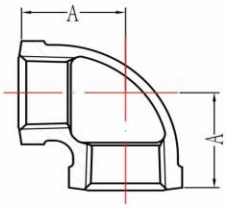
Elbows

90° Elbow





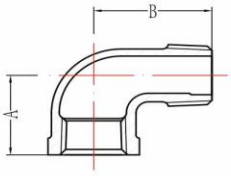
90

Unit:mm

Size	In	1/4	3/8	1/2	3/4	1	1¼
	mm	8	10	15	20	25	32
A		20	24	27	32	37	44.5
Size	In	1½	2	2½	3	4	6
	mm	40	50	65	80	100	150
A		48.5	57	68.5	77.5	96.5	129

90° M&F Elbow





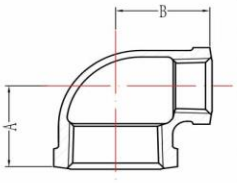
92

Unit:mm

Size	In	1/4	3/8	1/2	3/4	1	1¼
	mm	8	10	15	20	25	32
A		20	25	28	33	38	45
B		28	33	38	44	52	60
Size	In	1½	2	2½	3	4	-
	mm	40	50	65	80	100	-
A		50	58	69	77.5	96.5	-
B		65	74	90	100	120	-

Elbow,Reducing





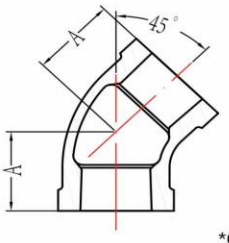
90R

Unit:mm

Size		A	B	Size		A	B
mm	in			mm	in		
15×10	1/2×3/8	25	25	65×25	2½×1	47.5	59
20×15	3/4×1/2	29	30	65×32	2½×1¼	51.5	61
25×10	1×3/8	29	31	65×40	2½×1½	54.5	61
25×15	1×1/2	31	33	65×50	2½×2	59.5	64
25×20	1×3/4	34	35	80×15	3×1/2	42.5	64
32×10	1¼×3/8	31	36	80×20	3×3/4	45.5	65
32×15	1¼×1/2	34	37	80×25	3×1	49.5	67
32×20	1¼×3/4	36	40	80×32	3×1¼	54.5	69
32×25	1¼×1	40	41	80×40	3×1½	57.5	71
40×15	1½×1/2	35	41	80×50	3×2	61.5	71
40×20	1½×3/4	37	43	80×65	3×2½	71.5	74
40×25	1½×1	41	45	100×15	4×1/2	49.5	78
40×32	1½×1¼	45	47	100×20	4×3/4	53.5	79
50×15	2×1/2	37	47	100×25	4×1	56.5	82
50×20	2×3/4	40	49	100×32	4×1¼	60.5	85
50×25	2×1	43	51	100×40	4×1½	62.5	85
50×32	2×1¼	47	53	100×50	4×2	68.5	86
50×40	2×1½	51	54	100×65	4×2½	77.5	89
65×15	2½×1/2	40.5	56	100×80	4×3	82.5	90
65×20	2½×3/4	43.5	57	-	-	-	-

45° Elbow





120

Unit:mm

Size	In	1/2	3/4	1	1¼	1½	2
	mm	15	20	25	32	40	50
A		22	25	28	33	36	43
Size	In	2½	3	4	6	-	-
	mm	65	80	100	150	-	-
A		48.5	53.5	64.5	129	-	-

*Other sizes may also availble, please indicate clearly on the inquiry or order list.

Tee

Tee

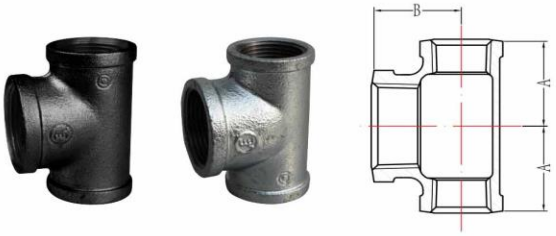


130

Unit:mm

Size							
	In	1/4	3/8	1/2	3/4	1	1¼
	mm	8	10	15	20	25	32
A		20	24	27	32	37	44.5
Size	In	1½	2	2½	3	4	6
	mm	40	50	65	80	100	150
A		48.5	57	68.5	77.5	96.5	129

