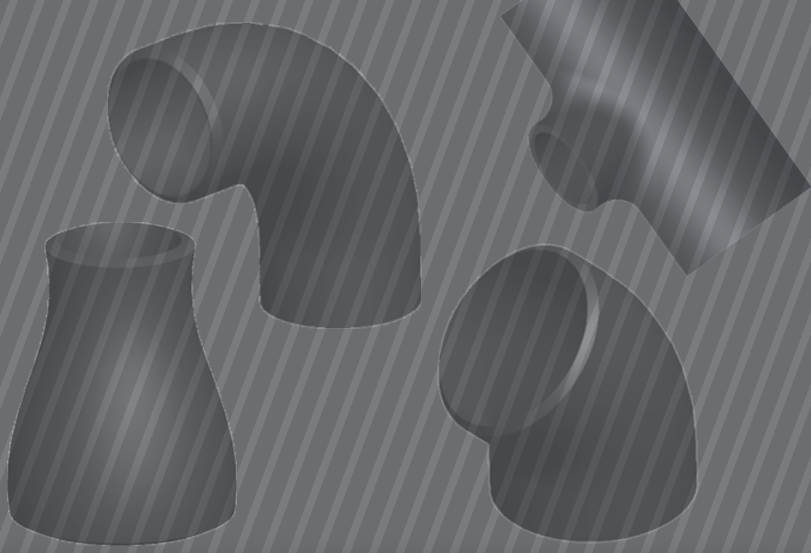




PPF PIPE FITTINGS (PAHANG)



BUTTWELD FITTINGS





Pahang Pipe Fittings

PPF is one of the leading manufacturers of Buttweld fittings and flanges.

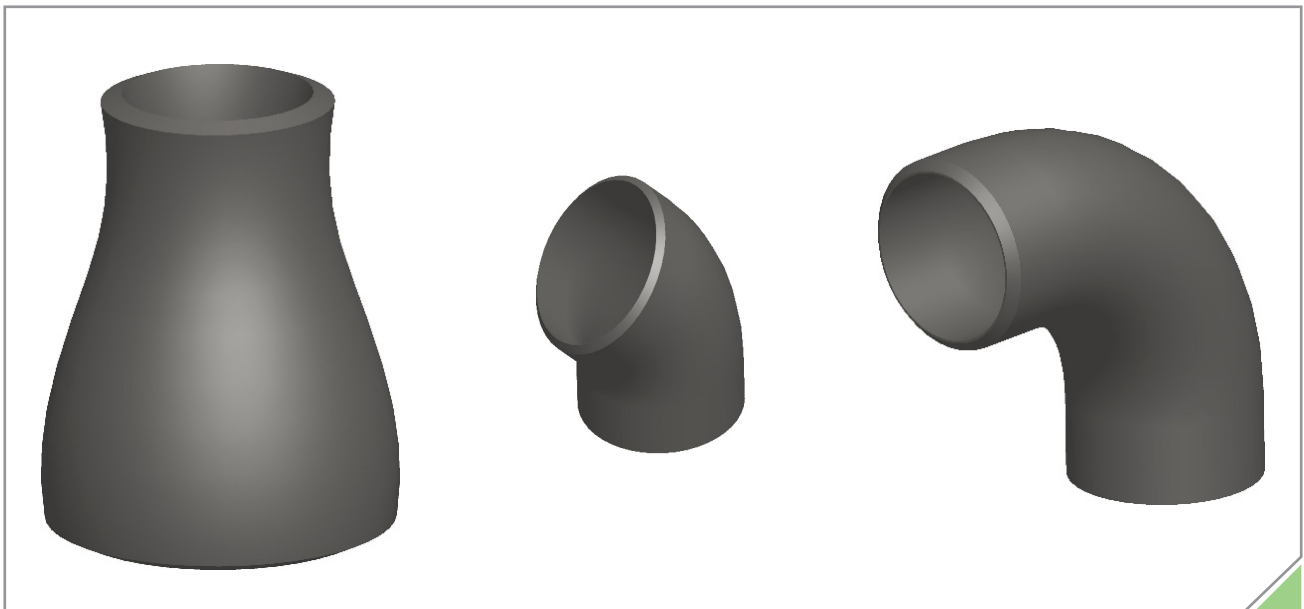
Our highly specialized product range is capable of catering the requirements of Power Generation, LPG Production, Oil Refining, Water lines, Petro Chemical Units and all other Steel applications.

Our well-equipped factory is having mass production facility and thus producing complete range of Buttweld fittings and flanges.

Presently we are having a production facility from size range 2" to 48" for fittings and flanges.

We continue our effort for actively conducting the research and development works in this vast area of pipe fittings so as to meet the ever growing future requirements.

Pahang years-long experience has helped us to achieve the approvals by different government agencies for its quality and reliability. Our stringent quality control methods and continuous R&D works by our excellent team of staffs helps us to maintain the internationally reputed quality.



Fitting Summary Data Sheet ASTM A 234

Scope

This standard covers wrought carbon steel fittings of seamless and welded construction which are manufactured to the dimensional specifications of ASME B16.9 and B16.28. These fittings are primarily for use in pressure piping and in pressure vessel fabrication for service at moderate and elevated temperatures.



Manufacture

Forging or shaping operations are performed by hammering, pressing, piercing, extruding, upsetting, rolling, bending, machining, or by a combination of two or more of these operations. The forming process shall be applied so that it will not produce injurious imperfections in the fittings.

Heat Treatment

Hot-formed WPB fittings, upon which the final forming operation is completed at a temperature above 1150°F and below 1800°F, need not be heat treated.

Cold-Formed WPB fittings, upon which the final forming operation is completed at a temperature below 1150°F, shall be normalized, or shall be stress relieved at 1100°F to 1275°F.

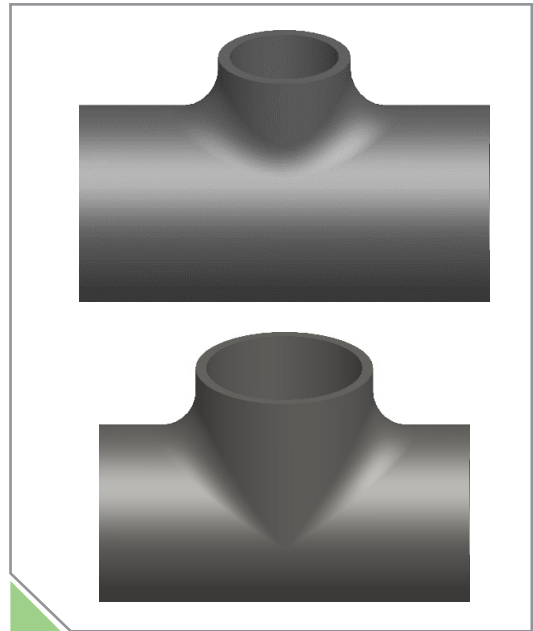




BUTTWELD FITTINGS

Product Marking

All fittings shall have the prescribed information stamped or otherwise suitable marked on each fitting in accordance with ASTM A 234/ MSS SP-25. A R.F.F. Tuscan fitting is marked as follows: R.F.F. Tuscan's Name, Nominal Pipe Size, Pipe Wall Thickness Designation, Material Grade (WPB/WPC) and Heat Identification Number.



Dimensions

Butt-welding fittings and butt-welding short radius elbows and returns purchased in accordance with this specification shall conform to the dimensions and tolerances given in the latest revision of ANSI B16.9 and B16.28, respectively.

Materials

The starting material for fittings shall consist of killed steel, forgings, bars, plates, seamless or fusion-welded tubular products with filler metal added and shall conform to the the chemical requirements of ASTM A 234. Unless otherwise specified, carbon steel plates may be either coarse grain or fine grain practice.



BUTTWELD FITTINGS



Even with all the advances in technology today, the wholly welded piping system has for decades remained the best choice for use in high pressure and high temperature application.

Many piping jobs in schools, industrial plants, refineries and factories have benefited from the inherent advantages of a completely welded system. It becomes a closed container joining pipes, valves, fittings, and flanges. A welded joint actually becomes part of the pipe, minimizing leak potential. This provides greater margins of safety, especially under conditions of high internal pressures. Additionally, welding fittings form a continuous metal structure with the pipe, adding forged-in strength to any piping system.

Furthermore, smooth forged fittings simplify insulation and take up less space.



