



CAST BRONZE FITTINGS

125lb Cast Bronze Pipe Fitting Product Specifications



- ✘ *Material Conforms to ASTM B62 (C83600)*
- ✘ *Threads Conform to ASME B1.20.1*
- ✘ *Dimensions Conform to ASME/ANSI B16.15*



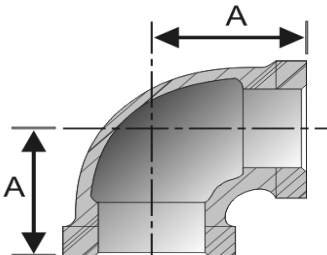
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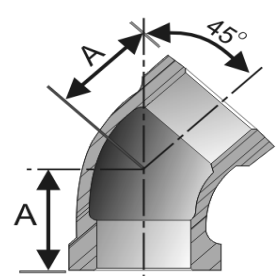
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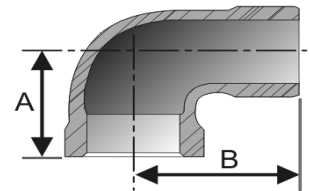
❏ MSI Cast Bronze Pipe Fitting Specifications

800-678-2544 phone 800-678-0857 fax www.msi-products.com msisales@msi-products.com

THREADS: ANSI / ASME B1.20.1 DIMENSIONS: ANSI B16.15 MATERIAL: ASTM B62

90° Elbows	Size	Inner Carton	Master Case	"A" Inch	MSI Item Number	Weight Ea / (lb.)
	1/8"	50	800	0.54	A1010002	0.078
	1/4"	35	560	0.71	A1010004	0.121
	3/8"	25	300	0.82	A1010006	0.174
	1/2"	25	200	1.01	A1010008	0.242
	3/4"	25	100	1.18	A1010012	0.339
	1"	25	75	1.43	A1010016	0.612
	1 1/4"	10	40	1.69	A1010020	0.951
	1 1/2"	10	40	1.84	A1010024	1.297
	2"	10	30	2.12	A1010032	2.065
	2 1/2"	5	15	2.70	A1010040	3.802
	3"	1	5	3.08	A1010048	4.760
	4"	1	5	3.79	A1010064	9.708

45° Elbows	Size	Inner Carton	Master Case	"A" Inch	MSI Item Number	Weight Ea / (lb.)
	1/8"	25	800	0.42	A1010402	0.075
	1/4"	25	400	0.56	A1010404	0.125
	3/8"	25	300	0.63	A1010406	0.166
	1/2"	25	200	0.78	A1010408	0.207
	3/4"	25	100	0.89	A1010412	0.317
	1"	25	75	1.06	A1010416	0.519
	1 1/4"	10	40	1.22	A1010420	0.786
	1 1/2"	10	40	1.30	A1010424	1.097
	2"	10	30	1.45	A1010432	1.708
	2 1/2"	5	15	1.95	A1010440	3.241
	3"	1	5	2.17	A1010448	4.764
4"	1	5	2.61	A1010464	8.154	

90° Street Elbows	Size	Inner Carton	Master Case	"A" Inch	"B" Inch	MSI Item Number	Weight Ea / (lb.)
	1/8"	25	800	0.55	0.92	A1010602	0.078
	1/4"	25	400	0.72	1.11	A1010604	0.121
	3/8"	25	300	0.83	1.24	A1010606	0.174
	1/2"	25	200	1.03	1.51	A1010608	0.244
	3/4"	25	100	1.19	1.66	A1010612	0.374
	1"	25	75	1.43	1.98	A1010616	0.578
	1 1/4"	10	40	1.71	2.26	A1010620	0.891
	1 1/2"	10	40	1.87	2.46	A1010624	1.157
	2"	10	30	2.14	2.88	A1010632	2.065
	2 1/2"	5	15	2.70	3.86	A1010640	4.053
	3"	1	5	3.08	4.51	A1010648	4.760
4"	1	5	3.79	5.69	A1010664	11.46	

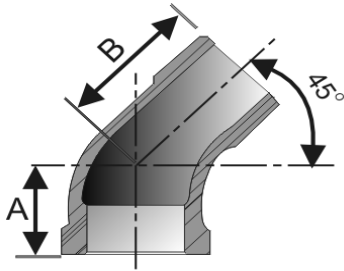
MSI cast bronze pipe fittings meet the following specifications: ANSI/ASME B1.20.1; ASTM B62; ASME B16.15

