane sealants to various metallic, non-metallic and plastic substrates.
- Sikaflex Primer 429/202:** Sikaflex Primer 429/202 promotes adhesion to clean, sound and dry concrete, masonry, Exterior Insulation Finish Systems (EIFS) and wood – including teak and mahogany.
- Sikaflex Primer 260/205:** Sikaflex Primer 449/203 is used to promote adhesion to pvc, solvent-based enamel, PPG's fluorocarbon Duranar-finish and certain plastics such as ABS and Plexiglass.
- Where to Use:** Most substrates require a primer only if testing shows need for it or where the sealant will be underwater after cure. Certain substrates do require a primer under all conditions.
- Advantages:**
- Single-component, ready to use
 - Easily applied by brush, dauber or spray
- Coverage:** Following are average coverages, depending on porosity of substrate:
- | Sikaflex Primer | Cover per pint linear ft. 1/2 x 1/2 in. joint |
|-----------------|---|
| 260/205 | 300-500 |
| 429/202 | 300 |
| 449/203 | 300-500 |
- Packaging:** **Sikaflex 260/205 and 449/203** primers are available in pints, 6/carton. **Sikaflex 429/202** primer is available in pints, 6/carton; and gallons, 4/carton.



Model 632-C

6/case, 38 lbs.
32 oz bulk capacity
Accepts 1/4 gallon cartridge
OV-25 oval nozzle included

10:1 Thrust Ratio Converts to 15:1 Thrust Ratio



Model 535-XSP

6/case, 34 lbs.
30 ml x 300 ml side by side epoxy applicator.

26:1 X-tra Super Power



Model 250

1/10 gallon – 6/case, 13 lbs.
Super Smooth Rod
18:1 Thrust Ratio

- Revolving barrel
- Zinc alloy handle & trigger
- Ladder hook
- Thumb release
- Built-in spout cutter
- Seal puncture tool
- All steel welded construction

• U.S. Patent 5,815,925 • 6,176,398



Model 255

1/4 gallon – 6/case, 18 lbs.
Super Smooth Rod
18:1 Thrust Ratio

- Revolving barrel
- Zinc alloy handle & trigger
- Ladder hook
- Thumb release
- Built-in spout cutter
- Seal puncture tool
- All steel welded construction

• U.S. Patent 5,815,925 • 6,176,398



Sealants



PECORA CORPORATION

Sealant Guide

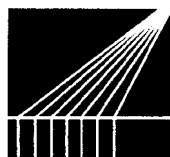
SEALANT	MAXIMUM MOVEMENT CAPABILITY Extension/Compression	PRACTICAL JOINT DESIGN #Times Expected Movement	JOINT REQUIREMENTS Width-Minimum/Maximum Depth-Minimum/Maximum	PRIMERS When Required Masonry* Anodized Aluminum*	SERVICE TEMPERATURE RANGE °F	STOCK COLORS	PACKAGING	BACKER RODS Denver Foam Polyurethane (DF) Polyethylene (PE)	ASTM and FEDERAL SPECIFICATIONS
NR-200 Urethane Two-Part Urethane Type I	25% 25%	4	1/4-N.A. 1/4-1/2	P-200 P-100	-20 to +180	12 39 515	1-12/ gal. 3 gal.	PE	ASTM C-920 TT-S-227E D-1850
NR-201 Urethane One-Part Urethane Type I	25% 25%	4	1/4-1 1/4-1/2	P-75 N.R.	-20 to +180	39 515	30 oz. ctg. 2 gal. 5 gal.	PE	TT-S-230C ASTM C-920 ASTM D-1850
Dynatrol II (UL) Two-Part Urethane Type II	50% 50%	4	1/4-2 1/4-1/2	P-150 P-75 P-120	-20 to +180	Standards and Color Flex	1-1/2 gal.	PE DF	TT-S-227E ASTM C-920 ASTM D-1850
Dynatrol I One-Part Urethane Type II	25% 25%	4	1/4-1-1/4 1/4-3/8	P-75 P-120	-20 to +180	12, 515, 39 595, 516	10.3 oz. ctg. 2 gal.	DF	TT-S-230C ASTM C-920
Dynatred (UL) Two-Part Urethane Traffic Grade, Type II	25% 25%	4	1/4-2 1/4-1/2	P-150 P-75 P-120	-20 to +180	Standards and Color Flex	1-1/2 gal.	PE	ASTM D-1850 TT-S-00227E ASTM C-920
Dynaflex (UL) Two-Part Urethane Security Sealant, Type II	12-1/2% 12-1/2%	8	1/4-2 1/4-1/2	P-200 P-120	-20 to +180	Standards and Color Flex	1-1/2 gal.	PE DF	TT-S-00227E ASTM C-920
GC-5 Synthacalk Two-Part Polysulfide Type II	25% 25%	4	1/4-2 1/4-1/2	P-53 N.R.	-20 to +180	39, 345 512, 515 516, 545, 595	1-3/4 gal.	PE DF	TT-S-227E ASTM C-920
GC-9 Synthacalk One-Part Polysulfide Type II	16% 16%	6	1/4-1 1/4-1/2	P-75 N.R.	-20 to +180	39, 345 515, 314	10.3 oz. ctg. 2 gal. 5 gal.	DF	TT-S-230C ASTM C-920
860 Silicone Acetoxy, Type II	25% 25%	4	1/8-1 1/8-3/8	N.A. N.R.	-75 to +400	12, 39, 345 515, 610 Translucent	10.3 oz. ctg. 5 gal.	DF	ASTM C-920 TT-S-1543A
863 Silicone High-Modulus Acetoxy, Type II	25% 25%	4	1/8-1 1/8-3/8	N.A. N.R.	-75 to +400	345 and 610 Translucent	10.3 oz. ctg. 5 gal.	DF	TT-S-1543A TT-S-230C 19-GP9, ASTM C-920
864 Silicone (UL) Low-Modulus Neutral Cure, Type II	50% 50%	4	1/8-1 1/8-3/8	P-64 N.R.	-65 to +300	12, 39, 113, 314, 345, 515, 545	10.3 oz. ctg. 2 gal. 5 gal.	DF	TT-S-1543A TT-S-230C 19-GP-9, ASTM C-920
895 Silicone Medium-Modulus Neutral Cure, Type II	50% 50%	4	1/8-1 1/8-3/8	P-64 N.R.	-65 to +300	12, 314, 345, 515, and 610 Translucent	10.3 oz. ctg. 2 gal. 5 gal.	DF	TT-S-1543A TT-S-230C 19-GP-9, ASTM C-920
60+ Unicrylic One-Part Acrylic Type II	7.5% 7.5%	12	1/4-1 1/4-1/2	N.R. N.R.	0 to +180	314, 515, 39, 345, 403, 512	10.3 oz. ctg.	PE DF	TT-S-230 19-GP-9
AC-20 + Silicone One-Part Acrylic Latex Type II	7.5% 7.5%	12	1/4-3/4 1/4-3/8	N.R. N.R.	0 to +180	See AC-20 Color Card	10.5 oz. ctg. 30 oz. ctg. 5 gal.	PE DF	ASTM C834-91