Mechanical requirements:

Tensile Strength 60,000-85,000 psi Yield Strength (min) 35,000 psi Elongation - Longitudinal: 22% - Transverse: 14%

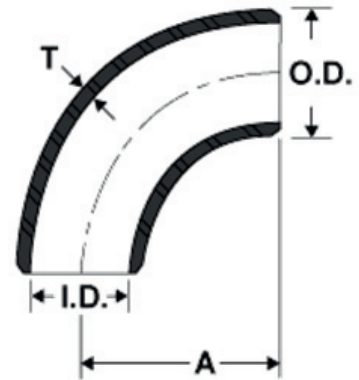


Chemical requirements (in %): Carbon Manganese Phosphorus (max) Sulfur (max) .30 max .29-1.06 .050 .058 Silicon Chromium Molybdenum Nickel Copper. 10 min .40 max .15 max .40 max .40 max Vanadium Columbium .08 max .02 max



BUTTWELD FITTINGS

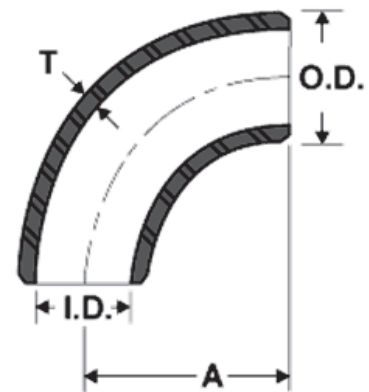
Long Radius 90° Elbows STANDARD WEIGHT Millimeters / Kilograms



Pipe Size (DN)	Outside Diameter	Inside Diameter	Wall Thickness (T)	Center To End (A)	Pipe Schedule	Weight In Kilograms
15	21.3	15.8	2.77	38.1	40	0.01
20	26.7	20.9	2.87	26.0	40	0.07
25	33.4	26.6	3.38	38.1	40	0.2
32	42.2	33.1	3.56	47.6	40	0.2
40	48.3	40.9	3.68	57.2	40	0.4
50	60.3	52.5	3.91	76.2	40	0.7
65	73.0	62.7	5.16	95.3	40	1.5
80	88.9	77.9	5.49	114.3	40	2.2
90	101.6	90.1	5.74	133.4	40	3
100	114.3	102.3	6.02	152.4	40	4
125	141.3	128.2	6.55	190.5	40	6.8
150	168.3	154.1	7.11	228.6	40	10.9
200	219.1	202.7	8.18	304.8	40	21.7
250	273.0	254.5	9.27	381.0	40	37.8
300	323.8	304.8	9.53	457.2	*	55.8
350	355.6	336.5	9.53	533.4	30	70.3
400	406.4	387.4	9.53	609.6	30	93.4
450	457.0	438.2	9.53	685.8	*	118.8
500	508.0	489.0	9.53	762.0	20	147
600	610.0	590.5	9.53	914.4	20	211.4
750	762.0	742.9	9.53	1,143.0	*	326.6
900	914.0	895.3	9.53	1,371.6	*	471.3
1050	1,067.0	1,047.7	9.53	1,600.2	*	644.1
1200	1,219.0	1,200.1	9.53	1,828.8	*	907.2

* Dimensions conform to ASME B16.9 & material conforms to ASTM A-234 Grade B

Long Radius 90° Elbows EXTRA STRONG Millimeters / Kilograms



Pipe Size (DN)	Outside Diameter	Inside Diameter	Wall Thickness (T)	Center To End (A)	Pipe Schedule	Weight in Kilograms
15	21.3	13.8	3.73	38.1	80	0.1
20	26.7	18.8	3.91	25.7	80	0.1
25	33.4	24.3	4.55	38.1	80	0.2
32	42.2	32.5	4.85	47.6	80	0.4
40	48.3	38.1	5.08	57.2	80	0.5
50	60.3	49.3	5.54	76.2	80	1
65	73.0	59.0	7.01	95.3	80	1.7
80	88.9	73.7	7.62	114.3	80	2.9
90	101.6	85.4	8.08	133.3	80	3.9
100	114.3	97.2	8.56	152.4	80	5.7
125	141.3	122.3	9.53	190.5	80	9.6
150	168.3	146.3	10.97	228.6	80	15.6
200	219.1	193.7	12.70	304.8	80	32.3
250	273.0	247.7	12.70	381.0	60	50.3
300	323.8	298.45	12.70	457.2	*	71.7
350	355.6	330.2	12.70	533.4	*	91.2
400	406.4	381.0	12.70	609.6	40	122.5
450	457.0	432.0	12.70	686.0	*	157.9
500	508.0	483.0	12.70	762.0	30	191.4
600	610.0	584.2	12.70	914.4	*	274
750	762.0	737.0	12.70	114.3	20	452.2
900	914.0	889.0	12.70	1,371.6	20	626
1050	1,067.0	1,041.4	12.70	1,600.2	*	852.8
1200	1,219.0	1,194.0	12.70	1,829.0	*	1134.9

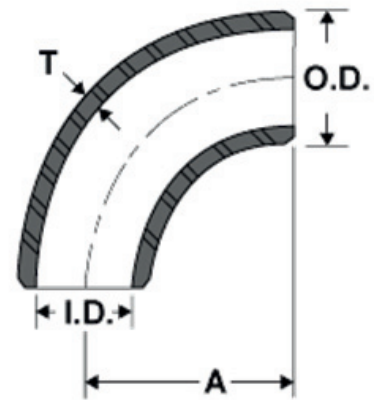
Dimensions conform to ASME B16.9 & material conforms to ASTM A-234 Grade B



Short Radius 90° Elbows

STANDARD WEIGHT

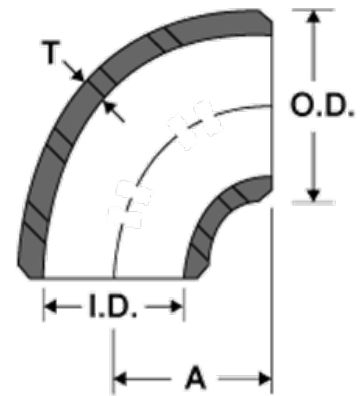
Millimeters / Kilograms



Pipe Size (DN)	Outside Diameter	Inside Diameter	Wall Thickness (T)	Center To End (A)	Pipe Schedule	Weight In Kilograms
25	33.4	26.6	3.4	25	40	0.1
32	42.2	35.1	3.6	31.8	40	0.2
40	48.3	40.1	3.7	38.1	40	0.2
50	60.3	52.5	3.9	51	40	0.4
65	73.0	62.7	5.2	64	40	0.9
80	88.9	78.0	5.5	76	40	1.4
90	101.6	90.1	5.7	89	40	2
100	114.3	102.3	6.0	102	40	2.7
125	141.3	128.2	6.6	127	40	4.4
150	168.3	154.0	7.1	152	40	7.6
200	219.1	203.0	8.2	203	40	14.7
250	273.0	254.5	9.3	254	40	25.5
300	323.8	304.8	9.5	305	*	36
350	355.6	336.6	9.5	356	30	47.1
400	406.4	387.4	9.5	406	30	58.5
450	457.2	438.2	9.5	457	*	73.9
500	508	489.0	9.5	508	20	95.2
600	610	590.1	9.5	610	20	134.7
750	30.000	29.250	.375	30	*	217.7
900	36.000	35.250	.375	36	*	313.9
1050	42.000	41.250	.375	42	*	438.6
1200	48.000	47.250	.375	48	*	607.8

1. Dimensions conform to ASME B16.9 & material conforms to ASTM A-234 Grade B

Short Radius 90° Elbows EXTRA STRONG Millimeters / Kilograms



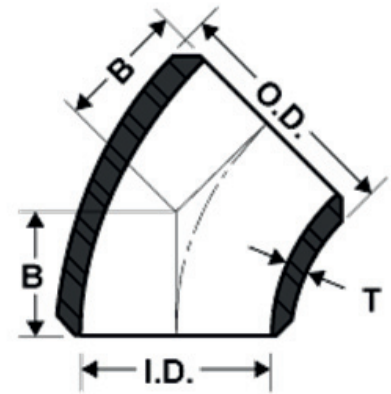
Pipe Size (DN)	Outside Diameter	Inside Diameter	Wall Thickness (T)	Center To End (A)	Pipe Schedule	Weight In Kilograms
40	48.3	38.1	5.1	38	80	0.3
50	60.3	49.3	5.5	51	80	0.7
65	73.0	59.0	7.0	64	80	1.2
80	88.9	73.4	7.6	76	80	1.7
90	101.6	85.4	8.0	89	80	2.4
100	114.3	97.2	8.5	102	80	3.4
125	141.3	122.2	9.5	127	80	6.3
150	168.3	146.3	11.0	152	80	10.3
200	219.1	194.0	12.7	203	80	21.5
250	273.0	247.7	12.7	254	60	32.2
300	323.8	298.5	12.7	305	*	47.2
350	355.6	330.2	12.7	356	*	62.1
400	406.4	381.0	12.7	406	40	77.6
450	457	431.8	12.7	457	*	97
500	508	482.6	12.7	508	30	125.6
600	610	584.2	12.7	610	*	176.9
750	30.000	29.000	.500	30	20	287.6
900	36.000	35.000	.500	36	20	414.1
1050	42.000	41.000	.500	42	*	589.7
1200	48.000	47.000	.500	48	*	759.8

1. Dimensions conform to ASME B16.9 & material conforms to ASTM A-234 Grade B
2. All dimensions are in millimeters.



BUTTWELD FITTINGS

45° Elbows STANDARD WEIGHT Millimeters / Kilograms



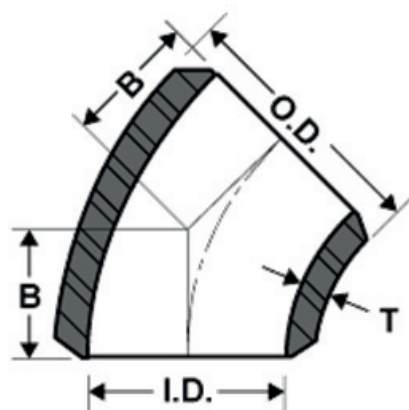
Pipe Size (DN)	Outside Diameter	Inside Diameter	Wall Thickness (T)	Center to End (B)	Pipe Schedule	Weight in Kilograms
15	21.3	15.8	2.8	16	40	0.04
20	26.7	21.0	2.9	19	40	0.05
25	33.4	26.6	3.4	22	40	0.09
32	42.2	35.0	3.5	25	40	0.1
40	48.3	41.0	3.7	29	40	0.2
50	60.3	53.3	3.9	35	40	0.4
65	73.0	63.0	5.2	44	40	0.8
80	88.9	78.0	5.5	51	40	1.1
90	101.6	90.1	5.7	57	40	1.5
100	114.3	102.2	6.0	64	40	2.0
125	141.3	128.2	6.6	79	40	3.4
150	168.3	154.0	7.1	95	40	5.3
200	219.1	202.7	8.2	127	40	10.6
250	273.0	254.5	9.3	159	40	18.6
300	323.8	305.0	9.5	190	*	27.9
350	355.6	336.6	9.5	222	30	35.4
400	406.4	387.4	9.5	254	30	45.8
450	457	438.2	9.5	286	*	58.1
500	508	489.0	9.5	318	20	72.1
600	610	590.1	9.5	381	20	104.8
750	762	743.0	9.5	470	*	162.4
900	914	895.4	9.5	565	*	235.0
1050	1067	1,047.8	9.5	660	*	320.7
1200	1219	1,200.2	9.5	759	*	453.6

