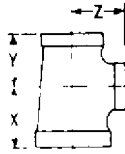


CLASS 150

Malleable Iron Threaded

REDUCING TEES

ASTM A197



STRAIGHT RUN,
REDUCING OUTLET



REDUCED RUN;
OTHER END AND
OUTLET EQUAL

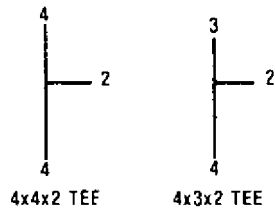


REDUCED ON RUN
AND OUTLET

Size		Dimensions			Approx. Weight	Size		Dimensions			Approx. Weight
NPS	DN	X	Y	Z		NPS	DN	X	Y	Z	
1/4 x 1/4 x 1/8		.74	.74	.76	.12	1 x 3/4 x 1		1.50	1.45	1.50	.74
	6 x 6 x 3	18.8	18.8	19.3	.05		25 x 20 x 25	38.1	36.8	38.1	.33
3/8 x 3/8 x 1/4		.88	.88	.90	.20	1 x 3/4 x 3/4		1.37	1.31	1.45	.62
	10 x 10 x 6	22.4	22.4	22.9	.09		25 x 20 x 20	34.8	33.3	36.8	.28
3/8 x 1/4 x 3/8		.95	.90	.95	.19	1 x 3/4 x 1/2		1.26	1.20	1.36	.56
	10 x 6 x 10	24.1	22.9	24.1	.09		25 x 20 x 15	32.0	30.5	35.5	.25
3/8 x 1/4 x 1/4		.88	.81	.90	.20	1 x 1/2 x 1		1.50	1.36	1.50	.68
	10 x 6 x 6	22.4	20.6	22.9	.09		25 x 15 x 25	38.1	35.5	38.1	.31
1/2 x 1/2 x 3/8		1.04	1.05	1.03	.28	1 x 1/2 x 3/4		1.37	1.22	1.45	.59
	15 x 15 x 10	26.4	26.4	26.2	.13		25 x 15 x 20	34.8	31.0	36.8	.27
1/2 x 1/2 x 1/4		.97	.97	.98	.26	1 x 1/2 x 1/2		1.26	1.12	1.36	.59
	15 x 15 x 6	24.6	24.6	24.9	.12		25 x 15 x 15	32.0	28.5	35.5	.27
1/2 x 3/8 x 1/2		1.12	1.03	1.12	.30	1 1/4 x 1 1/4 x 1		1.58	1.58	1.67	1.11
	15 x 10 x 15	28.5	26.2	28.5	.14		32 x 32 x 25	40.1	40.1	42.4	.52
1/2 x 3/8 x 3/8		1.04	.95	1.03	.27	1 1/4 x 1 1/4 x 3/4		1.45	1.45	1.62	.90
	15 x 10 x 10	26.4	24.1	26.2	.12		32 x 32 x 20	36.8	36.8	41.2	.41
1/2 x 1/4 x 1/2		1.12	.98	1.12	.28	1 1/4 x 1 1/4 x 1/2		1.34	1.34	1.53	.86
	15 x 6 x 15	28.5	24.9	28.5	.13		32 x 32 x 15	34.0	34.0	38.9	.39
3/4 x 3/4 x 1/2		1.20	1.20	1.22	.42	1 1/4 x 1 1/4 x 3/8		1.26	1.26	1.44	.75
	20 x 20 x 15	30.5	30.5	31.0	.19		32 x 32 x 10	32.0	32.0	36.6	.34
3/4 x 3/4 x 3/8		1.12	1.12	1.13	.39	1 1/4 x 1 x 1 1/4		1.75	1.67	1.75	1.1
	20 x 20 x 10	28.5	28.5	28.7	.18		32 x 25 x 32	44.5	42.4	44.5	.52
3/4 x 3/4 x 1/4		1.05	1.05	1.08	.35	1 1/4 x 1 x 1		1.58	1.50	1.67	1.1
	20 x 20 x 6	26.7	26.7	27.4	.16		32 x 25 x 25	40.1	38.1	42.4	.52
3/4 x 1/2 x 3/4		1.31	1.22	1.31	.47	1 1/4 x 1 x 3/4		1.45	1.37	1.62	.83
	20 x 15 x 20	33.3	31.0	33.3	.21		32 x 25 x 20	36.8	34.8	41.2	.38
3/4 x 1/2 x 1/2		1.20	1.12	1.22	.42	1 1/4 x 1 x 1/2		1.34	1.26	1.53	.78
	20 x 15 x 15	30.5	28.5	31.0	.19		32 x 25 x 15	34.0	32.0	38.9	.35
3/4 x 3/8 x 3/4		1.31	1.13	1.31	.44	1 1/4 x 3/4 x 1 1/4		1.75	1.62	1.75	1.1
	20 x 10 x 20	33.3	28.7	33.3	.20		32 x 20 x 32	44.5	41.2	44.5	.50
3/4 x 3/8 x 3/8		1.12	.95	1.13	.33	1/4 x 3/4 x 1		1.58	1.45	1.67	.92
	20 x 10 x 10	28.5	24.1	28.7	.15		32 x 20 x 25	40.1	36.8	42.4	.42
3/4 x 1/4 x 3/4		1.31	1.08	1.31	.42	1 1/4 x 3/4 x 3/4		1.45	1.31	1.62	.90
	20 x 6 x 20	33.3	27.4	33.3	.19		32 x 20 x 20	36.8	33.3	41.2	.41
1 x 1 x 3/4		1.37	1.37	1.45	.62	1 1/2 x 1 1/2 x 1 1/4		1.82	1.82	1.88	1.3
	25 x 25 x 20	34.8	34.8	36.8	.28		40 x 40 x 32	46.2	46.2	47.8	.61
1 x 1 x 1/2		1.26	1.26	1.36	.59	1 1/2 x 1 1/2 x 1		1.65	1.65	1.80	1.2
	25 x 25 x 15	32.0	32.0	35.5	.27		40 x 40 x 25	41.9	41.9	45.7	.56
1 x 1 x 3/8		1.18	1.18	1.27	.53	1 1/2 x 1 1/2 x 3/4		1.52	1.52	1.75	1.1
	25 x 25 x 10	30.0	30.0	32.3	.24		40 x 40 x 20	38.6	38.6	44.5	.52
1 x 1 x 1/4		1.11	1.11	1.22	.55	1 1/2 x 1 1/2 x 1/2		1.41	1.41	1.66	.86
	25 x 25 x 6	28.2	28.2	31.0	.25		40 x 40 x 15	35.8	35.8	42.2	.39

