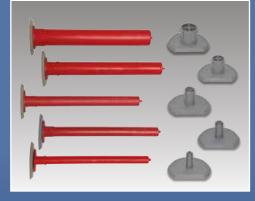
Bc/Actals,inc.

concrete and masonry accessories



Waterstops Keyway Dowel Systems Accessories























WELCOME TO BOMETALS

For 35 years BoMetals has held a reputation in the concrete and masonry accessory market for continuous innovation, enthusiastic customer service and dedication to the construction industry.

BoMetals serves the concrete accessory market by manufacturing

a wide variety of products used in both commercial and residential construction. These products include a comprehensive offering of PVC and TPER Waterstop to meet the needs of any job. We also supply Mastic and Hydrophilic Waterstops.



BoMetals is also the nations top manufacturer of keykold joint systems.

They include QuicKey™, the only galvanized joint system that features square dowel knockouts and Pro-Key™, with a patented positive stake-to-key interlock. Other concrete products include Keyway Caps, Expansion Board Caps, Zip Joint, Chamfer and Radius Formers plus much more.



BoMetals also serves the masonry market with a complete line of PRO-SLOT™ and Dovetail Anchors, and Control Joint which are available in PVC and Rubber. We also manufacture Block Cap & Weep Tubes.

All BoMetals products are available through a national network of distributors and warehouses. A trained and knowledgeable sales or engineering staff offer personalized service unparalleled in the industry today.

Sincerely,







Direct access to BoMetals.com

LIMITED WARRANTY AND LIMITATION ON LIABILITY

BoMetals, inc warrants that each product described herein shall be free from defects in materials and workmanship, ordinary wear and tear excepted, for one year from the date of delivery thereof, provided that such product is used and installed properly and is not interchanged or used with the products of other manufacturers. BoMetals' sole obligation, and buyer's exclusive remedy, under this warranty shall be limited to, at BoMetals' option, full refund of the purchase price of the nonconforming product or replacement of the nonconforming product.

For full details on our warranty, please contact us at 800-862-4835

PRODUCT SELECTION DISCLAIMER

BoMetals is happy to assist in your product selection; However, BoMetals disclaims any responsibility for the selection of a particular product. Product selection is the sole responsibility and decision of the buyer. The suitability of any material for a specific application requiring fluid resistance is best determined by specific testing for the application. BoMetals urges the Buyer to conduct its own testing.

RETURN/CANCELLATION **POLICY**

Any return must have a Return Goods Authorization Number (RGA#). BoMetals will only issue credit for what is received with a RGA# and found to be in resalable condition within 90 days from invoice date. 20% restocking fee applies & return freight is prepaid by shipper. BoMetals cannot issue credit for damaged or lost items during transit. Purchase Orders cannot be cancelled for any custom item after the manufacturing process has begun.

For full details on Return/Cancellation Policy, please call 800-862-4835.











PVC WATERSTOPS

TYPES OF CONCRETE JOINTS

Expansion (Isolation) Joint

A joint that separates the slab structurally from other building elements such as walls, columns, foundations, drain pipes, to accommodate differential horizontal and vertical movement.

Contraction (Control) Joint

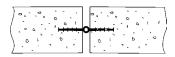
A formed, sawed or tooled groove in a concrete structure to create a weakened plane and regulate the location of cracking resulting from the dimensional change of different parts of the structure.

Construction Joint

A joint placed in concrete where construction operations are concluded for the day.

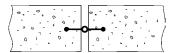
- Reprinted with permission, American Concrete Institution, CCS-1, Slabs on Grade, Mary K. Hurd, Editor.

WATERSTOPS FOR MOVING JOINTS



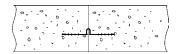
Ribbed Center Bulb

Used in expansion joints where normal movement between members is anticipated. Also available in split shapes.



Dumbbell with Center Bulb

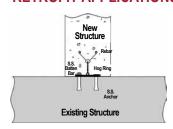
Used in expansion joints where longitudinal and transverse movement is anticipated.



Tear Web

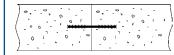
Used in expansion joints where large joint movements are expected.

RETROFIT APPLICATIONS



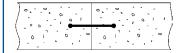
Used to provide a watertight seal when attaching a new construction project to an existing one.

WATERSTOPS FOR NON OR LIMITED MOVEMENT JOINTS



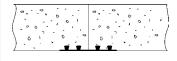
Flat Ribbed

Used in construction joints where little or no movement is anticipated and where high bond strength is desired.



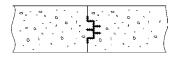
Dumbbell

Used in construction joints where little or no movement is anticipated. Also available in split shapes.



Base Seal

Used in grade construction between concrete walls and slabs, in backfilled retaining walls and in keyed construction joints in walls and slabs.



Multi Rib

Used in construction joints in vertical applications where key action is desired.

TYPICAL PROPERTIES OF PVC WATERSTOPS MEET OR EXCEED CRD-C 572-74, 100% VIRGIN RESIN

Typical Properties	Minimum Value	ASTM
Water Absorption, %	0.15 max	D-570
Tear Resistance, lb/in (kg/cm)	300 (53.5)	D-624
Specific Gravity, (+/-0.05)	1.38	D-792
Hardness, Shore A (+/-5, 10 sec. delay)	80	D-2240
Tensile, psi (kg/cm²)	2000 (140.6)	D-638, Type IV
Elongation, %	350	D-638, Type IV
Low Temperature Brittleness, °F (°C)	-35(-37) Passed	D-746
Stiffness in Flexure, psi (kg/cm²)	600 (42.1)	D-747
Accelerated Extraction, CRD-C 572		
Tensile, psi (kg/cm²)	1600 (112.4)	D-638, Type IV
Elongation, %	300	D-638, Type IV
Effect of Alkali, CRD-C 572		
Weight Change, %	-0/+0.25	
Change in Hardness, %	+/-5	D-2240

IMPORTANT: The technical data herein is believed to be accurate. It is offered for your consideration, investigation and verification. All testing and test data has been prepared by independent laboratories. NO WARRANTY, EXPRESS OR IMPLIED, IS MADE as to the accuracy or completeness of the technical data herein and the use thereof for any particular purpose.



PVC WATERSTOPS Available in TPER

RIBBED CENTER BULB

Catalog Number	Head Pressure	Lbs./ LF	Profile
RCB-4316	65'	.40	1/6" 3/16"3/8" O.D. 4"3/16" I.D.
RCB-4316CA	65'	.50	3/18" [1/2" O.D. & 5/16" I.D.
RCB-4316LB	65'	.74	CH2M HILL 3/16" 3/4" O.D4 7//16" 4" 4/4" I.D.
RCB-4316NT	65'	.60	3/18" -9/16" O.D. 7/16" D
RCB-6316	100'	.73	3/18" -9/16" O.D. 3/8" -1/4" I.D.
RCB-6316A	100'	.92	NYDOT TYPE A -3/16" 5/8" O.D. 17/16" -8" 3/8" I.D. 110"
RCB-6316NT	100'	.86	3/16" 1/2" O.D 3/8" 6*3/16" I.D 3/8"
RCB-6316T	100'	.68	3/19"1/2" O.D. 6*1/4" I.D.
RCB-612	150'	1.90	-3/8" 1/2",45/16" O.D., -5/16" I.D. T
RCB-614	100'	.98	-3/16" 1/4" 11/16" O.D. ₁
RCB-638	125'	1.16	-3/16" , 3/8" 5/8" O.D.
RCB-638BR	125'	1.19	BUREAU OF RECLAMATION 3/16" 3/8", 5/8" O.D. 1//16"

