

# STOP VALVE (GLOBE VALVE)

- PLASTIC BODY WITH HIGH RESISTANCE TO CORROSION, CHEMICALS AND WEAR.
- COMPACT SIZE AND AFFORDABLE TYPE
- ALSO AVAILABLE FOR FLOW CONTROL OR NEEDLE VALVE (SPECIAL ORDER)

## BASIC SPECIFICATIONS

VALVE TYPE ——— STOP VALVE (GLOBE VALVE)

SIZE ——— 15 mm—100 mm (1/2 inch—4 inch)

BODY MATERIAL ——— **U-PVC** **PP**

SEAL MATERIAL / PACKING — **EPDM** **PTFE** etc.

CONNECTION / FLANGED — JIS5K, JIS10K, DIN, ANSI

SOCKET — JIS, DIN, ANSI

THREADED— Rc, Rp, NPT

|              | FLUID TEMPERATURE | MAXIMUM WORKING PRESSURE<br>(NORMAL TEMPERATURE) MPa(kgf/cm <sup>2</sup> ) | CONNECTION METHOD |        |          |
|--------------|-------------------|----------------------------------------------------------------------------|-------------------|--------|----------|
|              |                   |                                                                            | FLANGED           | SOCKET | THREADED |
| <b>U-PVC</b> | 0°C ~ 50°C        | 1.0 {10.2}                                                                 | ○                 | ○      | ○        |
| <b>PP</b>    | -20°C ~ 80°C      | 0.75 {7.7}                                                                 | ○                 | —      | ○        |

**NOTES** The maximum working pressure is the value including the water hammer pressure. Be careful that the maximum working pressure is not exceeded during use.

\* Concerning the allowable pressure for each temperature and material, see the technical documents at the end of this catalog.



## PARTS LIST **MANUAL**

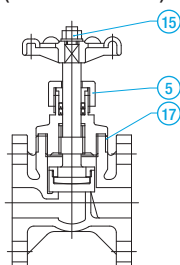
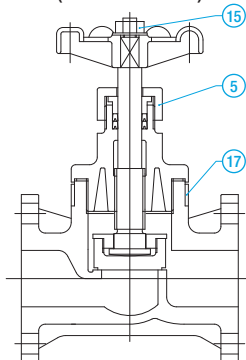
| PRODUCT MODEL<br>CODE LIST | ACTUATION      | TYPE                        | OPERATING SYSTEM | BODY MATERIAL   | SEAL MATERIAL             | CONNECTION                          | STANDARD                     | SIZE                  |
|----------------------------|----------------|-----------------------------|------------------|-----------------|---------------------------|-------------------------------------|------------------------------|-----------------------|
| <b>MANUAL</b>              | V              | ST                          | MH               | *               | *                         | *                                   | *                            | ***                   |
|                            | ⋮              | ⋮                           | ⋮                | ⋮               | ⋮                         | ⋮                                   | ⋮                            | ⋮                     |
|                            | V MANUAL VALVE | ST STOP VALVE (GLOBE VALVE) | MH ROUND HANDLE  | U U-PVC<br>P PP | E EPDM<br>V FKM<br>T PTFE | S SOCKET<br>N THREADED<br>F FLANGED | J JIS<br>1 JIS10K<br>5 JIS5K | 015 15mm<br>100 100mm |

## STOP VALVE (GLOBE VALVE)

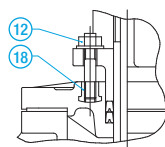
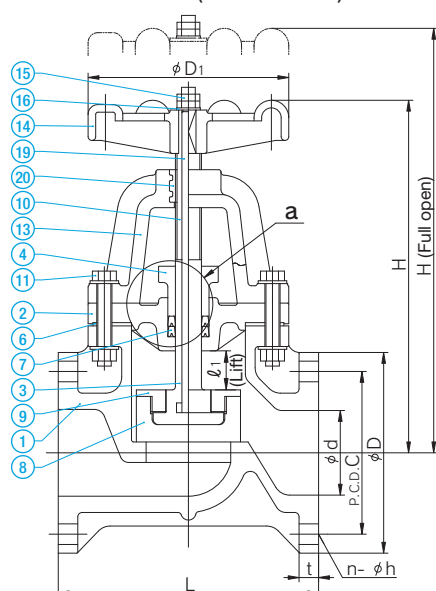
TYPE—VSTMH

CONNECTION / FLANGED—JIS, DIN, ANSI

## FLANGED

15 mm — 32 mm  
(1½ inch — 1¼ inch)40 mm — 50 mm  
(1½ inch — 2 inch)

65 mm — 100 mm (2½ inch — 4 inch)



DETAILS OF SECTION "a"

| PART NO. / NAME               | QTY   | MATERIAL                                                  |
|-------------------------------|-------|-----------------------------------------------------------|
| ① BODY                        | 1     | U-PVC, PP                                                 |
| ② BONNET                      | 1     | U-PVC, PP                                                 |
| ③ STEM (1)                    | 1     | U-PVC, PP                                                 |
| ④ PACKING GLAND               | 1     | U-PVC, PP                                                 |
| ⑤ GLAND NUT (2)               | 1     | U-PVC                                                     |
| ⑥ PACKING (3)                 | 1     | EPDM, PTFE, etc.                                          |
| ⑦ GLAND PACKING               | 1 SET | PDM, PTFE, etc.                                           |
| ⑧ DISC                        | 1     | PP                                                        |
| ⑨ STEM HOLDER                 | 1     | PP                                                        |
| ⑩ STEM WITH TRAPEZOIDAL SCREW | 1     | C3604 .....Used for 65 to 100 mm.                         |
| ⑪ HEX BOLT/NUT                | 8     | SUS304 .....Used for 65 to 100 mm.                        |
| ⑫ STUD BOLT/NUT               | 2     | SUS304 .....Used for 65 to 100 mm.                        |
| ⑬ STEM SUPPORT                | 1     | PP .....Used for 65 to 100 mm.                            |
| ⑭ HANDLE WHEEL                | 1     | PP                                                        |
| ⑮ NUT (A)                     | 1     | U-PVC .....Used for 15 to 50 mm.                          |
|                               | 2     | SUS304 .....Used for 65 to 100 mm.                        |
| ⑯ WASHER                      | 1     | U-PVC .....Used for 15 to 50 mm.                          |
|                               | 1     | SUS304 .....Used for 65 to 100 mm.                        |
| ⑰ REINFORCEMENT RING          | 1     | SUS304 .....Used for 15 to 50 mm for body material of PP. |
| ⑱ STUD NUT                    | 2     | C3604 .....Used for 65 to 100 mm.                         |
| ⑲ EMBEDDED STEM FITTING       | 1     | SS400 .....Used for 65 to 100 mm.                         |
| ⑳ EMBEDDED SUPPORT FITTING    | 1     | BC6 .....Used for 65 to 100 mm.                           |

NOTES (1) For 65 to 100 mm, PP only.  
 (2) Used for 15 to 50 mm.  
 (3) PTFE+EPDM when the packing is made of PTFE.

## ■ JIS, DIN (Unit: mm)

|     |     |                |                |     |               |     |    |  | JIS5K |     |   |    | JIS10K |     |   |    | DIN PN10 |     |   |    |
|-----|-----|----------------|----------------|-----|---------------|-----|----|--|-------|-----|---|----|--------|-----|---|----|----------|-----|---|----|
| mm  | d   | D <sub>1</sub> | ℓ <sub>1</sub> | H   | H (FULL OPEN) | L   | t  |  | D     | C   | n | h  | D      | C   | n | h  | D        | C   | n | h  |
| 15  | 18  | 66             | 8              | 124 | 132           | 85  | 12 |  | 80    | 60  | 4 | 12 | 95     | 70  | 4 | 15 | 95       | 65  | 4 | 14 |
| 20  | 24  | 66             | 8              | 132 | 140           | 95  | 14 |  | 85    | 65  | 4 | 12 | 100    | 75  | 4 | 15 | 105      | 75  | 4 | 14 |
| 25  | 28  | 91             | 11             | 150 | 161           | 110 | 14 |  | 95    | 75  | 4 | 12 | 125    | 90  | 4 | 19 | 115      | 85  | 4 | 14 |
| 32  | 37  | 91             | 13             | 154 | 167           | 135 | 16 |  | 115   | 90  | 4 | 15 | 135    | 100 | 4 | 19 | 140      | 100 | 4 | 18 |
| 40  | 41  | 135            | 17             | 210 | 230           | 190 | 16 |  | 120   | 95  | 4 | 15 | 140    | 105 | 4 | 19 | 150      | 110 | 4 | 18 |
| 50  | 52  | 135            | 22             | 228 | 252           | 200 | 16 |  | 130   | 105 | 4 | 15 | 155    | 120 | 4 | 19 | 165      | 125 | 4 | 18 |
| 65  | 67  | 185            | 35             | 310 | 345           | 220 | 18 |  | 155   | 130 | 4 | 15 | 175    | 140 | 4 | 19 | 185      | 145 | 4 | 18 |
| 80  | 78  | 185            | 35             | 324 | 359           | 240 | 18 |  | 180   | 145 | 4 | 19 | 185    | 150 | 8 | 19 | 200      | 160 | 8 | 18 |
| 100 | 100 | 185            | 40             | 379 | 419           | 290 | 18 |  | 200   | 165 | 8 | 19 | 210    | 175 | 8 | 19 | 220      | 180 | 8 | 18 |

## ■ ANSI (Unit: inch)

|       |     |      |                |                |       |               |       |      |  | ANSI CLASS150 |      |   |      |
|-------|-----|------|----------------|----------------|-------|---------------|-------|------|--|---------------|------|---|------|
| inch  | mm  | d    | D <sub>1</sub> | ℓ <sub>1</sub> | H     | H (full open) | L     | t    |  | D             | C    | n | h    |
| 1/2   | 15  | 0.71 | 2.60           | 0.31           | 4.88  | 5.20          | 3.35  | 0.47 |  | 3.50          | 2.38 | 4 | 0.62 |
| 3/4   | 20  | 0.94 | 2.60           | 0.31           | 5.20  | 5.51          | 3.74  | 0.55 |  | 3.88          | 2.75 | 4 | 0.62 |
| 1     | 25  | 1.10 | 3.58           | 0.43           | 5.91  | 6.34          | 4.33  | 0.55 |  | 4.25          | 3.12 | 4 | 0.62 |
| 1 1/4 | 32  | 1.46 | 3.58           | 0.51           | 6.06  | 6.57          | 5.31  | 0.63 |  | 4.62          | 3.50 | 4 | 0.62 |
| 1 1/2 | 40  | 1.61 | 5.31           | 0.67           | 8.27  | 9.06          | 7.48  | 0.63 |  | 5.00          | 3.88 | 4 | 0.62 |
| 2     | 50  | 2.05 | 5.31           | 0.87           | 8.98  | 9.92          | 7.87  | 0.63 |  | 6.00          | 4.75 | 4 | 0.75 |
| 2 1/2 | 65  | 2.64 | 7.28           | 1.38           | 12.20 | 13.58         | 8.66  | 0.71 |  | 7.00          | 5.50 | 4 | 0.75 |
| 3     | 80  | 3.07 | 7.28           | 1.38           | 12.76 | 14.13         | 9.45  | 0.71 |  | 7.50          | 6.00 | 4 | 0.75 |
| 4     | 100 | 3.94 | 7.28           | 1.57           | 14.92 | 16.50         | 11.42 | 0.71 |  | 9.00          | 7.50 | 8 | 0.75 |

MANUAL

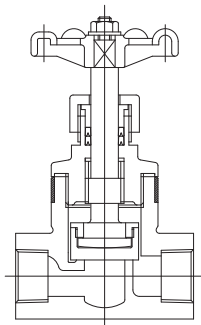
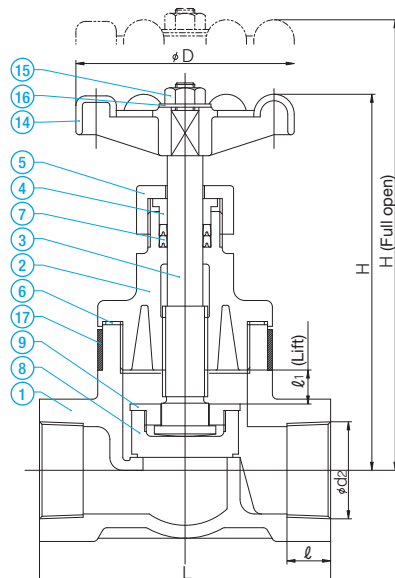
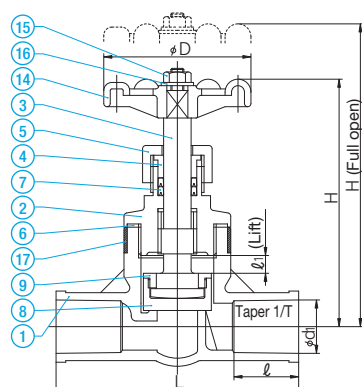
THREADED

SOCKET

## STOP VALVE (GLOBE VALVE)

TYPE—VSTMH

CONNECTION / SOCKET—JIS, DIN, ANSI THREADED—Rc, Rp, NPT

THREADED 15 mm — 32 mm  
(1½ inch — 1¼ inch)40 mm — 50 mm  
(1½ inch — 2 inch)SOCKET 15 mm — 25 mm  
(½ inch — 1 inch)

| PART NO. / NAME                | QTY   | MATERIAL                                     |
|--------------------------------|-------|----------------------------------------------|
| ① BODY                         | 1     | U-PVC, PP                                    |
| ② BONNET                       | 1     | U-PVC, PP                                    |
| ③ STEM                         | 1     | U-PVC, PP                                    |
| ④ PACKING GLAND                | 1     | U-PVC, PP                                    |
| ⑤ UNION NUT                    | 1     | U-PVC                                        |
| ⑥ PACKING                      | 1     | EPDM, PTFE, etc.                             |
| ⑦ GLAND PACKING <sup>(1)</sup> | 1 SET | EPDM, PTFE, etc.                             |
| ⑧ DISC                         | 1     | PP                                           |
| ⑨ STEM HOLDER                  | 1     | PP                                           |
| ⑭ HANDLE WHEEL                 | 1     | PP                                           |
| ⑮ NUT (A)                      | 1     | U-PVC                                        |
| ⑯ WASHER                       | 1     | U-PVC                                        |
| ⑰ REINFORCEMENT RING           | 1     | SUS304... Used when the body material is PP. |

NOTES (1) PTFE+EPDM when the gland packing is made of PTFE.