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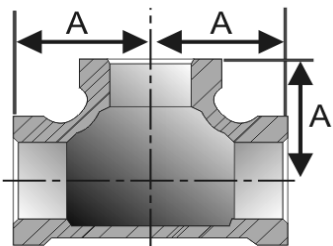
THREADS: ANSI / ASME B1.20.1 DIMENSIONS: ANSI B16.15 MATERIAL: ASTM B62

45° Street Elbows



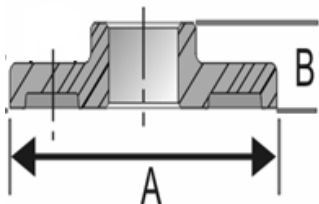
Size	Inner Carton	Master Case	"A" Inch	"B" Inch	MSI Item Number	Weight Ea / (lb.)
1/8"	70	840	0.42	0.78	A1010802	0.061
1/4"	40	480	0.56	0.88	A1010804	0.110
3/8"	50	600	0.63	0.92	A1010806	0.154
1/2"	75	450	0.78	1.06	A1010808	0.225
3/4"	40	240	0.89	1.23	A1010812	0.317
1"	25	150	1.06	1.40	A1010816	0.545
1 1/4"	10	80	1.22	1.64	A1010820	0.742
1 1/2"	10	60	1.30	1.80	A1010824	1.024
2"	12	36	1.45	2.14	A1010832	1.538
2 1/2"	12	24	1.97	2.56	A1010840	3.090
3"	6	18	2.17	2.99	A1010848	5.000
4"	1	3	2.59	3.70	A1010864	8.010

Tees



Size	Inner Carton	Master Case	"A" Inch	MSI Item Number	Weight Ea / (lb.)
1/8"	80	960	0.55	A1020002	0.114
1/4"	50	600	0.72	A1020004	0.167
3/8"	30	360	0.83	A1020006	0.253
1/2"	40	240	1.03	A1020008	0.308
3/4"	35	140	1.19	A1020012	0.502
1"	20	80	1.43	A1020016	0.852
1 1/4"	14	56	1.71	A1020020	1.289
1 1/2"	15	45	1.87	A1020024	1.691
2"	10	30	2.14	A1020032	2.701
2 1/2"	8	16	2.70	A1020040	5.142
3"	6	12	3.10	A1020048	7.592
4"	2	6	3.80	A1020064	13.787

Companion Flanges



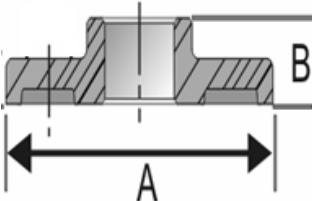
Size	Inner Carton	Master Case	"A" Inch	"B" Inch	MSI Item Number	Weight Ea / (lb.)
1/2"	25	100	3.50	0.59	A1061208	0.727
3/4"	15	90	3.88	0.62	A1061212	1.010
1"	15	60	4.25	0.70	A1061216	1.388
1 1/4"	10	60	4.62	0.82	A1061220	1.659
1 1/2"	8	48	5.00	0.87	A1061224	2.137
2"	8	32	6.00	1.00	A1061232	3.520
2 1/2"	12	36	7.00	1.12	A1061240	5.421
3"	12	24	7.50	1.18	A1061248	6.540
4"	12	24	9.00	1.32	A1061264	9.918

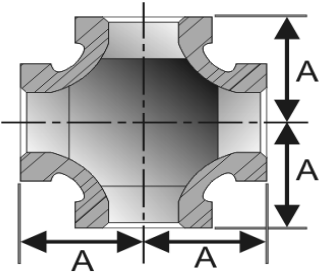
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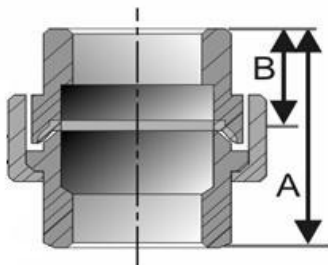
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Floor Flanges	Size	Inner Carton	Master Case	"A" Inch	"B" Inch	MSI Item Number	Weight Ea / (lb.)
	1/2"	25	100	2.95	0.59	A1063008	0.715
	3/4"	15	90	3.35	0.59	A1063012	0.837
	1"	15	60	3.66	0.75	A1063016	1.165
	1 1/4"	10	60	3.97	0.87	A1063020	1.181
	1 1/2"	8	48	4.37	0.87	A1063024	1.549
	2"	8	32	5.66	0.87	A1063032	2.478

