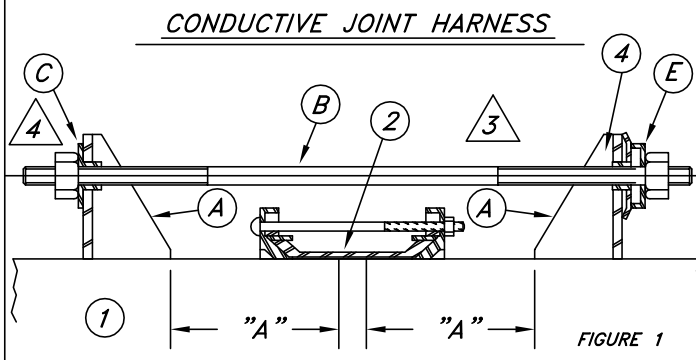


COUPLING MIDDLE RING LENGTH	STUD LENGTH	"A"
5" LONG	26" LONG	6-3/8"
7" LONG	32" LONG	8-1/2"
12" LONG	44" LONG	14-1/2"
16" LONG	44" LONG	14-1/2"



NUMBER OF JOINT HARNESSES REQUIRED BY PIPE DIAMETER, BOLT SIZE AND WORKING PRESSURE

PIPE DIAMETER	BOLT SIZE	WORKING PRESSURE												
		25	50	75	100	125	150	175	200	225	250	275	300	
2"-6"	5/8"	2	2	2	2	2	2	2	2	2	2	2	2	2
8"	5/8"	2	2	2	2	2	2	2	2	2	2	2	3	3
	3/4"	2	2	2	2	2	2	2	2	2	2	2	2	2
10"	5/8"	2	2	2	2	2	2	3	3	3	3	4	4	4
	3/4"	2	2	2	2	2	2	2	2	2	2	2	3	3
12"	5/8"	2	2	2	2	3	3	3	4	4	5	5	6	6
	3/4"	2	2	2	2	2	2	2	3	3	3	3	4	4
14"	5/8"	2	2	2	3	3	4	4	5	5	6	6	7	7
	3/4"	2	2	2	2	2	2	3	3	3	4	4	4	4
16"	5/8"	2	2	2	3	4	4	5	6	6	7	8	8	8
	3/4"	2	2	2	2	3	3	3	4	4	5	5	5	5
18"	5/8"	2	2	3	4	5	5	6	7	8	9	10	10	10
	3/4"	2	2	2	3	3	4	4	5	5	6	6	7	7
20"	5/8"	2	3	4	5	6	7	8	9	10	11	12	13	13
	3/4"	2	2	2	3	4	4	5	6	6	7	8	8	8
24"	5/8"	2	3	5	6	8	9	11	12	14	15	15	15	15
	3/4"	2	2	3	4	5	6	7	8	9	10	11	12	12
30"	5/8"	2	3	5	6	8	9	11	12	14	15	16	18	18
36"	3/4"	3	5	7	9	11	13	15	17	19	21	23	26	26



MATERIAL LIST

QTY	DESCRIPTION	STOCK NO.	QTY	DESCRIPTION	STOCK NO.
1	STEEL PIPE				
2	STEEL-TO-STEEL COMPRESSION COUPLING				
3	CONDUCTIVE JOINT HARNESS	209152			
3	INSULATING JOINT HARNESS	209148			
JOINT HARNESS INCLUDES THE FOLLOWING:					
A	2	LUGS			
B	1	STUD			
C	1	LUG ADAPTOR			
D	1	CONDUCTIVE DEFLECTION RING ASSEMBLY			
E	1	INSULATING DEFLECTION RING ASSEMBLY			

GENERAL NOTES

- 1 SPACE HARNESSES EQUALLY AROUND PIPE CIRCUMFERENCE
- 2 USE 1/4" FILLET WELD FOR 5/8" STUD; 3/8" FILLET WELD FOR 3/4" STUD. WELD ALL INSIDE & OUTSIDE EDGES.
- 3 INSERT APPROPRIATE (CONDUCTIVE OR INSULATING) DEFLECTION RING.
- 4 TIGHTEN NUTS FINGER TIGHT

CONSTRUCTION STANDARD
CITY UTILITIES
OF SPRINGFIELD, MISSOURI

JOINT
HARNESS