



MASON INDUSTRIES, Inc.

MERCER RUBBER Co.

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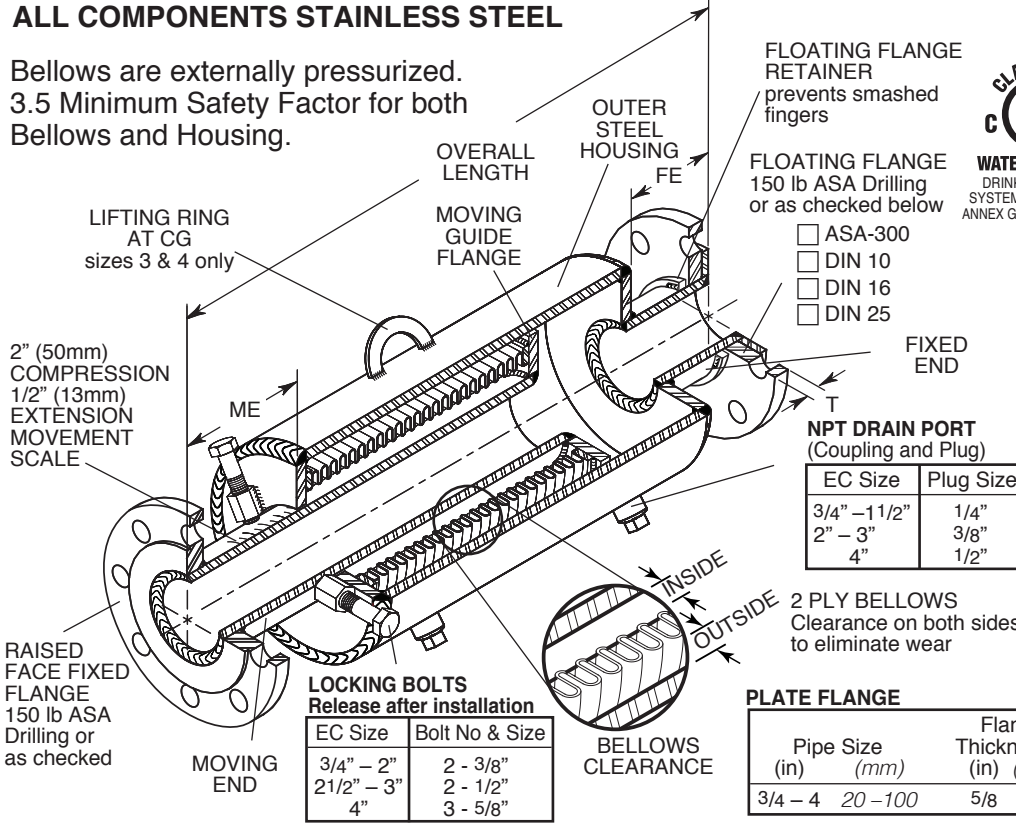
JOB NAME \_\_\_\_\_  
 CUSTOMER \_\_\_\_\_  
 CUSTOMER P.O. \_\_\_\_\_  
 MASON M. \_\_\_\_\_  
 DWG No. \_\_\_\_\_

**ECFFL-SS-NSF**

2" (50mm) Movement  
 SS EXPANSION  
 COMPENSATOR  
 with FIXED  
 & FLOATING  
 FLANGES

**ALL COMPONENTS STAINLESS STEEL**

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

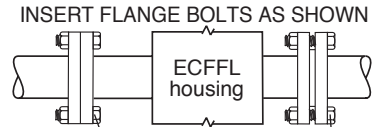


**FLANGE BOLT and NUT REQUIREMENT (by Others)**

| ECFFL Size | Quantity | Size & Length |
|------------|----------|---------------|
| 3/4        | 8        | 1/2 x 21/2    |
| 1          | 8        | 1/2 x 21/2    |
| 1 1/4      | 8        | 1/2 x 21/2    |
| 1 1/2      | 8        | 1/2 x 23/4    |
| 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   |



FLLOATING FLANGE RETAINER prevents smashed fingers  
 FLLOATING FLANGE 150 lb ASA Drilling or as checked below  
 ASA-300  
 DIN 10  
 DIN 16  
 DIN 25



INSERT FLANGE BOLTS AS SHOWN  
 HEAD AT FIXED FLANGE- INSIDE HEAD AT FLOATING FLANGE- PIPE SIDE  
 Drain Plugs are often removed to allow attachment of drain hose for blow down or drainage.

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

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

2 PLY BELLWS Clearance on both sides to eliminate wear

Conforms to UL and ANSI/NSF 61 Approved Temperature Range.