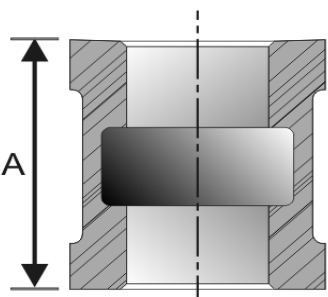
Crosses	Size	Inner Carton	Master Case	"A" Inch	MSI Item Number	Weight Ea / (lb.)
	1/4"	40	480	0.71	A1030204	0.202
	3/8"	25	300	0.82	A1030206	0.151
	1/2"	30	180	1.01	A1030208	0.453
	3/4"	20	120	1.18	A1030212	0.759
	1"	15	60	1.43	A1030216	1.039
	1 1/4"	20	40	1.69	A1030220	1.631
	1 1/2"	18	36	1.84	A1030224	2.102
	2"	10	20	2.12	A1030232	3.277
	2 1/2"	1	6	2.71	A1030240	5.000
	3"	1	4	3.08	A1030248	8.250
4"	1	2	3.79	A1030264	13.500	

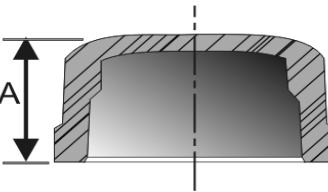
Unions	Size	Inner Carton	Master Case	"A" Inch	"B" Inch	MSI Item Number	Weight Ea / (lb.)
	1/8"	30	360	1.26	0.63	A1040802	0.165
	1/4"	20	240	1.44	0.72	A1040804	0.248
	3/8"	20	240	1.61	0.81	A1040806	0.375
	1/2"	50	200	1.72	0.86	A1040808	0.519
	3/4"	35	140	1.95	0.98	A1040812	0.775
	1"	20	80	2.06	1.03	A1040816	1.176
	1 1/4"	15	60	2.26	1.13	A1040820	1.642
	1 1/2"	10	40	2.40	1.20	A1040824	2.082
	2"	6	24	2.75	1.38	A1040832	3.235
	2 1/2"	8	16	3.23	1.61	A1040840	5.306
	3"	7	14	3.50	1.75	A1040848	6.938
4"	1	7	3.86	1.93	A1040864	12.021	

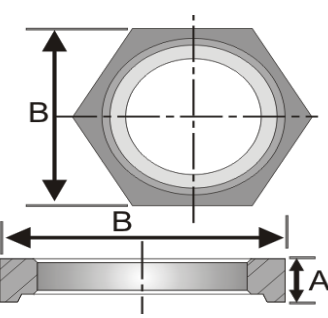
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THREADS: ANSI / ASME B1.20.1 DIMENSIONS: ANSI B16.15 MATERIAL: ASTM B62

Couplings - Banded	Size	Inner Carton	Master Case	"A" Inch	MSI Item Number	Weight Ea / (lb.)
	1/8"	70	840	0.80	A1030402	0.119
	1/4"	40	480	0.97	A1030404	0.105
	3/8"	50	600	1.05	A1030406	0.153
	1/2"	40	480	1.29	A1030408	0.180
	3/4"	50	300	1.43	A1030412	0.281
	1"	25	150	1.68	A1030416	0.449
	1 1/4"	16	128	1.86	A1030420	0.627
	1 1/2"	18	72	1.92	A1030424	0.817
	2"	12	48	2.20	A1030432	1.375
	2 1/2"	8	32	2.88	A1030440	2.625
	3"	12	24	3.18	A1030448	3.799
	4"	6	12	3.69	A1030464	5.874

Caps	Size	Inner Carton	Master Case	"A" Inch	MSI Item Number	Weight Ea / (lb.)
	1/8"	120	1440	0.48	A1040502	0.039
	1/4"	80	960	0.69	A1040504	0.062
	3/8"	60	720	0.64	A1040506	0.096
	1/2"	75	900	0.76	A1040508	0.132
	3/4"	40	480	0.84	A1040512	0.192
	1"	35	280	0.99	A1040516	0.328
	1 1/4"	25	200	1.10	A1040520	0.508
	1 1/2"	25	150	1.15	A1040524	0.662
	2"	18	108	1.32	A1040532	0.951
	2 1/2"	28	56	1.70	A1040540	1.902
3"	21	42	1.80	A1040548	2.744	
4"	7	21	2.08	A1040564	4.481	

