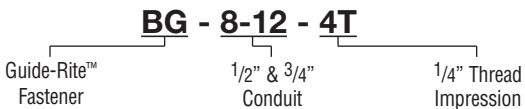


# Part Numbering Guide

This part numbering guide can be used to quickly translate our part numbers into meaningful data.

<b>BG - 8-12 - 4T</b>		
<b>Family</b>	<b>Size</b>	<b>Suffix</b>
A Series - Anchors	Based on 16th	AS - Anchor Strap
*B Series - Pipe Strap	of an inch	BL - Equipment Blue
BA - Acoustical Tee Component	1 - 1/16"	BN - Brass Nut
BB - Box Attachment	2 - 1/8"	BR - Brown
BC - Beam Clamp	4 - 1/4"	BW - Bright White
*BCH - Cable Hook	5 - 5/16"	CW - Computer White
*BCS/BES - Conduit Spacer	6 - 3/8"	D - Deep Box
BD - Deck Attachment	8 - 1/2"	FB - Flat Black
*BE - Edge Attachment	9 - 9/16"	GR - Green
BF - Flange Attachment	12 - 3/4"	H - Hanger
*BG - Guide-Rite™ Fastener	16 - 1"	LH - Less Hardware
BH - Hanger Attachment	20 - 1 1/4"	LN - Less Nut
BK - KwikWire	24 - 1 1/2"	LS - Less Stud
BL - Conduit Hangers (mini's)	32 - 2"	OR - Orange
BM - Miscellaneous	64 - 4"	R - Right Angle
BN - Push Nuts		RR - Regal Red
*BP - Push Type Fasteners		S - Stud
*BPC - Break Apart Straps		T - Threaded
*BR - Bridle Rings		TG - Telco Gray
BRC - Cable Fastener		W - White
*BRS - Bridle Ring Saddle		WBN - White /Brass Nut
BT - Installation Tools		WN - Wing Nut
*BU - Universal Beam Attachment		YL - Safety Yellow
BW - Bat Wing Fastener		4T - 1/4" Thread Imp.
BX - FMC Support		

\* The data in the size column only applies to these product families.



# Materials

Steel	Specification
High Carbon Cold Rolled	ASTM A684, AISI 1055
Electrolytic Zinc Coated	ASTM A591
Pre-Galvanized	ASTM A653

## Steel

Cooper B-Line's spring steel fasteners are manufactured from spheroidized annealed high carbon cold rolled steel (ASTM A684, AISI 1055). Mild steel fasteners are manufactured from electrolytic zinc coated steel (ASTM A591) or pre-galvanized steel (ASTM A563).

Electrolytic zinc coated and pre-galvanized steel is produced by coating coils of sheet steel with zinc at the mills. These coils are then slit to size and fabricated into Cooper B-Line products.

## Heat Treatment

Cooper B-Line spring steel fasteners are heat treated to make the steel hard and give the parts their spring quality and strength. The hardness for a given fastener depends on the required load carrying capacity and the application.

## Load Data

The design load ratings for Cooper B-Line fasteners are specified in this catalog as static load capacity or ultimate static load capacity. By definition, the listed static load capacity has a safety factor of three (3.0), the listed ultimate static load capacity has no safety factor. In either case, these stated loads are not to be exceeded, and loads should be applied only as depicted in the catalog and/or instruction sheets. The load capacity of a fastener having more than one component is equal to the load capacity of the lowest rated component.

Fasteners having no load ratings are designed for proper placement of boxes, conduit, etc., and not for supporting loads.

Cooper B-Line fasteners are designed for use with support members (e.g.: angle iron, bar joists, beams, columns, flanges, purlins, wire, rod) that comply with the applicable AISI standards and threaded rod that complies with the applicable AISI standards.

## Quality Assurance

Cooper B-Line has an established Q.C. program in which raw material and finished products are sampled, inspected and tested by certified inspectors to assure that all applicable standards are met. Cooper B-Line's fasteners are manufactured in controlled lots and each part is identified by a lot number stamped into the part. This number allows Cooper B-Line to track each step of the manufacturing process including raw material, die set-up, heat treating, and finishing. Samples are tested to verify correct hardness, corrosion resistance and load carrying capacity.

# Technical Data - Finishes

Finish	Specification
Zinc-Phosphate	MIL-P-16232 Type Z
Electro-galvanized Zinc	ASTM B633
Pre-Galvanized Zinc	ASTM A653, G90
Gloss White Paint	Acrylic Enamel

## Zinc Phosphate

Cooper B-Line's spring steel fasteners receive a coating\* of sealant impregnated zinc phosphate. This type of coating was commercially developed by industry to inhibit oxidation of ferrous metals for up to 72 hours in a specified salt fog atmosphere. As applied to its fasteners, Cooper B-Line rates this coating for 30 hours when salt fog tested per ASTM B-117.

