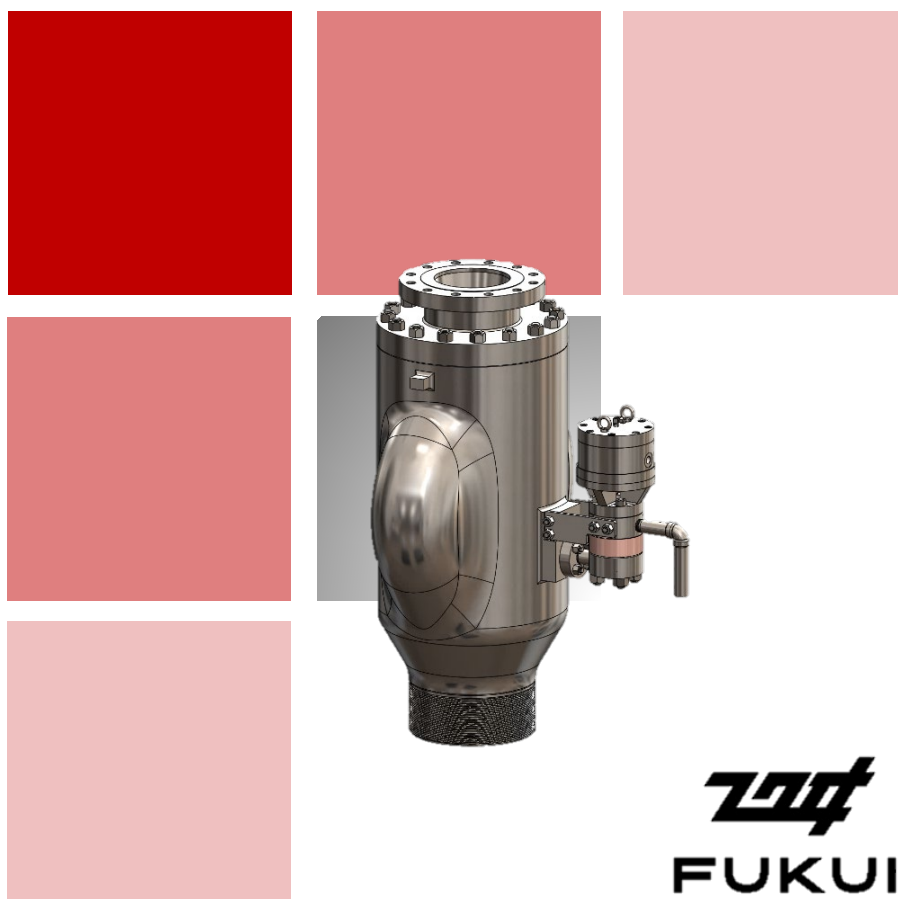




**FUKUI**

**PCV Series**

# Contents

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## ◆ Features

The PCV series is a poweractuated valve for boilers. It is mainly installed to reduce the operation frequency of spring-loaded pressure relief valves for superheaters.

## ◆ Certification

| Certification          | Range   |            |                |                       |
|------------------------|---------|------------|----------------|-----------------------|
|                        | Service | Size       | Pressure range | Discharge coefficient |
|                        |         |            | MPa            |                       |
| ASME BPVC<br>SECTION I | Steam   | 1.1/2*30*3 | 1.03–37.9      | 0.818                 |
|                        |         | 2*37.5*4   |                |                       |
|                        |         | 2.1/2*49*4 |                |                       |
|                        |         | 3*60*6     |                |                       |
|                        |         | 4*75*6     |                |                       |
|                        |         | 6*112.5*8  | 1.03–20.6      |                       |
|                        |         | 8*150*10   | 1.03–5.51      |                       |

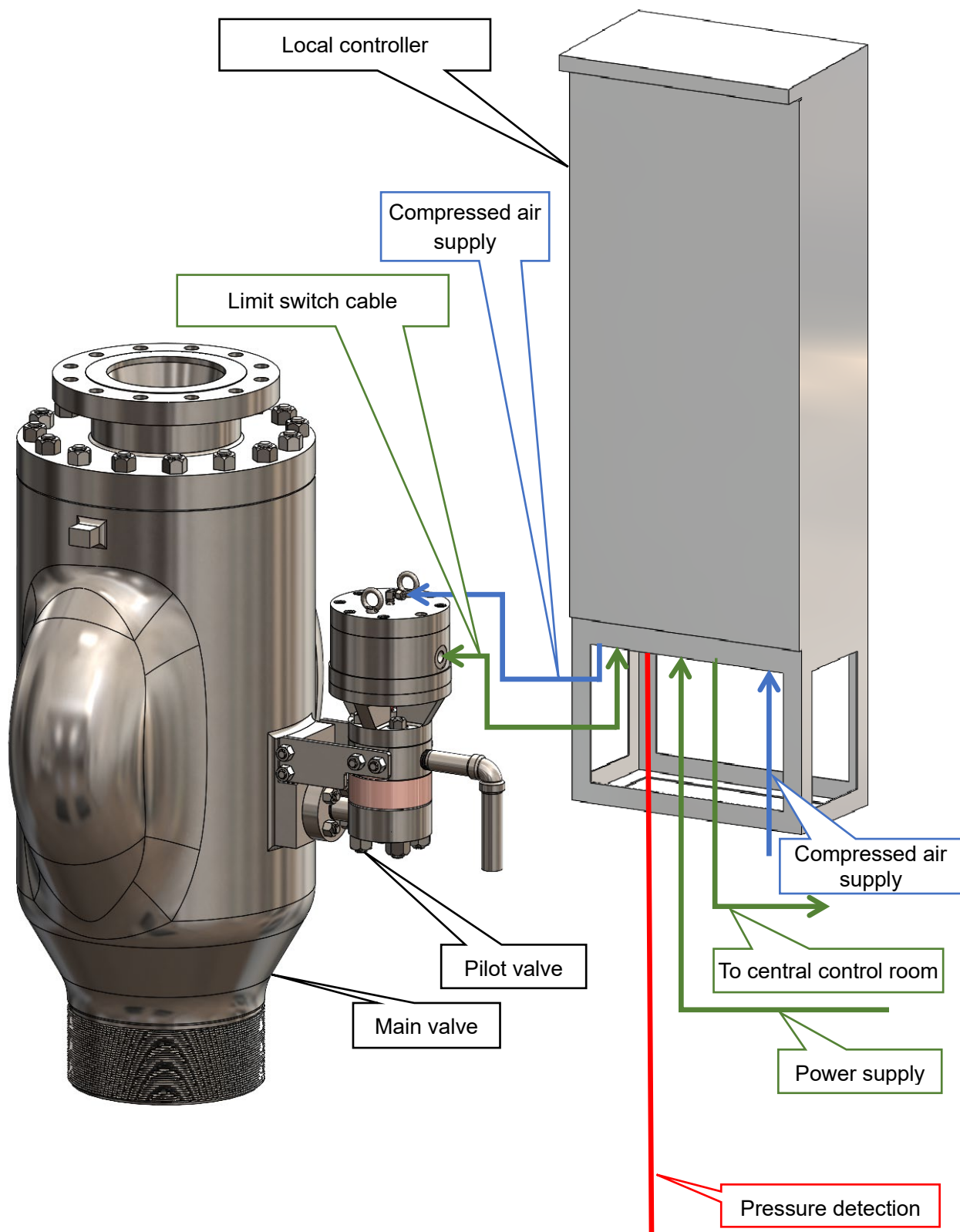
\* In addition to the above-mentioned pressure and size, the ASME V STAMP also specifies minimum requirements for temperature, structure, materials, etc. If all of these requirements are satisfied, the product can be certified as ASME V STAMP.

## ◆ Type code

| PCV | 4 | 6 | 1- | C3 | (AR)                                                         |                                        |  |    |                                        |  |
|-----|---|---|----|----|--------------------------------------------------------------|----------------------------------------|--|----|----------------------------------------|--|
|     |   |   |    |    | Drive system                                                 |                                        |  |    |                                        |  |
|     |   |   |    |    | (AR)                                                         | Air actuated                           |  |    |                                        |  |
|     |   |   |    |    | Material code                                                |                                        |  |    |                                        |  |
|     |   |   |    |    | Blank                                                        | SCPH2 or SA216M-WCB                    |  | C4 | SCPH61 or SA217M-C5                    |  |
|     |   |   |    |    | C2                                                           | SCPH21 or SA217M-WC6                   |  | CA | 火 SCPH91 or<br>SA217M-C12A (CASE 2192) |  |
|     |   |   |    |    | C3                                                           | SCPH32 or SA217M-WC9                   |  |    |                                        |  |
|     |   |   |    |    | Connection code                                              |                                        |  |    |                                        |  |
|     |   |   |    |    | 1-                                                           | ASME Flange                            |  | 5- | Special                                |  |
|     |   |   |    |    | 2-                                                           | JPI Flange                             |  | 6- | Screwing                               |  |
|     |   |   |    |    | 3-                                                           | Welding                                |  | 9- | JIS B 8210 (1994) Flange               |  |
|     |   |   |    |    | 4-                                                           | JIS Flange                             |  | 0- | JIS B 8210 (1986) Flange               |  |
|     |   |   |    |    | Temperature class code (determined by discharge temperature) |                                        |  |    | Unit: °C (°F)                          |  |
|     |   |   |    |    | 3                                                            | T ≤ 400 (752)                          |  | 6  | 510 (950) < T ≤ 571 (1060)             |  |
|     |   |   |    |    | 5                                                            | 400 (752) < T ≤ 510 (950)              |  | 7  | 571 (1060) < T ≤ 621 (1150)            |  |
|     |   |   |    |    | Pressure class code                                          |                                        |  |    |                                        |  |
|     |   |   |    |    | 1                                                            | Class 150 or JIS 10K or JIS B 8210 10K |  | 5  | Class 900                              |  |
|     |   |   |    |    | 2                                                            | Class 300 or JIS 20K or JIS B 8210 20K |  | 6  | Class 1500                             |  |
|     |   |   |    |    | 3                                                            | Class 300 or JIS 30K or JIS B 8210 30K |  | 7  | Class 2500                             |  |
|     |   |   |    |    | 4                                                            | Class 600                              |  | 10 | Class 2500 Over (BW Only)              |  |
|     |   |   |    |    | Type code                                                    |                                        |  |    |                                        |  |
| PCV |   |   |    |    |                                                              |                                        |  |    |                                        |  |

