

SECTION 4

PLUGS AND BUSHINGS

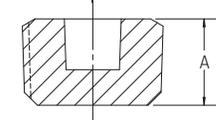
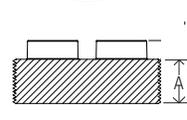
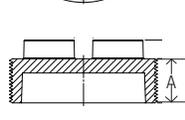
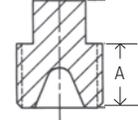
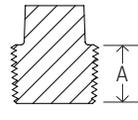
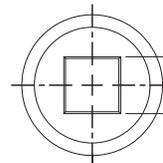
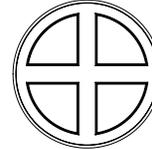
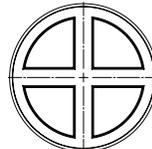
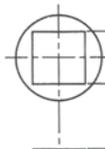
PLUGS

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.



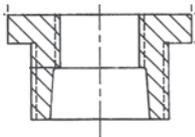
SOLID PLUG

CORED PLUG

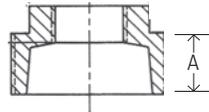
CORED BAR HEAD

SOLID BAR HEAD

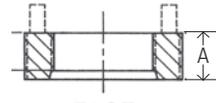
COUNTERSUNK



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

MALLEABLE IRON HEXAGON BUSHINGS CLASS 150

NPS	Width of Head A	Height of Head B	Length of External Threads C (min)	Length of Internal Threads D (min)	Inside or Outside Head
*1/4 x 1/8	0.64	0.14	0.44	0.26	Outside
*3/8 x 1/4	0.68	0.160	0.48	0.40	Outside
*3/8 x 1/8	0.68	0.16	0.48	0.25	Outside
*1/2 x 3/8	0.87	0.19	0.56	0.36	Outside
*1/2 x 1/4	0.87	0.19	0.56	0.32	Outside
*1/2 x 1/8	0.87	0.19	0.56	0.25	Outside
*3/4 x 1/2	1.15	0.22	0.63	0.53	Outside
*3/4 x 3/8	1.15	0.22	0.63	0.36	Outside
*3/4 x 1/4	1.15	0.22	0.63	0.32	Outside
*3/4 x 1/8	1.15	0.22	0.63	0.25	Outside
*1 x 3/4	1.42	0.25	0.75	0.50	Outside
*1 x 1/2	1.42	0.25	0.75	0.43	Outside
*1 x 3/8	1.12	0.30	0.75	0.36	Inside
*1 x 1/4	1.12	0.30	0.75	0.32	Inside
*1 x 1/8	1.12	0.30	0.75 <td 0.25	Inside	
1 1/4 x 1	1.76	0.28	0.80	0.58	Outside
1 1/2 x 1 1/4	2.00	0.31	0.83	0.77	Outside
2 x 1 1/2	2.48	0.34	0.88	0.70	Outside
2 1/2 x 2	2.98	0.37	1.07	0.75	Outside
3 1/2 x 3	4.62	0.43	1.18	0.98	Outside
4 x 3 1/2	5.20	0.50	1.22	1.03	Outside

* Made from Malleable Iron or Steel

