

ROCKY-ICHIMARU

Tire Curing Press Valves



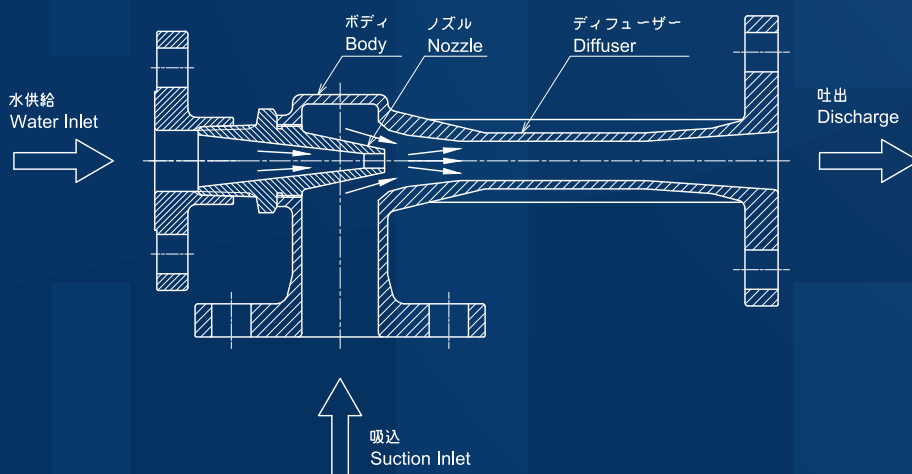
Ejector HE Series



An ejector is a simple, low cost and maintenance free vacuum pump which uses water hydraulic power, composed of three elements: a body, nozzle and diffuser. It operates on the principle that when water is injected at high speed by the nozzle, the pressure reduces below that of its surroundings due to the Venturi effect, and when the reduced pressure water flows into the surrounding fluid, the pressure at the suction inlet port is reduced. An ejector can provide negative pressure for use in a plant with no negative pressure piping network, for example enabling residual internal bladder pressure in a tire curing press to be forcibly extracted to collapse the bladder. It can also regulate negative pressure (suction) by adjusting the hydraulic pressure (flow) supplied by the ejector.

Main Specifications

| | |
|-------------------------|--|
| Drive Fluid | Water |
| Compatible Fluids | Steam, N2 Gas, Air |
| End Connection | Ports: Male threaded End (R, NPT) Flanged End (JIS) |
| Material of main parts* | Body : Brass |
| | Nozzle : SUS304 |
| | Flange : Suction port Brass |
| | Water inlet port S25C or SUS304 |

*See valve assembly drawing for details.



| | | |
|----------------|---|--|
| Appearance |  |  |
| Model Number | HE1331-□□-□□ | HE1332-□□-□□ |
| End Connection | Threaded End | Flanged End |

Product Coding

HE

| | | | | | | | | | |
|----|----|----|----|----|----|----|----|----|-----|
| N1 | N2 | N3 | N4 | N5 | N6 | N7 | N8 | N9 | N10 |
| 1 | 3 | 3 | 2 | 40 | 25 | J | | | |

