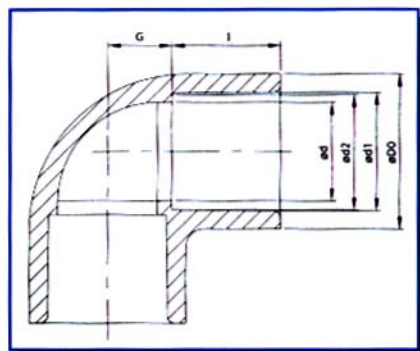


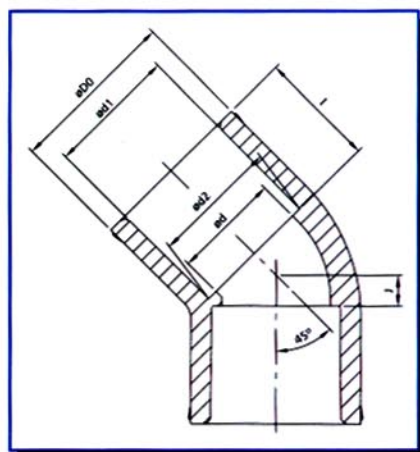
90° Elbow (slip x slip)

Size	Outside Dia		Socket Type			Structural Diameter	
	D0	d1	d2	I	d	G	
1/2"	29	21.54	21.23	24.22	16	13	
3/4"	35	26.87	26.57	27.40	22	15	
1"	44	33.66	33.27	30.58	28	18	
1-1/4"	54	42.42	42.04	34.75	35	23	
1-1/2"	60	48.56	48.11	37.93	43	26	
2"	73	60.63	60.17	41.10	54	32	
2-1/2"	88	73.38	72.85	47.45	65	39	
3"	105	89.31	88.70	50.63	80	46.5	
4"	132	114.80	114.10	60.15	100	59	
5"	162	141.81	141.05	69.60	134	79.4	
6"	191	168.83	168.00	79.20	150	89	
8"	240	219.84	218.69	104.60	200	115	
10"	306.5	273.81	372.67	130.00	240	145	
12"	364	324.61	323.47	155.00	290	175	



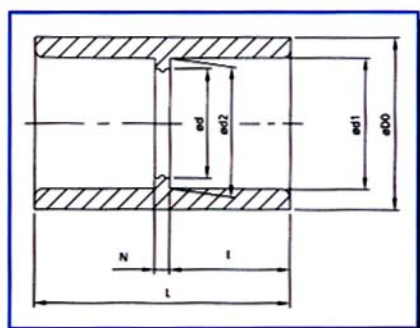
45° Elbow (slip x slip)

Size	Outside Dia		Socket Type			Structural Diameter	
	D0	d1	d2	I	d	J	
1/2"	29	21.54	21.23	24.22	16	6.5	
3/4"	35	26.87	26.57	27.40	22	8	
1"	44	33.66	33.27	30.58	28	8	
1-1/4"	54	42.42	42.04	34.75	35	10	
1-1/2"	60	48.56	48.11	37.93	43	12	
2"	73	60.63	60.17	41.10	54	16	
2-1/2"	88	73.38	72.85	47.45	65	18	
3"	105	89.31	88.70	50.63	80	19.5	
4"	132	114.80	114.10	60.15	100	26	
5"	156.2	141.81	141.05	69.60	134	38.4	
6"	191	168.83	168.00	79.20	150	45	
8"	246	219.84	218.69	104.60	200	51	
10"	306.5	273.81	372.67	130.00	240	58	
12"	364	324.61	323.47	155.00	290	63.5	



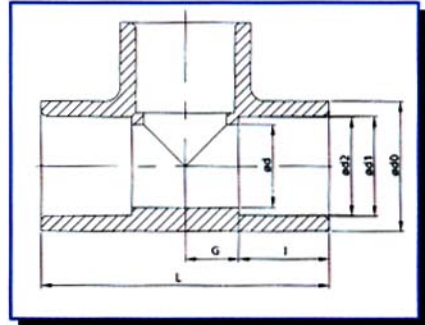
Coupling (slip x slip)