## ■ JIS, DIN (Unit: mm)

| mm | D   | ℓ <sub>1</sub> | H   | H (FULL OPEN) | JIS            |    |      |     | DIN            |    |     |    |
|----|-----|----------------|-----|---------------|----------------|----|------|-----|----------------|----|-----|----|
|    |     |                |     |               | SOCKET         |    |      |     | THREADED       |    |     |    |
|    |     |                |     |               | U-PVC          |    |      |     | U-PVC          |    |     |    |
|    |     |                |     |               | d <sub>1</sub> | ℓ  | 1/T  | L   | d <sub>2</sub> | ℓ  | L   |    |
| 15 | 66  | 8              | 124 | 132           | 22.40          | 30 | 1/34 | 110 | Rc 1/2         | 15 | 85  | 20 |
| 20 | 66  | 8              | 132 | 140           | 26.45          | 35 | 1/34 | 130 | Rc 3/4         | 18 | 95  | 25 |
| 25 | 91  | 11             | 150 | 161           | 32.55          | 40 | 1/34 | 150 | Rc 1           | 20 | 110 | 32 |
| 32 | 91  | 13             | 154 | 167           | -              | -  | -    | -   | Rc 1 1/4       | 25 | 135 | -  |
| 40 | 135 | 17             | 218 | 235           | -              | -  | -    | -   | Rc 1 1/2       | 25 | 140 | -  |
| 50 | 135 | 22             | 237 | 259           | -              | -  | -    | -   | Rc 2           | 27 | 180 | -  |

## ■ ANSI (Unit: inch)

| inch  | mm | D    | ℓ <sub>1</sub> | H    | H (FULL OPEN) | ANSI           |                |      |      | ANSI            |      |      |  |
|-------|----|------|----------------|------|---------------|----------------|----------------|------|------|-----------------|------|------|--|
|       |    |      |                |      |               | SOCKET         |                |      |      | THREADED        |      |      |  |
|       |    |      |                |      |               | d <sub>2</sub> | d <sub>1</sub> | ℓ    | L    | d <sub>2</sub>  | ℓ    | L    |  |
| 1/2   | 15 | 2.60 | 0.31           | 4.88 | 5.20          | 0.848          | 0.59           | 1.18 | 4.33 | 1/2-14NPT       | 0.59 | 3.35 |  |
| 3/4   | 20 | 2.60 | 0.31           | 5.20 | 5.51          | 1.058          | 0.71           | 1.38 | 5.12 | 3/4-14NPT       | 0.71 | 3.74 |  |
| 1     | 25 | 3.58 | 0.43           | 5.91 | 6.34          | 1.325          | 0.98           | 1.58 | 5.91 | 1-11 1/2NPT     | 0.79 | 4.33 |  |
| 1 1/4 | 32 | 3.58 | 0.51           | 6.06 | 6.57          | -              | -              | -    | -    | 1 1/4-11 1/2NPT | 0.98 | 5.32 |  |
| 1 1/2 | 40 | 5.31 | 0.67           | 8.58 | 9.25          | -              | -              | -    | -    | 1 1/2-11 1/2NPT | 0.98 | 5.51 |  |
| 2     | 50 | 5.31 | 0.87           | 9.33 | 10.20         | -              | -              | -    | -    | 2-11 1/2NPT     | 1.06 | 7.09 |  |

# CONSTANT FLOW VALVE

- USE OF THE POWER OF THE FLUID ELIMINATES THE USE OF ANY POWER SOURCE, RESULTING IN POWER SAVING.
- HIGH ACCURACY (WITHIN  $\pm 6\%$  OF FULL SCALE) AND LARGE RANGEABILITY (RATIO OF MAX. AND MIN. FLOW SETTING VALUES)
- THE SET FLOW CAN BE CHANGED BY HANDLE OPERATION. CAN ALSO BE USED AS AN INHIBITOR VALVE (COMPLETE CLOSURE).
- EQUIPPED WITH OPENING DEGREE INDICATOR THAT ALLOWS FOR CHECKING OF SET FLOW RATE (m<sup>3</sup>/hr).
- THE WETTED PART USES CORROSION-RESISTANT AND LIGHTWEIGHT PLASTIC AND ELASTOMER.
- USES SPRING (SUS304) FULLY COATED WITH FLUORORESIN HAVING ADEQUATE DURABILITY AND CHEMICAL RESISTANCE.

## BASIC SPECIFICATIONS

VALVE TYPE ————— CONSTANT FLOW VALVE

SIZE ————— 15 mm, 20 mm, 25 mm, 50 mm, 80 mm, 100 mm  
(1/2 inch, 3/4 inch, 1 inch, 2 inch, 3 inch, 4 inch)

BODY MATERIAL ————— U-PVC

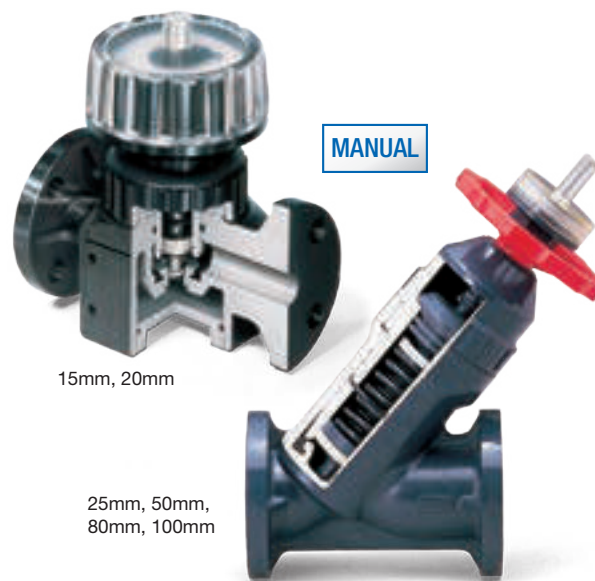
SEAL MATERIAL ————— EPDM etc.

CONNECTION / FLANGED — JIS5K, JIS10K, DIN, ANSI

|       | FLUID TEMPERATURE | MAXIMUM WORKING PRESSURE (NORMAL TEMPERATURE) MPa(kgf/cm <sup>2</sup> ) |           |
|-------|-------------------|-------------------------------------------------------------------------|-----------|
|       |                   | 15mm—80mm                                                               | 100mm     |
| U-PVC | 0°C ~ 50°C        | 1.0 {10.2}                                                              | 0.5 {5.1} |

**NOTES** The maximum working pressure is the value including the water hammer pressure. Be careful that the maximum working pressure is not exceeded during use.

\* Concerning the allowable pressure for each temperature and material, see the technical documents at the end of this catalog.

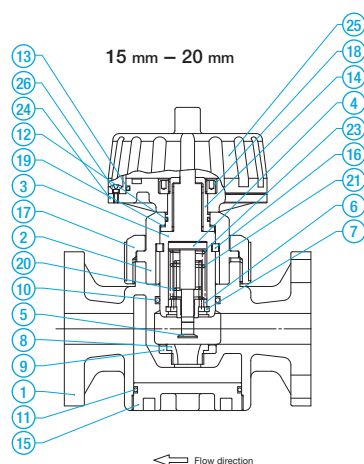


15mm, 20mm

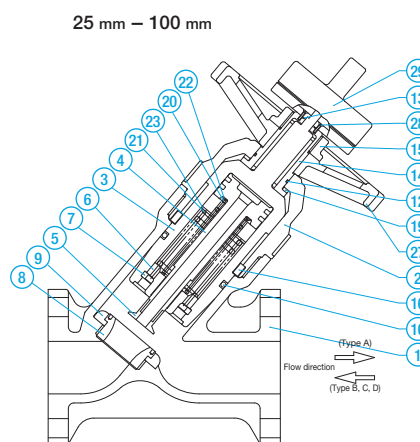
25mm, 50mm,  
80mm, 100mm

## PARTS LIST

MANUAL



15 mm - 20 mm



25 mm - 100 mm

| PART NO. / NAME | QTY                               | MATERIAL       | PART NO. / NAME | QTY | MATERIAL                             |
|-----------------|-----------------------------------|----------------|-----------------|-----|--------------------------------------|
| 1 BODY          | 1                                 | U-PVC          | 12 O-RING (C)   | 1   | EPDM                                 |
| 2 BONNET        | 1                                 | U-PVC          | 13 O-RING (D)   | 1   | EPDM                                 |
| 3 CYLINDER      | 1                                 | U-PVC          | 14 SLEEVE       | 1   | C3604                                |
| 4 PISTON        | 1                                 | U-PVC          | 15 CAP          | 1   | U-PVC                                |
| 5 PLUG          | 1                                 | U-PVC          | 16 KEY          | 2   | PP (15 - 20mm)<br>U-PVC (25 - 100mm) |
| 6 SPRING SEAT   | 1                                 | U-PVC          | 17 THRUST RING  | 1   | PP                                   |
| 7 STOP RING     | 1                                 | PVDF           | 18 SPRING (A)   | 1   | SUS304*                              |
| 8 ORIFICE       | 1                                 | U-PVC          | 19 SPRING (B)   | 1   | SUS304*                              |
| 9 SEAT          | 1                                 | EPDM, etc.     | 20 WASHER (B)   | 1   | U-PVC                                |
| 10 O-RING (A)   | 1 (15 - 20 mm)<br>2 (25 - 100 mm) | EPDM, etc. (1) |                 |     |                                      |

**NOTE** (1) For FKM, complete closure is not available.

\* SUS304 is coated with fluororesin.

