



BUILDING STRENGTH™

**PAVING PRODUCTS
HANDBOOK**

**CONCRETE
CONSTRUCTION
PRODUCTS**



**DAYTON®
SUPERIOR**



INNOVATION CENTER

REAL-WORLD SOLUTIONS INSPIRED BY YOUR VISION

Your vision is to take concrete construction to new heights. We turn that vision into real-world solutions through precision research and development, testing and technology.

Together we are redefining what is possible in the concrete construction industry. Our Innovation Center is comprised of:

- A state of the art chemical lab
- A full-featured mechanical test facility
- Product demonstration areas
- Contemporary training and meeting areas

Bring us your ideas and we will deliver your solution.

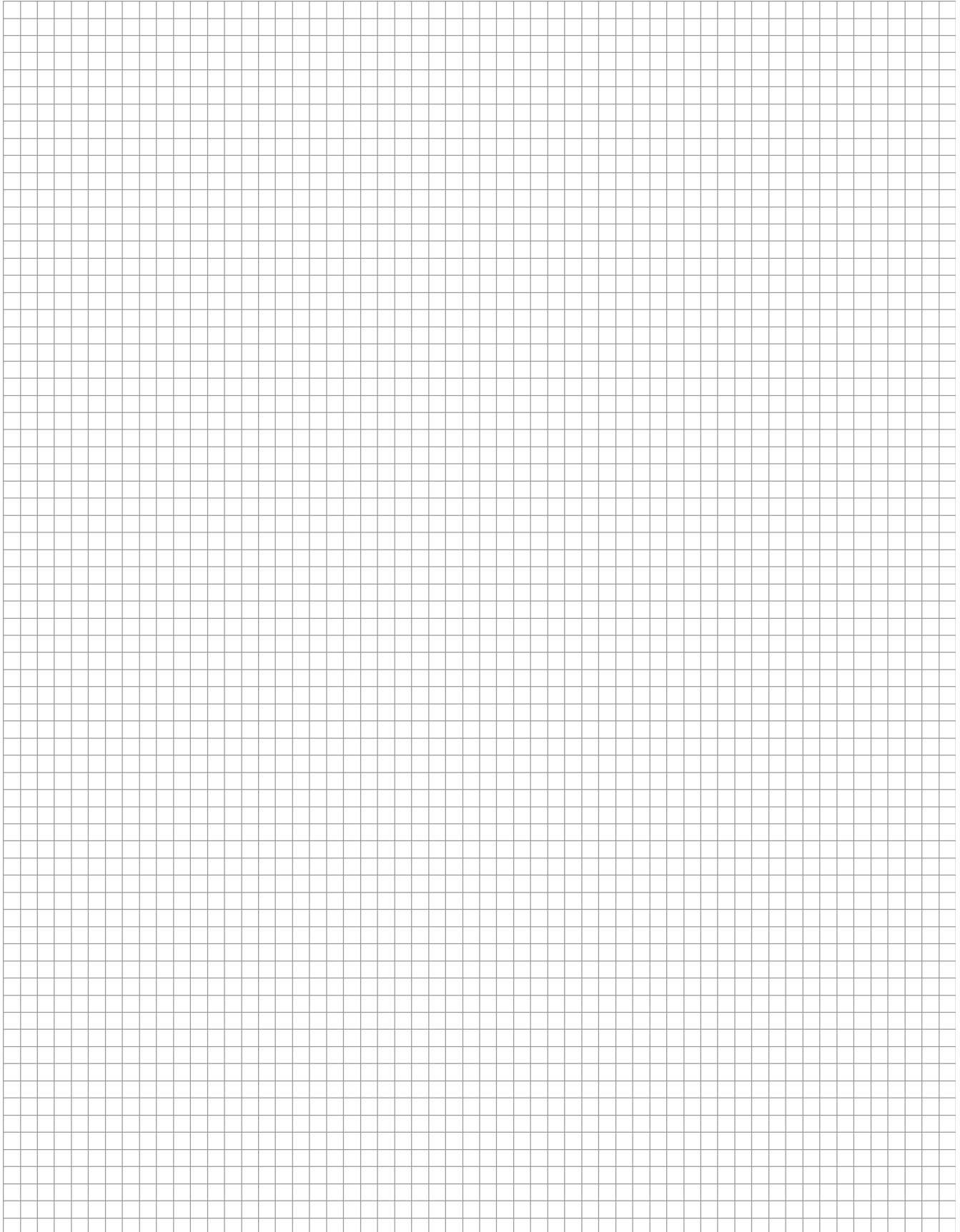
Call today: **888-977-9600**



Perform with Precision™

LOAD TRANSFER PRODUCTS.....	1	BAR SUPPORTS.....	11
Welded Dowel Assemblies.....	1	Transverse Bar Assembly (TBA).....	11
Tie Bar Assembly.....	4	K60 Continuous Mesh Support.....	11
Dowel Bars F38.....	4	Continuous High Chair Upper (CHCU).....	11
Tie Bars K65.....	4	Continuous High Chair (CHC).....	11
PAVING SYSTEMS.....	5	Continuous Support (CS).....	12
Basket Stake K6.....	5	Aztec [®] Plastic Paving Chair (PPC).....	12
FS Stake K18.....	5	PAVING FORMS.....	13
MS Stake K15.....	5	Heavy Duty Paving Forms.....	13
PS Stake K17.....	6	Curb and Gutter Forms.....	13
Channel Stake K19.....	6	2 in 1 Paving Forms.....	13
Round Stake G27.....	6	Paving Form Options.....	13
Mat Stake K21.....	7	Highway Dowel Hole and Keyway Section.....	13
Highway Fiber Expansion Joint™ L84.....	7	Pour-Fast™.....	14
Backer Rod™ L83.....	7	GRAVITY WALL FORMING.....	14
Basket Clips K12.....	8	CHEMICALS.....	15
Dowel Caps K11.....	8	Liquid Surface Treatments.....	15
Grout Retention Ring K13.....	8	Liquid Surface Treatments.....	16
Epoxy Coating.....	8	Cementitious Products.....	16
Snap-On Dowel Chair and Caps K54.....	9	Epoxy Repair Products.....	16
Foam Core Boards.....	9	Joint Sealing Products.....	17
Longitudinal Joint Ties.....	9	Elastomeric Seals.....	18
K30 and K33 Metal Keyway - Center Strip.....	10	INDEX.....	21
K34 and K35 Metal Keyway - Recess Form.....	10		

Please refer to daytonsuperior.com for complete and updated product information.



Welded Dowel Assemblies

Today the modern Portland Cement Concrete pavements found in highways, airports and industrial floor slabs are under ever increasing loads. Increased truck and car traffic, heavier air-planes with more frequent takeoffs and landings, and the new material handling techniques used in industry and distribution all add to a very high level of stress placed on these pavements. The highest level of stress and deflection is found at the joints and it is for that reason that provision must be made to properly transfer load from one slab to the next.

Load transfer is a necessary ingredient of well engineered highway, airport and industrial floor slabs.

It is the mechanism through which wheel loads are conveyed from one slab to the next. If done correctly, proper load transfer will significantly reduce joint distresses such as pumping, faulting, loss of support and corner breaks. (See Figure 1)

One method most commonly used and specified by the engineering community is the steel dowel bar. Arranged in a line at proper intervals and at the midpoint of the pavement thickness, this device can address all of the problems inherent in adequately transferring the load from one pavement section to the next. Knowing the loads and the environment in which the dowel will be asked to perform, the engineer can select the proper diameter, length, spacing and coating which will best suit the situation.

For the dowel to perform, it is critical that it is aligned properly. Prevailing practice for placement of dowel bars is to orient them parallel to the pavement centerline and surface of the pavement within $\pm 1/4"$ (6 mm) per 12" (309 mm) of dowel.

Dayton Superior Paving Products understands that the best way to achieve this alignment is to provide an assembly which will position dowels as described in the previous paragraph. The industry calls this a "welded dowel assembly" and Dayton Superior Paving Products is proud to be the largest manufacturer of this system in the United States. (Figure 2)

Most typically dowel bars are manufactured from billet steel, grade 60 bars in accordance with ASTM A 615 and AASHTO M31, "Standard specification for Deformed and Plain Billet Steel Bars for Concrete Reinforcement". Various diameters, lengths, and spacing can be used depending on the load requirements that need to be met. Drawn wire of various sizes (see Figure 3) are used to fabricate the welded dowel assemblies.

Due to the environment in which the dowel will be placed, the specifier may choose to either use a fusion bonded epoxy coating, a paint or even a plain dowel. Most typically highway construction calls for the epoxy version done in accordance with AASHTO M 254 with the ends of the bars left plain after cutting. Airport pavements use an epoxy coated or painted dowel basket (in compliance with FSTT-P 664D) — this, depending on the environmental conditions and at the engineers discretion. Commercial and industrial slabs are well served by a plain dowel due to the controlled environment in which they exist.

Therefore, it is evident that welded dowel assemblies can have many variations. Paving thickness, dowel size, coating, spacing and other specified characteristics can make choosing a welded dowel assembly a little confusing. The sheet that follows is designed to make the selection process easier and can be photocopied and used as a quote request form. By checking the appropriate boxes and filling in the data where indicated, we will know how to price and fabricate your next welded dowel project.

Dowel baskets must be properly aligned if they are to function correctly. For that reason it is necessary to attach them to the subgrade at a 90 degree angle to the edge of the pavement. Dayton Superior offers several devices for this purpose. Most commonly used is a stake. These come in various diameters and lengths. (See Figure 2A)

Also available are clips which capture the bottom runner of the basket and can be secured with large nails which can be either hand driven or shot from a powder actuated gun. (See Figure 2B)

Once the concrete is placed and is set, sawing can take place across the center line of the basket usually at a depth of $1/4$ of the slab thickness thus allowing the slab to crack and form the necessary contraction joint. Load transfer will then be achieved for many years to come.