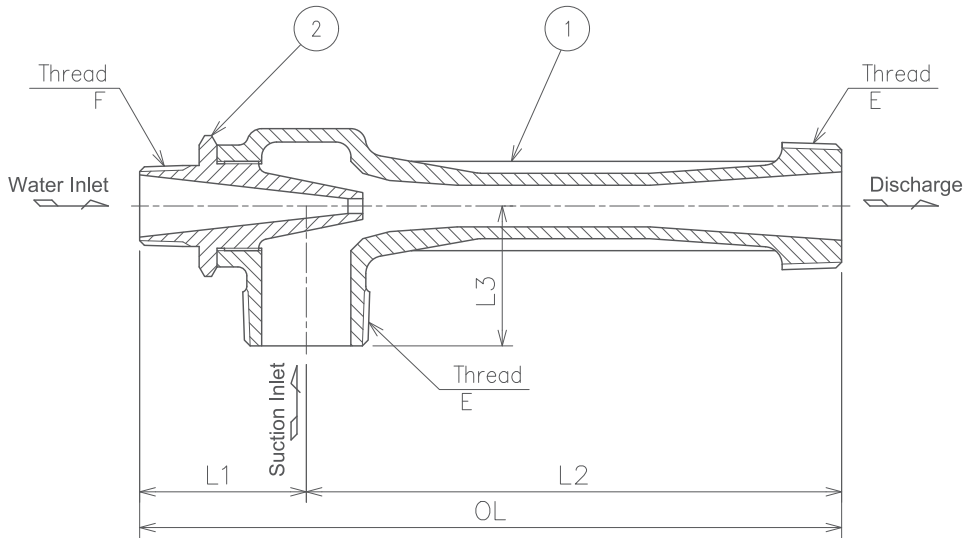
 - 40 - 25 J

| Symbol | Meaning of symbol | Code | Meaning of code | Remarks |
|--------|------------------------------------|------|---------------------------|--|
| N1 | Model | 1 | 1st Model | |
| N2 | Number of Ports | 3 | 3-way | |
| N3 | Function | 3 | | |
| N4 | End Connection | 1 | Threaded End | |
| | | 2 | Flanged End | |
| N5 | Suction / Discharge Port Size | 32 | DN32 | |
| | | 40 | DN40 | |
| N6 | Water Inlet Port Size | 20 | DN20 | |
| | | 25 | DN25 | |
| N7 | Flange Specification | Nil | - | No code is specified if all connections are threaded end (if N4 is "1"). |
| | | J | JIS | Suction / discharge port: JIS 10K FF Water inlet port: JIS 20K RF |
| N8 | Thread Specification | Nil | - | No code is specified if all connections are threaded end (if N4 is "2"). |
| | | P | R | Indicates flange connector specification. Male threaded. |
| | | N | NPT | |
| N9 | Flange Material (Water Inlet Port) | Nil | Steel (S25C) | Flange material is S25C. |
| | | Y | SUS304 | Flange material is SUS304. |
| N10 | Specialized Code | Z□□ | Specialized Specification | Bespoke codes (e.g. Z1) is used for specialized options. |

*Port size and connection specification combinations are limited. See the "Main Dimensions" section.

Threaded

HE1331-32-20P / HE1331-32-20N / HE1331-40-25P / HE1331-40-25N

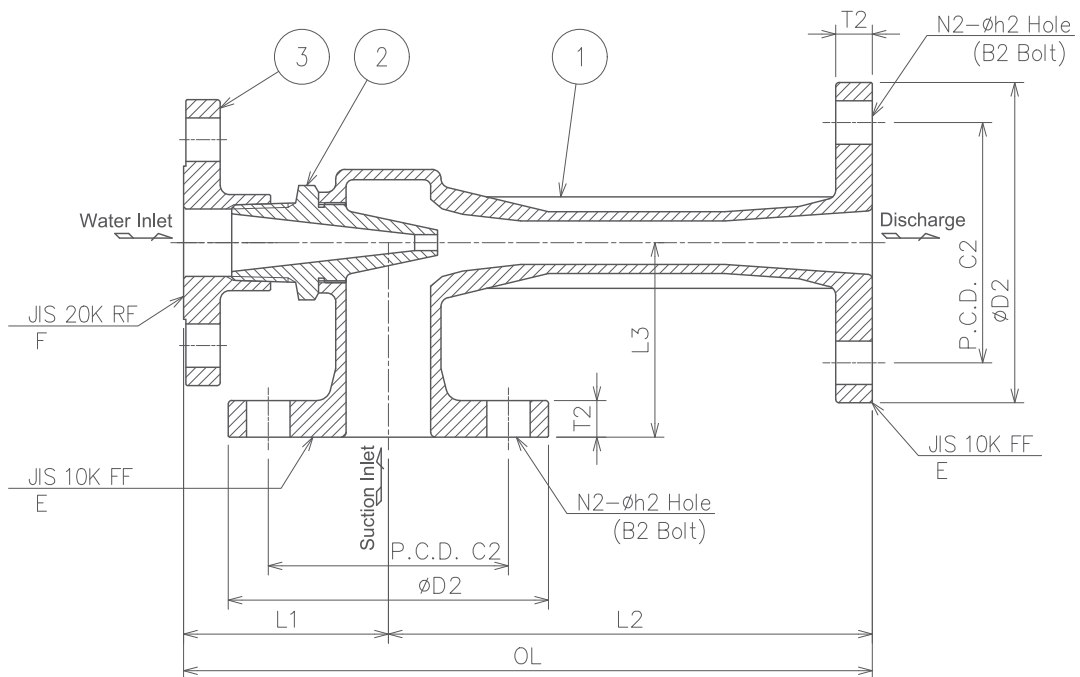


| Port Size | | Dimensions (mm) | | | | | Weight (kg) |
|-----------|------|-----------------|------|-------|----|-----|-------------|
| E | F | OL | L1 | L2 | L3 | | |
| DN32 | DN20 | 236 | 56 | 180 | 47 | 1.4 | |
| DN40 | DN25 | 280 | 68.5 | 211.5 | 61 | 2.0 | |

| | |
|---|--------|
| 2 | Nozzle |
| 1 | Body |

JIS Flange

HE1332-40-20J□ / HE1332-40-25J□

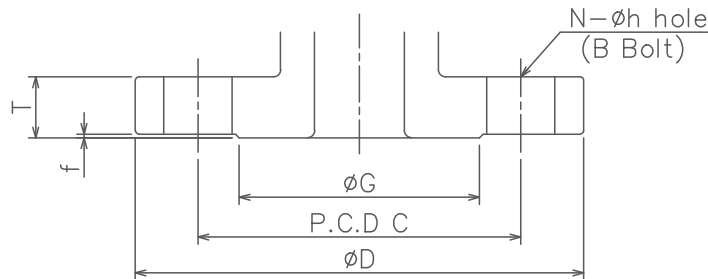


| Port Size | | Dimensions (mm) | | | | | | | | | | Weight (kg) |
|-----------|------|-----------------|------|-------|----|-----|----|-----|----|----|-----|-------------|
| E | F | OL | L1 | L2 | L3 | ØD2 | T2 | C2 | N2 | h2 | B2 | |
| DN40 | DN20 | 301 | 89.5 | 211.5 | 85 | 140 | 16 | 105 | 4 | 19 | M16 | 6.4 |
| DN40 | DN25 | 301 | 89.5 | 211.5 | 85 | 140 | 16 | 105 | 4 | 19 | M16 | 7.0 |

