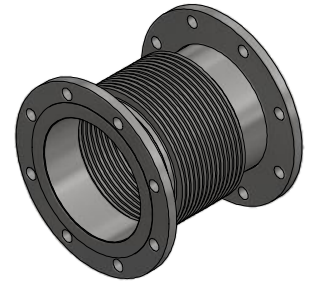
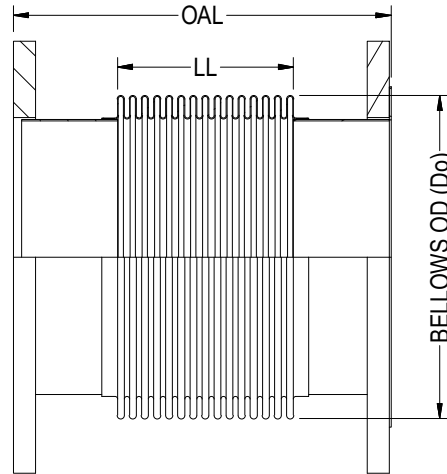


# TYPE SU-13



ISOMETRIC VIEW

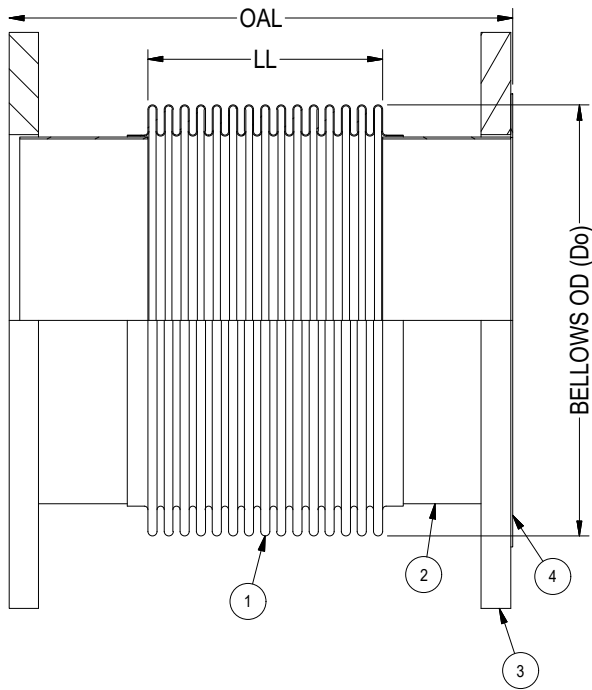
| PIPE SIZE | BELLOWS OD (Do) | LIVE LENGTH (LL) | OVERALL LENGTH (OAL) |
|-----------|-----------------|------------------|----------------------|
| 2         | 3.10            | 2.00             | 6.00                 |
| 2         | 3.10            | 6.00             | 12.00                |
| 2-1/2     | 3.70            | 2.00             | 6.00                 |
| 2-1/2     | 3.70            | 6.00             | 12.00                |
| 3         | 4.40            | 2.00             | 6.00                 |
| 3         | 4.40            | 6.00             | 12.00                |
| 4         | 5.36            | 2.50             | 6.00                 |
| 4         | 5.36            | 5.50             | 12.00                |
| 4         | 5.15            | 9.00             | 18.00                |
| 5         | 6.70            | 3.00             | 8.00                 |
| 5         | 6.55            | 5.50             | 12.00                |
| 6         | 7.70            | 3.00             | 8.00                 |
| 6         | 7.63            | 5.50             | 12.00                |
| 8         | 10.10           | 4.13             | 8.00                 |
| 8         | 10.10           | 5.50             | 12.00                |
| 10        | 12.00           | 2.00             | 4.00                 |
| 10        | 12.10           | 4.00             | 8.00                 |
| 10        | 12.00           | 5.50             | 12.00                |
| 12        | 14.80           | 6.00             | 12.00                |
| 12        | 14.00           | 8.00             | 18.00                |
| 12        | 14.30           | 13.50            | 23.00                |
| 14        | 16.30           | 1.25             | 4.50                 |
| 14        | 16.00           | 4.50             | 12.00                |

| PIPE SIZE | BELLOWS OD (Do) | LIVE LENGTH (LL) | OVERALL LENGTH (OAL) |
|-----------|-----------------|------------------|----------------------|
| 14        | 15.75           | 13.00            | 23.00                |
| 16        | 17.75           | 8.00             | 16.00                |
| 16        | 17.75           | 13.50            | 23.00                |
| 18        | 20.20           | 4.00             | 12.00                |
| 18        | 20.20           | 10.00            | 18.00                |
| 18        | 20.20           | 13.00            | 23.00                |
| 20        | 22.00           | 4.00             | 6.00                 |
| 20        | 22.25           | 4.50             | 12.00                |
| 20        | 21.91           | 9.00             | 18.00                |
| 20        | 21.75           | 13.50            | 23.00                |
| 24        | 25.90           | 4.50             | 12.00                |
| 24        | 26.00           | 12.00            | 18.00                |
| 24        | 26.00           | 13.00            | 22.00                |
| 24        | 25.75           | 20.00            | 36.00                |
| 26        | 27.75           | 14.00            | 22.00                |
| 26        | 27.75           | 18.00            | 30.00                |
| 28        | 30.70           | 12.50            | 24.00                |
| 30        | 31.75           | 4.00             | 10.00                |
| 30        | 32.00           | 8.00             | 16.00                |
| 30        | 31.75           | 18.00            | 29.00                |
| 36        | 38.25           | 2.50             | 7.00                 |
| 36        | 38.40           | 6.00             | 12.00                |
| 36        | 37.97           | 9.00             | 17.00                |