Dimensions conform to ASME B16.9 & material conforms to ASTM A-234 Grade B

45° Elbows

EXTRA STRONG

Millimeters / Kilograms



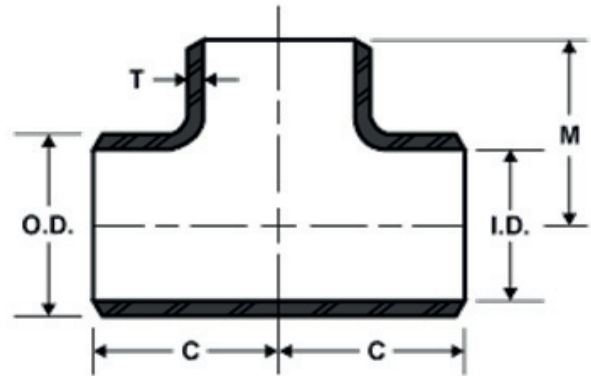
Pipe Size (DN)	Outside Diameter	Inside Diameter	Wall Thickness (T)	Center to End (B)	Pipe Schedule	Weight in Kilograms
15	21.3	14.0	3.7	16	80	0.07
20	26.7	18.9	3.9	19	80	0.07
25	33.4	24.3	4.5	22	80	0.1
32	42.2	32.5	4.9	25	80	0.2
40	48.3	38.1	5.1	29	80	0.5
50	60.3	49.3	5.5	35	80	0.5
65	73.0	59.0	7.0	44	80	0.9
80	88.9	73.7	7.6	51	80	1.5
90	101.6	85.4	8.0	57	80	2.0
100	114.3	97.2	8.5	64	80	2.8
125	141.3	122.3	9.5	79	80	4.7
150	168.3	146.3	11.0	95	80	7.7
200	219.1	193.7	12.7	127	80	15.6
250	273.0	247.7	12.7	159	60	24.3
300	323.8	298.5	12.7	190	*	35.2
350	355.6	330.2	12.7	222	*	45.4
400	406.4	381.0	12.7	254	40	60.1
450	457	431.8	12.7	286	*	77.1
500	508	483.0	12.7	318	30	94.8
600	610	584.2	12.7	381	*	137.0
750	762	737.7	12.7	470	20	215.5
900	914	889.0	12.7	565	20	311.2
1050	1067	1,041.4	12.7	660	*	424.6
1200	1219	1,193.8	12.7	759	*	567.0

Dimensions conform to ASME B16.9 & material conforms to ASTM A-234 Grade B



BUTTWELD FITTINGS

Straight Tees STANDARD WEIGHT Millimeters / Kilograms

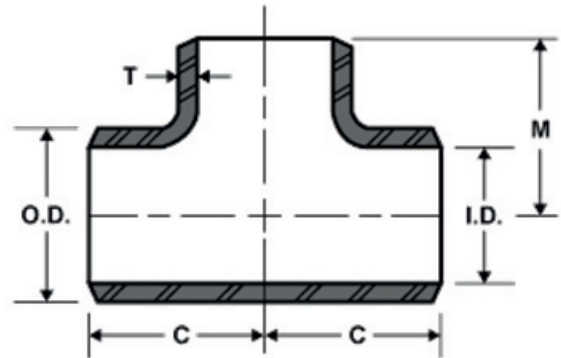


Pipe Size (DN)	Outside Diameter	Inside Diameter	Wall Thickness (T)	Center To End (C)	Center To End (M)	Pipe Schedule	Weight In Kilograms
15	21.3	15.7	2.7	25	25	40	0.2
20	26.7	20.9	2.8	29	29	40	0.2
25	33.4	26.6	3.3	38	38	40	0.3
32	42.2	35.0	3.5	48	48	40	0.6
40	48.3	40.8	3.6	57	57	40	0.9
50	60.3	52.5	3.9	64	64	40	1.5
65	73.0	62.7	5.1	76	76	40	2.6
80	88.9	77.9	5.4	86	86	40	3.3
90	101.6	90.1	5.7	95	95	40	4.3
100	114.3	102.2	6.0	105	105	40	5.7
125	141.3	128.1	6.5	124	124	40	9.4
150	168.3	154.0	7.1	143	143	40	15
200	219.1	202.7	8.1	178	178	40	25.6
250	273.0	254.5	9.2	216	216	40	41.2
300	323.8	304.8	9.5	254	254	*	61.7
350	355.6	336.5	9.5	279	279	30	73.5
400	406.4	387.3	9.5	305	305	30	93.4
450	457	438.15	9.5	343	343	*	123.4
500	508	488.9	9.5	381	381	20	158.8
600	610	590.5	9.5	432	432	20	230.4
750	762	742.6	9.6	559	559	*	378.8
900	914	895.0	9.6	673	673	*	587
1050	1067	1047.4	9.6	762	711	*	678.1
1200	1219	1199.8	9.6	889	838	*	1043.3

Dimensions conform to ASME B16.9 & material conforms to ASTM A-234 Grade B

BUTTWELD FITTINGS

Straight Tees EXTRA STRONG Millimeters / Kilograms



Pipe Size (DN)	Outside Diameter	Inside Diameter	Wall Thickness (T)	Center To End (C)	Center To End (M)	Pipe Schedule	Weight In Kilograms
15	21.3	13.8	3.7	25	25	40	0.2
20	26.7	18.8	3.9	29	29	40	0.3
25	33.4	24.3	4.5	38	38	40	0.4
32	42.2	32.4	4.8	48	48	40	0.7
40	48.3	38.1	5.0	57	57	40	1
50	60.3	49.2	5.5	64	64	40	1.8
65	73.0	59.0	7.0	76	76	40	2.9
80	88.9	73.6	7.6	86	86	40	4.1
90	101.6	85.4	8.0	95	95	40	5.5
100	114.3	97.1	8.5	105	105	40	7.3
125	141.3	122.2	9.5	124	124	40	12.1
150	168.3	146.3	10.9	143	143	40	19
200	219.1	193.6	12.7	178	178	40	34.6
250	273.0	247.6	12.7	216	216	40	52.2
300	323.8	298.4	12.7	254	254	*	76.7
350	355.6	330.2	12.7	279	279	30	107.5
400	406.4	381.0	12.7	305	305	30	128.8
450	457	431.8	12.7	343	343	*	160.1
500	508	482.6	12.7	381	381	20	200.4
600	610	584.2	12.7	432	432	20	283.5
750	762	736.6	12.7	559	559	*	483.1
900	914	889.0	12.7	673	673	*	730.3
1050	1067	1041.4	12.7	762	711	*	811
1200	1219	1193.8	12.7	889	838	*	1043.3

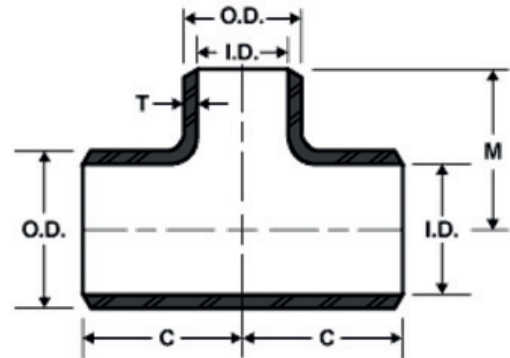
Dimensions conform to ASME B16.9 & material conforms to ASTM A-234 Grade B