Size	Outside Dia		Socket Type			Structural Diameter	
	D0	d1	d2	I	d	N	L
1/2"	29	21.54	21.23	24.22	16	3.56	52
3/4"	35	26.87	26.57	27.40	22	5.20	60
1"	44	33.66	33.27	30.58	28	3.84	65
1-1/4"	54	42.42	42.04	34.75	35	5.50	75
1-1/2"	60	48.56	48.11	37.93	43	4.14	80
2"	73	60.63	60.17	41.10	54	5.80	88
2-1/2"	88	73.38	72.85	47.45	65	6.10	100
3"	105	89.31	88.70	50.63	80	6.74	108
4"	132	114.80	114.10	60.15	100	5.70	126
5"	162	141.81	141.05	69.60	134	20.64	160
6"	191	168.83	168.00	79.20	144	10.60	169
8"	246	219.84	218.69	104.60	200	10.80	220
10"	306.5	273.81	272.67	130	240	10.00	284
12"	364	324.61	323.47	155	290	10.00	336.5



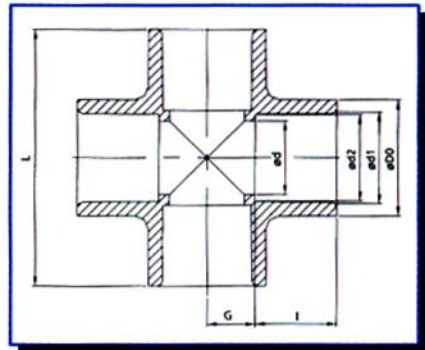
TEE (slip x slip x slip)

Size	Outside Dia	Socket Type			Structural Diameter		
	D0	d1	d2	I	d	G	L
1/2"	29	21.54	21.23	24.22	16	13	74.44
3/4"	35	26.87	26.57	27.40	22	15	84.4
1"	44	33.66	33.27	30.58	28	18	97.16
1-1/4"	54	42.42	42.04	34.75	35	23	115.5
1-1/2"	60	48.56	48.11	37.93	43	26	127.9
2"	73	60.63	60.17	41.10	54	32	146.2
2-1/2"	88	73.38	72.85	47.45	65	39	172.9
3"	105	89.31	88.70	50.63	80	46.5	194.3
4"	132	114.80	114.10	60.15	100	59	238.3
5"	162	141.81	141.05	69.68	134	79.32	298
6"	191	168.83	168.00	79.20	144	89	336.4
8"	246	219.84	218.96	104.60	200	115	439.2
10"	306.5	273.81	372.67	130.00	240	145	550
12"	364	324.61	323.47	155.00	290	175	600



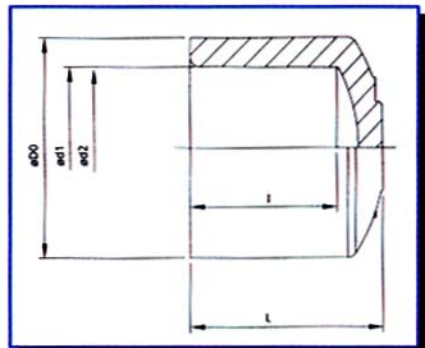
Cross (slip x slip x slip x slip)

Size	Outside Dia	Socket Type			Structural Diameter		
	D0	d1	d2	I	d	G	L
1/2"	29	21.54	21.23	24.22	16	13	74.44
3/4"	35	26.87	26.57	27.40	22	15	84.4
1"	44	33.66	33.27	30.58	28	18	97.16
1-1/4"	54	42.42	42.04	34.75	35	23	115.5
1-1/2"	60	48.56	48.11	37.93	43	26	127.9
2"	73	60.63	60.17	41.10	54	32	146.2
2-1/2"	88	73.38	72.85	47.45	65	39	172.9
3"	105	89.31	88.70	50.63	80	46.5	194.3
4"	132	114.80	114.10	60.15	100	59	238.3