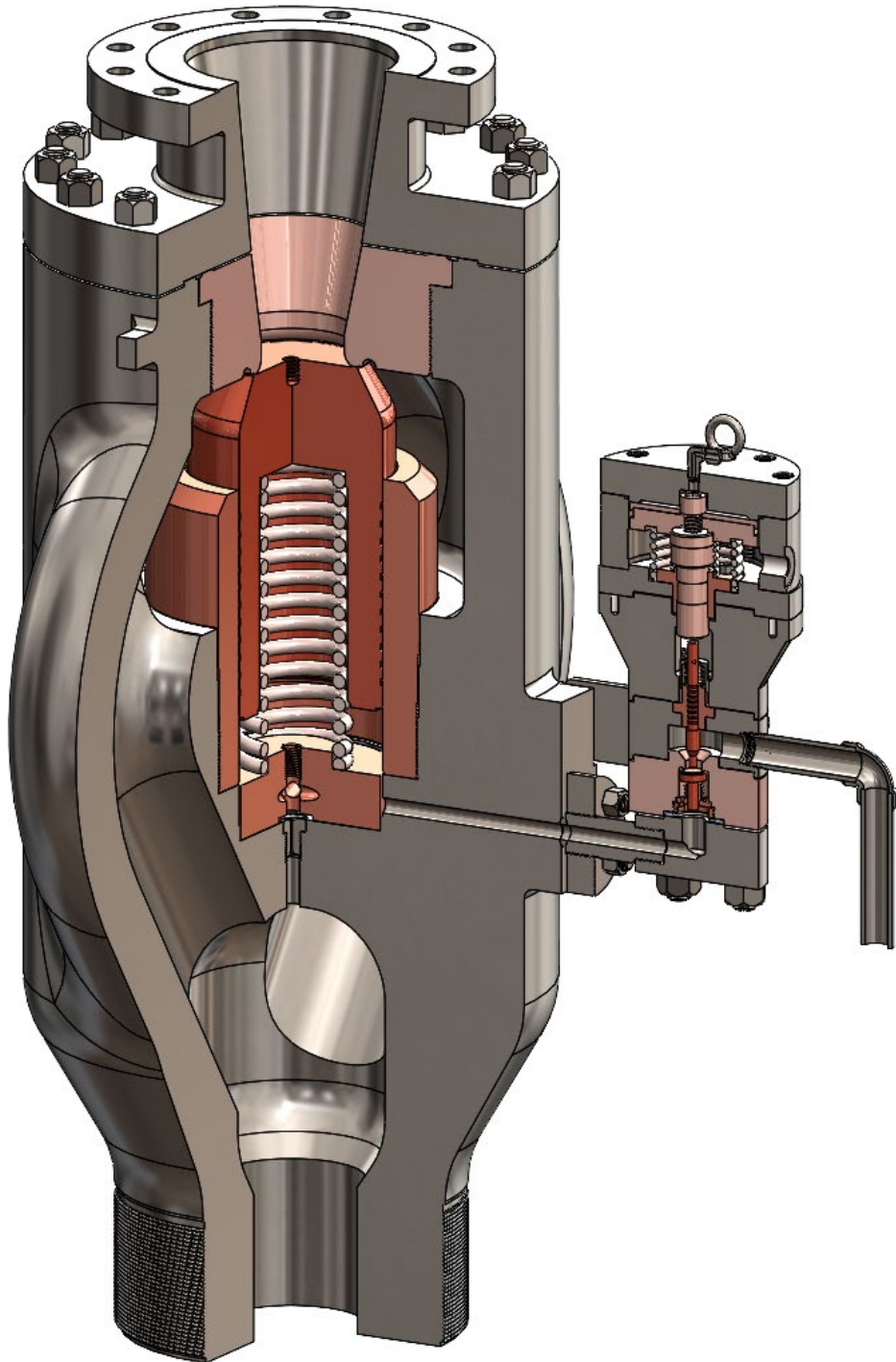
## Configuration of Poweractuated Valve

The poweractuated valve consists of the main valve, pilot valve, power drive section, and local controller.

