



MASON INDUSTRIES, Inc.

MERCER RUBBER Co.

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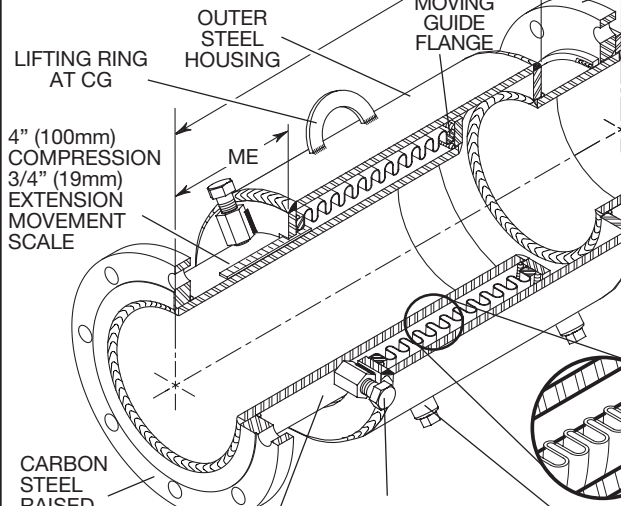
JOB NAME \_\_\_\_\_  
 CUSTOMER \_\_\_\_\_  
 CUSTOMER P.O. \_\_\_\_\_  
 MASON M. \_\_\_\_\_  
 DWG No. \_\_\_\_\_

# HEJFFL4

4" (100mm) Movement  
**HOUSED**  
**EXPANSION JOINT**  
 with **FIXED** and  
**FLOATING FLANGES**

Bellows are externally pressurized.  
 3.5 Minimum Safety Factor for both  
 Bellows and Housing.

Vacuum Rating is 30 in (762mm) Hg



CARBON STEEL  
 FLOATING FLANGE  
 150 lb ASA Drilling  
 or as checked below

- ASA-300
- DIN 10
- DIN 16
- DIN 25

FLOATING  
 FLANGE  
 RETAINER  
 prevents  
 smashed  
 fingers

4" (100mm)  
 COMPRESSION  
 3/4" (19mm)  
 EXTENSION  
 MOVEMENT  
 SCALE

CARBON  
 STEEL  
 RAISED  
 FACE FIXED  
 FLANGE  
 150 lb ASA  
 Drilling or  
 as checked

**LOCKING BOLTS**  
 Release after installation

HEJ Size	Bolt No & Size
2"	2 - 3/8"
2 1/2" - 3"	2 - 1/2"
4" - 6"	3 - 5/8"
8" - 14"	3 - 3/4"

**DRAIN PORT**  
 (Coupling and Plug)

HEJ Size	Plug Size
2" - 3"	3/8"
4" - 14"	1/2"

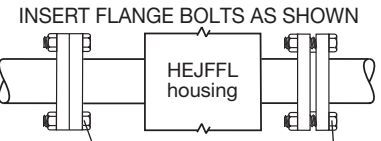
Drain Plugs are often removed to allow attachment of  
 drain hose or steam trap for blow down or drainage.

**CARBON STEEL PLATE FLANGE**

Pipe Size (in)	Pipe Size (mm)	Flange Thickness T (in)	Flange Thickness T (mm)
2 thru 4	20 thru 100	5/8	16
5 thru 6	125 thru 150	3/4	19
8 thru 14	200 thru 350	1	25

**FLANGE BOLT and NUT REQUIREMENT (by Others)**

HEJFFL4 Size	Quantity	Size & Length
2 & 2 1/2	8	5/8 x 3
3	8	5/8 x 3 1/4
4	16	5/8 x 3 1/4
5 & 6	16	3/4 x 3 1/2
8	16	3/4 x 4
10	24	7/8 x 4 1/4
12	24	7/8 x 4 1/4
14	24	1 x 4 1/2



HEAD AT FIXED FLANGE- INSIDE      HEAD AT FLOATING FLANGE- PIPE SIDE

**PRESSURE REDUCTION TABLE**

Temperature (°F)	Temperature (°C)	Rated Pressure (psi)	Rated Pressure (kg/cm²)
200	93	205	14.4
250	121	198	13.9
300	149	191	13.4
400	204	176	12.4
500	260	173	12.2
600	316	171	12.0
700	371	167	11.7
800	427	Not Recommended	

