

## Bellows type

# Type JOB30T, JOB31T Bellows Expansion Joints

Single type (JOB30T)



Double type (JOB31T)



## Features

- Complies with JIS B 2352 standard.
- Bellows made of anti-corrosive material SUS316L (low carbon stainless steel).
- Fluid contact made of stainless steel.
- No leakage because packing is not used.
- Internal casing made of anti-corrosive material SUS316L (low carbon stainless steel).

## Specifications

|                            |   |
|----------------------------|---|
| Size                       | 20—500                                  |
| Max. allowable pressure    | 1.0MPa                                  |
| Hydrostatic pressure       | 1.5MPa                                  |
| Max. allowable temperature | 220℃                                    |
| Fluid                      | Steam, water, oil and non-corrosive gas |
| Connection                 | Flanged JIS10K                          |

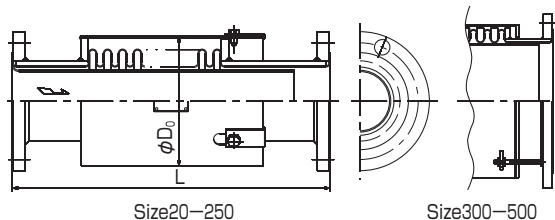
## Notice

Expansion joint should be used in extent of allowable length.

In case it exceeds allowable length, please check and modify guide and anchor.

## Construction

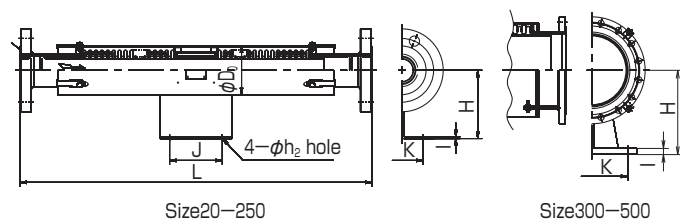
Single type (JOB30T)



| Part name      | Material                      | Part name              | Material                      |
|----------------|-------------------------------|------------------------|-------------------------------|
| Flange lagging | SUS316L<br>Stainless steel    | Internal casing        | SUS316L<br>Stainless steel    |
| Flange         | SS400<br>Carbon steel         | Tie bolt               | SS400<br>Carbon steel         |
| External cover | SPHC or SS400<br>Carbon steel | Tie plate<br>(20—250A) | SPHC or SS400<br>Carbon steel |
| Bellows        | SUS316L<br>Stainless steel    | Ring<br>(300—500A)     | SS400<br>Carbon steel         |

# Type JOB30T, JOB31T Bellows Expansion Joints

## Double type (JOB31T)



| Part name       | Material                      | Part name              | Material                      |
|-----------------|-------------------------------|------------------------|-------------------------------|
| Flange lagging  | SUS316L<br>Stainless steel    | Tie bolt               | SS400<br>Carbon steel         |
| Flange          | SS400<br>Carbon steel         | Tie plate<br>(20—250A) | SPHC or SS400<br>Carbon steel |
| External cover  | SPHC or SS400<br>Carbon steel | Ring<br>(300—500A)     | SS400<br>Carbon steel         |
| Bellows         | SUS316L<br>Stainless steel    | Anchor base            | SS400<br>Carbon steel         |
| Internal sleeve | SUS316L<br>Stainless steel    |                        |                               |

## Dimensions and weights

### Single type : JOB30T

(mm, kg)

| Part                  | Size           | 20   | 25  | 32  | 40 | 50  | 65  | 80  | 100 | 125 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 |
|-----------------------|----------------|--|-----|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Setting length        | L              |  |     | 365 |    |     |     | 415 |     |     | 440 |     |     | 465 |     |     | 490 |     |
| Max. allowable length | L <sub>1</sub> |  |     | 375 |    |     |     | 425 |     |     | 450 |     |     | 475 |     |     | 500 |     |
| Min. allowable length | L <sub>2</sub> |  |     | 340 |    |     |     | 390 |     |     | 415 |     |     | 440 |     |     | 465 |     |
| Max. displacement     | δ              | expansion (δe) : 10    contraction (δc) : 25 |     |     |    |     |     |     |     |     |     |     |     |     |     |     |     |     |
| D <sub>0</sub>        |                | 58   |     | 73  |    | 98  | 110 | 136 | 162 | 212 | 235 | 292 | 333 | 387 | 422 | 470 | 517 | 567 |
| Weight                |                | 3.5  | 4.5 | 5.5 | 6  | 7.5 | 11  | 12  | 16  | 21  | 27  | 36  | 52  | 111 | 130 | 160 | 186 | 208 |

- Remarks 1. Setting length L is the value to subtract expansion δe from max. allowable length L<sub>1</sub>.  
Expansion joint will be supplied with this length L unless otherwise specified.  
2. Please take off the tie bolt and tie plate after hydraulic test.

### Double type : JOB31T

(mm, kg)

| Part                  | Size           | 20   | 25 | 32  | 40  | 50  | 65  | 80  | 100 | 125 | 150 | 200 | 250 | 300  | 350 | 400  | 450 | 500  |
|-----------------------|----------------|--|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|------|-----|------|
| Setting length        | L              |  |    | 680 |     |     |     | 780 |     | 880 |     | 930 |     | 980  |     | 1030 |     | 1080 |
| Max. allowable length | L <sub>1</sub> |  |    | 700 |     |     |     | 800 |     | 900 |     | 950 |     | 1000 |     | 1050 |     | 1100 |
| Min. allowable length | L <sub>2</sub> |  |    | 630 |     |     |     | 730 |     | 830 |     | 880 |     | 930  |     | 980  |     | 1030 |
| Max. displacement     | δ              | expansion (δe) : 20 (one side : 10)    contraction (δc) : 50 (one side : 25) |    |     |     |     |     |     |     |     |     |     |     |      |     |      |     |      |
| Anchor base           | K              | 60   |    | 70  |     | 80  | 100 | 110 | 130 | 150 | 180 | 220 | 280 | 300  | 350 | 400  | 450 | 500  |
|                       | J              |  |    | 100 |     |     |     | 120 |     |     | 160 |     | 180 | 200  | 250 | 300  | 350 | 400  |
|                       | H              | 100  |    | 120 |     | 130 | 140 | 150 | 170 | 200 | 220 | 250 | 300 | 350  | 450 | 500  | 550 | 600  |
|                       | I              |  |    | 3.2 |     |     |     | 4.0 |     |     |     | 4.5 |     |      | 25  |      |     |      |
|                       | Bolt hole dia  |  |    | 12  |     |     | 15  |     | 19  |     | 23  | 25  | 27  |      | 33  |      | 39  |      |
|                       | Bolt           |  |    | M10 |     |     | M12 |     | M16 |     | M20 | M22 | M24 |      | M30 |      | M36 |      |
| D <sub>0</sub>        |                | 58   |    | 73  |     | 98  | 110 | 136 | 162 | 212 | 235 | 292 | 333 | 387  | 422 | 470  | 517 | 567  |
| Weight                |                | 5  | 6  | 8   | 8.5 | 11  | 14  | 17  | 22  | 35  | 46  | 66  | 96  | 225  | 271 | 325  | 390 | 442  |

- Remarks 1. Setting length L is the value to subtract expansion δe from max. allowable length L<sub>1</sub>.  
Expansion joint will be supplied with this length L unless otherwise specified.  
2. Please take off the tie bolt and tie plate after hydraulic test.