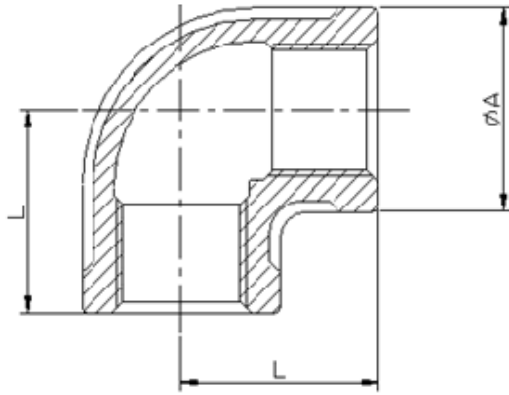


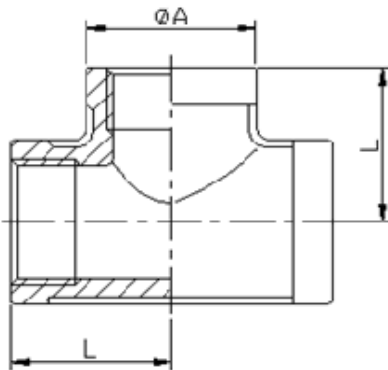
Elbow 90 Equal
Banded F/F



inch

SIZE	φA	L
1/8"	0.67	0.75
1/4"	0.84	0.83
3/8"	0.93	0.84
1/2"	1.14	1.06
3/4"	1.42	1.30
1"	1.69	1.50
1-1/4"	2.05	1.77
1-1/2"	2.30	1.97
2"	2.81	2.24
2-1/2"	3.43	2.74
3"	3.92	3.03
4"	4.96	3.87

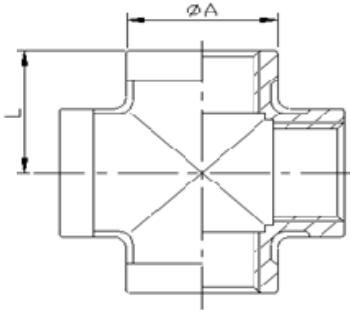
Tee Banded



inch

SIZE	φA	L
1/8"	0.67	0.75
1/4"	0.84	0.83
3/8"	0.93	0.93
1/2"	1.18	1.10
3/4"	1.38	1.30
1"	1.69	1.50
1-1/4"	2.05	1.77
1-1/2"	2.30	1.97
2"	2.81	2.28
2-1/2"	3.43	2.76
3"	3.94	3.09
4"	4.92	3.82

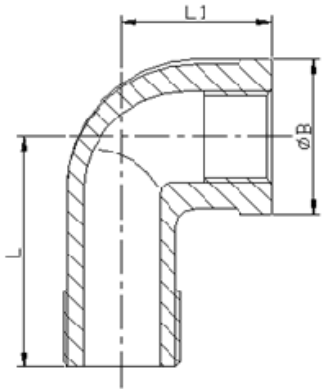
Cross Banded



inch

SIZE	ϕA	L
1/8"	0.60	0.67
1/4"	0.78	0.73
3/8"	0.92	0.90
1/2"	1.10	1.06
3/4"	1.37	1.26
1"	1.72	1.48
1-1/4"	2.09	1.81
1-1/2"	2.28	1.87
2"	2.80	2.28
2-1/2"	3.43	2.72
3"	3.90	3.03
4"	4.92	3.82

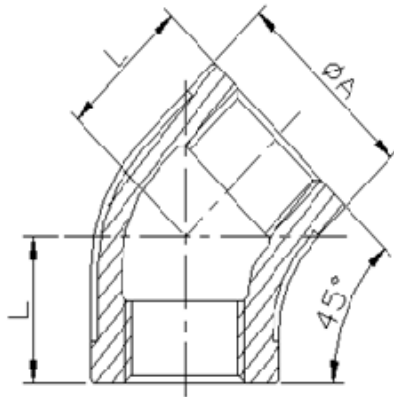
Street Elbow 90 M/F



inch

SIZE	ϕB	L	L1
1/8"	0.67	0.98	0.75
1/4"	0.83	1.11	0.83
3/8"	0.98	1.26	0.98
1/2"	1.14	1.65	1.10
3/4"	1.38	1.99	1.30
1"	1.69	2.05	1.50
1-1/4"	2.05	2.36	1.77
1-1/2"	2.31	2.56	1.97
2"	2.82	2.91	2.28
2-1/2"	3.39	3.98	2.72
3"	3.94	4.51	3.03
4"	4.98	5.77	3.82

