

STOP VALVE (GLOBE VALVE)

Features

- 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 : 15mm (1/2") - 100mm (4")
- Body Material : U-PVC (Conforming to ASTM D1784 Cell Classification 12454A)
: PP (Conforming to ASTM D4101 Cell Classification PP0210B67272)
- Seal Material / O-ring : EPDM, etc.
- Connection / Flanged : JIS B2220 5K, JIS B2220 10K, DIN/EN1092-1 PN10, ANSI B16.5 CLASS150
Socket : JIS, DIN, ASTM D2466 SCH40
Threaded : Rc, Rp, NPT

| Body Material | FLUID TEMPERATURE °C {F} | Maximum working pressure (Normal temperature) MPa {psi} | CONNECTION METHOD | | |
|---------------|--------------------------|---|-------------------|--------|----------|
| | | | FLANGED | SOCKET | THREADED |
| U-PVC | 0 ~ 50 { 30 ~120 } | 1.0 { 150 } | ○ | ○ | ○ |
| PP | -20 ~ 80 { -5 ~175 } | 0.75 { 110 } | ○ | - | ○ |

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

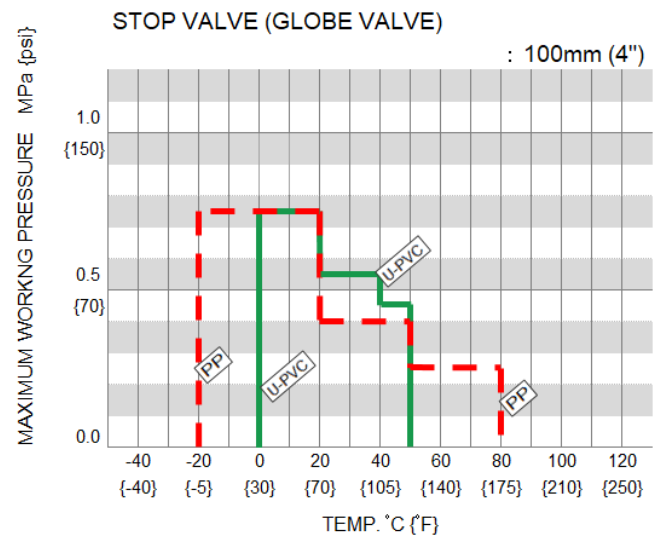
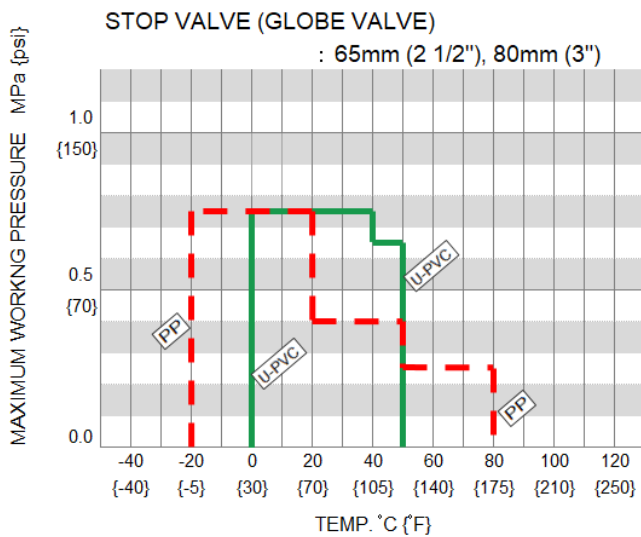
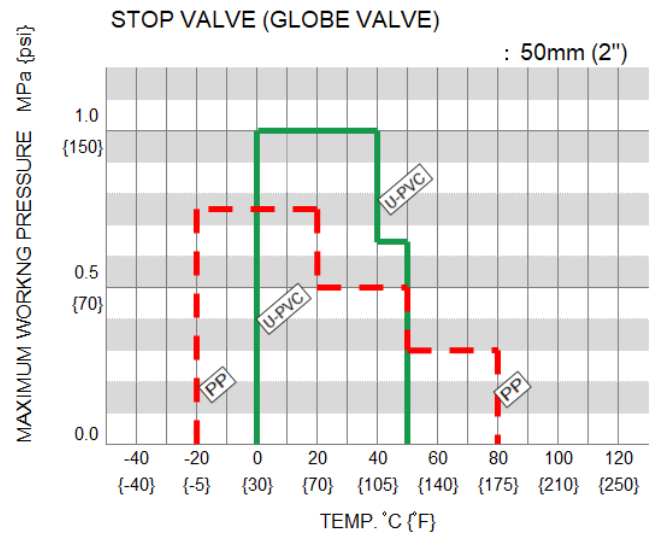
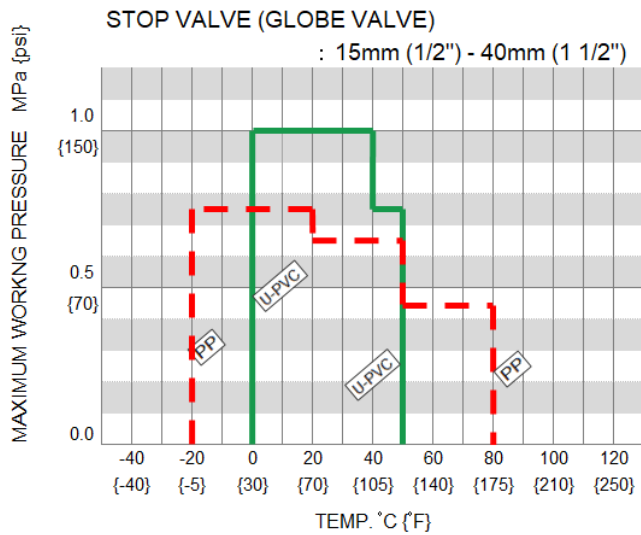
- * Concerning the allowable pressure for each temperature and material, see the technical documents at the next page of this sheet.