Used for 15 - 20 mm only.

| PART NO. / NAME                                 | QTY | MATERIAL   |
|-------------------------------------------------|-----|------------|
| 11 O-RING (B)                                   | 1   | EPDM, etc. |
| 17 UNION NUT                                    | 1   | U-PVC      |
| 18 NUT                                          | 1   | ABS        |
| 24 HANDLE BASE                                  | 1   | ABS        |
| 25 HANDLE COVER                                 | 1   | PC         |
| 26 CROSS RECESSED RAISED COUNTERSUNK HEAD SCREW | 4   | SUS304     |

Used for 25 - 100 mm only.

| PART NO. / NAME             | QTY   | MATERIAL  |
|-----------------------------|-------|-----------|
| 22 WASHER (A)               | 1     | U-PVC     |
| 27 HANDLE                   | 1     | PP        |
| 28 FASTENING SCREW          | 4     | C3604     |
| 29 OPENING DEGREE INDICATOR | 1 SET | ABS, etc. |

PRODUCT MODEL  
CODE LIST

MANUAL

| ACTUATION            | TYPE                   | OPERATING SYSTEM                                 | BODY MATERIAL | SEAL MATERIAL   | CONNECTION   | STANDARD              | SIZE                             |
|----------------------|------------------------|--------------------------------------------------|---------------|-----------------|--------------|-----------------------|----------------------------------|
| V                    | CF                     | *T                                               | U             | E               | F            | *                     | ***                              |
| V<br>MANUAL<br>VALVE | CF<br>CONSTANT<br>FLOW | AT TYPE A<br>BT TYPE B<br>CT TYPE C<br>DT TYPE D | U<br>U-PVC    | E EPDM<br>V FKM | F<br>FLANGED | 1 JIS 10K<br>5 JIS 5K | 015 15mm<br>? 100mm<br>100 100mm |

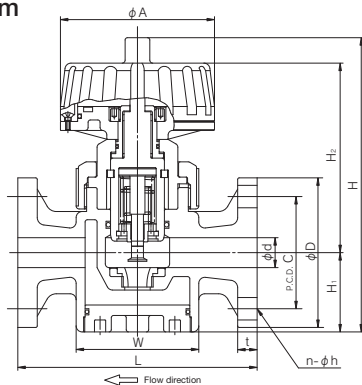
MANUAL

## CONSTANT FLOW VALVE

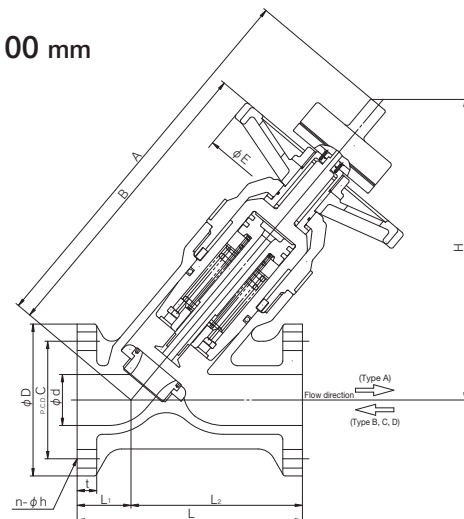
TYPE—VCF

CONNECTION / FLANGED—JIS, DIN, ANSI

15 mm – 20 mm



25 mm – 100 mm



■ JIS, DIN (Unit: mm)

| mm | d  | W     | A   | H <sub>1</sub> | H <sub>2</sub> | H   | L   | t  | JIS    |    |         |    | DIN      |    |          |    |
|----|----|-------|-----|----------------|----------------|-----|-----|----|--------|----|---------|----|----------|----|----------|----|
|    |    |       |     |                |                |     |     |    | JIS 5K |    | JIS 10K |    | DIN PN10 |    | DIN PN10 |    |
|    |    |       |     |                |                |     |     |    | D      | C  | n       | h  | D        | C  | n        | h  |
| 15 | 16 | 82×82 | 103 | 51             | 129            | 197 | 160 | 12 | 80     | 60 | 4       | 12 | 95       | 70 | 4        | 15 |
| 20 | 20 | 82×82 | 103 | 53             | 127            | 197 | 160 | 13 | 85     | 65 | 4       | 12 | 100      | 75 | 4        | 14 |

■ JIS, DIN (Unit: mm)

| mm  | d   | L <sub>1</sub> | L <sub>2</sub> | A   | B   | H   | E   | L   | t  | JIS    |     |         |    | DIN      |     |          |    |
|-----|-----|----------------|----------------|-----|-----|-----|-----|-----|----|--------|-----|---------|----|----------|-----|----------|----|
|     |     |                |                |     |     |     |     |     |    | JIS 5K |     | JIS 10K |    | DIN PN10 |     | DIN PN10 |    |
|     |     |                |                |     |     |     |     |     |    | D      | C   | n       | h  | D        | C   | n        | h  |
| 25  | 25  | 40             | 120            | 272 | 201 | 218 | 150 | 160 | 14 | 95     | 75  | 4       | 12 | 115      | 85  | 4        | 14 |
| 50  | 52  | 55             | 175            | 390 | 309 | 307 | 210 | 230 | 20 | 130    | 105 | 4       | 15 | 165      | 125 | 4        | 18 |
| 80  | 78  | 70             | 210            | 484 | 387 | 377 | 210 | 280 | 22 | 180    | 145 | 4       | 19 | 200      | 160 | 8        | 18 |
| 100 | 100 | 85             | 325            | 623 | 483 | 446 | 250 | 410 | 22 | 200    | 165 | 8       | 19 | 220      | 180 | 8        | 18 |

■ ANSI (Unit: inch)

| inch | mm | d    | W         | A    | H <sub>1</sub> | H <sub>2</sub> | H    | L    | t    | ANSI          |      |               |      |
|------|----|------|-----------|------|----------------|----------------|------|------|------|---------------|------|---------------|------|
|      |    |      |           |      |                |                |      |      |      | ANSI CLASS150 |      | ANSI CLASS150 |      |
|      |    |      |           |      |                |                |      |      |      | D             | C    | n             | h    |
| 1/2  | 15 | 0.63 | 3.23×3.23 | 4.06 | 2.01           | 5.08           | 7.76 | 6.30 | 0.47 | 3.50          | 2.38 | 4             | 0.63 |
| 3/4  | 20 | 0.79 | 3.23×3.24 | 4.06 | 2.09           | 5.00           | 7.76 | 6.30 | 0.51 | 3.86          | 2.76 | 4             | 0.63 |

■ ANSI (Unit: inch)

| inch | mm  | d    | L <sub>1</sub> | L <sub>2</sub> | A     | B     | H     | E    | L     | t    | ANSI          |      |               |      |
|------|-----|------|----------------|----------------|-------|-------|-------|------|-------|------|---------------|------|---------------|------|
|      |     |      |                |                |       |       |       |      |       |      | ANSI CLASS150 |      | ANSI CLASS150 |      |
|      |     |      |                |                |       |       |       |      |       |      | D             | C    | n             | h    |
| 1    | 25  | 0.98 | 1.57           | 4.72           | 10.71 | 7.91  | 8.58  | 5.91 | 6.30  | 0.55 | 4.25          | 3.13 | 4             | 0.63 |
| 2    | 50  | 2.05 | 2.17           | 6.89           | 15.35 | 12.17 | 12.09 | 8.27 | 9.06  | 0.79 | 5.98          | 4.74 | 4             | 0.75 |
| 3    | 80  | 3.07 | 2.76           | 8.27           | 19.06 | 15.24 | 14.84 | 8.27 | 11.02 | 0.87 | 7.25          | 6.00 | 8             | 0.75 |
| 4    | 100 | 3.94 | 3.35           | 12.80          | 24.53 | 19.02 | 17.56 | 9.84 | 16.14 | 0.87 | 8.66          | 7.50 | 8             | 0.75 |

# NEEDLE VALVE

- OUR ORIGINAL SPECIAL SHAPE PLUG ALLOWS FOR HIGHLY ACCURATE FLOW CONTROL.
- SHUTOFF VALVE AND RUBBER SEAT ALLOW FOR COMPLETE SEALING.
- INDEPENDENT FROM SHUTOFF VALVE, IT MAINTAINS HIGH-ACCURACY CONTROL FUNCTION FOR A LONG PERIOD.
- INSPECTION AND CLEANING OF INSIDE OF THE VALVE CAN BE PERFORMED WITHOUT DISMOUNTING IT FROM THE PIPE, BY REMOVING THE CAP (15 mm, 20 mm).
- INTEGRALLY MOLDED BODY THAT IS LIGHTWEIGHT, ROBUST AND COMPACT.

## BASIC SPECIFICATIONS

VALVE TYPE ————— NEEDLE VALVE

SIZE ————— 15 mm—25 mm (1/2 inch—1 inch)

BODY MATERIAL ————— **U-PVC**

SEAL MATERIAL ————— **EPDM etc.**

CONNECTION / FLANGED — JIS5K, JIS10K, DIN, ANSI

|              | FLUID TEMPERATURE | MAXIMUM WORKING PRESSURE<br>(NORMAL TEMPERATURE) MPa(kgf/cm <sup>2</sup> ) |
|--------------|-------------------|----------------------------------------------------------------------------|
| <b>U-PVC</b> | 0°C ~ 50°C        | 1.0 {10.2}                                                                 |

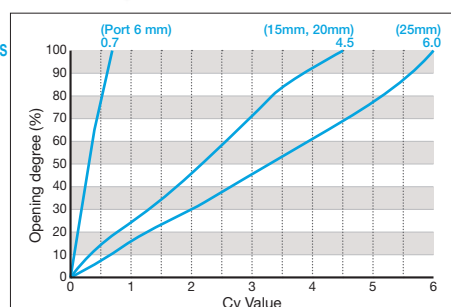
**NOTES** The maximum working pressure is the value including the water hammer pressure. Be careful that the maximum working pressure is not exceeded during use.

\* Concerning the allowable pressure for each temperature and material, see "Asahi AV Piping Material Technical Document". \* For FKM 25 mm, complete sealing is not available.

MANUAL



Flow characteristics

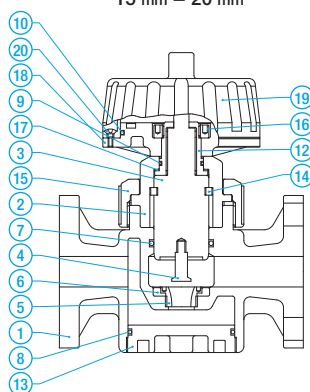


| SIZE       | PORT SIZE (mm) |    |
|------------|----------------|----|
| 15mm, 20mm | 6              | 15 |
| 25mm       | 6              | 15 |

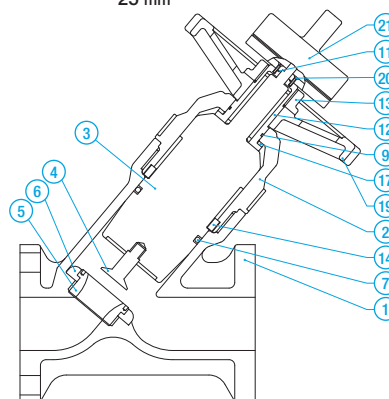
## PARTS LIST

MANUAL

15 mm – 20 mm



25 mm



| PART NO. / NAME | QTY | MATERIAL       | PART NO. / NAME | QTY | MATERIAL                       |
|-----------------|-----|----------------|-----------------|-----|--------------------------------|
| ① BODY          | 1   | U-PVC          | ⑬ CAP           | 1   | U-PVC                          |
| ② BONNET        | 1   | U-PVC          | ⑭ KEY           | 2   | PP(15-20mm)<br>U-PVC(25mm)     |
| ③ CYLINDER      | 1   | U-PVC          | ⑰ THRUST RING   | 1   | PP                             |
| ④ PLUG          | 1   | U-PVC          | ⑲ HANDLE        | 1   | PC(15-20mm)<br>PP(25mm)        |
| ⑤ ORIFICE       | 1   | U-PVC          | ⑳ MACHINE SCREW | 4   | SUS304(15-20mm)<br>C3604(25mm) |
| ⑥ SEAT          | 1   | EPDM, etc.     |                 |     |                                |
| ⑦ O-RING (A)    | 1   | EPDM, etc. (1) |                 |     |                                |
| ⑨ O-RING (C)    | 1   | EPDM           |                 |     |                                |
| ⑫ SLEEVE        | 1   | C3604          |                 |     |                                |

**NOTES** (1) For FKM, complete closure is not available.

----- Used for 15 - 20 mm only. -----

| PART NO. / NAME | QTY | MATERIAL   |
|-----------------|-----|------------|
| ⑧ O-RING (B)    | 1   | EPDM, etc. |
| ⑩ O-RING (D)    | 1   | EPDM       |
| ⑮ UNION NUT     | 1   | U-PVC      |
| ⑯ NUT           | 1   | ABS        |
| ⑱ HANDLE BASE   | 1   | U-PVC      |

----- Used for 25 mm only. -----

| PART NO. / NAME            | QTY   | MATERIAL    |
|----------------------------|-------|-------------|
| ⑪ O-RING (E)               | 1     | EPDM        |
| ⑲ OPENING DEGREE INDICATOR | 1 SET | U-PVC, etc. |

PRODUCT MODEL  
CODE LIST

MANUAL

| ACTUATION         | TYPE      | OPERATING SYSTEM   | BODY MATERIAL | SEAL MATERIAL   | CONNECTION | STANDARD              | SIZE                 |
|-------------------|-----------|--------------------|---------------|-----------------|------------|-----------------------|----------------------|
| V                 | ND        | MH                 | U             | E               | F          | *                     | ***                  |
| V MANUAL<br>VALVE | ND NEEDLE | MH ROUND<br>HANDLE | U U-PVC       | E EPDM<br>V FKM | F FLANGED  | 1 JIS 10K<br>5 JIS 5K | 015 15mm<br>025 25mm |