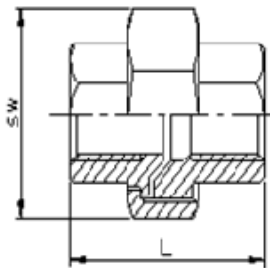
Elbow 45 Equal Banded F/F



inch

SIZE	ϕA	L
1/8"	0.71	0.71
1/4"	0.83	0.67
3/8"	0.98	0.79
1/2"	1.16	0.87
3/4"	1.40	0.98
1"	1.69	1.10
1-1/4"	2.06	1.30
1-1/2"	2.28	1.42
2"	2.83	1.69
2-1/2"	3.43	1.93
3"	3.94	2.17
4"	4.94	2.52

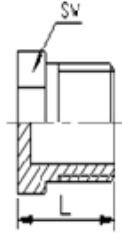
Union Conical Joint F/F



inch

SIZE	L	SW
1/8"	1.14	0.98
1/4"	1.48	1.18
3/8"	1.50	1.38
1/2"	1.65	1.65
3/4"	1.93	1.85
1"	1.89	2.09
1-1/4"	2.32	2.80
1-1/2"	2.56	3.03
2"	2.72	3.62
2-1/2"	3.15	4.41
3"	3.46	4.96
4"	4.25	6.18

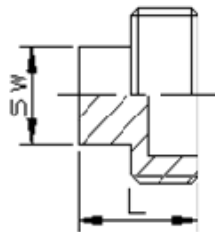
Hexagon Plug, Taper (Conical) Thread



inch

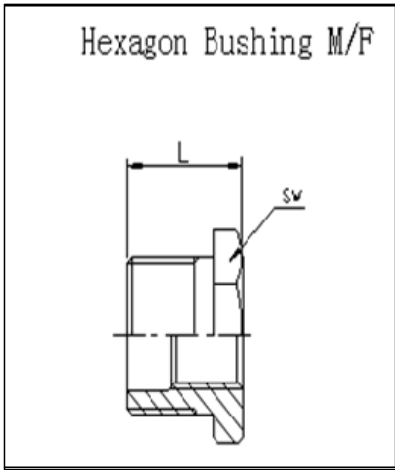
SIZE	L	SW
1/8"	0.67	0.47
1/4"	0.69	0.63
3/8"	0.71	0.79
1/2"	0.98	0.94
3/4"	1.02	1.18
1"	1.14	1.50
1-1/4"	1.38	1.81
1-1/2"	1.50	2.05
2"	1.54	2.56
2-1/2"	1.73	3.19
3"	2.13	3.74
4"	2.17	4.69

Square Plug



inch

SIZE	L	SW
1/8"	0.65	0.24X0.24
1/4"	0.79	0.35X0.35
3/8"	0.91	0.43X0.43
1/2"	0.98	0.51X0.51
3/4"	1.06	0.63X0.63
1"	1.26	0.79X0.79
1-1/4"	1.38	0.94X0.94
1-1/2"	1.42	0.98X0.98
2"	1.50	1.26X1.26
2-1/2"	1.89	1.65X1.65
3"	2.05	1.81X1.81
4"	2.44	2.28X2.28