Certificate / Approval / Directive

PED

"For details of applicable products, please consult us."

Working pressure vs. Temperature

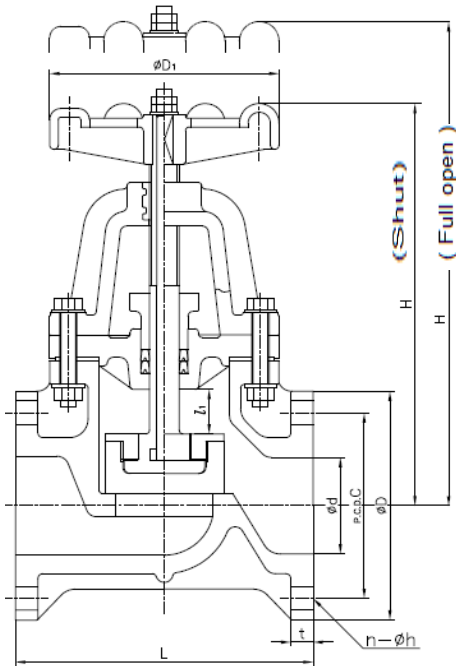


Note:

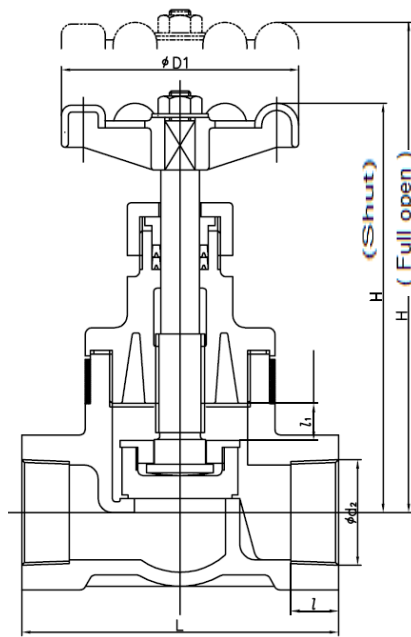
Make sure that the temperature and pressure are within the working range during operation.
(If the tolerance range is exceeded during use, the valve may be damaged.)

