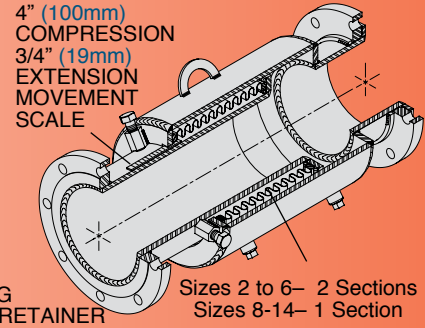
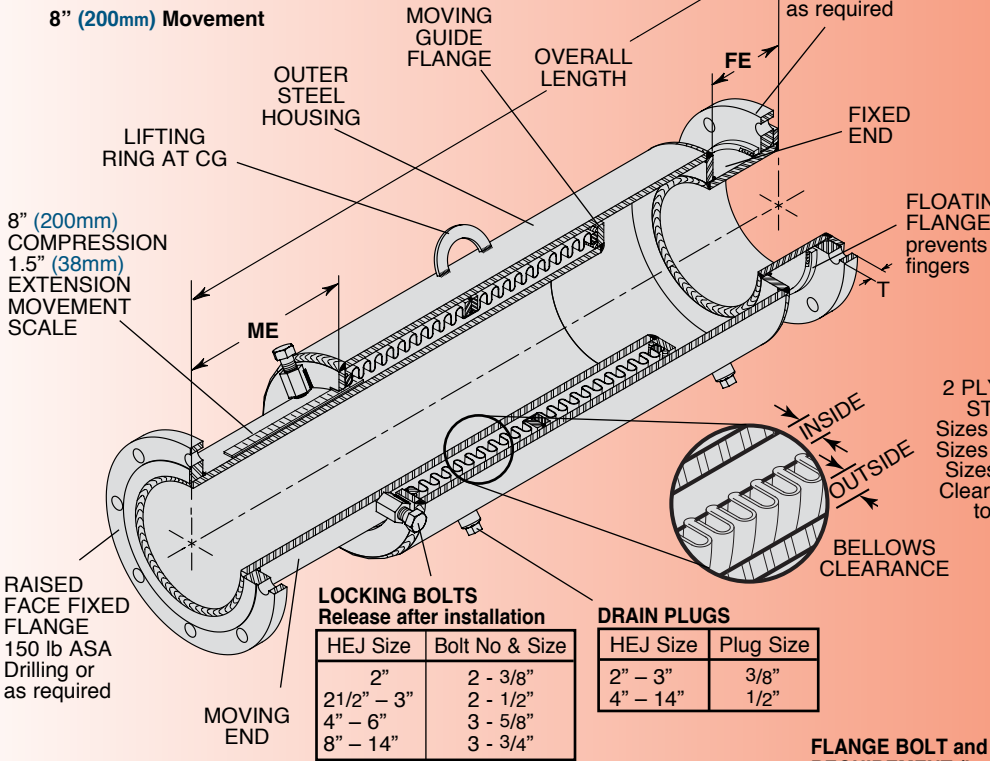


# HEJFFL

**HOUSED EXPANSION JOINT with FIXED and FLOATING FLANGES**

## HEJFFL8 8" (200mm) Movement



## HEJFFL4 4" (100mm) Movement

2 PLY 304 STAINLESS STEEL BELLOWS  
 Sizes 2 to 3- 4 Sections  
 Sizes 4 to 6- 3 Sections  
 Sizes 8-14- 2 Sections  
 Clearance on both sides to eliminate wear

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

Vacuum Rating is 30 in (762mm) Hg

### 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 PLUGS

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

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

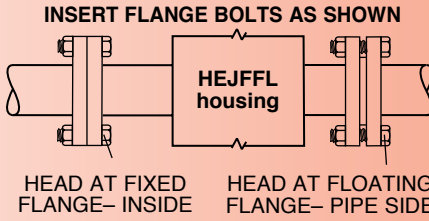
HEJFFL Size	Quantity	Size & Length
2 & 2 1/2	8	5/8 x 3
3	8	5/8 x 3 1/4
4	16	5/8 x 3 1/4
5 & 6	16	3/4 x 3 1/2
8	16	3/4 x 4
10	24	3/4 x 4
12	24	7/8 x 4 1/4
14	24	1 x 4 1/2