Tee,Reducing



130R

Unit:mm

Size							
	mm	15×20	15×25	20×25	20×32	25×32	25×40
	In	1/2×3/4	1/2×1	3/4×1	3/4×1¼	1×1¼	1×1½
A		30	33	35	40	41	45
B		29	31	34	36	40	41
Size	mm	25×50	32×40	32×50	40×50	40×65	40×80
	In	1×2	1¼×1½	1¼×2	1½×2	1½×2½	1½×3
A		51	47	53	54	61	71
B		43	45	47	51	54.5	57.5
Size	mm	50×65	50×80	65×80	80×100	-	-
	In	2×2½	2×3	2½×3	3×4	-	-
A		63	71	74	90	-	-
B		58	61.5	71.5	82.5	-	-

Reducing Tee



131R

Unit:mm

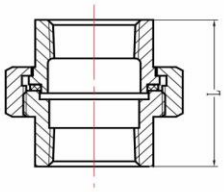
Size							
	In	1¼×1/2×1	1¼×3/4×1	1¼×1×1	1½×1/2×1¼	1½×3/4×1¼	1½×1×1
	mm	32×15×25	32×20×25	32×25×25	40×15×32	40×20×32	40×25×25
A		34	36	39	35	37	40
B		37	40	40	41	43	44
C		31	34	36	34	36	36
Size	In	1½×1×1¼	1½×1¼×1	1½×1¼×1¼	2×1/2×1½	2×3/4×1½	2×1×1¼
	mm	40×25×32	40×32×25	40×32×32	50×15×40	50×20×40	50×25×32
A		41	45	45	37	40	43
B		45	47	47	47	49	51
C		40	41	44.5	35	37	40
Size	In	2×1×1½	2×1¼×1¼	2×1¼×1½	2×1½×1	2×1½×1½	2½×3/4×2
	mm	50×25×40	50×32×32	50×32×40	50×40×25	50×40×40	65×20×50
A		42	47	47	51	51	43.5
B		49	53	53	54	54	57
C		40	44.5	45	45	48.5	40
Size	In	2½×1×2	2½×1¼×1½	2½×1¼×2	2½×1½×2	2½×2×2	3×1×2½
	mm	65×25×50	65×32×40	65×32×50	65×40×50	65×50×50	80×25×65
A		45	51.5	51.5	54.5	59.5	49.5
B		58	61	61	61	64	67
C		42	45	47	51	57	47.5
Size	In	3×1¼×2½	3×1½×2½	3×2×2½	3×2½×2½	-	-
	mm	80×32×65	80×40×65	80×50×65	80×65×65	-	-
A		54.5	57.5	61.5	71.5	-	-
B		69	71	71	74	-	-
C		51.5	54.5	59.5	68.5	-	-

*Other sizes may also availble, please indicate clearly on the inquiry or order list.

Union

Union, Coupling





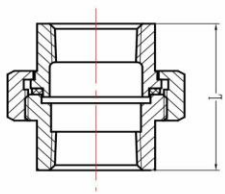
330

Unit:mm

Size	In	1/2	3/4	1	1¼	1½	2
	mm	15	20	25	32	40	50
L		46	50	56	63	68	76
Size	In	2½	3	4	-	-	-
	mm	65	80	100	-	-	-
L		83	93	113.5	-	-	-

Union,Taper Seat





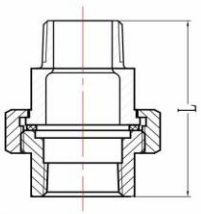
340

Unit:mm

Size	In	1/2	3/4	1	1¼	1½	2
	mm	15	20	25	32	40	50
L		47	51.5	57	65	71	79
Size	In	2½	3	4	-	-	-
	mm	65	80	100	-	-	-
L		85.5	94.5	110.5	-	-	-