Product dimension

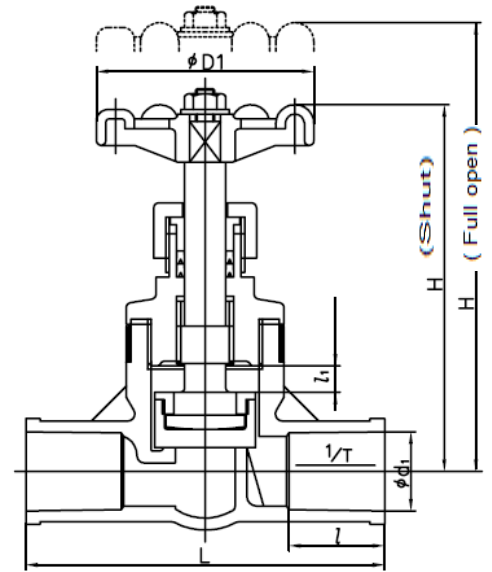
FLANGED



THREADED



SOCKET



■ JIS, DIN (Unit: mm)

| mm | inch | d | D ₁ | l ₁ | H (Shut) | H (FULL OPEN) | L | t | JIS 5K | | | | JIS 10K | | | | DIN PN10 | | | |
|-----|-------|-----|----------------|----------------|----------|---------------|-----|----|--------|-----|---|----|---------|-----|---|----|----------|-----|---|----|
| | | | | | | | | | D | C | n | h | D | C | n | h | D | C | n | h |
| 15 | 1/2 | 18 | 66 | 8 | 124 | 132 | 85 | 12 | 80 | 60 | 4 | 12 | 95 | 70 | 4 | 15 | 95 | 65 | 4 | 14 |
| 20 | 3/4 | 24 | 66 | 8 | 132 | 140 | 95 | 14 | 85 | 65 | 4 | 12 | 100 | 75 | 4 | 15 | 105 | 75 | 4 | 14 |
| 25 | 1 | 28 | 91 | 11 | 150 | 161 | 110 | 14 | 95 | 75 | 4 | 12 | 125 | 90 | 4 | 19 | 115 | 85 | 4 | 14 |
| 32 | 1 1/4 | 37 | 91 | 13 | 154 | 167 | 135 | 16 | 115 | 90 | 4 | 15 | 135 | 100 | 4 | 19 | 140 | 100 | 4 | 18 |
| 40 | 1 1/2 | 41 | 135 | 17 | 210 | 230 | 190 | 16 | 120 | 95 | 4 | 15 | 140 | 105 | 4 | 19 | 150 | 110 | 4 | 18 |
| 50 | 2 | 52 | 135 | 22 | 228 | 252 | 200 | 16 | 130 | 105 | 4 | 15 | 155 | 120 | 4 | 19 | 165 | 125 | 4 | 18 |
| 65 | 2 1/2 | 67 | 185 | 35 | 310 | 345 | 220 | 18 | 155 | 130 | 4 | 15 | 175 | 140 | 4 | 19 | 185 | 145 | 4 | 18 |
| 80 | 3 | 78 | 185 | 35 | 324 | 359 | 240 | 18 | 180 | 145 | 4 | 19 | 185 | 150 | 8 | 19 | 200 | 160 | 8 | 18 |
| 100 | 4 | 100 | 185 | 40 | 379 | 419 | 290 | 18 | 200 | 165 | 8 | 19 | 210 | 175 | 8 | 19 | 220 | 180 | 8 | 18 |

■ ANSI (Unit: inch)

| inch | mm | d | D ₁ | l ₁ | H (Shut) | H (FULL OPEN) | L | t | ANSI Class150 | | | |
|-------|-----|------|----------------|----------------|----------|---------------|-------|------|---------------|------|---|------|
| | | | | | | | | | 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 | 8.58 | 9.25 | 7.48 | 0.63 | 5.00 | 3.88 | 4 | 0.62 |
| 2 | 50 | 2.05 | 5.31 | 0.87 | 9.33 | 10.20 | 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 |