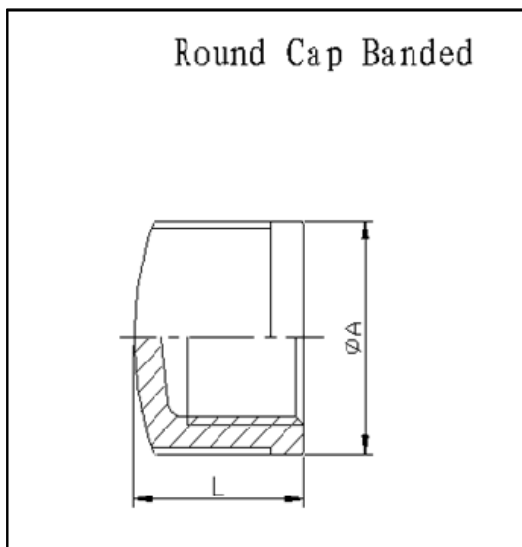


inch

SIZE	L	SW
1/4"x1/8"	0.60	0.63
3/8"x1/8"	0.65	0.71
3/8"x1/4"	0.65	0.71
1/2"x1/8"	0.83	1.02
1/2"x1/4"	0.83	1.02
1/2"x3/8"	0.83	1.02
3/4"x1/8"	0.94	1.18
3/4"x1/4"	0.94	1.18
3/4"x3/8"	0.94	1.18
3/4"x1/2"	0.94	1.18
1"x1/8"	1.06	1.38
1"x1/4"	1.06	1.38
1"x3/8"	1.06	1.38
1"x1/2"	1.06	1.38
1"x3/4"	1.06	1.38
1 1/4"x1/4"	1.18	1.77
1 1/4"x3/8"	1.18	1.77
1 1/4"x1/2"	1.18	1.77
1 1/4"x3/4"	1.18	1.77
1 1/4"x1"	1.18	1.77
1 1/2"x3/8"	1.50	2.05
1 1/2"x1/2"	1.50	2.05
1 1/2"x3/4"	1.50	2.05

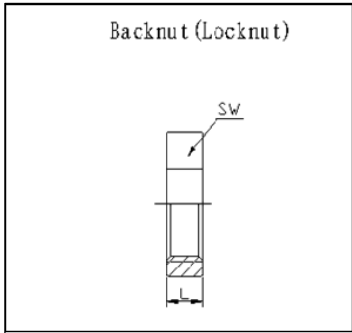
inch

SIZE	L	SW
1 1/2"x1"	1.50	2.05
1 1/2"x1 1/4"	1.50	2.05
2"x1/4"	1.42	2.48
2"x3/8"	1.42	2.48
2"x1/2"	1.46	2.48
2"x3/4"	1.46	2.48
2"x1"	1.46	2.48
2"x1 1/4"	1.46	2.48
2"x1 1/2"	1.46	2.48
2 1/2"x1"	1.77	3.19
2 1/2"x1 1/4"	1.77	3.19
2 1/2"x1 1/2"	1.77	3.19
2 1/2"x2"	1.77	3.19
3"x1"	1.87	3.72
3"x1 1/4"	1.87	3.72
3"x1 1/2"	1.85	3.74
3"x2"	1.85	3.74
3"x2 1/2"	1.85	3.74
4"x1 1/4"	2.03	4.72
4"x1 1/2"	2.07	4.72
4"x2"	2.05	4.72
4"x2 1/2"	2.05	4.72
4"x3"	2.05	4.72



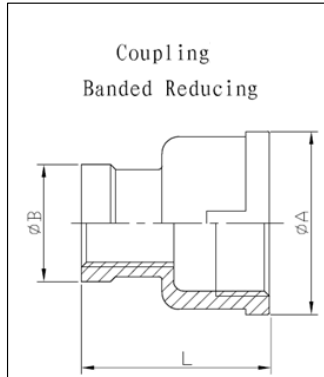
inch

SIZE	φA	L
1/8"	0.71	0.59
1/4"	0.83	0.71
3/8"	0.94	0.71
1/2"	1.07	0.83
3/4"	1.38	0.94
1"	1.65	1.14
1-1/4"	2.05	1.30
1-1/2"	2.26	1.34
2"	2.73	1.50
2-1/2"	3.62	1.61
3"	4.17	1.85
4"	5.28	2.09



inch

SIZE	L	SW
1/8"	0.24	0.57
1/4"	0.28	0.91
3/8"	0.31	1.02
1/2"	0.39	1.22
3/4"	0.43	1.46
1"	0.39	1.81
1-1/4"	0.43	2.17
1-1/2"	0.47	2.48
2"	0.51	2.99
2-1/2"	0.63	3.74
3"	0.75	4.13
4"	0.79	5.16



