

# GATE VALVE

## Soft Seal Type (Type 66) Inside Screw Cap Type Soft Seal Type (Type S) Inside Screw Cap Type

### Features

- Equipped with over-tightening prevention mechanism to prevent accidents due to excessive tightening. (Type 66 only)
- The channel surface free from irregularities allows for smooth flow. The rubber soft seal ensures excellent water tightness.
- Compact design allows for shallow depth mounting.

[Type 66]



[Type S]



### Basic specifications

- |                 |            |                                                              |
|-----------------|------------|--------------------------------------------------------------|
| - Valve Type    | :          | Gate Valve Soft Seal Type (Type 66)<br>Inside Screw Cap Type |
| - Size          | :          | 32 mm (1 1/2 inch) ~ 150 mm (6 inch)                         |
| - Body Material | :          | HI-PVC (Conforming to ASTM D1784)                            |
| - Seal Material | / Seat     | SBR, NBR                                                     |
|                 | / O-ring   | EPDM                                                         |
| - Connection    | / Flanged  | JIS B2220 10K, DIN/EN1092-1 PN10, ANSI B16.5 CLASS150        |
|                 | / Threaded | Rc, Rp, NPT                                                  |
|                 |            |                                                              |
| - Valve Type    | :          | Gate Valve Soft Seal Type (Type S)<br>Inside Screw Cap Type  |
| - Size          | :          | 65 mm (2 1/2 inch), 125 mm (5 inch), 200mm (8 inch)          |
| - Body Material | :          | HI-PVC (Conforming to ASTM D1784)                            |
| - Seal Material | / Seat     | SBR, NBR                                                     |
|                 | / O-ring   | EPDM                                                         |
| - Connection    | / Flanged  | JIS B2220 10K, DIN/EN1092-1 PN10, ANSI B16.5 CLASS150        |

| Body Material | FLUID TEMPERATURE °C {°F} | Maximum working pressure (Normal temperature) MPa {psi} | Connection method |
|---------------|---------------------------|---------------------------------------------------------|-------------------|
|               |                           |                                                         | FLANGED           |
| HI-PVC        | -10 ~ 50 { 15~120 }       | 1.0 { 150 }                                             | ○                 |

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

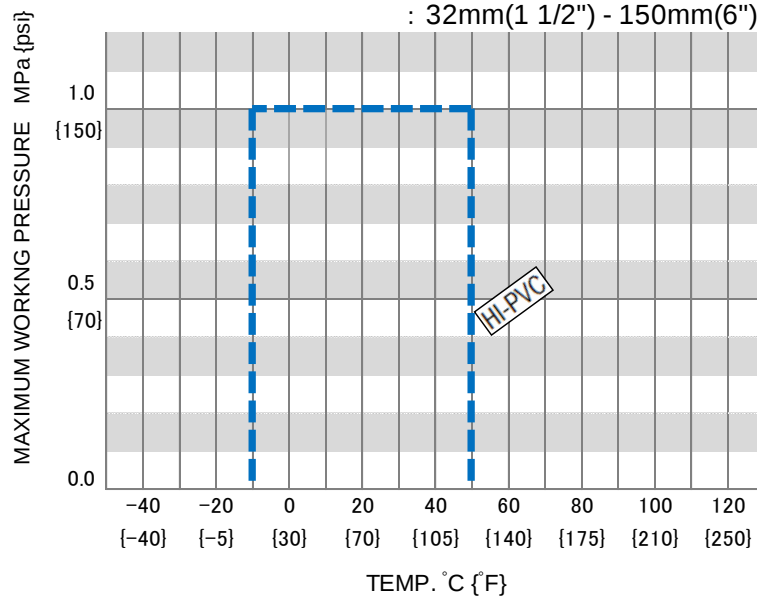
"For details of applicable products, please consult us."

## Maximum working pressure vs. Temperature

SOFT SEAL TYPE (TYPE 66)

INSIDE SCREW CAP TYPE

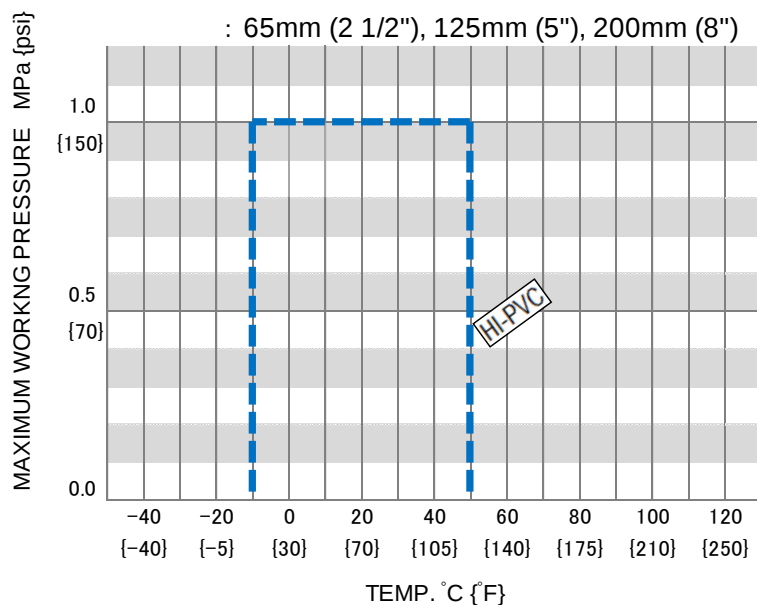
: 32mm(1 1/2") - 150mm(6")