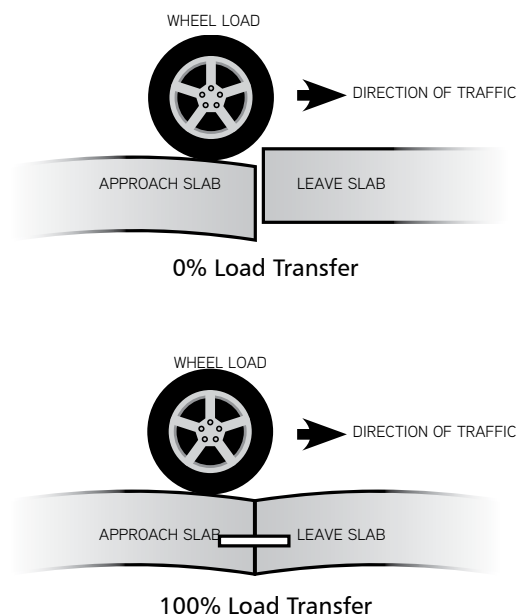
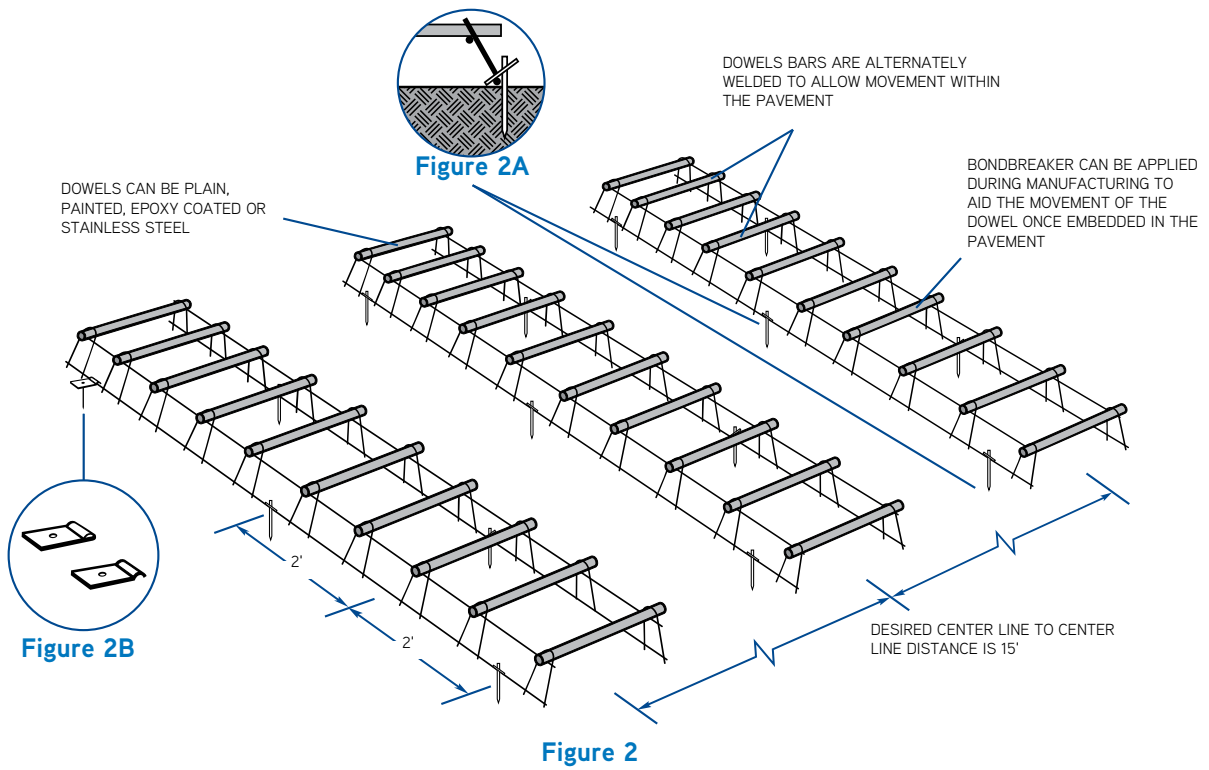
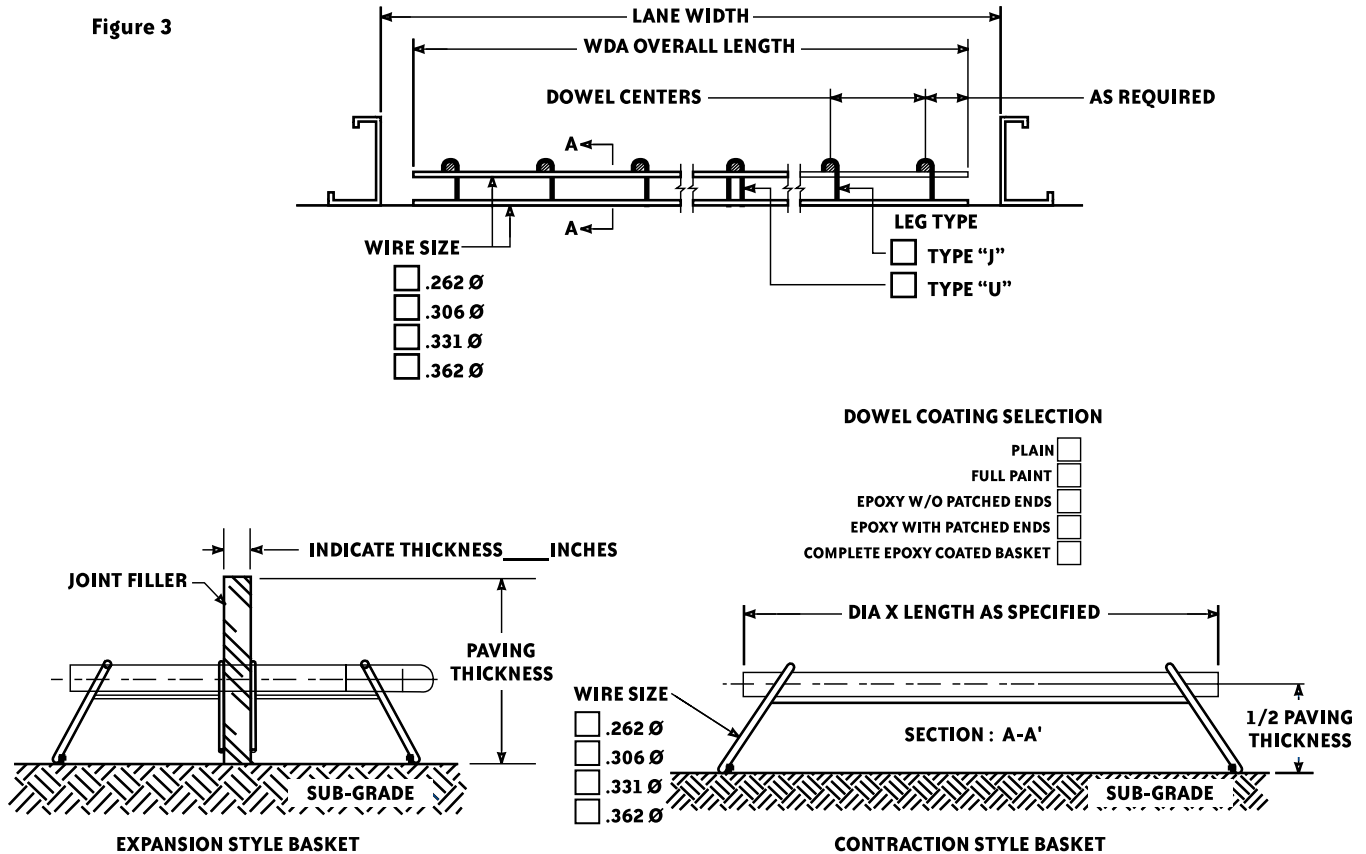


Figure 1



Photocopy this page and fill in the appropriate information for each project. Send to your Dayton Superior Paving Products Dealer or to Dayton Superior.

Figure 3



Pieces or Lineal Feet	Lane Width	Dowel Diameter	Dowel Length	Dowel Centers	Dowels Per Unit	Paving Thickness	Billable Length	Shop Applied Bondbreaker

Billable Length = Number of Dowels x Center

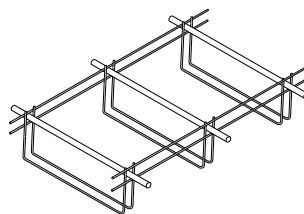
Date _____ Contact Person Requesting Information _____

Company _____ Project Name _____ Location _____

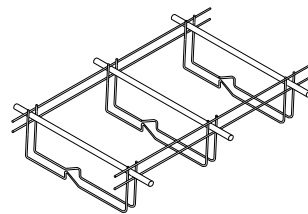
Dayton Superior Corporation
 2150B So. Rte. 45-52, Kankakee, IL 60901
 Toll Free: 877-632-9866 Fax: 800-777-6157
 info@daytonsuperior.com

- Wire Baskets (without Dowels) K4 and K5
- Dowel Baskets without dowels are available for contraction and expansion joints in slabs 4" to 9" thick. These are fabricated for 3/4", 1", or 1 1/4" diameter dowels as required.
- Type "D" Contraction Baskets and K5 Type "D" Expansion Baskets are a standard 10" width.

Note: Dowel Bars, Dowel Caps, Basket Clips, and Basket Stakes are sold separately.



Type "D" Expansion Basket



Type "D" Contraction Basket

K4 Type "D" Contraction Style

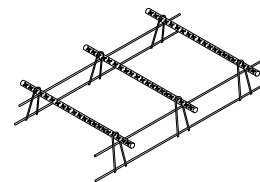
Cat I.D.	Product Code	Description	Weight/Piece
K4	81102	Legs @ 12" Ctrs	.081
K4	81104	Legs @ 15" Ctrs	.075
K4	81106	Legs @ 18" Ctrs	.071
K4	81108	Legs @ 24" Ctrs	.066
K4	80928	Legs @ 30" Ctrs	.063

K5 Type "D" Expansion Style

Cat I.D.	Product Code	Description	Weight/Piece
K5	81112	Legs @ 12" Ctrs	.085
K5	81114	Legs @ 15" Ctrs	.079
K5	81116	Legs @ 18" Ctrs	.075
K5	81118	Legs @ 24" Ctrs	.070
K5	80929	Legs @ 30" Ctrs	.067

Tie Bar Assembly

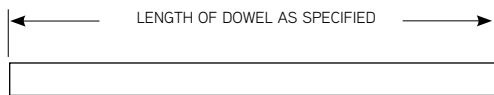
Tie bar assembly is a basket supporting and positioning rebar dowels of various sizes as specified by the owner of the paving. It is commonly used for longitudinal joints in both DOT and commercial applications. Available in plain or epoxy coated. Call for special pricing.



Dowel Bars F38

Dowel bars available in many different diameters and lengths. Specify plain, painted or epoxy. Other options include: patched ends, bond-breaker, fully painted.

DIA. AS
REQUIRED

End
View

Side View

Product Code	Description (Plain) (Dia. & Length)*	Pcs/Pkg	Weight/Piece
D03239	1/2" x 18"	1500	1.00
D03074	5/8" x 18"	1000	1.57
D02143	3/4" x 18"	800	2.25
D03228	1" x 18"	400	4.01
D03253	1 1/4" x 18"	300	6.26
D03052	1 1/2" x 18"	200	9.01
D2124G60	2" x 24"	100	21.36

*Diameters and Lengths not shown on above table are also available from Dayton Superior

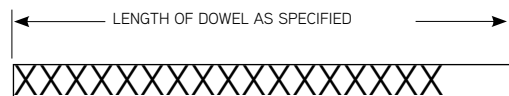
Tie Bars K65

Tie bars available in many different diameters and lengths. Straight or bent and manufactured from rebar.

DIA. AS
REQUIRED



END VIEW



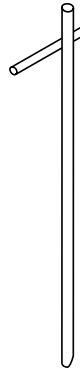
SIDE VIEW

Product Code	Description* (Plain/Straight)	Weight/ Piece
R03126	#4 x 24"	1.34
R03075	#4 x 36"	2.01
R03156	#5 x 24"	2.09
R03090	#5 x 36"	3.13
R02010	#6 x 24"	3.00
R00117	#6 x 30"	3.76
R03160	#6 x 36"	4.51
R03093	#8 x 24"	5.40
R00131	#8 x 30"	6.75
N/A	#8 x 36"	8.10

*Diameters and Lengths not shown on above table are also available from Dayton Superior.

Basket Stake K6

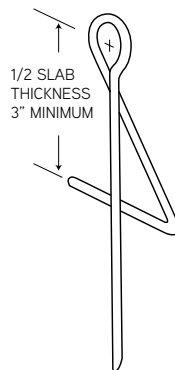
Welded hook type stakes are available to anchor dowel baskets. The stakes are fabricated in 6" — 21" lengths and .306" and 1/2" diameters.



Product Code	Description	Pcs/Pkg	Weight/Piece
80081	0.306" x 6" long	N/A	0.16
80082	0.306" x 8" long	N/A	0.2
80083	0.306" x 10" long	N/A	0.25
80084	0.306" x 12" long	N/A	0.28
80091	0.306" x 14" long	N/A	0.33
80085	0.306" x 15" long	N/A	0.35
80086	0.306" x 18" long	N/A	0.41
80087	0.306" x 16" long	N/A	0.37
80080	0.306" x 17" long	N/A	0.39
80127	0.306" x 21" long	N/A	0.48
80088	0.306" x 12" long	100	0.28
80089	0.306" x 19" long	N/A	0.44
80090	.375" x 15" long	N/A	0.5
80101	.5" x 18" long (no hook)	N/A	1.0
80122	#4 x 19 1/2" long	N/A	1.145
80102	#4 x 18" long (no hook)	N/A	1.0

FS Stake K18

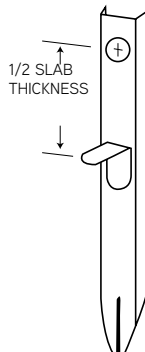
FS Stakes are available to hold dowel bars or tie bars in 6" — 11" thick slabs. They are fabricated in 5 gauge wire for 1/2" — 1 1/2" bar diameters.