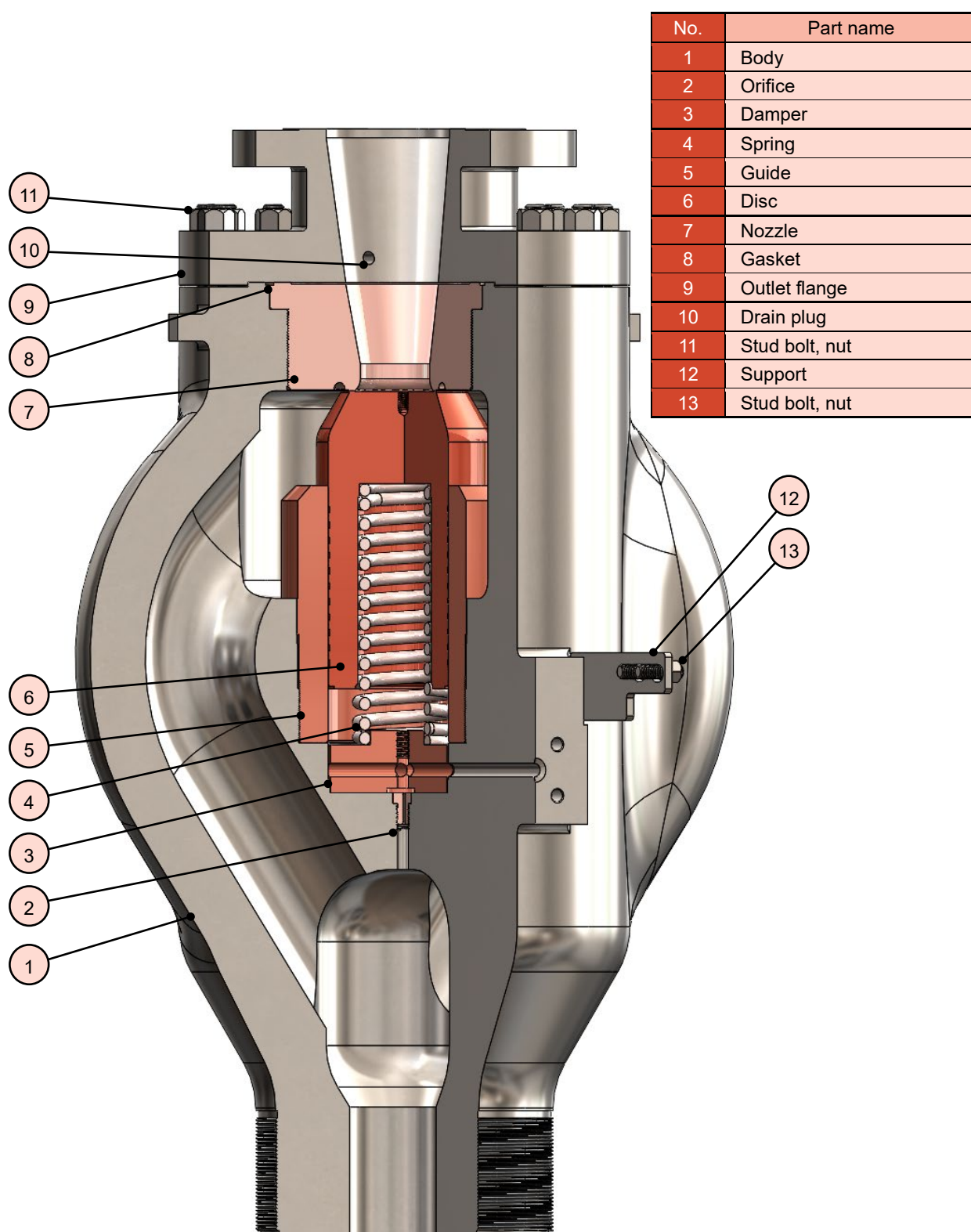


## Structure

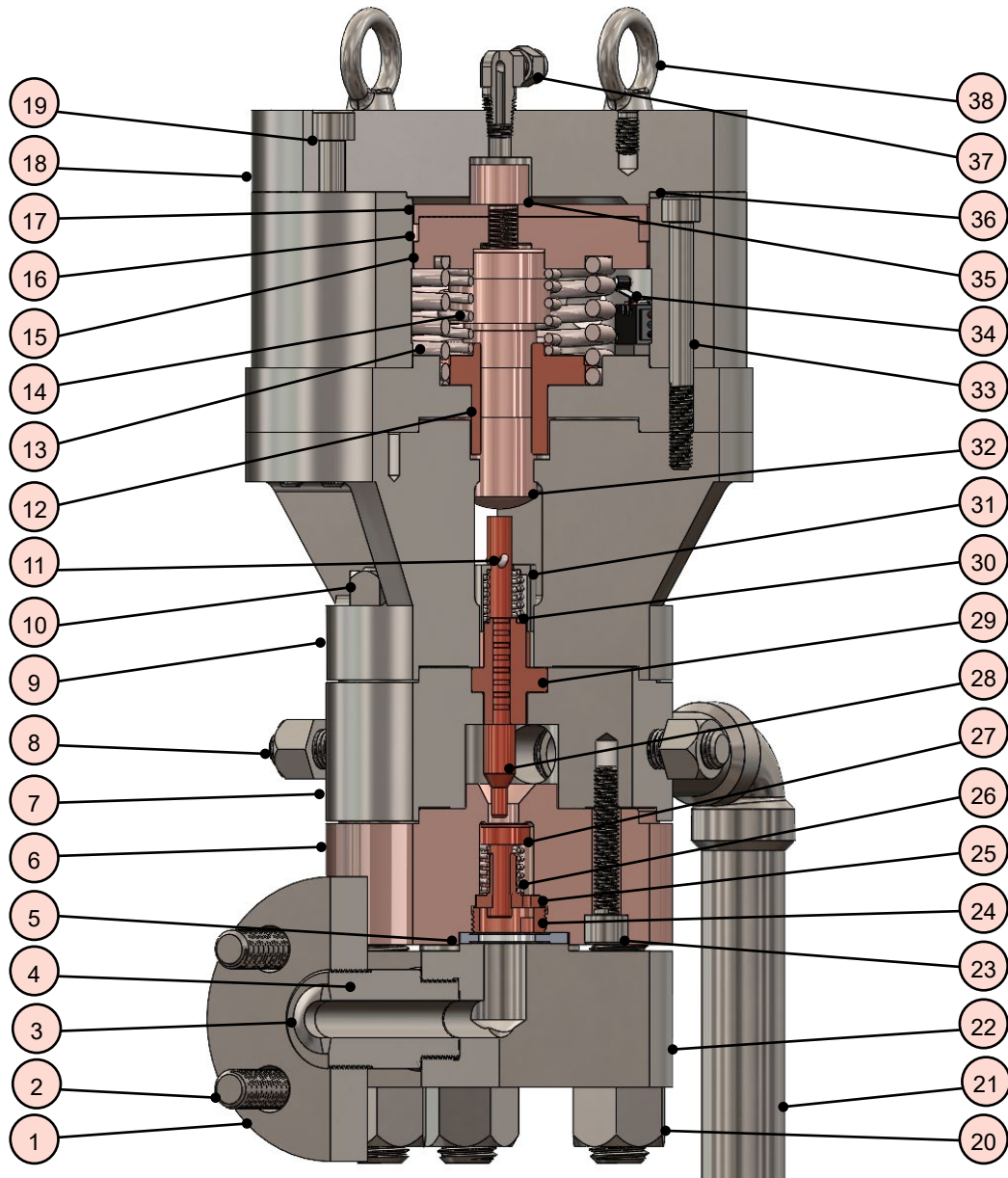
- ◆ Both the main valve and pilot valve are of the back-seat type.
- ◆ The flow direction is straight.



# 



# Cross-sectional View of Pilot Valve



| No. | Part name             | No. | Part name                | No. | Part name             |
|-----|-----------------------|-----|--------------------------|-----|-----------------------|
| 1   | Connection flange     | 14  | Cylinder inner spring    | 27  | Disc                  |
| 2   | Stud bolt, nut        | 15  | Piston                   | 28  | Spindle               |
| 3   | Connection gasket     | 16  | Piston seal              | 29  | Spindle guide         |
| 4   | Connection pipe       | 17  | Piston seal cover        | 30  | Spindle spring        |
| 5   | Nozzle gasket         | 18  | Cylinder cover           | 31  | Spindle spring cover  |
| 6   | Nozzle                | 19  | Cylinder cover lock bolt | 32  | Plunger               |
| 7   | Body                  | 20  | Stud bolt, nut           | 33  | Cylinder lock bolt    |
| 8   | Stud bolt, nut        | 21  | Outlet pipe              | 34  | Limit switch          |
| 9   | Cylinder base         | 22  | Nozzle flange            | 35  | Seal cover lock bolt  |
| 10  | Stud bolt, nut        | 23  | Nozzle lock bolt         | 36  | Cylinder cover O-ring |
| 11  | Spindle pin           | 24  | Disk guide retainer      | 37  | Air supply connector  |
| 12  | Plunger guide         | 25  | Disk guide               | 38  | Eyebolt               |
| 13  | Cylinder outer spring | 26  | Disk spring              | —   | —                     |

## Standard Material

Standard material by temperature

Main valve

| No. | Application temperature range (°C) | ≤400°C                                | ≤510°C               | ≤571°C               | ≤621°C                              |
|-----|------------------------------------|---------------------------------------|----------------------|----------------------|-------------------------------------|
|     | Temperature class code             | 3                                     | 5                    | 6                    | 7                                   |
| 1   | Body                               | SCPH2 or SA216M-WCB                   | SCPH21 or SA217M-WC6 | SCPH32 or SA217M-WC9 | 火 SCPH91 or SA217M-C12A (CASE 2192) |
| 2   | Orifice                            | SUS316                                |                      |                      |                                     |
| 3   | Damper                             | B637-N07750                           |                      |                      | B637-N07718                         |
| 4   | Spring                             | B637-N07750 Eq.                       |                      |                      | B637-N07718 Eq.                     |
| 5   | Guide                              | SA105M                                | SA182M-F12           | SA182M-F22           | SA182M-F91                          |
| 6   | Disc                               | SUS630 (≤320°C), B637-N07750 (≤510°C) |                      | B637-N07750          | B637-N07718                         |
| 7   | Nozzle                             | SA105M                                | SA182M-F12           | SA182M-F22           | SA182M-F91                          |
| 8   | Gasket                             | B637-N07750                           |                      |                      |                                     |
| 9   | Valve outlet                       | SA105M                                | SA182M-F12           | SA182M-F22           | SA182M-F91                          |
| 10  | Drain plug                         | SUS304                                |                      |                      |                                     |
| 11  | Stud bolt, nut                     | SA193-B7.SA194-2H                     |                      | SA193-B16.SA194-4    |                                     |
| 12  | Support                            | SS400                                 |                      |                      |                                     |
| 13  | Stud bolt, nut                     | SUS304                                |                      |                      |                                     |

Pilot valve

| No. | Application temperature range (°C) | ≤400°C            | ≤510°C     | ≤571°C            | ≤621°C          |
|-----|------------------------------------|-------------------|------------|-------------------|-----------------|
|     | Temperature class code             | 3                 | 5          | 6                 | 7               |
| 1   | Connection flange                  | SUS316            |            |                   |                 |
| 2   | Stud bolt, nut                     | SA193-B7.SA194-2H |            | SA193-B16.SA194-4 |                 |
| 3   | Connection gasket                  | SUS321            |            |                   |                 |
| 4   | Connection pipe                    | SUS316            |            |                   |                 |
| 5   | Nozzle gasket                      | V8590L-SUS316     |            |                   |                 |
| 6   | Nozzle                             | SA105M            | SA182M-F12 | SA182M-F22        | SA182M-F91      |
| 7   | Body                               | SA105M            | SA182M-F12 | SA182M-F22        | SA182M-F91      |
| 8   | Stud bolt, nut                     | SUS304            |            |                   |                 |
| 9   | Cylinder base                      | SUS304            |            |                   |                 |
| 10  | Stud bolt, nut                     | SA193-B7.SA194-2H |            | SA193-B16.SA194-4 |                 |
| 11  | Spindle pin                        | SUS304            |            |                   |                 |
| 12  | Plunger guide                      | SUS630            |            |                   |                 |
| 13  | Cylinder outer spring              | SUS304            |            |                   |                 |
| 14  | Cylinder inner spring              | SUS304            |            |                   |                 |
| 15  | Piston                             | SUS304            |            |                   |                 |
| 16  | Piston seal                        | SUS304.PTFE       |            |                   |                 |
| 17  | Piston seal cover                  | SUS304            |            |                   |                 |
| 18  | Cylinder cover                     | SUS304            |            |                   |                 |
| 19  | Cylinder cover lock bolt           | SUS304            |            |                   |                 |
| 20  | Stud bolt, nut                     | SA193-B7.SA194-2H |            | SA193-B16.SA194-4 |                 |
| 21  | Outlet pipe                        | SUS304.SCS13      |            |                   |                 |
| 22  | Nozzle flange                      | SUS316            |            |                   |                 |
| 23  | Nozzle lock bolt                   | SUS316            |            |                   |                 |
| 24  | Disk guide retainer                | SUS420J2          |            |                   |                 |
| 25  | Disk guide                         | B865-N05500       |            |                   |                 |
| 26  | Disk spring                        | B637-N07750 Eq.   |            |                   | B637-N07718 Eq. |
| 27  | Disc                               | BISHILITE         |            |                   |                 |
| 28  | Spindle                            | BISHILITE         |            |                   |                 |
| 29  | Spindle guide                      | B865-N05500       |            |                   |                 |
| 30  | Spindle spring                     | SUS304            |            |                   |                 |