Although rust resistant, Cooper B-Line fasteners should be used only indoors and in non-corrosive environments.

Unless otherwise noted, the standard finish for Cooper B-Line's spring steel fasteners is Zinc Phosphate.

\*At least 1000 milligrams of zinc phosphate per square foot.

## Paint

Some standard fasteners have a gloss white acrylic enamel applied over the zinc phosphate finish for an enhanced appearance that compliments white ceiling grids.

## Electro-galvanized Zinc

Electro-galvanized zinc (also known as zinc plated or electroplated) is the process by which a coating of zinc is deposited on the steel by electrolysis from a bath of zinc salts.

The coating is pure zinc and is mechanically bonded to the steel. A maximum of .5 mils of zinc can be applied by this method.

When exposed to air and moisture, zinc forms a tough, adherent, protective film consisting of a mixture of zinc oxides, hydroxides, and carbonates. This film is in itself a barrier coating which slows subsequent corrosive attack of the zinc.

This coating is usually recommended for indoor use in relatively dry areas.

## Pre-Galvanized Zinc

Pre-galvanized steel is produced by coating coils of sheet steel with zinc by continuously rolling the material through molten zinc at the mills. This is also known as mill galvanized or hot-dip mill galvanized. These coils are then slit to size and fabricated into Cooper B-Line products.

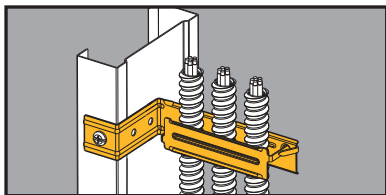
The G90 specification calls for a coating of .90 ounces of zinc per square foot on each side of the sheet.

During fabrication, cut edges and welded areas are not normally zinc coated; however, the zinc near the uncoated metal becomes a sacrificial anode to protect the bare areas after a short period of time.

Pre-galvanized steel is recommended for indoor use in dry areas.

**CAUTION: Do not use Cooper B-Line Fasteners outdoors or in corrosive environments. Proper application of each fastener is shown in this catalog and on the installation sheet inside each carton. Failure due to improper installation may cause harm to personnel and/or property. Allowable loads shown apply to the fastener only and do not account for the structure, which supports the fastener. Flanges, wires and rods used with these fasteners must meet A.I.S.I. standards. To improve personal safety on the jobsite, always observe all federal and local safety regulations: wear gloves, safety glasses and a hard hat.**

# Wall Studs



- Metal cable support can be used in plenum-rated areas.
- Longer locking tabs.
- Shipped pre-assembled.
- Hinge can be opened for greater cable capacity.
- Allows cables to be positioned a minimum of 1<sup>1</sup>/<sub>4</sub>" from face of stud as required by NEC Article 300.4(D).

## Cable Support



UPC/Part Number	Catalog Number	Description	Box Qty.
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781011 04980

**BRC4M**

Up to 3/4" FMC

100

Note: Canadian applications are limited to wood studs only.

Cable Size	Cable Type					
	Non-Metallic (NM)		Metal Clad (MC)		Armored Cable (AC)	
	Qty.	Dia.	Qty.	Dia.	Qty.	Dia.
14-2 w/ Grnd	8	.360	5	.439	5	.464
14-3 w/ Grnd	8	.307	5	.464	5	.483
14-4 w/ Grnd	8	.336	4	.494	4	.517
12-2 w/ Grnd	7	.410	5	.475	4	.498
12-3 w/ Grnd	8	.347	4	.505	4	.521
12-4 w/ Grnd	7	.381	4	.539	4	.557
10-2 w/ Grnd	6	.494	4	.542	4	.560
10-3 w/ Grnd	7	.422	4	.580	4	.588
10-4 w/ Grnd	NA	NA	3	.623	3	.632
8-2 w/ Grnd	4	.612	NA	NA	NA	NA
8-3 w/ Grnd	4	.565	NA	NA	NA	NA
6-2 w/ Grnd	4	.650	NA	NA	NA	NA
5/16 FMC	5 (.470 to .510 Dia.)					
3/8 FMC	4 (.560 to .610 Dia.)					
1/2 FMC	1 (.860 to .920 Dia.)					
3/4 FMC	1 (1.045 to 1.105 Dia.)					

The quantity of cables shown in the chart is the maximum. Fewer cables can be supported. Diameters are based on data from a leading cable manufacturer (may vary slightly).

Diameters of some NM cables refer to the widest dimension of a flat cable. NA = Not applicable

Read safety/installation instruction sheets in packages before use. These products are designed for positioning only. No load rating.