Product Code	Description	Pcs/Pkg	Weight/Piece
80357	1/2" x 3"	500	0.17
80358	1/2" x 3 1/2"	500	0.18
80359	1/2" x 4"	500	0.19
80360	1/2" x 4 1/2"	500	0.21
80361	1/2" x 5"	500	0.22
80362	1/2" x 5 1/2"	500	0.23
80377	5/8" x 3"	500	0.17
80378	5/8" x 3 1/2"	500	0.18
80379	5/8" x 4"	500	0.19
80380	5/8" x 4 1/2"	500	0.21
80381	5/8" x 5"	500	0.22
80382	5/8" x 5 1/2"	500	0.23
80389	5/8" x 6"	250	0.24
80383	3/4" x 3"	500	0.17
80384	3/4" x 3 1/2"	500	0.18
80385	3/4" x 4"	500	0.19
80386	3/4" x 4 1/2"	500	0.21
80387	3/4" x 5"	500	0.22
80388	3/4" x 5 1/2"	500	0.23
80363	1" x 3" — 5"	250	0.23
80364	1 1/4" x 3" — 5"	250	0.23
80365	1 1/2" x 3" — 5"	250	0.23

MS Stake K15

MS Stakes are available to hold dowel bars or tie bars in 6" — 11" thick slabs. They are fabricated in 16 and 18 gauge metal for 1/2", 5/8", and 3/4" bar diameters.

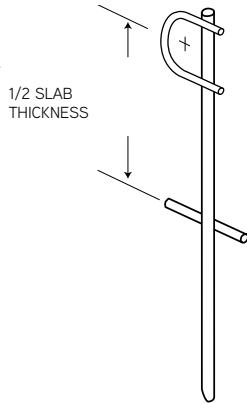


Product Code	Description	Pcs/Pkg	Weight/Piece
16 GAUGE			
80320	3" x 1/2"	200	0.32
80321	3 1/2" x 1/2"	200	0.33
80322	4" x 1/2"	200	0.35
80323	4 1/2" x 1/2"	200	0.36
80324	5" x 1/2"	200	0.38
80325	5 1/2" x 1/2"	200	0.41
80314	3" x 5/8"	200	0.32
80315	3 1/2" x 5/8"	200	0.33
80316	4" x 5/8"	200	0.35
80317	4 1/2" x 5/8"	200	0.36
80318	5" x 5/8"	200	0.38
80319	5 1/2" x 5/8"	200	0.41
80342	3" x 3/4"	200	0.32
80343	3 1/2" x 3/4"	200	0.33
80344	4" x 3/4"	200	0.35
80345	4 1/2" x 3/4"	200	0.36
80346	5" x 3/4"	200	0.38
80347	5 1/2" x 3/4"	200	0.41
80326	5/8" x 12"	200	0.32
18 GAUGE			
80330	3"	200	0.26
80331	3 1/2"	200	0.27
80332	4"	200	0.28
80333	4 1/2"	200	0.29
80334	5"	200	0.3
80335	5 1/2"	200	0.32
80336	3/4" x 11"	200	0.32

* All weights per 100 pieces unless otherwise noted.

PS Stake K17

PS Stakes are available to hold dowel bars or tie bars in 6" — 18" thick slabs. They are fabricated in #1/0 gauge wire for 1/2", 5/8", 1", 1 1/4", and 1 1/2" bar diameters.



Product Code	Description	Weight/Piece
80348	Up to 3/4" x 3" high	0.26
80349	Up to 3/4" x 3 1/2" high	0.27
80350	Up to 3/4" x 4" high	0.28
80351	Up to 3/4" x 4 1/2" high	0.29
80352	Up to 3/4" x 5" high	0.3
80353	Up to 3/4" x 5 1/2" high	0.31
80354	Up to 3/4" x 6" high	0.32
80355	3/4" x 9" high	0.38
80366	1/2" - 3/4" bar, 13 1/2" O.L. N.G.S	0.34
80955	Up to 3/4" x 6 1/2" high	0.32
80956	Up to 3/4" x 7" high	0.34
80957	Up to 3/4" x 7 1/2" high	0.34
880351	Up to 1" x 4 1/2" high	0.29
880352	Up to 1" x 5" high	0.30
880353	Up to 1" x 5 1/2" high	0.31
880354	Up to 1" x 6" high	0.32
880366	Up to 1 1/2" bar, 13 1/2" O.L. N.G.S	0.34
880955	Up to 1" x 6 1/2" high	0.33
880956	Up to 1" x 7" high	0.34
880957	Up to 1" x 7 1/2" high	0.34
980351	1 1/4" - 1 1/2", 4 1/2" high	0.29
980352	1 1/4" - 1 1/2", 5" high	0.30
980353	1 1/4" - 1 1/2", 5 1/2" high	0.31
980354	1 1/4" - 1 1/2", 6" high	0.32

O.L. N.G.S. = Overall Length No Grade Stop at bottom

Channel Stake K19

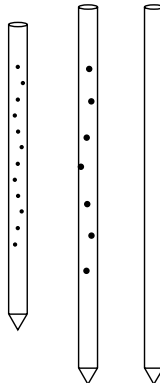
Channel Stakes are available to support metal keyways in longitudinal and transverse joints of concrete slabs. They are fabricated in 14 and 16 gauge metal and 15" — 24" lengths.



Product Code	Description	Pcs/Pkg	Weight/Piece
80370	14 ga. x 15" long	100	0.33
80371	14 ga. x 18" long	100	0.40
80374	16 ga. x 15" long	100	0.27
80375	16 ga. x 18" long	100	0.32
80376	16 ga. x 24" long	100	0.43

Round Stake G27

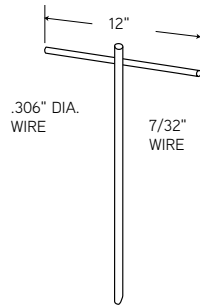
Solid Steel round stakes are used as string-line stakes, form pins, and nail stakes. They are fabricated from A36 steel in 3/4", 7/8", and 1" diameters in 12", 18", 24", 30", 36", 42" and 48" lengths. They are also available with nail holes, 6 per 12" stakes, and 9 per other lengths.



Standard Length	With Nail Holes Product Code	W/o Nail Holes Product Code	Weights Wt./100 units lbs.
3/4" Dia. G27 Round Stakes			
12"	49735	49736	150.2
18"	49743	49744	25.3
24"	49751	49752	300.4
30"	49759	49760	375.5
36"	49767	49768	450.6
42"	49775	49776	525.7
48"	49783	49784	600.8
7/8" Dia. G27 Round Stakes			
12"	49737	49738	204.4
18"	49745	49746	306.6
24"	49753	49754	408.8
30"	49761	49762	511.1
36"	49769	49770	613.3
42"	49777	49778	725.5
48"	49785	49786	817.7
1" Dia. G27 Round Stakes			
12"	49739	49740	267.0
18"	49747	49748	400.5
24"	49755	49756	534.0
30"	49763	49764	667.5
36"	49771	49772	801.0
42"	49779	49780	934.5
48"	49787	49788	1068.0

Mat Stake K21

Mat Stakes are fabricated in 9", 12", 18", and 24" lengths.



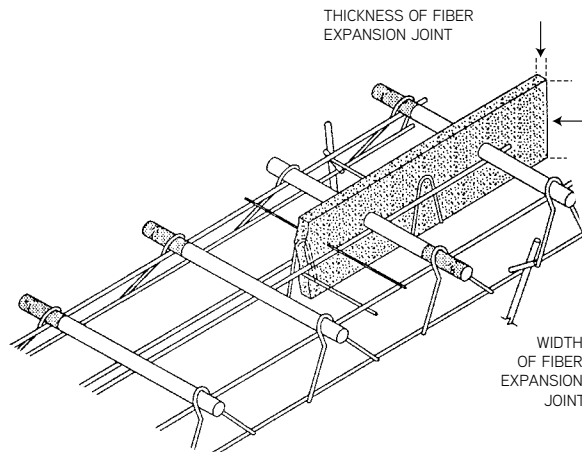
Product Code	Description	Pcs/Pkg	Weight/Piece
80390	12" x 9" penetration	100	0.19
80392	12" x 12" penetration	100	0.22
80394	12" x 18" penetration	100	0.27
80396	12" x 24" penetration	100	0.31

* All weights per 100 pieces unless otherwise noted.

Highway Fiber Expansion Joint™ L84

Highway fiber expansion joint is an environmentally safe, compressible material used as a filler strip in expansion and contraction joints. It is suitable for use in a wide variety of concrete construction projects, including roadways, airport runways, loading facilities, parking lots, and curbs.

Meets ASTM-1751.



Product Code	Description
150004	1/4" x 4"
150008	1/4" x 8"
150027	3/8" x 4"
150031	3/8" x 6"
150053	1/2" x 6"
150057	1/2" x 8"
150061	1/2" x 10"
150075	3/4" x 6"
150079	3/4" x 8"
150083	3/4" x 10"
150103	1" x 9"
150109	1" x 12"

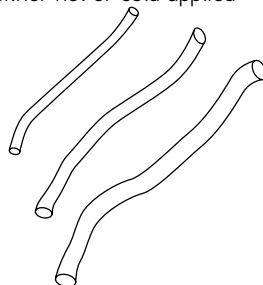
Add 15% for punched fiber.

Available Thicknesses of Fiber Expansion Joints: 1/4", 3/8", 1/2", 3/4", and 1".

Available Widths of Fiber Expansion Joints: 2" to 48"

Backer Rod™ L83

Dayton Superior Backer Rod forms a sealant reservoir for joints or cracks in concrete or asphaltic pavement. It controls the depth of sealant, preventing sealant adhesion to the bottom sides of the joint. This product is used with either hot or cold applied sealants.



Closed Cell

Product Code	Description	Ft/Ctn
05020	1/4" Backer Rod	6400
05021	3/8" Backer Rod	3600
05022	1/2" Backer Rod	2500
05023	5/8" Backer Rod	1550
05024	3/4" Backer Rod	1100
05025	1" Backer Rod	550
05026	1 1/4" Backer Rod	400
05027	1 1/2" Backer Rod	552
05028	2" Backer Rod	360
05029	3" Backer Rod	144
05031	4" Backer Rod	90

**Open Cell also available, please call for price and availability.

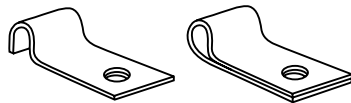
Epoxy Coating

Dayton Superior operates CRSI certified facilities. The fusion-bonded epoxy coating application can be used for #4 and larger diameter bar with lengths between 30' and 60' at most facilities, as well as custom coating capabilities for other products. All items are first blast-cleaned with steel abrasives. The product is then heated. Powder particles are electrostatically charged, sprayed onto the product, and fusion-bonded. The CRSI certification for epoxy coating plants ensures you that we have the capabilities and quality control procedures in place to provide an excellent coating for your products.



Basket Clips K12

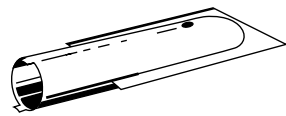
Basket clips are available in wrap-around and nail-down styles to fasten baskets with nails in lieu of basket stakes.