**NOTES:**

1. FLANGES ARE OF 150# PLT. (ANSI B16.5 BOLT PATTERN)
2. FLANGE MATERIAL: ASTM A-36. FOR OTHER OPTIONAL MATERIAL PLEASE CONTACT BSI.
3. OAL IS BASED ON LIVE LENGTH. FOR OTHER OPTIONAL LENGTH PLEASE PROVIDE THEM IN THE SPECIFICATION SHEET.
4. BELLOWS MATERIAL: ASTM A-240 GRADE 321. OTHER MATERIALS (STAINLESS STEEL, NICKEL ALLOYS ETC.) ARE AVAILABLE ON REQUEST.
5. AVAILABLE IN 1 PLY, 2 PLY (STD) OR 3 PLY DESIGNS.
6. SPECIFY DESIGN/OPERATING TEMPERATURE & PRESSURE IN PAGE 2.
7. FOR MOVEMENTS AND LIFE CYCLE REFER TO BELLOWS CATALOG OR CONTACT BSI ENGINEERING.

|  |                  |            |     |  |       |  |                |
|--|------------------|------------|-----|--|-------|--|----------------|
|  |                  |            |     |  <b>Bellows Systems</b> |       | BELLOWS SYSTEMS, INC.<br>Houston, TX<br>www.bellows-systems.com            |                |
|  |                  |            |     |  |       | SINGLE EXPANSION JOINT<br>STD. TYPE SU-13 W/ 150# PLT FIXED & FLOATING FLG |                |
| E  | UPDATED TYPE NO. | 11/8/2023  | UG  | CAGE CODE: 22727   |       |  |                |
| D  | UPDATED NOTES    | 09/12/2023 | UG  |  |       |  |                |
| REV.   | DESCRIPTION      | DATE:      | BY: | CHKD:  | APPD: | DRAWING NUMBER: 130-CAT-0013   | SHEET#: 1 OF 2 |
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|  |                  |            |     | DATE:<br>03/01/2023  |       | SCALE:<br>AS SHOWN   |                |
|  |                  |            |     |  |       | REV. E   |                |



|   |                       | 1 | 2 | 3 | 4 |
|---|-----------------------|---|---|---|---|
| <b>DIM.:</b>  | PIPE/ NOMINAL SIZE:   |   |   |   |   |
|   | OVERALL LENGTH (OAL): |   |   |   |   |
| <b>DESIGN:</b>  | PRESSURE:             |   |   |   |   |
|   | TEMPERATURE:          |   |   |   |   |
| <b>MOV. &amp; LIFE CYLS:</b>  | AXIAL COMPRESSION:    |   |   |   |   |
|   | AXIAL EXPANSION:      |   |   |   |   |
|   | LATERAL:              |   |   |   |   |
|   | ANGULAR:              |   |   |   |   |
| <b>MAT'L'S.:</b>  | ① BELLOWS:            |   |   |   |   |
|   | ② WELD NECK:          |   |   |   |   |
|   | ③ FLANGE:             |   |   |   |   |
|   | ④ VANSTONE:           |   |   |   |   |
| <b>DESIGN CODES/STANDARDS:</b><br>(EJMA/ ASME SECT VII DIV I/ ASME B 31.1/ ASME B 31.3) |                       |   |   |   |   |
| <b>APPLICATION NOTES:</b>   |                       |   |   |   |   |
| <b>QUANTITY:</b>  |                       |   |   |   |   |

**OPTIONAL FEATURES:**

1. FIXED FLANGE (SEE TYPE-03).
2. FLOW LINER (SEE TYPE-23).
3. CONTROL RODS (SEE TYPE-43).
4. EXTERNAL COVER.

|  |                  |            |     |       |       |   |            |
|--|------------------|------------|-----|-------|-------|---|------------|
|  <b>Bellows Systems</b>   |                  |            |     |       |       | <b>BELLOWS SYSTEMS, INC.</b><br>Houston, TX<br><a href="http://www.bellows-systems.com">www.bellows-systems.com</a> |            |
|  |                  |            |     |       |       | SINGLE EXPANSION JOINT<br>TYPE SU-13 SPECIFICATION SHEET  |            |
| REV.   | DESCRIPTION      | DATE:      | BY: | CHKD: | APPD: | CAGE CODE: 22727  |            |
| E  | UPDATED TYPE NO. | 11/8/2023  | UG  |       |       | DRAWING BY:   |            |
| D  | UPDATED NOTES    | 09/12/2023 | UG  |       |       | DATE:   |            |
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|  |                  |            |     |       |       | 8.5" x 11"  | U GULATI   |
|  |                  |            |     |       |       | SCALE:  | DATE:      |
|  |                  |            |     |       |       | AS SHOWN  | 03/01/2023 |
|  |                  |            |     |       |       | DRAWING NUMBER:   | SCALE:     |
|  |                  |            |     |       |       | 130-CAT-0013  | AS SHOWN   |
|  |                  |            |     |       |       | SHEET#:   | REV.       |
|  |                  |            |     |       |       | 2 OF 2  | E          |