TYPE I = Self-Leveling
TYPE II = Non-Sag

N.A. = Not Applicable
N.R. = Not Required

NOTE: Ideally, depth should be 1/2 the width without exceeding Min./Max. limits.
*For other substrates, refer to Technical Bulletin #51 or consult Technical Service department.

Sealants



METZGER/McGUIRE

Industry Standard Industrial Concrete Floor Joint Fillers & Repair Products

MM-80

**The Industry Standard
“Heavy-Duty” Semi-Rigid
Epoxy Joint Filler**

MM-80 is a two-component, 100% solids content epoxy joint filler. When cured, MM-80 is a gray, semi-rigid (hard but slightly resilient) filler with a shore hardness of A90-95 and D50-55.

MM-80 is designed for use in areas where final temperatures are from 40°F to -30°F.

Spal-Pro RSF

**Heavy-Duty, Rapid Set
Freezer/Cooler Polyurea
Joint Filler**

Spal-Pro RSF is a rapid setting, two-component polyurea polymer liquid of 100% solids content. When cured, Spal-Pro RSF is a medium gray, rubberlike solid with a hardness of Shore A88-94, depending on temperature.

Spal-Pro RSF is designed for use in areas where final temperatures are from 45°F to -30°F.

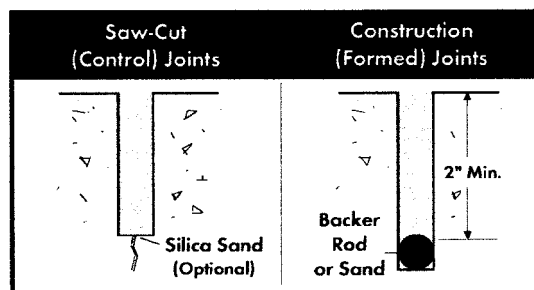
Coverage Rates

Joint Size (US)	LF/Gal.
1/8" x 1"	150
1/8" x 1-1/4"	120
1/8" x 1-1/2"	100
1/8" x 1-3/4"	85
1/8" x 2"	75
3/16" x 3/4"	135
3/16" x 1"	100
3/16" x 1-1/4"	85
3/16" x 1-1/2"	70
3/16" x 1-3/4"	60
3/16" x 2"	50
1/4" x 1"	80
1/4" x 1-1/4"	60
1/4" x 1-1/2"	50
1/4" x 1-3/4"	45
1/4" x 2"	40
1/2" x 1"	40

Installation Depth

Both the American Concrete Institute (ACI) and Portland Cement Association (PCA) standards call for semi-rigid industrial floor joint fillers to be installed full joint depth in saw-cut control joints or 2" minimum in joints deeper than 2".

