

# AL-150T, 150T-N

Soft seat type

JWWA

JWWA approval  
(AL-150T-N)

|                     |             |                                    |                     |
|---------------------|-------------|------------------------------------|---------------------|
| Full bore type      | Lift type   | Safety valve                       | Relief valve        |
| Safety relief valve | Lever type  | Closed type                        | Flash-pot structure |
| Handle type         | Stainless   | High pressure gas testing products |                     |
| Diaphragm           | Non-leakage |                                    |                     |

## Features

1. Safety relief valve with excellent airtightness ensured by the valve seat incorporating soft seat. Most suitable for applications where valve seat leakage is not tolerated.
2. The trim parts (valve and valve seat) and adjusting spring are made of stainless steel. Used for the trim parts is SCS14A (equivalent to SUS316) with outstanding corrosion resistance.
3. Simple structure and easy to handle.
4. Closed structure prevents fluid leakage.

## Specifications

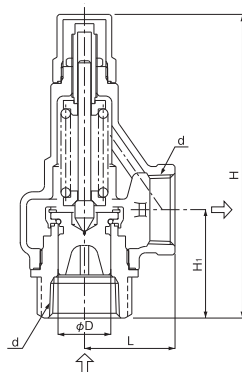
| Model               | AL-150T                                                    | AL-150T-N                |
|---------------------|------------------------------------------------------------|--------------------------|
| Structure           | Closed type                                                |                          |
| Application         | Air, Cold and hot water, Oil, Other non-dangerous fluids * | Cold and hot water       |
| Working pressure    | 0.05-1.0 MPa                                               |                          |
| Working temperature | 5-120°C                                                    | 5-100°C                  |
| Material            | Spring case                                                | Bronze                   |
|                     | Valve, valve seat                                          | Stainless steel (SCS14A) |
|                     | Adjusting spring                                           | Stainless steel          |
|                     | O-ring                                                     | FKM                      |
| Connection          | JIS Rc screwed                                             |                          |

\* Please contact us when using for oil.

· Please refer to the chart in P. 82 for set pressure range.

## Dimensions and Weights

| Nominal size | Dimension (mm) |    |    |                |       | Flow area<br>$\pi D_L^2$ (mm <sup>2</sup> ) | Weight (kg) |
|--------------|----------------|----|----|----------------|-------|---------------------------------------------|-------------|
|              | d              | D  | L  | H <sub>1</sub> | H     |                                             |             |
| 15A          | Rc 1/2         | 16 | 34 | 40             | 128   | 20.1                                        | 0.7         |
| 20A          | Rc 3/4         | 21 | 38 | 43             | 128.5 | 34.6                                        | 0.8         |
| 25A          | Rc 1           | 26 | 43 | 51.5           | 144.5 | 53.0                                        | 1.1         |
| 32A          | Rc 1-1/4       | 33 | 50 | 61.5           | 181.5 | 93.3                                        | 1.8         |
| 40A          | Rc 1-1/2       | 41 | 60 | 60             | 205   | 135.2                                       | 2.8         |
| 50A          | Rc 2           | 51 | 75 | 76             | 245.5 | 208.2                                       | 4.7         |



### Soft seat is used for the trim parts!

Soft seat (O-ring) is used for the trim parts, ensuring the reliable airtightness of the valve seat.



Soft seat (O-ring)

# ■ Certified Capacity Table

· AL-150 for steam (saturation temperature) <Pressure vessel structure standard>

(kg/h)

| Pressure MPa<br>Nominal size | 0.05 | 0.1 | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 | 0.9  | 1.0  |
|------------------------------|------|-----|-----|-----|-----|-----|-----|-----|-----|------|------|
| 15A                          | 15   | 20  | 29  | 40  | 50  | 60  | 70  | 80  | 90  | 100  | 109  |
| 20A                          | 27   | 35  | 51  | 69  | 87  | 104 | 121 | 138 | 155 | 172  | 189  |
| 25A                          | 42   | 54  | 78  | 105 | 133 | 159 | 186 | 212 | 237 | 263  | 289  |
| 32A                          | 70   | 91  | 132 | 178 | 224 | 268 | 313 | 356 | 400 | 443  | 487  |
| 40A                          | 105  | 136 | 198 | 266 | 335 | 402 | 468 | 534 | 599 | 664  | 729  |
| 50A                          | 163  | 211 | 306 | 411 | 518 | 621 | 723 | 824 | 924 | 1025 | 1126 |

· AL-150 · 150T · 150TML for air (20°C) <Pressure vessel structure standard>

(kg/h)

| Pressure MPa<br>Nominal size | 0.05 | 0.1 | 0.2 | 0.3 | 0.4 | 0.5  | 0.6  | 0.7  | 0.8  | 0.9  | 1.0  |
|------------------------------|------|-----|-----|-----|-----|------|------|------|------|------|------|
| 15A                          | 25   | 33  | 48  | 65  | 81  | 98   | 114  | 131  | 147  | 164  | 181  |
| 20A                          | 44   | 57  | 83  | 111 | 140 | 169  | 197  | 226  | 254  | 283  | 311  |
| 25A                          | 67   | 87  | 127 | 171 | 215 | 258  | 302  | 346  | 390  | 433  | 477  |
| 32A                          | 113  | 147 | 214 | 288 | 362 | 435  | 509  | 582  | 656  | 730  | 803  |
| 40A                          | 169  | 221 | 321 | 431 | 542 | 652  | 762  | 872  | 982  | 1093 | 1203 |
| 50A                          | 262  | 341 | 496 | 666 | 836 | 1006 | 1176 | 1346 | 1516 | 1687 | 1857 |

· AL-150 · 150T · 150TML · 150TR for water (accumulation: 25%) <Yoshitake standard>

(m³/h)

| Pressure MPa<br>Nominal size | 0.05 | 0.1 | 0.2  | 0.3  | 0.4  | 0.5  | 0.6  | 0.7  | 0.8  | 0.9  | 1.0  |
|------------------------------|------|-----|------|------|------|------|------|------|------|------|------|
| 15A                          | 0.4  | 0.5 | 0.9  | 1.1  | 1.3  | 1.5  | 1.6  | 1.8  | 1.9  | 2.0  | 2.1  |
| 20A                          | 0.6  | 0.9 | 1.6  | 2.0  | 2.3  | 2.6  | 2.8  | 3.1  | 3.3  | 3.5  | 3.7  |
| 25A                          | 1.0  | 1.5 | 2.5  | 3.1  | 3.6  | 4.0  | 4.4  | 4.7  | 5.1  | 5.4  | 5.7  |
| 32A                          | 1.8  | 2.6 | 4.5  | 5.5  | 6.3  | 7.1  | 7.8  | 8.4  | 9.0  | 9.5  | 10.0 |
| 40A                          | 2.7  | 3.8 | 6.5  | 7.9  | 9.2  | 10.3 | 11.3 | 12.2 | 13.0 | 13.8 | 14.6 |
| 50A                          | 4.1  | 5.9 | 10.0 | 12.3 | 14.2 | 15.9 | 17.4 | 18.8 | 20.1 | 21.3 | 22.4 |

· Please refer to P. 8-12 for the calculation procedure for nominal size selection.

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