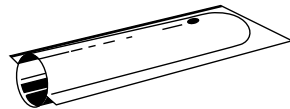
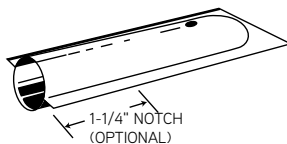
Product Code	Description	Pcs. per Drum	Weight/Piece
80302	Wrap-Around	5,000	0.082
80304	Nail-Down	5,000	0.057
80307	Wrap-Around for 3/0 Wire	5,000	0.082
80308	Nail-Down for 3/0 Wire Galv.	5,000	0.057
125352	Wrap-Around Galvanized	5,000	0.082

Dowel Caps K11

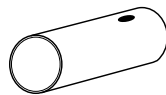
Metal and plastic dowel caps are available to allow movement of dowels in expansion joints. Crimp type metal dowel caps are fabricated in $\frac{5}{8}$ " — $1\frac{1}{4}$ " diameters and 5" length. Welded type metal dowel caps are fabricated in $\frac{3}{8}$ " — 2" diameters and 5" and 6" lengths. Flanges on the welded type caps must be notched back when installing caps on dowels in baskets. Plastic dowel caps are fabricated in $\frac{1}{2}$ " — $1\frac{1}{8}$ " diameters and 4" length.



Crimp Type
I.D. = NOMINAL DIA. + $\frac{1}{16}$ "



Welded Type
I.D. = NOMINAL DIA. + $\frac{1}{8}$ "

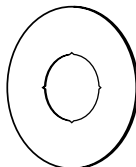


Plastic Caps
I.D. = NOMINAL DIA. + $\frac{1}{32}$ "

Product Code	Description	Pcs/Pkg	Weight/Piece
Crimp Style			
60006	$\frac{5}{8}$ " x 5"	500	0.089
60002	$\frac{3}{4}$ " x 5"	500	0.1
60003	1" x 5"	500	0.135
60004	$1\frac{1}{8}$ " x 5"	500	0.14
60005	$1\frac{1}{4}$ " x 5"	250	0.147
Welded Type			
60001	$1\frac{1}{2}$ " x 5"	500	0.074
60010	$\frac{7}{8}$ " x 5"	500	0.108
60020	$1\frac{1}{8}$ " x 6"	250	0.142
60026	$1\frac{3}{8}$ " x 6"	250	0.19
60027	$1\frac{1}{2}$ " x 6"	150	0.198
60028	$1\frac{3}{4}$ " x 6"	N/A	0.22
60029	2" x 6"	N/A	0.25
60019	$1\frac{1}{8}$ " x 5"	500	0.140
600270	$1\frac{1}{2}$ " x 8"	100	0.264
600271	$1\frac{1}{2}$ " x 6"	250	0.198
Plastic			
60007	$\frac{1}{4}$ " x 4"	500	0.02
60032	$\frac{5}{8}$ " x 4"	500	0.031
60009	$\frac{3}{4}$ " x 4"	500	0.032
60033	$\frac{3}{4}$ " x 6"	500	0.038
60034	$\frac{7}{8}$ " x 4"	500	0.045
60017	1" x 4"	500	0.058
60018	$1\frac{1}{8}$ " x 4"	500	0.059
60025	$1\frac{1}{4}$ " x 4"	250	0.063
60035	$1\frac{3}{8}$ " x 4"	250	0.063
60036	$1\frac{1}{2}$ " x 4"	250	0.065
124196	$1\frac{5}{8}$ " x 4"	250	0.067

Grout Retention Ring K13

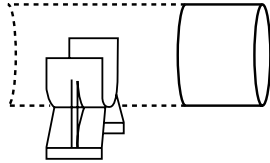
Grout retention rings are available for $\frac{5}{8}$ ", $\frac{3}{4}$ ", 1", $1\frac{1}{4}$ ", and $1\frac{1}{2}$ " diameter dowels. They retain anchoring material and improve dowel support.



Product Code	Description	Pcs/Pkg	Weight/Piece
124689	$\frac{5}{8}$ " Diameter	N/A	0.014
60071	$\frac{3}{4}$ " Diameter	N/A	0.014
60072	1" Diameter	N/A	0.016
60074	$1\frac{1}{4}$ " Diameter	N/A	0.018
60076	$1\frac{1}{2}$ " Diameter	N/A	0.024

Snap-On Dowel Chair and Caps K54

Plastic dowel chairs are available for support of 1/2" through 1 1/2" diameter dowels used in retrofit applications.

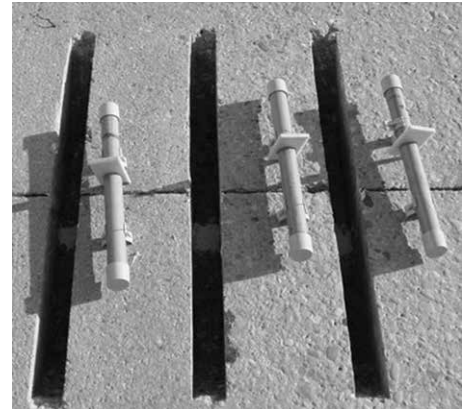
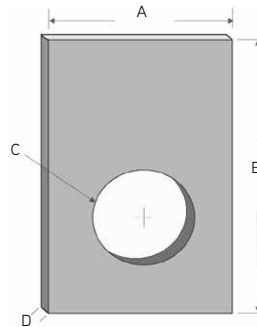


Product Code	Description	Weight/Piece
80788	1/2" for 1 1/2" Dowels	0.047
80789	1/2" for 1 1/2" Dowels(H)	0.018
80790	1/2" for 1 1/4" Dowels	0.017
121254	1 1/4" — Dwl Cap	0.022
121255	1 1/2" — Dwl Cap	0.028
220111	1 1/2" — Dwl Cap w/Chair	0.046
220110	1 1/4" — Dwl Cap w/Chair	0.039

Foam Core Boards

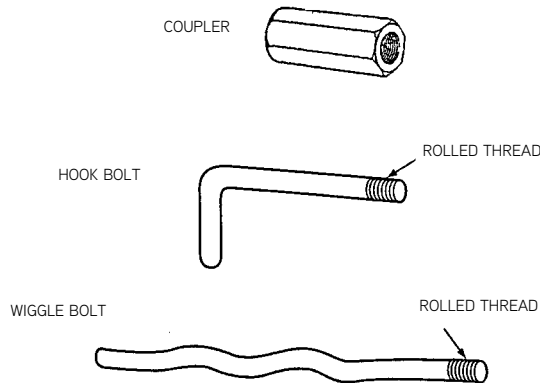
Foam Core Boards fit Dowel Bars are available for 1/2" through 1 1/2" diameter dowels used in retrofit applications.

Call for availability. Order by dimensions as shown.



Longitudinal Joint Ties

Bolts and couplers are available as longitudinal joint ties in 5/8" and 3/4" diameters. Bolts are fabricated in hook or wiggle configurations.

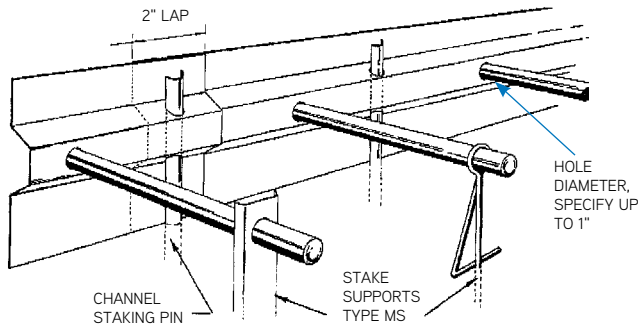
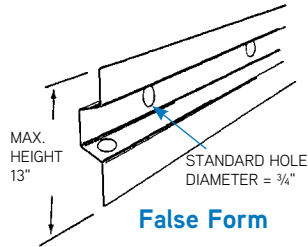


Cat. I.D.	Product Code	Type and Size	Weight/Piece	Load Cap.
K27H	80869	K27-H (AWC) 5/8" x 6"	0.77	15,000 lbs.
K27H	80883	K27-H 5/8" x 6"	0.058	15,000 lbs.
K27H	80873	K27-H 5/8" x 8"	0.07	15,000 lbs.
K28W	80871	K28-W (AWC) 5/8" x 12"	1.0	15,000 lbs.
K27H	80877	K27-H (AWC) 3/4" x 6"	1.01	24,000 lbs.
K27H	80885	K27-H 3/4" x 6"	0.84	24,000 lbs.
K27H	80881	K27-H 3/4" x 8"	1.04	24,000 lbs.
K28W	80879	K28-W (AWC) 3/4" x 12"	1.53	24,000 lbs.
K29	80887	K29 5/8" Coupler	0.18	15,000 lbs.
K29	80889	K29 3/4" Coupler	0.17	24,000 lbs.

K30 and K33 Metal Keyway - Center Strip

Metal keyways are available to form keyways along longitudinal and transverse joints in concrete slabs. The false form, K30, is fabricated in 18 gauge metal for 8" to 12" slabs. 16 gauge available on special order.

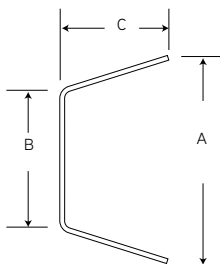
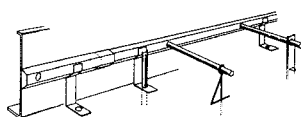
The general center strip, K33, is fabricated in 18 and 20 gauge metal for 5" to 10" slabs.



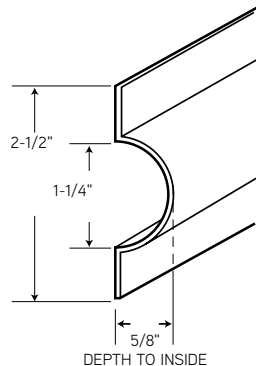
Cat. I.D.	Product Code	False Form (18 GA.)	Pcs/Pkg	Weight/Piece
K30	80523	7 1/2" for 8" slab	100	1.4
K30	80526	8 1/2" for 9" slab	100	1.57
K30	80529	9 1/2" for 10" slab	100	1.73
K30	80532	10 1/2" for 11" slab	100	1.9
K30	80535	11 1/2" for 12" slab	100	2.08
General Center Strip 18 GA.				
K33	80580	4 1/2" for 5" slab	100	0.88
K33	80582	5 1/2" for 6" slab	100	1.05
K33	80584	6 1/2" for 7" slab	100	1.22
K33	80586	7 1/2" for 8" slab	100	1.38
K33	80588	8 1/2" for 9" slab	100	1.56
K33	80590	9 1/2" for 10" slab	100	1.73
20 GA.				
K33	80600	4 1/2" for 5" slab	100	0.66
K33	80602	5 1/2" for 6" slab	100	0.79
K33	80604	6 1/2" for 7" slab	100	0.92
K33	80606	7 1/2" for 8" slab	100	1.04
K33	80608	8 1/2" for 9" slab	100	1.17
K33	80610	9 1/2" for 10" slab	100	1.3

K34 and K35 Metal Keyway - Recess Form

Recess form keyways are available for longitudinal joints in 6" to 10" thick concrete slabs. They are fabricated in standard keyway deformation, K34, or half-round deformation, K35, in 24, 18, or 16 gauge metal.