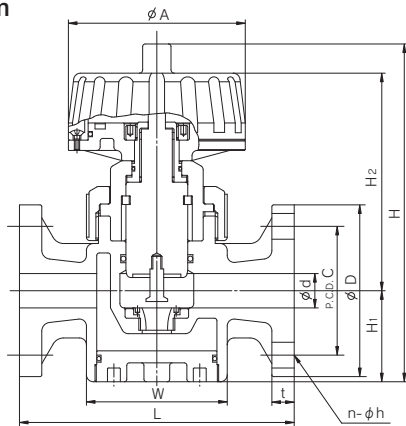
MANUAL

## NEEDLE VALVE

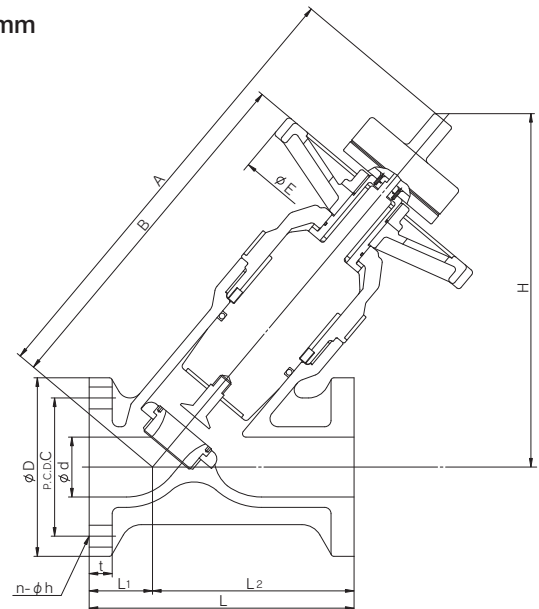
TYPE—VNDMH

CONNECTION / FLANGED—JIS, DIN, ANSI

15 mm – 20 mm



25 mm



■ JIS, DIN (Unit: mm)

| mm | D <sub>1</sub> | W     | A   | H <sub>1</sub> | H <sub>2</sub> | H <sub>3</sub> | L   | t  | JIS     |    |   |    | DIN      |    |   |    |
|----|----------------|-------|-----|----------------|----------------|----------------|-----|----|---------|----|---|----|----------|----|---|----|
|    |                |       |     |                |                |                |     |    | JIS 10K |    |   |    | DIN PN10 |    |   |    |
|    |                |       |     |                |                |                |     |    | D       | C  | n | h  | D        | C  | n | h  |
| 15 | 16             | 82×82 | 103 | 51             | 129            | 197            | 160 | 12 | 95      | 70 | 4 | 15 | 95       | 65 | 4 | 14 |
| 20 | 20             | 82×82 | 103 | 53             | 127            | 197            | 160 | 13 | 100     | 75 | 4 | 15 | 105      | 75 | 4 | 14 |

■ JIS, DIN (Unit: mm)

| mm | d  | L <sub>1</sub> | L <sub>2</sub> | A   | B   | H   | E   | L   | t  | JIS     |    |   |    | DIN      |    |   |    |
|----|----|----------------|----------------|-----|-----|-----|-----|-----|----|---------|----|---|----|----------|----|---|----|
|    |    |                |                |     |     |     |     |     |    | JIS 10K |    |   |    | DIN PN10 |    |   |    |
|    |    |                |                |     |     |     |     |     |    | D       | C  | n | h  | D        | C  | n | h  |
| 25 | 25 | 40             | 120            | 272 | 201 | 218 | 150 | 160 | 14 | 125     | 90 | 4 | 19 | 115      | 85 | 4 | 14 |

■ ANSI (Unit: inch)

| inch | mm | D <sub>1</sub> | W         | A    | H <sub>1</sub> | H <sub>2</sub> | H <sub>3</sub> | L    | t    | ANSI          |      |   |      |
|------|----|----------------|-----------|------|----------------|----------------|----------------|------|------|---------------|------|---|------|
|      |    |                |           |      |                |                |                |      |      | ANSI CLASS150 |      |   |      |
|      |    |                |           |      |                |                |                |      |      | D             | C    | n | h    |
| 1/2  | 15 | 0.63           | 3.23×3.23 | 4.06 | 2.01           | 5.08           | 7.76           | 6.30 | 0.47 | 3.50          | 2.38 | 4 | 0.63 |
| 3/4  | 20 | 0.79           | 3.23×3.23 | 4.06 | 2.09           | 5.00           | 7.76           | 6.30 | 0.51 | 3.86          | 2.76 | 4 | 0.63 |

■ ANSI (Unit: inch)

| inch | mm | d    | L <sub>1</sub> | L <sub>2</sub> | A     | B    | H    | E    | L    | t    | ANSI          |      |   |      |
|------|----|------|----------------|----------------|-------|------|------|------|------|------|---------------|------|---|------|
|      |    |      |                |                |       |      |      |      |      |      | ANSI CLASS150 |      |   |      |
|      |    |      |                |                |       |      |      |      |      |      | D             | C    | n | h    |
| 1    | 25 | 0.98 | 1.57           | 4.72           | 10.71 | 7.91 | 8.58 | 5.91 | 6.30 | 0.55 | 4.25          | 3.13 | 4 | 0.63 |

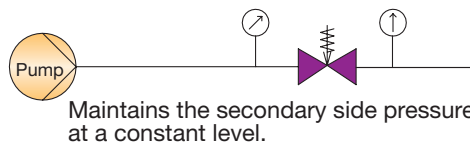
# SELF CONTROL VALVE PRESSURE REDUCING TYPE

Even when the primary side pressure fluctuates, the valve maintains secondary side pressure constant.

It works using the fluid pressure only, without using any auxiliary power.

Against the fluid power pressing up the piston, the valve uses the force of compression spring to press down the piston so as to keep balance.

For appropriate flow range, see P.237.



MANUAL



## BASIC SPECIFICATIONS

VALVE TYPE — SELF CONTROL VALVE PRESSURE REDUCING TYPE

SIZE — 15 mm—50 mm (1/2 inch—2 inch)

BODY MATERIAL — U-PVC

SEAL MATERIAL — EPDM etc.

CONNECTION / FLANGED — JIS, DIN, ANSI

SOCKET — JIS, DIN, ANSI

THREADED — Rc, RP, NPT

### PRODUCT MODEL CODE LIST

MANUAL

| ACTUATION         | TYPE   | OPERATING SYSTEM          | BODY MATERIAL | SEAL MATERIAL                           | CONNECTION                          | STANDARD                             | SIZE                 |
|-------------------|--------|---------------------------|---------------|-----------------------------------------|-------------------------------------|--------------------------------------|----------------------|
| A                 | PR     | 2T                        | U             | *                                       | *                                   | *                                    | ***                  |
| ...               | ...    | ...                       | ...           | ...                                     | ...                                 | ...                                  | ...                  |
| A AUTOMATIC VALVE | PR XXX | 2T PRESSURE REDUCING TYPE | U U-PVC       | E EPDM<br>V FKM<br>Z FKM (PTFE coating) | S SOCKET<br>N THREADED<br>F FLANGED | J JIS<br>1 JIS10K<br>D DIN<br>A ANSI | 015 15mm<br>050 50mm |

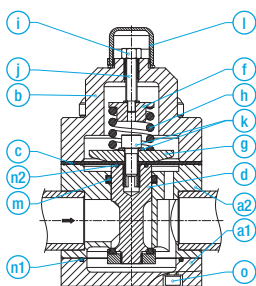
**NOTES** (1) The 15-40 mm (piston) type and 50 mm (diaphragm) type have different internal structure. Be careful when selecting the type of seal material.  
(2) For 50 mm, select either E: EPDM or Z: FKM (PTFE coating). (For 15-40 mm, select E: EPDM or V: FKM.)

MANUAL

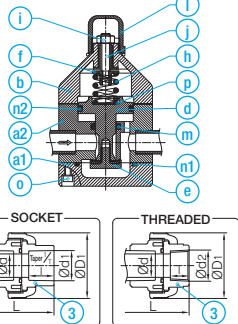
## SELF CONTROL VALVE PRESSURE REDUCING TYPE

CONNECTION / FLANGED, SOCKET — JIS, DIN, ANSI THREADED — Rc, RP, NPT

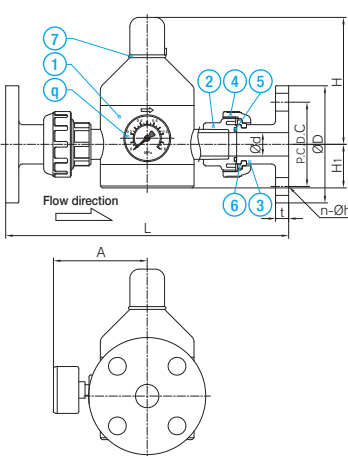
50 mm  
V82 INSIDE STRUCTURE DIAGRAM



15 mm — 40 mm  
V182 INSIDE STRUCTURE DIAGRAM



FLANGED



| PART NO. / NAME          | QTY | MATERIAL     | MEMO                                        |
|--------------------------|-----|--------------|---------------------------------------------|
| (a1) BODY (LOWER)        | 1   | U-PVC        |                                             |
| (a2) BODY (UPPER)        | 1   | U-PVC        |                                             |
| (b) HOUSING              | 1   | U-PVC        |                                             |
| (c) DIAPHRAGM            | 1   | EPDM         | Used for V82.                               |
| (d) PISTON               | 1   | U-PVC        |                                             |
| (e) PISTON BASE          | 1   | U-PVC        | Used for V182.                              |
| (f) SPRING PLATE         | 1   | Aluminum     |                                             |
| (g) COMPRESSOR           | 1   | U-PVC        | Used for V82.                               |
| (h) COMPRESSION SPRING   | 1   | Spring steel |                                             |
| (i) LOCK NUT             | 1   | Polyamide    |                                             |
| (j) ADJUSTING SCREW      | 1   | —            |                                             |
| (k) BOLT, WASHER         | 1   | —            | Used for V82.                               |
| (l) CAP                  | 1   | Polystyrene  |                                             |
| (m) RING SEAL            | 1   | EPDM         |                                             |
| (n1) O-RING (A)          | 1   | EPDM         |                                             |
| (n2) O-RING (B)          | 1   | EPDM         |                                             |
| (o) BOLT, NUT, WASHER    | 4   | —            |                                             |
| (p) SPRING SUPPORT PLATE | 1   | —            | Used for V182.                              |
| (q) PRESSURE GAUGE       | 1   | ABS, etc.    |                                             |
| (2) PJ-BODY              | 2   | U-PVC        | SELF CONTROL VALVE DEDICATED FOR TRUE UNION |
| (3) END CONNECTOR        | 2   | U-PVC        |                                             |
| (4) UNION NUT            | 2   | U-PVC        |                                             |
| (5) O-RING (C)           | 2   | EPDM         |                                             |
| (6) STOP RING            | 2   | PVDF         | Used for flanged type.                      |
| (7) O-RING (D)           | 1   | EPDM         |                                             |

■ JIS, DIN (Unit: mm)