Example: In a typical 6" slab on grade, the control joints are cut 1-1/2" deep and the construction (cold) joints would be 6" deep. The filler would be installed 1-1/2" in control joints and 2" in thru-slab construction joints.



Spec Joint CJ

Spec Joint CJ is a 100% solids, two-component, semi-rigid epoxy joint filler specially designed to reduce spall-back and help support the joint edges of industrial concrete floors.

Spec Joint CJ complied with ACI 302 guidelines.

- Pourable gray consistency. Available in colors.
- Moisture Insensitive
- Shore A Hardness of 75-85
- Available in 2 and 10 gallon units

CM2000

CM 2000 is an ultra low viscosity, two-component, rapid cure and chemical resistant material for the repair of hairline cracks or deteriorated and spalled concrete.

CM2000 can be installed in temperatures as low as -40°F.

- Open to traffic in 15 minutes
- Chemical resistant
- Shore D Hardness of 71 +/- 5
- 300ml x 300ml cartridges
- Available in 2 and 10 gallon units

JointFill

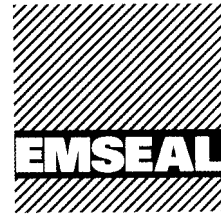
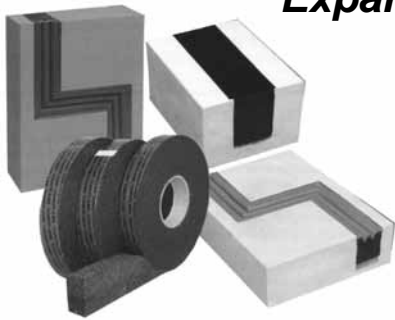
JointFill is a 100% solids, two-component, self-leveling aromatic polyurea joint filler having good flexibility and elongation, allowing 10 to 15% joint width movement.

JointFill can be installed in temperatures as low as 15°F.

- Pourable gray consistency. Available in colors.
- Shore A Hardness of 75-80
- 300ml x 300ml cartridges
- Available in 2 and 10 gallon units

Sealants

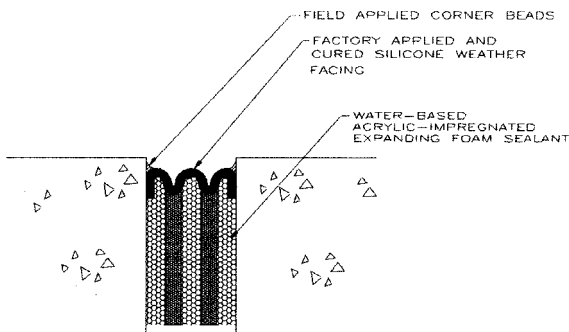
Expanding Foam Sealants



Colorseal

Use as primary seal in vertical joints of building facades, soffits, precast, brick and metal.

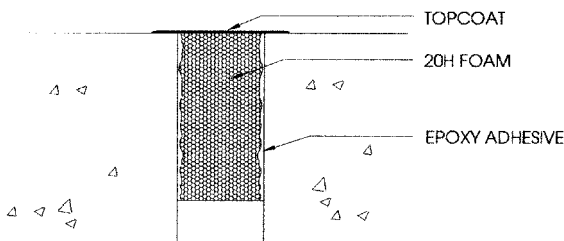
Sealing new and retrofit joints in EIFS systems. Factory applied low modulus silicone facing. Joint movement of +25%, -25% (50% total). Available in 11 colors.



20H System

Use as a watertight seal in joints of roadways, below-grade foundation walls and tunnels.

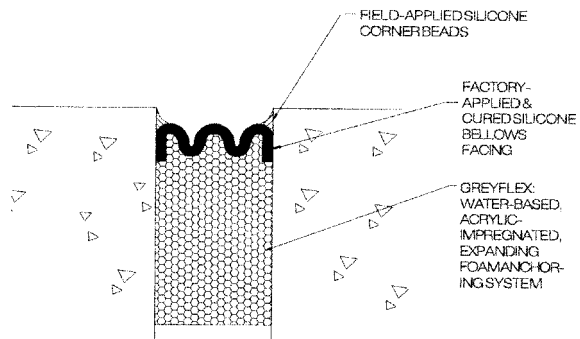
Joint movement of +25%, -25% (50% total). Black.



Seismic Colorseal

Use as primary seal in vertical joints of building facades, soffits, precast, brick and metal.

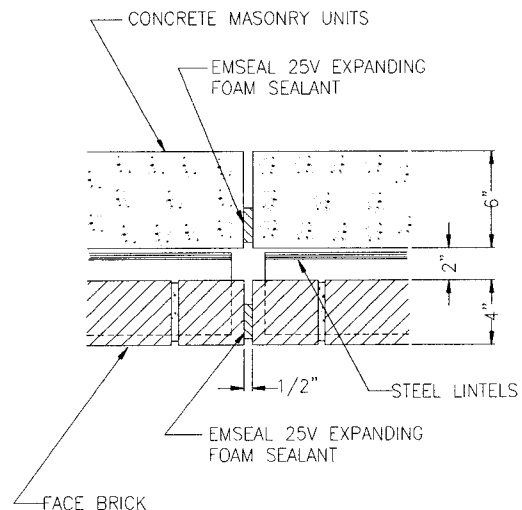
Factory applied low modulus silicone facing. Joint movement of +50%, -50% (100% total). Available in 11 colors.