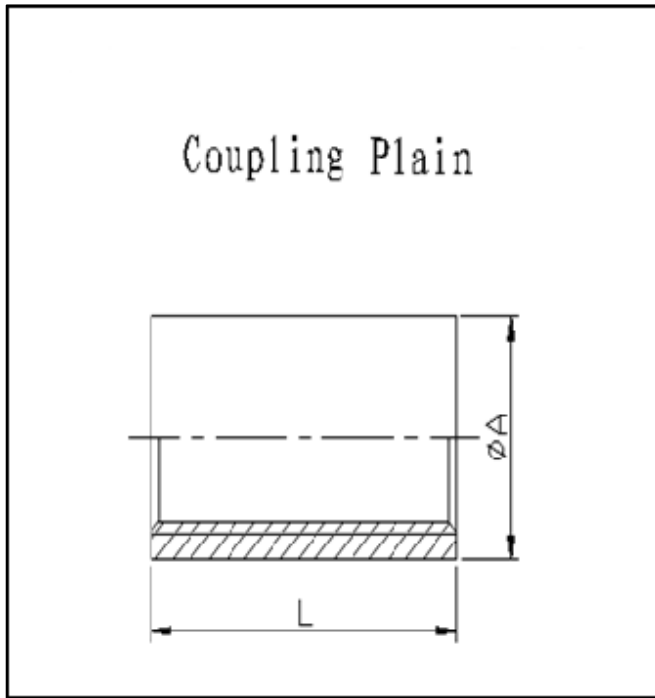
inch

SIZE	φA	φB	L
1/4"x1/8"	0.85	0.75	1.02
3/8"x1/8"	0.98	0.67	1.11
3/8"x1/4"	1.02	0.85	1.14
1/2"x1/8"	1.14	0.67	1.34
1/2"x1/4"	1.14	0.83	1.34
1/2"x3/8"	1.14	0.88	1.34
3/4"x1/8"	1.38	0.67	1.50
3/4"x1/4"	1.38	0.83	1.50
3/4"x3/8"	1.38	0.98	1.50
3/4"x1/2"	1.46	1.11	1.46
1"x1/8"	1.69	0.68	1.65
1"x1/4"	1.69	0.83	1.65
1"x3/8"	1.69	1.00	1.65
1"x1/2"	1.69	1.16	1.65
1"x3/4"	1.69	1.26	1.65
1 1/4"x1/4"	2.05	0.83	1.89
1 1/4"x3/8"	2.05	1.00	1.89
1 1/4"x1/2"	2.05	1.14	1.89
1 1/4"x3/4"	2.05	1.38	1.89
1 1/4"x1"	2.07	1.54	2.05
1 1/2"x3/8"	2.32	0.92	1.89
1 1/2"x1/2"	2.28	1.14	2.05
1 1/2"x3/4"	2.32	1.40	2.05

inch

SIZE	φA	φB	L
1 1/2"x1"	2.32	1.71	2.09
1 1/2"x1 1/4"	2.32	1.97	2.09
2"x1/2"	2.83	1.14	1.99
2"x3/4"	2.83	1.38	2.01
2"x1"	2.83	1.69	2.20
2"x1 1/4"	2.83	2.05	2.20
2"x1 1/2"	2.83	2.23	2.24
2 1/2"x3/4"	3.35	1.30	2.36
2 1/2"x1"	3.43	1.69	2.36
2 1/2"x1 1/4"	3.35	2.05	2.36
2 1/2"x1 1/2"	3.35	2.24	2.36
2 1/2"x2"	3.35	2.73	2.40
3"x1"	3.94	1.70	2.44
3"x1 1/4"	3.94	2.07	2.44
3"x1 1/2"	3.94	2.23	2.44
3"x2"	3.94	2.76	2.44
3"x2 1/2"	3.94	3.43	2.44
4"x1 1/4"	5.08	2.07	2.56
4"x1 1/2"	5.00	2.23	2.56
4"x2"	5.00	2.76	2.56
4"x2 1/2"	5.04	3.39	2.56
4"x3"	5.04	4.13	2.56