M&F Unions,Flat Seat





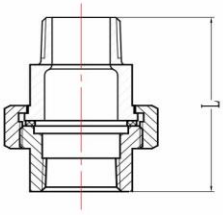
331

Unit:mm

Size	In	1/2	3/4	1	1¼	1½	2
	mm	15	20	25	32	40	50
L		64	70	78	88	93	104

M&F Straight Union,Conical Seat





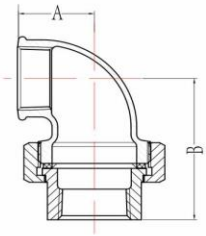
341

Unit:mm

Size	In	1/2	3/4	1	1¼	1½	2
	mm	15	20	25	32	40	50
L		65	71.5	79	90	96	107

Union Elbow Flat Seat





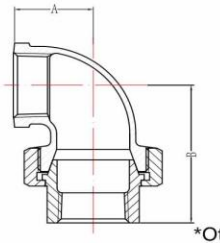
95

Unit:mm

Size	In	1/2	3/4	1	1¼	1½	2
	mm	15	20	25	32	40	50
A		24.5	29	35	42	45.5	53.5
B		54	60	68	80	86	97

Union Elbow, Conical Seat





96

Unit:mm

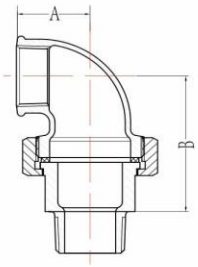
Size	In	1/2	3/4	1	1¼	1½	2
	mm	15	20	25	32	40	50
A		27	32	37	44.5	48.5	57
B		49.5	57	64.5	74.5	82	94

*Other sizes may also availble, please indicate clearly on the inquiry or order list.

Union

M&F Union Elbow Flat Seat





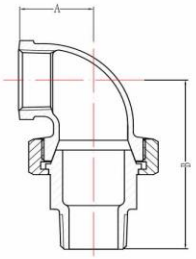
97

Unit:mm

Size	In	1/2	3/4	1	1¼	1½	2
	mm	15	20	25	32	40	50
A		24.5	29	35	42	45.5	53.5
B		72	80	90	105	111	125

M&F Union Elbow Conical Joint Iron to Iron





98

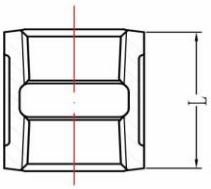
Unit:mm

Size	In	1/2	3/4	1	1¼	1½	2
	mm	15	20	25	32	40	50
A		27	32	37	44.5	48.5	57
B		67.5	77	86.5	99.5	107	122

Coupling

Part Threaded Socket





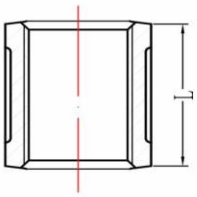
220

Unit:mm

Size	In	1/4	3/8	1/2	3/4	1	1¼
	mm	8	10	15	20	25	32
L		26	29	35	38	44	49
Size	In	1½	2	2½	3	4	6
	mm	40	50	65	80	100	150
L		53	63	72	77	91	118

Entire Therad Socket





270

Unit:mm

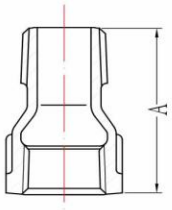
Size	In	1/4	3/8	1/2	3/4	1	1¼
	mm	8	10	15	20	25	32
L		26	29	35	38	44	49
Size	In	1½	2	2½	3	4	6
	mm	40	50	65	80	100	150
L		53	63	72	77	91	118

*Other sizes may also availble, please indicate clearly on the inquiry or order list.

Sockets

M&F Socket





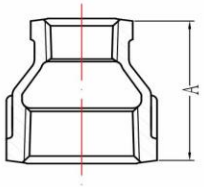
529A

Unit:mm

Size	In	1/2-SS	1/2-S	1/2-A	1/2-L	3/4	1
	mm	15-SS	15-S	15-A	15-L	20	25
A		32	35	40	44	45	52
Size	In	1¼	1½	2	3/4×1/2	1×1/2	1×3/4
	mm	32	40	50	20×15	25×15	25×20
A		57	60	66	47	54	54
Size	In	1¼×3/4	1¼×1	-	-	-	-
	mm	32×20	32×25	-	-	-	-
A		59	59	-	-	-	-

