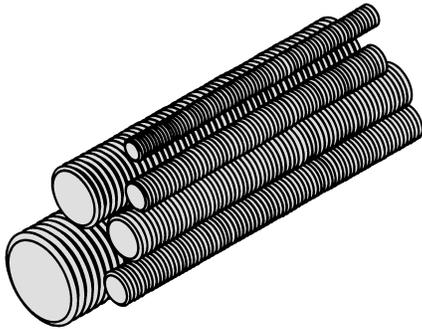


# HARDWARE

## All Threaded Drop Rod

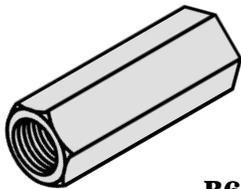
- Rolled threads for added strength.
- Loading Capacity (Safety Factor of 5)  
 $3/8''-16 = 610 \text{ lbs. (2.71 kN)}$   
 $1/2''-13 = 1130 \text{ lbs. (5.02 kN)}$   
 $5/8''-11 = 1810 \text{ lbs. (8.05 kN)}$
- Sold per 100 ft. (30.5m).
- Material: ASTM A307 Gr. A steel
- Finish: Clear Zinc



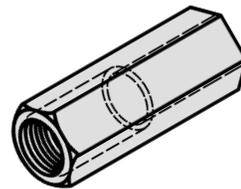
Part Number	Rod Length		Weight Per Rod	
	in	(mm)	Lbs.	(kg)
<b>3/8"-16 Thread Size</b>				
<b>ATR<sup>3/8</sup>"x12"</b>	12"	(305)	0.3	(0.13)
<b>ATR<sup>3/8</sup>"x36"</b>	36"	(914)	0.9	(0.41)
<b>ATR<sup>3/8</sup>"x72"</b>	72"	(1829)	1.9	(0.86)
<b>ATR<sup>3/8</sup>"x120"</b>	120"	(3048)	3.1	(1.40)
<b>ATR<sup>3/8</sup>"x144"</b>	144"	(3657)	3.8	(1.72)
<b>1/2"-13 Thread Size</b>				
<b>ATR<sup>1/2</sup>"x12"</b>	12"	(305)	0.6	(0.27)
<b>ATR<sup>1/2</sup>"x36"</b>	36"	(914)	1.8	(0.81)
<b>ATR<sup>1/2</sup>"x72"</b>	72"	(1829)	3.6	(1.63)
<b>ATR<sup>1/2</sup>"x120"</b>	120"	(3048)	6.0	(2.72)
<b>ATR<sup>1/2</sup>"x144"</b>	144"	(3657)	7.2	(3.26)
<b>5/8"-11 Thread Size</b>				
<b>ATR<sup>5/8</sup>"x12"</b>	12"	(305)	1.0	(0.45)
<b>ATR<sup>5/8</sup>"x36"</b>	36"	(914)	3.0	(1.36)
<b>ATR<sup>5/8</sup>"x72"</b>	72"	(1829)	6.0	(2.72)
<b>ATR<sup>5/8</sup>"x120"</b>	120"	(3048)	10.0	(4.53)
<b>ATR<sup>5/8</sup>"x144"</b>	144"	(3657)	12.0	(5.44)

## Threaded Rod Coupling

- Material: ASTM A307 Gr. A steel
- Finish: Clear Zinc



**B655**



**B656**

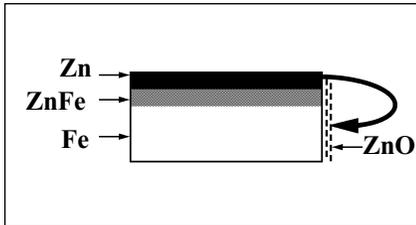
Part Number	Thread Size	Coupling Length		Weight	
		in	(mm)	Lbs.	(kg)
<b>B655-1/2"</b>	1/2"-13	1 3/4"	(44)	0.11	(0.05)
<b>B655-5/8"</b>	5/8"-11	2 1/8"	(54)	0.18	(0.08)
<b>B656-5/8" x 1/2"</b>	1/2"-13 & 5/8"-11	1 1/4"	(32)	0.14	(0.06)

## FINISHES

### Zinc Coatings

Zinc protects steel in two ways. First it protects the steel as a coating and second as a sacrificial anode to repair bare areas such as cut edges, scratches, and gouges. The corrosion protection of zinc is directly related to its thickness and the environment. This means a .2 mil coating will last twice as long as a .1 mil coating in the same environment.

Galvanizing also protects cut and drilled edges.



### Electrogalvanized Zinc

Electrogalvanized 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.

A rating of SC3, B-Line's standard, provides a minimum zinc coating thickness of .5 mils (excluding hardware, which is SC1 = .2 mils).

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 on the zinc. This coating is usually recommended for indoor use in relatively dry areas, as it provides ninety-six hours protection in salt spray testing per ASTM B117.

### Chromium/ Zinc

Chromium/ Zinc is a corrosion resistant composition, which was developed to protect fasteners and small bulk items for automotive use. The coating applications have since been extended to larger parts and other markets.

Chromium/Zinc composition is an aqueous coating dispersion containing chromium, proprietary organics, and zinc flake.

This finish provides 1000 hours protection in salt spray testing per ASTM B117.

### Pre-Galvanized Zinc

(Mill galvanized, hot dip mill galvanized or continuous hot dip galvanized) 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 by roll forming, shearing, punching, or forming to produce B-Line pre-galvanized strut products.

The G90 specification calls for a coating of .90 ounces of zinc per square foot of steel. This results in a coating of .45 ounces per square foot on each side of the sheet. This is important when comparing this finish to hot dip galvanized after fabrication.

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.

### Hot Dip Galvanized After Fabrication (Hot dip galvanized or batch hot dip galvanized)

Hot dip galvanized strut products are fabricated from steel and then completely immersed in a bath of molten zinc. A metallic bond occurs resulting in a zinc coating that completely coats all surfaces, including edges and welds.

Another advantage of this method is coating thickness. Strut products that are hot dip galvanized after fabrication have a minimum thickness of 1.50 ounces per square foot on each side, or a total 3.0 ounces per square foot of steel, according to ASTM A123.

The zinc thickness is controlled by the amount of time each part is immersed in the molten zinc bath as well as the speed at which it is removed. The term "double dipping" refers to parts too large to fit into the galvanizing kettle and, therefore, must be dipped one end at a time. It does not refer to extra coating thickness.

The layer of zinc which bonds to steel provides a dual protection against corrosion. It protects first as an overall barrier coating. If this coating happens to be scratched or gouged, zinc's secondary defense is called upon to protect the steel by galvanic action.

Hot-Dip Galvanized After Fabrication is recommended for prolonged outdoor exposure and will usually protect steel for 20 years or more in most atmospheric environments and in many industrial environments. For best results, a zinc rich paint (available from B-Line) should be applied to field cuts. The zinc rich paint will provide immediate protection for these areas and eliminate the short time period for galvanic action to "heal" the damaged coating.