Catalog Number	Head Pressure	Lbs./ LF	Profile
RCB-638LB	125'	1.63	CH2M H, MWH, BLACK & VEATCH -7/8" O.D. + 5/8" -6"5/16" I.D.
RCB-638NT	125'	1.55	-3/8" O.D. 5/6"
RCB-912	200'	2.42	7/8" O.D. & 3/8" I.D.
RCB-9316	100'	1.20	3/16" 9/16" O.D. 3/8"
RCB-938	175'	1.76	3/16" 3/8"/3/4" O.D.
RCB-938BR	175'	2.65	BUREAU OF RECLAMATION -1/4" 3/8" 11/2" O.D1/4" 7/8" I.D.
RCB-938LB	175'	2.25	1/4" 3/8" 4 1/4" O.D. 5/6"
RCB-938NT	175'	2.45	CH2M H, MWH, BLACK & VEATCH -3/8" -1" (O.D5/8"
RCB-938VLE	3 150'	2.73	1 3/8" O.D. 5/8"
RCB-1212	225'	4.32	1/2" 1 1/4" O.D. 1/8"
RCB-1212T	225'	3.60	1/4" 1/2" 1 1/4" O.D. 7/8" I.D.
RCB-12316	150'	1.56	1/8" 3/16"-7/16" O.D. 3/8"

PVC WATERSTOPS Available in TPER

FLAT RIBBED

Catalog Number	Head Pressure	Lbs./ LF	Profile
FR-4316	65'	.45	F3/16" S/8"
FR-6316	75'	.81	e. (3/16°)/2"
FR-638	125'	1.50	3/8" <u> 5</u> /8"
FR-638RT	125'	1.70	3/8" 9/4"
FR-638T	125'	1.30	1/4" -3/6" 172"
FR-9316	100'	1.20	3/18" 17/16"
FR-938	175'	2.37	-385
FR-938T	175'	2.07	rt/4" <u>-s/8"</u> 1/2"

SPLIT RIBBED CENTER BULB

Catalog Number	Head Pressure	Lbs./ LF	Profile
SR-4316	65'	.52	9/16" O.D ₃
SR-6316	100'	.75	9/16" O.D. 3/16" 1/4" I.D. 6" 1/8"
SR-638	125'	1.54	5/8" O.D. 3/8" 5/8" 5/8"
SR-938	150'	2.04	3/4" O.D. 3/8" 5/8" 3/16" I.D. 9"
SR-1212	200'	3.18	1 1/8" Q.D. 1/2" 1/4" 1/2" 1/2" 1/2" 1/2" 1/2" 1/2" 1/2" 1/2

DUMBBELL

Catalog		Lbs./	
Catalog Number	Head Pressure	LDS./	Profile
DB-4316	65'	.49	-3/18 3/8"
DB-6316	75'	.71	-3/16" -3/8"
DB-6316LB	75'	.93	,3/16° 5/8°
DB-614	100'	1.11	5/8"
DB-638	125'	1.59	, 3/8° , -3/4°
DB-9316	100'	1.17	3/16° -1/2°
DB-938	150'	2.17	3/8" 3/4"
DB-938LB	150'	2.55	9°
DB-1238	200'	2.99	12" 3/4"

SPLIT DUMBBELL

Catalog Number	Head Pressure	Lbs./ LF	Profile
SD-638	125'	1.51	13/8" 3/4"
SD-938	150'	2.20	9" 3/8" 3/4"

MULTI RIB

Catalog Number	Head Pressure	Lbs./ LF	Profile
MR-314	25'	.84	3/18**
MR-412	50'	1.24	9/167



PVC WATERSTOPS Available in TPER

RETRO FIT

KLIKOI			
Catalog Number	Head Pressure	Lbs./ LF	Profile
RF-4316	N/A	.89	\$/16" 1/4" D.D.2 3/6" 1/4" I.D.
RF-638	N/A	2.15	3/18 ² 3/18 ² 5/3* 0.0.
RF-912	N/A	4.84	6 3/6" 1 1/2" O.D & 3/4" I.D.
RFL-3316	N/A	.90	3/16

DUMBBELL WITH CENTER BULB

Catalog Number	Head Pressure	Lbs./ LF	Profile
DBCB-614	100'	1.41	1 1/8" O.D. 5/8"
DBCB-638	100'	1.68	3/8"
DBCB-938	150'	3.10	3/8° 0 1 1/2° 0.D. 1°
DBCB-938L	150'	3.70	2 3/4" O.D. 15/16"

RETRO FIT ACCESSORIES - EPOXY, SS BARS & BOLTS



BASE SEAL

DAGE GE	.,		
Catalog Number	Head Pressure	Lbs./ LF	Profile
BS-618	100'	.89	NYDOT TYPE D 19/16"
BS-618CI	100'	1.07	9/16, 1 5/8 1/25 1/8
BS-718E	100'	1.16	NYDOTTYPEE
BS-72518	75'	.88	TXDOT TYPE B 1/8" 7 1/4" 17/16"
BS-9316	100'	1.72	TODOT TYPE A 3/16" T T 1/18/16"
BS-9532	100'	1.53	5/32 29/32 9 1
BS-17532	N/A	2.75	17/9° 4 7/9° 2° 4 58° 778°
CU-912	N/A	4.53	9" 3/4" 3 1/2" 3 1/2" 8"

PVC WATERSTOPS

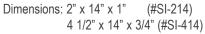
TEAR WEB

Catalog Number	Head Pressure	Lbs./ LF	Profile
CTW 1-2	35'	1.10	CALTRANS 1/8" 3 1/8" 5 1/4"
TW-618	65'	.78	1/8" 13/4" [3/8"
TW-918	100'	1.00	1/8* 3/4* 3/8*
TW-938	150'	3.78	2 1/2"

WATERSTOP ACCESSORIES

FIELD SPLICING TOOLS





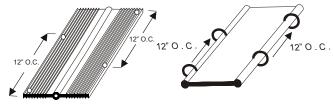


100% factory tested, adjustable temperature, heavy duty vinyl grip, teflon peel and stick cover, standard 110-120 VAC/8 Amp, 8' power cord, UL Listed.

Additional Splicing Covers available.



HOG RING OR EYELET INSTALLATION



BoMetals can install Hog Rings or Eyelets to virtually any Waterstop profile. Please call 800-862-4835 for profile specific quotes.

We are also able to supply Hog Rings direct to you for field installation.

WATERSTOP ACCESSORIES

CUSTOM SPLICES

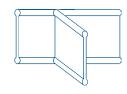
An important factor in the watertightness of any waterstop is the reliability of splices. With BoMetals fittings, you are guaranteed greater strength and efficiency with ease of field installation. The following factory made splices are available in PVC & TPER. BoMetals is also capable of manufacturing other custom splices specifically to fit your specifications.