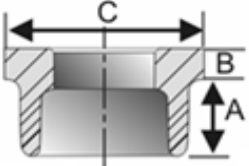
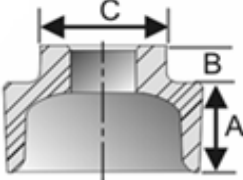
Locknuts	Size	Inner Carton	Master Case	"A" Inch	"B" Inch	MSI Item Number	Weight Ea / (lb.)
	1/8"	250	3000	0.19	0.69	A1040602	0.020
	1/4"	125	1500	0.25	0.84	A1040604	0.032
	3/8"	125	1500	0.28	1.00	A1040606	0.470
	1/2"	100	1200	0.31	1.18	A1040608	0.089
	3/4"	60	720	0.34	1.43	A1040612	0.105
	1"	40	480	0.38	1.75	A1040616	0.165
	1 1/4"	30	360	0.42	2.10	A1040620	0.225
	1 1/2"	45	270	0.47	2.35	A1040624	0.292
	2"	25	150	0.53	2.88	A1040632	0.451
	2 1/2"	20	80	0.59	3.50	A1040640	1.131
	3"	20	60	0.67	4.27	A1040648	1.706
	4"	7	28	0.80	5.39	A1040664	2.897

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THREADS: ANSI / ASME B1.20.1 DIMENSIONS: ANSI B16.15 MATERIAL: ASTM B62

Bushings	Size	Inner Carton	Master Case	"A" Inch	"B" Inch	"C" Inch	MSI Item Number	Weight Ea / (lb.)	
	1/4" x 1/8"	100	100	0.44	0.14	0.64	A104000402	0.024	
	3/8" x 1/8"	100	100	0.48	0.16	0.68	A104000602	0.057	
	3/8" x 1/4"	100	100	0.48	0.16	0.68	A104000604	0.044	
	1/2" x 1/8"	100	100	0.56	0.19	0.87	A104000802	0.100	
	1/2" x 1/4"	100	100	0.56	0.19	0.87	A104000804	0.092	
	1/2" x 3/8"	100	100	0.56	0.19	0.87	A104000806	0.077	
		3/4" x 1/8"	50	600	0.63	0.22	1.16	A104001202	0.165
		3/4" x 1/4"	50	600	0.63	0.22	1.16	A104001204	0.151
		3/4" x 3/8"	50	600	0.63	0.22	1.16	A104001206	0.140
		3/4" x 1/2"	50	600	0.63	0.22	1.16	A104001208	0.135
1" x 1/4"		50	400	0.75	0.30	1.12	A104001604	0.231	
1" x 3/8"		50	400	0.75	0.30	1.12	A104001606	0.222	
1" x 1/2"		50	400	0.75	0.30	1.42	A104001608	0.251	
1" x 3/4"		50	400	0.75	0.30	1.42	A104001612	0.208	
1 1/4" x 1/4"		30	240	0.80	0.34	1.12	A104002004	0.351	
1 1/4" x 3/8"		30	240	0.80	0.34	1.12	A104002006	0.342	
1 1/4" x 1/2"	30	240	0.80	0.34	1.34	A104002008	0.337		
1 1/4" x 3/4"	30	240	0.80	0.28	1.78	A104002012	0.479		
1 1/4" x 1"	30	240	0.80	0.28	1.78	A104002016	0.331		
1 1/2" x 1/4"	25	150	0.83	0.37	1.34	A104002404	0.469		
1 1/2" x 3/8"	25	150	0.83	0.37	1.34	A104002406	0.454		
1 1/2" x 1/2"	25	150	0.83	0.37	1.34	A104002408	0.444		
1 1/2" x 3/4"	25	150	0.83	0.37	1.63	A104002412	0.479		
1 1/2" x 1"	25	150	0.83	0.31	2.00	A104002416	0.525		
1 1/2" x 1 1/4"	25	150	0.83	0.31	2.00	A104002420	0.447		
2" x 1/2"	20	120	0.88	0.41	1.34	A104003208	0.667		
2" x 3/4"	20	120	0.88	0.41	1.63	A104003212	0.743		
2" x 1"	20	120	0.88	0.41	1.95	A104003216	0.760		
2" x 1 1/4"	20	120	0.88	0.34	2.48	A104003220	0.858		
2" x 1 1/2"	20	120	0.88	0.34	2.48	A104003224	0.828		
2 1/2" x 3/4"	15	60	1.07	0.44	1.95	A104004012	1.103		
2 1/2" x 1"	15	60	1.07	0.44	1.95	A104004016	1.162		
2 1/2" x 1 1/4"	15	60	1.07	0.40	2.39	A104004020	1.214		
2 1/2" x 1 1/2"	15	60	1.07	0.44	2.69	A104004024	1.361		
2 1/2" x 2"	15	60	1.07	0.37	2.98	A104004032	1.131		
3" x 1"	12	48	1.14	0.48	2.38	A104004816	1.691		
3" x 1 1/2"	12	48	1.14	0.48	2.68	A104004824	1.782		
3" x 2"	12	48	1.13	0.48	3.28	A104004832	2.334		
3" x 2 1/2"	12	48	1.13	0.40	3.86	A104004840	2.189		
4" x 1 1/2"	5	20	1.22	0.60	2.68	A104006424	3.421		
4" x 2"	5	20	1.22	0.60	3.28	A104006432	3.645		
4" x 2 1/2"	5	20	1.22	0.60	3.88	A104006440	3.912		
4" x 3"	5	20	1.22	0.60	4.62	A104006448	4.221		