Reducing Tees

STANDARD WEIGHT

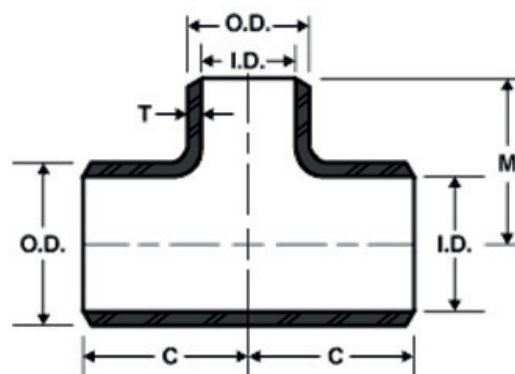
Millimeters / Kilograms



Size Run/ Branch (DN)	Dimensions of Run				Dimensions of Branch				Pipe Schedule	Weight in Kilograms
	Outside Diameter	Wall Thickness (T)	Inside Diameter	Center to End (C)	Outside Diameter	Wall Thickness (T)	Inside Diameter	Center to End (M)		
20 x 15	26.7	2.8	20.9	25	21.3	2.7	15.7	25	40	0.2
25 x 20	33.4	3.3	26.6	38	26.6	2.8	20.9	38	40	0.4
25 x 15	33.4	3.3	26.6	38	21.3	2.7	15.7	38	40	0.4
32 x 25	42.2	3.5	35.0	48	33.4	3.3	26.6	48	40	0.6
32 x 20	42.2	3.5	35.0	48	26.7	2.8	20.9	48	40	0.6
32 x 15	42.2	3.5	35.0	48	21.3	2.7	15.7	48	40	0.6
40 x 32	48.3	3.6	40.8	57	42.2	3.5	35.0	57	40	0.9
40 x 25	48.3	3.6	40.8	57	33.4	3.3	26.6	57	40	0.9
40 x 20	48.3	3.6	40.8	57	26.7	2.8	20.9	57	40	0.8
40 x 15	48.3	3.6	40.8	57	21.3	2.7	15.7	57	40	0.8
50 x 40	60.3	3.9	52.5	64	48.3	3.6	40.8	60	40	1.4
50 x 32	60.3	3.9	52.5	64	42.2	3.5	35.0	57	40	1.4
50 x 25	60.3	3.9	52.5	64	43.4	3.3	26.6	51	40	1.3
50 x 20	60.3	3.9	52.5	64	26.7	2.8	20.9	44	40	1.1
65 x 50	73.0	5.1	62.7	76	60.3	3.9	52.5	70	40	2.4
65 x 40	73.0	5.1	62.7	76	48.3	3.6	40.8	67	40	2.3
65 x 32	73.0	5.1	62.7	76	42.2	3.5	35.0	64	40	2.2
65 x 25	73.0	5.1	62.7	76	33.4	3.3	26.6	57	40	2.1
80 x 65	88.9	5.4	77.9	86	73.0	5.1	62.7	83	40	3.3
80 x 50	88.9	5.4	77.9	86	60.3	3.9	52.5	76	40	3.2
80 x 40	88.9	5.4	77.9	86	48.3	3.6	40.8	73	40	3.1
80 x 32	88.9	5.4	77.9	86	42.2	3.5	35.0	70	40	3
80 x 25	88.9	5.4	77.9	86	33.4	3.4	26.6	67	40	2.9

BUTTWELD FITTINGS

Reducing Tees STANDARD WEIGHT Millimeters / Kilograms

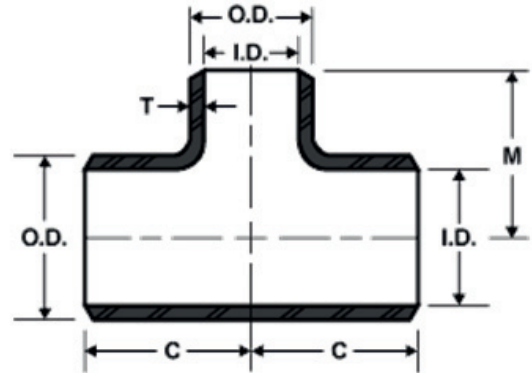


Size Run/ Branch (DN)	Dimensions of Run				Dimensions of Branch				Pipe Schedule	Weight in Kilograms
	Outside Diameter	Wall Thickness (T)	Inside Diameter	Center to End (C)	Outside Diameter	Wall Thickness (T)	Inside Diameter	Center to End (M)		
90 x 80	101.6	5.7	90.1	95	88.9	5.4	77.9	92	40	4.4
90 x 65	101.6	5.7	90.1	95	73.0	5.1	62.7	89	40	4.3
90 x 50	101.6	5.7	90.1	95	60.3	3.9	52.5	83	40	4.2
90 x 40	101.6	5.7	90.1	95	48.3	3.6	40.8	79	40	4
100 x 90	114.3	6.0	102.2	105	101.6	5.7	90.1	102	40	5.4
100 x 80	114.3	6.0	102.2	105	88.9	5.4	77.9	98	40	5.3
100 x 65	113.3	6.0	102.2	105	73.0	5.1	62.7	95	40	5.2
100 x 50	114.3	6.0	102.2	105	60.3	3.9	52.5	89	40	5.1
100 x 40	114.3	6.0	102.2	105	48.3	3.6	40.8	86	40	5.1
125 x 100	141.3	6.5	128.2	125	114.3	6.0	102.2	117	40	9.3
125 x 90	141.3	6.5	128.2	124	101.6	5.7	90.1	114	40	9
125 x 80	141.3	6.5	128.2	124	88.9	5.4	77.9	111	40	8.8
125 x 65	141.3	6.5	128.2	124	73.0	5.1	62.7	108	40	8.6
125 x 50	141.3	6.5	128.2	124	60.3	3.9	52.5	105	40	8.5
150 x 125	168.3	7.1	154.0	143	141.3	6.5	128.1	137	40	14.5
150 x 100	168.3	7.1	154.0	143	114.3	6.0	102.2	130	40	13.8
150 x 90	168.3	7.1	154.0	143	101.6	5.7	90.1	127	40	13.6
150 x 80	168.3	7.1	154.0	143	88.9	5.4	77.9	124	40	13.6
150 x 65	168.3	7.1	154.0	143	73.0	5.1	62.7	121	40	13.5
150 x 50	168.3	7.1	154.0	143	60.3	3.9	52.5	121	40	13.2



BUTTWELD FITTINGS

Reducing Tees STANDARD WEIGHT Millimeters / Kilograms



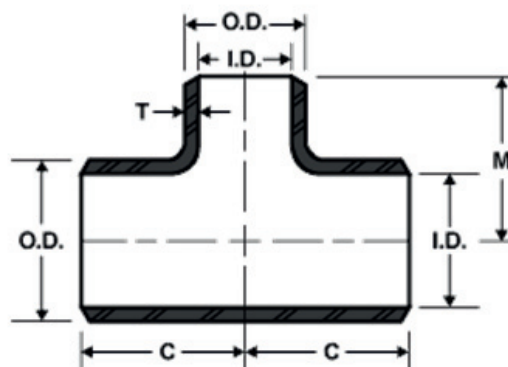
Size Run/Branch (DN)	Dimensions of Run				Dimensions of Branch				Pipe Schedule	Weight in Kilograms
	Outside Diameter	Wall Thickness (T)	Inside Diameter	Center to End (C)	Outside Diameter	Wall Thickness (T)	Inside Diameter	Center to End (M)		

200 x 150	219.1	8.2	202.7	178	168.3	7.1	154.0	168	40	25.6
200 x 125	219.1	8.2	202.7	178	141.3	6.5	128.2	162	40	24.5
200 x 100	219.1	8.2	202.7	178	114.3	6.01	102.2	156	40	24.1
200 x 90	219.1	8.2	202.7	178	101.6	5.74	90.1	152	40	24
200 x 80	219.1	8.2	202.7	178	88.9	5.49	77.93	152	40	23.6
250 x 200	273.0	9.3	254.5	216	219.1	8.2	202.7	203	40	39.2
250 x 150	273.0	9.3	254.5	216	168.3	7.1	154.0	194	40	39
250 x 125	273.0	9.3	254.5	216	141.3	6.5	128.2	191	40	37.4
250 x 100	273.0	9.3	254.5	216	114.3	6.0	102.3	184	40	37.2
300 x 250	323.8	9.5	304.8	254	273.0	9.2	254.5	241	*	55.8
300 x 200	323.8	9.5	304.8	254	219.1	8.1	202.7	229	*	54.4
300 x 150	323.8	9.5	304.8	254	168.3	7.1	154.0	219	*	53.5
300 x 125	323.8	9.5	304.8	254	141.3	6.5	128.2	216	*	53.1
300 x 100	323.8	9.5	304.8	254	114.3	6.01	102.3	216	*	50.8
350 x 300	355.6	9.5	336.5	279	323.8	9.5	304.8	270	30	68.5
350 x 250	355.6	9.5	336.5	279	273.0	9.2	254.5	257	30	67.1
350 x 200	355.6	9.5	336.5	279	219.1	8.1	202.7	248	30	66.2
350 x 150	355.6	9.5	336.5	279	168.3	7.1	154.0	238	30	65.8
400 x 350	406.4	9.5	387.3	305	355.6	9.5	336.5	305	30	100.2
400 x 300	406.4	9.5	387.3	305	323.8	9.5	304.8	295	30	96.6
400 x 250	406.4	9.5	387.3	305	273.0	9.2	254.5	283	30	89.4
400 x 200	406.4	9.5	387.3	305	219.1	8.1	202.7	273	30	86.2
400 x 150	406.4	9.5	387.3	305	168.3	7.1	154.0	264	30	81.6
450 x 400	457	9.5	438.1	343	406.4	9.5	387.3	330	*	118.8
450 x 350	457	9.5	438.1	343	355.6	9.5	336.5	330	*	112.5
450 x 300	457	9.5	438.1	343	323.8	9.5	304.8	321	*	109.3
450 x 250	457	9.5	438.1	343	273.0	9.2	254.5	308	*	103.9
450 x 200	457	9.5	438.1	343	219.1	8.1	202.7	298	*	98