Standard Keyway Deformation

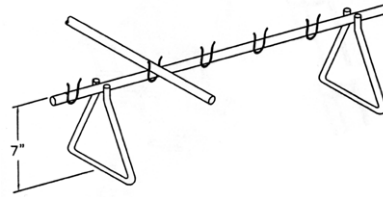


Half-Round Keyway Deformation

Cat. I.D.	Product Code	Description	Pcs/Pkg	Weight/Piece
24 GA. (A-B-C) w/ Legs				
K34	80666	F#1 (1 1/4" x 3/4" x 1/2")	N/A	0.2
K34	80668	F#2 (1 1/2" x 1" x 3/4")	N/A	0.25
K34	80669	F#2A (1 1/2" x 1" x 1")	N/A	0.29
K34	80673	F#3 (2 1/2" x 1 1/2" x 1")	N/A	0.4
K34	80675	F#4 (2 1/2" x 2" x 1 1/8") 1/2" LIPS	N/A	0.54
K34	80671	F#5 (3" x 2" x 1")	N/A	0.44
K34	80676	F#6 (3 3/8" x 3" x 1 5/8")	N/A	0.68
K34	80677	F#7 (3 1/2" x 2 1/2" x 1")	N/A	0.47
K34	80678	F#8 (3" x 1 3/4" x 1")	N/A	0.41
K34	80679	F#9 (2" x 1 1/2" x 1")	N/A	0.39
K34	80680	F#10 (2 1/2" x 2" x 1")	N/A	0.43
K34	80681	F#11 (4" x 3 1/2" x 1 1/2")	N/A	0.56
K34	80682	F#12 (4" x 2" x 2")	N/A	0.52
K34	80683	F#13 (2 3/4" x 1 3/4" x 1")	N/A	0.42
24 GA. (A-B-C) w/o Legs				
K34	80736	F#1 (1 1/4" x 3/4" x 1/2")	N/A	0.12
K34	80738	F#2 (1 1/2" x 1" x 3/4")	N/A	0.17
K34	80739	F#2A (1 1/2" x 1" x 1")	N/A	0.21
K34	80743	F#3 (2 1/2" x 1 1/2" x 1")	N/A	0.32
K34	80745	F#4 (2 1/2" x 2" x 1 1/8") 1/2" LIPS	N/A	0.46
K34	80741	F#5 (3" x 2" x 1")	N/A	0.36
K34	80746	F#6 (3 3/8" x 3" x 1 5/8")	N/A	0.6
K34	80747	F#7 (3 1/2" x 2 1/2" x 1")	N/A	0.39
K34	80748	F#8 (3" x 1 3/4" x 1")	N/A	0.33
K34	80749	F#9 (2" x 1 1/2" x 1")	N/A	0.31
K34	80750	F#10 (2 1/2" x 2" x 1")	N/A	0.35
K34	80751	F#11 (4" x 3 1/2" x 1 1/2")	N/A	0.48
K34	80752	F#12 (4" x 2" x 2")	N/A	0.44
K34	80753	F#13 (2 3/4" x 1 3/4" x 1")	N/A	0.34
Half-Round Keyway w/ Legs				
K35	80765	F#1 (1 1/4" x 5/8")	N/A	0.34
Half-Round Keyway w/o Legs				
K35	N/A	F#1 (1 1/4" x 5/8")	N/A	0.26

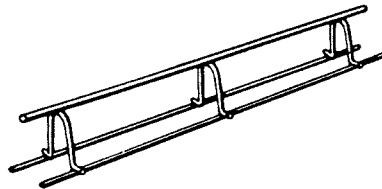
Transverse Bar Assembly TBA

Eliminates wire tying to longitudinal bar for CRCP replacement. Transverse reinforcement hooks directly to longitudinal bar. Snaps quickly to track. Saves labor, as a six person crew can typically lay one lane mile per 8 hour shift. Accurate position of clips creates uniform separation for continuous bar placement. Custom manufactured to specs in both uncoated or epoxy coated.



K60 Continuous Mesh Support

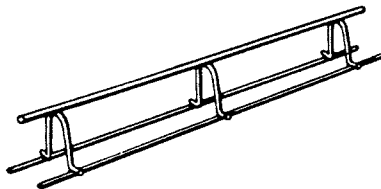
Continuous mesh supports are manufactured in 5'-0" lengths and 3", 4", 5", 6", and 7" heights.



Cat. I.D.	Product Code	Description	Pcs / Pkg	Wt / Pc
K60	80472	2" x 5'	N/A	
K60	80473	3" x 5'	N/A	0.36
K60	80474	4" x 5'	N/A	0.38
K60	80475	5" x 5'	N/A	0.4
K60	80476	6" x 5'	N/A	0.42
K60	80477	7" x 5'	N/A	0.46
K60	80478	8" x 5'	N/A	
K60	80498	9" x 5'	N/A	

Continuous High Chair Upper CHCU

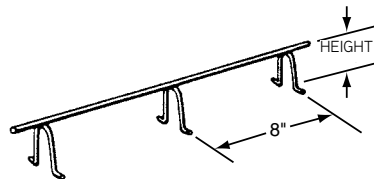
These continuous supports are available in 2" through 25" heights. They are fabricated in Bright Basic Wire (CHCU-3) or Epoxy-coated Wire. Per 100 Ft. or Per 100 Pcs.



Continuous High Chair Upper	Pkg. Unit Standard Feet Standard (Feet)	Approx. Wt. Lbs./ 100 Ft. or 100 Pcs.
2" to 3" high incl.	100	62
Over 3" to 4" high incl.		66
Over 4" to 5" high incl.	100	69
Over 5" to 6" high incl.	100	83
Over 6" to 7" high incl.	100	88
Over 7" to 8" high incl.	100	93
Over 8" to 9" high incl.	100	98
Over 9" to 10" high incl.	100	122
For each inch or fraction over 10" (Add 7 lbs. per 100 ft.)		

Continuous High Chair CHC

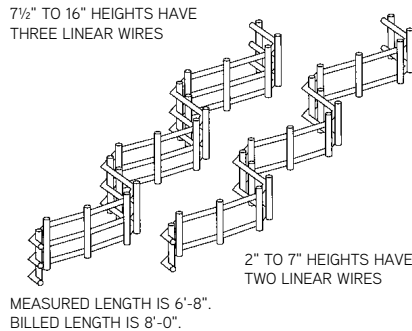
Continuous high chairs provide reinforcing steel support from 2" to 20" heights. They are available in Bright Basic Wire (CHC-3), Galvanized Wire (CHC-GW), Stainless Steel, Plastic Protected Legs (CHC-1), and Epoxy-coated Wire, 2" through 20" high. Per 100 Ft. or Per 100 Pcs.



Continuous High Chair	Pkg. Unit Standard Feet Standard (Feet)	Approx. Wt. Lbs./ 100 Ft. or 100 Pcs.
2" to 3" high incl.	100	32
Over 3" to 4" high incl.	100	36
Over 4" to 5" high incl.	100	39
Over 5" to 6" high incl.	100	53
Over 6" to 7" high incl.	100	58
Over 7" to 8" high incl.	100	63
Over 8" to 9" high incl.	100	68
Over 9" to 10" high incl.	100	92
Over 10" to 11" high incl.	50	99
Over 11" to 12" high incl.	50	106
Over 12" to 13" high incl.	50	113
Over 13" to 14" high incl.	50	119
Over 14" to 15" high incl.	50	126

Continuous Support CS

Continuous Supports are available for wire mesh support in 2" through 16" heights.



Cat. I.D.	Prod. Code	Description	Pcs/Pkg	Weight/Piece
CS	84220	2" Height Con. Mesh Support	9600	0.177
CS	84222	2 1/2" Height Con. Mesh Support	9600	0.183
CS	84224	3" Height Con. Mesh Support	9600	0.186
CS	84226	3 1/2" Height Con. Mesh Support	8000	0.194
CS	84228	4" Height Con. Mesh Support	8000	0.197
CS	84230	4 1/2" Height Con. Mesh Support	7200	0.201
CS	84232	5" Height Con. Mesh Support	6400	0.213
CS	84234	5 1/2" Height Con. Mesh Support	5600	0.221
CS	84235	5 3/4" Height Con. Mesh Support	5600	0.225
CS	84236	6" Height Con. Mesh Support	4800	0.317
CS	84238	6 1/2" Height Con. Mesh Support	4800	0.326
CS	84240	7" Height Con. Mesh Support	4000	0.335
CS	84242	7 1/2" Height Con. Mesh Support	3200	0.443
CS	84244	8" Height Con. Mesh Support	3200	0.452
CS	84246	8 1/2" Height Con. Mesh Support	3200	0.462
CS	84248	9" Height Con. Mesh Support	3200	0.471
CS	84250	9 1/2" Height Con. Mesh Support	2560	0.482
CS	84252	10" Height Con. Mesh Support	2560	0.491
CS	84253	10 1/4" Height Con. Mesh Support	2560	0.495
CS	84254	10 1/2" Height Con. Mesh Support	2560	0.498
CS	84255	10 3/4" Height Con. Mesh Support	2560	0.504
CS	84256	11" Height Con. Mesh Support	2560	0.508
CS	84258	11 1/2" Height Con. Mesh Support	1920	0.516
CS	84259	11 3/4" Height Con. Mesh Support	1920	0.521
CS	84260	12" Height Con. Mesh Support	1920	0.526
CS	84262	12 1/2" Height Con. Mesh Support	1920	0.528
CS	84264	13" Height Con. Mesh Support	1920	0.537
CS	84266	13 1/2" Height Con. Mesh Support	1920	0.542
CS	84268	14" Height Con. Mesh Support	1920	0.555
CS	84272	15" Height Con. Mesh Support	1920	0.573
CS	84274	15 1/2" Height Con. Mesh Support	1920	0.581
CS	84276	16" Height Con. Mesh Support	920	0.590

Aztec® Plastic Paving Chair PPC

Application:

DOT, on-grade, single mat.

Cover height:

1" to 9" in 1/4" increments

Features:

- Clip for positive locking action
- Large foot for superior stability

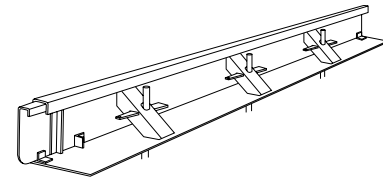
Meets all requirements to qualify as a CRSI Class 1 bar support.



Product Code	Product Size	Bar Size
129250	1"	#3[10mm] - #6[19mm]
129251	1-1/4"	#3[10mm] - #6[19mm]
129252	1-1/2"	#3[10mm] - #6[19mm]
129253	1-3/4"	#3[10mm] - #6[19mm]
129254	2"	#3[10mm] - #6[19mm]
129255	2-1/4"	#3[10mm] - #6[19mm]
129256	2-1/2"	#3[10mm] - #6[19mm]
129257	2-3/4"	#3[10mm] - #6[19mm]
129258	3"	#3[10mm] - #6[19mm]
129259	3-1/4"	#3[10mm] - #6[19mm]
129260	3-1/2"	#3[10mm] - #6[19mm]
129261	3-3/4"	#3[10mm] - #6[19mm]
129262	4"	#3[10mm] - #6[19mm]
129263	4-1/4"	#3[10mm] - #6[19mm]
129264	4-1/2"	#3[10mm] - #6[19mm]
129265	4-3/4"	#3[10mm] - #6[19mm]
129266	5"	#3[10mm] - #6[19mm]
129267	5-1/4"	#3[10mm] - #6[19mm]
129268	5-1/2"	#3[10mm] - #6[19mm]
129269	5-3/4"	#3[10mm] - #6[19mm]
129270	6"	#3[10mm] - #6[19mm]
129271	6-1/4"	#3[10mm] - #6[19mm]
129272	6-1/2"	#3[10mm] - #6[19mm]
129273	6-3/4"	#3[10mm] - #6[19mm]
129274	7"	#3[10mm] - #6[19mm]
129275	7-1/4"	#3[10mm] - #6[19mm]
129276	7-1/2"	#3[10mm] - #6[19mm]
129277	7-3/4"	#3[10mm] - #6[19mm]
129278	8"	#3[10mm] - #6[19mm]
129279	8-1/4"	#3[10mm] - #6[19mm]
129280	8-1/2"	#3[10mm] - #6[19mm]
129281	8-3/4"	#3[10mm] - #6[19mm]
129249	9"	#3[10mm] - #6[19mm]

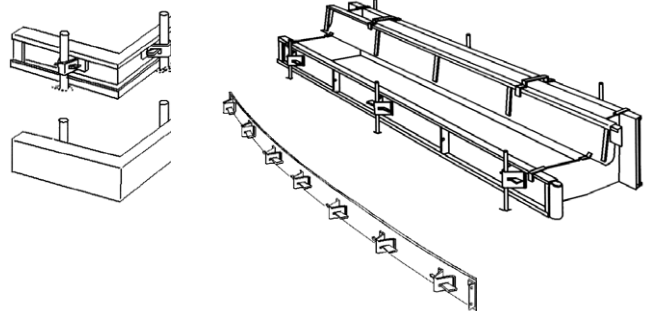
Heavy Duty Paving Forms

For almost a century, the Dayton-Superior Companies have been in the paving forms manufacturing business, providing quality core products to a network of contractors and distributors. When an addition to your edge form inventory is required, please contact us for a custom quotation. We guarantee to turn around all proposals within 24 hours. Dayton Superior manufactures forms meeting any paving requirement.



