

# SECTION 4

# PLUGS AND BUSHINGS

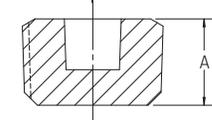
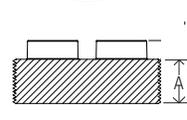
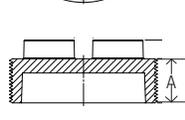
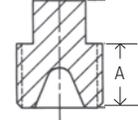
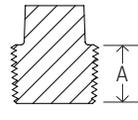
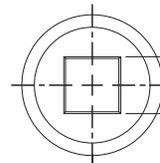
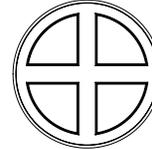
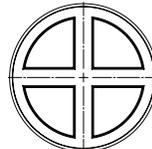
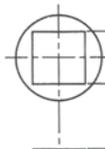
## PLUGS

NPS	Thread Length A (min)
1/8	0.37
1/4	0.44
3/8	0.48
1/2	0.56
3/4	0.63
1	0.75
1 1/4	0.80
1 1/2	0.83
2	0.88
2 1/2	1.07
3	1.13
3 1/2	1.18
4	1.22
5	1.31
6	1.40
8	1.57
10	1.92

**WARD Plugs and Bushings** are produced in both Malleable Iron and Cast Iron grades. The iron from which they are made is held to strict formula by careful chemical analysis and control.

Tapping is done on the most modern type of threading machines. Every fitting is hand sorted and inspected to eliminate defective castings.

Ward plugs and bushings comply with the standards and specifications seen below.



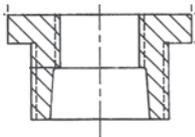
SOLID PLUG

CORED PLUG

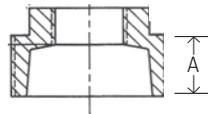
CORED BAR HEAD

SOLID BAR HEAD

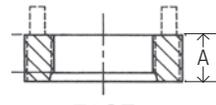
COUNTERSUNK



OUTSIDE HEAD



INSIDE HEAD



FACE

## BUSHINGS

NPS	External Thread Length (min)	Internal Thread Length (min)
1/4	0.44	0.32
3/8	0.48	0.36
1/2	0.56	0.43
3/4	0.63	0.50
1	0.75	0.58
1 1/4	0.80	0.67
1 1/2	0.83	0.70
2	0.88	0.75
2 1/2	1.07	0.92
3	1.13	0.98
3 1/2	1.18	1.03
4	1.22	1.08
5	1.31	1.18
6	1.40	1.28
8	1.57	—
10	1.92	—

**Material:** ASTM A197 for malleable iron  
ASTM A126 Class A Minimum for cast iron

**Dimensions:** ASME B16.14  
ANSI/ASME B1.20.1

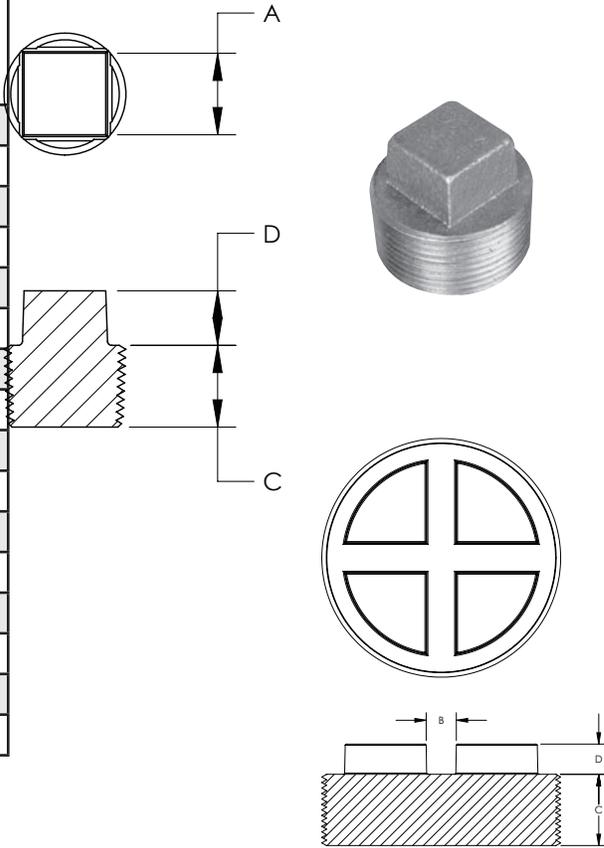
**Pressure Ratings:** ASME B16.3 for malleable iron  
ASME B16.4 for cast iron