25V

Use as primary seal in vertical joints of concrete, precast, brick and block.

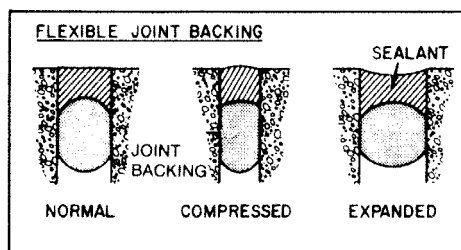
Joint movement of +25%, -25% (50% total). Black.



Sealants

Backer Rods – Basic Use

- Control sealant depth
- Provide backstop to allow sealant tooling
- Ensure sealant adhesion to joint surfaces only
- Develop proper shape factor



Soft-Type Backer Rod

Pliable, non-gassing, polyolefin foam.

Available Sizes & Quantities

Rod Dia.	Feet/Carton	Rod Dia.	Feet/Carton
3/8"	2100	1-1/2"	420
5/8"	1550	2"	240
7/8"	850	2-1/2"	156
1-1/8"	500	3"	102
		4"	48

Standard Backer Rod

Closed cell polyethylene foam.

Available Sizes & Quantities

Rod Dia.	Feet/Carton	Rod Dia.	Feet/Carton
1/4"	4000 (2 spools)	1-1/2"	4000 (2 spools)
3/8"	2100 (2 spools)	2"	2100 (2 spools)
1/2"	2500 (2 spools)	2-1/2"	2500 (2 spools)
5/8"	1550 (2 spools)	3"	1550 (2 spools)
3/4"	1100 (2 spools)	4"	1100 (2 spools)
7/8"	850	5"	850
1"	600	6"	600
1-1/4"	400	Over 1-1/2" dia. in 6' lengths	

Denver Foam®

Denver Foam® is a round, labor-saving, continuous-length, compressible open-cell polyurethane foam used primarily as a "non-gassing" backer rod in caulking and sealant applications such as expansion joints.

Denver Foam Backer Rod

Open cell polyurethane foam

Available Sizes & Quantities

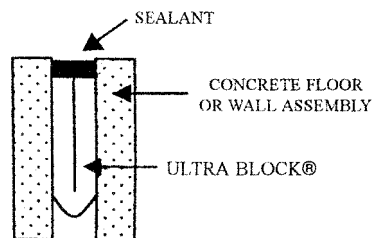
Rod Dia.	Feet/Mini Bag	Feet/Master Bag
3/8"	200	3600
5/8"	100	2000
7/8"	100	1050
1-1/8"	75	600
1-1/2"	40	350
2"	25	200

Hot & Cold Sealant Use -60°F to 500°F.



Ultra Block®

Mechanical expansion and construction joint fire stopping system: 2-Hour, 3-Hour and 4-Hour fire rated. Ultra Block® is a pre-engineered, patented, flexible textile fiberglass roll material with a fiberglass matt facing, containing approximately 30% by weight unexpanded vermiculite.



Water Repellents

PROSOCO

SINCE 1939



Siloxane PD Long-Lasting, Prediluted Water Repellent

Sure Klean® Weather Seal Siloxane PD (prediluted) is a ready-to-use water-based silane/siloxane water repellent for concrete, GFRC and most masonry and stucco surfaces. Siloxane PD will not impair the natural breathing characteristics of treated surfaces. It helps masonry resist cracking, spalling, staining and other damage related to water intrusion. Low odor and alkaline stable, Siloxane PD is ideal for field and in-plant application.

Advantages

- Penetrates deeply for long-lasting protection on vertical or horizontal surfaces.
- Service life is estimated at more than 10 years.
- Treated surfaces “breathe” – does not trap moisture.
- Water-based formula minimizes explosion and fire hazards compared to solvent-based water repellents.
- Easy cleanup with Enviro Klean® 2010 All Surface Cleaner.
- Low odor for safer application to occupied buildings.
- Alkaline stable – suitable for new “green” concrete.
- Ready-to-use product. No on-site dilution required.
- Complies with all known national, state and district AIM VOC regulations.

Siloxane PD Coverages

Concrete 150 to 200 sq. ft./gal.
Brick 100 to 175 sq. ft./gal.

Weather Seal GP General Purpose Water Repellent

Weather Seal GP is an economical, ready-to-use water-based silane/siloxane water repellent for concrete, stucco and most masonry surfaces. Weather Seal GP helps masonry resist cracking, spalling, staining and other damage related to water intrusion. Low odor and alkaline stable, Weather Seal GP is ideal for many field applications.