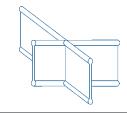
Custom Fabrication Video



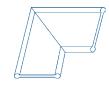
Vertical Ell



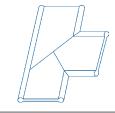
Vertical Tee



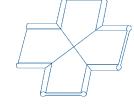
Vertical Cross



Flat Ell



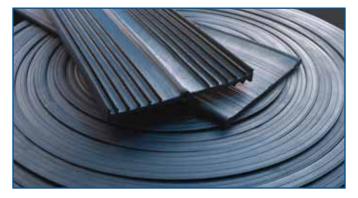
Flat Tee



Flat Cross



CHEMICAL RESISTANT WATERSTOP



TPER AVAILABLE IN EVERY PROFILE ON PAGE 3-9

Chemical Resistant Waterstop is available in virtually every PVC Profile. BoMetals TPER is made of a specially formulated Thermoplastic Vulcanizate which is fully cross-linked compound. TPER should be used to provide a fluid tight diaphragm in secondary and tertiary, above and below grade containment facilities. This is accomplished by offering a product for concrete expansion and construction joints that greatly expands its resistance to petro-chemical, solvents, aqueous acids, and chemicals listed as hazardous by the EPA. BoMetals many selections will allow precise waterstop design for each critical application. The physical design and the field installation adversities should be considered when specifying and designing waterstop installation.

Physical Properties of TPER Waterstop

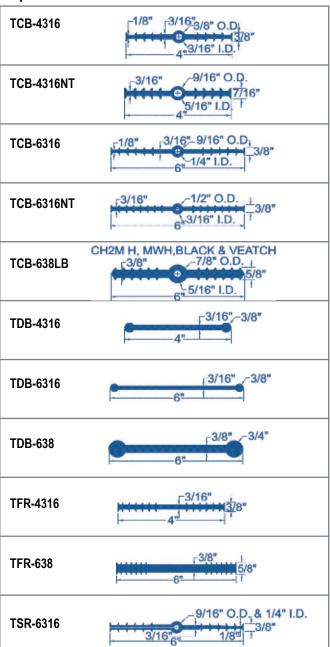
Properties	Nominal Value	ASTM
Hardness Shore A, ±3	90	D-2240
Specific Gravity	0.96	D-792
Tensile Strength, psi (MPa)	2300 (15.9)	D-412 D-1171
Elongation, %	530	D-412
Brittle Point, °F (°C)	-65 (-54)	D-746
Stress @ 100% Elongation, psi (MPa)	1000 (6.9)	D-638
Ozone Resistance	Passed with no cracking at 500 pphm	

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TPER Retro Fit Accessories Epoxy, SS Bars & Bolts



Popular Chemical Resistant Profiles



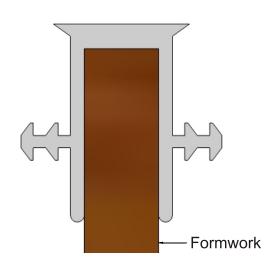
BOMETALS CAN MANUFACTURE CHEMICAL RESISTANT WATERSTOP FROM VIRTUALLY ANY PROFILE ON PAGES 4-7

B-SEAL PAVING CAP SEAL

B-SEAL is one of the most advanced Paving Cap Seal System in the industry.

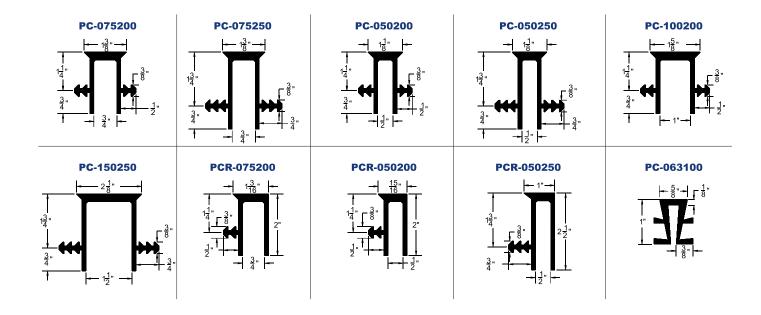
BoMetals uses specially formulated PVC to provide a durable sealing system for a maintenance free joint.

- -Same continuous look throughout joint -Protects against debris
- -Can be used in the screeding process -Also available in TPER



Typical Properties	Nominal Value	ASTM Method
Tensile Strength, psi	2500 min	D-412
Elongation, %	300 min	D-412
Hardness Shore A, ± 3	85	D-2240
Oil Swell, Change in Volume/Weight ASRM #3 Oil, 70 hrs. @212F	± 10% by volume max. ± 15% by weight max.	D-471
Abrasion Resistance 10,500 cycles, 1000 grams load	Material Loss - 0.4 gms. max.	D-3884
Ozone Resistance, 20% Strain 300 pphm, 70 hrs. @ 104F	No Cracking	D518
Results After Heat Aging	Tensile Strength Retained: 90% min. Elongation Retained: 90% min. Hardness Changes: 3%	D-573

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HYDROPHILIC CHLOROPRENE RUBBER

FEATURES: • Controlled Swell

- Non-Bentonite
- Good chemical resistance
- · High hydrostatic pressure



COMMON APPLICATIONS:

- Cast-in-place joints (100psi)
- Standard precast concrete joints (30psi)
- Precast tunnel segments (75psi)

PROJECT TYPE EXAMPLES:

- Retaining Walls
- Waste Water
- Storage Tanks
- Foundations
- Water Treatment
- · Slab on Grade

AVAILABLE DIMENSIONS:

HS-1020CR 3/8" x 3/4" x 25' - 8 rolls/case (200ft) **HS-0725CR** 5/16" x 1" x 25' - 6 rolls/case (150ft)

HYDROPHILIC ELASTOMERIC SEALANT

- **FEATURES:** Swells upon contact with water
 - Single component application
 - Excellent for new construction
 - Suitable for repair application
 - Works well with precast
 - Swells up to 100% in 7 days
- Resists hydrostatic pressure to 60psi
- Adhesive and weld properties



HS-201P-20 (20.2oz. pack)

BUTYL RUBBER HYDROPHILIC

FEATURES: • Provides watertight seal in cold joints

- Controlled swell on contact with water
- Penetrates into poorly consolidated surfaces



COMMON APPLICATIONS:

- New or existing non-moving construction joints
- Through wall penetrations
- Depths of up to 100 feet

PROJECT TYPE EXAMPLES:

- Water treatment facilities
- · Waste water treatment facilities
- Tunnels and vaults
- Manholes, culverts, slabs

AVAILABLE DIMENSIONS:

HS-101 3/4" x 1" x 16.8' - 6 rolls/case (100ft)

HS-101T 1" Trapezoid x 21' - 6 rolls/case (126ft)







BUTYL RUBBER NON HYDROPHILIC



PROJECT TYPE EXAMPLES:

- Cold joints in highway tunnels
- Parking garages
- Hospitals
- · Sports complexes
- Enclosed potable reservoirs
- Wastewater plants

AVAILABLE DIMENSIONS:

HS-302NS 1-1/4" x 1" x 36" - (75ft box)

FUEL RESISTANT

FEATURES: • Non Swell

 Permanently flexible maintaining watertight joints

- Will not harden or shrink over time
- Installation is possible between 20° to 120° F

COMMON APPLICATIONS:

 Suitable for applications with possible exposure to: Gasoline, Jet A Fuel, JP-4 Fuel, JP-8 Fuel, Kerosene, Methyl Ethyl Ketone, Runway De-Icers, Diesel

PROJECT TYPE EXAMPLES:

- Airports
- Transportation facilities
- Fuel storage

AVAILABLE DIMENSIONS:

HS-312FR 7/8" x 7/8" x 14.5' - 8 rolls/case (116ft)

PRIMER ADHESIVES



Use with Mastic Non-Hydrophilic applications. Brush on application. Creates a bond and adhesion between concrete and preformed sealant.