### PRESSURE REDUCTION TABLE

Temperature (°F) (°C)		Rated Pressure (psi)(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	

### CARBON STEEL PLATE FLANGE

Pipe Size (in)	Flange Thickness T (in)(mm)
2 thru 4	5/8 16
5 thru 6	3/4 19
8 thru 14	1 25



### HEJFFL4 DIMENSIONS AND PRESSURE RATINGS (British & 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>†</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)		Inside	Outside	(in)	(mm)	(in)	(mm)									
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	50	23
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	51	23
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	65	29
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	87	39
HEJFFL4-5	5	125	28 1/2	723	83/8	213	4 1/8	105	95/8	244	0.39	10	0.41	10	400	72	9500	4309	225	16	90	41
HEJFFL4-6	6	150	28 1/2	723	83/8	213	4 1/8	105	103/4	273	0.39	10	0.39	10	500	90	12600	5715	225	16	137	62
HEJFFL4-8	8	200	28 1/2	723	83/8	213	4 1/8	105	123/4	384	0.39	10	0.39	10	600	107	19000	8618	225	16	180	82
HEJFFL4-10	10	250	28 1/2	723	83/8	213	4 1/8	105	16	406	0.53	13	0.53	13	800	143	30000	13608	225	16	230	104
HEJFFL4-12	12	300	28 1/2	723	83/8	213	4 1/8	105	18	457	0.42	11	0.41	10	1175	210	40000	18144	225	16	273	124
HEJFFL4-14	14	350	30	762	83/8	213	4 1/8	105	20	500	0.43	11	0.42	11	1400	250	64000	29030	225	16	320	145

### HEJFFL8 DIMENSIONS AND PRESSURE RATINGS (British & Metric Units) 8" (200mm) COMPRESSION, 1.5" (38mm) 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>†</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)		Inside	Outside	(in)	(mm)	(in)	(mm)									
HEJFFL8-2	2	50	43	1092	107/8	276	31/8	79	59/16	141	0.39	10	0.39	10	83	15	2500	1134	225	16	50	23
HEJFFL8-2 1/2	2 1/2	65	43	1092	107/8	276	31/8	79	59/16	141	0.25	6	0.25	6	118	21	2700	1225	225	16	51	23
HEJFFL8-3	3	80	43	1092	107/8	276	31/8	79	65/8	168	0.32	8	0.33	8	120	22	3900	1769	225	16	65	29
HEJFFL8-4	4	100	43	1092	107/8	276	31/8	79	85/8	219	0.49	12	0.35	9	150	27	6900	3130	225	16	87	39
HEJFFL8-5	5	125	47	1194	127/8	327	4 1/8	105	95/8	244	0.39	10	0.41	10	200	36	9500	4309	225	16	90	41
HEJFFL8-6	6	150	47	1194	127/8	327	4 1/8	105	103/4	273	0.39	10	0.39	10	250	45	12600	5715	225	16	137	62
HEJFFL8-8	8	200	47	1194	127/8	327	4 1/8	105	123/4	384	0.39	10	0.39	10	300	54	19000	8618	225	16	180	82
HEJFFL8-10	10	250	47	1194	127/8	327	4 1/8	105	16	406	0.53	13	0.53	13	400	72	30000	13608	225	16	230	104
HEJFFL8-12	12	300	47	1194	127/8	327	4 1/8	105	18	457	0.42	11	0.41	10	588	105	40000	18144	225	16	273	124
HEJFFL8-14	14	350	50	1270	127/8	327	4 1/8	105	20	500	0.43	11	0.42	11	700	125	64000	29030	225	16	320	145

<sup>†</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).

