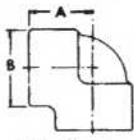


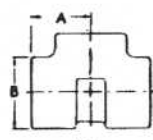
forged steel screwed

pressure ratings, psi (non-shock)

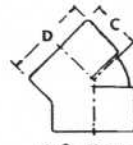
class, lb	2000	3000	6000
cold water, oil, gas, air	2000	3000	6000
900°F steam, hot oil, vapor	615	925	1855



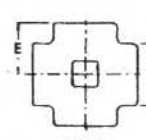
90° elbow



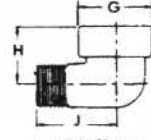
tee



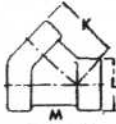
45° elbow



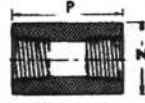
cross



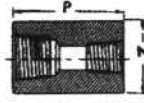
street elbow



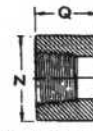
lateral



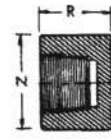
coupling



reducer



half coupling



pipe cap

dimensions (inches)

size	1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4
------	-----	-----	-----	-----	-----	---	-------	-------	---	-------	---	-------	---

2000 lb

A	1 1/16	1 3/16	3 1/32	1 1/8	1 5/16	1 1/2	1 3/4	2	2 3/8	3	3 3/8	-----	4 3/16
B	3/8	7/8	1	1 3/8	1 1/2	1 13/16	2 3/16	2 1/4	2 31/32	3 5/8	4 3/8	-----	5 3/4
C	1 1/16	1 1/8	3/4	7/8	1	1 1/8	1 3/8	1 3/8	1 11/16	2 1/8	2 1/2	-----	3 3/8
D	7/8	7/8	1	1 5/8	1 1/2	1 13/16	2 3/16	2 1/8	2 31/32	4	4 5/8	-----	5 3/4
E	1 3/16	1 3/16	3 1/32	1 1/8	1 5/8	1 1/2	1 3/4	2	2 3/8	3 1/4	3 3/8	-----	4 3/8
F	7/8	7/8	1	1 5/8	1 1/2	1 13/16	2 3/16	2 1/8	2 31/32	4	4 5/8	-----	5 3/4

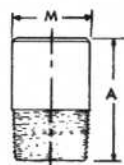
3000 lb

A	1 3/16	3 1/32	1 1/8	1 5/8	1 1/2	1 3/4	2	2 3/8	2 1/2	3 1/4	3 3/4	4 1/2	4 1/2
B	7/8	1	1 3/8	1 1/2	1 13/16	2 3/16	2 1/8	2 31/32	3 5/16	4	4 3/4	6	6
C	1 1/16	3/4	7/8	1	1 1/8	1 3/8	1 3/8	1 13/16	2 1/8	2 1/8	2 1/2	3 3/8	3 3/8
D	7/8	1	1 5/8	1 1/2	1 13/16	2 3/16	2 1/8	2 31/32	3 5/16	4	4 5/8	5 3/4	5 3/4
E	1 3/16	3 1/32	1 1/8	1 5/8	1 1/2	1 3/4	2	2 3/8	2 1/2	3 1/4	3 3/8	4 3/8	4 3/8
F	7/8	1	1 5/8	1 1/2	1 13/16	2 3/16	2 1/8	2 31/32	3 5/16	4	4 5/8	5 3/4	5 3/4
G	1 5/16	1 5/16	1 5/8	1 1/2	1 3/4	2	2 3/8	2 3/8	3 3/8	-----	-----	-----	-----
H	7/8	7/8	1 1/8	1 1/8	1 3/8	1 3/4	2	2 1/8	2 1/2	-----	-----	-----	-----
J	1 1/4	1 1/4	1 1/2	1 5/8	1 7/8	2 1/4	2 5/8	2 13/16	3 5/16	-----	-----	-----	-----
K	-----	1 3/4	1 3/4	1 3/4	2 1/8	2 1/2	2 13/16	3 3/16	4 3/8	-----	-----	-----	-----
L	-----	1 1/2	1 1/2	1 1/2	1 3/4	2	2 3/8	2 3/4	3 3/8	-----	-----	-----	-----
M	-----	2 1/2	2 1/2	2 1/2	3	3 1/2	4	4 1/2	6	-----	-----	-----	-----
N	5/8	3/4	7/8	1 1/8	1 3/8	1 3/4	2 1/4	2 1/2	3	3 5/8	4 1/4	4 3/4	5 1/2
P	1 1/4	1 3/8	1 1/2	1 7/8	2	2 3/8	2 3/8	3 1/8	3 3/8	3 3/8	4 1/4	4 1/2	4 3/4
Q	5/8	1 1/16	3/4	1 5/16	1	1 3/8	1 5/8	1 3/8	1 11/16	1 13/16	2 1/8	2 1/4	2 3/8
R	3/4	1	1	1 1/4	1 7/8	1 5/8	1 3/4	1 3/4	1 7/8	2 3/8	2 3/8	2 5/8	2 11/16