SOLVENT BASED

HS-311PS (4) 1 gal. pails/case

WATER BASED

HS-300PW (4) 1 gal. pails/case



USES

- Used in concrete flatwork as a control or construction joint
- Tongue & Groove design provides excellent load transfer characteristics
- Used as a screed rail to finish the concrete



ADVANTAGES

- QuicKey™ is only galvanized joint system that features knockouts for square dowels, which provide better load transfer over round dowels & also reduces edge curl on the slab.
- Knockouts sizes meet both ACI and PCA recommendations for the design of tongue and groove key joint
- Saves on installation time... stake quickly interlocks at any point with key joint, reducing to place stakes precisely.
- Stiffened ribs are designed for increased rigidity while installing
- LOCKING-TAB™ stakes provide a positive interlock between stake & key joint to eliminates floating or rising from the stake, minimizing high spots.
- Stake profile features a non-twist design with allows the stake to be driven at a straight angle



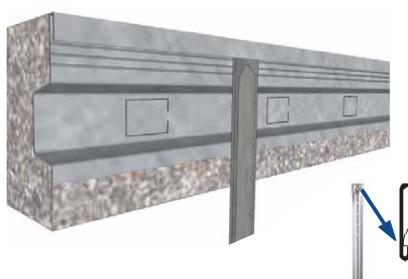
Video

MATERIAL

- QuicKey™ Keyway is made from 24 gauge G60 HDMG Steel
- Square knockouts every 6 inches
- Available in 10ft lengths for 4", 5", 6", 8" & 10-12" slabs
- LOCKING-TAB™ Stakes takes are made from 14-gauge HRPO steel
- Available in 12" (QK12), 15" (QK15), 18" (QK18), 24 (QK24) & 30" (QK30) lengths
- Removable and Non-Removable Keyway caps are made from Flexible PVC materials



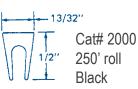
QUICKEY™ SYSTEM



Stake QUICKLY interlocks at any point with QuicKey, REDUCING time to place stakes precisely.

> Inserting **LOCKING-TAB**™ stakes produces an audible click which indicates the interlock between stake and key joint.

QuicKey™ PVC Removable Cap yields straight void ready for sealing.

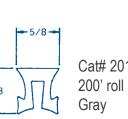




QuicKey™ PVC Non-Removable Cap seals the joint because it stays in place.



Cat# 2010



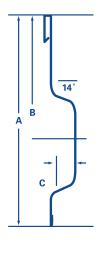


QuicKey™ Splice Cat# 2020 200ea / box



QuicKey™ Clip Cat# 2021 200ea / box

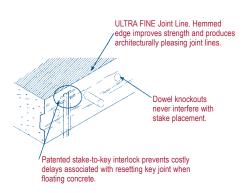
Cat. #	Slab Thickness	Α	В	С	Knockout Size
QK35	4"	3 1/8"	2"	3/4"	7/8" x 1 3/8"
QK45	5"	4 1/8"	2 1/2"	3/4"	7/8" x 1 3/8"
QK55	6"	5 1/8"	3"	3/4"	1 1/4" x 1 1/2"
QK75	8"	7 1/8"	4"	1"	1 1/4" x 1 1/2"
QK95	10" - 12"	9 1/8"	5"	1"	1 1/4" x 1 1/2"



PRO-KEY™ SYSTEM

USES

- Used in concrete flatwork as a control or construction joint
- Tongue & Groove design provides excellent load transfer characteristics
- Used as a screed rail to finish the concrete

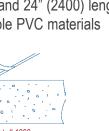


ADVANTAGES

- ❖ Positive stake-to-key lock of PRO-KEY™ prevents costly delays associates with resetting key joint when floating concrete. Stakes interlock with slots to prevents the key form rising off the stakes.
- Location of the key is 1/2 depth of slab as specified by ACI & PCA
- Radius formed key eliminates the sharp angles that produce spalling tendency.
- ULTRA FINE profile at top edge eliminates surface voids, reduced spalling and produces architecturally pleasing joint lines in the finished slab.
- ❖ PRO-KEY™ LOCK-SLOT™ Stakes double as a butt splice

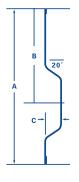
MATERIAL

- ◆ PRO-KEY[™] Keyway is made from 24 gauge G60 HDMG Steel
- Dowel knockouts every 6 inches
- Available in 10ft lengths for 4", 5", 6" 8" & 10-12" slabs
- LOCK-SLOT™ Stakes are made from 16 gauge HRPO steel
- Available in 12" (1200), 15" (1500), 18" (1800) and 24" (2400) lengths
- Removable Keyway caps are made from Flexible PVC materials





Cat. #	Slab Thickness	Α	В	С	Knockout Dia.
3500	4"	3 1/8"	2"	3/4"	7/8"
4500	5"	4 1/8"	2 1/2"	3/4"	7/8"
5500	6"	5 1/8"	3"	3/4"	7/8"
7500	8"	7 1/8"	4"	3/4"	1 1/4"
9500	10" - 12"	9 1/8"	5"	3/4"	1 1/4"





Computer controlled production assures that

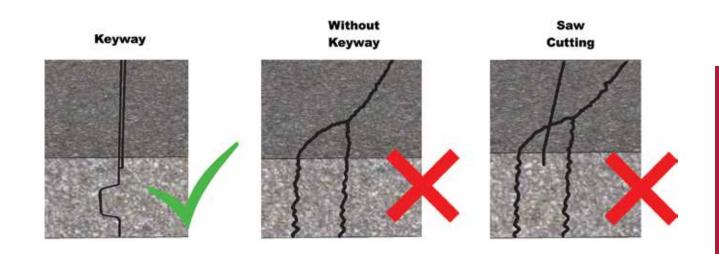
butt splice.

stake holes at each end are precisely located to allow stake

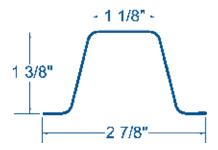
to engage both ends as a

Installation Video

KEYWAY INSTALLATION

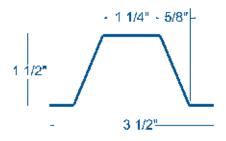


METAL NAIL-ON KEYWAY



- · Made of high quality hot dipped mill galvanized steel
- A 1:4 slope that meets both ACI & PCI recommendations
- Folded over to eliminate sharp edges
- · All knockouts are on 6" center
- Two knockout size of 9/16" (MNK) or 7/8" (MNK-78)
- 5,000ft/sk, 25 bundles of 200ft ea, 10ft lengths