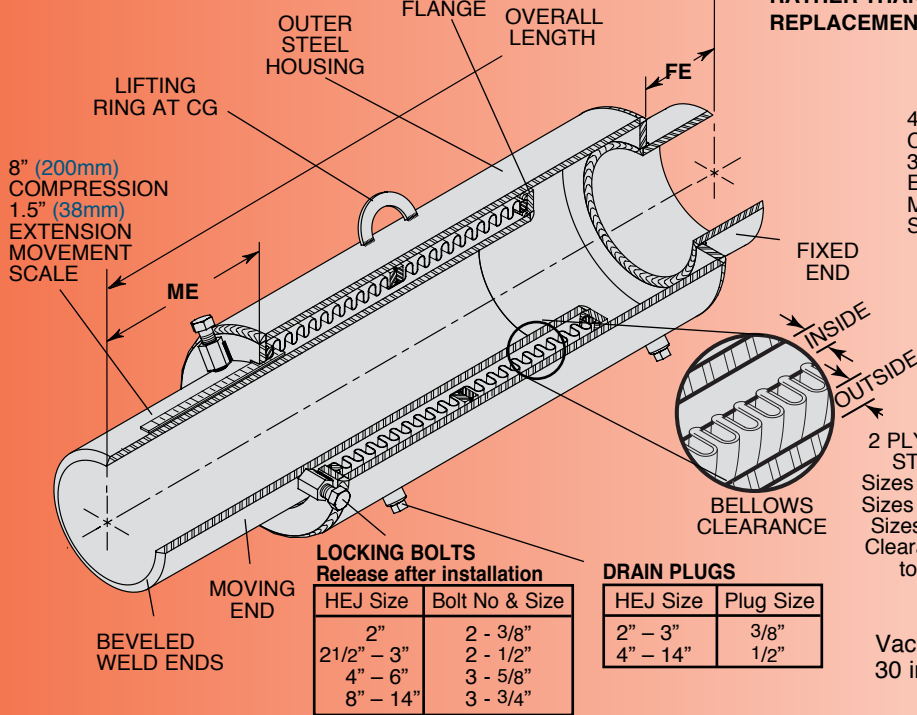
Bellows are externally pressurized. 3.5 Minimum Safety Factor for both Bellows and Housing.

# HEJW

**HOUSED EXPANSION JOINT with WELD ENDS**

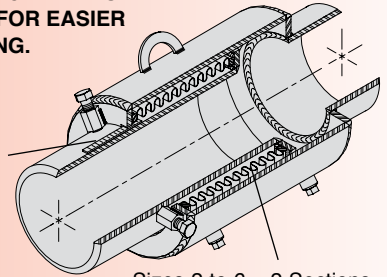
## HEJW8

8" (200mm) Movement



**MASON RECOMMENDS FLANGED ENDS RATHER THAN WELD ENDS FOR EASIER REPLACEMENT OR SERVICING.**

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



Sizes 2 to 6- 2 Sections  
Sizes 8-14- 1 Section

## HEJW4

4" (100mm) Movement

2 PLY 304 STAINLESS STEEL BELLOWS  
Sizes 2 to 3- 4 Sections  
Sizes 4 to 6- 3 Sections  
Sizes 8-14- 2 Sections  
Clearance on both sides to eliminate wear

### PRESSURE REDUCTION TABLE

Temperature (°F) (°C)		Rated Pressure (psi)(kg/cm <sup>2</sup> )	
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	

