



MASON INDUSTRIES, Inc.

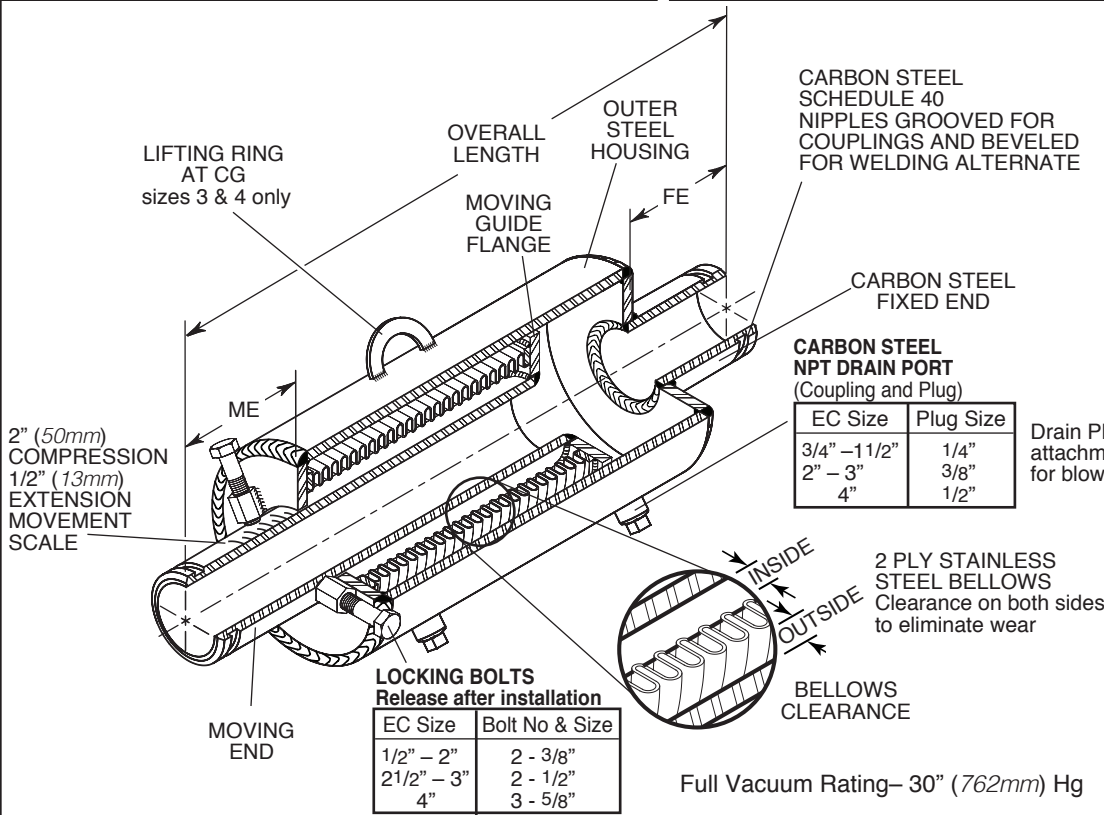
MERCER RUBBER Co.

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

**ECGWN**  
 2" (50mm) Movement  
**EXPANSION COMPENSATOR** with  
**CARBON STEEL GROOVED WELD NIPPLES**



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

CARBON STEEL SCHEDULE 40 NIPPLES GROOVED FOR COUPLINGS AND BEVELED FOR WELDING ALTERNATE

CARBON STEEL FIXED END

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.

**PRESSURE REDUCTION TABLE**

Temperature (°F) (°C)	Rated Pressure (psi)(kg/cm²)
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

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

BELLOWS CLEARANCE

LOCKING BOLTS Release after installation

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

Full Vacuum Rating- 30" (762mm) Hg

**ECGWN 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 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 @ 200 psi (13.8 bar) (lbs) (kg)		Rated Pressure @70°F @21°C (psi) (kg/cm²)	Ship Wt. (lbs)(kg)					
		(in)	(mm)	(in)	(mm)	(in)	(mm)		(in)	(mm)	(in)	(mm)	(in)	(mm)							
ECGWN-3/4	3/4 20	12 1/2	318	3 3/4	95	1 5/8	41	27 7/8	73	0.10	3	0.43	11	89	16	350	159	200	14	7	3
ECGWN-1	1 25	12 1/2	318	3 3/4	95	1 5/8	41	31 1/2	89	0.13	3	0.55	14	95	17	500	227	200	14	9	4
ECGWN-1 1/4	1 1/4 32	13	330	4	102	1 7/8	48	4	102	0.15	4	0.47	12	103	18	800	363	200	14	10	5
ECGWN-1 1/2	1 1/2 40	13	330	4	102	1 7/8	48	4 1/2	114	0.17	4	0.46	12	106	19	1100	499	200	14	13	6
ECGWN-2	2 50	13 1/2	343	4 1/8	105	2 1/4	57	5 1/4	133	0.17	4	0.52	13	110	20	1600	726	200	14	17	8
ECGWN-2 1/2	2 1/2 65	14 1/4	362	4 3/8	111	2 1/4	57	6 1/4	159	0.24	6	0.53	14	126	23	2400	1089	200	14	24	11
ECGWN-3	3 80	14 3/4	375	4 1/2	114	2 1/2	64	6 5/8	168	0.32	8	0.37	9	140	25	3500	1588	200	14	33	15
ECGWN-4	4 100	14 3/4	375	4 1/2	114	2 1/2	64	8 5/8	219	0.33	8	0.81	21	150	27	5200	2359	200	14	50	23

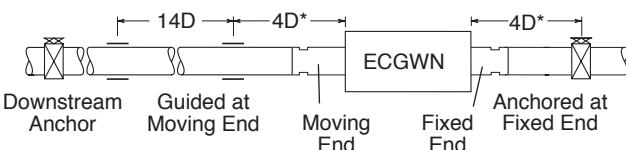
Lower Thrust Forces in proportion at lower pressures, i.e. 100 psi Force = 100/200 x published Thrust. Forces on Pipe Anchors must include Thrust Force and Spring Force. Spring Force is determined by multiplying the joint Spring Rate by its Thermal Movement. (in/mm)

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.

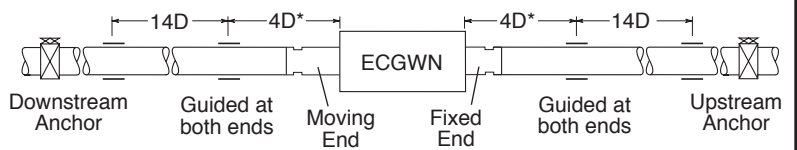
When using ECGWN products in copper or brass water or steam systems, dielectric couplings must be used on each end to prevent leakage from galvanic action.

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

Guides and Anchor for ECGWN located near Anchor



Guides and Anchors for ECGWN located between Anchors



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

QTY	SIZE	TAG

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