Advantages

- Penetrates deeply for long-lasting protection on vertical or horizontal surfaces.
- Service life is estimated at 3 to 5 years.
- Water-based formula minimizes explosion and fire hazards of alcohol- or solvent-based water repellents.
- Easy cleanup with Enviro Klean® 2010 All Surface Cleaner.
- Alkaline stable – suitable for new “green” concrete.
- Low odor for safer application to occupied buildings.
- Treated surfaces “breathe” – does not trap moisture.
- Complies with all known national, state and district AIM VOC regulations.

Weather Seal GP Coverages

Concrete 100 to 175 sq. ft./gal.
Brick 100 to 200 sq. ft./gal.

Siloxane WB Concentrate Long-Lasting, High-Performance Water Repellent

Sure Klean® Weather Seal Siloxane WB Concentrate is a concentrated water repellent designed for dilution with fresh water at the job site. This solvent-free blend of silanes and oligomeric alkoxy siloxanes mixes easily with water to produce a penetrating water repellent ideal for application to dense or porous masonry surfaces.

An effective alternative to conventional solvent-based silanes or siloxanes, Siloxane WB penetrates and chemically bonds deep within the masonry substrate to provide long-lasting protection against water-related staining or deterioration. Will not darken, produce a surface film or impair the natural breathing characteristics of treated surfaces.

Advantages

- Treated surfaces “breathe” – does not trap moisture.
- Concentrate – minimizes storage, transport and container disposal requirements.
- Mix with up to 19 parts fresh water. One gallon concentrate treats up to 4000 sq. ft. Consult coverage rates.
- Alkaline stable – suitable for new concrete.
- Penetrates deeply – effective on vertical or horizontal surfaces.
- Ideal for field or in-plant treatment of precast concrete or GFRC.
- Complies with all known national, state and district AIM VOC regulations.

Limitations

- Product must be applied within 24 hours of dilution for maximum effectiveness.
- Will not prevent water penetration through structural cracks, defects or open joints.

Dilution Ratios

Vertical Surfaces

Porous	1 part concentrate : 9 parts water
Semiporous	1 part concentrate : 14 parts water
Dense	1 part concentrate : 19 parts water

Horizontal Surfaces

Porous	1 part concentrate : 7 parts water
Semiporous	1 part concentrate : 9 parts water
Dense	1 part concentrate : 14 parts water

Siloxane WB Coverages

Smooth Block 30 to 100 sq. ft./gal.
Split Face Block 30 to 85 sq. ft./gal.
Concrete 125 to 250 sq. ft./gal.
Brick 100 to 250 sq. ft./gal.

PROSOCO

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Saltguard® WB Deep-Penetrating Water & Salt Barrier

Consolideck® Saltguard® WB is a ready-to-use water-based, VOC compliant silane/siloxane water repellent and “chloride screen” for the protection of concrete and masonry surfaces. Saltguard® WB penetrates more deeply than conventional water- or solvent-based water repellents. Low odor and alkaline stable, Saltguard® WB is ideal for field or in-plant application to concrete and most masonry surfaces. Saltguard® WB protects horizontal and vertical surfaces from moisture intrusion and chemical attack of chloride salts.

In coastal areas, Saltguard® WB protects against salt air by screening chlorides from penetrating through concrete to the reinforcing steel. Saltguard® WB reduces rebar corrosion and surface spalling caused by water-carried salts. Use Saltguard® WB on horizontal surfaces such as driveways, sidewalks, tie or brick pavers. Provides excellent protection for retaining walls, bridge pilings and other vertical areas exposed to deicing salts.

Saltguard® WB is a ready-to-use effective alternative to conventional solvent-based silanes and siloxanes. Saltguard® WB penetrates and chemically bonds deep within the concrete or masonry substrate to provide long-lasting protection against moisture intrusion and water-related staining or deterioration. Properly applied, Saltguard® WB produces no surface film. Treated surfaces keep their natural breathing characteristics and natural appearance.

Advantages

- Penetrates to produce long-lasting protection on vertical or horizontal surfaces.
- Water-based formula minimizes explosion and fire hazards associated with alcohol- or solvent-based water repellents.
- Easy soap-and-water cleanup from window glass, window frames and application equipment.
- Low odor reduces risk of application to occupied buildings.
- Alkaline stable – suitable for new “green” concrete 14 to 28 days old.
- Treated surfaces “breathe” – does not trap moisture.
- Effective protection against deicing salts and salt air.
- Complies with all known national, state and district AIM VOC regulations.

Salt Guard WB Coverages

Smooth Block	30 to 100 sq. ft./gal.
Concrete	150 to 300 sq. ft./gal.
Brick	100 to 175 sq. ft./gal.

Graffiti Wipe Multi-Surface Graffiti Remover

Defacer Eraser® Graffiti Wipe is an easy-to-use graffiti remover that does not contain methanol, methylene chloride or other halogenated solvents prohibited on many projects. Graffiti Wipe removes a variety of graffiti stains from most smooth masonry, split-faced concrete block, wood and metal surfaces.

