



MASON INDUSTRIES, Inc.

MERCER RUBBER Co.

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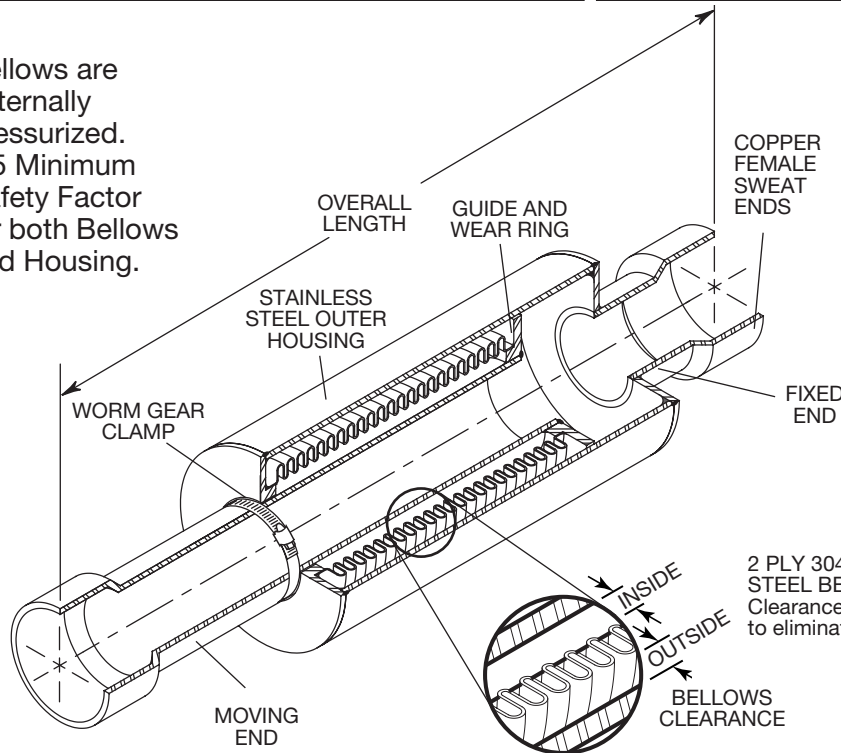


JOB NAME \_\_\_\_\_  
 CUSTOMER \_\_\_\_\_  
 CUSTOMER P.O. \_\_\_\_\_  
 MASON M. \_\_\_\_\_  
 DWG No. \_\_\_\_\_

**ECCPS**

2" (50mm) Movement  
**EXPANSION  
 COMPENSATOR with  
 COPPER SWEAT  
 ENDS**

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



**INSTALLATION:**

1. Thoroughly clean male and female ends using steel wool and steel brushes.
2. Apply flux.
3. Heat joint for proper flow of silver solder. Silver solder flows around 430°F. Composition is silver and tin only. There should be no lead content.
4. Use caution with brazing rod or other high temperature techniques. Overheating will cause leaks.
5. Remove Worm Gear Clamp.

**PRESSURE REDUCTION TABLE**

Temperature (°F) (°C)	Rated Pressure (psi)(kg/cm <sup>2</sup> )	
200 93	188	13.0
250 121	184	12.7
300 149	176	12.1
400 204	166	11.4
500 260	156	10.8
600 316	148	10.2
700 371	140	9.7
800 427	Not Recommended	

Vacuum Rating is 30 in (762mm) Hg

**ECCPS DIMENSIONS AND PRESSURE RATINGS (American & Metric Units) 2" (50mm) COMPRESSION, 1/2" (13mm) EXTENSION**

Type & Size	Tubing Size <sup>††</sup> (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> @ 200 psi (lbs) (kg)		Rated Pressure @70°F @21°C (psi) (kg/cm <sup>2</sup> )		Ship Wt. (lbs)(kg)			
ECCPS-3/4	3/4 20	111/2	292	31/8	79	15/8	40	2	51	0.17	4	0.11	3	23	4	320	145	200	14	2	1
ECCPS-1	1 25	111/2	292	31/8	79	15/8	40	2	51	0.22	6	0.13	3	44	8	520	236	200	14	2	1
ECCPS-11/4	11/4 32	12	305	31/2	89	13/4	44	23/4	70	0.20	5	0.22	6	50	9	630	286	200	14	3	2
ECCPS-11/2	11/2 40	12	305	31/2	89	13/4	44	23/4	70	0.17	4	0.20	5	98	18	750	340	200	14	4	2
ECCPS-2	2 50	121/4	311	33/4	95	13/4	44	31/2	89	0.16	4	0.13	3	168	30	1160	526	200	14	5	2
ECCPS-21/2	21/2 65	131/4	337	41/4	108	21/8	54	4	102	0.20	5	0.22	6	195	35	1810	821	200	14	6	3
ECCPS-3	3 80	131/4	337	41/4	108	21/8	54	41/4	108	0.21	5	0.28	7	316	57	2440	1107	200	14	7	3
ECCPS-4	4 100	141/2	368	43/8	111	21/2	64	6	152	0.14	4	0.30	8	350	63	3700	1678	200	14	25	11

<sup>††</sup>Female end fits over copper tubing, e.g. 11/2" (40mm) fits over 11/2" (40mm) tubing.

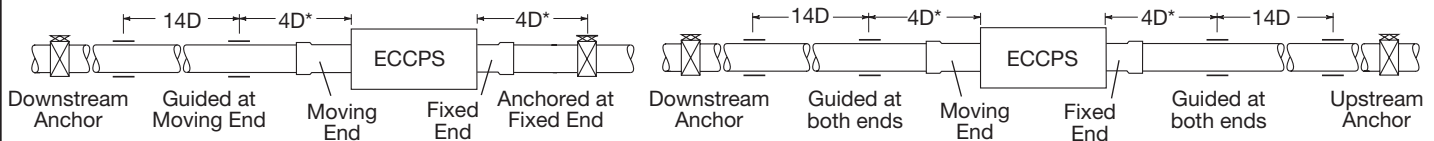
<sup>†††</sup>Lower Thrust Forces in proportion at lower pressures, i.e. 100 psi Force = 100/200 x published Thrust. Forces on Pipe Anchors must include Thrust Force and Spring Force. Spring Force is determined by multiplying the joint Spring Rate by its Thermal Movement. (in/mm)

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

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

Guides and Anchor for ECCPS located near Anchor

Guides and Anchors for ECCPS located between Anchors



\*Plus an additional 3" (76mm) for Sizes 3/4" to 21/2"

QTY	SIZE	TAG

QTY	SIZE	TAG