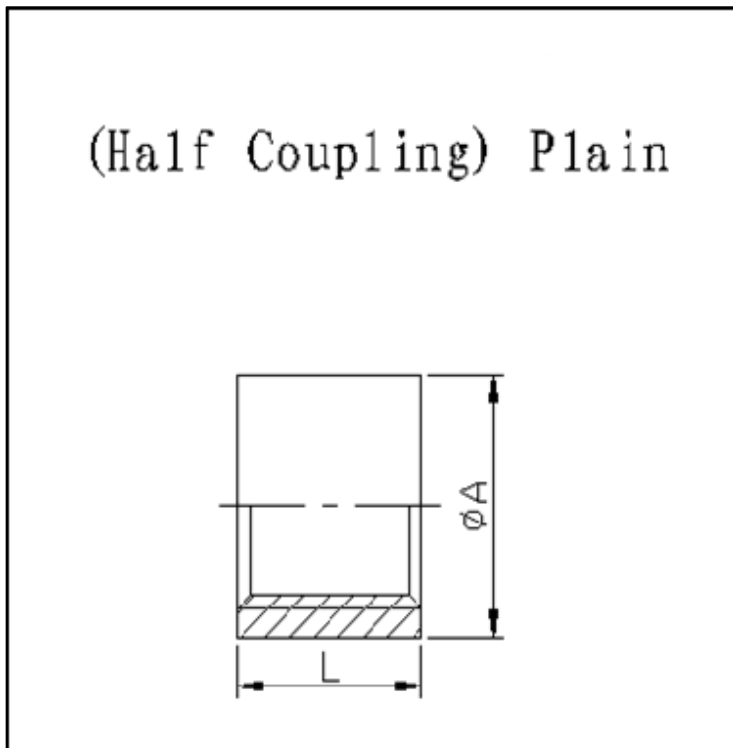
Industry Standard Pattern Couplings (KP)



NPT/PT

inch

SIZE	ϕA	L
1/8"	0.57	1.01
1/4"	0.71	1.10
3/8"	0.85	1.19
1/2"	1.01	1.38
3/4"	1.19	1.59
1"	1.48	1.72
1-1/4"	1.84	1.97
1-1/2"	2.09	2.23
2"	2.58	2.56
2-1/2"	3.11	2.91
3"	3.76	3.23
4"	4.77	3.72

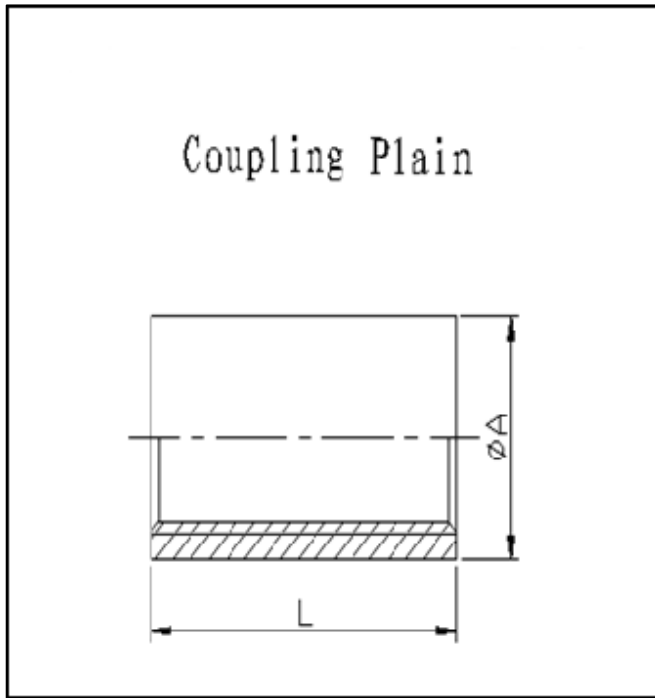


inch

NPT/PT

SIZE	ϕA	L
1/8"	0.59	0.50
1/4"	0.73	0.57
3/8"	0.87	0.59
1/2"	1.03	0.70
3/4"	1.19	0.84
1"	1.48	0.88
1-1/4"	1.84	1.01
1-1/2"	2.09	1.13
2"	2.58	1.30
2-1/2"	3.11	1.49
3"	3.76	1.65
4"	4.77	1.91