PLASTIC NAIL-ON KEYWAY



- Plastic Nail-On Keyway (PNK) is nailed to a form prior to pouring
- Installed in tilt-up work, industrial floors, curbs or wherever specified
- Simple to use, lightweight and reusable
- BoMetals quality that you've come to recognize
- 10-foot lengths, 400 feet per box



HIGHWAY CENTER STRIP KEYWAY SYSTEM

USES

- Used in concrete flatwork as a control or construction joint
- Tongue & Groove design provides excellent load transfer characteristics
- Used as a screed rail to finish the concrete

Tie Holes To Prevent Floating Overlap with Stake as Splice Dowel Knockout 6" on Cente "Passthru Configuration Channel Stake Stake Slot 12" on Center

ADVANTAGES

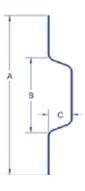
- Eliminates costly form stripping and saw cutting.
- Radius formed key eliminates the sharp angles that produce spalling tendency
- ULTRA FINE profile at top edge eliminates surface voids, reduced spalling and produces architecturally pleasing joint lines in the finished slab.
- Channel Stakes double as a butt splice

MATERIAL

- Keyway is made from 20 gauge HDMG Steel
- Dowel knockouts every 6 inches
- Available in 10ft lengths for 5", 6" 8" 9" & 10" slabs
- Channel Stakes are made from 16 gauge HRPO steel
- Available in 15" (HK15) lengths

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Product Code	Slab Thickness	Α	В	C	Knockout Diameter
HK45	5"	4 1/2"	2 3/4"	1"	7/8"
HK55	6"	5 1/2"	2 7/8"	1"	7/8"
HK65	7"	6 1/2"	3"	1"	7/8"
HK75	8"	7 1/2"	3 1/4"	1"	1 1/4"
HK85	9"	8 1/2"	3 1/2"	1"	1 1/4"
HK95	10"	9 1/2"	3 3/4"	1"	1 1/4"



RECESS KEY PRODUCT LINE

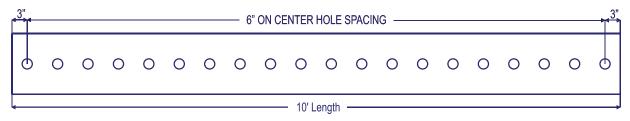
BoMetals **RECESS KEY** Product Line is used to make a key in the concrete to provide load transfer across the concrete joint. BoMetals is proud to announce that we have 3 different types of Recess Key. The main differences between the designs is dowel spacing. All Recess Key is made of 24 gauge and legs are made of 20 gauge hot dipped, mill galvanized steel. Recess Key with leg is also available which can be determined by the thickness of the concrete slab. All the different designs will have the same style profile as you see in Figure A. Minimum orders apply on some sizes.

Fi	gure A	
B A	B	A
Recess Key		
	Recess Key w / Leg 3 / piece	
	2"	

Recess Key	Α	В	С	Hole Size
RK5	2 1/2"	1 1/2"	1"	7/8"
RK6	2 1/2"	1 1/2"	1"	1"

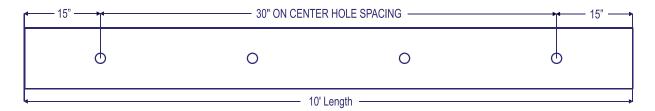
UNIVERSAL KEY (RK) & UNIVERSAL KEY WITH LEG (RKL)

This design can use any 6" increment on center spacing whether you butt up the ends or overlap the first dowel holes.



MO-KEY (RKM) & MO-KEY WITH LEG (RKML)

This design would be used to butt the end together to maintain a 30" on center spacing through out the joint. Conforming to Missouri Configurations.





The Cost Effective Solution for

QuicDiamond™ Basket is the ideal solution for saw cut joints to optimize the steel in a flat plate. The diamond shape positions the widest portion of steel where it is needed most and the diamond shape offers the best in expansion flexibility.

QuicDiamond™ Baskets

- Provides stable dowel support and alignment with fully-welded basket assemblies
- Custom baskets available through our distribution network
- All steel is sawn according to industry guidelines ensuring smooth plate edges that will ensure free movement of dowel
- Doweling method in accordance with ACI 360 Design of Slab-on-Ground
- Design accommodates axial and lateral slab movements rapidly
- · Engineered to provide optimal use of steel

- Doweling method in accordance to ACI360
- Factory-applied debonding agent on all dowel plates
- All plates are manufactured from steel certified to meet ASTM A36
- Cross-sectional area of steel at the outside edge of the saw-cut installation tolerance
- Construction Tolerance is 2" from center for all dowels
- Can be placed closer to the intersection of joints (6") to mitigate curl more effectively.



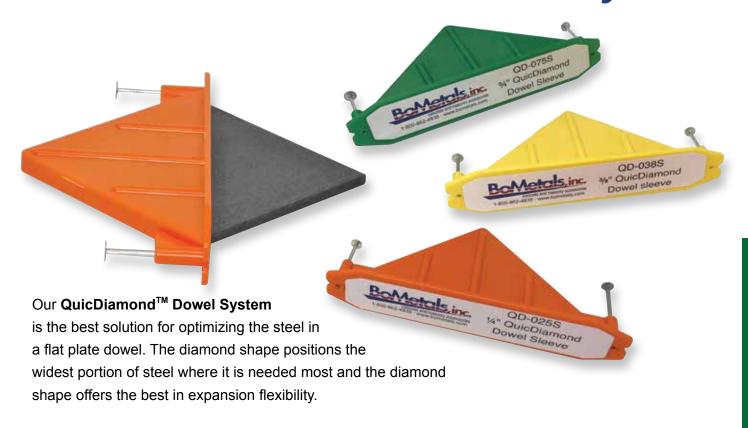








Slab on Grade – The QuicDiamond™ System



QuicDiamond™ Sleeves & Plates

- Provides excellent joint stability compared to other systems
- Provides reliable and maintenance-free concrete flatwork joints
- The plate shape is engineered for optimal material performance
- Plates are sawn steel for smooth square plate edges, allowing for unrestrained horizontal or lateral movement
- Consistently specified manufacturing tolerance
- Positive load transfer and continuity of surface profile
- Sleeves are manufactured from high-density ABS plastic

- Internal collapsible fins and spacers ensure load plate is installed in the correct position to preserve integrity of the sleeve
- Wide sleeve for increased lateral movement
- Plate shape allows for the most lateral and horizontal movement with maximum strength at the center of the joint
- · Ribbed sleeves for increased rigidity
- Internal support stops sleeve compression during installs for sure and easy plate insertion

QD-025 1/4" x 4.5" x 4.5" QD-038 3/8" x 4.5" x 4.5" QD-075 3/4" x 4.5" x 4.5"





EPOXY

• Fusion Bonded Epoxy Powder Coating

and Stainless Steel

- · Protects steel from corrosion
- · 8 mil epoxy coating

PAINTED

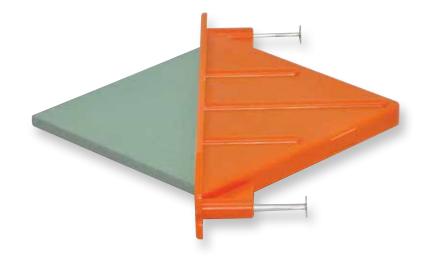
• Cost reducing corrosion protection with red oxide paint

GALVANIZED

· Hot dipped galvanized steel meets ASTMA A 123/A and ASTM A385

STAINLESS STEEL

· Grade 304 stainless steel certified to meet ASTM A240



QuicDiamond™ Edge

The solution for spall-free joints

Whether it is high trafficked areas for fork lifts, thresholds or cold storage, the solution to joint-spalling is reinforcement with QuicDiamond^{IM} Edge.

