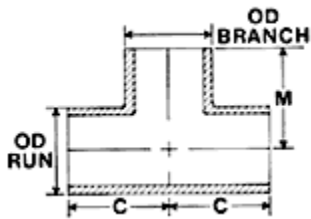
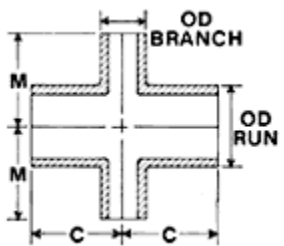


**PRODUCTS: STRAIGHT AND REDUCING TEES AND CROSSES**



NOMINAL PIPE SIZE		OUTSIDE DIAMETER		CENTER TO END	
RUN	BRANCH	RUN	BRANCH	C	M
1/2"	1/2"	0.84	0.84	1.00	1.00
3/4"	3/4"	1.05	1.05	1.12	1.12
	1/2"	1.05	0.84	1.12	1.12
1"	1"	1.32	1.32	1.50	1.50
	3/4"	1.32	1.05	1.50	1.50
	1/2"	1.32	.084	1.50	1.50
1 1/4"	1 1/4"	1.66	1.66	1.88	1.88
	1"	1.66	1.32	1.88	1.88
	3/4"	1.66	1.05	1.88	1.88
	1/2"	1.66	0.84	1.88	1.88
1 1/2"	1 1/2"	1.90	1.90	2.25	2.25
	1 1/4"	1.90	1.66	2.25	2.25
	1"	1.90	1.32	2.25	2.25
	3/4"	1.90	1.05	2.25	2.25
	1/2"	1.90	0.84	2.25	2.25
2"	2"	2.38	2.38	2.50	2.50
	1 1/2"	2.38	1.90	2.50	2.38
	1 1/4"	2.38	1.66	2.50	2.25
	1"	2.38	1.32	2.50	2.00
	3/4"	2.38	1.05	2.50	1.75
2 1/2"	2 1/2"	2.88	2.88	3.00	3.00
	2"	2.88	2.38	3.00	2.75
	1 1/2"	2.88	1.90	3.00	2.62
	1 1/4"	2.88	1.66	3.00	2.50
	1"	2.88	1.32	3.00	2.25
3"	3"	3.50	3.50	3.38	3.38
	2 1/2"	3.50	2.88	3.38	3.25
	2"	3.50	2.38	3.38	3.00
	1 1/2"	3.50	1.90	3.38	2.88
	1 1/4"	3.50	1.66	3.38	2.75

NOMINAL PIPE SIZE		OUTSIDE DIAMETER		CENTER TO END	
RUN	BRANCH	RUN	BRANCH	C	M
4"	4"	4.50	4.50	4.12	4.12
	3"	4.50	3.50	4.12	3.88
	2 1/2"	4.50	2.88	4.12	3.75
	2"	4.50	2.38	4.12	3.50
	1 1/2"	4.50	1.90	4.12	3.38
5"	5"	5.56	5.56	4.88	4.88
	4"	5.56	4.50	4.88	4.62
	3"	5.56	3.50	4.88	4.38
	2 1/2"	5.56	2.88	4.88	4.25
	2"	5.56	2.38	4.88	4.12
6"	6"	6.62	6.62	5.62	5.62
	5"	6.62	5.56	5.62	5.38
	4"	6.62	4.50	5.62	5.12
	3"	6.62	3.50	5.62	4.88
	2 1/2"	6.62	2.88	5.62	4.75
8"	8"	8.62	8.62	7.00	7.00
	6"	8.62	6.62	7.00	6.62
	5"	8.62	5.56	7.00	6.38
	4"	8.62	4.50	7.00	6.12
	3"	8.62	3.50	7.00	5.88
10"	10"	10.75	10.75	8.50	8.50
	8"	10.75	8.62	8.50	8.00
	6"	10.75	6.62	8.50	7.62
	5"	10.75	5.56	8.50	7.50
	4"	10.75	4.50	8.50	7.25
12"	12"	12.75	12.75	10.00	10.00
	10"	12.75	10.75	10.00	9.50
	8"	12.75	8.62	10.00	9.00
	6"	12.75	6.62	10.00	8.62
	5"	12.75	5.56	10.00	8.50

CROSSES WITH TWO DIFFERENT OUTLET SIZES ARE AVAILABLE ON APPLICATION.  
OTHER OUTLET SIZES ARE AVAILABLE.