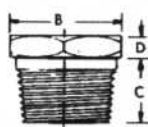
6000 lb

A	3 1/32	1 1/8	1 5/8	1 1/2	1 3/4	2	2 3/8	2 1/2	3 1/4	3 3/4	4 3/8	4 1/2	-----
B	1	1 3/8	1 1/2	1 13/16	2 3/16	2 1/8	2 31/32	3 5/16	4	4 3/4	5 3/4	6	-----
C	3/4	7/8	1	1 1/8	1 5/8	1 3/8	1 11/16	1 13/16	2 1/8	2 1/2	3 1/8	3 3/8	-----
D	1	1 3/8	1 1/2	1 13/16	2 3/16	2 1/8	2 31/32	3 5/16	4	4 5/8	5 3/4	5 3/4	-----
E	3 1/32	1 1/8	1 5/8	1 1/2	1 3/4	2	2 3/8	2 1/2	3 1/4	3 3/8	4 3/8	4 3/8	-----
F	1	1 5/8	1 1/2	1 13/16	2 3/16	2 1/8	2 31/32	3 5/16	4	4 5/8	5 3/4	5 3/4	-----
G	1 5/16	1 5/16	1 1/2	1 3/4	2	2 1/8	2 3/8	3 3/8	-----	-----	-----	-----	-----
H	7/8	1 1/8	1 1/8	1 3/8	1 3/4	2	2 1/8	2 1/2	-----	-----	-----	-----	-----
J	1 1/4	1 1/2	1 5/8	1 7/8	2 1/4	2 5/8	2 13/16	3 3/8	-----	-----	-----	-----	-----
K	-----	1 3/4	1 3/4	2 1/8	2 1/2	2 13/16	3 3/16	4 3/8	-----	-----	-----	-----	-----
L	-----	1 1/2	1 1/2	1 3/4	2	2 3/8	2 3/4	3 3/8	-----	-----	-----	-----	-----
M	-----	2 1/2	2 1/2	3	3 1/2	4	4 1/2	6	-----	-----	-----	-----	-----
N	7/8	1	1 1/4	1 1/2	1 3/4	2 1/4	2 1/2	3	3 5/8	4 1/4	5	5 3/4	6 1/4
P	1 1/4	1 3/8	1 1/2	1 7/8	2	2 3/8	2 3/8	3 1/8	3 3/8	3 3/8	4 1/4	4 1/2	4 3/4
Q	5/8	1 1/16	3/4	1 5/16	1	1 3/8	1 5/8	1 3/8	1 11/16	1 13/16	2 1/8	2 1/4	2 3/8
R	3/4	1	1 3/8	1 3/8	1 1/2	1 5/8	1 3/8	1 3/8	2	2 1/2	2 11/16	2 7/8	2 11/16

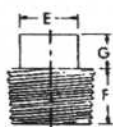
forged steel screwed



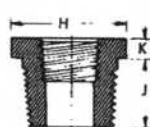
round head plug



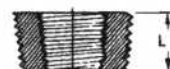
hex head plug



square head plug



hexagon bushing



flush bushing

dimensions (inches)

size	1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4
A	1 3/8	1 3/8	1 3/8	1 3/4	1 3/4	2	2	2	2 1/2	2 3/4	2 3/4	3	3
B	7/16	3/8	1/2	3/8	1 1/16	1 1/16	1 1/16	2	2 1/2	3	3 3/4	4 1/4	5
C	7/16	3/8	1/2	3/4	1 1/16	1	1	1	1 1/16	1 3/16	1 1/2	1 3/8	1 7/8
D	1/4	1/4	3/8	3/8	3/8	3/8	3/8	3/8	1/2	3/4	1/2	3/8	1
E	5/16	3/8	1/2	3/8	3/8	1/2	1/2	1/2	1 1/4	1 1/2	1 1/2	1 1/2	2 1/2
F	3/8	1/2	3/4	1/2	5/8	3/4	1 1/16	1 1/16	1 1/2	1 3/4	1 3/4	1 3/4	1 1/4
G	1/4	1/4	3/8	3/8	3/8	1/2	3/8	3/8	1 1/4	1 1/2	1 1/2	1 1/2	1 1/4
H	-----	3/8	1/2	3/8	1 1/16	1 1/16	1 1/16	2	2 1/2	3	3 3/4	4 1/4	5
J	-----	1/2	3/4	1/2	3/4	1 1/16	1 1/16	1 1/16	1	1 1/16	1 1/16	1 3/8	1 3/8
K	-----	1/8	3/16	3/16	1/4	1/4	3/8	3/8	1 1/4	1 1/2	1 1/2	1 1/2	1
L	-----	1/16	3/16	1/2	3/8	5/8	1 1/16	1 1/16	1 1/2	1 3/4	1 3/4	1 3/4	1 1/4
M	1 1/32	1 1/32	1 1/16	2 1/32	1 1/16	1 1/16	1 11/16	1 29/32	2 3/8	2 7/8	3 1/2	4	4 1/2

weights (lb each)

size	1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4
------	-----	-----	-----	-----	-----	---	-------	-------	---	-------	---	-------	---