**HEJFFL4 DIMENSIONS AND PRESSURE RATINGS (American & Metric Units) 4" (100mm) COMPRESSION, 3/4" (19mm) EXTENSION**

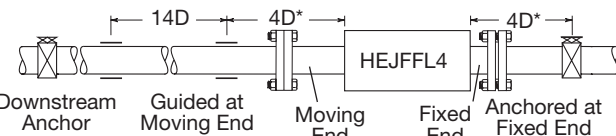
Type & Size	Pipe Size (in) (mm)	Overall Length (in) (mm)	ME Moving End Neutral Length (in) (mm)		FE Fixed End Length (in) (mm)		Outer Housing O.D. (in) (mm)	Nominal Bellows Clearance (in) (mm)		Spring Rate (lbs/in) (kg/cm)	Thrust <sup>1</sup> @ 225 psi (15.5 bar) (lbs) (kg)		Rated Pressure @70°F @21°C (psi) (kg/cm²)	Ship Wt. (lbs) (kg)
			(in) (mm)	(in) (mm)	(in) (mm)	(in) (mm)		Inside (in) (mm)	Outside (in) (mm)		(lbs) (kg)	(psi) (kg/cm²)		
HEJFFL4-2	2 50	26 1/2 673	83/8 213	31/8 79	59/16 141	0.39 10	0.39 10	165 30	2500	1134	225 16	61 28		
HEJFFL4-2 1/2	2 1/2 65	26 1/2 673	83/8 213	31/8 79	59/16 141	0.25 6	0.25 6	235 42	2700	1225	225 16	66 30		
HEJFFL4-3	3 80	26 1/2 673	83/8 213	31/8 79	65/8 168	0.32 8	0.33 8	240 43	3900	1769	225 16	85 39		
HEJFFL4-4	4 100	26 1/2 673	83/8 213	31/8 79	85/8 219	0.49 12	0.35 9	300 54	6900	3130	225 16	120 54		
HEJFFL4-5	5 125	28 1/2 723	83/8 213	41/8 105	95/8 244	0.39 10	0.41 10	400 72	9500	4309	225 16	125 57		
HEJFFL4-6	6 150	28 1/2 723	83/8 213	41/8 105	103/4 273	0.39 10	0.39 10	500 90	12600	5715	225 16	200 91		
HEJFFL4-8	8 200	28 1/2 723	83/8 213	41/8 105	123/4 384	0.39 10	0.39 10	600 107	19000	8618	225 16	275 125		
HEJFFL4-10	10 250	28 1/2 723	83/8 213	41/8 105	16 406	0.53 13	0.53 13	800 143	30000	13608	225 16	350 159		
HEJFFL4-12	12 300	28 1/2 723	83/8 213	41/8 105	18 457	0.42 11	0.41 10	1175 210	40000	18144	225 16	450 204		
HEJFFL4-14	14 350	30 762	83/8 213	41/8 105	20 500	0.43 11	0.42 11	1400 250	64000	29030	225 16	580 263		

<sup>1</sup>Lower Thrust Forces in proportion at lower pressures, i.e. 100 psi Force = 100/225 x published Thrust. Forces on Pipe Anchors must include Thrust Force and Spring Force. Spring Force is determined by multiplying the joint Spring Rate by its Thermal Movement. (in/mm)

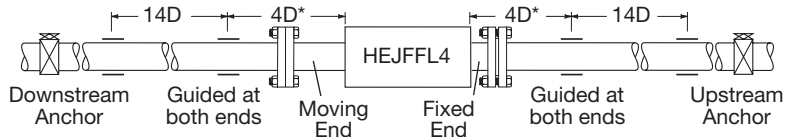
HEJ's installed in piping systems must be anchored on both sides of the joint. HEJ's installed in unanchored piping must have control rods. When using HEJFFL products in copper or brass water or steam systems, dielectric flanges must be used on each end to prevent leakage from galvanic action.

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

Guides and Anchor for HEJFFL4 located near Anchor



Guides and Anchors for HEJFFL4 located between Anchors



\*Plus an additional 5" (125mm) for Sizes 2 & 2 1/2

QTY	SIZE	TAG

QTY	SIZE	TAG