## Pilot valve (continued)

| No. | Application temperature range<br>(°C) | ≤400°C          | ≤510°C | ≤571°C | ≤621°C |
|-----|---------------------------------------|-----------------|--------|--------|--------|
|     | Temperature class code                | 3               | 5      | 6      | 7      |
| 31  | Spindle spring cover                  | SUS304          |        |        |        |
| 32  | Plunger                               | SUS630          |        |        |        |
| 33  | Cylinder lock bolt                    | SUS304          |        |        |        |
| 34  | Limit switch                          | Purchased items |        |        |        |
| 35  | Seal cover lock bolt                  | SUS304          |        |        |        |
| 36  | Cylinder cover O-ring                 | NBR             |        |        |        |
| 37  | Air supply connector                  | SUS316          |        |        |        |
| 38  | Eyebolt                               | SUS304          |        |        |        |

### Actual Area

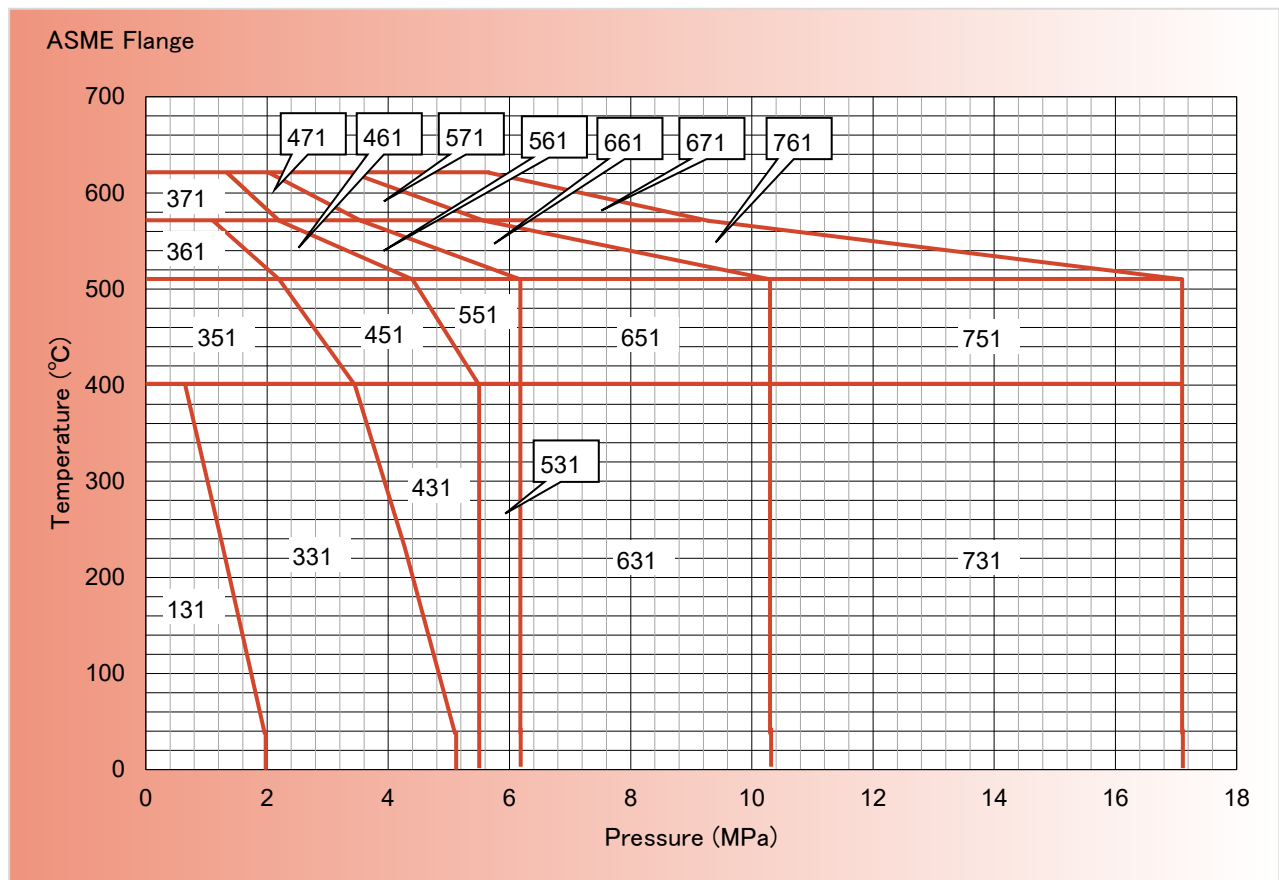
| Orifice | Throat diameter<br>mm | Nominal lift<br>mm | Throat area<br>mm <sup>2</sup> |
|---------|-----------------------|--------------------|--------------------------------|
| 30      | 30.0                  | 16.0               | 706.9                          |
| 37.5    | 37.5                  | 20.0               | 1104.5                         |
| 49      | 49.0                  | 26.0               | 1885.7                         |
| 60      | 60.0                  | 32.0               | 2827.4                         |
| 75      | 75.0                  | 40.0               | 4417.9                         |
| 112.5   | 112.5                 | 60.0               | 9940.2                         |
| 150     | 150.0                 | 80.0               | 17671.5                        |

### Pressure-temperature Rating

| Pressure-Temperature Rating PCV ASME Flange |                                      |              |        |                              |      |      |      |      |     |     |
|---------------------------------------------|--------------------------------------|--------------|--------|------------------------------|------|------|------|------|-----|-----|
| Body material                               | Size                                 | Flange class |        | Maximum Pressure Limit (MPa) |      |      |      |      |     |     |
|                                             |                                      |              |        | Temperature<br>(°C)          | 38   | 232  | 400  | 510  | 571 | 621 |
|                                             |                                      | Inlet        | Outlet | *1 *2                        | 3    | 5    | 6    | 7    |     |     |
| SCPH2<br>SA216M-WCB                         | 1.1/2*30*3<br>2*37.5*4<br>2.1/2*49*4 | 150          | 150    | 1                            | 1.96 | 1.27 | 0.65 | —    | —   | —   |
|                                             |                                      | 300          |        | 3                            | 5.10 | 4.27 | 3.45 | —    | —   | —   |
|                                             |                                      | 600          |        | 4                            | 5.50 | 5.50 | 5.50 | —    | —   | —   |
|                                             |                                      | 900          |        | 5                            | 6.18 | 6.18 | 6.18 | —    | —   | —   |
|                                             |                                      | 1500         |        | 6                            | 10.3 | 10.3 | 10.3 | —    | —   | —   |
|                                             |                                      | 2500         | 300    | 7                            | 17.1 | 17.1 | 17.1 | —    | —   | —   |
| SCPH21<br>SA217M-WC6                        | 3*60*6<br>4*75*6                     | 300          | 150    | 3                            |      |      | 3.45 | 2.20 | —   | —   |
|                                             |                                      | 600          |        | 4                            |      |      | 5.50 | 4.40 | —   | —   |
|                                             |                                      | 900          |        | 5                            |      |      | 6.18 | 6.18 | —   | —   |
|                                             |                                      | 1500         |        | 6                            |      |      | 10.3 | 10.3 | —   | —   |
|                                             |                                      | 2500         | 300    | 7                            |      |      | 17.1 | 17.1 | —   | —   |