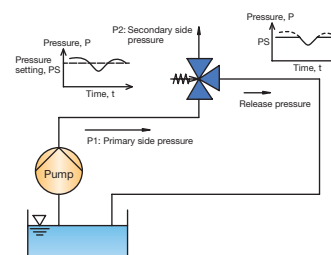
| ■ JIS, DIN (Unit: mm) |    |     |     |    |     | JIS     |     |   |    |     |    |        |    |      |     |          |          |     |     |     | DIN                   |    |     |    |    |    |        |         |    |     |  |          |  |  |  |
|-----------------------|----|-----|-----|----|-----|---------|-----|---|----|-----|----|--------|----|------|-----|----------|----------|-----|-----|-----|-----------------------|----|-----|----|----|----|--------|---------|----|-----|--|----------|--|--|--|
|                       |    |     |     |    |     | FLANGED |     |   |    |     |    | SOCKET |    |      |     |          | THREADED |     |     |     | FLANGED DIN PN10/PN16 |    |     |    |    |    | SOCKET |         |    |     |  | THREADED |  |  |  |
| mm                    | d  | D1  | H   | H1 | A   | D       | C   | n | h  | L   | t  | d1     | ℓ  | 1/T  | L   | d2       | ℓ        | L   | D   | C   | n                     | h  | L   | t  | d1 | ℓ  | L      | d2      | ℓ  | L   |  |          |  |  |  |
| 15                    | 15 | 48  | 103 | 30 | 90  | 95      | 70  | 4 | 15 | 221 | 12 | 22.11  | 20 | 1/34 | 186 | Rc 1/2   | 15       | 180 | 95  | 65  | 4                     | 14 | 208 | 12 | 20 | 16 | 180    | Rp1/2   | 15 | 180 |  |          |  |  |  |
| 20                    | 20 | 60  | 137 | 46 | 100 | 100     | 75  | 4 | 15 | 292 | 14 | 26.13  | 24 | 1/34 | 248 | Rc 3/4   | 17       | 240 | 105 | 75  | 4                     | 14 | 270 | 14 | 25 | 19 | 239    | Rp3/4   | 17 | 240 |  |          |  |  |  |
| 25                    | 25 | 70  | 137 | 46 | 100 | 125     | 90  | 4 | 19 | 302 | 14 | 32.16  | 27 | 1/34 | 260 | Rc 1     | 20       | 246 | 115 | 85  | 4                     | 14 | 275 | 14 | 32 | 22 | 246    | Rp1     | 20 | 246 |  |          |  |  |  |
| 32                    | 31 | 82  | 178 | 55 | 115 | 135     | 100 | 4 | 19 | 346 | 16 | 38.19  | 30 | 1/34 | 318 | Rc 1 1/4 | 22       | 306 | 140 | 100 | 4                     | 18 | 336 | 16 | 40 | 26 | 306    | Rp1 1/4 | 22 | 306 |  |          |  |  |  |
| 40                    | 40 | 100 | 178 | 55 | 115 | 140     | 105 | 4 | 19 | 379 | 16 | 48.21  | 37 | 1/37 | 356 | Rc 1 1/2 | 25       | 330 | 150 | 110 | 4                     | 18 | 367 | 16 | 50 | 31 | 331    | Rp1 1/2 | 25 | 330 |  |          |  |  |  |
| 50                    | 51 | 106 | 213 | 75 | 125 | 155     | 120 | 4 | 19 | 395 | 16 | 60.25  | 42 | 1/37 | 380 | Rc 2     | 28       | 358 | 165 | 125 | 4                     | 18 | 395 | 16 | 63 | 38 | 388.2  | Rp2     | 28 | 358 |  |          |  |  |  |

■ ANSI (Unit: inch)

| ANSI (Unit: inch) |    |      |                |      |                |      | ANSI                   |      |   |   |      |       |                |                  |       |       |       |                  |          |       |  |  |  |  |  |  |  |  |  |  |  |
|-------------------|----|------|----------------|------|----------------|------|------------------------|------|---|---|------|-------|----------------|------------------|-------|-------|-------|------------------|----------|-------|--|--|--|--|--|--|--|--|--|--|--|
| inch              | mm | d    | D <sub>1</sub> | H    | H <sub>1</sub> | A    | FLANGED ANSI CLASS 150 |      |   |   |      |       |                | SOCKET           |       |       |       |                  | THREADED |       |  |  |  |  |  |  |  |  |  |  |  |
|                   |    |      |                |      |                |      | D                      | C    | n | h | L    | t     | d <sub>1</sub> | d <sub>1</sub> ' | ℓ     | L     |       | d <sub>2</sub>   | ℓ        | L     |  |  |  |  |  |  |  |  |  |  |  |
| 1/2               | 15 | 0.59 | 1.89           | 4.06 | 1.18           | 3.54 | 3.50                   | 2.38 |   | 4 | 0.62 | 8.70  | 0.47           | 0.848            | 0.836 | 0.875 | 7.52  | 1/2 -14NPT       | 0.59     | 7.09  |  |  |  |  |  |  |  |  |  |  |  |
| 3/4               | 20 | 0.79 | 2.36           | 5.39 | 1.81           | 3.94 | 3.88                   | 2.75 |   | 4 | 0.62 | 11.50 | 0.55           | 1.058            | 1.046 | 1.000 | 9.80  | 3/4 -14NPT       | 0.67     | 9.45  |  |  |  |  |  |  |  |  |  |  |  |
| 1                 | 25 | 0.98 | 2.76           | 5.39 | 1.81           | 3.94 | 4.25                   | 3.12 |   | 4 | 0.62 | 11.89 | 0.55           | 1.325            | 1.310 | 1.125 | 10.24 | 1 -11 1/2NPT     | 0.79     | 9.69  |  |  |  |  |  |  |  |  |  |  |  |
| 1 1/4             | 32 | 1.22 | 3.23           | 7.01 | 2.17           | 4.53 | 4.62                   | 3.5  |   | 4 | 0.62 | 13.62 | 0.63           | 1.670            | 1.655 | 1.250 | 12.60 | 1 1/4 -11 1/2NPT | 0.87     | 12.05 |  |  |  |  |  |  |  |  |  |  |  |
| 1 1/2             | 40 | 1.57 | 3.94           | 7.01 | 2.17           | 4.53 | 5.00                   | 3.88 |   | 4 | 0.62 | 14.92 | 0.63           | 1.912            | 1.894 | 1.375 | 13.82 | 1 1/2 -11 1/2NPT | 0.98     | 12.99 |  |  |  |  |  |  |  |  |  |  |  |
| 2                 | 50 | 2.01 | 4.17           | 8.39 | 2.95           | 4.92 | 6.00                   | 4.75 |   | 4 | 0.75 | 15.55 | 0.63           | 2.387            | 2.369 | 1.500 | 14.57 | 2 -11 1/2NPT     | 1.10     | 14.09 |  |  |  |  |  |  |  |  |  |  |  |

# SELF CONTROL VALVE PRESSURE RELIEF TYPE

This valve is used for piping lines and equipment where excessive pressure needs to be prevented. The T-shaped pipe structure allows the fluid to flow in 3 directions. In addition to the intake and discharge ports located sideways in a straight line (horizontal direction), there is also a discharge port on the lateral side (vertical direction). If the pressure in the horizontal direction exceeds the set pressure, the valve will open so that the fluid is discharged from the vertically located discharge port. The pressure dispersion and closure operation allow the valve to maintain the horizontal pressure constant and reduce the peak pressure. For appropriate flow range, see P.237.



MANUAL



## BASIC SPECIFICATIONS

**VALVE TYPE** ————— **SELF CONTROL VALVE PRESSURE RELIEF TYPE**  
**SIZE** ————— **15 mm—50 mm (1/2 inch—2 inch)**  
**BODY MATERIAL** ————— **U-PVC**  
**SEAL MATERIAL** ————— **EPDM etc.**  
**CONNECTION / FLANGED** ————— **JIS, DIN, ANSI**  
**SOCKET** ————— **JIS, DIN, ANSI**  
**THREADED** ————— **Rc, Rp, NPT**

## PRODUCT MODEL CODE LIST

MANUAL

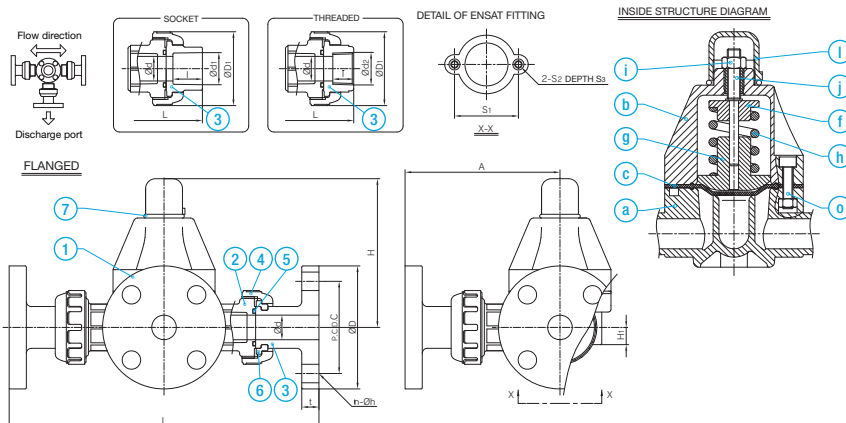
| ACTUATION                | TYPE          | OPERATING SYSTEM               | BODY MATERIAL  | SEAL MATERIAL                                | CONNECTION                                               | STANDARD                                                         | SIZE                               |
|--------------------------|---------------|--------------------------------|----------------|----------------------------------------------|----------------------------------------------------------|------------------------------------------------------------------|------------------------------------|
| <b>A</b>                 | <b>PR</b>     | <b>5T</b>                      | <b>U</b>       | <b>*</b>                                     | <b>*</b>                                                 | <b>*</b>                                                         | <b>***</b>                         |
| ⋮                        | ⋮             | ⋮                              | ⋮              | ⋮                                            | ⋮                                                        | ⋮                                                                | ⋮                                  |
| <b>A</b> AUTOMATIC VALVE | <b>PR</b> XXX | <b>5T</b> PRESSURE RELIEF TYPE | <b>U</b> U-PVC | <b>E</b> EPDM<br><b>Z</b> FKM (PTFE coating) | <b>S</b> SOCKET<br><b>N</b> THREADED<br><b>F</b> FLANGED | <b>J</b> JIS<br><b>1</b> JIS10K<br><b>D</b> DIN<br><b>A</b> ANSI | <b>015</b> 15mm<br><b>050</b> 50mm |

TYPE What should be filled in the "xxx" section?

MANUAL

## SELF CONTROL VALVE PRESSURE RELIEF TYPE

CONNECTION / FLANGED, SOCKET — JIS, DIN, ANSI THREADED — Rc, Rp, NPT



| PART NO. / NAME             | QTY | MATERIAL                       | MEMO                                        |
|-----------------------------|-----|--------------------------------|---------------------------------------------|
| <b>a</b> BODY               | 1   | U-PVC                          |                                             |
| <b>b</b> HOUSING            | 1   | U-PVC                          |                                             |
| <b>c</b> DIAPHRAGM          | 1   | □EPDM,<br>□FKM-PTFE<br>COATING |                                             |
| <b>f</b> SPRING PLATE       | 1   | Aluminum                       |                                             |
| <b>g</b> COMPRESSOR         | 1   | PP                             |                                             |
| <b>h</b> COMPRESSION SPRING | 1   | Spring steel                   |                                             |
| <b>i</b> LOCK NUT           | 1   | Polyamide                      |                                             |
| <b>j</b> ADJUSTING SCREW    | 1   | —                              |                                             |
| <b>l</b> CAP                | 1   | Polystyrene                    |                                             |
| <b>o</b> BOLT, WASHER, NUT  | 4   | —                              |                                             |
| <b>2</b> PJ-BODY            | 2   | U-PVC                          | SELF CONTROL VALVE DEDICATED FOR TRUE UNION |
| <b>3</b> END CONNECTOR      | 2   | U-PVC                          |                                             |
| <b>4</b> UNION NUT          | 2   | U-PVC                          |                                             |
| <b>5</b> O-RING (C)         | 2   | EPDM (FKM*)                    |                                             |
| <b>6</b> STOP RING          | 2   | PVDF                           | Used for flanged type.                      |
| <b>7</b> O-RING (D)         | 1   | EPDM                           |                                             |

\* When the diaphragm is FKM with PTFE coating.