**PLATE FLANGE**

| Pipe Size (in) | Flange Thickness T (in) |
|----------------|-------------------------|
| 3/4 - 4        | 20 - 100                |
|                | 5/8 16                  |

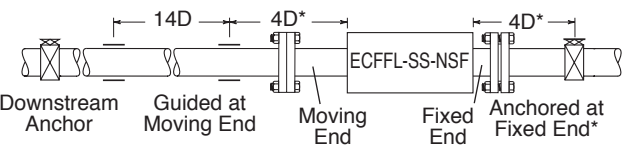
Full Vacuum Rating- 30" (762mm) Hg

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

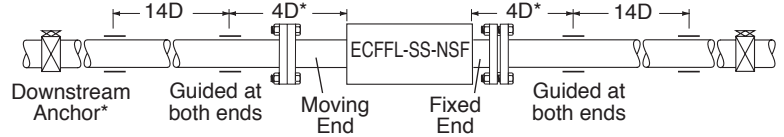
| Pipe Size (in) | Overall Length (in) | ME (in)        |        | FE (in) |        | Outer Housing O.D. (in) |         | Nominal Bellows Clearance (in) |      | Spring Rate (lbs/in) | Thrust @ 200 psi (lbs) |      | Rated Pressure @ 70°F (psi) | Ship Wt. (lbs) |    |      |      |     |    |    |    |
|----------------|---------------------|----------------|--------|---------|--------|-------------------------|---------|--------------------------------|------|----------------------|------------------------|------|-----------------------------|----------------|----|------|------|-----|----|----|----|
|                |                     | Neutral Length | Length | Length  | Length | Inside                  | Outside | 13.8                           | 13.8 |                      |                        |      |                             |                |    |      |      |     |    |    |    |
| 3/4            | 20                  | 12 1/2         | 318    | 31/2    | 89     | 13/4                    | 44      | 27/8                           | 73   | 0.10                 | 3                      | 0.43 | 11                          | 89             | 16 | 350  | 159  | 200 | 14 | 11 | 5  |
| 1              | 25                  | 12 1/2         | 318    | 31/2    | 89     | 13/4                    | 44      | 31/2                           | 89   | 0.13                 | 3                      | 0.55 | 14                          | 95             | 17 | 500  | 227  | 200 | 14 | 14 | 6  |
| 1 1/4          | 32                  | 13             | 330    | 33/4    | 95     | 2                       | 51      | 4                              | 102  | 0.15                 | 4                      | 0.47 | 12                          | 103            | 18 | 800  | 363  | 200 | 14 | 15 | 7  |
| 1 1/2          | 40                  | 13             | 330    | 33/4    | 95     | 2                       | 51      | 4 1/2                          | 114  | 0.17                 | 4                      | 0.46 | 12                          | 106            | 19 | 1100 | 499  | 200 | 14 | 19 | 9  |
| 2              | 50                  | 13 1/2         | 343    | 41/8    | 105    | 2 1/8                   | 54      | 5 1/4                          | 133  | 0.17                 | 4                      | 0.52 | 13                          | 110            | 20 | 1600 | 726  | 200 | 14 | 24 | 11 |
| 2 1/2          | 65                  | 14 1/4         | 362    | 4 1/4   | 108    | 2 1/4                   | 57      | 6 1/4                          | 159  | 0.24                 | 6                      | 0.53 | 14                          | 126            | 23 | 2400 | 1089 | 200 | 14 | 35 | 16 |
| 3              | 80                  | 14 3/4         | 375    | 4 1/2   | 115    | 2 1/2                   | 64      | 6 5/8                          | 168  | 0.32                 | 8                      | 0.37 | 9                           | 140            | 25 | 3500 | 1588 | 200 | 14 | 47 | 21 |
| 4              | 100                 | 14 3/4         | 375    | 4 1/2   | 115    | 2 1/2                   | 64      | 8 5/8                          | 219  | 0.33                 | 8                      | 0.81 | 21                          | 150            | 27 | 5200 | 2359 | 200 | 14 | 70 | 32 |

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 ECFFL-SS-NSF products in copper or brass water 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 ECFFL-SS-NSF located near Anchor



Guides and Anchors for ECFFL-SS-NSF located between Anchors



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

| QTY | SIZE | TAG |
|-----|------|-----|
|     |      |     |
|     |      |     |
|     |      |     |
|     |      |     |

| QTY | SIZE | TAG |
|-----|------|-----|
|     |      |     |
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|     |      |     |
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