Reducing Tees

STANDARD WEIGHT

Millimeters / Kilograms



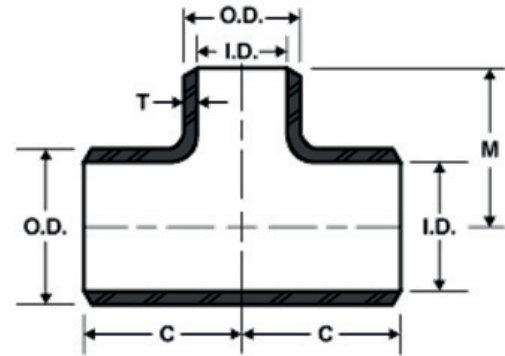
Size Run/ Branch (DN)	Dimensions of Run				Dimensions of Branch				Pipe Schedule	Weight in Kilograms
	Outside Diameter	Wall Thickness (T)	Inside Diameter	Center to End (C)	Outside Diameter	Wall Thickness (T)	Inside Diameter	Center to End (M)		
500 x 450	508	9.5	488.9	381	457	9.5	438.1	368	20	159.7
500 x 400	508	9.5	488.9	381	406.4	9.5	387.7	356	20	153.8
500 x 350	508	9.5	488.9	381	355.6	9.5	336.5	356	20	148.3
500 x 300	508	9.5	488.9	381	323.8	9.5	304.8	346	20	142.9
500 x 250	508	9.5	488.9	381	273.0	9.2	254.5	333	20	138.3
500 x 200	508	9.5	488.9	381	219.1	8.1	202.7	328	20	132.9
600 x 500	610	9.5	590.5	432	508	9.5	488.9	432	20	226.8
600 x 450	610	9.5	590.5	432	457	9.5	438.1	419	20	220.9
600 x 400	610	9.5	590.5	432	406.4	9.5	387.3	406	20	215.5
600 x 350	610	9.5	590.5	432	355.6	9.5	336.5	406	20	210.9
600 x 300	610	9.5	590.5	432	323.8	9.5	304.8	397	20	204.1
600 x 250	610	9.5	590.5	432	273.0	9.2	254.5	384	20	202.8
750 x 700	762	9.6	742.6	559	711	9.6	691.8	546	*	378.3
750 x 650	762	9.6	742.6	559	660	9.6	641.3	546	*	370.6
750 x 600	762	9.6	742.6	559	610	9.6	590.2	533	*	360.6
750 x 550	762	9.6	742.6	559	559	9.6	539.4	521	*	350.2
750 x 500	762	9.6	742.6	559	508	9.6	488.6	508	*	339.7
750 x 450	762	9.6	742.6	559	508	9.6	437.8	495	*	328.8
900 x 850	914	9.6	895.0	673	864	9.6	844.2	660	*	573.4
900 x 800	914	9.6	895.0	673	813	9.6	793.4	648	*	561.1
900 x 750	914	9.6	895.0	673	762	9.6	742.6	635	*	547.5
900 x 700	914	9.6	895.0	673	711	9.6	666.4	622	*	535.7
900 x 650	914	9.6	895.0	673	660	9.6	641.0	622	*	525.3
900 x 600	914	9.6	895.0	673	610	9.6	666.4	610	*	512.1
900 x 550	914	9.6	895.0	673	559	9.6	539.4	597	*	499
900 x 500	914	9.6	742.6	673	508	9.6	488.6	584	*	486.3



Reducing Tees

STANDARD WEIGHT

Millimeters / Kilograms

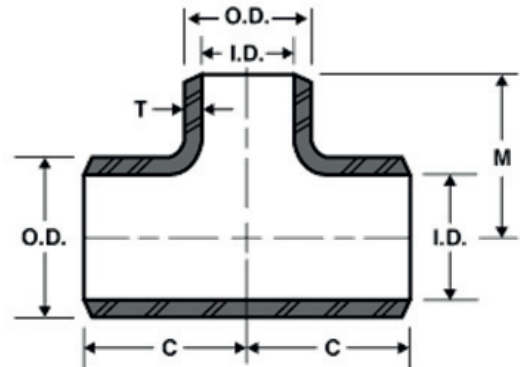


Size Run/Branch (DN)	Dimensions of Run				Dimensions of Branch				Pipe Schedule	Weight in Kilograms
1050 x 1000	1067	9.6	1047.4	762	1016	9.6	996.6	711	*	665.9
1050 x 950	1067	9.6	1047.4	762	968	9.6	945.8	711	*	654.1
1050 x 900	1067	9.6	1047.4	762	914	9.6	895.0	711	*	641.8
1050 x 850	1067	9.6	1047.4	762	864	9.6	844.2	711	*	630
1050 x 800	1067	9.6	1047.4	762	813	9.6	793.4	711	*	617.8
1050 x 750	1067	9.6	1047.4	762	762	9.6	742.6	711	*	601.9
1050 x 700	1067	9.6	1047.4	762	711	9.6	691.8	698	*	589.7
1050 x 650	1067	9.6	1047.4	762	660	9.6	641.0	698	*	577.9
1050 x 600	1067	9.6	1047.4	762	610	9.6	590.2	660	*	566.1
1200 x 1150	1219	9.6	1199.8	889	1168	9.6	1149.0	838	*	1,035.1
1200 x 1100	1219	9.6	1199.8	889	1118	9.6	1098.2	838	*	1,022.9
1200 x 1050	1219	9.6	1199.8	889	1067	9.6	1047.4	813	*	1,001.1
1200 x 1000	1219	9.6	1199.8	889	1016	9.6	996.6	813	*	986.1
1200 x 950	1219	9.6	1199.8	889	965	9.6	945.8	813	*	977.1
1200 x 900	1219	9.6	1199.8	889	914	9.6	895.0	787	*	964.8
1200 x 850	1219	9.6	1199.8	889	864	9.6	844.2	787	*	953
1200 x 800	1219	9.6	1199.8	889	813	9.6	793.4	787	*	941.2
1200 x 750	1219	9.6	1199.8	889	762	9.6	742.6	762	*	929

Dimensions conform to ASME B16.9 & material conforms to ASTM A-234 Grade B

BUTTWELD FITTINGS

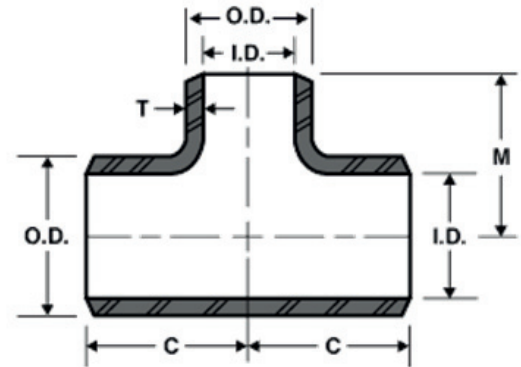
Reducing Tees EXTRA STRONG Millimeters / Kilograms



Size Run/ Branch (DN)	Dimensions of Run				Dimensions of Branch				Pipe Schedule	Weight in Kilograms
	Outside Diameter	Wall Thickness (T)	Inside Diameter	Center to End (C)	Outside Diameter	Wall Thickness (T)	Inside Diameter	Center to End (M)		
20 x 15	26.7	3.9	18.85	25	21.3	3.73	13.87	25	40	0.2
25 x 20	33.4	4.55	24.31	38	26.6	3.91	20.9	38	40	0.4
25 x 15	33.4	4.55	24.31	38	21.3	3.73	13.87	38	40	0.4
32 x 25	42.2	4.85	32.46	48	33.4	4.55	24.31	48	40	0.6
32 x 20	42.2	4.85	32.46	48	26.7	3.91	18.85	48	40	0.6
32 x 15	42.2	4.85	32.46	48	21.3	3.73	13.87	48	40	0.6
40 x 32	48.3	5.08	38.1	57	42.2	4.85	32.46	57	40	0.9
40 x 25	48.3	5.08	38.1	57	33.4	4.55	24.31	57	40	0.9
40 x 20	48.3	5.08	38.1	57	26.7	3.91	18.85	57	40	0.8
40 x 15	48.3	5.08	38.1	57	21.3	3.73	13.87	57	40	0.8
50 x 40	60.3	5.53	49.25	64	48.3	5.08	38.10	60	40	1.4
50 x 32	60.3	5.53	49.25	64	42.2	4.85	32.46	57	40	1.4
50 x 25	60.3	5.53	49.25	64	43.4	4.55	24.31	51	40	1.3
50 x 20	60.3	5.53	49.25	64	26.7	3.91	18.85	44	40	1.1
65 x 50	73.0	7.01	59.00	76	60.3	5.54	49.25	70	40	2.4
65 x 40	73.0	7.01	59.00	76	48.3	3.68	38.10	67	40	2.3
65 x 32	73.0	7.01	59.00	76	42.2	4.85	32.46	64	40	2.2
65 x 25	73.0	7.01	59.00	76	33.4	4.55	24.31	57	40	2.1
80 x 65	88.9	7.62	73.66	86	73.0	7.01	59.00	83	40	3.3
80 x 50	88.9	7.62	73.66	86	60.3	5.54	49.25	76	40	3.2
80 x 40	88.9	7.62	73.66	86	48.3	5.08	38.10	73	40	3.1
80 x 32	88.9	7.62	73.66	86	42.2	4.85	32.46	70	40	3
80 x 25	88.9	7.62	73.66	86	33.4	4.55	24.31	67	40	2.9
90 x 80	101.6	8.08	85.45	95	88.9	7.62	73.66	92	40	4.4
90 x 65	101.6	8.08	85.45	95	73.0	7.01	59.00	89	40	4.3
90 x 50	101.6	8.08	85.45	95	60.3	5.54	49.25	83	40	4.2
90 x 40	101.6	8.08	85.45	95	48.3	5.08	38.1	79	40	4