■ JIS, DIN (Unit: mm)

| inch | mm | D | ℓ_1 | H (SHUT) | H(FULL OPEN) | JIS | | | | | | | DIN | | | | | | | | | |
|-------|----|-----|----------|-------------|-----------------|--------|--------|------|-----|----------|--------|-----|--------|--------|-----|-------|----------|--------|-----|----------|--------|-----|
| | | | | | | SOCKET | | | | THREADED | | | SOCKET | | | | THREADED | | | | | |
| | | | | | | U-PVC | | | | d_2 | ℓ | L | U-PVC | | | PP | | | | d_2 | ℓ | L |
| | | | | | | d_1 | ℓ | 1/T | L | | | | d_1 | ℓ | L | d_1 | d_1' | ℓ | L | | | |
| 1/2 | 15 | 66 | 8 | 124 | 132 | 22.40 | 30 | 1/34 | 110 | Rc 1/2 | 15 | 85 | 20 | 16 | 82 | 19.5 | 19.3 | 14.5 | 84 | Rp 1/2 | 15 | 85 |
| 3/4 | 20 | 66 | 8 | 132 | 140 | 26.45 | 35 | 1/34 | 130 | Rc 3/4 | 18 | 95 | 25 | 19 | 98 | 24.5 | 24.3 | 16 | 91 | Rp 3/4 | 18 | 95 |
| 1 | 25 | 91 | 11 | 150 | 161 | 32.55 | 40 | 1/34 | 150 | Rc 1 | 20 | 110 | 32 | 22 | 114 | 31.5 | 31.3 | 18 | 106 | Rp 1 | 20 | 110 |
| 1 1/4 | 32 | 91 | 13 | 154 | 167 | - | - | - | - | Rc 1 1/4 | 25 | 135 | - | - | - | - | - | - | - | Rp 1 1/4 | 25 | 135 |
| 1 1/2 | 40 | 135 | 17 | 218 | 235 | - | - | - | - | Rc 1 1/2 | 25 | 140 | - | - | - | - | - | - | - | Rp 1 1/2 | 25 | 140 |
| 2 | 50 | 135 | 22 | 237 | 259 | - | - | - | - | Rc 2 | 27 | 180 | - | - | - | - | - | - | - | Rp 2 | 27 | 180 |

■ ANSI (Unit: inch)

| inch | mm | D | ℓ_1 | H (SHUT) | H(FULL OPEN) | ANSI | | | | | | |
|-------|----|------|----------|-------------|-----------------|--------|--------|--------|------|-----------------|--------|------|
| | | | | | | SOCKET | | | | THREADED | | |
| | | | | | | U-PVC | | | | d_2 | ℓ | L |
| | | | | | | d_1 | d_1' | ℓ | L | | | |
| 1/2 | 15 | 2.60 | 0.31 | 4.88 | 5.20 | 0.848 | 0.836 | 1.18 | 4.33 | 1/2-14NPT | 0.59 | 3.35 |
| 3/4 | 20 | 2.60 | 0.31 | 5.20 | 5.51 | 1.058 | 1.046 | 1.38 | 5.12 | 1/4-14NPT | 0.71 | 3.74 |
| 1 | 25 | 3.58 | 0.43 | 5.91 | 6.34 | 1.325 | 1.310 | 1.57 | 5.91 | 1-11 1/2NPT | 0.79 | 4.33 |
| 1 1/4 | 32 | 3.58 | 0.51 | 6.06 | 6.57 | 1.670 | 1.655 | 0.94 | 5.31 | 1 1/4-11 1/2NPT | 0.98 | 5.31 |
| 1 1/2 | 40 | 5.31 | 0.67 | 8.58 | 9.25 | 1.912 | 1.894 | 1.09 | 5.31 | 1 1/2-11 1/2NPT | 0.98 | 5.51 |
| 2 | 50 | 5.31 | 0.87 | 9.33 | 10.20 | 2.387 | 2.369 | 1.16 | 7.09 | 2-11 1/2NPT | 1.06 | 7.09 |