Use QuicDiamond™ Edge for new construction joints...

It provides the confidence that transitions are precise, smooth, and even. Allied with our QuicDiamond™ load transfer system, contractors can know when the job is done, it is precise and will remain this way.

Nothing else stands up better to the abuse of highly trafficked, fast paced areas, where fork lifts constantly travel over construction joints. The design of QuicDiamondTM Edge allows for the needed movement associated with expansion and contraction. Each side of the joint is protected by a 1.5" x 3/8" steel plate protecting the otherwise exposed concrete edge and is designed to accept joint filler for increased function.

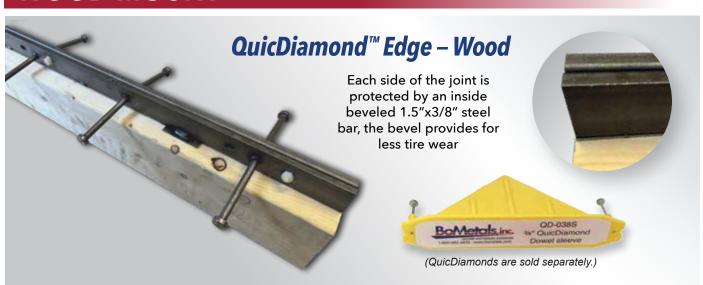
The smooth solid transition not only protects the floor but it also protects the wheels that travel over it and thereby can reduce maintenance on the equipment used within the space.

BENEFITS OF USE

- Avoid inconvenient and costly repairs
- The investment of QuicDiamond[™] Edge during construction extends the life cycle and saves money over time
- Allows for expansion and contraction protecting both edges of the joint transition.

The smooth solid transition not only protects the floor but it also protects the wheels that travel over it and thereby can reduce maintenance on the equipment used within the space. The easy to install QuicDiamond™ Edge is affixed to the top of wood form boards.

WOOD MOUNT



QuicDiamond™ Edge — WOOD					
Item Code	Description	UOM	Slab Depth	Length/Pc	
QDE-WOOD	QuicDiamond™ Edge Wood Mtg (FT)	Feet	Min 4"	9.8 ft (3 Meter)	
QDE-WOOD-HDG	QuicDiamond™ Edge Wood Mtg Galv	Feet	Min 4"	9.8 ft (3 Meter)	



WOOD MOUNT - TOP



QuicDiamond™ Edge – Wave Top The wavy steel rails provide extremely durable



QuicDiamond™ Edge — WOOD MOUNT TOP					
Item Code	Description	UOM	Slab Depth	Length/Pc	
QDE-SLIDE-TOP	QuicDiamond™ Edge – Slide Top	Feet	Min 4"	7.9 ft (2.4 Meter)	
QDE-WAVE-TOP	QuicDiamond™ Edge – Wave Top	Feet	Min 4"	6.6 ft (2 meter)	

FULL DEPTH – STEEL

QuicDiamond™ Edge – Steel

QuicDiamond Edge is the industry standard for prefabricated heavy duty movement joint systems, suitable for all large area construction methods for ground bearing and pile supported concrete floors. The cold drawn steel rails provide extremely durable protection to the slab edges, making it ideal for floors in a heavy traffic environment.





QDE-Steel X

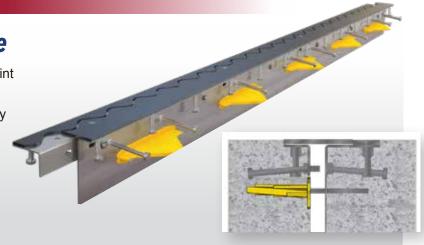
QDE-Steel T

QuicDiamond™ Edge — FULL DEPTH STEEL					
Item Code	Description	UOM	Slab Depth	Length/Pc	
QDE-STEEL	QuicDiamond™ Edge – FULL DEPTH STEEL	Feet	Adj. 6" to 8"	9.8 ft (3 Meter)	
QDE-STEEL T	QuicDiamond™ Edge – TEE	Each	Adj. 6" to 8"	3.3 ft (1 Meter) x 1.6 ft (1/2 Meter)	
QDE-STEEL X	QuicDiamond™ Edge – CROSS	Each	Adj. 6" to 8"	3.3 ft (1 Meter) x 3.3 ft (1 Meter)	

FULL DEPTH - SLIDE

QuicDiamond™ Edge — Slide

- Prefabricated Steel Armored Free Movement Joint System
- The Wave opening allows wheels to roll smoothly over the joint
- Robust heavy duty design incorporating welded studs directly attached to both the body and the top plates for superior performance and longevity



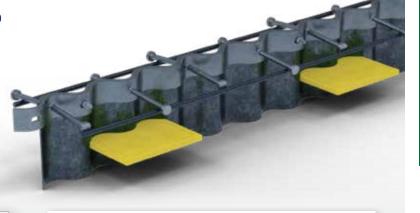
FULL DEPTH - WAVE

QuicDiamond[™] **Edge** – **Wave**

QDE-Wave is prefabricated heavy-duty movement joint systems, suitable for all large area construction methods for ground and pile supported (or ground-bearing and pile-supported) concrete floors. The wavy steel rails provide extremely durable protection to the slab arises with silent crossing of joint, making it ideal for floors with highly intensive traffic environment.







QUICDIAMOND™ EDGE - JACK

BoMetals Leveling Jacks for insuring your installation goes smoothly. Usually 4 are required for proper installation. The jacks have a minute leveling capability, using the knobs to raise or lower the QDE.



QuicDiamond™ Edge — FULL DEPTH SLIDE and WAVE					
Item Code	Description	UOM	Slab Depth	Length/Pc	
QDE-SLIDE	QuicDiamond™ Edge – Slide	Feet	Adj. 6" to 8"	7.9 ft (2.4 Meter)	
QDE-WAVE	QuicDiamond™ Edge – Wave 8-10" slab FT	Feet	Adj. 8" to 10"	6.6 ft (2 Meter)	
QDE-WAVE T	QuicDiamond™ Edge – TEE	Each	Adj. 8" to 10"	1.6 ft (1/2 Meter) x 0.8 ft (1/4 Meter)	
QDE-WAVE X	QuicDiamond™ Edge – CROSS	Each	Adj. 8" to 10"	1.6 ft (1/2 Meter) x 1.6 ft (1/2 Meter)	
QDE-JACK	QuicDiamond™ Edge – Installation Jack	Each			



ROUND DOWEL BASKETS



Paving Round Dowel Assemblies



- Round dowel load transfer assemblies are manufactured to your individual jobsite specifications including- Airfields, DOT, Military facilities, and Commercial/Industrial pavements.
- Available for Contraction, Expansion, Longitudinal, and Construction joints.
- Loose Dowels packaged to your needs. Standard Pallet Stacked, V Bundles for DBI.