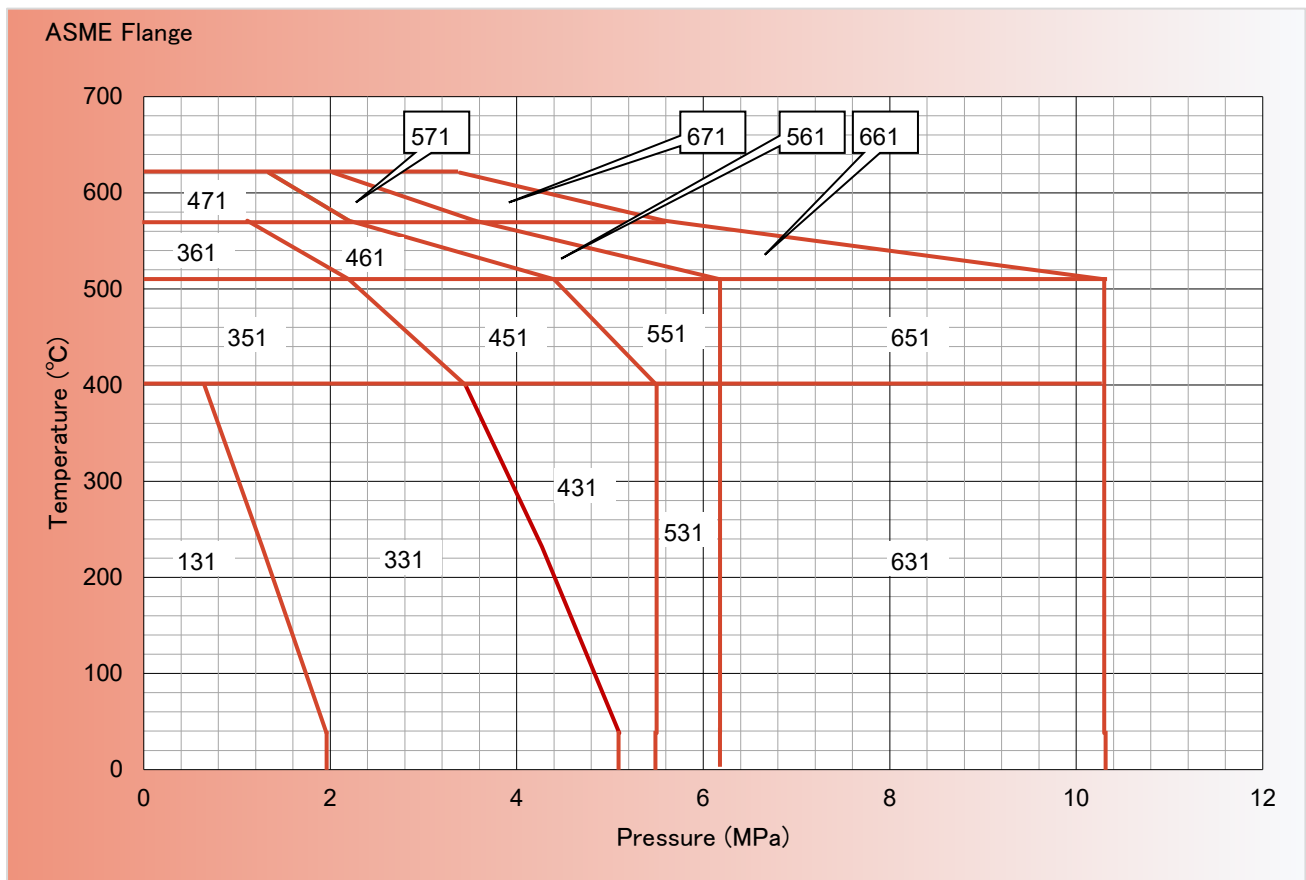
| Pressure–temperature Rating    PCV ASME Flange |                                      |              |        |                              |    |     |     |      |      |      |
|------------------------------------------------|--------------------------------------|--------------|--------|------------------------------|----|-----|-----|------|------|------|
| Body material                                  | Size                                 | Flange class |        | Maximum Pressure Limit (MPa) |    |     |     |      |      |      |
|                                                |                                      |              |        | Temperature (°C)             | 38 | 232 | 400 | 510  | 571  | 621  |
|                                                |                                      | Inlet        | Outlet | *1    *2                     | 3  |     |     | 5    | 6    | 7    |
| SCPH32<br>SA217M-<br>WC9                       | 1.1/2*30*3<br>2*37.5*4<br>2.1/2*49*4 | 300          | 150    | 3                            |    |     |     | 2.20 | 1.11 | —    |
|                                                |                                      | 600          |        | 4                            |    |     |     | 4.40 | 2.20 | —    |
|                                                |                                      | 900          |        | 5                            |    |     |     | 6.18 | 3.55 | —    |
|                                                |                                      | 1500         |        | 6                            |    |     |     | 10.3 | 5.58 | —    |
|                                                |                                      | 2500         | 300    | 7                            |    |     |     | 17.1 | 9.28 | —    |
| 火 SCPH91<br>SA217M-<br>C12A<br>(CASE 2192)     | 3*60*6<br>4*75*6                     | 300          | 150    | 3                            |    |     |     |      | 2.20 | 1.34 |
|                                                |                                      | 600          |        | 4                            |    |     |     |      | 2.20 | 1.34 |
|                                                |                                      | 900          |        | 5                            |    |     |     |      | 3.55 | 2.03 |
|                                                |                                      | 1500         |        | 6                            |    |     |     |      | 5.58 | 3.39 |
|                                                |                                      | 2500         | 300    | 7                            |    |     |     |      | 9.28 | 5.66 |

\*1 Indicates the pressure class code. \*2 Indicates the temperature code.



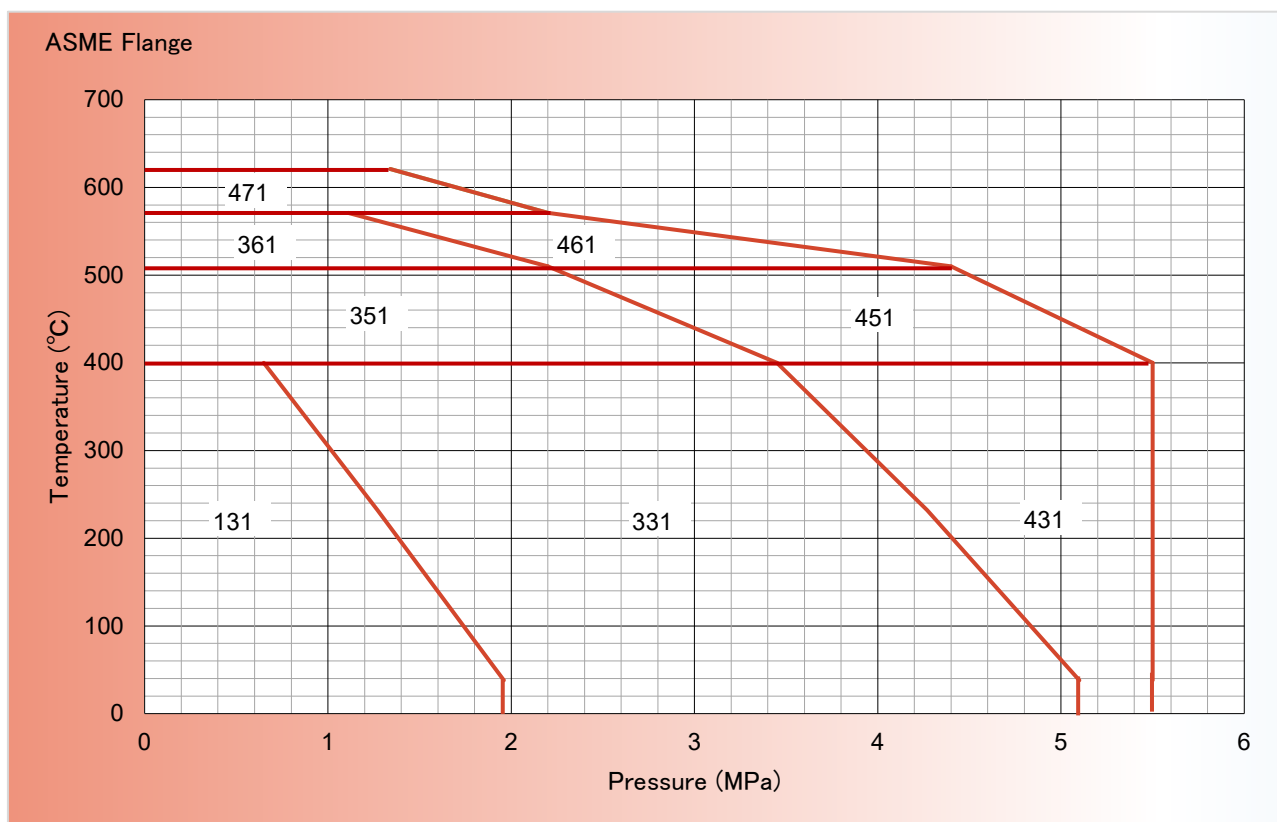
| Pressure-temperature Rating    PCV ASME Flange |           |              |        |                                       |      |      |      |      |      |      |
|------------------------------------------------|-----------|--------------|--------|---------------------------------------|------|------|------|------|------|------|
| Body material                                  | Size      | Flange class |        | Maximum Pressure Limit (MPa)          |      |      |      |      |      |      |
|                                                |           |              |        | Temperature<br>(°C)                   | 38   | 232  | 400  | 510  | 571  | 621  |
|                                                |           | Inlet        | Outlet | <div><div>*1</div><div>*2</div></div> | 3    |      |      | 5    | 6    | 7    |
| SCPH2<br>SA216M-WCB                            | 6*112.5*8 | 150          | 150    | 1                                     | 1.96 | 1.27 | 0.65 | —    | —    | —    |
|                                                |           | 300          |        | 3                                     | 5.10 | 4.27 | 3.45 | —    | —    | —    |
|                                                |           | 600          |        | 4                                     | 5.50 | 5.50 | 5.50 | —    | —    | —    |
|                                                |           | 900          |        | 5                                     | 6.18 | 6.18 | 6.18 | —    | —    | —    |
|                                                |           | 1500         |        | 6                                     | 10.3 | 10.3 | 10.3 | —    | —    | —    |
| SCPH21<br>SA217M-WC6                           |           | 300          | 150    | 3                                     |      |      | 3.45 | 2.20 | —    | —    |
|                                                |           | 600          |        | 4                                     |      |      | 5.50 | 4.40 | —    | —    |
|                                                |           | 900          |        | 5                                     |      |      | 6.18 | 6.18 | —    | —    |
|                                                |           | 1500         |        | 6                                     |      |      | 10.3 | 10.3 | —    | —    |
| SCPH32<br>SA217M-WC9                           |           | 300          | 150    | 3                                     |      |      |      | 2.20 | 1.11 | —    |
|                                                |           | 600          |        | 4                                     |      |      |      | 4.40 | 2.20 | —    |
|                                                |           | 900          |        | 5                                     |      |      |      | 6.18 | 3.55 | —    |
|                                                |           | 1500         |        | 6                                     |      |      |      | 10.3 | 5.58 | —    |
| 火 SCPH91<br>SA217M-C12A<br>(CASE 2192)         |           | 300          | 150    | 3                                     |      |      |      |      | 2.20 | 1.34 |
|                                                |           | 600          |        | 4                                     |      |      |      |      | 2.20 | 1.34 |
|                                                |           | 900          |        | 5                                     |      |      |      |      | 3.55 | 2.03 |
|                                                |           | 1500         |        | 6                                     |      |      |      |      | 5.58 | 3.39 |

\*1 Indicates the pressure class code. \*2 Indicates the temperature code.