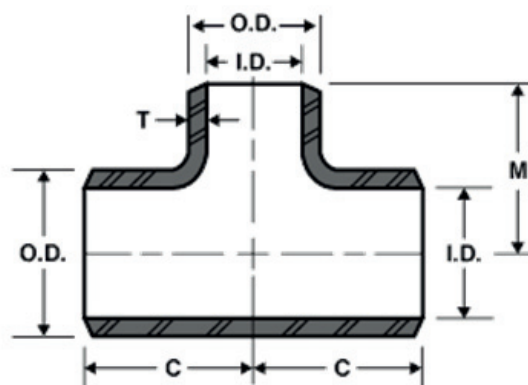
Reducing Tees EXTRA STRONG Metric Units



Size Run/ Branch (DN)	Dimensions of Run	Dimensions of Branch	Pipe Schedule	Weight in Kilograms	Size Run/ Branch (DN)	Dimensions of Run	Dimensions of Branch	Pipe Schedule	Weight in Kilograms	Size Run/ Branch (DN)
100x80	114.3	8.56	97.18	105	88.9	7.62	73.66	98	40	5.3
100x65	113.3	8.56	97.18	105	73.0	7.01	59.00	95	40	5.2
100x50	114.3	8.56	97.18	105	60.3	5.54	49.25	89	40	5.1
100x40	114.3	8.56	97.18	105	48.3	5.08	38.1	86	40	5.1
125x 100	141.3	9.53	122.25	125	114.3	8.56	97.18	117	40	9.3
125x90	141.3	9.53	122.25	124	101.6	8.08	85.45	114	40	9.1
125x80	141.3	9.53	122.25	124	88.9	7.62	73.66	111	40	8.8
125x65	141.3	9.53	122.25	124	73.0	7.01	59.00	108	40	8.6
125x50	141.3	9.53	122.25	124	60.3	5.54	49.25	105	40	8.5
150x125	168.3	10.97	146.32	143	141.3	9.53	122.25	137	40	14.5
150x100	168.3	10.97	146.32	143	114.3	8.56	97.18	130	40	13.8
150x90	168.3	10.97	146.32	143	101.6	8.08	85.45	127	40	13.6
150x80	168.3	10.97	146.32	143	88.9	7.62	73.66	124	40	13.6
150x65	168.3	10.97	146.32	143	73.0	7.01	59.00	121	40	13.5
150x50	168.3	10.97	146.32	143	60.3	5.54	49.25	121	40	13.2
200x150	219.1	12.7	193.68	178	168.3	10.97	146.33	168	40	12
200x125	219.1	12.7	193.68	178	141.3	9.53	97.18	162	40	24.5
200x100	219.1	12.7	193.68	178	114.3	8.56	85.45	156	40	24.1
200x90	219.1	12.7	193.68	178	101.6	8.08	73.66	152	40	24
200x80	219.1	12.7	193.68	178	88.9	5.49	77.93	152	40	23.6
250x200	273.0	12.7	247.7	216	219.1	12.7	193.68	203	40	39.2
250x150	273.0	12.7	247.7	216	168.3	12.7	146.33	194	40	39
250x125	273.0	12.7	247.7	216	141.3	10.97	122.25	191	40	37.4
250x100	273.0	12.7	247.7	216	114.3	8.56	97.18	184	40	37.2
300x250	323.8	12.7	298.5	254	273.0	12.7	247.65	241	*	55.8
300x200	323.8	12.7	298.5	254	219.1	12.7	193.68	229	*	54.4
300x150	323.8	12.7	298.5	254	168.3	12.7	146.33	219	*	53.5
300x125	323.8	12.7	298.5	254	141.3	12.7	122.25	216	*	53.1
300x100	323.8	12.7	298.5	254	114.3	12.7	102.26	216	*	50.8

BUTTWELD FITTINGS

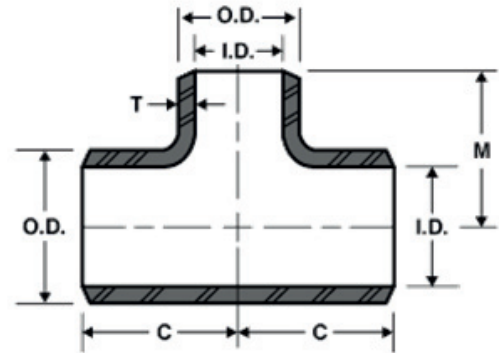
Reducing Tees EXTRA STRONG Millimeters / Kilograms



Size Run/ Branch (DN)	Dimensions of Run				Dimensions of Branch				Pipe Schedule	Weight in Kilograms
	Outside Diameter	Wall Thickness (T)	Inside Diameter	Center to End (C)	Outside Diameter	Wall Thickness (T)	Inside Diameter	Center to End (M)		
350 x 300	355.6	12.7	330.2	279	323.8	12.7	298.45	270	30	68.5
350 x 250	355.6	12.7	330.2	279	273.0	12.7	247.7	257	30	67.1
350 x 200	355.6	12.7	330.2	279	219.1	12.7	193.67	248	30	66.2
350 x 150	355.6	12.7	330.2	279	168.3	12.7	146.3	238	30	65.8
400 x 350	406.4	12.7	381	305	355.6	12.7	330.2	305	30	100.2
400 x 300	406.4	12.7	381	305	323.8	12.7	298.45	295	30	96.6
400 x 250	406.4	12.7	381	305	273.0	12.7	247.65	283	30	89.4
400 x 200	406.4	12.7	381	305	219.1	12.7	193.68	273	30	86.2
400 x 150	406.4	12.7	381	305	168.3	10.97	146.33	264	30	81.2
450 x 400	457	12.7	431.8	343	406.4	9.5	381	330	*	118.8
450 x 350	457	12.7	431.8	343	355.6	12.7	330.2	330	*	112.5
450 x 300	457	12.7	431.8	343	323.8	12.7	298.45	321	*	109.3
450 x 250	457	12.7	431.8	343	273.0	12.7	247.7	308	*	103.9
450 x 200	457	12.7	431.8	343	219.1	12.7	193.68	298	*	97.8
500 x 450	508	12.7	465.5	381	457	9.5	431.8	368	20	159.7
500 x 400	508	12.7	465.5	381	406.4	9.5	381	356	20	153.8
500 x 350	508	12.7	465.5	381	355.6	9.5	330.2	356	20	148.3
500 x 300	508	12.7	465.5	381	323.8	9.5	298.45	346	20	142.9
500 x 250	508	12.7	465.5	381	273.0	9.2	247.65	333	20	138.3
500 x 200	508	12.7	465.5	381	219.1	8.1	193.68	328	20	132.9
600 x 450	610	12.7	563.5	432	457	9.5	431.8	419	20	220.9
600 x 400	610	12.7	563.5	432	406.4	9.5	381	406	20	215.5
600 x 350	610	12.7	563.5	432	355.6	9.5	330.2	406	20	210.9
600 x 300	610	12.7	563.5	432	323.8	9.5	298.45	397	20	204.1
600 x 250	610	12.7	563.5	432	273.0	9.2	247.65	384	20	202.8