Note:

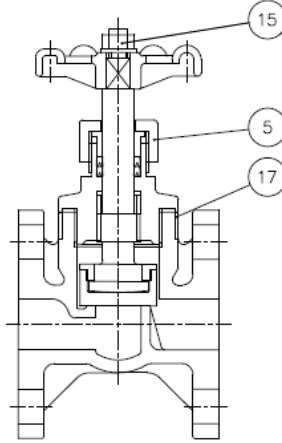
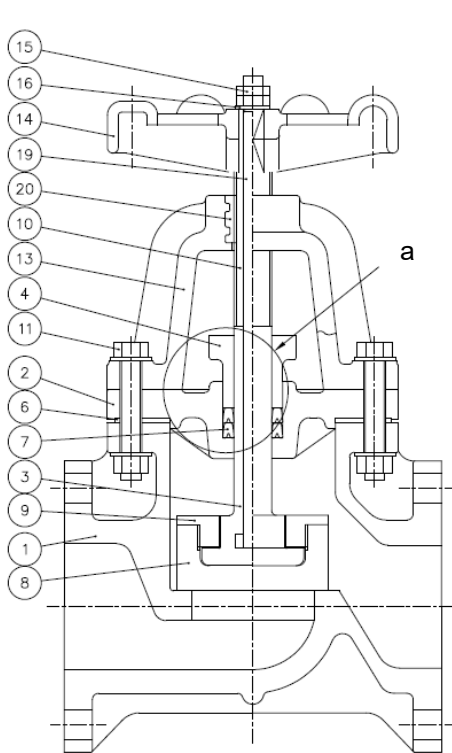
The shape and appearance of assembly differ a little with nominal size compared to this drawing.

Parts list

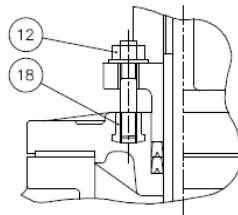
FLANGED

65mm (2 1/2") - 100mm (4")

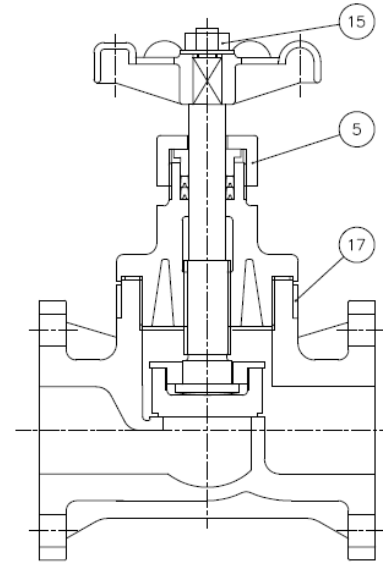
15mm (1/2") - 32mm (1 1/4")



Details of section "a"