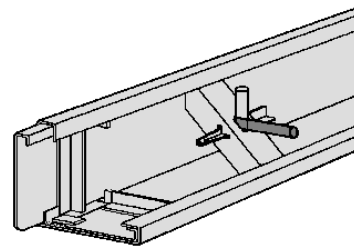
Curb and Gutter Forms

Versatile product line that adapts to many different concrete forming conditions. It is ideally suited for applications that include sidewalks, curbs and gutters, and pavements. This forming system features durable steel components, with added reinforcement, for maximum service life. These components are precision-welded to provide a system that lasts far longer than conventional lumber edge forms.



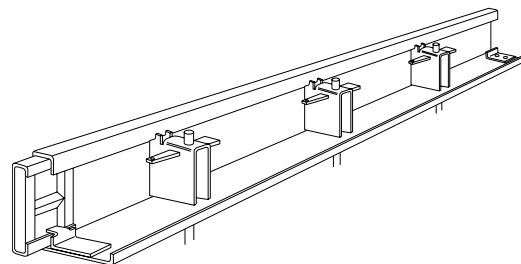
2 in 1 Paving Forms

This permits the placement of two slab thicknesses with one reversible form.



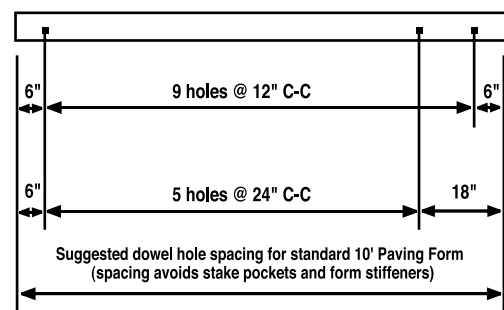
Paving Form Options

- Double Wedge Stake Pockets
- Reinforcing Gussets
- Dowel Bar Support Assemblies
- Keyway Attachments
- Turned Up Bottom Flange



Highway Dowel Hole and Keyway Section

- Standard 10' length.
- Product #32499 — Dowel hole (punched on request, specify location).
- Product #32526 — 10' keyway section (1 $\frac{5}{8}$ " top x 1 $\frac{3}{4}$ " depth x 2 $\frac{3}{4}$ " base)
- Includes mounting (welded or bolted)
- Specify mounting location



Pour-Fast™

Pour-Fast lost formwork for gravity wall creates a control joint, construction joint and keyway.

Pour-Fast lost formwork is a key component that streamlines how gravity wall is formed and poured. Rather than using the conventional skip forming methods, Pour-Fast lost form work is inserted into the formwork during construction creating a construction joint and keyway without requiring a bulkhead. This allows the contractor to form longer sections of wall.

Pour-Fast is included in FDOT design standards for gravity walls.

Product Specifications

- Light grey color
- Available in 2 base sizes: 3' and 5'
- Available in two pitch sizes: 5:12 and 9:12
- Cuts down easily and quickly with standard circular saw for in-between wall heights and non-standard pitch requirements
- Made from high quality 3/16" thick ABS sheeting

Features

- Forms construction joint, eliminating bulkhead
- Creates control joint
- Made in USA from high quality ABS plastic
- Installs quickly
- Eliminates the need to "skip form" a wall

Benefits

- Creates interlocking keyway between wall sections without using a bulkhead, saving labor
- Develops effective bond break for crack control
- Will not stain, swell or spall concrete
- No stripping or removal operations
- Allows for continuous concrete pour

Installation

1. Construct forms in typical fashion
2. Insert Pour-Fast lost formwork where control joints/keyways are required
3. Square Pour-Fast lost formwork to forming
4. On both sides of lost formwork, place chamfer board tightly against vertical edges of lost formwork and nail or screw in place — this pinches lost formwork in place preventing movement during concrete pour
5. It is recommended to stake base of lost formwork several places on both sides to prevent movement during pour
6. Pour concrete — after cure, strip forms in usual manner



Pour-Fast Panel

Product Code	Height	Pitch	Weight
146517	3 feet	5:12	3.12 lb
146518	5 feet	5:12	9.36 lb
146519	3 feet	9:12	4.68 lb
146520	5 feet	9:12	11.40 lb

Specify Product Code and quantity when ordering



Liquid Surface Treatments

White Wax Cure J9A

Water-based + State D.O.T. + ASTM C 309

A true water base with pigmented curing compound containing white pigments and other solids in suspension. White Wax Cure is a water-based formulation, so it contains no organic solvents, is environmentally safe, and is VOC compliant.

Conforms to ASTM-C-309 and AASHTO M 148 Type 2, Class A.

Packaging	Product Code
5 gallon pail	69165
55 gallon drum	69164
275 gallon tote	69144

White Resin Cure J10W

Resin-based + State D.O.T. + ASTM C 309

A resin based white pigmented curing compound meeting ASTM-C-309. White Resin Cure is ready-mixed for immediate use without alteration. It provides a uniform white appearance when applied uniformly to new concrete surfaces at the recommended coverage rate. The product is V.O.C. compliant.

Conforms to ASTM-C-309 and AASHTO M 148 Type 2, Class A and B.

Packaging	Product Code
5 gallon pail	69104
55 gallon drum	69103
275 gallon tote	309443

Clear Resin Cure J11W

A liquid, resin based, clear curing compound meeting ASTM-C-309. Clear Resin Cure is ready-mixed for immediate use without alteration. It provides a continuous film when applied uniformly to new concrete surfaces at the recommended coverage rate. The product is V.O.C. compliant.

Conforms to ASTM-C-309 and AASHTO M 148 Type 1, Class A and B.

Packaging	Product Code
5 gallon pail	69116
55 gallon drum	69115
275 gallon tote	280812

Resin Cure w/ Dye J11WD

Resin Cure + State D.O.T. + ASTM C 309

Resin Cure w/ Dye is an all-resin base curing compound.

Conforms to ASTM-C-309 and AASHTO M 148 Type 1-D, Class A and B.

Packaging	Product Code
5 gallon pail	68929
55 gallon drum	68928
275 gallon tote	306199

City White Cure J8

Water Based

A true water based, white pigment curing compound containing white pigments and other solids in suspension. City White Cure is a water based formulation, so it contains no organic solvents, is environmentally safe, and is V.O.C. compliant.

Packaging	Product Code
5 gallon pail	120902
55 gallon drum	120901
275 gallon tote	200396



Liquid Surface Treatments

Anti-Spall J33

Anti-Spall is a uniform blend of mineral spirits and boiled linseed oil. This anti-spalling sealer for protecting concrete has a light amber color.

Conforms to: AASHTO M 233, standard specification for "Boiled Linseed Oil Mixture for Treatment of Portland Cement Concrete."

Packaging	Product Code
5 gallon pail	69180
55 gallon drum	69179

AquaFilm™ J74RTU

Evaporation Retardant and Finishing Aid

AquaFilm is a ready to use water based evaporation retardant for concrete paving. It reduces surface moisture evaporation in rapid-drying conditions (high temperature - low humidity - wind - direct sun) to allow time for proper finishing and helps in preventing plastic shrinkage of the concrete slab.

When applying surface hardeners, AquaFilm allows added time to proper finish and later cure the slab. V.O.C. compliant.

Packaging	Product Code
1 gallon (4/case)	309346
5 gallon pail	309347
55 gallon drum	309348

Epoxy Adhesives

Sure Anchor™ J50

Epoxy Gel Adhesive

Sure Anchor J50 is a 100% solid, high modulus, high strength, epoxy gel adhesive. It is a two component, moisture-insensitive structural epoxy adhesive that meets ASTM C 881. Sure Anchor J50 is available in cartridges for easy dispensing, as well as larger, gallon units.

Packaging	Product Code
600 ml cartridge (12/case)	307449
1500 ml cartridge	139888
1 gallon unit	307447
2 gallon unit	307448
10 gallon unit	307451

Sure Anchor™ I J51

Fast setting, epoxy gel adhesive, ICC listed

Sure Anchor I J51 is a fast-setting epoxy for anchoring bolts, dowels, and reinforcing steel into concrete. It is also ideal for vertical and horizontal structural bonding and patching. Meets ASTM-C881.

Packaging	Product Code
22 oz. Cartridge	69359
51 oz. Cartridge	306204
2-1 Gal. Pails	69368
10 Gal Units	69365

Cementitious Products



Pave Patch 3000

Horizontal Repair Mortar

Pave Patch 3000 is a fast setting, latex-modified, heavy duty, one component concrete repair material requiring only the addition of water. It is a cement based compound having similar characteristics to normal portland cement mixes and is compatible with portland cement concrete.

Packaging	Product Code
50 lb. bag	143333

HD50

Horizontal Repair Mortar

HD 50 is a fast setting, fiber reinforced, latex-modified, heavy duty, one component concrete repair material requiring only the addition of water. It is a cement based compound having similar characteristics to normal portland cement mixes and is compatible with portland cement concrete.

Packaging	Product Code
50 lb. bag	67460

Epoxy Repair Products

Perma Prime 3C

Epoxy Primer

Perma Prime 3C is a three component, epoxy-modified cementitious bonding agent and corrosion inhibitor. It is non-flammable, water based and VOC compliant.

Packaging	Product Code
3.2 gallon unit	139813

Sure Patch Epoxy

Epoxy Mortar Grout Kit

Sure Patch is a 100% solids, low modulus epoxy resin system containing specially selected aggregates. A unit consists of three parts: component "A" epoxy resin, component "B" modified amine curing agent and component "C" specially graded aggregate.

Packaging	Product Code
0.5 cu. ft. unit	139890
2.0 cu. ft. unit	139891

Joint Sealing Products

Highway Liquid Joint Sealant™

Highway Liquid Joint Sealant is a hot-applied, one-part sealant for use in sealing expansion joints, contraction joints, and random cracks in concrete and asphaltic pavements.

Advantages: Provides high resiliency and weather resistance; withstands freeze/thaw cycles; seals cracks and joints from water penetration; meets ASTM-D-3405.

3405-HP Joint Sealant

DESCRIPTION

This hot pour sealant is a quality, hot applied, one component rubber asphalt compound. 3405-HP is designed to be applied in situations of both new and re-serviced joints (expansion and contraction) in concrete pavement, as well as for cracks in asphaltic concrete surfaces. When properly heated and applied to surfaces, which have been cleaned of dirt, dust and debris, it offers excellent bonding, repeated weathering resiliency, compressive and expansive capabilities. It is packaged in 55-pound cartons composed of two 27-pound easily transferable buns.

PROPERTIES

Penetration, mm/10	80
Resilience, %	63
Flow, cm	0.1
Bond Test, 50% Extension @ -20°F (-29°C)	Pass
Viscosity CPS @ 380°F (183°C)	2000
Wt. Per gallon, Lbs.	10
Wt. Per liter, Kg.	1.20
Preferred Pouring Temperature	370°F (188°C)
Safe Melting Temperature	390°F (199°C)

SPECIFICATIONS

ASTM D 3405, ASTM D 1190, AASHTO M 301, AASHTO M 173, Fed. Spec SS-S-1401C, Fed. Spec SS-S-164

LM3405-HP Joint Sealant

DESCRIPTION

This hot pour sealant is a quality, hot applied, one component rubber asphalt compound. LM3405-HP project sealant specifically designed for colder climate regions and will provide similar bonding characteristics to the standard 3405 material when continually exposed to below freezing temperatures. This low modulus joint sealant is designed to be applied in situations of both new and re-serviced joints (expansion and contraction) in concrete pavement, as well as for cracks in asphaltic concrete surfaces. When properly heated and applied to surfaces, which have been cleaned of dirt, dust and debris, it offers excellent bonding, repeated weathering resiliency, compressive and expansive capabilities. It is packaged in 55-pound cartons composed of two 27-pound easily transferable buns.

