



MASON INDUSTRIES, Inc.

MERCER RUBBER Co.

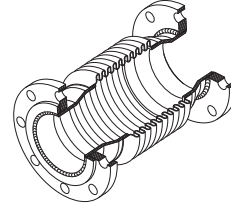
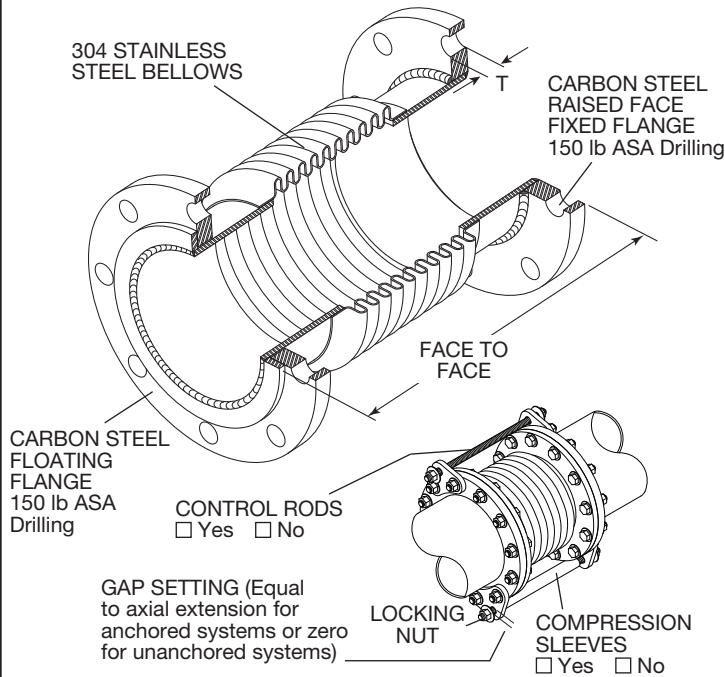
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JOB NAME \_\_\_\_\_  
 CUSTOMER \_\_\_\_\_  
 CUSTOMER P.O. \_\_\_\_\_  
 MASON M. \_\_\_\_\_  
 DWG No. \_\_\_\_\_

**EFL50**

50 psi FULL VACUUM  
 BELLOWS  
 EXPANSION  
 JOINT with FIXED  
 and FLOATING  
 FLANGES



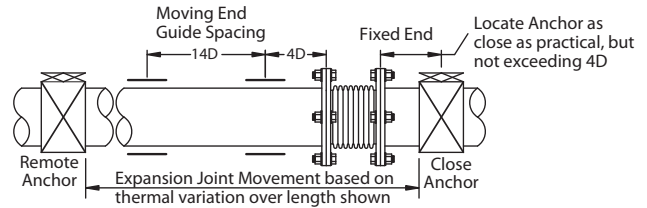
Our 4" designs use 5" stainless bellows between reducers for greater stability.

**EFL50 RATED PRESSURES @ ELEVATED TEMPERATURES**

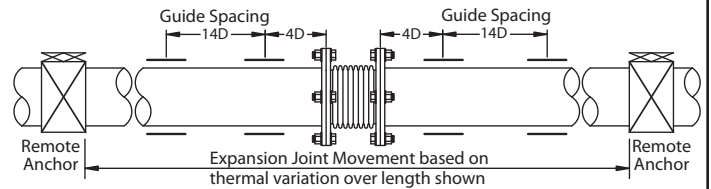
Temperature (°F)	Temperature (°C)	Rated Pressure (psi) (kg/cm <sup>2</sup> )	
200	93	46	3.2
300	149	43	3.0
400	204	39	2.7
500	260	38	2.7
800	427	37	2.6
1000	538	30	2.1
1500	816	13	0.9

**GUIDE SPACING - Referencing Pipe Diameter "D"**

**Guides and Anchors for Joint located near Anchor**



**Guides and Anchors for Joint located between Remote Anchors**



**FLANGE BOLTS and NUTS REQUIREMENT**

EFL50 Size	Quantity per End	Size & Length
4	16	5/8 x 31/4
5 & 6	16	3/4 x 31/2
8	16	3/4 x 4
10 & 12	24	7/8 x 41/4
14	24	1 x 41/2
16	32	1 x 41/2

**CARBON STEEL PLATE FLANGES**

Pipe Size (in)	Flange Thickness T (mm)	Flange Thickness T (in)
4	100	5/8 16
5 thru 6	125 thru 150	3/4 19
8 thru 16	200 thru 406	1 25

**EFL50 DIMENSIONS AND PRESSURE RATINGS 2" (50mm) COMBINED AXIAL MOVEMENT, 1/4" (6mm) LATERAL DEFLECTION**

Type & Size	Pipe Size (in) (mm)	Face to Face (in) (mm)	Axial Spring Rate (lbs/in) (kg/cm)	Lateral Spring Rate (lbs/in) (kg/cm)	Thrust <sup>1</sup> @ 50 psi (lbs) (kg)	Thrust <sup>1</sup> @ 3 kg/cm <sup>2</sup> (kg)	Rated Pressure @70°F @21°C (psi) (kg/cm <sup>2</sup> )	Ship Wt. (lbs) (kg)
EFL50-4	4 100	21 533	640 115	850 152	1400 635	635	50 3	33 15
EFL50-5	5 125	141/4 362	640 115	850 152	1400 635	635	50 3	35 16
EFL50-6	6 150	151/4 387	890 159	1400 250	1900 862	862	50 3	43 20
EFL50-8	8 200	151/2 394	1130 202	3700 661	3200 1451	1451	50 3	78 35
EFL50-10	10 250	153/4 400	1250 223	6400 1143	4800 2177	2177	50 3	100 45
EFL50-12	12 300	173/4 451	1360 243	7790 1391	6600 2994	2994	50 3	140 64
EFL50-14	14 350	181/2 470	1410 252	9450 1688	8800 3992	3992	50 3	181 82
EFL50-16	16 400	19 483	1810 323	18160 3243	11300 5126	5126	50 3	226 103

EFL may be used for 2" Expansion or 2" Compression from neutral length or any combined 2" from neutral.

i.e. (+ 11/2, - 1/2) (+ 1, - 1) (+ 1/4, - 13/4) etc. Total movement should never exceed 2".

<sup>1</sup>Lower Thrust Forces in proportion at lower pressures, i.e. 20 psi Force = 20/50 x published Thrust. Anchors must resist Thrust Force plus Spring Force. Spring Force is determined by multiplying the joint Spring Rate by its Thermal Movement (in/mm).

EFL's installed in piping systems must be anchored on both sides of the joint. EFL's installed in unanchored piping must have control rods.

When using EFL products in copper or brass water or steam systems, dielectric flanges must be used on each end to prevent leakage from galvanic action.

QTY	SIZE	TAG

QTY	SIZE	TAG