



MASON INDUSTRIES, Inc.

MERCER RUBBER Co.

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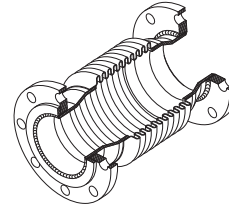
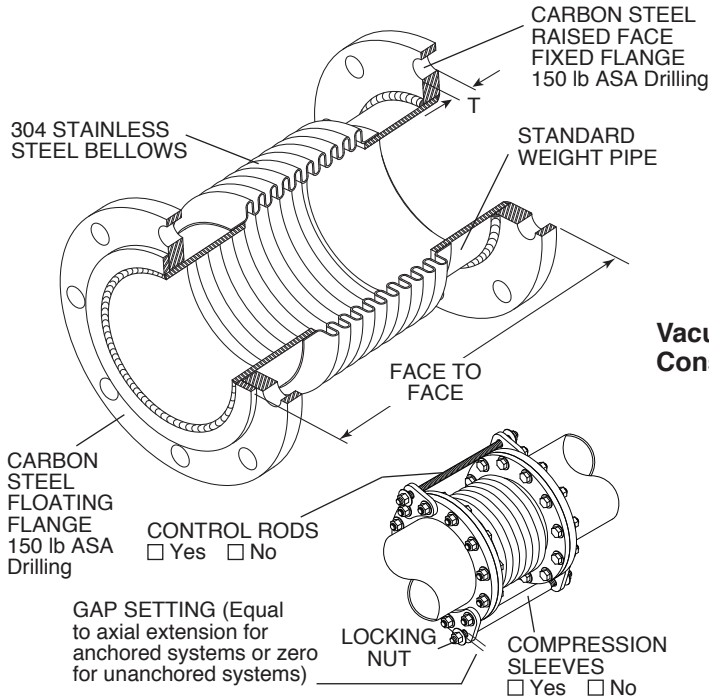
FAX 631/348-0279



JOB NAME _____
CUSTOMER _____
CUSTOMER P.O. _____
MASON M. _____
DWG No. _____

EFL50

50 psi SS BELLOWS
EXPANSION
JOINT with CARBON
STEEL FIXED and
FLOATING FLANGES



Our 4" designs use 5" stainless bellows between reducers for greater stability.

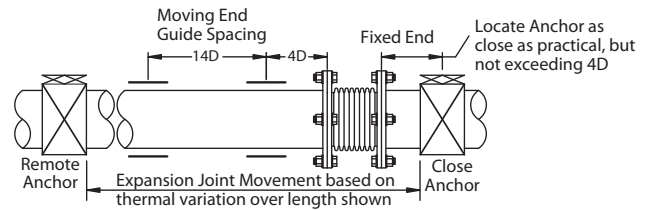
EFL50 RATED PRESSURES @ ELEVATED TEMPERATURES

| Temperature (°F) | Temperature (°C) | Rated Pressure (psi) | Rated Pressure (kg/cm²) |
|------------------|------------------|----------------------|-------------------------|
| 200 | 93 | 46 | 3.2 |
| 300 | 149 | 43 | 3.0 |
| 400 | 204 | 39 | 2.7 |
| 500 | 260 | 38 | 2.7 |
| 800 | 427 | Not Recommended | |

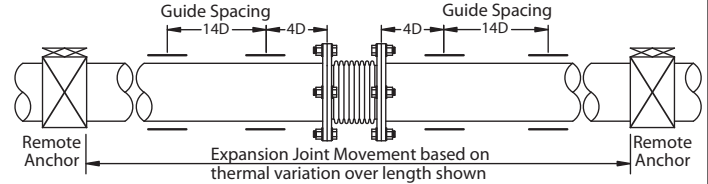
Vacuum rating varies with size and application. Consult factory on all vacuum applications.

GUIDE SPACING – Referencing Pipe Diameter “D”

Guides and Anchors for Joint located near Anchor



Guides and Anchors for Joint located between Remote Anchors



FLANGE BOLTS and NUTS REQUIREMENT

| EFL50 Size | Quantity per End | Size & Length |
|------------|------------------|---------------|
| 4 | 16 | 5/8 x 3 1/4 |
| 5 & 6 | 16 | 3/4 x 3 1/2 |
| 8 | 16 | 3/4 x 4 |
| 10 & 12 | 24 | 7/8 x 4 1/4 |
| 14 | 24 | 1 x 4 1/2 |
| 16 | 32 | 1 x 4 1/2 |

CARBON STEEL PLATE FLANGES

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

EFL50 DIMENSIONS AND PRESSURE RATINGS (American & Metric Units) 2" (50mm) COMBINED AXIAL MOVEMENT, 1/4" (6mm) LATERAL DEFLECTION

| Type & Size | Pipe Size (in) | Pipe Size (mm) | Face to Face (in) | Face to Face (mm) | Axial Spring Rate (lbs/in) | Axial Spring Rate (kg/cm) | Lateral Spring Rate (lbs/in) | Lateral Spring Rate (kg/cm) | Thrust ³ 50 psi (lbs) | Thrust ³ kg/cm² (kg) | Rated Pressure @ 70°F @ 21°C (psi) | Rated Pressure (kg/cm²) | Ship Wt. (lbs) | Ship Wt. (kg) |
|-------------|----------------|----------------|-------------------|-------------------|----------------------------|---------------------------|------------------------------|-----------------------------|----------------------------------|---------------------------------|------------------------------------|-------------------------|----------------|---------------|
| EFL50-4 | 4 | 100 | 21 | 533 | 640 | 115 | 850 | 152 | 1400 | 635 | 50 | 3 | 33 | 15 |
| EFL50-5 | 5 | 125 | 141/4 | 362 | 640 | 115 | 850 | 152 | 1400 | 635 | 50 | 3 | 35 | 16 |
| EFL50-6 | 6 | 150 | 151/4 | 387 | 890 | 159 | 1400 | 250 | 1900 | 862 | 50 | 3 | 43 | 20 |
| EFL50-8 | 8 | 200 | 151/2 | 394 | 1130 | 202 | 3700 | 661 | 3200 | 1451 | 50 | 3 | 78 | 35 |
| EFL50-10 | 10 | 250 | 153/4 | 400 | 1250 | 223 | 6400 | 1143 | 4800 | 2177 | 50 | 3 | 100 | 45 |
| EFL50-12 | 12 | 300 | 173/4 | 451 | 1360 | 243 | 7790 | 1391 | 6600 | 2994 | 50 | 3 | 140 | 64 |
| EFL50-14 | 14 | 350 | 181/2 | 470 | 1410 | 252 | 9450 | 1688 | 8800 | 3992 | 50 | 3 | 181 | 82 |
| EFL50-16 | 16 | 400 | 19 | 483 | 1810 | 323 | 18160 | 3243 | 11300 | 5126 | 50 | 3 | 226 | 103 |

EFL may be used for 2" Expansion or 2" Compression from neutral length or any combined 2" from neutral.

i.e. (+ 1 1/2, - 1/2) (+ 1, - 1) (+ 1/4, - 13/4) etc. Total movement should never exceed 2".

Lower Thrust Forces in proportion at lower pressures, i.e. 20 psi Force = 20/50 x published Thrust. Anchors must resist Thrust Force plus Spring Force. Spring Force is determined by multiplying the joint Spring Rate by its Thermal Movement (in/mm).

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

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

| QTY | SIZE | TAG |
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| QTY | SIZE | TAG |
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Certification Form S-554 10/2023

DWN

CHKD

DATE

DWG No.