Continued on page 7

IDENTIFICATION OF REDUCING TEES



CLASS 150

Malleable Iron Threaded

REDUCING TEES

continued

ASTM A197

Size		Dimensions			Approx. Weight	Size		Dimensions			Approx. Weight
NPS	DN	X	Y	Z		NPS	DN	X	Y	Z	
1 1/2 x 1 1/4 x 1 1/2		1.94	1.88	1.94	1.6	2 1/2 x 2 1/2 x 1 1/2		2.16	2.16	2.51	2.9
	40 x 32 x 40	49.3	47.8	49.3	.73		65 x 65 x 40	54.9	54.9	63.8	1.3
1 1/2 x 1 1/4 x 1 1/4		1.82	1.75	1.88	1.3	2 1/2 x 2 1/2 x 1 1/4		2.04	2.04	2.45	2.9
	40 x 32 x 32	46.2	44.5	47.8	.61		65 x 65 x 32	51.8	51.8	62.2	1.3
1 1/2 x 1 1/4 x 1		1.65	1.58	1.80	1.2	2 1/2 x 2 1/2 x 1		1.87	1.87	2.37	2.6
	40 x 32 x 25	41.9	40.1	45.7	.54		65 x 65 x 25	47.5	47.5	60.2	1.2
1 1/2 x 1 1/4 x 3/4		1.52	1.45	1.75	1.1	2 1/2 x 2 1/2 x 3/4		1.74	1.74	2.32	2.2
	40 x 32 x 20	38.6	36.3	44.5	.50		65 x 65 x 20	44.2	44.2	58.9	1.0
2 x 2 x 1 1/2		2.02	2.02	2.16	2.1	2 1/2 x 2 x 2 1/2		2.70	2.60	2.70	4.1
	50 x 50 x 40	51.3	51.3	54.9	.96		65 x 50 x 65	68.6	66.0	68.6	1.9
2 x 2 x 1 1/4		1.90	1.90	2.10	1.9	2 1/2 x 2 x 2		2.39	2.25	2.60	3.3
	50 x 50 x 32	48.3	48.3	53.3	.89		65 x 50 x 50	60.7	57.2	66.0	1.5
2 x 2 x 1		1.73	1.73	2.02	1.6	*2 1/2 x 2 x 1 1/2		2.81	2.81	2.50	4.0
	50 x 50 x 25	43.9	43.9	51.3	.73		*65 x 50 x 40	71.4	71.4	63.5	1.8
2 x 2 x 3/4		1.60	1.60	1.97	1.6	3 x 3 x 2 1/2		2.83	2.83	2.99	4.9
	50 x 50 x 20	40.6	40.6	50.0	.72		80 x 80 x 65	71.9	71.9	76.0	2.2
2 x 2 x 1/2		1.49	1.49	1.88	1.3	3 x 3 x 2		2.52	2.52	2.89	3.9
	50 x 50 x 15	37.9	37.9	47.8	.61		80 x 80 x 50	64.0	64.0	73.4	1.8
*2 x 2 x 3/8		1.49	1.49	1.88	1.6	3 x 3 x 1 1/2		2.29	2.29	2.80	3.7
	*50 x 50 x 10	37.9	37.9	47.8	.73		80 x 80 x 40	58.2	58.2	71.1	1.7
2 x 1 1/2 x 2		2.25	2.16	2.25	2.3	3 x 3 x 1 1/4		2.17	2.17	2.74	3.7
	50 x 40 x 50	57.2	54.8	57.2	1.0		80 x 80 x 32	55.1	55.1	69.6	1.7
2 x 1 1/2 x 1 1/2		2.02	1.94	2.16	2.1	4 x 4 x 3		3.30	3.30	3.60	8.1
	50 x 40 x 40	51.3	49.3	54.9	.96		100 x 100 x 80	83.8	83.8	91.4	3.7
2 x 1 1/2 x 1 1/4		1.90	1.82	2.10	1.8	4 x 4 x 2 1/2		3.05	3.05	3.51	8.1
	50 x 40 x 32	48.3	46.2	53.3	.82		100 x 100 x 65	77.5	77.5	89.2	3.7
2 x 1 1/2 x 1		1.73	1.65	2.02	1.6	4 x 4 x 2		2.74	2.74	3.41	6.8
	50 x 40 x 25	43.9	41.9	51.3	.73		100 x 100 x 50	69.6	69.6	86.6	3.1
2 x 1 1/4 x 2		2.25	2.10	2.25	2.3	4 x 4 x 1 1/2		2.51	2.51	3.32	6.3
	50 x 32 x 50	57.2	53.3	57.2	1.0		100 x 100 x 40	63.8	63.8	84.3	2.9
2 x 1/4 x 1 1/2		2.02	1.88	2.16	1.9	*4 x 4 x 1 1/4		2.75	2.75	3.44	6.1
	50 x 32 x 40	51.3	47.8	54.9	.86		*100 x 100 x 32	69.9	69.9	87.4	2.8
2 x 1 1/4 x 1 1/4		1.90	1.75	2.10	1.9	*4 x 4 x 1		2.75	2.75	3.44	5.8
	50 x 32 x 32	48.3	44.5	53.3	.89		*100 x 100 x 25	69.9	69.9	87.4	2.6
2 x 1 x 2		2.25	2.02	2.25	2.1	6 x 6 x 4		4.13	4.13	4.94	17.9
	50 x 25 x 50	57.2	51.3	57.2	.95		150 x 150 x 100	104.9	104.9	125.5	8.1
2 x 3/4 x 2		2.25	1.97	2.25	2.1	6 x 6 x 3		3.64	3.64	4.75	16.1
	50 x 20 x 50	57.2	50.0	57.2	.95		150 x 150 x 80	92.5	92.5	120.7	7.3
2 x 1/2 x 2		2.25	1.88	2.25	2.1	6 x 6 x 2		3.08	3.08	4.56	13.9
	50 x 15 x 50	57.2	47.8	57.2	.95		150 x 150 x 50	78.2	78.2	115.8	16.3
2 1/2 x 2 1/2 x 2		2.39	2.39	2.60	3.3						
	65 x 65 x 50	60.7	60.7	66.0	1.5						