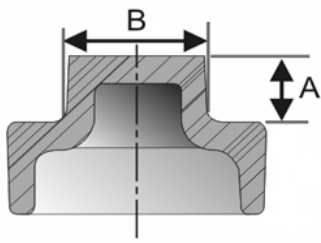
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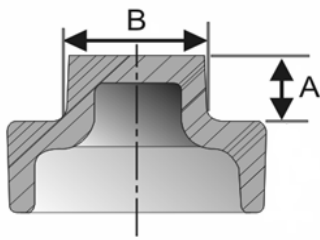
THREADS: ANSI / ASME B1.20.1 DIMENSIONS: ANSI B16.15 MATERIAL: ASTM B62

Square Head Cored Plugs



Size	Inner Carton	Master Case	"A" Inch	"B" Inch	MSI Item Number	Weight Ea / (lb.)
1/2"	50	600	0.38	0.56	A1050008	0.098
3/4"	30	360	0.44	0.62	A1050012	0.127
1"	20	240	0.50	0.81	A1050016	0.267
1 1/4"	40	240	0.56	0.93	A1050020	0.395
1 1/2"	30	180	0.62	1.12	A1050024	0.574
2"	20	120	0.68	1.31	A1050032	0.771
2 1/2"	16	64	0.74	1.50	A1050040	1.067
3"	16	48	0.80	1.68	A1050048	2.024
4"	8	16	0.92	2.25	A1050064	3.637

Square Head Solid Plugs



Size	Inner Carton	Master Case	"A" Inch	"B" Inch	MSI Item Number	Weight Ea / (lb.)
1/8"	300	3600	0.24	0.28	A1050102	0.020
1/4"	150	1800	0.28	0.37	A1050104	0.039
3/8"	100	1200	0.31	0.43	A1050106	0.064
1/2"	50	600	0.38	0.56	A1050108	0.117
3/4"	30	360	0.44	0.62	A1050112	0.181
1"	20	240	0.50	0.81	A1050116	0.359
1 1/4"	40	240	0.56	0.93	A1050120	0.626
1 1/2"	30	180	0.62	1.12	A1050124	0.841
2"	20	120	0.68	1.31	A1050132	1.269
2 1/2"	16	64	0.74	1.50	A1050140	2.358
3"	16	48	0.80	1.68	A1050148	4.077
4"	8	16	0.92	2.25	A1050164	6.381

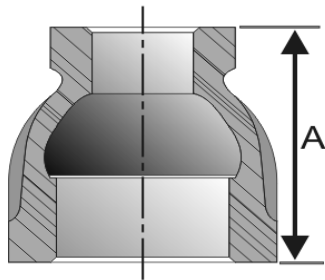
MSI cast bronze pipe fittings meet the following specifications: ANSI/ASME B1.20.1; ASTM B62; ASME B16.15

❏ MSI Cast Bronze Pipe Fitting Specifications

800-678-2544 phone 800-678-0857 fax www.msi-products.com msisales@msi-products.com