2000 lb

90° elbow	0.21	0.17	0.28	0.49	0.70	1.03	1.63	2.04	3.38	6.56	10.00	-----	22.50
45° elbow	0.18	0.14	0.23	0.45	0.59	0.90	1.40	1.65	2.63	7.63	12.00	-----	19.75
tee	0.28	0.26	0.34	0.69	0.95	1.35	2.10	2.75	4.25	9.06	13.50	-----	32.50
cross	0.59	0.50	0.40	0.80	1.05	1.65	2.35	3.28	5.00	17.20	22.10	-----	38.60

3000 lb

90° elbow	0.21	0.31	0.60	0.91	1.43	2.28	2.88	4.88	5.44	10.00	17.13	37.12	29.25
45° elbow	0.18	0.26	0.54	0.75	1.18	2.03	2.13	4.05	4.25	7.63	12.00	26.03	19.75
street elbow	0.20	0.25	0.36	0.53	0.85	1.38	2.25	2.81	5.09	-----	-----	-----	-----
tee	0.28	0.43	0.84	1.23	1.85	3.00	3.63	6.83	7.00	13.75	21.00	49.62	38.00
cross	0.59	0.50	0.96	1.43	2.30	3.73	4.40	8.13	8.31	16.94	20.75	45.70	34.13
lateral	-----	1.10	1.06	0.93	1.50	2.62	2.94	4.50	8.25	-----	-----	-----	-----
coupling	0.11	0.10	0.13	0.28	0.42	0.85	1.50	2.19	3.02	4.56	6.79	8.03	12.00
half coupling	0.06	0.05	0.07	0.14	0.21	0.43	0.75	1.10	1.51	2.28	3.40	4.02	6.00
reducer	0.11	0.10	0.13	0.28	0.42	0.85	1.50	2.19	3.02	4.56	6.79	8.03	12.00
cap	0.08	0.09	0.11	0.24	0.39	0.72	1.32	1.54	2.34	4.05	5.84	7.09	10.08

6000 lb

90° ell	0.37	0.66	1.00	1.59	2.54	3.56	5.88	7.06	13.00	21.78	36.22	37.35	-----
45° ell	0.25	0.59	0.85	1.34	2.25	2.59	4.56	5.75	9.63	15.46	31.21	26.21	-----
street elbow	-----	0.40	0.99	1.00	1.63	2.75	3.86	7.23	-----	-----	-----	-----	-----
tee	0.44	0.92	1.38	2.16	3.63	4.83	7.75	9.75	17.38	28.90	49.60	52.00	-----
cross	0.50	1.12	1.55	2.59	4.21	5.64	9.58	11.39	21.37	28.32	55.88	46.16	-----
lateral	-----	1.31	1.18	1.84	4.10	4.23	5.62	11.84	-----	-----	-----	-----	-----
coupling	0.18	0.14	0.40	0.69	0.90	1.88	2.31	4.00	7.50	9.25	13.44	18.53	22.13
half coupling	0.09	0.07	0.20	0.35	0.45	0.94	1.16	2.00	3.75	4.63	6.72	9.27	11.07
reducer	0.18	0.14	0.40	0.69	0.90	1.88	2.31	4.00	7.50	9.25	13.44	18.53	22.13
cap	0.13	0.13	0.19	0.31	0.44	0.75	1.31	1.69	3.25	-----	-----	-----	-----

plugs and bushings • 2000, 3000, 6000 lb

plugs square head	0.02	0.03	0.06	0.11	0.19	0.36	0.60	0.84	1.38	2.12	3.38	4.76	8.44
hex head	0.03	0.06	0.10	0.16	0.30	0.55	1.03	1.36	2.29	3.81	4.75	8.37	13.00
round head	0.05	0.10	0.16	0.26	0.43	0.74	1.21	1.58	3.11	4.88	7.19	10.34	13.25
hex bushing	-----	0.02	0.03	0.06	0.11	0.19	0.39	0.36	0.84	1.19	2.56	5.50	7.06
flush bushing	-----	0.03	0.03	0.06	0.07	0.12	0.14	0.14	0.34	0.45	1.18	1.35	1.70