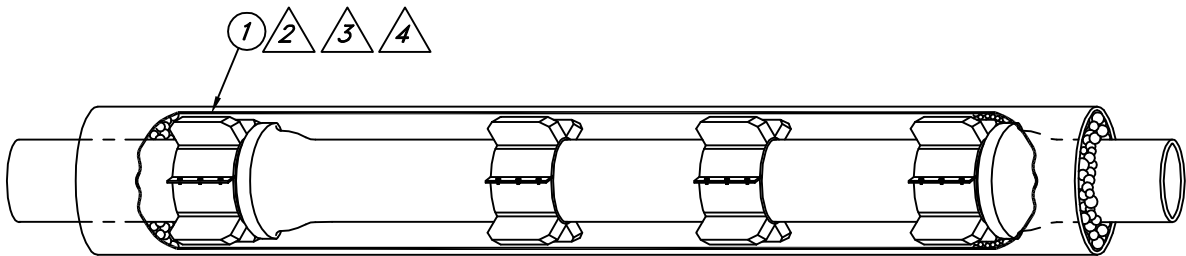


RECOMMENDED STANDARD PLACEMENT ON DUCTILE IRON



RECOMMENDED PLACEMENT ON PVC PIPE

MATERIAL LIST

QTY	DESCRIPTION	STOCK NO.	QTY	DESCRIPTION	STOCK NO.
1	STAINLESS STEEL CASING SPACERS				
2	1 BARE STEEL CASING PIPE, AS SPECIFIED BY ENGINEER				
3	1 CARRIER PIPE				
4	2 FROTH PAK	211087			

CARRIER PIPE SIZE	PART NUMBER	O.D. OVER-RUNNERS	WEIGHT EACH 8" WIDE	WEIGHT EACH 12" WIDE	CASING PIPE SIZE
4"	CCS-450	8.9	7.3	11.9	8"
	CCS-480	9.2	7.5	12.2	
6"	CCS-663	11.03	8.7	14.1	12"
	CCS-690	11.30	8.9	14.4	
8"	CCS-863	13.03	10.0	16.2	16"
	CCS-905	13.45	10.4	16.6	
12"	CCS-1275	18.15	13.2	21.2	24"
	CCS-1320	18.60	13.6	21.7	
16"	CCS-1600	21.40	17.5	27.9	30"
	CCS-1740	22.80	18.5	29.4	
24"	CCS-2400	29.40	22.9	36.2	42"
	CCS-2580	30.20	24.1	38.1	
30"	CCS-3000	35.40	26.9	42.4	56"
	CCS-3200	37.40	28.3	44.5	
36"	CCS-3600	41.40	31.0	48.6	60"
	CCS-3830	43.70	32.5	51.0	

GENERAL NOTES		CONSTRUCTION STANDARD CITY UTILITIES OF SPRINGFIELD, MISSOURI	
1	FOR CASING DIAMETER SEE CHART.	<p style="text-align: center;">INSTALLATION OF WATER MAIN THROUGH STEEL CASING</p> <p>LATEST REV. DATE: 12/3/03 STANDARD NO.: WS-118 PAGE: 1</p>	
2	CONSULT CONSTRUCTION DRAWING FOR NUMBER AND TYPE OF CASING SPACERS.		
3	MAXIMUM SPACING OF 8" CASING SPACERS IS TEN FEET O.C. ON SIZES UP TO 48" DUCTILE IRON, STEEL, ASBESTOS CEMENT, AND C-900 PVC PIPES. FOR 24" AND LARGER PIPE 6' INTERVALS AND/OR 12" WIDE SPACERS SHOULD BE CONSIDERED IF THE SEPARATION BETWEEN CARRIER AND CASING IS GREATER THAN 5".		
4	FIRST AND LAST CASING SPACERS TO BE NOT MORE THAN TWELVE INCHES FROM EACH END OF CASING.		
5	CASING SHALL BE SEALED ON BOTH ENDS WITH FROTH PAK.		
6	CASING PIPE SHALL COMPLY WITH RAILROAD CASING STANDARDS.		