| | |
|---|---------------|
| 3 | Nozzle Flange |
| 2 | Nozzle |
| 1 | Body |

Reference Materials

JIS/ANSI/DIN Piping Flange Dimension List



※All of our valve flange surfaces have a smooth finish ($Ra \leq 3.2$).

JIS 20K Flange Dimensions

Unit: mm

| Nominal Size | | Dimensions of Flange Part | | | | Bolt Holes | | | Bolt Size |
|--------------|-------|---------------------------|-----------|---------|-----|-----------------------|--------|---------------|-----------|
| | | Flange Diameter | Thickness | RF Part | | Pitch Circle Diameter | Number | Hole Diameter | |
| mm | inch | | | D | T | | | | f |
| 15 | 1/2 | 95 | 14 | 1 | 51 | 70 | 4 | 15 | M12 |
| 20 | 3/4 | 100 | 16 | 1 | 56 | 75 | 4 | 15 | M12 |
| 25 | 1 | 125 | 16 | 1 | 67 | 90 | 4 | 19 | M16 |
| 32 | 1-1/4 | 135 | 18 | 2 | 76 | 100 | 4 | 19 | M16 |
| 40 | 1-1/2 | 140 | 18 | 2 | 81 | 105 | 4 | 19 | M16 |
| 50 | 2 | 155 | 18 | 2 | 96 | 120 | 8 | 19 | M16 |
| 65 | 2-1/2 | 175 | 20 | 2 | 116 | 140 | 8 | 19 | M16 |
| 80 | 3 | 200 | 22 | 2 | 132 | 160 | 8 | 23 | M20 |

JIS B 2220: 2012

ANSI/ASME Class 300 Flange Dimensions

Unit: mm

| Nominal Size | | Dimensions of Flange Part | | | | Bolt Holes | | | Bolt Size |
|--------------|-------|---------------------------|-----------|---------|-------|-----------------------|--------|---------------|-----------|
| | | Flange Diameter | Thickness | RF Part | | Pitch Circle Diameter | Number | Hole Diameter | |
| mm | inch | | | D | T | | | | f |
| 15 | 1/2 | 95 | 14.5 | 1.6 | 35 | 66.5 | 4 | 15 | 1/2" |
| 20 | 3/4 | 117 | 16 | 1.6 | 43 | 82.5 | 4 | 19 | 5/8" |
| 25 | 1 | 124 | 18 | 1.6 | 51 | 89.0 | 4 | 19 | 5/8" |
| 32 | 1-1/4 | 133 | 19.1 | 1.6 | 63.5 | 98.5 | 4 | 19 | 5/8" |
| 40 | 1-1/2 | 156 | 21 | 1.6 | 73 | 114.5 | 4 | 22 | 3/4" |
| 50 | 2 | 165 | 22.3 | 1.6 | 92 | 127.0 | 8 | 19 | 5/8" |
| 65 | 2-1/2 | 190 | 25.5 | 1.6 | 104.6 | 149.4 | 8 | 22 | 3/4" |
| 80 | 3 | 210 | 28.5 | 1.6 | 127 | 168.1 | 8 | 22 | 3/4" |

ANSI/ASME B 16.5: 1996

DIN PN40 Flange Dimensions

Unit: mm

| Nominal Size | | Dimensions of Flange Part | | | | Bolt Holes | | | Bolt Size |
|--------------|-------|---------------------------|-----------|---------|-----|-----------------------|--------|---------------|-----------|
| | | Flange Diameter | Thickness | RF Part | | Pitch Circle Diameter | Number | Hole Diameter | |
| mm | inch | | | D | T | | | | f |
| 15 | 1/2 | 95 | 16 | 2 | 45 | 65 | 4 | 14 | M12 |
| 20 | 3/4 | 105 | 18 | 2 | 58 | 75 | 4 | 14 | M12 |
| 25 | 1 | 115 | 18 | 2 | 68 | 85 | 4 | 14 | M12 |
| 32 | 1-1/4 | 140 | 18 | 2 | 78 | 100 | 4 | 18 | M16 |
| 40 | 1-1/2 | 150 | 18 | 3 | 88 | 110 | 4 | 18 | M16 |
| 50 | 2 | 165 | 20 | 3 | 102 | 125 | 4 | 18 | M16 |
| 65 | 2-1/2 | 185 | 22 | 3 | 122 | 145 | 8 | 18 | M16 |
| 80 | 3 | 200 | 24 | 3 | 138 | 160 | 8 | 18 | M16 |

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<Manufacturer>

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