- Manufactured using wire sizes .262, .306, and .362.
- Coating options: Plain, Red Oxide Primer and Epoxy
- Water based bond-breaker applied after fabrication, when specified/ required
- CRSI Approved Fusion Bonded Epoxy Coating facility. Coating to ASTM A775, 1078 Type 1 and Type 2

MADE IN USA









QuicDowel™

A two component sleeve system made of high density polypropylene.

BASE PRODUC CODE	SLEEVE T PRODUCT CODE	SMOOTH ROUND	SLEEVE LENGTH	DOWEL LENGTH	REBAR SIZE	(Sh
QB-050 (250/BO		1/2"	5″	10"	#3	(")
(250/60)	QL-05009 (250/BOX)	1/2″	9"	18″	#3	(S)
QB-062 (200/BO	QL-062509 (200/BOX)	5/8″	9"	18″	#4	(4)
(200/30)	QL-062512 (125/BOX)	5/8″	12″	24"	#4	
	QL-07505 (200/BOX)	3/4"	5″	10″	#5	4
QB-O75 (200/BO		3/4"	9″	18″	#5	
	QL-07512 (125/BOX)	3/4"	12"	24"	#5	
QB-100 (175/BO		1″	9″	18″	#7	(0)
						*
QB-125 (125/BO)	QL-12509 K) (125/BOX)	1 1/4"	9″	18"	#8	



PRODUCT CODE	DIAMETER	SLEEVE LENGTH	DOWEL LENGTH	PKG
QL-05005	1/2"	5"	1/2" X 10"	250/BOX
QL-05009	1/2″	9"	1/2" X 18"	250/BOX
QL-062509	5/8″	9"	5/8" X 18"	200/BOX
QL-062512	5/8″	12"	5/8" X 24"	125/BOX
QL-07505	3/4"	5″	3/4" X 10"	200/BOX
QL-07509	3/4"	9"	3/4" X 18"	200/BOX
QL-07512	3/4"	12"	3/4" X 24"	125/BOX
QL-10009	1″	9"	1" X 18"	175/BOX
QL-12509	1 1/4"	9"	1 1/4" X 18"	125/BOX

SRD-062518

SRD-062524

SRD-07512

SRD-07518

SRD-07524

SRD-10012

SRD-10018

SRD-10024

SRD-12518

SRD-12524

SRD-15018

5/8"x18"

5/8"x24"

3/4"x12"

3/4"x18"

3/4"x24"

1"x12"

1"x18"

1"x24"

1-1/4"x18"

1-1/4"x24

1.5"x18"

1.57

2.09

1.50

2.26

3.01

2.67

4.01

5.34

6.26

8.35

9.02

10

10

10

10

10

5

5

5

5

5

5



SMOOTH ROUND DOWELS



2,160

1,250

2,400

1,600

1,040

1,200

800

650

480

400

320

- Sawn for close tolerances & Computerized Length
- Custom diameters & lengths available
- Additional dowels finishes:
 Epoxy, Painted, Galvanized,
 and Stainless Steel
- All of our dowel bundles are labeled for quick identification of size on the jobsite.



DOVETAIL ANCHOR SLOT & DOVETAIL ANCHORS

PRO-SLOT™ Anchor Slot is a stay-in-place concrete form used in forming a channel into the face of any cast in place wall or column. By installing Dovetail Anchors into the PRO-SLOT™, you can then anchor brick, block or stone to the concrete surface.

Material

BoMetals galvanized PRO-SLOT™ Anchor Slot is manufactured of G60 hot dipped mill galvanized steel in 26, 24, 22, 20 and 18 gauge. PRO-SLOT™ is offered standard in 10' lengths with custom lengths available on a special order basis. BoMetals' PRO-SLOT™ is standard with a polystyrene foam filler to keep the channel clear of concrete and resist closure due to hydraulic pressure. It is also available without a polystyrene foam. PRO-SLOT™ incorporates continuous nail grooves along the back edge of the profile to help in nailing the slot to the forms.

Dovetail Anchors are manufactured in 16 gauge hot dipped, mill galvanized steel and are furnished in 3 1/2", 5 1/2" and 7 1/2" lengths with a 1" overall width.

PRO-SLOT™ Anchor Slot and Dovetail Anchors are mill galvanized before fabrication and conform to ASTM A 924, ASTM A 653 CQ or LFQ.

Advantages

- ❖ PRO-SLOT™ Anchor Slot and Dovetail Anchors provide a permanent, fast, flexible and cost effective method of anchoring brick, stone and block to cast-in-place concrete walls and columns.
- ◆ PRO-SLOT™ provides an excellent anchoring system for both cast-in-place and precast concrete.
- With a heavy, galvanized coating to prevent corrosion, Dovetail Anchors have deep corrugations to increase pull out strength.

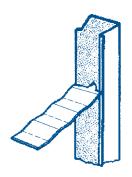
Installation Instructions

- Nail BoMetals' PRO-SLOT™ Anchor Slot to the inside of the form wall prior to erection. Install vertically, spacing the channels 16", 18" or 24" on center. Use the nail grooves to speed up installation and space nails on 12" center.
- ❖ Dovetail Anchors should be spaced as indicated on drawings or called for in specifications or as recommended by local building codes. Typically, Anchors are spaced 12" to 16" vertically.

Product	Color Code	Description	Feet / Skid	#/Skid	
DAS-18*	ORANGE	18ga Anchor Slot STANDARD 10' long	6,000'	2,933	
DAS-20*	YELLOW	20ga Anchor Slot STANDARD 10' long	6,000'	2,247	
DAS-22*	GREEN	22ga Anchor Slot STANDARD 10' long	6,000'	1,873	
DAS-24*	BLUE	24ga Anchor Slot STANDARD 10' long	6,000'	1,508	
DAS-26*	RED	26ga Anchor Slot STANDARD 10' long	6,000'	1,068	

DOVETAIL ANCHORS 16 GAUGE						
DTA-35 3 1/2" (500 / box)	DTA-55 5 1/2" (500 / box)	DTA-75 7 1/2" (300 / box)				

^{*}Custom lengths are available. Please call 800.862.4835 for information.







MASONRY CONTROL JOINTS

Cracking in buildings normally results from restrained movement. This movement may originate within a building material due to temperature change or shrinkage, or may result from movement of adjacent building elements. In most cases, movement is inevitable and must be accounted for during design if cracking is to be controlled.

BoMetals Control joints, when placed in concrete masonry walls, are an excellent method of crack control. Control joints are vertical separations built into a concrete masonry wall to reduce restraint and permit longitudinal movement. They are located where cracking is likely to occur due to excessive tensile stress.

Material

BoMetals Masonry Control Joints are available in both PVC and Rubber compounds. They are standard 4' lengths. Special lengths are available on request.

TYPICAL PHYSICAL PROPERTIES OF PVC CONTROL JOINTS, ASTM D-2287

Properties	Test Method	Nominal Value
Tensile Strength	ASTM D-638	1500 PSI
Elongation	ASTM D-638	300%
Specific Gravity	ASTM D-792	1.40 (+/-0.05)
Hardness Shore A	ASTM D-2240	85 +/- 5

TYPICAL PHYSICAL PROPERTIES OF RUBBER CONTROL JOINTS

Properties	Test Method	Nominal Value
Tensile Strength	ASTM D-2000	750 PSI
Elongation	ASTM D-2000	300%
Hardness Shore A	ASTM D-2000	70 (+/-5)

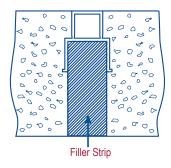
IMPORTANT: The technical data herein is believed to be accurate. It is offered for your consideration, investigation and verification. All testing and test data has been prepared by independent laboratories. NO WARRANTY, EXPRESS OR IMPLIED, IS MADE as to the accuracy or completeness of the technical data herein and the use thereof for any particular purpose.