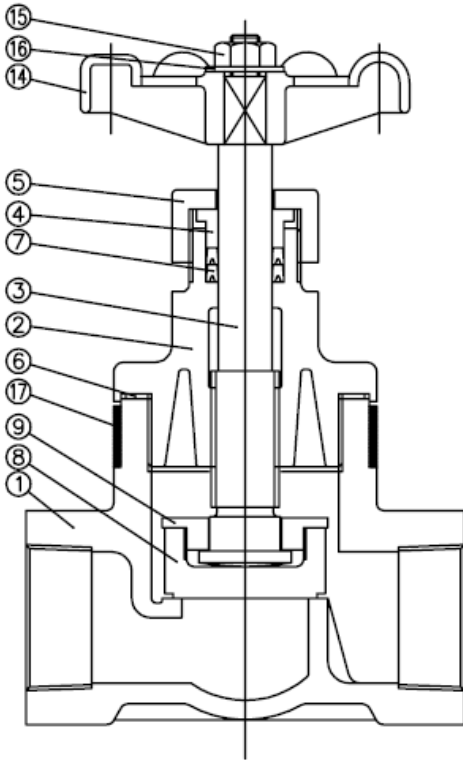
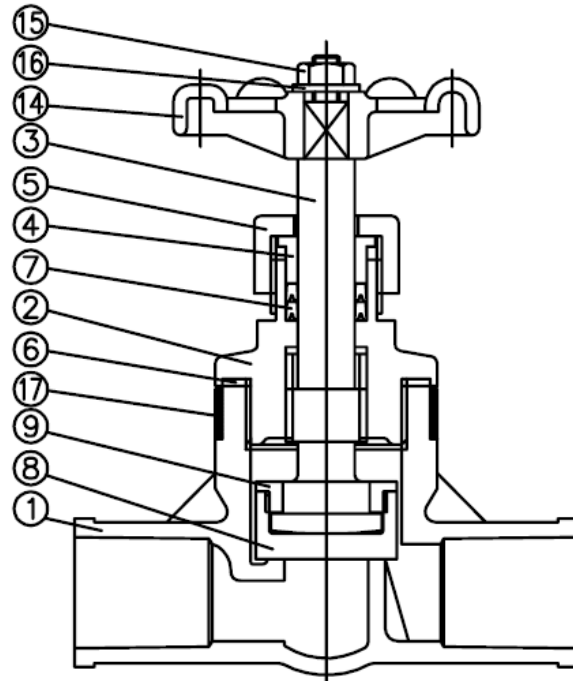
40mm (1 1/4") - 50mm (2")



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

(1) For 65 to 100 mm, PP only. (2) Used for 15 to 50 mm.

(3) In case that GLAND PACKING is PTFE; EPDM coated with PTFE.

THREADED, SOCKET
THREADED

SOCKET


| PART NO./NAME | QTY | MATERIAL |
|-------------------------------|------|------------|
| 1 BODY ⁽¹⁾ | 1 | U-PVC, PP |
| 2 BNET | 1 | U-PVC, PP |
| 3 STEM | 1 | U-PVC, PP |
| 4 GLAND | 1 | U-PVC, PP |
| 5 GLAND NUT | 1 | U-PVC, PP |
| 6 SHEET GASKET ⁽²⁾ | 1 | EPDM, etc. |
| 7 GLAND PACKING | 1Set | EPDM, PTFE |

| PART NO./NAME | QTY | MATERIAL |
|-------------------------|-----|--------------------------------------|
| 8 DISC | 1 | PP |
| 9 STEM HOLDER | 1 | PP |
| 14 HAND WHEEL | 1 | PP |
| 15 NUT (A) | 1 | U-PVC |
| 16 WASHER | 1 | U-PVC |
| 17 RING FOR REINFORCING | 1 | STAINLESS STEEL Used for PP body. |

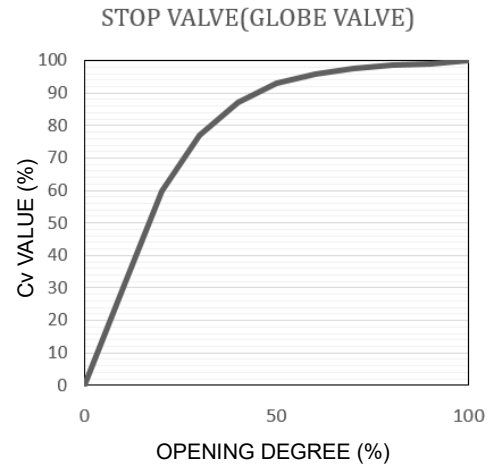
(1) In the case of socket end it is only U-PVC. (2) In case that GLAND PACKING is PTFE; EPDM coated with PTFE.