## JIS, DIN (Unit: mm)

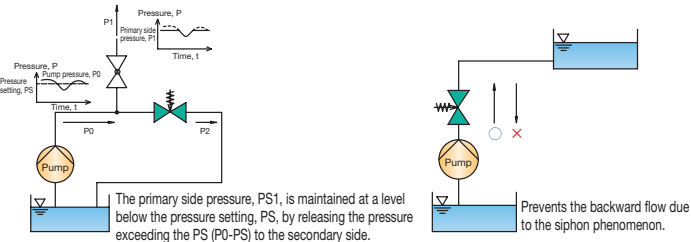
| ■ JIS, DIN (Unit: mm) |    |                |     |                |                |                |                | JIS     |     |   |    |     |        |       |                |    |      |          |     |                |    |     | DIN                   |     |     |   |    |        |    |                |    |       |          |    |     |  |  |
|-----------------------|----|----------------|-----|----------------|----------------|----------------|----------------|---------|-----|---|----|-----|--------|-------|----------------|----|------|----------|-----|----------------|----|-----|-----------------------|-----|-----|---|----|--------|----|----------------|----|-------|----------|----|-----|--|--|
|                       |    |                |     |                |                |                |                | FLANGED |     |   |    |     | SOCKET |       |                |    |      | THREADED |     |                |    |     | FLANGED DIN PN10/PN16 |     |     |   |    | SOCKET |    |                |    |       | THREADED |    |     |  |  |
| mm                    | d  | D <sub>1</sub> | H   | H <sub>1</sub> | S <sub>1</sub> | S <sub>2</sub> | S <sub>3</sub> | D       | C   | n | h  | L   | t      | A     | d <sub>1</sub> | ℓ  | 1/T  | L        | A   | d <sub>2</sub> | ℓ  | L   | A                     | D   | C   | n | h  | L      | t  | d <sub>1</sub> | ℓ  | L     |          |    |     |  |  |
| 15                    | 15 | 48             | 120 | 20             | 90             | M6             | 9              | 95      | 70  | 4 | 15 | 221 | 12     | 110.5 | 22.11          | 20 | 1/34 | 186      | 93  | Rc 1/2         | 15 | 180 | 90                    | 95  | 65  | 4 | 14 | 208    | 12 | 20             | 16 | 180   | Rp1/2    | 15 | 180 |  |  |
| 20                    | 20 | 60             | 120 | 20             | 100            | M6             | 9              | 100     | 75  | 4 | 15 | 252 | 14     | 126.0 | 26.13          | 24 | 1/34 | 208      | 104 | Rc 3/4         | 17 | 200 | 100                   | 105 | 75  | 4 | 14 | 230    | 14 | 25             | 19 | 199   | Rp3/4    | 17 | 240 |  |  |
| 25                    | 25 | 70             | 175 | 27             | 100            | M6             | 9              | 125     | 90  | 4 | 19 | 302 | 14     | 151.0 | 32.16          | 27 | 1/34 | 260      | 130 | Rc 1           | 20 | 246 | 123                   | 115 | 85  | 4 | 14 | 275    | 14 | 32             | 22 | 246   | Rp1      | 20 | 246 |  |  |
| 32                    | 31 | 82             | 159 | 43             | 115            | M6             | 9              | 135     | 100 | 4 | 19 | 296 | 16     | 148.0 | 38.19          | 30 | 1/34 | 268      | 134 | Rc 1 1/4       | 22 | 256 | 128                   | 140 | 100 | 4 | 18 | 286    | 16 | 40             | 26 | 256   | Rp1 1/4  | 22 | 306 |  |  |
| 40                    | 40 | 100            | 250 | 43             | 115            | -              | -              | 140     | 105 | 4 | 19 | 379 | 16     | 189.5 | 48.21          | 37 | 1/37 | 356      | 178 | Rc 1 1/2       | 25 | 330 | 165                   | 150 | 110 | 4 | 18 | 367    | 16 | 50             | 31 | 331   | Rp1 1/2  | 25 | 330 |  |  |
| 50                    | 51 | 106            | 250 | 43             | 125            | -              | -              | 155     | 120 | 4 | 19 | 395 | 16     | 197.5 | 60.25          | 42 | 1/37 | 380      | 190 | Rc 2           | 28 | 358 | 179                   | 165 | 125 | 4 | 18 | 395    | 16 | 63             | 38 | 388.2 | Rp2      | 28 | 358 |  |  |

## ANSI (Unit: inch)

| ANSI (Unit: inch) |    |      |                |      |                |                |                |                |                        | ANSI |   |      |       |      |                |                             |                |          |                 |      |       |                 |      |       |  |  |  |
|-------------------|----|------|----------------|------|----------------|----------------|----------------|----------------|------------------------|------|---|------|-------|------|----------------|-----------------------------|----------------|----------|-----------------|------|-------|-----------------|------|-------|--|--|--|
| inch              | mm | d    | D <sub>1</sub> | H    | H <sub>1</sub> | S <sub>1</sub> | S <sub>2</sub> | S <sub>3</sub> | FLANGED ANSI CLASS 150 |      |   |      |       |      | SOCKET         |                             |                | THREADED |                 |      |       |                 |      |       |  |  |  |
|                   |    |      |                |      |                |                |                |                | D                      | C    | n | h    | L     | t    | d <sub>1</sub> | d <sub>1</sub> <sup>*</sup> | ℓ <sub>1</sub> | L        | d <sub>2</sub>  | ℓ    | L     |                 |      |       |  |  |  |
| 1/2               | 15 | 0.59 | 1.89           | 4.72 | 0.79           | 3.54           | M6             | 0.35           | 3.50                   | 2.38 | 4 | 0.62 | 8.70  | 0.47 | 0.848          | 0.836                       | 0.875          | 7.52     | 1/2-14NPT       | 0.59 | 7.09  | 3/4-14NPT       | 0.67 | 7.87  |  |  |  |
| 3/4               | 20 | 0.79 | 2.36           | 4.72 | 0.79           | 3.94           | M6             | 0.35           | 3.88                   | 2.75 | 4 | 0.62 | 9.92  | 0.55 | 1.058          | 1.046                       | 1.000          | 8.23     | 3/4-14NPT       | 0.67 | 7.87  | 1-11 1/2NPT     | 0.79 | 9.69  |  |  |  |
| 1                 | 25 | 0.98 | 2.76           | 6.89 | 1.06           | 3.94           | M6             | 0.35           | 4.25                   | 3.12 | 4 | 0.62 | 11.89 | 0.55 | 1.325          | 1.310                       | 1.125          | 10.24    | 1-11 1/2NPT     | 0.79 | 9.69  | 1 1/4-11 1/2NPT | 0.87 | 10.08 |  |  |  |
| 1 1/4             | 32 | 1.22 | 3.23           | 6.26 | 1.69           | 4.53           | M6             | 0.35           | 4.62                   | 3.5  | 4 | 0.62 | 11.65 | 0.63 | 1.670          | 1.655                       | 1.250          | 10.63    | 1 1/4-11 1/2NPT | 0.87 | 10.08 | 1 1/2-11 1/2NPT | 0.98 | 12.99 |  |  |  |
| 1 1/2             | 40 | 1.57 | 3.94           | 9.84 | 1.69           | 4.53           | -              | -              | 5.00                   | 3.88 | 4 | 0.62 | 14.92 | 0.63 | 1.912          | 1.894                       | 1.375          | 13.82    | 1 1/2-11 1/2NPT | 0.98 | 12.99 | 2-11 1/2NPT     | 1.10 | 14.09 |  |  |  |
| 2                 | 50 | 2.01 | 4.17           | 9.84 | 1.69           | 4.92           | -              | -              | 6.00                   | 4.75 | 4 | 0.75 | 15.55 | 0.63 | 2.387          | 2.369                       | 1.500          | 14.57    | 2-11 1/2NPT     | 1.10 | 14.09 |                 |      |       |  |  |  |

# SELF CONTROL VALVE PRESSURE RETAINING TYPE

The pressure retaining type maintains the primary side pressure constant. The valve opens when the primary side pressure exceeds the set value and closes when the pressure falls below the set value. It works using the fluid pressure only, without using any auxiliary power. Against the fluid power pressing up the diaphragm, the valve uses the force of compression spring to press down the diaphragm so as to keep balance. For appropriate flow range, see P.237.



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## BASIC SPECIFICATIONS

|                      |                                               |
|----------------------|-----------------------------------------------|
| VALVE TYPE           | SELF CONTROL VALVE<br>PRESSURE RETAINING TYPE |
| SIZE                 | 15 mm—50 mm (1/2 inch—2 inch)                 |
| BODY MATERIAL        | U-PVC                                         |
| SEAL MATERIAL        | EPDM etc.                                     |
| CONNECTION / FLANGED | JIS, DIN, ANSI                                |
| SOCKET               | JIS, DIN, ANSI                                |
| THREADED             | Rc, RP, NPT                                   |

### PRODUCT MODEL CODE LIST

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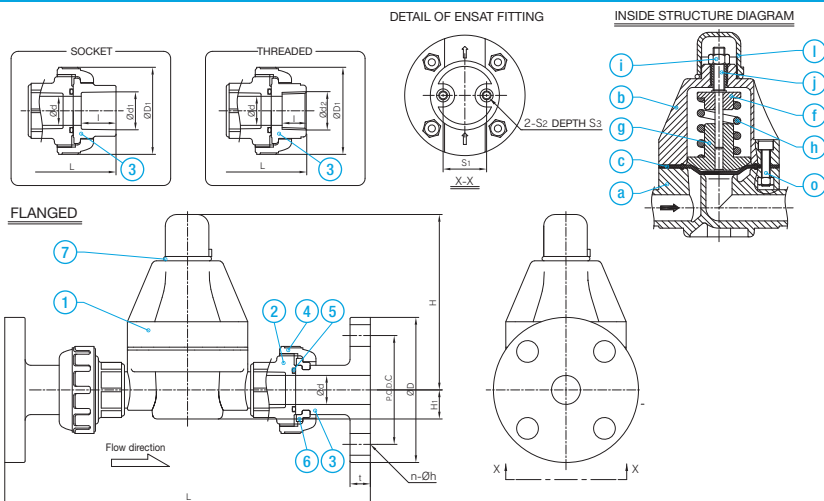
| ACTUATION               | TYPE   | OPERATING SYSTEM                 | BODY MATERIAL | SEAL MATERIAL                  | CONNECTION                          | STANDARD                             | SIZE                 |
|-------------------------|--------|----------------------------------|---------------|--------------------------------|-------------------------------------|--------------------------------------|----------------------|
| A                       | PR     | 6T                               | U             | *                              | *                                   | *                                    | ***                  |
| A<br>AUTOMATIC<br>VALVE | PR XXX | 6T<br>PRESSURE<br>RETAINING TYPE | U<br>U-PVC    | E EPDM<br>Z FKM (PTFE coating) | S SOCKET<br>N THREADED<br>F FLANGED | J JIS<br>I JIS10K<br>D DIN<br>A ANSI | 015 15mm<br>050 50mm |

TYPE What should be filled in the "xxx" section?

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## SELF CONTROL VALVE PRESSURE RETAINING TYPE

CONNECTION / FLANGED, SOCKET—JIS, DIN, ANSI THREADED—Rc, RP, NPT



| PART NO. / NAME      | QTY | MATERIAL                     | MEMO                                           |
|----------------------|-----|------------------------------|------------------------------------------------|
| a BODY               | 1   | U-PVC                        |                                                |
| b HOUSING            | 1   | U-PVC                        |                                                |
| c DIAPHRAGM          | 1   | EPDM,<br>FKM-PTFE<br>COATING |                                                |
| f SPRING PLATE       | 1   | ALUMINUM                     |                                                |
| g COMPRESSOR         | 1   | PP                           |                                                |
| h COMPRESSION SPRING | 1   | Spring steel                 |                                                |
| i LOCK NUT           | 1   | Polyamide                    |                                                |
| j ADJUSTING SCREW    | 1   | —                            |                                                |
| l CAP                | 1   | Polystyrene                  |                                                |
| o BOLT, WASHER, NUT  | 4   | —                            |                                                |
| 2 PJ-BODY            | 2   | U-PVC                        | SELF CONTROL VALVE<br>DEDICATED FOR TRUE UNION |
| 3 END CONNECTOR      | 2   | U-PVC                        |                                                |
| 4 UNION NUT          | 2   | U-PVC                        |                                                |
| 5 O-RING (C)         | 2   | EPDM(FKM*)                   |                                                |
| 6 STOP RING          | 2   | PVDF                         | Used for flanged type.                         |
| 7 O-RING (D)         | 1   | EPDM                         |                                                |

\* When the diaphragm is FKM with PTFE coating.

### JIS, DIN (Unit: mm)

| ■ JIS, DIN (Unit: mm) |    |                |     |                |                |                |                | JIS     |     |   |    |        |    |                |    |          |     |                |    | DIN                   |     |     |   |        |     |    |                |          |       |                |    |     |
|-----------------------|----|----------------|-----|----------------|----------------|----------------|----------------|---------|-----|---|----|--------|----|----------------|----|----------|-----|----------------|----|-----------------------|-----|-----|---|--------|-----|----|----------------|----------|-------|----------------|----|-----|
|                       |    |                |     |                |                |                |                | FLANGED |     |   |    | SOCKET |    |                |    | THREADED |     |                |    | FLANGED DIN PN10/PN16 |     |     |   | SOCKET |     |    |                | THREADED |       |                |    |     |
| mm                    | d  | D <sub>1</sub> | H   | H <sub>1</sub> | S <sub>1</sub> | S <sub>2</sub> | S <sub>3</sub> | D       | C   | n | h  | L      | t  | d <sub>1</sub> | ℓ  | 1/T      | L   | d <sub>2</sub> | ℓ  | L                     | D   | C   | n | h      | L   | t  | d <sub>1</sub> | ℓ        | L     | d <sub>2</sub> | ℓ  | L   |
| 15                    | 15 | 48             | 120 | 20             | 29             | M6             | 16             | 95      | 70  | 4 | 15 | 221    | 12 | 22.11          | 20 | 1/34     | 186 | Rc 1/2         | 15 | 180                   | 95  | 65  | 4 | 14     | 208 | 12 | 20             | 16       | 180   | Rp1/2          | 15 | 180 |
| 20                    | 20 | 60             | 120 | 20             | 29             | M6             | 16             | 100     | 75  | 4 | 15 | 252    | 14 | 26.13          | 24 | 1/34     | 208 | Rc 3/4         | 17 | 200                   | 105 | 75  | 4 | 14     | 230 | 14 | 25             | 19       | 199   | Rp3/4          | 17 | 240 |
| 25                    | 25 | 70             | 175 | 27             | 47             | M6             | 17             | 125     | 90  | 4 | 19 | 302    | 14 | 32.16          | 27 | 1/34     | 260 | Rc 1           | 20 | 246                   | 115 | 85  | 4 | 14     | 275 | 14 | 32             | 22       | 246   | Rp1            | 20 | 246 |
| 32                    | 31 | 82             | 159 | 43             | 47             | M6             | 17             | 135     | 100 | 4 | 19 | 296    | 16 | 38.19          | 30 | 1/34     | 268 | Rc 1 1/4       | 22 | 256                   | 140 | 100 | 4 | 18     | 286 | 16 | 40             | 26       | 256   | Rp1 1/4        | 22 | 306 |
| 40                    | 40 | 100            | 250 | 43             | -              | -              | -              | 140     | 105 | 4 | 19 | 379    | 16 | 48.21          | 37 | 1/37     | 356 | Rc 1 1/2       | 25 | 330                   | 150 | 110 | 4 | 18     | 367 | 16 | 50             | 31       | 331   | Rp1 1/2        | 25 | 330 |
| 50                    | 51 | 106            | 250 | 43             | -              | -              | -              | 155     | 120 | 4 | 19 | 395    | 16 | 60.25          | 42 | 1/37     | 380 | Rc 2           | 28 | 358                   | 165 | 125 | 4 | 18     | 395 | 16 | 63             | 38       | 388.2 | Rp2            | 28 | 358 |

