



Starlug

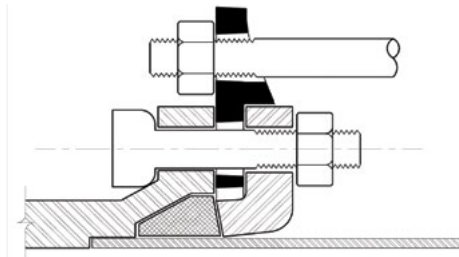
Joint Restraint Hardware



INFORMATION

- Designed to assist in restraining of mechanical joint fittings, valves, hydrants and pipes by threaded rods
- Manufactured with high strength ductile iron per ASTM A 536, Grade 65-45-12
- Designed for use on sizes 4" through 24"
- Installed between MJ Bell and MJ Gland

TECHNICAL INFORMATION



Please refer to the chart below for determining the number of Starlugs to be used depending on the pipe size and pipe line working pressure.

Packaging: Boxes of 50 each

MINIMUM NUMBER OF STARLUGS REQUIRED FOR EACH MJ BELL									
NOM. PIPE SIZE	WORKING PRESSURE (PSI)*								
	100	125	150	200	225	250	300	325	350
4"	2	2	2	2	2	2	2	2	2
6"	2	2	2	2	3	3	3	4	4
8"	2	2	3	4	4	4	6	6	6
10"	4	4	4	6	6	8	8	8	NR
12"	4	4	6	8	8	8	NR	NR	NR
14"	5	6	8	10	NR	NR	NR	NR	NR
16"	6	8	10	12	NR	NR	NR	NR	NR
18"	8	10	12	NR	NR	NR	NR	NR	NR
20"	10	12	14	NR	NR	NR	NR	NR	NR
24"	14	16	NR	NR	NR	NR	NR	NR	NR

*Pressure ratings include a nominal 2:1 safety factor.

NR - Not Recommended

STAR® PIPE PRODUCTS



MJ Eye Bolt (Pigtail)

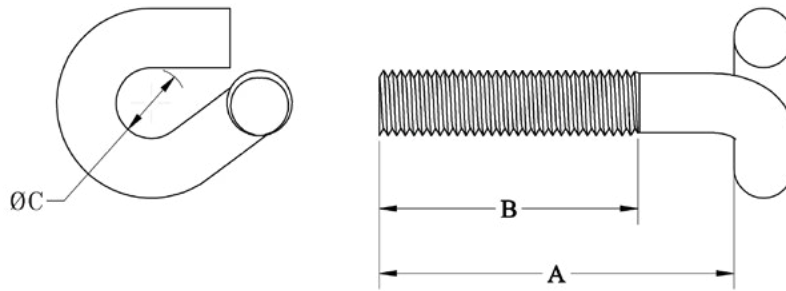
Joint Restraint Hardware



INFORMATION

- Low alloy steel per ANSI/AWWA C111/121.11
- UNC 2A Rolled Threads per ASME B1.1
- Eye bolts can be used in place of T-Head bolts
- Used on sizes 4" through 36"
- Max. Load (per bolt): 7,500 lbs

TECHNICAL INFORMATION



SIZE	A	B	ØC
¾ x 3 ½	3.50	2.50	0.81
¾ x 4	4.00	3.00	0.81
¾ x 4 ½	4.50	3.50	0.81
¾ x 5	5.00	4.00	0.81
¾ x 5 ½	5.50	4.50	0.81
1 x 6	6.00	5.00	1.06

All dimensions in inches.

STAR® PIPE PRODUCTS



Zinc Cap Joint Restraint Hardware



INFORMATION

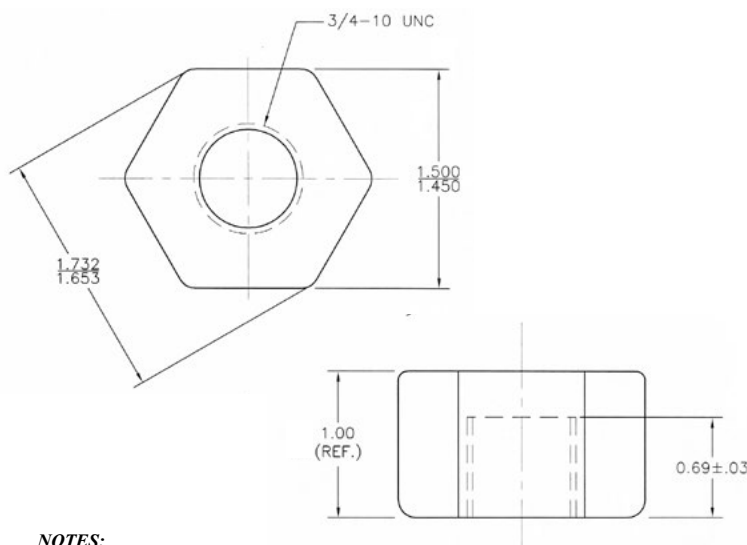
Star Zinc caps are a low cost approach to corrosion protection. Science proves that metals corrode at different rates during electrochemical activity/galvanic action. Because Zinc has the higher electrical potential, the caps act as a sacrificial anode and protect other metals having a lower electrical potential.

A Low Cost Approach to Corrosion Protection

FEATURES & ADVANTAGES

- Star Zinc Caps meet MIL-A-18001J and ASTM B418 Type I specifications.
- Helps to prevent corrosion on T-bolts

TECHNICAL INFORMATION



NOTES:

1. THREADS: 3/4-10 UNC 2B PER ANSI/ASME B1.1

ZINC CAP

COMPOSITION BY ELEMENT¹

ELEMENT	WT%
Cu (Copper)	0.005 Max.
Al (Aluminum)	0.10-0.50
Fe (Iron)	0.005 Max.
Cd (Cadmium)	0.025-0.070
Pb (Lead)	0.006 Max.
Other	0.10 Max.
Zn (Zinc)	Remaining

¹As required by MIL-A-18001J and ASTM B418 Type I

STAR® PIPE PRODUCTS