PROPERTIES

Penetration, mm/10	80
Resilience, %	68
Flow, cm	0.1
Bond Test, 50% Extension @ -20°F (-29°C)	Pass
Viscosity CPS @ 380°F (183°C)	2000
Wt. Per gallon, Lbs.	10
Wt. Per liter, Kg.	1.20
Preferred Pouring Temperature	370°F (188°C)
Safe Melting Temperature	390°F (199°C)

SPECIFICATIONS

ASTM D 3405, ASTM D 1190, AASHTO M 301, AASHTO M 173, Fed. Spec SS-S-1401C, Fed. Spec SS-S-164

1614JFRHP Joint Sealant

DESCRIPTION

This hot pour sealant is a quality, hot applied, one component polymeric compound. 1614JFRHP is designed to be applied in situations of both new and re-serviced joints (expansion and contraction) in concrete pavement that are subjected to fuel drips and/or leaks.

When properly heated and applied to surfaces, which have been cleaned of dirt, dust and debris, it offers excellent bonding, repeated weathering resiliency, compressive and expansive capabilities.

This product is not compatible with asphaltic paving materials and should not be applied directly over asphalt fiber expansion joint materials. 1614JFRHP is supplied as a liquid in five-gallon (18.93 liter) pails at a weight of 9.9 pounds per gallon (1.2kg per liter). The recommended kettle heating temperature is 270°F (132°C) with a pour temperature of 250°F (121°C).



TESTING RESULTS

Penetration, Non-immersed @ 77°F (25°C)	11.0mm
Penetration, Fuel-immersed @ 77°F (25°C)	11.0mm
Flow, 72 Hours @ 158°F (70°C)	None
Bond, @ OF, three cycles, 50% extension	Pass 3 Cycles
Bond, Non-immersed	Without cracks or separation
Bond, Water-immersed	Without cracks or separation
Bond, Fuel-immersed	No deeper than 0.25m

SPECIFICATIONS

ASTM D 1854, ASTM D 3581, Fed. Spec. SS-S-1614A, Type II, Class 2, Fed. Spec. SS-S-167(b), AASHTO M-282, FAA-P 605 USE AND APPLICATION INSTRUCTIONS FOR HOT POUR JOINT SEALANTS.

(All reference therein to asphaltic surfaces does not apply to Dayton Superior 1614JFRHP).

- Sealing should be applied at atmospheric temperatures of 40°F (4°C) or greater. Joint sealant material is to be first melted in a double-jacketed melter-applicator that has an agitator, and temperature thermostats for both the oil compartment and the melting drum.
- FAILURE TO PROPERLY MELT, MAINTAIN DRUM HEAT AND AGITATION ACCORDING TO PROPERTIES OR APPLY AT PROPER ATMOSPHERIC TEMPERATURES AND/OR TO SURFACES WHICH ARE FROZEN OR WET WILL RESULT IN PREMATURE UNBONDING AND PERFORMANCE FAILURE AND ARE THEREFORE THE FULL RESPONSIBILITY OF THE PAVEMENT OWNER OR APPLICATION CONTRACTOR.
- Concrete Pavement:** Joint configuration is a 2:1 ratio of a 1" (25mm) maximum width. Joint filler or backer rod should be initially placed at a proper depth below the concrete surface. Reservoir for sealant to be dry and clean for application of joint sealant material. Then properly apply sealant with the kettle manufacturer's recommended wand and nozzle so that the material fills the void flush with the pavement surface.
- Asphalt Pavement:** Crack configuration is a 2:1 ratio of a 1" (25mm) maximum width. Reservoir for sealant to be dry and clean for application of joint sealant material. Properly apply sealant with the kettle manufacturer's recommended wand and nozzle so that the material fills the crack void from the bottom up. Overfill the crack and follow with a leveling tool to create an overlap level to the treated surface area approximately 3" (75mm) wide or slightly greater.
- Maintenance Re-Sealing:** Re-servicing joints in both concrete and asphalt follow the previous defined procedures of material application except for the added initial first step of remov-

ing all old joint sealant due to earlier material applications to concrete expansion or contraction joints, or cracks in asphaltic surfaces. In the case of concrete, sawing with the proper cleaning blade is required — further sandblasting is preferred. Routing of pre-filled cracks in asphaltic surfaces is required. AGAIN PROCEED TO THEN INITIATE ALL STEPS FOR APPLICATION OF SEALANT TO NEW CONCRETE JOINTS OR ASPHALTIC CRACKS AS PREVIOUSLY ENUMERATED.

Elastomeric Seals

PROFILE

The main purpose of any concrete pavement compression seal is to keep water and debris from entering the joint. By doing so, it reduces the opportunity for pavement to crack, spall or chip at the joints.

There are many concrete joint seal products available today, but each has its disadvantages. Hot pour asphalt doesn't age well. Silicone caulk is costly because of its shorter functioning life. Joints sealed with silicone have to be replaced more often. Elastomeric Seals are extruded from special compounds of neoprene (poly-chloroprene).

Our seals remain in contact with the joint walls allowing pavement expansion and contraction throughout the harshest of temperature fluctuations.

EASY INSTALLATION

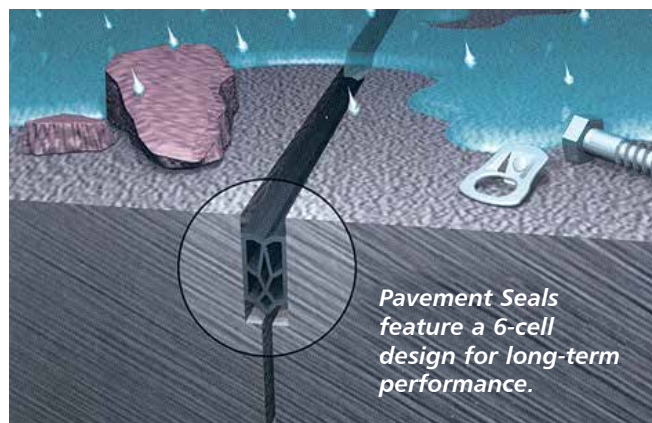
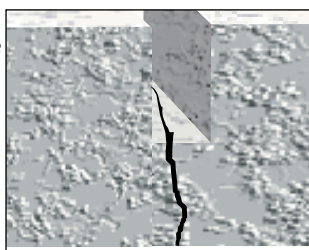
In all instances, the joint sides must be reasonably clean and free of spalls with a properly designed width.

The most desirable installation temperature on jobsite is at 70° — 85°F (seals become more difficult to install at higher temperatures due to smaller joint openings) to as low as 35° — 40°F (the lubricant/adhesives have impaired effectiveness in cold temperatures).

PAVEMENT SEALS

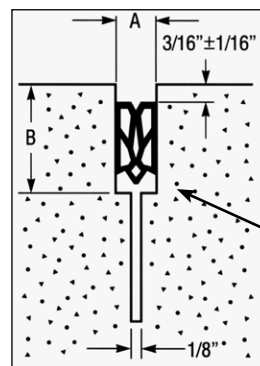
Our "E" and "V" series seals are the primary sealing system for concrete pavement slabs in highways, airport aprons and runways. Seals offer these advantages:

- Availability to seal joints in concrete even when moisture is present
- Resistance to jet fuel and other chemicals
- Speed of installation
- Product cleanliness
- Ease of inspection
- Dramatic reduction in concrete joint spalling



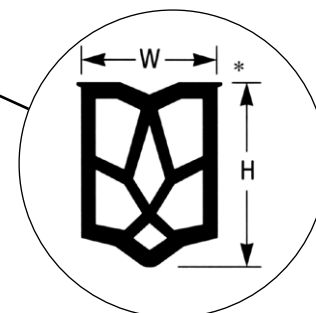
Pavement Seals feature a 6-cell design for long-term performance.

Seals effectively protect concrete pavement in highways, airport aprons and airport runways by keeping moisture, debris and incompressible material out of the joint opening.



* Thickness of the seal wall and internal web are not drawn to scale.

Typical joint design for the "E" and "V" series pavement seals



Seal Catalog No.	SEAL CHARACTERISTICS			JOINT DESIGN CRITERIA		
	Nominal Width (W)	Nominal Height (H)	Max. Movement ¹	Narrowest Opening (A)	Widest opening (A)	Minimum Depth (B)
E437	0.437 (11.11)	0.937 (23.81)	0.184 (4.67)	0.187 (4.75)	0.371 (9.42)	1.250 (31.75)
V562	0.562 (14.29)	0.625 (15.88)	0.178 (4.52)	0.250 (6.35)	0.478 (12.14)	1.125 (28.58)
E686	0.687 (17.46)	0.687 (17.46)	0.259 (6.58)	0.325 (8.26)	0.584 (14.83)	1.250 (31.75)
E816	0.812 (20.64)	0.812 (20.64)	0.348 (8.84)	0.350 (8.89)	0.698 (17.73)	1.500 (38.10)
E1006	1 (25.40)	1 (25.40)	0.450 (11.43)	0.400 (10.16)	0.850 (21.59)	1.750 (44.45)
E1256	1.250 (31.75)	1 (25.40)	0.612 (15.54)	0.450 (11.43)	1.062 (26.97)	2 (50.80)
V1625	1.625 (41.28)	1.125 (28.58)	0.781 (19.84)	0.600 (15.24)	1.381 (35.08)	2.375 (60.33)
E2000	2 (50.80)	1.500 (38.10)	0.950 (24.13)	0.750 (19.05)	1.700 (43.18)	2.625 (66.68)
E2500	2.500 (63.50)	2.500 (63.50)	1.100 (27.94)	0.775 (19.69)	2.125 (53.98)	4 (101.60)
E3000	3 (76.20)	2.500 (63.50)	1.260 (32.00)	1.200 (30.48)	2.550 (64.77)	4.250 (107.95)

Chart Notes:

¹ Maximum movement which seal will accommodate in joint with correct design.

² A narrower opening will place excessive stress on the seal and may cause premature failure.

³ A wider opening may not provide sufficient compressive force to hold the seal in place.

Meets ASTM D 2628 and AASHTO M-220 standard specifications.

First number shown represents inches, metric dimensions (mm) are shown in parentheses.

Lubricant Adhesive

ASTM-D-2835 Specification

This product is primarily used with pavement seals. The function of this product allows the neoprene rubber seal to be easily inserted into the concrete void. This is particularly important, when the joint surface is rough, porous, and not completely clean.

Cat. I.D.	Product Code	Description
L85	150131	Lubricant Adhesive

E.A.J.A. ADHESIVE-4070

This product is a high quality adhesive used to bond bridge seal to steel faced armored joints. The audience is a one part moisture curing polyurethane and aromatic hydrocarbon solvent mixture. E.A.J.A.-4070 bonds neoprene bridge seals to concrete as well as iron surfaces. E.A.J.A.-4070 is the recommended adhesive for structural joint seals and strip seals.