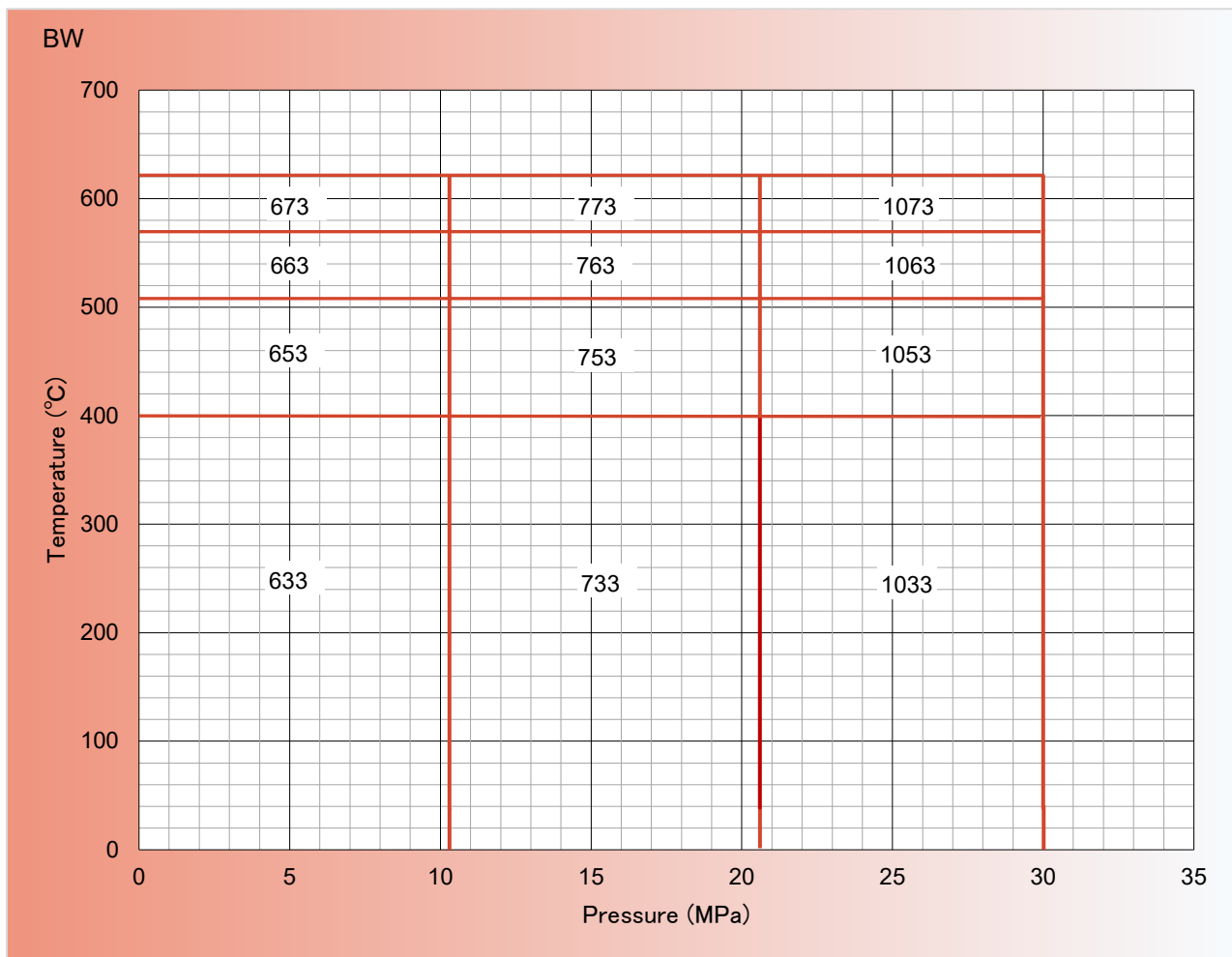
| Pressure–temperature Rating    PCV ASME Flange |          |              |        |                              |      |      |      |      |      |      |
|------------------------------------------------|----------|--------------|--------|------------------------------|------|------|------|------|------|------|
| Body material                                  | Size     | Flange class |        | Maximum Pressure Limit (MPa) |      |      |      |      |      |      |
|                                                |          |              |        | Temperature (°C)             | 38   | 232  | 400  | 510  | 571  | 621  |
|                                                |          | Inlet        | Outlet | *1   *2                      | 3    |      |      | 5    | 6    | 7    |
| SCPH2<br>SA216M-WCB                            | 8*150*10 | 150          | 150    | 1                            | 1.96 | 1.27 | 0.65 | —    | —    | —    |
|                                                |          | 300          |        | 3                            | 5.10 | 4.27 | 3.45 | —    | —    | —    |
|                                                |          | 600          |        | 4                            | 5.50 | 5.50 | 5.50 | —    | —    | —    |
| SCPH21<br>SA217M-WC6                           |          | 300          | 150    | 3                            |      |      | 3.45 | 2.20 | —    | —    |
|                                                |          | 600          |        | 4                            |      |      | 5.50 | 4.40 | —    | —    |
| SCPH32<br>SA217M-WC9                           |          | 300          | 150    | 3                            |      |      |      | 2.20 | 1.11 | —    |
|                                                |          | 600          |        | 4                            |      |      |      | 4.40 | 2.20 | —    |
| 火 SCPH91<br>SA217M-C12A<br>(CASE 2192)         |          | 300          | 150    | 3                            |      |      |      |      | 2.20 | 1.34 |
|                                                |          | 600          |        | 4                            |      |      |      |      | 2.20 | 1.34 |

\*1 Indicates the pressure class code. \*2 Indicates the temperature code.



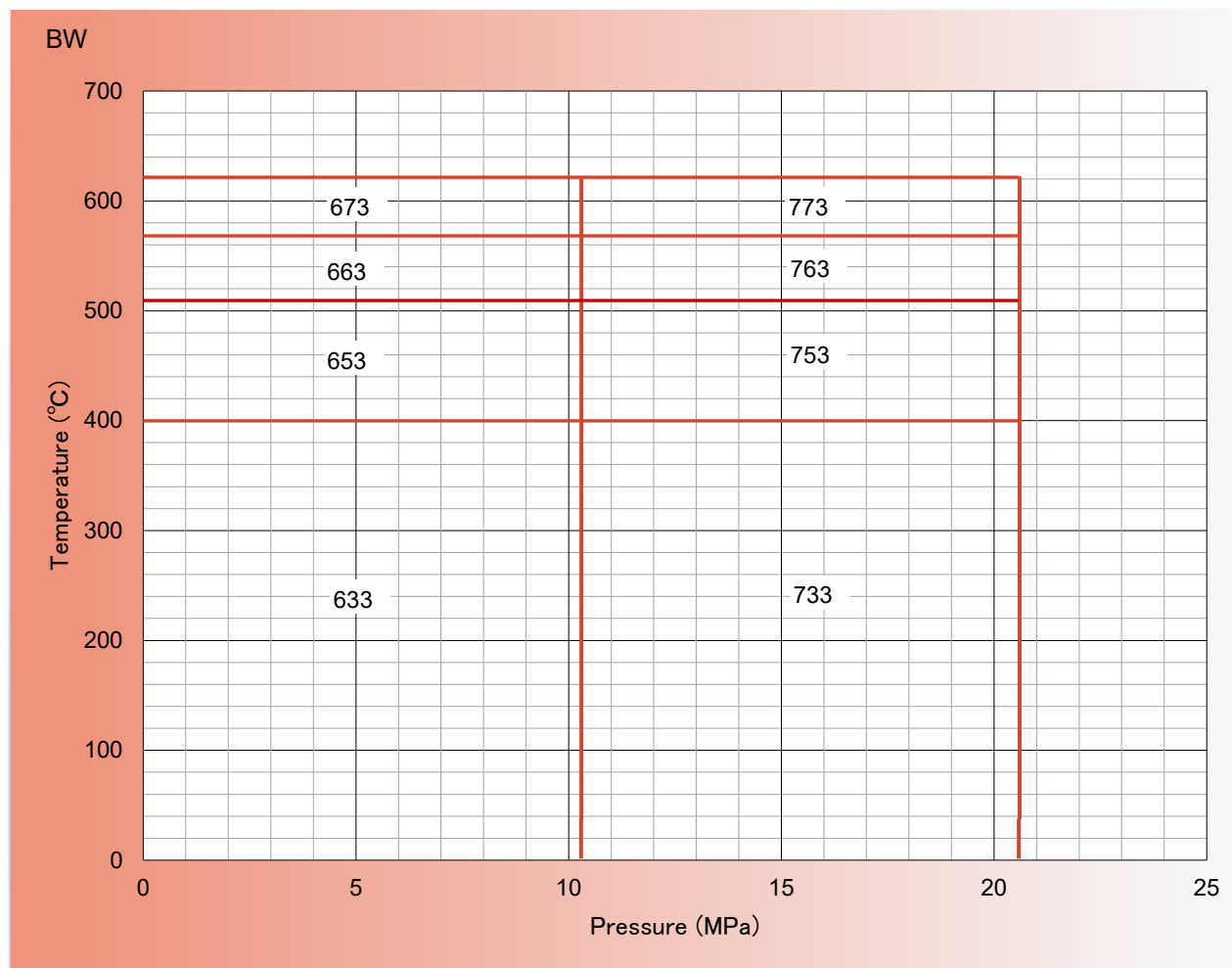
| Pressure-temperature Rating    PCV BW  |                                                |              |        |                            |      |      |      |      |      |      |      |
|----------------------------------------|------------------------------------------------|--------------|--------|----------------------------|------|------|------|------|------|------|------|
| Body material                          | Size                                           | Flange class |        | Maximum Pressure Limit MPa |      |      |      |      |      |      |      |
|                                        |                                                |              |        | Temperature<br>°C          | 38   | 232  | 400  | 510  | 571  | 621  |      |
|                                        |                                                | Inlet        | Outlet | *1    *2                   | 3    |      |      | 5    | 6    | 7    |      |
| SCPH2<br>SA216M-WCB                    | 1.1/2*30*3<br>2*37.5*4<br>2.1/2*49*4<br>3*60*6 | BW           | 150    | 6                          | 10.3 | 10.3 | 10.3 | —    | —    | —    |      |
|                                        |                                                |              | 300    | 7                          | 20.6 | 20.6 | 20.6 | —    | —    | —    |      |
|                                        |                                                |              |        | 10                         | 30.0 | 30.0 | 30.0 | —    | —    | —    |      |
| SCPH21<br>SA217M-WC6                   |                                                |              | 150    | 6                          |      |      | 10.3 | 10.3 | —    | —    |      |
|                                        |                                                |              | 300    | 7                          |      |      | 20.6 | 20.6 | —    | —    |      |
|                                        |                                                |              |        | 10                         |      |      | 30.0 | 30.0 |      | —    |      |
| SCPH32<br>SA217M-WC9                   |                                                |              | 150    | 6                          |      |      |      | 10.3 | 10.3 | —    |      |
|                                        |                                                |              | 300    | 7                          |      |      |      | 20.6 | 20.6 |      |      |
|                                        |                                                |              |        | 10                         |      |      |      | 30.0 | 30.0 |      |      |
| 火 SCPH91<br>SA217M-C12A<br>(CASE 2192) |                                                |              | 150    | 6                          |      |      |      |      |      | 10.3 | 10.3 |
|                                        |                                                |              | 300    | 7                          |      |      |      |      |      | 20.6 | 20.6 |
|                                        |                                                |              |        | 10                         |      |      |      |      |      |      | 30.0 |