Reducing Socket





240

Unit:mm

Size	mm	10×8	15×8	15×10	20×15	25×10	25×15
	In	3/8×1/4	1/2×1/4	1/2×3/8	3/4×1/2	1×3/8	1×1/2
A		29	35	36	38	44	44
Size	mm	32×15	32×20	32×25	40×15	40×20	40×25
	In	1¼×1/2	1¼×3/4	1¼×1	1½×1/2	1½×3/4	1½×1
A		49	49	49	53	53	53
Size	mm	40×32	50×15	50×20	50×25	50×32	50×40
	In	1½×1¼	2×1/2	2×3/4	2×1	2×1¼	2×1½
A		53	63	63	63	63	63
Size	mm	65×15	65×20	65×25	65×32	65×40	65×50
	In	2½×1/2	2½×3/4	2½×1	2½×1¼	2½×1½	2½×2
A		72	72	72	72	72	72
Size	mm	80×15	80×20	80×25	80×32	80×40	80×50
	In	3×1/2	3×3/4	3×1	3×1¼	3×1½	3×2
A		71	71	71	71	71	71
Size	mm	80×65	100×15	100×20	100×25	100×32	100×40
	In	3×2½	4×1/2	4×3/4	4×1	4×1¼	4×1½
A		71	84	84	84	84	84
Size	mm	100×50	100×65	100×80	25×20	-	-
	In	4×2	4×2½	4×3	1×3/4	-	-
A		84	84	84	44	-	-

*Other sizes may also availble, please indicate clearly on the inquiry or order list.

Cross

Cross Female

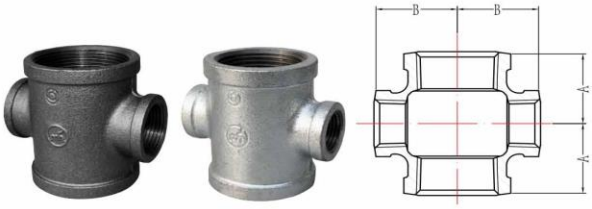


180

Unit:mm

Size							
	In	1/2	3/4	1	1¼	1½	2
	mm	15	20	25	32	40	50
A		27	32	37	44.5	48.5	57
Size	In	2½	3	4	-	-	-
	mm	65	80	100	-	-	-
A		68.5	77.5	96.5	-	-	-

Cross,Reducing



180R

Unit:mm

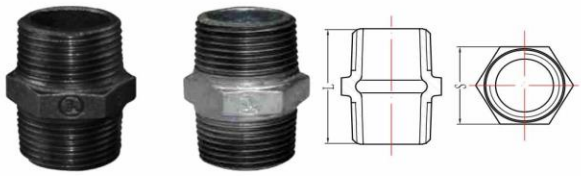
Size							
	mm	20×15	25×15	25×20	35×15	32×20	32×25
	In	3/4×1/2	1×1/2	1×3/4	1¼×1/2	1¼×3/4	1¼×1
A		29	31	34	34	36	40
B		30	33	35	37	40	41
Size	mm	40×15	40×20	40×25	40×32	50×15	50×20
	In	1½×1/2	1½×3/4	1½×1	1½×1¼	2×1/2	2×3/4
A		35	37	41	45	37	40
B		41	43	45	47	47	49
Size	mm	50×25	50×32	50×40	65×15	65×20	65×25
	In	2×1	2×1¼	2×1½	2½×1/2	2½×3/4	2½×1
A		43	47	51	40.5	43.5	47.5
B		51	53	54	56	57	59
Size	mm	65×32	65×40	65×50	80×15	80×20	80×25
	In	2½×1¼	2½×1½	2½×2	3×1/2	3×3/4	3×1
A		51.5	54.5	59.5	42.5	45.5	49.5
B		61	61	64	64	65	67
Size	mm	80×32	80×40	80×50	80×65	100×15	100×20
	In	3×1¼	3×1½	3×2	3×2½	4×1/2	4×3/4
A		54.5	57.5	61.5	71.5	49.5	53.5
B		69	71	71	74	78	79
Size	mm	100×25	100×32	100×40	100×50	100×65	100×80
	In	4×1	4×1¼	4×1½	4×2	4×2½	4×3
A		56.5	60.5	62.5	68.5	77.5	82.5
B		82	85	85	86	89	90

*Other sizes may also availble, please indicate clearly on the inquiry or order list.