Advantages

- Removes spray-painted graffiti from a huge variety of masonry and nonmasonry surfaces.
- Wipes graffiti off many surfaces with just a towel.
- Rinses easily with cold or hot water.
- Excellent chemical assist for cold-water removal of Defacer Eraser® Sacrificial Coating SC-1.
- Contains active citrus fruit extracts.

Sacrificial Coating SC-1 Removable Anti-Graffiti Shield

Defacer Eraser® Sacrificial Coating SC-1 is a clear, water-based sacrificial coating for control of graffiti on most building surfaces. SC-1 acts as a graffiti barrier, preventing spray paints, crayons and ink from penetrating and staining the underlying surface. Graffiti is removed from protected surfaces by high-pressure hot water, Defacer Eraser® Graffiti Wipe or Sure Klean® Fast Acting Stripper. The coating must then be reapplied to restore the graffiti barrier.

SC-1 allows cost-effective control of chronic graffiti without chemical strippers or abrasives that can damage building surfaces or the surrounding environment. It allows protection of limited areas and spot reapplication without a noticeable change in overall color or appearance. The coating is formulated as a water-thin liquid for spray application to porous and textured surfaces.

SC-1 complies with all known regulations limiting Volatile Organic Compound (VOC) content.

Advantages

- Allows quick removal of tough graffiti stains from porous and dense surfaces.
- Multi-purpose – suitable for masonry, wood, metal and most painted and synthetic surfaces.
- Does not darken or alter natural color.
- Allows same-day reapplication.
- Good UV stability to provide minimum five years exterior performance.
- Protected areas “breathe” – protects without heavy buildup.
- Very little color change – no shine or gloss.
- Complies with all known national, state and district AIM VOC regulations.

Limitations

- Abrasion will damage coating.
- Graffiti resistance may be reduced by maintenance cleaning. Reapply sacrificial coating to restore graffiti resistance.
- Not suitable for horizontal surfaces.
- May blush on certain substrates. ALWAYS TEST.

Sacrificial Coating SC-1 Coverages

Smooth Block	75 to 125 sq. ft./gal.
Concrete	100 to 200 sq. ft./gal.
Brick	125 to 250 sq. ft./gal.

Water Repellents

PROSOCO

SINCE 1939



SL100 Water Repellent “Neat” Silane Water Repellent for Masonry & Concrete

Sure Klean® Weather Seal SL100 water repellent complies with all known regulations limiting Volatile Organic Compound (VOC) content of architectural coatings and sealers.

SL100 is a modified, “neat” silane system that offers invisible protection and low volatility. SL100 protects horizontal and vertical concrete and masonry surfaces against water and water-borne contaminants. The small molecular structure of SL100 ensures maximum penetration and colorless protection of dense, color-sensitive surfaces. Ideal for GFRC, integrally colored precast concrete and many types of natural stone.

The absence of a solvent carrier enables applicators to achieve up to 5 times the coverage rate normally achieved with solvent-reduced protective treatments. Depth of penetration is controlled by the application rate (loading rate).

Advantages

- Excellent surface beading/stain resistance when compared with conventional “neat” silane systems.
- Long-lasting protection.
- Does not form a film or gloss.
- Treated surfaces “breathe” – does not trap moisture.
- Forms an effective chloride screen that reduces surface erosion and corrosion of rebar in reinforced concrete caused by water and water-carried salts.
- Complies with all known national, state and district AIM VOC regulations.

SL100 Water Repellent Coverages

Concrete	150 to 400 sq. ft./gal.
Brick	200 to 500 sq. ft./gal.

SLX100 Water & Oil Repellent Deep Penetrating Water, Oil & Stain Blocker

Stand Off® SLX100 Water & Oil Repellent complies with all known regulations limiting the Volatile Organic Compound (VOC) content of architectural coatings and sealers.

Stand Off® SLX100 Water & Oil Repellent combines water and oil repellency on most substrates to prevent staining by water-borne and oily substances. This modified “neat” silane system offers invisible protection and low volatility.

The small molecular structure of SLX100 allows for maximum penetration at coverage rates high than that of conventional silanes. Depth of penetration is controlled by the application rate (loading rate). This makes SLX100 ideal for protecting granite and other dense, color-sensitive surfaces. Additionally, SLX100 forms an effective chloride screen that reduces surface erosion and corrosion of rebar in reinforced concrete caused by water and water-carried salts.

Advantage

- Normally won't create color change, even on dense surfaces.
- Provides long-lasting protection.
- Does not form a surface film or gloss.
- Treated surfaces “breathe” – does not trap moisture.
- Coverage rate higher than typical water repellents or other stain resistant impregnators.
- Resists oil and food stains.
- Excellent surface beading when compared with conventional “neat” silanes.
- Complies with all known national, state and district AIM VOC regulations.

SLX100 Water & Oil Repellent Coverages

Concrete	150 to 400 sq. ft./gal.
Brick	200 to 500 sq. ft./gal.