**Coatings:** ASTM A153  
ASTM B633

**Additional Specifications:** UL, ULC, FM, NSF 61 and NSF 61 Annex G where applicable

## CAST IRON SOLID PLUGS CLASS 125

NPS	Nominal Width Across Flats A	Distance Between Lugs B (min)	Length of Threads C (min)	Height of Square D (min)
*1/8	9/32	—	0.37	0.24
*1/4	3/8	—	0.44	0.28
*1/2	9/16	—	0.56	0.38
*3/4	5/8	—	0.63	0.44
*3/8	7/16	—	0.48	0.31
1	13/16	—	0.75	0.50
1 1/4	15/16	—	0.80	0.56
1 1/2	1 1/8	—	0.83	0.62
2	1 5/16	—	0.88	0.68
2 1/2	1 1/2	—	1.07	0.74
3	1 11/16	—	1.13	0.80
3 1/2	—	—	—	—
+ 4	—	7/8	1.22	1.00
+ 5	—	7/8	1.31	1.00
+ 6	—	1 1/4	1.40	1.25
+8	—	—	—	—

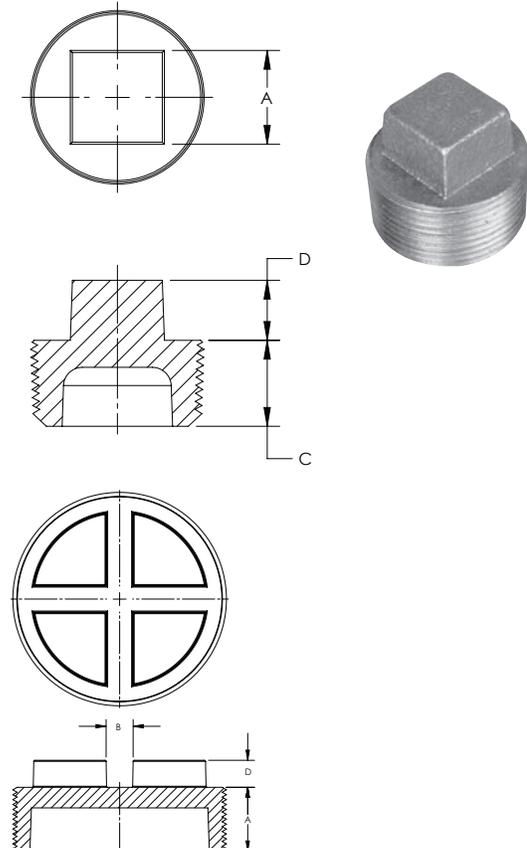


\*Made from Cast Iron or Steel

+ Bar Head

## CAST IRON CORED PLUGS CLASS 125

NPS	Nominal Width Across Flats A	Distance Between Lugs B (min)	Length of Threads C (min)	Height of Square D (min)
1/2	9/16	---	0.56	0.28
3/4	5/8	---	0.63	0.44
1	13/16	---	0.75	0.50
1 1/4	15/16	---	0.80	0.56
1 1/2	1 1/8	---	0.83	0.62
2	1 5/16	---	0.88	0.68
2 1/2	1 1/2	---	1.07	0.74
3	1 11/16	---	1.13	0.80
3 1/2	1 7/8	---	1.18	0.86
4 SQUARE	2 1/16	---	1.22	0.92
+ 4	---	7/8	1.22	1.00
+ 5	---	7/8	1.31	1.00
+ 6	---	1 1/4	1.40	1.25
+8	---	---	---	---



+ Bar Head