

PART NO.	QTY.	NAME	MATERIAL
1	2	CASING	DUCTILE IRON
2	2	BALL	DUCTILE IRON
3	1	SLEEVE	DUCTILE IRON
4	2	LOCKRING	TYPE 403 SS
5	2	RUBBER RING	SBR OR EPDM
6	2	RUBBER RING	SBR OR EPDM
7	2	CASING COVER	CR

DIMENSIONS															
SIZE	D	H OFFSET	L	ANGLE A	EXPANSION/CONTRACTION	OD	BC	ID	T	T2	FLANGE BOLT HOLES		PRESSURE (PSI)		WGT., LBS.
											QTY	DIA	WRK	TEST	
30"	43.3	7.9	79.5	±15.0°	+7.9/ -7.9	38.8	36.00	30.0	1.00	0.60	28	1.38	232	290	4,200
		11.8	90.2												4,400
		15.7	104.9												4,600
		19.7	119.6												4,900
36"	49.2	7.9	79.7	±15.0°	+8.6/ -8.6	46.0	42.75	36.0	1.10	0.63	32	1.63	232	290	6,200
		11.8	94.9												6,400
		15.7	110.1												6,600
		19.7	125.3												6,800
42"	53.3	7.9	82.0	±15.0°	+8.6/ -8.6	53.0	49.50	42.0	1.25	0.67	36	1.63	145	217	7,300
		11.8	97.2												7,700
		15.7	112.4												7,900
		19.7	127.6												8,200

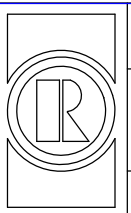
REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
0	INITIAL RELEASE	6/9/2004	DH EATON
1	PT. NO. 7 WAS SBR, EXPANSION/CONTRACTION OF 36" AND 42" WAS ±7.9"	3/9/2005	DH EATON
2	ADDED EPDM AS OPTION TO PART 5 & 6. CHANGED SHEET FORMAT TO NEW TEMPLATE. ADDED PRESSURE RATING TO TABLE.	2/20/2009	NIELS THOGERSEN
3	NAME WAS FLEXIJOINT	6/30/2011	NIELS THOGERSEN

**NOTE:**  
 1. FUSION BONDED EPOXY APPLIED TO ALL DUCTILE IRON COMPONENTS.  
 2. FLANGE COMPATIBLE WITH ANSI B16.1 CLS 125 & B16.5 CLASS 150 DRILLING.

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**UNLESS OTHERWISE SPECIFIED**  
 DIMENSIONS ARE IN INCHES  
 TOLERANCES ARE ON:  
 1 PL DECIMALS ± .020  
 2 PL DECIMALS ± .010  
 3 PL DECIMALS ± .005  
 ANGLES ± 1°  
 FRACTIONS ± 1/64

**SIGNATURES**  
 DRAWN  
 CHECKED  
 APPROVAL ORGANIZATIONS  
 ENGINEERING



**ROMAC INDUSTRIES INC.,**  
 BOTHELL, WA  
 TITLE  
**FJ-RESTRAINT, 30", 36", & 42"**  
**DOUBLE BALL, FLANGED**  
 DWG. NO. **B2294-B**    SIZE **B**    REV. NO. **3**    SCALE **NTS**    SHEET **1 OF 1**