\*1 Indicates the pressure class code. \*2 Indicates the temperature code.



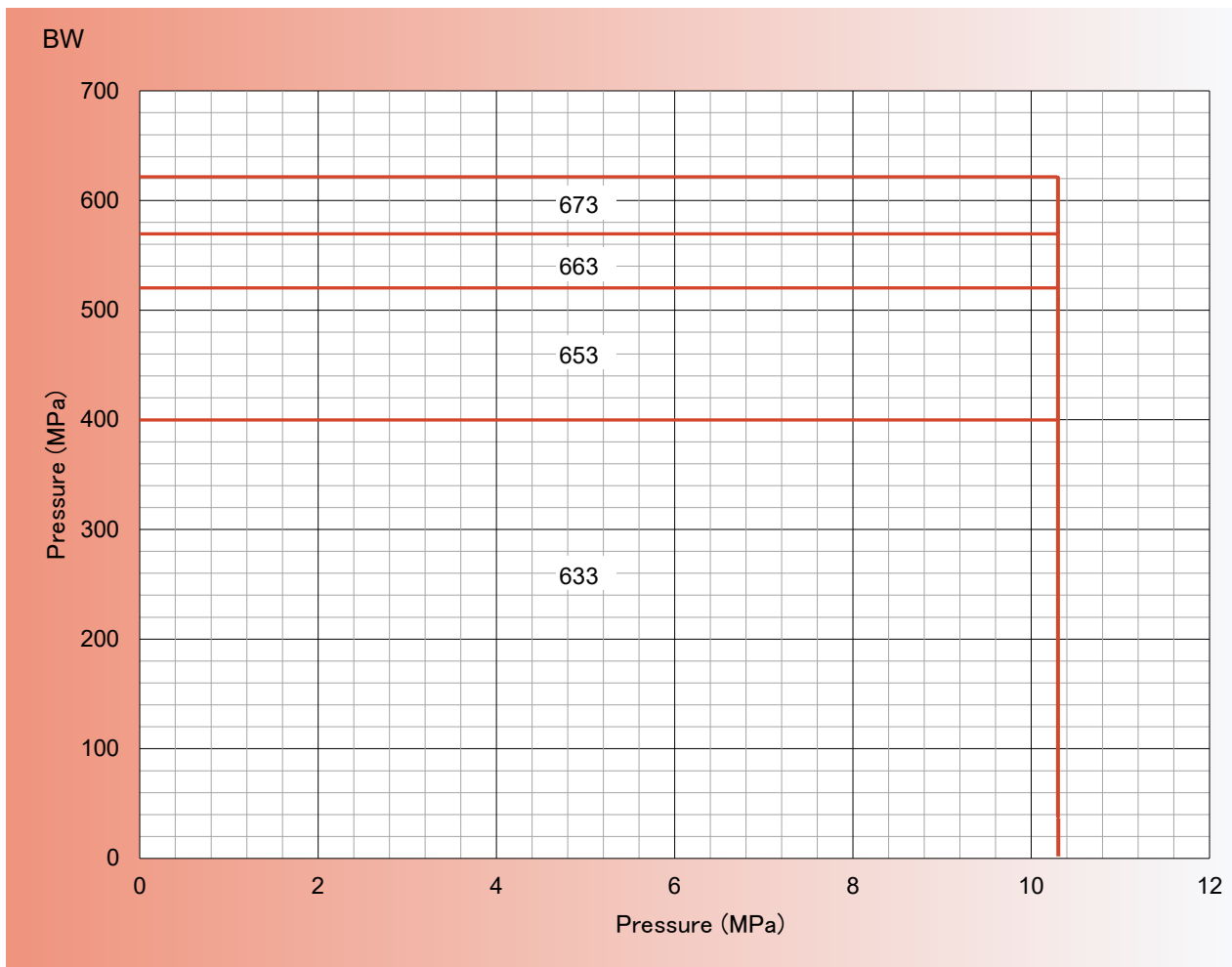
| Pressure-temperature Rating PCV BW     |        |              |        |                     |                            |      |      |      |      |      |
|----------------------------------------|--------|--------------|--------|---------------------|----------------------------|------|------|------|------|------|
| Body material                          | Size   | Flange class |        | Temperature<br>(°C) | Maximum Pressure Limit MPa |      |      |      |      |      |
|                                        |        |              |        |                     | 38                         | 232  | 400  | 510  | 571  | 621  |
|                                        |        | Inlet        | Outlet | *1 *2               | 3                          |      |      | 5    | 6    | 7    |
| SCPH2<br>SA216M-WCB                    | 4*75*6 | BW           | 150    | 6                   | 10.3                       | 10.3 | 10.3 | —    | —    | —    |
|                                        |        |              | 300    | 7                   | 20.6                       | 20.6 | 20.6 | —    | —    | —    |
| SCPH21<br>SA217M-WC6                   |        |              | 150    | 6                   |                            |      | 10.3 | 10.3 | —    | —    |
|                                        |        |              | 300    | 7                   |                            |      | 20.6 | 20.6 | —    | —    |
| SCPH32<br>SA217M-WC9                   |        |              | 150    | 6                   |                            |      |      | 10.3 | 10.3 | —    |
|                                        |        |              | 300    | 7                   |                            |      |      | 20.6 | 20.6 |      |
| 火 SCPH91<br>SA217M-C12A<br>(CASE 2192) |        |              | 150    | 6                   |                            |      |      |      | 10.3 | 10.3 |
|                                        |        |              | 300    | 7                   |                            |      |      |      | 20.6 | 20.6 |

\*1 Indicates the pressure class code. \*2 Indicates the temperature code.