THREADS: ANSI / ASME B1.20.1 DIMENSIONS: ANSI B16.15 MATERIAL: ASTM B62

Reducer Couplings



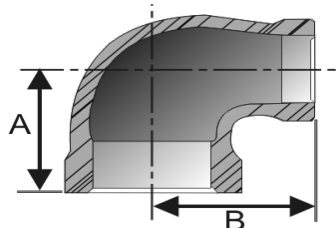
Size	Inner Carton	Master Case	"A" Inch	MSI Item Number	Weight Ea / (lb.)
1/4" x 1/8"	50	600	0.88	A103080402	0.081
3/8" x 1/8"	35	420	0.92	A103080602	0.108
3/8" x 1/4"	30	360	0.92	A103080604	0.132
1/2" x 1/8"	50	600	1.13	A103080802	0.155
1/2" x 1/4"	50	600	1.13	A103080804	0.161
1/2" x 3/8"	40	480	1.17	A103080806	0.171
3/4" x 1/8"	30	360	1.24	A103081204	0.231
3/4" x 1/4"	30	360	1.24	A103081206	0.242
3/4" x 3/8"	60	360	1.36	A103081208	0.232
3/4" x 1/2"	45	270	1.49	A103081604	0.376
1" x 3/8"	30	240	1.49	A103081606	0.401
1" x 1/2"	30	240	1.49	A103081608	0.328
1" x 3/4"	25	200	1.56	A103081612	0.436
1 1/4" x 1/2"	25	150	1.65	A103082008	0.622
1 1/4" x 3/4"	25	150	1.65	A103082012	0.644
1 1/4" x 1"	15	120	1.77	A103082016	0.545
1 1/2" x 1/2"	20	120	1.80	A103082408	0.796
1 1/2" x 3/4"	15	120	1.80	A103082412	0.828
1 1/2" x 1"	25	100	1.80	A103082416	0.681
1 1/2" x 1 1/4"	12	96	1.89	A103082420	0.985
2" x 1/2"	14	84	2.03	A103083208	1.256
2" x 3/4"	14	84	2.03	A103083212	1.278
2" x 1"	14	84	2.03	A103083216	0.995
2" x 1 1/4"	12	72	2.03	A103083220	1.398
2" x 1-1/2"	12	72	2.06	A103083224	1.092
2-1/2" x 1"	20	40	3.26	A103084016	2.006
2-1/2" x 1 1/4"	20	40	3.26	A103084020	2.227
2-1/2" x 1 1/2"	20	40	3.26	A103084024	2.291
2-1/2" x 2"	20	40	3.26	A103084032	2.492
3" x 3/4"	16	48	3.70	A103084812	2.643
3" x 1"	16	32	3.70	A103084816	2.521
3" x 1-1/4"	16	32	3.70	A103084820	2.191
3" x 1-1/2"	16	32	3.70	A103084824	2.387
3" x 2"	16	32	3.70	A103084832	3.602
3" x 2-1/2"	12	24	3.70	A103084840	3.916
4" x 2"	4	12	4.37	A103086432	6.062
4" x 2 1/2"	6	18	4.37	A103086440	5.901
4" x 3"	4	12	4.37	A103086448	6.567

MSI cast bronze pipe fittings meet the following specifications: ANSI/ASME B1.20.1; ASTM B62; ASME B16.15

MSI Cast Bronze Pipe Fitting Specifications

800-678-2544 phone 800-678-0857 fax www.msi-products.com msisales@msi-products.com
 THREADS: ANSI / ASME B1.20.1 DIMENSIONS: ANSI B16.15 MATERIAL: ASTM B62