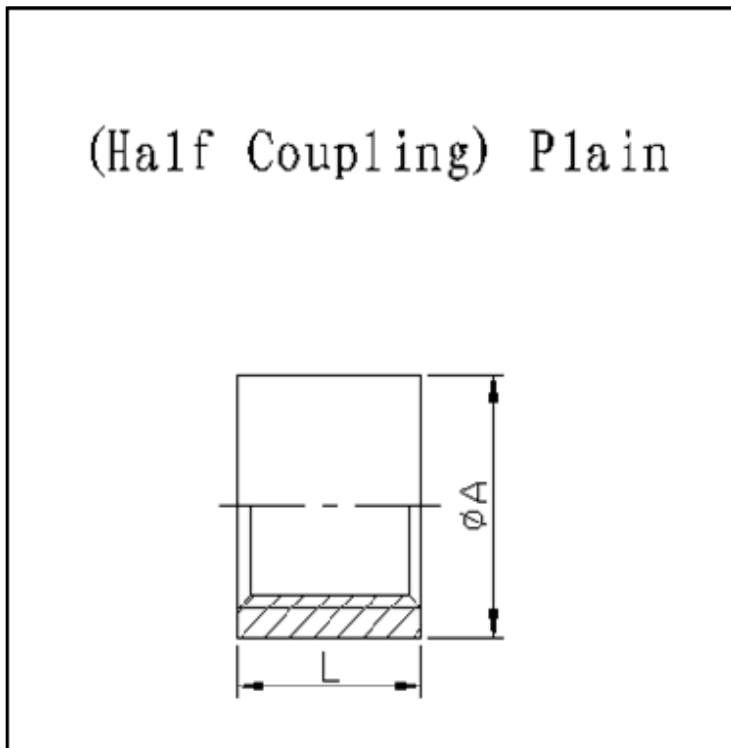
ISO49 Heavy Pattern Couplings



NPT/PT

inch

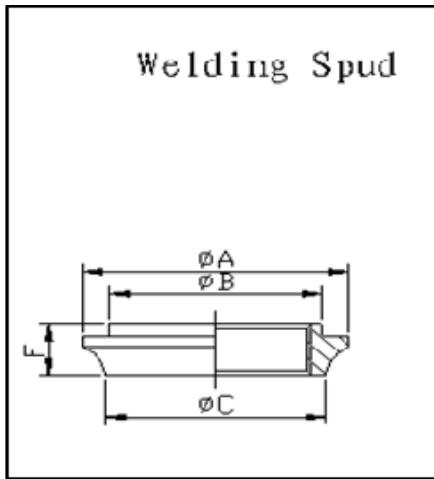
SIZE	ϕA	L
1/8"	0.62	1.01
1/4"	0.78	1.10
3/8"	0.89	1.19
1/2"	1.11	1.38
3/4"	1.37	1.59
1"	1.65	1.72
1-1/4"	1.93	1.97
1-1/2"	2.24	2.23
2"	2.80	2.56
2-1/2"	3.40	2.91
3"	4.16	3.23
4"	5.07	3.72



inch

NPT/PT

SIZE	ϕA	L
1/8"	0.62	0.50
1/4"	0.79	0.57
3/8"	0.91	0.59
1/2"	1.09	0.70
3/4"	1.35	0.84
1"	1.66	0.88
1-1/4"	1.91	1.01
1-1/2"	2.22	1.13
2"	2.78	1.30
2-1/2"	3.39	1.49
3"	4.13	1.65
4"	5.20	1.91



inch

SIZE	ϕA	ϕB	ϕC	F
1/8"	1.37	0.83	0.70	0.47
1/4"	1.48	0.97	0.79	0.53
3/8"	1.61	0.97	0.91	0.51
1/2"	1.75	1.13	1.10	0.59
3/4"	1.91	1.33	1.30	0.67
1"	2.23	1.69	1.65	0.78
1-1/4"	2.58	1.93	2.04	0.75
1-1/2"	2.81	2.19	2.22	0.79
2"	3.39	2.68	2.80	0.87
2-1/2"	3.88	3.14	3.22	0.98
3"	4.50	3.67	3.82	0.94
4"	5.65	4.69	4.90	1.05

Dimensional Tolerance

Unit: inch

Size	≤ 1.18	1.18~1.97	1.97~2.95	2.95~3.94	3.94~5.91	5.91~7.87	7.87~11.81	≥ 11.81
Tolerance	+/- 0.035	+/- 0.039	+/- 0.043	+/- 0.047	+/- 0.055	+/- 0.059	+/- 0.071	+/- 0.079