



MASON INDUSTRIES, Inc.

MERCER RUBBER Co.

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

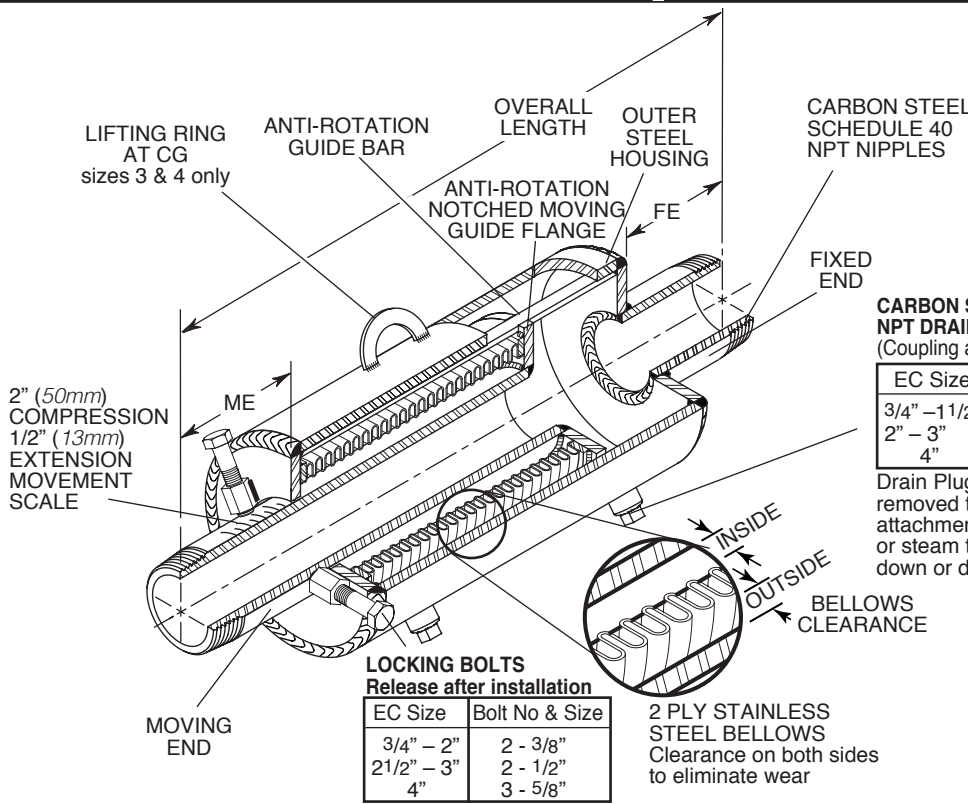
**ECMN**

2" (50mm) Movement  
 EXPANSION  
 COMPENSATORS  
 with CARBON STEEL  
 THREADED NIPPLES

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

**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



**CARBON STEEL NPT DRAIN PORT (Coupling and Plug)**

EC Size	Plug Size
3/4" - 1 1/2"	1/4"
2" - 3"	3/8"
4"	1/2"

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

**LOCKING BOLTS Release after installation**

EC Size	Bolt No & Size
3/4" - 2"	2 - 3/8"
2 1/2" - 3"	2 - 1/2"
4"	3 - 5/8"

2 PLY STAINLESS STEEL BELLOWS Clearance on both sides to eliminate wear

Full Vacuum Rating- 30" (762mm) Hg

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

Type & Size	Pipe Size (in) (mm)	Overall Length (in) (mm)	ME		FE		Outer Housing O.D. (in) (mm)	Nominal Bellows Clearance		Spring Rate (lbs/in) (kg/cm)	Thrust* @ 200 psi (lbs) (kg)	Thrust* @ 13.8 bar (psi) (kg/cm <sup>2</sup> )	Rated Pressure @ 70°F @ 21°C (psi) (kg/cm <sup>2</sup> )	Ship Wt. (lbs) (kg)
			Neutral Length (in) (mm)	Moving End Length (in) (mm)	Fixed End Length (in) (mm)	Inside (in) (mm)		Outside (in) (mm)						
ECMN-3/4	3/4 20	12 1/2 318	3 3/4 95	15/8 41	15/8 41	27/8 73	0.10 3	0.43 11	89 16	350 159	200 14	7 3		
ECMN-1	1 25	12 1/2 318	3 3/4 95	15/8 41	15/8 41	3 1/2 89	0.13 3	0.55 14	95 17	500 227	200 14	10 4		
ECMN-1 1/4	1 1/4 32	13 330	4 102	17/8 48	17/8 48	4 102	0.15 4	0.47 12	103 18	800 363	200 14	11 5		
ECMN-1 1/2	1 1/2 40	13 330	4 102	17/8 48	17/8 48	4 1/2 114	0.17 4	0.46 12	106 19	1100 499	200 14	13 6		
ECMN-2	2 50	13 1/2 343	4 1/8 105	2 1/8 54	2 1/8 54	5 1/4 133	0.17 4	0.52 13	110 20	1600 726	200 14	16 7		
ECMN-2 1/2	2 1/2 65	14 1/4 362	4 3/8 111	2 1/4 57	2 1/4 57	6 1/4 159	0.24 6	0.53 14	126 23	2400 1089	200 14	23 10		
ECMN-3	3 80	14 3/4 375	4 1/2 114	2 1/2 64	2 1/2 64	6 5/8 168	0.32 8	0.37 9	140 25	3500 1588	200 14	32 15		
ECMN-4	4 100	14 3/4 375	4 1/2 114	2 1/2 64	2 1/2 64	8 5/8 219	0.33 8	0.81 21	150 27	5200 2359	200 14	50 23		

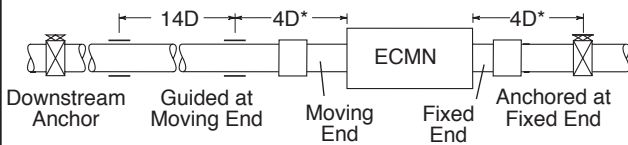
\*Lower Thrust Forces in proportion at lower pressures, i.e. 100 psi Force = 100/200 x published Thrust. Forces on Pipe Anchors must include Thrust Force and Spring Force. Spring Force is determined by multiplying the joint Spring Rate by its Thermal Movement. (in/mm)

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.

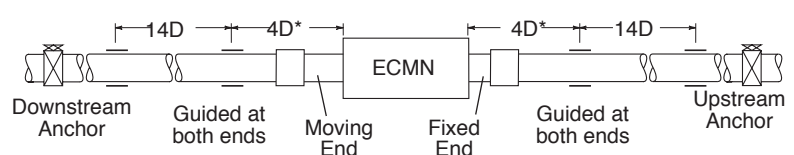
When using ECMN products in copper or brass water or steam systems, dielectric unions must be used on each end to prevent leakage from galvanic action.

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

Guides and Anchor for ECMN located near Anchor



Guides and Anchors for ECMN located between Anchors



\*Plus an additional 3" (76mm) for Sizes 3/4" to 2 1/2"

QTY	SIZE	TAG

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