

**AXIAL COVERED TYPE SINGLE EXPANSION JOINT**

# SJT2000 Series (Equivalent to JBS / JBD)

The Covered Expansion Joint, of single bellows construction, protects the bellows element from external damage, for the safety usage purpose of absorbing axial movement of the pipe section in which it is installed.



### Feature

**Absorption for thermal expansion**

Bellow Expansion Joints are employed in piping systems to absorb differential thermal expansion while containing the system pressure.

**Maximize the productivity**

Standard design of movement and material maximizes the productivity while the custom design maximizes the suitability for special applications.

**Reliability**

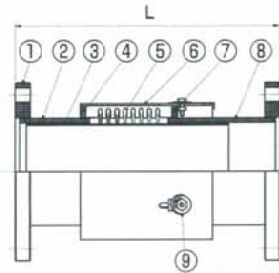
Computer designed bellows element complies with EJMA criteria.

**Quality**

All products are tested before delivery according to relevant code or ISO quality control system.

### Structure

**2100/JBS**



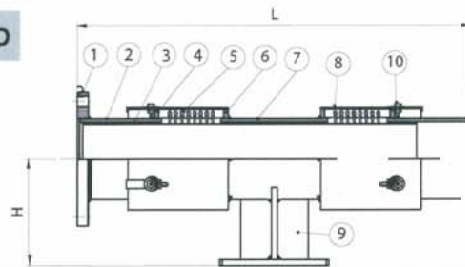
| No. | Qty  | Parts                       | Material |
|-----|------|-----------------------------|----------|
| ①   | 2    | Flange                      | SS400    |
| ②   | 1    | Short Pipe 1                | CS       |
| ③   | 1    | Internal Sleeve             | SUS304   |
| ④   | 1    | Neck Ring 1                 | SS400    |
| ⑤   | 1    | Bellows                     | SUS304   |
| ⑥   | 1    | Outer Pipe                  | SS400    |
| ⑦   | 1    | Neck Ring 2                 | SS400    |
| ⑧   | 1    | Short Pipe 2                | CS       |
| ⑨   | 3or4 | Setting Bolt & Nut & Washer | Class4.4 |

|                            |  |
|----------------------------|--|
| Design Working Pressure    | 1.0 MPa  |
| Design Working Temperature | 250°C  |
| Applicable Fluid           | Water, Hot Water, Oil, Steam, Gas, and Exhaust Air |
| Axial Movement SJT2100     | +30,+/-5   |
| Axial Movement SJT2200     | +60,+/-10  |

### Applications

Bellows type metal Expansion Joints are successfully utilized in refineries, chemical plants, fossil and power systems, heating and cooling system, and cryogenic plants.

**2200/JBD**



| No. | Qty  | Parts                      | Material  |
|-----|------|----------------------------|-----------|
| ①   | 2    | Flange                     | SS400     |
| ②   | 2    | Short Pipe                 | CS        |
| ③   | 1    | Internal Sleeve            | SUS304    |
| ④   | 2    | Neck Ring 2                | SS400     |
| ⑤   | 2    | Bellows                    | SUS304    |
| ⑥   | 2    | Neck Ring1                 | SS400     |
| ⑦   | 1    | Middle Pipe                | CS        |
| ⑧   | 2    | Outer Pipe                 | SS400     |
| ⑨   | 1    | Anchor Base                | SS400     |
| ⑩   | 6or8 | Setting Bolt & Nut& Washer | Class 4.4 |

**SJT-2100**

**SJT-2200**

| Size [A] | L   | Axial Spring Rate [N/mm] | Effective Area [cm <sup>2</sup> ] |
|----------|-----|--------------------------|-----------------------------------|
| 40       | 365 | 41.7                     | 25.9                              |
| 50       | 365 | 42.2                     | 28.1                              |
| 65       | 415 | 80.2                     | 48.3                              |
| 80       | 415 | 89.8                     | 66.5                              |
| 100      | 415 | 105.2                    | 131.0                             |
| 125      | 440 | 100.8                    | 197.7                             |
| 150      | 440 | 135.5                    | 264.9                             |
| 200      | 440 | 166.1                    | 439.5                             |
| 250      | 465 | 168.9                    | 678.8                             |
| 300      | 465 | 181.7                    | 951.2                             |
| 350      | 465 | 225.4                    | 1125.5                            |
| 400      | 490 | 245.0                    | 1450.2                            |
| 450      | 490 | 311.5                    | 1852.0                            |
| 500      | 490 | 341.1                    | 2260.6                            |

| Size [A] | L    | H   | J   | K   | N | Dia.H | Axial Spring Rate [N/mm] | Effective Area [cm <sup>2</sup> ] |
|----------|------|-----|-----|-----|---|-------|--------------------------|-----------------------------------|
| 40       | 680  | 120 | 100 | 70  | 4 | 12    | 20.9                     | 25.9                              |
| 50       | 680  | 130 | 100 | 80  | 4 | 15    | 21.1                     | 28.1                              |
| 65       | 780  | 140 | 120 | 100 | 4 | 15    | 40.1                     | 48.3                              |
| 80       | 780  | 150 | 120 | 110 | 4 | 15    | 44.9                     | 66.5                              |
| 100      | 880  | 170 | 120 | 130 | 4 | 19    | 52.6                     | 131.0                             |
| 125      | 880  | 200 | 120 | 150 | 4 | 19    | 50.4                     | 197.7                             |
| 150      | 930  | 220 | 160 | 180 | 4 | 23    | 67.8                     | 264.9                             |
| 200      | 930  | 250 | 160 | 220 | 4 | 25    | 83.1                     | 439.5                             |
| 250      | 980  | 300 | 180 | 280 | 4 | 27    | 84.5                     | 678.8                             |
| 300      | 980  | 350 | 200 | 300 | 4 | 27    | 90.9                     | 951.2                             |
| 350      | 1030 | 450 | 250 | 350 | 4 | 33    | 112.7                    | 1125.5                            |
| 400      | 1030 | 500 | 300 | 400 | 4 | 33    | 122.5                    | 1450.2                            |
| 450      | 1080 | 550 | 350 | 450 | 4 | 39    | 155.8                    | 1852.0                            |
| 500      | 1080 | 600 | 400 | 500 | 4 | 39    | 170.6                    | 2260.6                            |

### Installation Guide

Shipping devices (painted yellow) must be removed prior to start-up or testing the system. Please consult us for other material, pressure, temperature and movement designs. Please read the instruction before designing and installation.

**Note:** The content of this catalog is subject to change without prior notice.

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