### ANSI (Unit: inch)

| ■ ANSI (Unit: inch) |    |      |                |      |                |                |                |                | ANSI                   |      |   |      |       |      |                |                             |                |       |                 |                |       |      |  |  |  |  |
|---------------------|----|------|----------------|------|----------------|----------------|----------------|----------------|------------------------|------|---|------|-------|------|----------------|-----------------------------|----------------|-------|-----------------|----------------|-------|------|--|--|--|--|
|                     |    |      |                |      |                |                |                |                | FLANGED ANSI CLASS 150 |      |   |      |       |      |                | SOCKET                      |                |       |                 | THREADED       |       |      |  |  |  |  |
| inch                | mm | d    | D <sub>1</sub> | H    | H <sub>1</sub> | S <sub>1</sub> | S <sub>2</sub> | S <sub>3</sub> | D                      | C    | n | h    | L     | t    | d <sub>1</sub> | d <sub>1</sub> <sup>1</sup> | ℓ <sub>5</sub> | L     |                 | d <sub>2</sub> | ℓ     | L    |  |  |  |  |
| 1/2                 | 15 | 0.59 | 1.89           | 4.72 | 0.79           | 1.14           | M6             | 0.63           | 3.50                   | 2.38 | 4 | 0.62 | 8.70  | 0.47 | 0.848          | 0.836                       | 0.875          | 7.52  |                 | 1/2-14NPT      | 0.59  | 7.09 |  |  |  |  |
| 3/4                 | 20 | 0.79 | 2.36           | 4.72 | 0.79           | 1.14           | M6             | 0.63           | 3.88                   | 2.75 | 4 | 0.62 | 9.92  | 0.55 | 1.058          | 1.046                       | 1.000          | 8.23  |                 | 3/4-14NPT      | 0.67  | 7.87 |  |  |  |  |
| 1                   | 25 | 0.98 | 2.76           | 6.89 | 1.06           | 1.85           | M6             | 0.67           | 4.25                   | 3.12 | 4 | 0.62 | 11.89 | 0.55 | 1.325          | 1.310                       | 1.125          | 10.24 |                 | 1-11 1/2NPT    | 0.79  | 9.69 |  |  |  |  |
| 1 1/4               | 32 | 1.22 | 3.23           | 6.26 | 1.69           | 1.85           | M6             | 0.67           | 4.62                   | 3.5  | 4 | 0.62 | 11.65 | 0.63 | 1.670          | 1.655                       | 1.250          | 10.63 | 1 1/4-11 1/2NPT | 0.87           | 10.08 |      |  |  |  |  |
| 1 1/2               | 40 | 1.57 | 3.94           | 9.84 | 1.69           | -              | -              | -              | 5.00                   | 3.88 | 4 | 0.62 | 14.92 | 0.63 | 1.912          | 1.894                       | 1.375          | 13.82 | 1 1/2-11 1/2NPT | 0.98           | 12.99 |      |  |  |  |  |
| 2                   | 50 | 2.01 | 4.17           | 9.84 | 1.69           | -              | -              | -              | 6.00                   | 4.75 | 4 | 0.75 | 15.55 | 0.63 | 2.387          | 2.369                       | 1.500          | 14.57 | 2-11 1/2NPT     | 1.10           | 14.09 |      |  |  |  |  |

- THE WETTED PART MADE OF CORROSION-RESISTANT PLASTIC. SEALING WITH DIAPHRAGM.
- EASY TO SET, ONLY REQUIRING THE GAUGE PIPE AND TIGHTENING THE UNION NUT.
- EQUIPPED WITH DRAIN PLUG USEFUL FOR MAINTENANCE (ALLOWING FOR COLLECTION OF SAMPLE SOLUTION).

The diagram illustrates the operation of a differential pressure transmitter. It consists of two main parts: a top flange and a bottom flange, connected by a central tube. The top flange has a 'Flanged elbow' and a 'Gauge pipe (Glass pipe)'. The bottom flange has a 'Gauge valve' and a 'Drain plug'. The diagram shows two states: 'Fully closed state' on the left and 'Fully open state' on the right. In the 'Fully closed state', the gauge valve is closed, and the gauge pipe is empty. In the 'Fully open state', the gauge valve is open, and the gauge pipe is filled with a liquid (indicated by a blue line).

**CONNECTION / FLANGED — JIS10K, DIN, ANSI**

|       | FLUID TEMPERATURE | MAXIMUM WORKING PRESSURE<br>(NORMAL TEMPERATURE) MPa(kg/cm <sup>2</sup> ) |
|-------|-------------------|---------------------------------------------------------------------------|
| U-PVC | 0°C ~ 40°C        | 0.5 {5.1}                                                                 |
|       | 41°C ~ 50°C       | 0.4 {4.1}                                                                 |
|       | 51°C ~ 80°C       | —                                                                         |
| PP    | 0°C ~ 40°C        | 0.5 {5.1}                                                                 |
|       | 41°C ~ 50°C       | 0.4 {4.1}                                                                 |
|       | 51°C ~ 80°C       | 0.3 {3.1}                                                                 |

\* Concerning the allowable pressure for each temperature and material, see the technical documents at the end of this catalog.

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**CONNECTION / FLANGED——JIS, DIN, ANSI**

| PART NO. / NAME | QTY | MATERIAL         | PART NO. / NAME             | QTY | MATERIAL     |
|-----------------|-----|------------------|-----------------------------|-----|--------------|
| ① BODY          | 1   | U-PVC, PP        | ⑨ COMPRESSOR                | 1   | PVDF         |
| ② BONNET        | 1   | U-PVC, PP        | ⑩ COMPRESSOR PIN            | 2   | SUS304       |
| ③ UNION NUT     | 1   | U-PVC, PP        | ⑪ STEM                      | 1   | C3604        |
| ④ PACKING GLAND | 1   | U-PVC, PP        | ⑫ EMBEDDED BONNET FITTING   | 1   | C3604        |
| ⑤ DRAIN PLUG    | 1   | U-PVC, PP        | ⑬ MATERIAL INDICATION SHEET | 1   | Silver label |
| ⑥ DIAPHRAGM     | 1   | EPDM, PTFE, etc. | ⑭ HANDLE                    | 1   | PP           |
| ⑦ O-RING (A)    | 2   | EPDM, PTFE, etc. | ⑮ NUT                       | 1   | SUS304       |
| ⑧ O-RING (B)    | 1   | EPDM, PTFE, etc. |                             |     |              |

■ JIS, DIN (Unit: mm)

| ■ JIS, DIN (Unit: mm) |    |                |                |                |                |                |    |                | JIS10K |    |   |    | DIN PN10 |    |   |    |
|-----------------------|----|----------------|----------------|----------------|----------------|----------------|----|----------------|--------|----|---|----|----------|----|---|----|
| mm                    | d  | L <sub>1</sub> | L <sub>2</sub> | L <sub>3</sub> | L <sub>4</sub> | L <sub>5</sub> | t  | d <sub>1</sub> | D      | C  | n | h  | D        | C  | n | h  |
| 20                    | 13 | 60             | 64             | 50             | 10             | 15             | 10 | 18             | 100    | 75 | 4 | 15 | 105      | 75 | 4 | 14 |
| 25                    | 25 | 62             | 90             | 52             | 10             | 24             | 13 | 26             | 125    | 90 | 4 | 19 | 115      | 85 | 4 | 14 |

■ ANSI (Unit: inch)

| ANSI (Unit: inch) |    |      |                |                |                |                |                |      |                | ANSI Class150 |      |   |      |
|-------------------|----|------|----------------|----------------|----------------|----------------|----------------|------|----------------|---------------|------|---|------|
| inch              | mm | d    | L <sub>1</sub> | L <sub>2</sub> | L <sub>3</sub> | L <sub>4</sub> | L <sub>5</sub> | t    | d <sub>1</sub> | D             | C    | n | h    |
| 3/4               | 20 | 0.51 | 2.36           | 2.52           | 1.97           | 0.39           | 0.59           | 0.39 | 0.71           | 3.88          | 2.75 | 4 | 0.62 |
| 1                 | 25 | 0.98 | 2.44           | 3.54           | 2.05           | 0.39           | 0.94           | 0.51 | 1.02           | 4.25          | 3.12 | 4 | 0.62 |

# SEDIMENT STRAINER (TYPE Y)

- MATERIAL WITH HIGH RESISTANCE TO CORROSION, CHEMICALS AND WEAR.
- TRANSPARENT BODY THAT ALLOWS FOR CHECKING OF INSIDE FLOW.
- EASY SCREEN CLEANING, DISASSEMBLY/ASSEMBLY FOR REPLACEMENT AND MAINTENANCE.

## BASIC SPECIFICATIONS

VALVE TYPE ————— SEDIMENT STRAINER (TYPE Y)

SIZE ————— 15 mm—100 mm (1/2 inch—4 inch)

BODY MATERIAL ————— **U-PVC**

SEAL MATERIAL ————— **EPDM** **FKM** etc.

CONNECTION / FLANGED — JIS5K, JIS10K, DIN, ANSI

SOCKET — JIS, DIN, ANSI

THREADED — Rc, Rp, NPT

|              | FLUID TEMPERATURE | MAXIMUM WORKING PRESSURE (NORMAL TEMPERATURE) MPa(kgf/cm <sup>2</sup> ) |            | CONNECTION METHOD |        |          |
|--------------|-------------------|-------------------------------------------------------------------------|------------|-------------------|--------|----------|
|              |                   | 15mm—50mm                                                               | 65mm—100mm | FLANGED           | SOCKET | THREADED |
| <b>U-PVC</b> | 0°C ~ 50°C        | 1.0 {10.2}                                                              | 0.6 {6.1}  | ○                 | ○      | ○        |

**NOTE** For information on chemical resistance, contact our sales office.

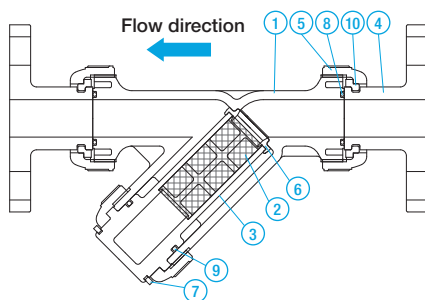


**NOTES**

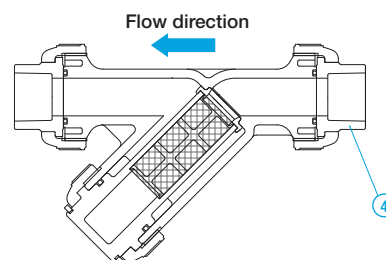
- Avoid direct sunlight and store it indoors. Also avoid storing the valve in a place that may be exposed to high temperatures. ● Pay attention to the direction of flow when mounting the product on a pipe. (It is indicated by an arrow on the valve parts.)
- Clean the screen periodically. (Handle the screen with utmost care during cleaning.)
- Make sure during piping work that the valve is not exposed to direct sunlight.
- Note that volatile liquids, such as hydrogen peroxide solution (H<sub>2</sub>O<sub>2</sub>) and sodium hypochlorite (NaClO), may cause abnormal pressure increase in strainer. (When the internal pressure abnormally increases due to vaporization, the gas becomes compressive fluid. If the valve breaks in this state, it will be very dangerous, causing explosion and scattering of fragments.)
- The Y-shaped strainer, in particular, has such a structure that the corners are susceptible to the effects of repeated stress due to internal variations. Therefore, for lines where pulsation (including air hammer and water hammer) may occur, take adequate measures during piping installation. Otherwise breakage may occur. Also, perform periodic check (approx. once a year).
- Piping lines made of copper require particular attention because the effects of stress such as internal fluctuations are concentrated on the Y-shaped strainer.