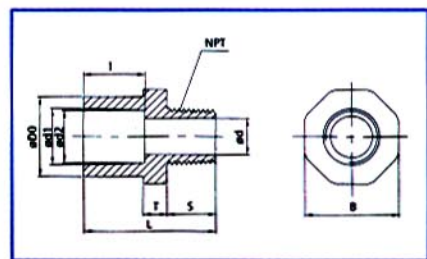
Cap (slip)

Size	Outside Dia	Socket Type			Structural Diameter
	D0	d1	d2	I	L
1/2"	30	21.54	21.23	24.22	31.1
3/4"	36.83	26.87	26.57	27.40	35.2
1"	45.5	33.66	33.27	30.58	40.5
1-1/4"	55	42.42	42.04	34.75	46.06
1-1/2"	61.5	48.56	48.11	37.93	50.33
2"	75	60.63	60.17	41.10	56
2-1/2"	89	73.38	72.85	47.45	65.5
3"	106	89.31	88.70	50.63	70
4"	133	114.80	114.10	60.15	82.26
6"	192	168.83	168.00	79.20	110.32
8"	246	219.84	218.69	104.60	142.94



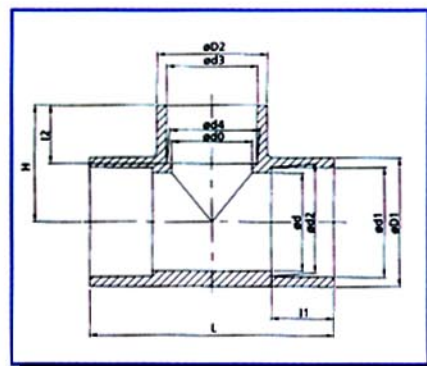
Male Adapter (slip x NPT)

Size	Outside Dia		Socket Type				Structural Diameter				
	D0		d1	d2	I	d	T	S	L	B	NPT
1/2"	30.5		21.54	21.23	24.22	14	9	18.5	50	36	1/2"
3/4"	35		26.87	26.57	27.40	19	9	14.5	50	41	3/4"
1"	44		33.66	33.27	30.58	24	9	21	59	50	1"
1-1/4"	54		42.42	42.04	34.75	32	9	19	61	60	1-1/4"
1-1/2"	60		48.56	48.11	37.93	38	9	27	72	65	1-
2"	73		60.63	60.17	41.10	50	10	27	77	80	2"
2-1/2"	88		73.38	72.85	47.45	61	11.5	40	97	95	2-1/2"
3"	105		89.31	88.70	50.63	73	14	41.5	104	115	3"
4"	132		114.80	114.10	60.15	96	14	44.5	116	145	4"



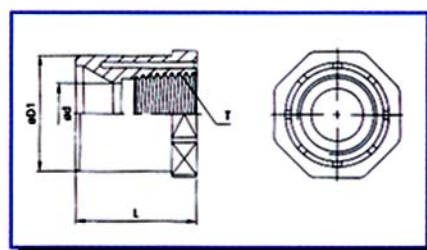
Reducer TEE (slip x slip x slip)