Vacuum Rating is 30 in (762mm) Hg

### HEJW4 DIMENSIONS AND PRESSURE RATINGS (British & Metric Units) 4" (100mm) COMPRESSION, 3/4" (19mm) EXTENSION

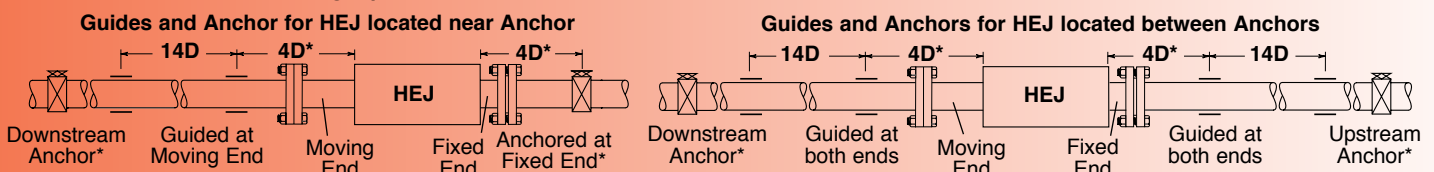
Type & Size	Pipe Size (in) (mm)		Overall Length (in) (mm)		ME Moving End Neutral Length (in) (mm)		FE Fixed End Length (in) (mm)		Outer Housing O.D. (in) (mm)		Nominal Bellows Clearance (in) (mm)		Spring Rate (lbs/in) (kg/cm)		Thrust <sup>1</sup> @ 225 psi 15.5 bar (lbs) (kg)		Rated Pressure @70°F @21°C (psi) (kg/cm <sup>2</sup> )		Ship Wt. (lbs)(kg)			
											Inside	Outside										
HEJW4-2	2	50	22	559	51/2	140	11/2	38	59/16	141	0.39	10	0.39	10	165	30	2500	1134	225	16	50	23
HEJW4-21/2	2 1/2	65	22	559	51/2	140	11/2	38	59/16	141	0.25	6	0.25	6	235	42	2700	1225	225	16	51	23
HEJW4-3	3	80	22	559	51/2	140	11/2	38	65/8	168	0.32	8	0.33	8	240	43	3900	1769	225	16	65	29
HEJW4-4	4	100	24 1/2	622	6	152	1 1/2	38	85/8	219	0.49	12	0.35	9	300	54	6900	3130	225	16	87	39
HEJW4-5	5	125	24 1/2	622	6	152	2 1/2	64	95/8	244	0.39	10	0.41	10	400	72	9500	4309	225	16	90	41
HEJW4-6	6	150	24 1/2	622	6	152	2 1/2	64	103/4	273	0.39	10	0.39	10	500	90	12600	5715	225	16	137	62
HEJW4-8	8	200	24 1/2	622	6	152	2 1/2	64	123/4	384	0.39	10	0.39	10	600	107	19000	8618	225	16	180	82
HEJW4-10	10	250	24 1/2	622	6	152	2 1/2	64	16	406	0.53	13	0.53	13	800	143	30000	13608	225	16	230	104
HEJW4-12	12	300	24 1/2	622	6	152	2 1/2	64	18	457	0.42	11	0.41	10	1175	210	40000	18144	225	16	273	124
HEJW4-14	14	350	26	660	6	152	2 1/2	64	20	500	0.43	11	0.42	11	1400	250	64000	29030	225	16	320	145

### HEJW8 DIMENSIONS AND PRESSURE RATINGS (British & Metric Units) 8" (200mm) COMPRESSION, 1.5" (38mm) 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/cm <sup>2</sup> )		Ship Wt. (lbs)(kg)			
											Inside	Outside										
HEJW8-2	2	50	40	1016	91/2	241	1 1/2	38	59/16	141	0.39	10	0.39	10	83	15	2500	1134	225	16	50	23
HEJW8-21/2	2 1/2	65	40	1016	91/2	241	1 1/2	38	59/16	141	0.25	6	0.25	6	118	21	2700	1225	225	16	51	23
HEJW8-3	3	80	40	1016	91/2	241	1 1/2	38	65/8	168	0.32	8	0.33	8	120	22	3900	1769	225	16	65	29
HEJW8-4	4	100	40	1016	91/2	241	1 1/2	38	85/8	219	0.49	12	0.35	9	150	27	6900	3130	225	16	87	39
HEJW8-5	5	125	42 1/2	1080	10	254	2 1/2	64	95/8	244	0.39	10	0.41	10	200	36	9500	4309	225	16	90	41
HEJW8-6	6	150	42 1/2	1080	10	254	2 1/2	64	103/4	273	0.39	10	0.39	10	250	45	12600	5715	225	16	137	62
HEJW8-8	8	200	42 1/2	1080	10	254	2 1/2	64	123/4	384	0.39	10	0.39	10	300	54	19000	8618	225	16	180	82
HEJW8-10	10	250	42 1/2	1080	10	254	2 1/2	64	16	406	0.53	13	0.53	13	400	72	30000	13608	225	16	230	104
HEJW8-12	12	300	42 1/2	1080	10	254	2 1/2	64	18	457	0.42	11	0.41	10	588	105	40000	18144	225	16	273	124
HEJW8-14	14	350	45 1/2	1156	10	254	2 1/2	64	20	500	0.43	11	0.42	11	700	125	64000	29030	225	16	320	145

<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).

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



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