Custom Masonry Sealer Concrete, Masonry & Cast Stone Weatherproofer

Sure Klean® Custom Masonry Sealer is a clear, solvent-based silicone elastomer formulated to weather proof custom masonry units, cast stone, architectural concrete block, precast concrete, wood and porous masonry. Custom Masonry Sealer penetrates and fills pores to prevent water penetration through exterior walls exposed to normal weathering.

Custom Masonry Sealer has excellent UV stability and provides long-lasting protection against water penetration and many types of graffiti. Easy to apply with low-pressure spray, brush or roller.

Advantages

- Controls rainwater penetration through exterior masonry and concrete walls.
- Low odor.
- Treated surfaces resist penetration of many types of graffiti.
- Simplifies graffiti removal.
- Helps control efflorescence, mildew and other moisture-related stains.
- Treated surfaces exhibit excellent surface beading and withstand exposure to sunlight and extreme temperatures.
- Treated surfaces “breathe” – does not trap moisture.

Limitations

- May not be compatible with previously applied surface treatments.
- Not for use on horizontal, traffic bearing surfaces.
- Not suitable for extremely dense or polished surfaces.
- Not suitable for asphaltic surfaces.
- Not recommended for below-grade applications.
- Will not prevent water penetration through structural cracks, defects or open joints.

Custom Masonry Sealer Coverages

Smooth Block	30 to 100 sq. ft./gal.
Concrete	75 to 175 sq. ft./gal.
Brick	75 to 125 sq. ft./gal.

Water Repellents



Price Research, Ltd.

Price Siloxane – 6.7

- Product Description:** An alkyl-group alkoxy siloxane deep penetrating water repellent. It is designed for above grade masonry, concrete, stucco and sandstone surfaces. (Breathable)
- Basic Use:** Price Siloxane - 6.7 is alkyl-group alkoxy siloxane. This formula reacts chemically with silica in the substrate forming a hydrophobic reaction. It provides excellent protection against acid rain, alkali, efflorescence, mildew and of course, moisture intrusion. Although this product will not allow moisture intrusion, it does provide excellent vapor transmission guarding against freeze-thaw, spalling, etc.
- Coverage Rate:**
- | | |
|----------|--|
| Brick | 150 to 200 sq. ft./gal depending on porosity |
| Concrete | 200 to 250 sq. ft./gal depending on texture |

Price Graffiti Coating – WB Water Base Protective Coating Against Paint Defacement

- Product Description:** Price Graffiti Coating-WB is specially designed to protect masonry surfaces against graffiti defacement and easy removal. This system works well on brick, concrete and stone masonry to protect against graffiti markings.
- Composition & Materials:** Price Graffiti Coating-WB is composed of high molecular copolymer of vinyl acrylate in the aqueous solution.
- Coverage Rate:** Exact coverage will depend upon the porosity of the surface and density.
- | | |
|-------------------------|------------------------|
| Concrete (broom finish) | 100 sq. ft./gal |
| Concrete (smooth) | 125 to 175 sq. ft./gal |
| Concrete block | 75 sq. ft./gal |

Price Salt-Sentry™

- Product Description:** Price Salt-Sentry™ is a deep penetrating liquid sealer designed to protect concrete surfaces.
- Basic Use:**
- Specially designed to protect concrete surfaces, decks, pavements, parking structures, ramps, bridges, marine platforms, etc.
 - Protects against corrosive, adverse effects of de-icing salts (chloride screen) moisture, weathering, spalling and scaling of concrete structures.
 - Excellent for brick masonry and many types of stone masonry.
- Composition & Materials:** Price Salt-Sentry™ is composed of organofunctional silane and organofunctional siloxane in suitable petroleum hydrocarbon.
- Coverage Rate:** Exact coverage will depend upon the porosity of the surface and density.
- | | |
|-------------------------|------------------------|
| Concrete (broom finish) | 100 sq. ft./gal |
| Concrete (smooth) | 125 to 175 sq. ft./gal |
| Concrete block | 150 to 200 sq. ft./gal |

Water Repellents



Regular® Clear Water Repellent

Regular with MICRO-LOK Clear Water Repellent is a water-based, modified polysilane repellent composed of high quality active ingredients blended to create a clear, deep penetrating and non-film forming chemically reactive water repellent that contains no silicone oils, paraffin wax or urethanes.

Features & Benefits

- Exclusive MICRO-LOK formulation
- VOC Compliant
- 1 Coat application
- Not effected by weathering or UV light
- Breathable

Coverages (actual may vary)

Porous (Block) 45 to 75 sq. ft./gal
Dense (Concrete) 125 to 150 sq. ft./gal

BLOK-LOK CONCENTRATE

Allows jobsite mixing for different substrates.

Dilution Rates

Porous surfaces mix 1 gal with 10 gal water
Dense surfaces mix 1 gal with 14 gal water

Color-Lok® Masonry Stain

COLOR-LOK Masonry Stain is a premium quality, modified acrylic stain for use on exterior and interior masonry surfaces.