Size	Outside Dia		Socket Type				Structural Diameter					
	D1	D2	d1	d2	I1	d3	d4	L2	L	d	d0	H
3/4"x3/4"x1/2"	35	30.5	26.87	26.57	27.4	21.54	21.23	24.22	85	22	16.5	38.5
1"x1"x1/2"	44	30.5	33.66	33.27	30.58	21.54	21.23	24.22	96	28	16.5	41
1"x1"x3/4"	44	35	33.66	33.27	30.58	26.87	26.57	27.4	96	28	22	44.5
1"x1"x2"	44	73	33.66	33.27	30.58	60.63	60.17	41.1	96	28	28	65
1-1/4"x1-1/4"x1/2"	54	30.5	42.42	42.04	34.75	21.54	21.23	24.22	115.5	28	16.5	44.5
1-1/4"x1-1/4"x3/4"	54	35	42.42	42.04	34.75	26.87	26.57	27.4	115.5	35	22	48
1-1/4"x1-1/4"x1"	54	44	42.42	42.04	34.75	33.66	33.27	30.58	115.5	35	28	52
1-1/2"x1-1/2"x1/2"	60	30.5	48.56	48.11	37.93	21.54	21.23	24.22	128	35	16.5	48.5
1-1/2"x1-1/2"x3/4"	60	35	48.56	48.11	37.93	26.87	26.57	27.4	128	41	22	52
1-1/2"x1-1/2"x1"	60	44	48.56	48.11	37.93	37.66	33.27	30.58	128	41	28	55.5
1-1/2"x1-1/2"x1-1/4"	60	54	48.56	48.11	37.93	42.42	42.04	34.75	128	41	35	60
2"x2"x1/2"	75	30.5	60.63	60.17	41.1	21.54	21.23	24.22	146	41	16.5	54
2"x2"x3/4"	75	35	60.63	60.17	41.1	26.67	26.57	27.4	146	51.5	22	57.5
2"x2"x1"	75	44	60.63	60.17	41.1	33.66	33.27	30.58	146	51.5	28	60.5
2"x2"x1-1/4"	75	54	60.63	60.17	41.1	42.42	42.04	34.75	146	51.5	35	65
2"x2"x1-1/2"	75	60	60.63	60.17	41.1	48.56	48.11	37.93	146	51.5	43	69
2-1/2"x2-1/2"x1"	89	54	73.38	72.85	47.45	33.66	33.27	30.58	171	65	28	67.5
2-1/2"x2-1/2"x1-1/2"	89	60	73.38	72.85	47.45	48.58	48.11	37.93	171	65	43	75
2-1/2"x2-1/2"x2"	89	73	73.38	72.85	47.45	60.63	60.17	41.1	171	65	54	79
3"x3"x1"	105	44	89.31	88.7	50.63	33.66	33.27	30.58	197	80	28	83
3"x3"x1-1/2"	105	60	89.31	88.7	50.63	48.56	48.11	37.93	197	80	43	87
3"x3"x2"	105	73	89.32	88.7	50.63	60.63	60.17	41.1	197	80	54	95
4"x4"x1"	132	44	114.76	114.07	60.15	33.66	33.27	30.58	238	100	28	90
4"x4"x2"	132	73	114.76	114.07	60.15	60.63	60.17	41.1	238	100	54	97
4"x4"x3"	132	105	114.76	114.07	60.15	89.31	88.71	50.63	238	100	80	110



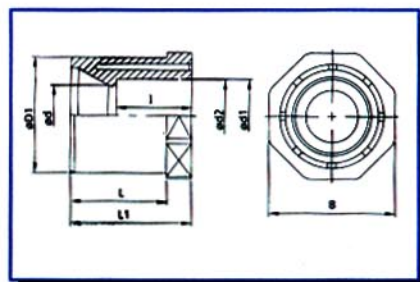
Reducer Bushing (spig x NPT)

Size	Outside Dia		Structural Diameter		
	D1		d	L	T
1/2"x1/4"	21.34		10	29	1/4"
1/2"x3/8"	21.34		12	29	3/8"
3/4"x1/2"	26.67		13	33	1/2"
1"x3/8"	33.4		12	38	3/8"
1"x1/2"	33.4		16	38	1/2"
1"x3/4"	33.4		18	38	3/4"



Reducer Bushing (spig x slip)