*These sizes not specified by ASME/ANSI B16.3

INCHES	POUNDS
MILLIMETRES	KILOGRAMS

STANDARDS

CCTF MALLEABLE IRON FITTINGS are designed to conform with the following industry standards:

MATERIAL:	ASTM A 197 ASTM A 153	Cupola Malleable Iron Zinc Coatings
DIMENSIONS:	ANSI/ASME B 16.3 ASME B 16.14 ASME B 16.39	Malleable Iron Threaded Fittings Flanges, etc. Pipe Unions
THREADS:	ANSI/ASME B1.20.1	Pipe Threads. See data below. "Threading."

*PRESSURE-TEMPERATURE RATINGS

MALLEABLE IRON - ANSI B 16.3					
Temperature		Class 150 psig	Class 300 psi ²		
Degrees C	Degrees F		Sizes 1/4 - 1	Sizes 1/4 - 2	Sizes 2 1/2 - 3
-29 to 66	-200 to 150	300	2000	1500	1000
93	200	265	1785	1350	910
121	250	225	1575	1200	825
149	300	185	1360	1050	735
177	366 ¹	150 ¹	1150	900	650
204	400		935	750	560
232	450		725	600	475
260	500		510	450	385
333	550		300	300	300

¹ Permissible for service temperature up to 366°F, reflecting the temperature of saturated steam at 150 psig.

² 14.5 psi = 1 bar = 100 kPa.

*All CCTF iron fittings are air pressure tested under water.

IDENTIFICATION, MARKING

Class 300 Malleable Iron threaded fittings are marked with the numerals "300", the letters "MI", and the size.

Class 150 Malleable Iron threaded fittings have no pressure class markings.

THREADING

All fittings shall be threaded with American National Standard Pipe Threads (ANSI/ASME B1.20.1) and shall have taper threads, except wrought couplings and wrought caps in sizes 1/8, 1/4, 3/8 and 1/2, which may have straight threads.

CONVERSION FACTORS

The International System (SI) metric equivalent of British units are shown throughout this catalogue.

NPS (Nominal Pipe Size)	= DN* (Nominal Diameter)
Operating Pressure Class	= PN* (Pressure Number)
1 inch	= 25.4 millimetres
1 pound, weight	= 0.4536 kilograms
1 pound, pressure	= 0.06895 bars

*From the SI designations, Diamètre Nominal and Pression Nominale.

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