Cat. I.D.	Product Code	Description
L85	150132	E.A.J.A.-4070 Joint Adhesive

TECHNICAL DATA: MEETS ASTM-D-2835 SPECIFICATIONS

COLOR. Amber
Solid Content 25+/-1
ASTM-D-814
Viscosity 75°F ASTM-D-1084-63 7,000-7,500 cps.
except HBF Brookfield No. 2 sp. 10 rpm
Weight per gallon 8./20 minimum
Drying Rate

FILM STRENGTH
Tensile Strength 2.300PSI
Elongation % Minimum 750%

COVERAGE
 $\frac{7}{16}$ " TO $\frac{13}{16}$ " Seals 300L.F./Gal
 $\frac{1}{4}$ " to $\frac{15}{8}$ " Seals 300L.F./Gal

SHIPPING
Freight classification-Adhesive Cements NOIBIN Liquids

TECHNICAL DATA: MEETS ASTM-D-3542-82 SPECIFICATIONS

Average weight per gallon
ASTM-D-899 10.0+/-10%
Solids Content
ASTM-D-898 72%+/-2%
Adhesive will remain fluid between
ASTM-D-412 5°F+/-120°F
Elongation % Min 910%
Color Amber
Viscosity 3400-4000 CPS 1084
Solvents N Methylpyrrolidine
..... Amyl Acetate Aliphatic Hydro Carbons
Flash Point ASTM-D-92 45°F

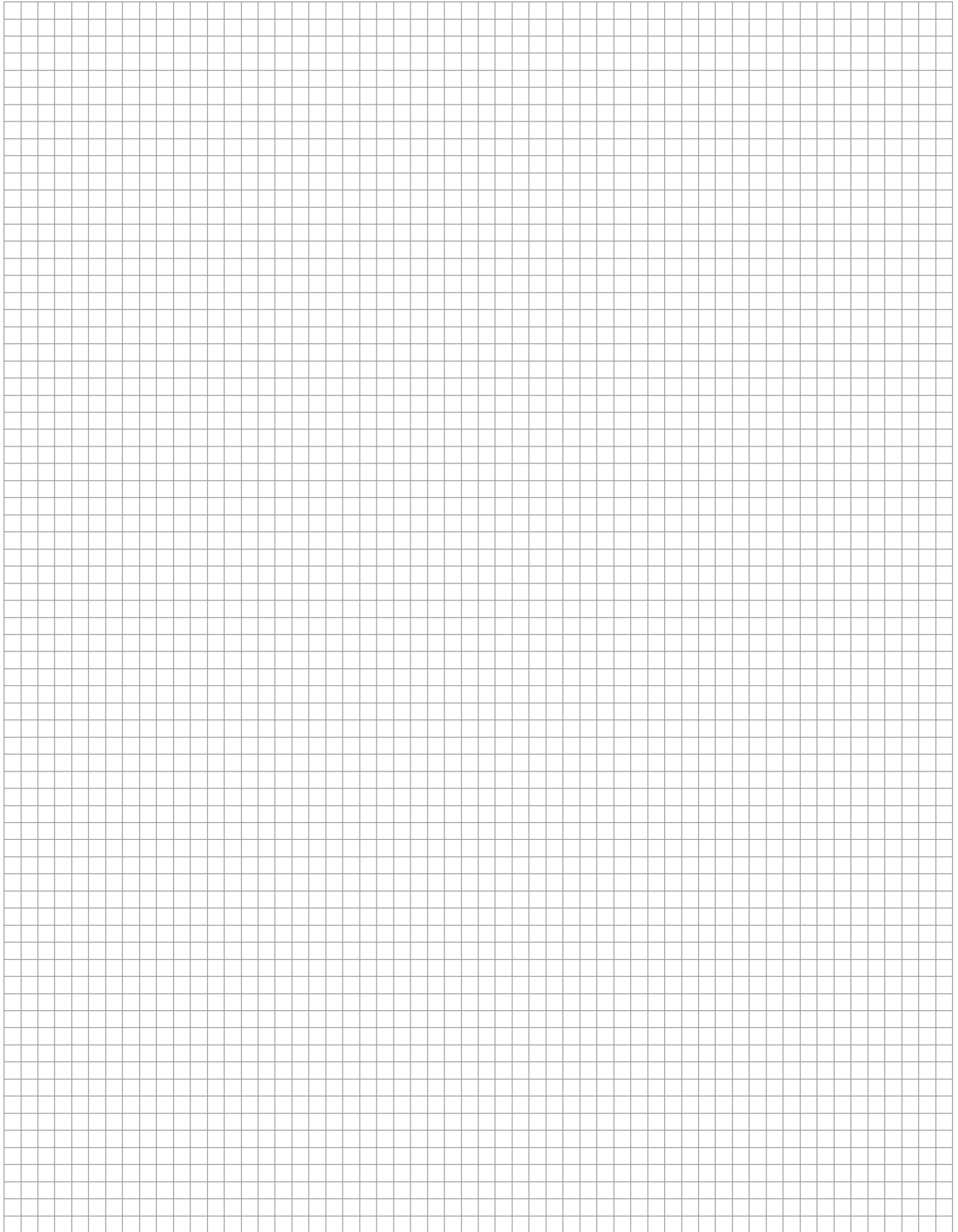
ADVANTAGES:

1. Single component eliminates variations in strength as opposed to two component mixtures.
2. Moisture curing property eliminates the problem of humidity effecting the total curing of adhesives and coatings which are dependent on the molecular weight of the system after it cures.
3. High solids content.
4. Elongation above 910%
5. Acts as an additional waterproofing membrane.

COVERAGE:
Seals from $\frac{15}{8}$ " to 2" 150 LF/Gallon
Seals from 2 $\frac{1}{2}$ " to 5" 100 LF/Gallon

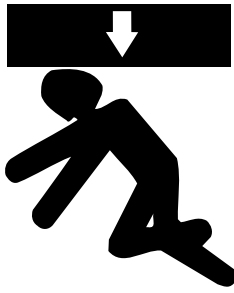
PACKAGING:
In one gallon cans and 5 gallon pails.

FREIGHT CLASSIFICATION:
Adhesive cements. NOIBIN
Flammable Liquid - Red Label No. 3. UN No. 1133



2 in 1 Paving Forms	13	Grout Retention Ring.....	8
1614JFR-HP Joint Sealant.....	17	HD50	16
3405-HP Joint Sealant	17	Heavy Duty Paving Forms	13
Anti-Spall™	16	High Chair Upper	11
Asphalt Pavement Sealant.....	17	Highway Dowel Hole and Keyway Section	13
Backer Rod	7	Highway Epoxy™	16
Basket Clips	8	Highway Fiber Expansion Joint.....	7
Basket Stake	5	Highway Liquid Joint Sealant™	17
Cementitious Products.....	16	J8	15
Channel Stake	6	J9A.....	15
CHC	11	J10W	15
CHCU.....	11	J11W	15
City White Cure.....	15	J11W with Dye	15
Clear Resin Cure.....	15	J33	16
Compression Seal.....	18	J50	16
Concrete Pavement Sealant	17	J51.....	16
Continuous High Chair	11	J74RTU.....	16
Continuous Mesh Support.....	11	Joint Seal - Elastomeric	18
Continuous Support.....	12	Joint Sealing Products.....	17
Contraction Baskets	4	K4	4
CRCP Replacement	11	K5	4
CS.....	12	K6	5
Curb and Gutter Forms	13	K11	8
Dowel Assemblies	1	K12.....	8
Dowel Bars	4	K13.....	8
Dowel Baskets	4	K15.....	5
Dowel Caps.....	8	K17.....	6
Dowel Chair	9	K18.....	5
E437.....	18	K19.....	6
E686.....	18	K21.....	7
E816	18	K27H	9
E1006.....	18	K28W.....	9
E1256	18	K29.....	9
E2000	18	K30.....	10
E2500	18	K33.....	10
E3000	18	K34.....	10
E.A.J.A. ADHESIVE-4070	19	K35.....	10
Elastomeric Seals.....	18	K54.....	9
Epoxy Adhesives	16	K60.....	11
Epoxy Coating Services	8	Keyways.....	10
Epoxy Repair Products.....	16	L83	7
Expansion Baskets	4	L84	7
False Forms.....	10	L85	19
Foam Core Boards for Dowel Bars	9	Liquid Surface Treatments	15, 16
FS Stake.....	5	LM3405HP Joint Sealant.....	17
G27	6	Load Transfer	1
Gravity Wall Control Joint	14	Longitudinal Joint Ties.....	9

Lost Formwork	14
Lubricant Adhesive.....	19
Maintenance Re-Sealing	17
Mat Stake	7
Mesh Support	11
Metal Keyway - Center Strip	10
Metal Keyway - Recess Form.....	10
MS Stake.....	5
Order Information.....	3
Pavement Seals.....	18
Pave Patch 3000.....	16
Paving Forms	13
Perma Prime 3C.....	16
Pour-Fast	14
PPC	12
PS Stake	6
Quote Form.....	3
Resin Cure w/ Dye	15
Retention Ring	8
Round Stake.....	6
Snap-On Dowel Chair and Caps.....	9
Sure Anchor™	16
Sure Anchor™ I	16
Sure Patch Epoxy	16
Surface Treatments.....	16
TBA	11
Tie Bar Assembly	4
Tie Bars.....	4
Transverse Bar Assembly.....	11
Type “D” Contraction Baskets.....	4
Type “D” Expansion Baskets.....	4
Type “D” Wire Baskets	4
V562.....	18
V1625	18
Welded Dowel Assemblies.....	1
White Resin Cure.....	15
White Wax Cure	15
Wire Baskets.....	4

	 WARNING Improper Use of Concrete Accessories Can Cause Severe Injury or Death Read, understand and follow the information and instructions in this publication before using any of the Dayton Superior concrete accessories displayed herein. When in doubt about the proper use or installation of any Dayton Superior concrete accessory, immediately contact the nearest Dayton Superior Service Center or Technical Service Department for clarification. See back cover for your nearest location.
---	--

Dayton Superior products are intended for use by trained, qualified and experienced workers only. Misuse or lack of supervision and/or inspection can contribute to serious accidents or deaths. Any application other than those shown in this publication should be carefully tested before use. The user of Dayton Superior products must evaluate the product application, determine the safe working load and control all field conditions to prevent applications of loads in excess of a product's safe working load. Safety factors shown in this publication are approximate minimum values. The data used to develop safe working loads for products displayed in this publication are a combination of actual testing and/or other industry sources. Recommended safe working loads given for the products in this publication must never be exceeded.

Worn Working Parts

For safety, concrete accessories must be properly used and maintained. Concrete accessories shown in this publication may be subject to wear, overloading, corrosion, deformation, intentional alteration and other factors that may affect the device's performance. All reusable accessories must be inspected regularly by the user to determine if they may be used at the rated safe working load or should be removed from service. The frequency of inspections depends upon factors such as (but not limited to) the amount of use, period of service and environment. It is the responsibility of the user to schedule accessory hardware inspections for wear and remove the hardware from service when wear is noted.

Shop or Field Modification

Welding can compromise a product's safe working load value and cause hazardous situations. Knowledge of materials, heat treating and welding procedures is necessary for proper welding. Consult a local welding supply dealer for assistance in determining required welding procedures. Since Dayton Superior cannot control workmanship or conditions in which modifications are done, Dayton Superior cannot be responsible for any product altered in the field.

Interchangeability

Many concrete accessory products that Dayton Superior manufactures are designed as part of a system. Dayton Superior strongly discourages efforts to interchange products supplied by other manufacturers with components supplied by Dayton Superior. When used properly, and in accordance with published instructions, Dayton Superior products have proven to be among the best designed and safest in the industry. Used improperly or with incompatible components supplied by other manufacturers, Dayton Superior products or systems may be rendered unsafe.

Installation

WARNING

1. Dayton Superior Corporation products shall be installed and used only as indicated on the Dayton Superior Corporation installation guidelines and training materials.
2. Dayton Superior Corporation products must never be used for a purpose other than the purpose for which they were designed or in a manner that exceeds specific load ratings.
3. All instructions are to be completely followed to ensure proper and safe installation and performance.
4. Any improper misuse, misapplication, installation, or other failure to follow Dayton Superior Corporation's instruction may cause product malfunction, property damage, serious bodily injury and death.

THE CUSTOMER IS RESPONSIBLE FOR THE FOLLOWING:

1. Conformance to all governing codes
2. Use of appropriate industry standard hardware
3. The integrity of structures to which the products are attached, including their capability to safely accept the loads imposed, as evaluated by a qualified engineer.

SAFETY INSTRUCTIONS:

All governing codes and regulations and those required by the job site must be observed. Always use appropriate safety equipment

Design Changes

Dayton Superior reserves the right to change product designs, rated loads and product dimensions at any time without prior notice.

Note: See [Safety Notes](#) and [Safety Factor Information](#).



DAYTON SUPERIOR

1125 Byers Road
Miamisburg, OH 45342
937-866-0711
888-977-9600
WWW.DAYTONSUPERIOR.COM



BUILDING STRENGTH™