Cv value for each opening degree

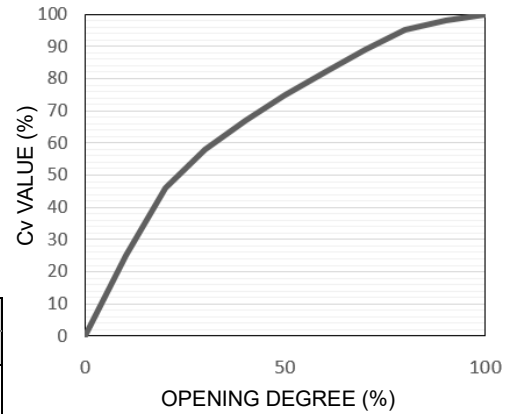
STOP VALVE (GLOBE VALVE)

| mm | 15 | 20 | 25 | 32 | 40 | 50 | 65 | 80 | 100 |
|-----------------------|-----|-----|-----|-------|-------|----|-------|----|-----|
| inch | 1/2 | 3/4 | 1 | 1 1/4 | 1 1/2 | 2 | 2 1/2 | 3 | 4 |
| FULL-OPEN Cv VALUE | 4.1 | 6.4 | 9.7 | 18 | 22 | 29 | 57 | 78 | 115 |

The values shown are reference values, not guaranteed values.



STOP VALVE(GLOBE VALVE)
#NEEDLE TYPE



STOP VALVE (GLOBE VALVE) #NEEDLE TYPE

| mm | 15 | 20 | 25 | 40 | 50 | 65 | 80 | 100 |
|-----------------------|-----|-----|-----|-------|----|-------|----|-----|
| inch | 1/2 | 3/4 | 1 | 1 1/2 | 2 | 2 1/2 | 3 | 4 |
| FULL-OPEN Cv VALUE | 3.3 | 5.2 | 7.5 | 19 | 28 | 58 | 85 | 109 |

The values shown are reference values, not guaranteed values.

Operating torque at maximum working pressure

STOP VALVE (GLOBE VALVE)

UNIT : N · m

| mm | inch | Operation torque (O→S) |
|-----|-------|------------------------|
| 15 | 1/2 | 3.0 |
| 20 | 3/4 | 3.0 |
| 25 | 1 | 8.0 |
| 32 | 1 1/4 | 10.0 |
| 40 | 1 1/2 | 12.0 |
| 50 | 2 | 14.0 |
| 65 | 2 1/2 | 18.0 |
| 80 | 3 | 24.0 |
| 100 | 4 | 36.0 |

Product weight

STOP VALVE (GLOBE VALVE)

Unit: kg

| mm | inch | FLANGED(JIS 10K) | | SOCKET(JIS) THREADED | |
|-----|-------|------------------|-----|-------------------------|-----|
| | | U-PVC | PP | U-PVC | PP |
| 15 | 1/2 | 0.5 | 0.4 | 0.3 | 0.2 |
| 20 | 3/4 | 0.7 | 0.5 | 0.3 | 0.3 |
| 25 | 1 | 1.0 | 0.7 | 0.6 | 0.4 |
| 32 | 1 1/4 | 1.2 | 0.9 | 0.7 | - |
| 40 | 1 1/2 | 2.1 | 1.4 | 1.3 | - |
| 50 | 2 | 2.7 | 1.9 | 1.8 | - |
| 65 | 2 1/2 | 4.5 | 3.8 | - | - |
| 80 | 3 | 6.2 | 3.8 | - | - |
| 100 | 4 | 9.9 | 6.5 | - | - |

Product model code list

STOP VALVE (GLOBE VALVE)

| ACTUATION | TYPE | OPERATING SYSTEM | BODY MATERIAL | SEAL MATERIAL | CONNECTION | STANDARD | SIZE |
|---------------------|--------------------|----------------------|----------------------|-----------------------|--|-------------------------------------|---------------------------------|
| V | ST | MH | * | * | * | * | *** |
| : V MANUAL VALVE | : ST STOP VALVE | : MH ROUND HANDLE | : U U-PVC P PP | : E EPDM T PTFE | : S SOCKET N THREADED F FLANGED | : J JIS 1 JIS 10K 5 JIS 5K | : 015 15mm ? 100 100mm |

Installation, Operation and Maintenance Manual

"For details of Installation, Operation and Maintenance, please refer IOM at below link"

http://www.asahi-yukizai.co.jp/en/product/mt_pdf/a_manual_Valve_6_01.pdf