Nipple

Hexagon Nipple,Equal

280

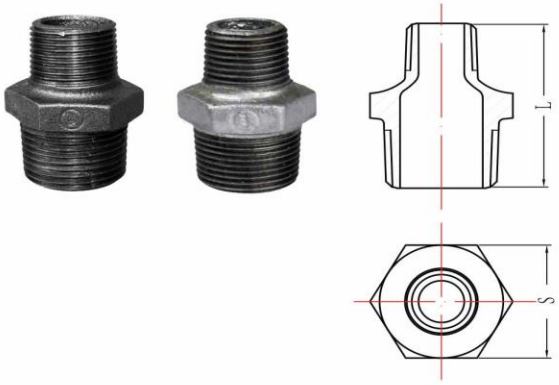


Unit:mm

Size	In	1/4	3/8	1/2	3/4	1	1¼
	mm	8	10	15	20	25	32
L		36	36	44	47	53	56
S		16.7	19.2	23.6	29.2	36	45
Size	In	1½	2	2½	3	4	-
	mm	40	50	65	80	100	-
L		58	68	73	81	95	-
S		51	63	79.4	91.6	117	-

Nipples,Reducing

245



Unit:mm

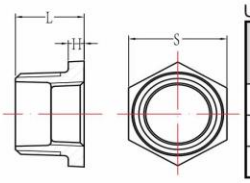
Size	mm	15×10	20×15	25×15	25×20	32×15	32×20
	In	1/2×3/8	3/4×1/2	1×1/2	1×3/4	1¼×1/2	1¼×3/4
L		44	47	53	53	57	57
S		24.4	29.9	36.8	36.8	45.6	45.6
Size	mm	32×25	40×15	40×20	40×25	40×32	50×15
	In	1¼×1	1¼×1/2	1½×3/4	1½×1	1½×1¼	2×1/2
L		57	59	59	59	59	68
S		45.6	50.5	50.5	50.5	50.5	63.5
Size	mm	50×20	50×25	50×32	50×40	-	-
	In	2×3/4	2×1	2×1¼	2×1½	-	-
L		68	68	68	68	-	-
S		63.5	63.5	63.5	63.5	-	-

*Other sizes may also availble, please indicate clearly on the inquiry or order list.

Bushing

Bushing





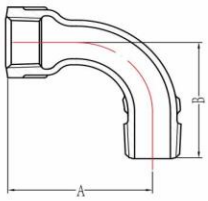
241

Unit:mm

Size	In	3/8×1/4	1/2×1/4	1/2×3/8	3/4×3/8	3/4×1/2	1×1/2
	mm	10×8	15×8	15×10	20×10	20×15	25×15
L		18.5	22.5	22.5	24.5	24.5	28
H		6	6	6	6	6	6.5
S		18.4	22	22	29.6	29.6	37.4

Bends

90° M&F Long Sweep Bend

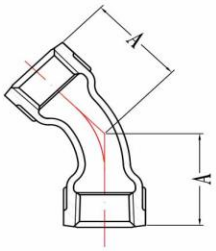



1

Unit:mm

Size	In	3/8	1/2	3/4	1	1¼	1½
	mm	10	15	20	25	32	40
A		48	55	69	85	105	116
B		42	48	60	75	95	105
Size	In	2	2½	3	4	-	-
	mm	50	65	80	100	-	-
A		140	176	205	260	-	-
B		130	165	190	245	-	-

Banded Long Sweep Bends

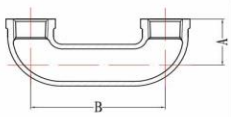



41

Unit:mm

Size	In	1/2	3/4	1	1¼	1½	2
	mm	15	20	25	32	40	50
A		36	43	51	64	-	-

Return Bend

90U

Unit:mm

Size	In	1/2	3/4	1	1¼	1½	2
	mm	15	20	25	32	40	50
A		30	-	-	-	-	-
B		80	-	-	-	-	-

*Other sizes may also availble, please indicate clearly on the inquiry or order list.