A first coat application of Rainguard Water Repellent is recommended to enhance the long-term performance of COLOR-LOK Masonry Stain.

Features & Benefits

- Tough and durable penetrating stain
- Resists fading and chalking
- Available factory tinted
- Does not alter surface textures
- Dries to a flat finish

Coverages (actual may vary)

Porous (Block) 125 to 175 sq. ft./gal
Dense (Concrete) 150 to 200 sq. ft./gal



VandlTop® Sacrificial Graffiti Coating

VANDL TOP Sacrificial Anti-Graffiti Coating is a water based emulsion that dries to a clear and non-yellowing matte finish that provides a temporary or sacrificial protective shield against graffiti damage caused by most spray paints and markers.

A first coat application of Rainguard Water Repellent is recommended to enhance the long-term performance of VANDL TOP Sacrificial Anti-Graffiti Coating.

Features & Benefits

- Graffiti removal with low pressure hot water
- Dries clear, non-yellowing
- VOC complaint
- Water base

Coverages (actual may vary)

Porous (Block) 3 coats 225 to 275 sq. ft./gal
Dense (Concrete) 2 coats 300 to 350 sq. ft./gal

VandlGuard® Non-Sacrificial Graffiti Coating

VANDL GUARD Permanent Anti-Graffiti Coating is a tough and durable, graffiti resistant, cross linking copolymer material coating that dries clear (non-yellowing) with a low luster sheen. Protects a variety of interior and exterior vertical surfaces from permanent graffiti staining and damage caused by most spray paints and marking pens.

A first coat application of Rainguard Water Repellent is recommended to enhance the long-term performance of VANDL GUARD Permanent Anti-Graffiti Coating.

Features & Benefits

- Unlimited graffiti removal
- Dries clear, non-yellowing
- VOC compliant
- Water base

Coverage (actual may vary)

Porous (Block) 3 coats 225 to 275 sq. ft./gal
Dense (Concrete) 2 coats 300 to 350 sq. ft./gal

Water Repellents



Sikagard® 701W Solvent-Free Siloxane Emulsion Concentrate

Description: Sikagard 701W is a solvent-free concentrate of silane modified siloxane emulsion. When diluted, the liquid forms a water and chloride-ion repellent impregnation specifically formulated to seal absorbent cementitious surfaces and other masonry substrates.

Where to Use:

- When diluted use Sikagard 701W as a colorless, non-vapor-barrier, water and chloride-ion repellent impregnation for absorbent materials.
- Treat concrete bridges, roadways, runways, parapet walls, precast, beams, columns, curbing, retaining walls, pavers, etc.
- Treat both new and existing structures
- Treat masonry brickwork, stucco, etc.
- Porous architectural curtain-wall panels
- Use on steel-reinforced structures to reduce the corrosion and latent damage potential of chlorides

Mix Ratio: 1 gal: 4 gal tap water yields 5 gals of sealer

Coverage: 100 to 250 sq. ft./gal, (diluted concentrate) depending on porosity of substrate. For proven results against chloride-ion intrusion, 125 sq. ft./gal is recommended.

Packaging: 5 gal. pail.

SikaPronto® 19 Easy-to-use, High Molecular Weight Methacrylate, Crack Healer/Penetrating Sealer

Description: SikaPronto 19 is a 2-component, rapid-curing, solvent-free, high molecular weight methacrylate, crack healer/penetrating sealer.

Where to Use: Use on grade, above and below grade on concrete and mortar. SikaPronto 19 seals surface of concrete from water and chlorides. For horizontal decks, slabs, patios, driveways, parking garages and other substrates exposed to foot and pneumatic-tire traffic.

Coverage: Typical coverage is 90 to 150 sq. ft./gal for crack healing and surface sealing. Coverage varies with porosity and surface profile of substrate. Higher porosity will reduce coverage.

Packaging: 1 gal units (4/ctn) or 4.5 gal. units.

SikaColor Water-Based, 100% Acrylic, Textured Protective Coating

Description: SikaColor is a 100% acrylic, water-based, high-build, textured protective coating. SikaColor protects and waterproofs structures without acting as a vapor barrier and enhances the visual and aesthetic appearance of the structure.

Where to Use:

- Protective, decorative coating for normal and lightweight concrete, mortar, masonry and stucco
- Application on vertical and overhead surfaces
- On buildings or civil engineering structures
- Horizontal surfaces subject to light foot traffic (balconies)

Coverage:

Theoretical per coat Fine:

Yield: 90 sq. ft./gal. Wet film thickness: 18 mils. Dry film thickness: 9 mils.

Theoretical per coat Coarse:

Yield: 70 sq. ft./gal. Wet film thickness: 23 mils. Dry film thickness: 11 mils.

Normal coating system is two coats minimum at a total dry film thickness of 18 mils or 22 mils. All coverage dependent on porosity of substrate. In addition, allowance must be made for surface profile, unavoidable variation in application thickness, loss and waste.

Packaging: 5 gal recloseable plastic pail.