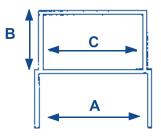
Catalog #	Material	Α	В	С	D	#Lbs./LF	Description
BCJ-1	PVC	2 3/8"	5/8"	1 1/2"	5/16"	.75	B
BCJ-8	Rubber	2 3/8"	5/8"	1 1/2"	5/16"	.52	→ A →
BCJ-2	PVC	2 3/8"	5/8"	9/16"	5/16"	.60	B
BCJ-9	Rubber	2 3/8"	5/8"	9/16"	5/16"	.42	D C C
BCJ-3	PVC	6 7/8"	5/8"	1 1/2"	3/8"	1.00	B † C
BCJ-10	Rubber	6 7/8"	5/8"	1 1/2"	3/8"	.69	A
BCJ-4	PVC	10 7/8"	5/8"	1 1/2"	7/16"	1.35	B ↑ Ç
BCJ-11	Rubber	10 7/8"	5/8"	1 1/2"	7/16"	.94	A

JOINT FORMERS

EXPANSION BOARD CAPS

Expansion Board Caps provide clean, sharp lines for sealants. They eliminate the difficulty of removing wooden formers.

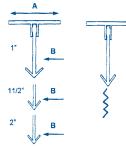




Cat. #	Α	В	С
1018	3/8"	3/8"	5/16"
1019	1/2"	3/8"	5/16"
1020	1/2"	1/2"	7/16"
1021	3/4"	1/2"	5/8"
1022	1"	1/2"	7/8"

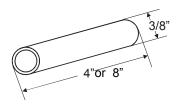
ZIP JOINTS

Zip Joints are easily installed joint formers designed to provide positive control of transverse construction or expansion joints. The two-part assembly is designed to permit removal of the top portion after the concrete has hardened, thereby creating a clean, neatly defined void for application of caulk or sealant when specified.



Cat. #	Α	В
1010	1"	1"
1011	1"	1 1/2"
1012	1"	2"

WEEP TUBES



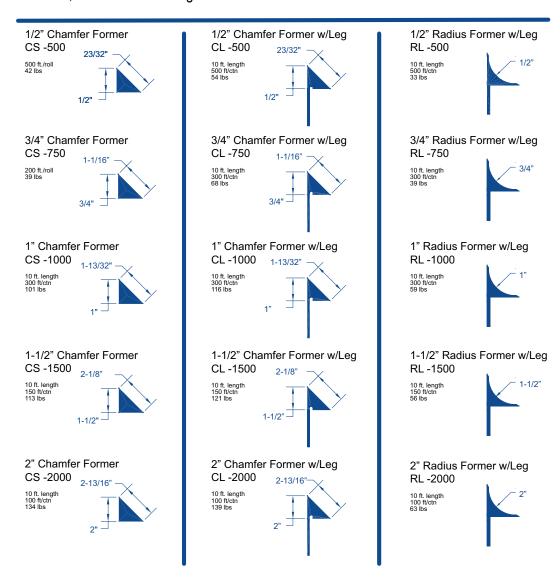
BoMetals Weep Tubes shall be placed to insure that they are correctly positioned in the masonry joint to guarantee air movement from the cavity to the outside of the wall. Typical placement would be for the one end of the weep tube to be flush with the outside of the joint and the opposite end to project into the cavity of the wall. Typical locations would be no greater than 24" on center. Care should be taken during mortar placement to prevent excessive movement of the weep tubes to insure against displacement. Always thoroughly and systematically inspect mortar around the weep tubes to make certain that the weep tube is free from obstruction.





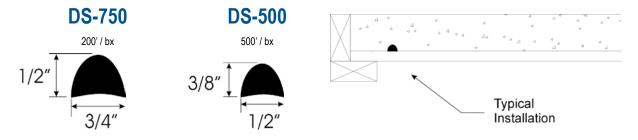
FLEXIBLE PVC CHAMFER AND RADIUS FORMERS

BoMetals Chamfer and Radius formers are designed to create outside corners on columns, piers, beams or walls and provide a clean, smooth finished edge.



DRIP STRIP

BoMetals Drip Strips are designed to provide an even, smooth drip groove on the underside of porches and overhangs. The Drip Strip is nailed to the form and easily removed from the concrete to be reused in your next application.



PREMIUM NAIL STAKES - FULL SIZE

BoMetals Nail Stakes are primarily used to secure wood or metal forms for concrete placement jobs and in outside concrete forming.



3/4" Full Size, High Tensile, Round with Holes

Code	Size	pcs / skid	wt / skid
NS-3412	3/4" x 12"	1500	2,100
NS-3418	3/4" x 18"	1000	2,100
NS-3424	3/4" x 24"	750	2.175
NS-3430	3/4" x 30"	600	2,100
NS-3436	3/4" x 36"	500	2,150
NS-3442	3/4" x 42"	400	2,000
NS-3448	3/4" x 48"	300	1,710

7/8" Full Size, High Tensile, Round with Holes

Code	Size	pcs / skid	wt / skid
NS-7812	7/8" x 12"	1500	2,226
NS-7818	7/8" x 18"	1000	2,226
NS-7824	7/8" x 24"	750	2,305
NS-7830	7/8" x 30"	600	2,226
NS-7836	7/8" x 36"	500	2,279
NS-7842	7/8" x 42"	400	2,120
NS-7848	7/8" x 48"	300	1,815

GRADE STAKES

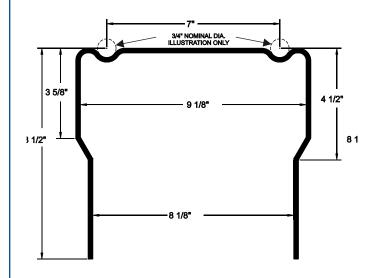
- Pre drilled holes for tie wire
- Termite proof
- Each stake has a pointed, sharp tip for easy installation
- Will not split like wood
- · Can be used as rebar support
- Available in 12" (GS-12), 18" (GS-18), 24" (GS-24) or 30" (GS-30) lengths
- 100 pieces per box
- Made from 16 gauge HRPO steel



WIRE BAR STAKES

2 BAR WIRE STAKE

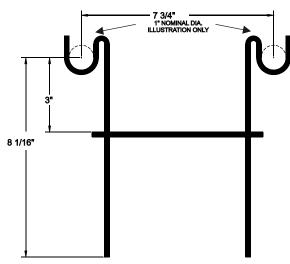
WBS-1



3/16" Nominal Wire - 100 per box

2 BAR WIRE STAKE

WBS-2



Bc/Actals,inc.

concrete and masonry accessories



All BoMetals products are available through a national network of distributors and warehouses. A trained and knowledgeable sales and engineering staff offer personalized service unparalleled in the industry today.

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