## PARTS LIST **MANUAL**

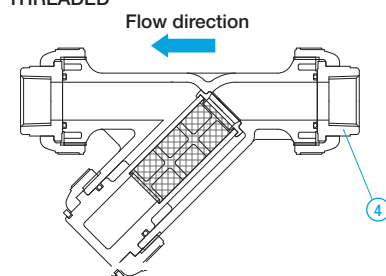
### FLANGED



### SOCKET



### THREADED



| PART NO. / NAME         | QTY | MATERIAL            |
|-------------------------|-----|---------------------|
| ① BODY                  | 1   | U-PVC (transparent) |
| ② SCREEN <sup>(1)</sup> | 1   | U-PVC               |
| ③ SCREEN SUPPORT        | 1   | U-PVC               |
| ④ END CONNECTOR         | 2   | U-PVC               |
| ⑤ UNION NUT             | 3   | U-PVC               |

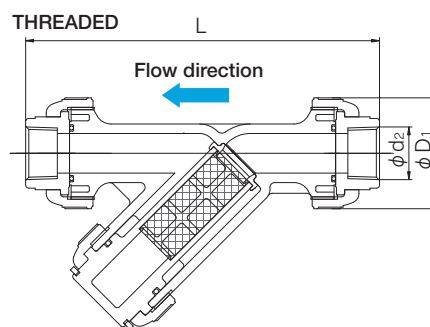
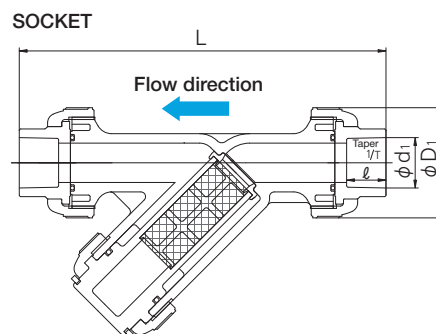
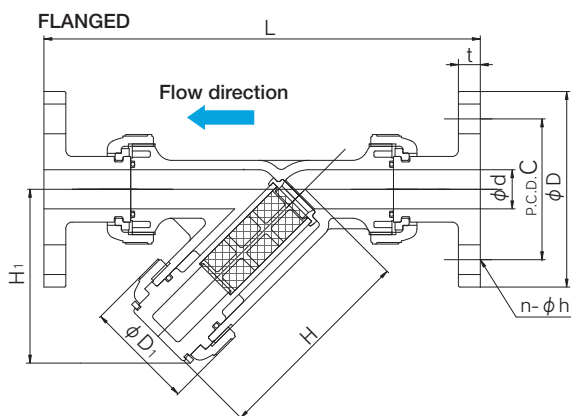
| PART NO. / NAME            | QTY | MATERIAL        |
|----------------------------|-----|-----------------|
| ⑥ SCREEN RETAINER          | 1   | U-PVC           |
| ⑦ RETAINER RING            | 1   | U-PVC           |
| ⑧ O-RING (A)               | 2   | EPDM, FKM, etc. |
| ⑨ O-RING (B)               | 1   |                 |
| ⑩ STOP RING <sup>(2)</sup> | 2   | PVDF            |

**NOTES** (1) 40 mesh : standard 30/20/60 mesh : custom-build \*60 mesh: U-PVC (20 mesh) + PVDC (60 mesh) \*For Stainless Steel mesh, consult as.

(2) Flanged type only.

# SEDIMENT STRAINER (TYPE Y)

CONNECTION / FLANGED, SOCKET—JIS, DIN, ANSI    THREADED—Rc, Rp, NPT



■ JIS, DIN (Unit: mm)

| JIS, DIN (Unit: mm) |     |                |     |                |                | JIS     |     |   |    |         |     |   |    |        |    |                |    |          |     |                |    |     |  |
|---------------------|-----|----------------|-----|----------------|----------------|---------|-----|---|----|---------|-----|---|----|--------|----|----------------|----|----------|-----|----------------|----|-----|--|
| mm                  | d   | D <sub>1</sub> | H   | H <sub>1</sub> | H <sub>2</sub> | FLANGED |     |   |    |         |     |   |    | SOCKET |    |                |    | THREADED |     |                |    |     |  |
|                     |     |                |     |                |                | JIS 5K  |     |   |    | JIS 10K |     |   |    | L      | t  | d <sub>1</sub> | ℓ  | 1/T      | L   | d <sub>2</sub> | ℓ  | L   |  |
|                     |     |                |     |                |                | D       | C   | n | h  | D       | C   | n | h  |        |    |                |    |          |     |                |    |     |  |
| 15                  | 15  | 48             | 97  | 78             | 134            | 80      | 60  | 4 | 12 | 95      | 70  | 4 | 15 | 206    | 12 | 22.11          | 20 | 1/34     | 172 | Rc 1/2         | 15 | 165 |  |
| 20                  | 20  | 60             | 120 | 98             | 168            | 85      | 65  | 4 | 12 | 100     | 75  | 4 | 15 | 254    | 14 | 26.13          | 24 | 1/34     | 210 | Rc 3/4         | 17 | 202 |  |
| 25                  | 25  | 70             | 133 | 111            | 189            | 95      | 75  | 4 | 12 | 125     | 90  | 4 | 19 | 280    | 14 | 32.16          | 27 | 1/34     | 238 | Rc 1           | 20 | 224 |  |
| 32                  | 40  | 100            | 177 | 149            | 256            | 115     | 90  | 4 | 15 | 135     | 100 | 4 | 19 | 336    | 16 | 38.19          | 30 | 1/34     | 298 | Rc 1 1/4       | 22 | 287 |  |
| 40                  | 40  | 100            | 177 | 149            | 256            | 120     | 95  | 4 | 15 | 140     | 105 | 4 | 19 | 336    | 16 | 48.21          | 37 | 1/37     | 313 | Rc 1 1/2       | 25 | 287 |  |
| 50                  | 51  | 106            | 190 | 160            | 277            | 130     | 105 | 4 | 15 | 155     | 120 | 4 | 19 | 361    | 16 | 60.25          | 42 | 1/37     | 346 | Rc 2           | 28 | 324 |  |
| 65                  | 78  | 140            | 271 | 234            | 399            | 155     | 130 | 4 | 15 | 175     | 140 | 4 | 19 | 477    | 18 | 76.60          | 61 | 1/48     | 487 | Rc 2 1/2       | 32 | 436 |  |
| 80                  | 78  | 152            | 271 | 234            | 399            | 180     | 145 | 4 | 19 | 185     | 150 | 8 | 19 | 477    | 18 | 89.60          | 64 | 1/49     | 487 | Rc 3           | 35 | 436 |  |
| 100                 | 100 | 210            | 361 | 316            | 537            | 200     | 165 | 8 | 19 | 210     | 175 | 8 | 19 | 608    | 18 | 114.70         | 64 | 1/56     | 653 | Rc 4           | 45 | 596 |  |

| mm  | DIN              |     |   |    |        |    |                |    |          |                |    |     |
|-----|------------------|-----|---|----|--------|----|----------------|----|----------|----------------|----|-----|
|     | FLANGED DIN PN10 |     |   |    | SOCKET |    |                |    | THREADED |                |    |     |
|     | D                | C   | n | h  | L      | t  | d <sub>1</sub> | ℓ  | L        | d <sub>1</sub> | ℓ  | L   |
| 15  | 95               | 65  | 4 | 14 | 193    | 12 | 20             | 16 | 165      | Rp 1/2         | 15 | 165 |
| 20  | 105              | 75  | 4 | 14 | 232    | 14 | 25             | 19 | 201      | Rp 3/4         | 17 | 202 |
| 25  | 115              | 85  | 4 | 14 | 253    | 14 | 32             | 22 | 224      | Rp 1           | 20 | 224 |
| 32  | 140              | 100 | 4 | 18 | 336    | 16 | 40             | 26 | 298      | Rp 1 1/4       | 22 | 287 |
| 40  | 150              | 110 | 4 | 18 | 324    | 16 | 50             | 31 | 288      | Rp 1 1/2       | 25 | 287 |
| 50  | 165              | 125 | 4 | 18 | 361    | 16 | 63             | 38 | 337      | Rp 2           | 28 | 324 |
| 65  | 185              | 145 | 4 | 18 | 477    | 18 | 75             | 44 | 455      | Rp 2 1/2       | 32 | 436 |
| 80  | 200              | 160 | 8 | 18 | 483    | 18 | 90             | 51 | 457      | Rp 3           | 35 | 436 |
| 100 | 220              | 180 | 8 | 18 | 608    | 18 | 110            | 61 | 607      | Rp 4           | 45 | 596 |

■ ANSI (Unit: inch)

| ANSI (Unit: inch) |     |      |                |       |                |                | ANSI          |      |   |      |       |      |                |                  |       |       |                  |      |       |
|-------------------|-----|------|----------------|-------|----------------|----------------|---------------|------|---|------|-------|------|----------------|------------------|-------|-------|------------------|------|-------|
| inch              | mm  | d    | D <sub>1</sub> | H     | H <sub>1</sub> | H <sub>2</sub> | FLANGED       |      |   |      |       |      | SOCKET         |                  |       |       | THREADED         |      |       |
|                   |     |      |                |       |                |                | ANSI CLASS150 |      |   |      |       |      | ASTM SCH80     |                  |       |       | d <sub>2</sub>   | ℓ    | L     |
|                   |     |      |                |       |                |                | C             | D    | n | h    | L     | t    | d <sub>1</sub> | d <sub>1</sub> ' | ℓ     | L     |                  |      |       |
| 1/2               | 15  | 0.59 | 1.89           | 3.82  | 3.07           | 5.28           | 3.50          | 2.38 | 4 | 0.62 | 8.11  | 0.47 | 0.848          | 0.836            | 0.875 | 6.93  | 1/2-14 NPT       | 0.59 | 6.50  |
| 3/4               | 20  | 0.79 | 2.36           | 4.72  | 3.86           | 6.61           | 3.88          | 2.75 | 4 | 0.62 | 10.00 | 0.55 | 1.058          | 1.046            | 1.000 | 8.31  | 3/4-14 NPT       | 0.67 | 7.95  |
| 1                 | 25  | 0.98 | 2.76           | 5.24  | 4.37           | 7.44           | 4.25          | 3.12 | 4 | 0.62 | 11.02 | 0.55 | 1.325          | 1.310            | 1.125 | 9.37  | 1-11 1/2 NPT     | 0.79 | 8.82  |
| 1 1/4             | 32  | 1.57 | 3.94           | 6.97  | 5.87           | 10.08          | 4.61          | 3.50 | 4 | 0.62 | 13.23 | 0.63 | 1.670          | 1.655            | 1.250 | 11.73 | 1 1/4-11 1/2 NPT | 0.87 | 11.30 |
| 1 1/2             | 40  | 1.57 | 3.94           | 6.97  | 5.87           | 10.08          | 5.00          | 3.88 | 4 | 0.62 | 13.23 | 0.63 | 1.912          | 1.894            | 1.375 | 12.13 | 1 1/2-11 1/2 NPT | 0.98 | 11.30 |
| 2                 | 50  | 2.01 | 4.17           | 7.48  | 6.30           | 10.91          | 6.00          | 4.75 | 4 | 0.75 | 14.21 | 0.63 | 2.387          | 2.369            | 1.500 | 13.31 | 2-11 1/2 NPT     | 1.10 | 12.76 |
| 2 1/2             | 65  | 3.07 | 5.51           | 10.67 | 9.21           | 15.71          | 7.01          | 5.49 | 4 | 0.75 | 18.78 | 0.71 | 2.889          | 2.868            | 1.752 | 17.95 | 2 1/2-8 NPT      | 1.26 | 17.17 |
| 3                 | 80  | 3.07 | 5.98           | 10.67 | 9.21           | 15.71          | 7.50          | 6.00 | 4 | 0.75 | 18.78 | 0.71 | 3.516          | 3.492            | 1.875 | 17.83 | 3-8 NPT          | 1.38 | 17.17 |
| 4                 | 100 | 3.94 | 8.27           | 14.21 | 12.44          | 21.14          | 9.00          | 7.50 | 8 | 0.75 | 23.94 | 0.71 | 4.518          | 4.491            | 2.000 | 23.07 | 4-8 NPT          | 1.77 | 23.46 |