90° Reducing Elbows



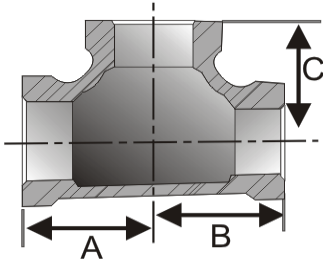
Size	Inner Carton	Master Case	"A" Inch	"B" Inch	MSI Item Number	Weight Ea / (lb.)
1/4" x 1/8"	40	480	0.65	0.60	A101020402	0.121
3/8" x 1/8"	70	840	0.85	0.78	A101020602	0.161
3/8" x 1/4"	60	720	0.75	0.78	A101020604	0.185
1/2" x 1/8"	40	480	0.93	0.90	A101020802	0.223
1/2" x 1/4"	40	480	0.93	0.90	A101020804	0.206
1/2" x 3/8"	50	400	0.93	0.90	A101020806	0.239
3/4" x 1/8"	40	320	1.08	1.11	A101021202	0.276
3/4" x 1/4"	40	320	1.08	1.11	A101021204	0.256
3/4" x 3/8"	25	300	1.08	1.11	A101021206	0.312
3/4" x 1/2"	30	240	1.08	1.11	A101021208	0.439
1" x 1/2"	30	180	1.20	1.24	A101021608	0.515
1" x 3/4"	25	150	1.30	1.31	A101021612	0.582
1 1/4" x 1/2"	35	140	1.39	1.48	A101022008	0.675
1 1/4" x 3/4"	15	120	1.39	1.48	A101022012	0.791
1 1/4" x 1"	10	80	1.52	1.60	A101022016	0.797
1 1/2" x 1/2"	25	100	1.17	1.72	A101022408	0.713
1 1/2" x 3/4"	15	90	1.42	1.72	A101022412	0.875
1 1/2" x 1"	10	80	1.56	1.72	A101022416	1.072
1 1/2" x 1 1/4"	15	60	1.72	1.81	A101022420	1.094
2" x 1/2"	15	60	1.60	1.97	A101023208	1.102
2" x 3/4"	10	60	1.60	1.97	A101023212	1.190
2" x 1"	14	56	1.73	2.02	A101023216	1.411
2" x 1 1/4"	10	40	1.90	2.10	A101023220	1.531
2" x 1-1/2"	10	40	1.89	2.07	A101023224	1.652
2-1/2" x 1 1/2"	8	24	2.16	2.51	A101024024	2.964
2-1/2" x 2"	8	24	2.39	2.60	A101024032	2.606
3" x 2"	6	18	2.83	2.99	A101024832	4.216
3" x 2-1/2"	8	16	2.53	2.99	A101024840	4.099
4" x 2"	1	12	2.48	3.38	A101026432	9.431
4" x 2-1/2"	1	12	2.76	3.42	A101026440	9.948
4" x 3"	1	12	2.76	3.42	A101026448	9.843

MSI Cast Bronze Pipe Fitting Specifications

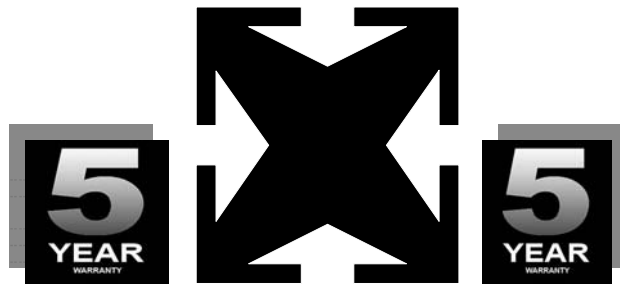
800-678-2544 phone 800-678-0857 fax www.msi-products.com msisales@msi-products.com