Reducing Tees EXTRA STRONG Millimeters / Kilograms

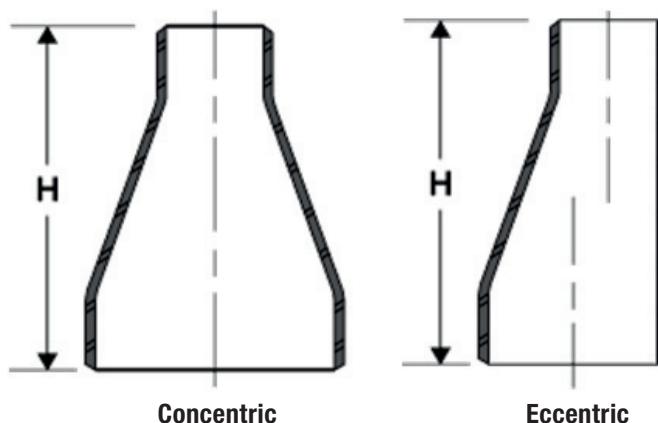


Size Run/ Branch (DN)	Dimensions of Run	Dimensions of Branch	Pipe Schedule	Weight in Kilograms	Size Run/ Branch (DN)	Dimensions of Run	Dimensions of Branch	Pipe Schedule	Weight in Kilograms	Size Run/ Branch (DN)
750 x 700	762.0	12.7	736.6	558.8	711.2	12.7	685.8	546.1	*	471.7
750 x 650	762.0	12.7	736.6	558.8	660.4	12.7	635.0	546.1	*	462.7
750 x 600	762.0	12.7	736.6	558.8	609.6	12.7	584.2	533.4	*	450.9
750 x 550	762.0	12.7	736.6	558.8	558.8	12.7	533.4	520.7	*	440
750 x 500	762.0	12.7	736.6	558.8	508.0	12.7	482.6	508.0	*	428.7
750 x 450	762.0	12.7	736.6	558.8	457.2	12.7	431.8	495.3	*	417.3
900 x 850	914.4	12.7	889.0	673.1	863.6	12.7	838.2	660.4	*	714.42
900 x 800	914.4	12.7	889.0	673.1	812.8	12.7	787.4	647.7	*	698.5
900 x 750	914.4	12.7	889.0	673.1	762.0	12.7	736.6	635.0	*	684.9
900 x 700	914.4	12.7	889.0	673.1	711.2	12.7	660.4	622.3	*	669.1
900 x 650	914.4	12.7	889.0	673.1	660.4	12.7	635.0	622.3	*	653.2
900 x 600	914.4	12.7	889.0	673.1	609.6	12.7	584.2	609.6	*	641.9
900 x 550	914.4	12.7	889.0	673.1	558.8	12.7	533.4	596.9	*	626
900 x 500	914.4	12.7	889.0	673.1	508.0	12.7	482.6	584.2	*	610.1
1050x1000	1066.8	12.7	1041.4	762.0	1016.0	12.7	990.6	711.2	*	798.8
1050 x 950	1066.8	12.7	1041.4	762.0	965.2	12.7	939.8	711.2	*	787
1050 x 900	1066.8	12.7	1041.4	762.0	914.4	12.7	889.0	711.2	*	775.2
1050 x 850	1066.8	12.7	1041.4	762.0	863.6	12.7	838.2	711.2	*	763
1050 x 800	1066.8	12.7	1041.4	762.0	812.8	12.7	787.4	711.2	*	751.2
1050 x 750	1066.8	12.7	1041.4	762.0	762.0	12.7	736.6	711.2	*	738.9
1050 x 700	1066.8	12.7	1041.4	762.0	711.2	12.7	685.8	698.5	*	727.1
1050 x 650	1066.8	12.7	1041.4	762.0	660.4	12.7	635.0	698.5	*	714.9
1050 x 600	1066.8	12.7	1041.4	762.0	609.6	12.7	584.2	660.4	*	703.1
1200x1150	1219.2	12.7	1193.8	889.0	1168.4	12.7	1143.0	838.2	*	1035.1
1200x1100	1219.2	12.7	1193.8	889.0	1117.6	12.7	1092.2	838.2	*	1022.9
1200x1050	1219.2	12.7	1193.8	889.0	1066.8	12.7	1041.4	812.8	*	1001.1
1200x1000	1219.2	12.7	1193.8	889.0	1016.0	12.7	990.6	812.8	*	986.1
1200 x 950	1219.2	12.7	1193.8	889.0	965.2	12.7	939.8	812.8	*	977.1
1200 x 900	1219.2	12.7	1193.8	889.0	914.4	12.7	889.0	787.4	*	964.8
1200 x 850	1219.2	12.7	1193.8	889.0	863.6	12.7	838.2	787.4	*	953
1200 x 800	1219.2	12.7	1193.8	889.0	812.8	12.7	787.4	787.4	*	941.2
1200 x 750	1219.2	12.7	1193.8	889.0	762.0	12.7	736.6	762.0	*	929

Dimensions conform to ASME B16.9 & material conforms to ASTM A-234 Grade B

BUTTWELD FITTINGS

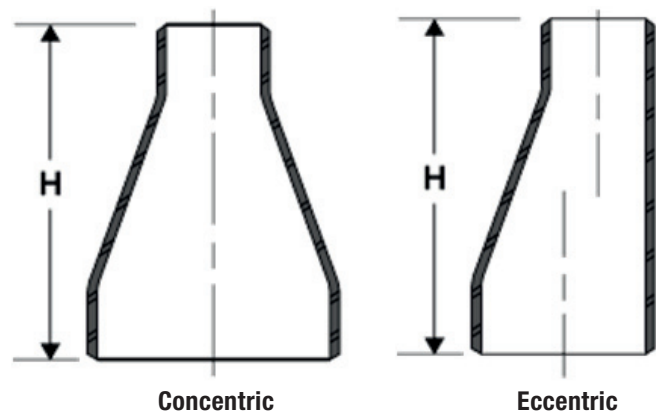
Concentric & Eccentric Reducers STANDARD WEIGHT Millimeters / Kilograms



Pipe Size	Length (H)	Weight in Kilograms
20 x 40	38	0.01
25 x 20	51	0.2
25 x 15	51	0.2
32 x 25	51	0.2
32 x 20	51	0.1
32 x 15	51	0.1
40 x 32	64	0.3
40 x 25	64	0.3
40 x 20	64	0.2
40 x 15	64	0.3
50 x 40	76	0.4
50 x 32	76	0.4
50 x 25	76	0.4
50 x 20	76	0.3
65 x 50	89	0.7
65 x 40	89	0.7
65 x 32	89	0.6
65 x 25	89	0.6
80 x 65	89	0.5
80 x 50	89	0.9
80 x 40	89	0.9
80 x 32	89	0.8
80 x 25	89	0.8
90 x 80	102	1.3
90 x 65	102	1.2
90 x 50	102	1.2
90 x 40	102	1.2
90 x 32	102	1.1



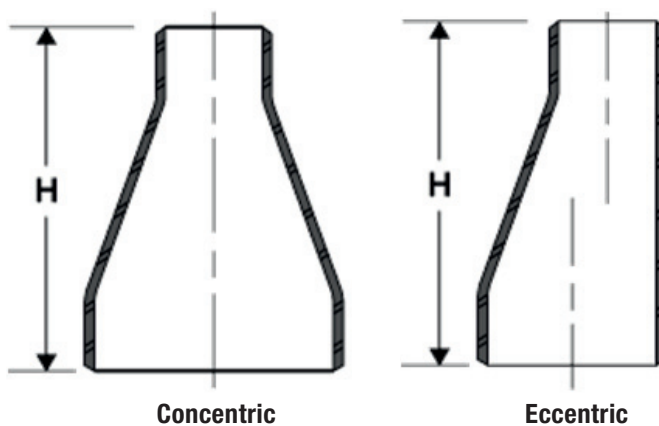
Concentric & Eccentric Reduce STANDARD WEIGHT Millimeters / Kilograms



Pipe Size	Length (H)	Weight in Kilograms
100 x 90	102	1.6
100 x 80	102	1.5
100 x 65	102	1.5
100 x 40	102	1.4
100 x 50	102	1.4
100 x 25	102	1.3
125 x 100	127	2.5
125 x 90	127	2.4
125 x 80	127	2.3
125 x 65	127	2.2
125 x 50	127	2.1
150 x 125	140	3.4
150 x 100	140	3.4
150 x 90	140	3.2
150 x 80	140	3.1
150 x 65	140	3.0
150 x 50	140	2.9
200 x 150	152	5.6
200 x 125	152	5.2
200 x 100	152	4.9
200 x 90	152	4.8
200 x 80	152	4.4
250 x 200	178	10.0
250 x 150	178	9.4
250 x 125	178	8.8
250 x 100	178	8.3

BUTTWELD FITTINGS

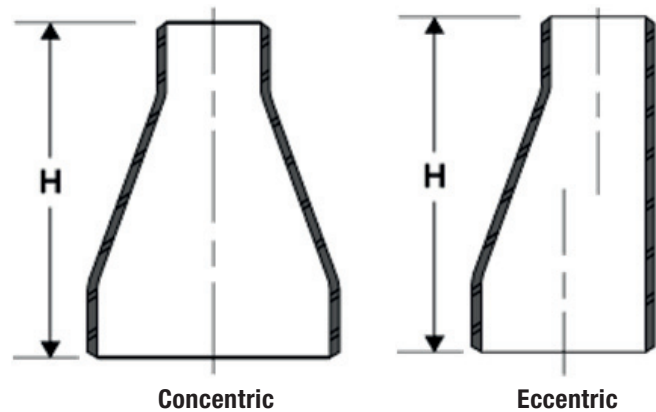
Concentric & Eccentric Reduce STANDARD WEIGHT Millimeters / Kilograms



Pipe Size	Length (H)	Weight in Pounds
300 x 250	203	14.7
300 x 200	203	13.8
300 x 150	203	13.4
300 x 125	203	12.6
300 x 100	203	11.9
350 x 300	330	28.6
350 x 250	330	27.9
350 x 200	330	27.2
350 x 150	330	26.9
400 x 350	356	34.2
400 x 300	356	33.0
400 x 250	356	32.3
400 x 200	356	31.5
400 x 150	330	30.1
450 x 400	381	39.5
450 x 350	381	39.0
450 x 300	381	38.5
450 x 250	381	38.0
500 x 450	508	55.8
500 x 400	508	54.9
500 x 350	508	54.0
500 x 300	508	53.5
500 x 250	508	53.1
600 x 500	508	70.8
600 x 450	508	69.4
750 x 700	610	99.8
750 x 650	610	99.8
750 x 600	610	99.8
750 x 550	610	99.8
750 x 500	610	99.8
750 x 450	610	90.7
600 x 400	508	68.0

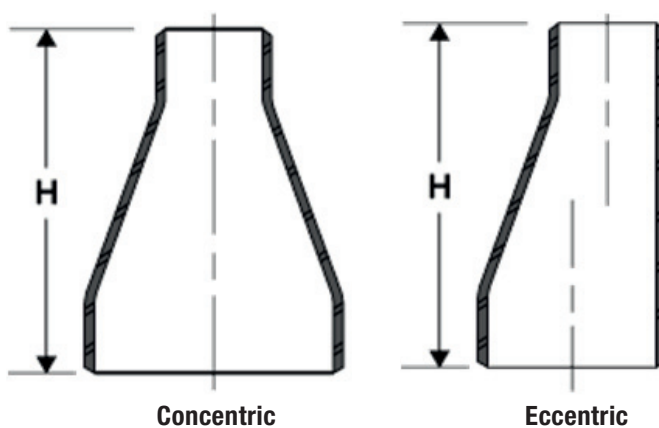


Concentric & Eccentric Reducers STANDARD WEIGHT Millimeters / Kilograms



Pipe Size	Length (H)	Weight in Pounds
900 x 850	610	129.3
900 x 800	610	129.3
900 x 750	610	129.3
900 x 700	610	129.3
900 x 650	610	129.3
900 x 600	610	129.3
900 x 550	610	129.3
900 x 500	610	129.3
1050 x 1000	610	152.0
1050 x 950	610	152.0
1050 x 900	610	152.0
1050 x 850	610	152.0
1050 x 800	610	152.0
1050 x 750	610	152.0
1050 x 700	610	152.0
1050 x 650	610	152.0
1050 x 600	610	152.0
1200 x 1150	711	181.4
1200 x 1100	711	181.4
1200 x 1050	711	181.4
1200 x 1000	711	181.4
1200 x 950	711	181.4
1200 x 900	711	181.4
1200 x 850	711	181.4
1200 x 800	711	181.4
1200 x 750	711	181.4