Size	Outside Dia		Socket Type				Structural Diameter			
	D1	D2	d1	d2	I	B	d	L1	L	
1/2"x1/4"	21.34		14.02	13.61	19	30	10	29	23	
1/2"x3/8"	21.34		17.04	17.45	22	30	12	29	23	
3/4"x1/2"	26.67		21.54	21.23	24	30	13	33	27	
1"x3/8"	33.4		17.45	17.04	22	36	12	38	30	
1"x1/2"	33.4		21.54	21.23	24	36	16	38	30	
1"x3/4"	33.4		26.87	26.57	28	36	16	38	30	
1-1/4"x1/2"	42.16		21.54	33.27	24.22	46	16	44	35	
1-1/4"x3/4"	42.16		26.87	21.23	27.4	46	22	44	35	
1-1/4"x1"	42.16		33.66	26.57	30.58	46	28	44	35	
1-1/2"x1/2"	48.26		21.54	33.27	24.22	55	16	47	38	
1-1/2"x3/4"	48.26		26.87	42.04	27.4	55	22	47	38	
1-1/2"x1"	48.26		33.66	21.23	30.57	55	28	47	38	
1-1/2"x1-1/4"	48.26		42.42	26.57	34.75	55	35	47	38	
2"x1/2"	60.33		21.54	33.27	24.22	70	16	52	42	
2"x3/4"	60.33		26.87	42.04	27.4	70	22	52	42	
2"x1"	60.33		33.66	48.11	30.58	70	28	52	42	
2"x1-1/4"	60.33		42.42	48.11	34.75	70	35	52	42	
2"x1-1/2"	60.33		48.56	60.17	37.93	70	43	52	42	
2-1/2"x1-1/2"	73.03		48.56	48.11	37.93	80	43	60	48.45	
2-1/2"x2"	73.03		60.63	60.17	41.1	80	54	60	48.45	
3"x1-1/2"	88.9		48.56	48.11	37.93	80	54	60	48.45	
3"x2"	88.9		60.63	60.17	41.1	99	54	65	51	
3"x2-1/2"	88.9		73.38	72.85	47.75	99	65	65	51	
4"x2"	114.3		60.63	60.17	41.1	125	54	75	60.5	
4"x2-1/2"	114.3		73.38	72.85	47.45	125	65	75	60.5	
4"x3"	114.3		89.31	88.7	50.63	125	80	75	60.5	
6"x4"	168.28		114.76	114.07	60.15	180	100	90	76.5	
8"x6"	219.1		168.83	168	79	235	150	120	104.6	
10"x8"	273.05		219.64	218.69	105	290	200	148	130	
12"x10"	219.1		273.81	272.67	130	345	245	175	155	



Reducer Coupling (slip x slip)

Size	Outside Dia		Socket Type						Structural Diameter	
	D1	D2	d1	d2	I1	d3	I2	d	L	
3/4"x1/2"	35	30.5	26.87	26.57	27.4	21.54	21.23	24.22	16.5	54.5
1"x1/2"	44	30.5	33.66	33.27	30.58	21.54	21.23	24.22	16.5	58
1"x3/4"	44	35	33.66	33.27	30.58	26.87	26.57	27.4	20.5	61
1-1/4"x1/2"	54	30.5	42.42	42.04	34.75	21.54	21.54	24.22	16.5	62
1-1/4"x3/4"	54	35	42.42	42.04	34.75	26.87	26.87	27.4	20.5	65
1-1/4"x1"	54	44	42.42	42.04	34.75	33.66	33.27	30.58	28	68
1-1/2"x1/2"	60	30.5	48.56	48.11	37.93	21.54	21.23	24.22	16.5	65
1-1/2"x3/4"	60	35	48.56	48.11	37.93	26.87	26.57	27.4	20.5	68
1-1/2"x1"	60	44	48.56	48.11	37.93	33.66	33.27	30.58	28	71
1-1/2"x1-1/4"	60	54	48.56	48.11	37.93	42.42	42.04	34.75	35	75.5
2"x1/2"	73	30.5	60.63	60.17	41.1	21.54	21.23	24.22	16.5	68
2"x3/4"	73	35	60.63	60.17	41.1	26.87	26.57	27.4	20.5	71
2"x1"	73	44	60.63	60.17	41.1	33.66	33.27	30.58	28	74.5
2"x1-1/4"	73	54	60.63	60.17	41.1	42.42	42.04	34.75	35	78.5
2"x1-1/2"	73	60	60.63	60.17	41.1	48.56	48.11	37.93	42.5	82