THREADS: ANSI / ASME B1.20.1 DIMENSIONS: ANSI B16.15 MATERIAL: ASTM B62

Reducing Tees



Size	Inner Carton	Master Case	"A" Inch	"B" Inch	"C" Inch	MSI Item Number	Weight Ea / (lb.)
1/4" x 1/4" x 1/8"	25	300	0.65	0.65	0.60	A10202040402	0.197
3/8" x 3/8" x 1/8"	60	480	0.81	0.81	0.85	A10202060602	0.210
3/8" x 3/8" x 1/4"	40	480	0.75	0.75	0.78	A10202060604	0.212
1/2" x 1/2" x 1/4"	25	300	0.87	0.87	0.87	A10202080804	0.232
1/2" x 1/2" x 3/8"	45	270	0.93	0.93	0.90	A10202080806	0.347
3/4" x 1/2" x 1/2"	30	180	1.20	1.12	1.20	A10202120808	0.482
3/4" x 1/2" x 3/4"	40	160	1.37	1.31	1.45	A10202120812	0.575
3/4" x 3/4" x 1/4"	25	200	1.05	1.05	1.08	A10202121204	0.426
3/4" x 3/4" x 3/8"	30	180	1.10	1.10	1.10	A10202121206	0.452
3/4" x 3/4" x 1/2"	30	180	1.08	1.08	1.11	A10202121208	0.527
3/4" x 3/4" x 1"	20	120	1.22	1.22	1.20	A10202121216	0.776
1" x 1/2" x 1/2"	20	120	1.31	1.22	1.31	A10202160808	0.595
1" x 1/2" x 3/4"	20	120	1.45	1.45	1.37	A10202160812	0.667
1" x 1/2" x 1"	15	90	1.26	1.12	1.36	A10202160816	0.828
1" x 3/4" x 1/2"	20	120	1.26	1.20	1.36	A10202161208	0.667
1" x 3/4" x 3/4"	25	100	1.38	1.22	1.36	A10202161212	0.718
1" x 1" x 3/8"	20	120	1.12	1.12	1.13	A10202161606	0.631
1" x 1" x 1/2"	15	120	1.20	1.20	1.24	A10202161608	0.601
1" x 1" x 3/4"	25	100	1.30	1.30	1.31	A10202161612	0.804
1 1/4" x 1 1/4" x 1/2"	20	80	1.29	1.29	1.41	A10202202008	0.848
1 1/4" x 1 1/4" x 3/4"	12	72	1.39	1.39	1.48	A10202202012	0.904
1 1/4" x 1 1/4" x 1"	16	64	1.52	1.52	1.60	A10202202016	1.211
1 1/2" x 1 1/2" x 1/2"	18	72	1.32	1.32	1.53	A10202242408	1.258
1 1/2" x 1 1/2" x 3/4"	10	60	1.42	1.42	1.60	A10202242412	1.001
1 1/2" x 1 1/2" x 1"	13	52	1.55	1.55	1.72	A10202242416	1.391
1 1/2" x 1 1/2" x 1 1/4"	15	45	1.72	1.72	1.81	A10202242420	1.714
2" x 2" x 3/4"	10	40	1.47	1.47	1.84	A10202323212	1.981
2" x 2" x 1"	12	36	1.59	1.59	1.95	A10202323216	2.084
2" x 2" x 1 1/4"	8	32	1.77	1.77	2.04	A10202323220	2.252
2" x 2" x 1 1/2"	8	32	1.89	1.89	2.07	A10202323224	2.694
2 1/2" x 2 1/2" x 2"	8	16	2.40	2.40	2.60	A10202404032	4.244
3" x 3" x 2"	6	12	2.52	2.52	2.89	A10202484832	3.702
3" x 3" x 2 1/2"	6	12	2.83	2.83	2.99	A10202484840	5.511
4" x 4" x 2"	4	8	2.74	2.74	3.41	A10202646432	7.605
4" x 4" x 3"	2	6	3.30	3.30	3.60	A10202646448	10.531



MSI 5 YEAR LIMITED WARRANTY

MSI warrants to its initial purchaser only, that its products which are delivered to the initial purchaser will be of the kind described in the order or price list and will be free of defects in workmanship or material for a period of (5) five years from the date of delivery to MSI's initial purchaser.

Should any failure to conform to this warranty appear within (5) five years after the date of the initial delivery to MSI's initial purchaser, MSI will, upon written notification thereof and substantiation that the goods have been stored, installed, maintained and operated in accordance with recognized engineering and piping practices and industry standards, correct such defects by suitable replacement of product at our expense upon return of the defective product to MSI.

This warranty applies only during normal use that meets the above referenced conditions of installation and operation and is absolutely void if the product has been damaged after purchase or if it has been misused, repaired, altered or modified in any manner whatsoever. MSI shall not warranty any of its products if any portion of the product including without limitation, any component, gasket, housing or bolt has been modified, altered, remanufactured or replaced in any manner by any customer, user of the product or third party.

Correction of non-conformities, in the manner and for the period of time provided above, shall constitute fulfillment of all liabilities of MSI to MSI's initial purchaser, with respect to the goods, whether based on contract, negligence, strict tort or otherwise. It is the intention of MSI that no warranty of any kind, whether expressed or implied shall pass through MSI's initial purchaser to any other person or corporation.

No returns will be permitted unless prior written permission of MSI is first obtained. Buyers shall be responsible for all costs of transportation as well as any applicable restocking fees.

This warranty is exclusively for the benefit of MSI's initial purchaser of the product from MSI and to the extent prohibited by applicable law, the foregoing warranty is in lieu of all other warranties, express or implied, including but not limited to warranties of fitness or merchantability.

LIMITATIONS OF LIABILITY

MSI shall not under any circumstances be liable for special or consequential damages such as, but not limited to, damage to loss of other property or equipment, loss of profits or revenue, cost of capital, cost of purchased or replacement goods, claims of customers of our initial purchaser, any labor cost or replacement of the product or damage caused by the product.

The remedies of MSI's initial purchaser and all others, set forth herein are exclusive and the liability of MSI with respect to same shall not, except as expressly provided herein, exceed the price of the MSI products on which such liability is based.