Plug/Caps

Beaded Plug

290

Unit:mm

Size	In	1/4	3/8	1/2	3/4	1	1¼
	mm	8	10	15	20	25	32
A		22.5	25	28	32	36	38.5
S		6	7	10	12	16	20
Size	In	1½	2	2½	3	-	-
	mm	40	50	65	80	-	-
A		41	47	48.5	53	-	-
S		22	28	30	34	-	-

Plain Plug

291

Unit:mm

Size	In	1/4	3/8	1/2	3/4	1	1¼
	mm	8	10	15	20	25	32
L		15.5	17	22.5	24	27	30
B		10	10	13	14	16.5	20
S		6	7	10	12	15	18
Size	In	1½	2	2½	3	4	-
	mm	40	50	65	80	100	-
L		31	36	40.5	45.5	57	-
B		21	25	26.5	29.5	38	-
S		22	26	30	34	44	-

Octagonal Cap

300

Unit:mm

Size	In	3/8	1/2	3/4	1	1¼	1½
	mm	10	15	20	25	32	40
A		17	19	22	24	27	28
S		20.6	24.6	30.4	37.2	47	53
Size	In	2	-	-	-	-	-
	mm	50	-	-	-	-	-
A		32	-	-	-	-	-
S		65	-	-	-	-	-

Round Cap

301

Unit:mm

Size	In	3/8	1/2	3/4	1	1¼	1½
	mm	10	15	20	25	32	40
A		17	19	22	24	27	28
Size	In	2	2½	3	4	-	-
	mm	50	65	80	100	-	-
A		32	36	39	46	-	-

*Other sizes may also availble, please indicate clearly on the inquiry or order list.

Others

Backnut



310

Unit:mm

Size							
	In	1/2	3/4	1	1¼	1½	2
	mm	15	20	25	32	40	50
A		9	10	11	11	12	13
S		29	36	45	56	63	77
Size	In	2½	3	4	-	-	-
	mm	65	80	100	-	-	-
A		15	18	21	-	-	-
S		93	109	137	-	-	-

Crossover



85

Unit:mm

Size							
	In	1/2	3/4	1	1¼	1½	2
	mm	15	20	25	32	40	50
L		90	104	120	149	160	194

Round Flange, Without Bolt Hole



321

Unit:mm

Size							
	In	1¼	1½	2	2½	3	4
	mm	32	40	50	65	80	100
A		24	26	29	33	34	39
B		105	110	125	145	160	180

Round Flange, With 4 Bolt Holes



329

Unit:mm

Size							
	In	1¼	1½	2	2½	3	4
	mm	32	40	50	65	80	100
L		24	26	29	33	34	39
B		105	110	125	145	160	180
N-C		4-18	4-18	4-18	4-18	8-18	8-18
Size	In	6	-	-	-	-	-
	mm	150	-	-	-	-	-
L		42	-	-	-	-	-
B		240	-	-	-	-	-
N-C		8-22	-	-	-	-	-

Side Outlet Elbow



1221

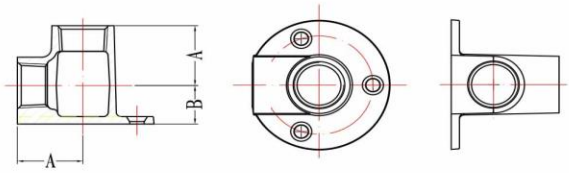
Unit:mm

Size				
	In	1/2	3/4	1
	mm	15	20	25
A		27	32	37

*Other sizes may also availble, please indicate clearly on the inquiry or order list.

Others

Bracket Elbow



471

Unit:mm

Size	In	1/2	3/4	1	1¼	1½	2
	mm	15	20	25	32	40	50
A		28	33	-	-	-	-
B		18	20	-	-	-	-

Lateral Y Branch,45°



165

Unit:mm

Size	In	1/2	3/4	1	1¼	1½	2	2½	3	4
	mm	15	20	25	32	40	50	65	80	100
A		42	-	62	75	82	-	-	140	-
B		18	-	23	28	30	-	-	45	-

Union Tail Piece(part of 330)



372

Unit:mm

Size	In	1/2	3/4	1	1¼	1½	2
	mm	15	20	25	32	40	50
A		-	-	26	30	-	-
S		-	-	38	48	-	-

Union Nut



374

Unit:mm

Size	In	1/2	3/4	1	1¼	1½	2
	mm	15	20	25	32	40	50
A		-	-	22	24	-	-
G		-	-	1½	2	-	-
S		-	-	54	65	-	-

Short Compression Coupling



SCC

Unit:mm

Size	In	1/2	3/4	1	1¼	1½	2
	mm	15	20	25	32	40	50
A		53	58	64	-	-	-

*Other sizes may also availble, please indicate clearly on the inquiry or order list.