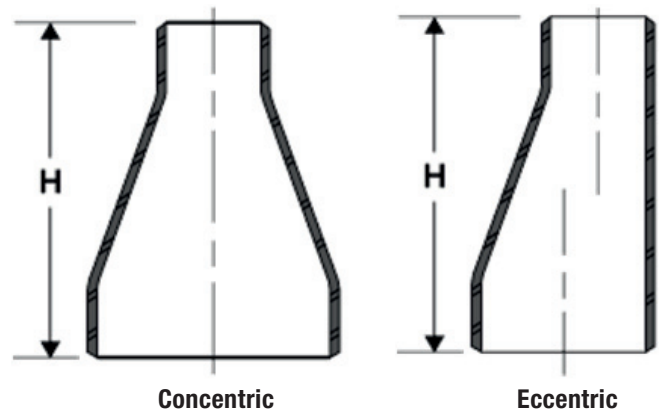
Concentric & Eccentric Reducers EXTRA HEAVY Millimeters / Kilograms



Pipe Size (DN)	Length (H)	Weight in Pounds
20 x 40	38	0.1
25 x 20	51	0.2
25 x 15	51	0.2
32 x 25	51	0.2
32 x 20	51	0.2
32 x 15	51	0.2
40 x 32	64	0.3
40 x 25	64	0.3
40 x 20	64	0.3
40 x 15	64	0.3
50 x 40	76	0.4
50 x 32	76	0.4
50 x 25	76	0.4
50 x 20	76	0.3
65 x 50	89	0.7
65 x 40	89	0.7
65 x 32	89	0.6
65 x 25	89	0.6
80 x 65	89	1.0
80 x 50	89	0.9
80 x 40	89	0.9
80 x 32	89	0.8
80 x 25	89	0.8
90 x 80	102	1.3
90 x 65	102	1.2
90 x 50	102	1.2
90 x 40	102	1.2
90 x 40	102	1.2
90 x 32	102	1.1

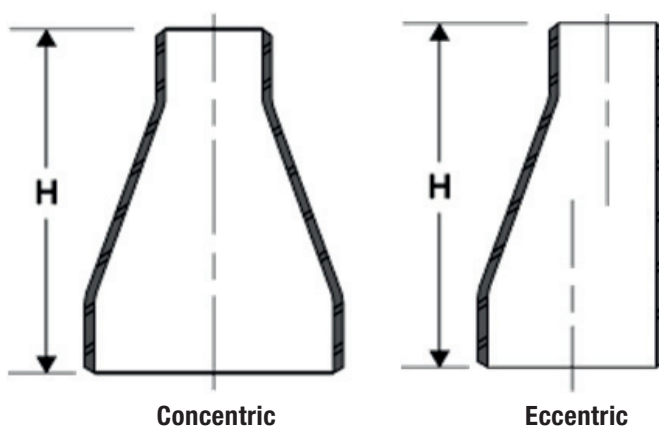


Concentric & Eccentric Reducers EXTRA HEAVY Millimeters / Kilograms



Pipe Size (DN)	Length (H)	Weight in Pounds
100 x 90	102	1.6
100 x 80	102	1.5
100 x 65	102	1.5
100 x 50	102	1.4
100 x 40	102	1.4
100 x 32	102	1.4
100 x 25	102	1.3
125 x 100	127	2.5
125 x 90	127	2.4
125 x 80	127	2.3
125 x 65	127	2.2
125 x 50	127	2.1
150 x 125	140	3.4
150 x 100	140	3.4
150 x 90	140	3.2
150 x 80	140	3.1
150 x 65	140	3.0
150 x 50	140	2.9
200 x 150	152	5.6
200 x 125	152	5.2
200 x 100	152	4.9
200 x 90	152	4.8
200 x 80	152	4.4
250 x 200	178	10.0
250 x 150	178	9.4
250 x 125	178	8.8
250 x 100	178	8.3

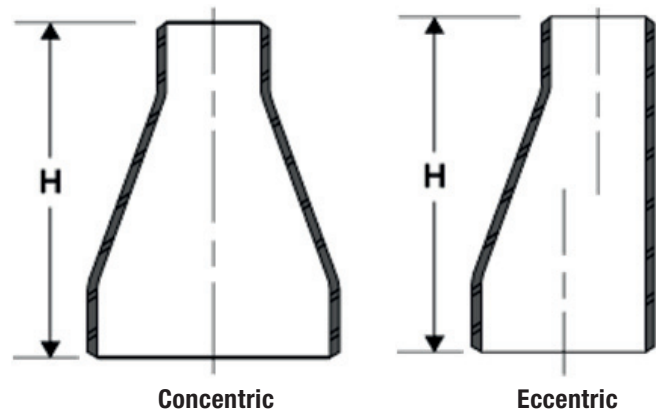
Concentric & Eccentric Reducers EXTRA HEAVY Millimeters / Kilograms



300 x 250	203	14.7
300 x 200	203	13.8
300 x 150	203	13.4
300 x 125	203	12.6
300 x 100	203	11.9
350 x 300	330	28.6
350 x 250	330	27.8
350 x 200	330	27.2
350 x 150	330	26.9
400 x 350	356	34.2
400 x 300	356	33.0
400 x 250	356	32.3
400 x 200	356	31.4
400 x 150	356	30.1
450 x 400	381	39.6
450 x 350	381	39.0
450 x 300	381	38.5
450 x 250	381	38.0
500 x 450	508	55.8
500 x 400	508	54.9
500 x 350	508	54.0
500 x 300	508	53.5
500 x 250	508	53.1
600 x 500	508	70.8
600 x 450	508	69.4
600 x 400	508	68.0



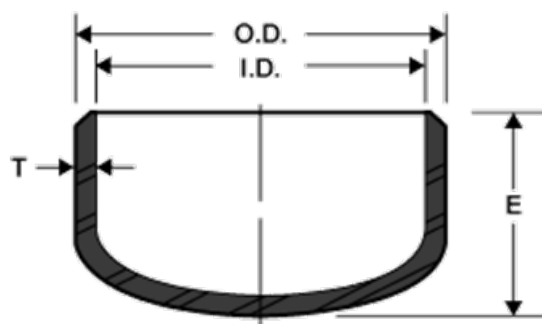
Concentric & Eccentric Reducers EXTRA HEAVY Millimeters / Kilograms



Pipe Size (DN)	Length (H)	Weight in Pounds
750 x 700	610	220
750 x 650	610	220
750 x 600	610	220
750 x 550	610	220
750 x 500	610	220
750 x 450	610	200
900 x 850	610	285
900 x 800	610	285
900 x 750	610	285
900 x 700	610	285
900 x 650	610	285
900 x 600	610	285
900 x 550	610	285
900 x 500	610	285
1050 x 1000	610	335
1050 x 950	610	335
1050 x 900	610	335
1050 x 850	610	335
1050 x 800	610	335
1050 x 750	610	335
1050 x 700	610	335
1050 x 650	610	335
1050 x 600	610	335
1200 x 1150	711	400
1200 x 1100	711	400
1200 x 1050	711	400
1200 x 1000	711	400
1200 x 950	711	400
1200 x 900	711	400
1200 x 850	711	400
1200 x 800	711	400
1200 x 750	711	400

BUTTWELD FITTINGS

Caps STANDARD WEIGHT Millimeters / Kilograms



Pipe Size (DN)	Outside Diameter	Inside Diameter	Wall Thickness (T)	Length (E)	Pipe Schedule	Weight in Kilograms
15	21.3	15.7	2.7	25	40	0.4
20	26.7	20.9	2.8	25	40	0.1
25	33.4	26.6	3.3	38	40	0.1
32	42.2	35.0	3.5	38	40	0.1
40	48.3	40.8	3.6	38	40	0.2
50	60.3	52.5	3.9	38	40	0.4
65	73.0	62.7	5.1	38	40	0.5
80	88.9	77.9	5.4	51	40	0.8
90	101.6	90.1	5.7	64	40	1
100	114.3	102.2	6.0	64	40	1.3
125	141.3	128.1	6.5	76	40	2.1
150	168.3	154.0	7.1	89	40	3.1
200	219.1	202.7	8.1	102	40	5.4
250	273.0	254.5	9.2	127	40	9.4
300	323.8	304.8	9.5	152	*	13.7
350	355.6	336.5	9.5	165	30	16.6
400	406.4	387.3	9.5	178	30	19.7
450	457	438.1	9.5	203	*	25.9
500	508	488.9	9.5	229	20	34.3
600	610	590.5	9.5	267	20	45.8
750	762	742.6	9.6	267	*	62.1
900	914	895.0	9.6	267	*	79.4
1050	1067	1047.4	9.6	305	*	103.9
1200	1219	1199.8	9.6	343	*	158.8

Dimensions conform to ASME B16.9 & material conforms to ASTM A-234 Grade B

PPF PIPE FITTINGS (PAHANG)

BUTT WELD FITTINGS & FLANGES

PAHANG PIPE FITTINGS

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