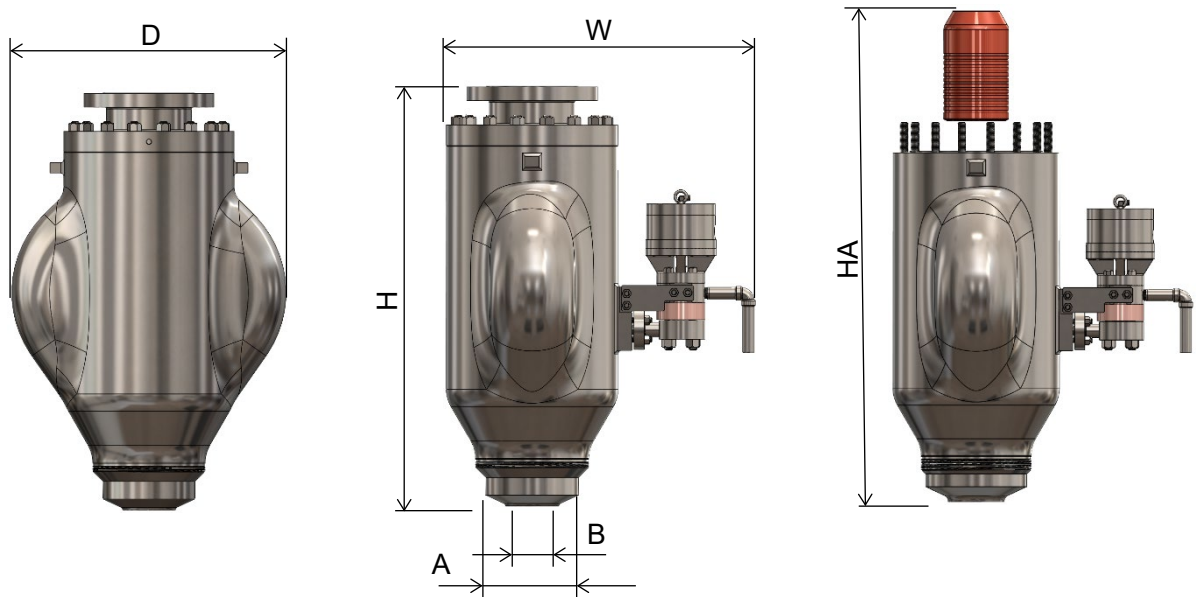


| Pressure-temperature Rating PCV BW      |                       |              |        |                              |      |      |      |      |      |      |
|-----------------------------------------|-----------------------|--------------|--------|------------------------------|------|------|------|------|------|------|
| Body material                           | Size                  | Flange class |        | Maximum Pressure Limit (MPa) |      |      |      |      |      |      |
|                                         |                       |              |        | Temperature (°C)             | 38   | 232  | 400  | 510  | 571  | 621  |
|                                         |                       | Inlet        | Outlet | *1 *2                        | 3    |      |      | 5    | 6    | 7    |
| SCPH2<br>SA216M-WCB                     | 6*112.5*8<br>8*150*10 | BW           | 150    | 6                            | 10.3 | 10.3 | 10.3 | —    | —    | —    |
| SCPH21<br>SA217M-WC6                    |                       |              | 150    | 6                            |      |      | 10.3 | 10.3 | —    | —    |
| SCPH32<br>SA217M-WC9                    |                       |              | 150    | 6                            |      |      |      | 10.3 | 10.3 | —    |
| 火 SCPH91<br>SA217M-C12A<br>(CASE 2192)) |                       |              | 150    | 6                            |      |      |      |      | 10.3 | 10.3 |

\*1 Indicates the pressure class code. \*2 Indicates the temperature code.



## ◆ Dimensions and Weight



|            |                     | ASME         | Flange | Dimensions and weight |            |     |     | Units: mm, kg      |                    |
|------------|---------------------|--------------|--------|-----------------------|------------|-----|-----|--------------------|--------------------|
| Size       | Pressure class code | Flange class |        | Inlet diameter        | Dimensions |     |     | Disassembly height | Approximate weight |
|            |                     | Inlet        | Outlet | B                     | D          | W   | H   | HA                 |                    |
| 1.1/2*30*3 | 1                   | 150          | 150    | 40                    | 235        | 525 | 490 | 700                | 140                |
|            | 3                   | 300          |        |                       |            |     |     |                    |                    |
|            | 4                   | 600          |        |                       |            |     |     |                    |                    |
|            | 5                   | 900          |        |                       |            |     |     |                    |                    |
|            | 6                   | 1500         |        |                       |            |     |     |                    |                    |
|            | 7                   | 2500         | 300    |                       |            |     | 505 | 730                | 150                |
| 2*37.5*4   | 1                   | 150          | 150    | 50                    | 300        | 560 | 600 | 830                | 210                |
|            | 3                   | 300          |        |                       |            |     |     |                    |                    |
|            | 4                   | 600          |        |                       |            |     |     |                    |                    |
|            | 5                   | 900          |        |                       |            |     |     |                    |                    |
|            | 6                   | 1500         |        |                       |            |     |     |                    |                    |
|            | 7                   | 2500         | 300    |                       |            |     | 615 | 870                | 220                |
| 2.1/2*49*4 | 1                   | 150          | 150    | 65                    | 400        | 625 | 735 | 970                | 350                |
|            | 3                   | 300          |        |                       |            |     |     |                    |                    |
|            | 4                   | 600          |        |                       |            |     |     |                    |                    |
|            | 5                   | 900          |        |                       |            |     |     |                    |                    |
|            | 6                   | 1500         |        |                       |            |     |     |                    |                    |
|            | 7                   | 2500         | 300    |                       |            |     | 750 | 1010               | 360                |
| 3*60*6     | 1                   | 150          | 150    | 80                    | 480        | 685 | 880 | 1160               | 590                |
|            | 3                   | 300          |        |                       |            |     |     |                    |                    |
|            | 4                   | 600          |        |                       |            |     |     |                    |                    |
|            | 5                   | 900          |        |                       |            |     |     |                    |                    |
|            | 6                   | 1500         |        |                       |            |     |     |                    |                    |
|            | 7                   | 2500         | 300    |                       |            |     | 900 | 1200               | 600                |

| ASME      |                     | Flange       |        | Dimensions and weight |            |      |      | Units: mm, kg      |                    |
|-----------|---------------------|--------------|--------|-----------------------|------------|------|------|--------------------|--------------------|
| Size      | Pressure class code | Flange class |        | Inlet diameter        | Dimensions |      |      | Disassembly height | Approximate weight |
|           |                     | Inlet        | Outlet |                       | B          | D    | W    | HA                 |                    |
| 4*75*6    | 1                   | 150          | 150    | 100                   | 590        | 740  | 1000 | 1320               | 900                |
|           | 3                   | 300          |        |                       |            |      |      |                    |                    |
|           | 4                   | 600          |        |                       |            |      |      |                    |                    |
|           | 5                   | 900          |        |                       |            |      |      |                    |                    |
|           | 6                   | 1500         |        |                       |            |      |      |                    |                    |
|           | 7                   | 2500         | 300    |                       |            |      | 1015 | 1360               | 920                |
| 6*112.5*8 | 1                   | 150          | 150    | 150                   | 805        | 860  | 1220 | 1550               | 1500               |
|           | 3                   | 300          |        |                       |            |      |      |                    |                    |
|           | 4                   | 600          |        |                       |            |      |      |                    |                    |
|           | 5                   | 900          |        |                       |            |      |      |                    |                    |
|           | 6                   | 1500         |        |                       |            |      |      |                    |                    |
| 8*150*10  | 1                   | 150          | 150    | 200                   | 1040       | 1000 | 1530 | 1900               | 2200               |
|           | 3                   | 300          |        |                       |            |      |      |                    |                    |
|           | 4                   | 600          |        |                       |            |      |      |                    |                    |

| BW         |                     |            |        |     |                |     |     |     |            |      |      |                    |                    | Dimensions and weight |  |  |  | Units: mm, kg |  |
|------------|---------------------|------------|--------|-----|----------------|-----|-----|-----|------------|------|------|--------------------|--------------------|-----------------------|--|--|--|---------------|--|
| Size       | Pressure class code | Connection |        | *1  | Temperature °C |     |     |     | Dimensions |      |      | Disassembly height | Approximate weight |                       |  |  |  |               |  |
|            |                     |            |        |     | 400            | 510 | 571 | 621 |            |      |      |                    |                    |                       |  |  |  |               |  |
|            |                     | Inlet      | Outlet | B   | A              |     |     |     | D          | W    | H    | HA                 |                    |                       |  |  |  |               |  |
| 1.1/2*30*3 | 6                   | BW         | 150    | 42  | 65             | 70  | 85  | 85  | 235        | 525  | 490  | 700                | 140                |                       |  |  |  |               |  |
|            | 7                   |            | 300    |     | 75             | 85  | 130 | 130 |            |      | 505  | 730                | 150                |                       |  |  |  |               |  |
|            | 10                  |            |        |     | 85             | 105 |     | 135 |            |      |      |                    |                    |                       |  |  |  |               |  |
| 2*37.5*4   | 6                   | BW         | 150    | 52  | 80             | 90  | 105 | 105 | 300        | 560  | 600  | 830                | 210                |                       |  |  |  |               |  |
|            | 7                   |            | 300    |     | 95             | 105 | 160 | 160 |            |      | 615  | 870                | 220                |                       |  |  |  |               |  |
|            | 10                  |            |        |     | 105            | 130 |     | 170 |            |      |      |                    |                    |                       |  |  |  |               |  |
| 2.1/2*49*4 | 6                   | BW         | 150    | 67  | 105            | 110 | 135 | 135 | 400        | 625  | 735  | 970                | 350                |                       |  |  |  |               |  |
|            | 7                   |            | 300    |     | 120            | 135 | 205 | 205 |            |      | 750  | 1010               | 360                |                       |  |  |  |               |  |
|            | 10                  |            |        |     | 135            | 165 |     | 220 |            |      |      |                    |                    |                       |  |  |  |               |  |
| 3*60*6     | 6                   | BW         | 150    | 82  | 130            | 135 | 165 | 165 | 480        | 685  | 880  | 1160               | 590                |                       |  |  |  |               |  |
|            | 7                   |            | 300    |     | 145            | 165 | 250 | 250 |            |      | 900  | 1200               | 600                |                       |  |  |  |               |  |
|            | 10                  |            |        |     | 165            | 205 |     | 270 |            |      |      |                    |                    |                       |  |  |  |               |  |
| 4*75*6     | 6                   | BW         | 150    | 102 | 160            | 175 | 210 | 210 | 590        | 740  | 1000 | 1320               | 900                |                       |  |  |  |               |  |
|            | 7                   |            | 300    |     | 185            | 210 | 315 | 315 |            |      | 1015 | 1360               | 920                |                       |  |  |  |               |  |
| 6*112.5*8  | 6                   | BW         | 150    | 152 | 230            | 250 | 300 | 300 | 805        | 860  | 1210 | 1550               | 1500               |                       |  |  |  |               |  |
| 8*150*10   | 6                   | BW         | 150    | 202 | 275            | 285 | 310 | 310 | 1040       | 1000 | 1530 | 1900               | 2200               |                       |  |  |  |               |  |

\*1 Thinning diameter



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