SOFT SEAL TYPE (TYPE S)

INSIDE SCREW CAP TYPE

: 65mm (2 1/2"), 125mm (5"), 200mm (8")



Note:

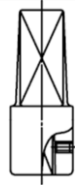
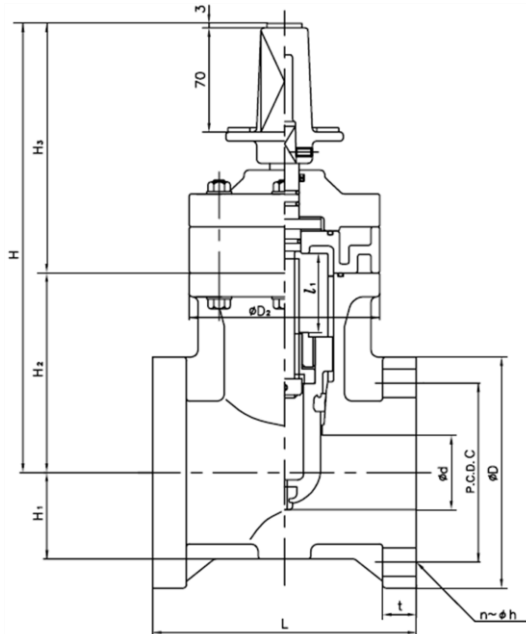
Make sure that the temperature and pressure are within the working range during operation.  
(If the tolerance range is exceeded during use, the valve may be damaged.)

## Product dimension

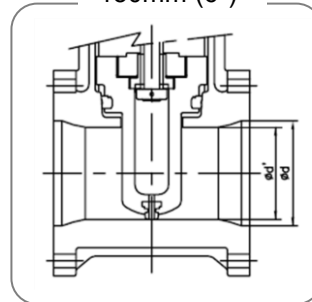
### Soft Seal Type (Type 66)

32mm (1 1/2") - 150mm (6")

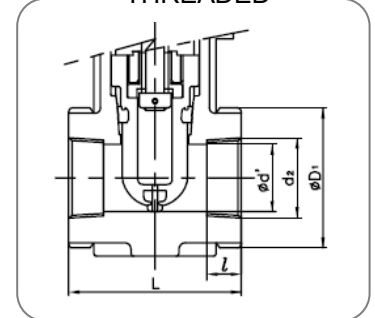
WRENCH NUT FOR  
CLOCKWISE OPENING



150mm (6")



THREADED



■ JIS, DIN (Unit: mm)

| mm  | inch  | d   | d'  | D <sub>1</sub> | LIFT<br>l <sub>1</sub> | H     | H <sub>1</sub> | H <sub>2</sub> | H <sub>3</sub> |
|-----|-------|-----|-----|----------------|------------------------|-------|----------------|----------------|----------------|
| 32  | 1 1/4 | 40  | 30  | 120            | 42                     | 268   | 50             | 107            | 161            |
| 40  | 1 1/2 | 40  | 40  | 120            | 42                     | 268   | 50             | 107            | 161            |
| 50  | 2     | 50  | 50  | 130            | 53                     | 300   | 58             | 134            | 166            |
| 80  | 3     | 75  | -   | 170            | 77                     | 361   | 77             | 170            | 191            |
| 100 | 4     | 100 | -   | 195            | 102                    | 414   | 89             | 207            | 207            |
| 150 | 6     | 150 | 130 | 270            | 132                    | 496.5 | 102            | 263            | 233.5          |

|     |       | JIS     |     |   |    |     |    |                |                |    |     | DIN      |     |   |    |                |   |     |    |                |                |    |     |   |   |   |
|-----|-------|---------|-----|---|----|-----|----|----------------|----------------|----|-----|----------|-----|---|----|----------------|---|-----|----|----------------|----------------|----|-----|---|---|---|
|     |       | FLANGED |     |   |    |     |    | THREADED       |                |    |     | FLANGED  |     |   |    |                |   |     |    | THREADED       |                |    |     |   |   |   |
| mm  | inch  | JIS 10K |     |   |    |     |    | D <sub>1</sub> | d <sub>2</sub> | ℓ  | L   | DIN PN10 |     |   |    |                |   |     |    | D <sub>1</sub> | d <sub>2</sub> | ℓ  | L   |   |   |   |
|     |       | D       | C   | n | h  | L   | t  |                |                |    |     | D        | C   | n | h  | n <sub>1</sub> | M | L   | t  |                |                |    |     |   |   |   |
| 32  | 1 1/4 | 135     | 100 | 4 | 19 | 165 | 22 | 90             | Rc 1 1/4       | 22 | 115 | -        | -   | - | -  | -              | - | -   | -  | -              | -              | -  | -   | - | - | - |
| 40  | 1 1/2 | 140     | 105 | 4 | 19 | 165 | 22 | 90             | Rc 1 1/2       | 25 | 115 | 150      | 110 | 4 | 18 | -              | - | 165 | 22 | 90             | Rp 1 1/2       | 25 | 115 |   |   |   |
| 50  | 2     | 155     | 120 | 4 | 19 | 180 | 23 | 102            | Rc 2           | 28 | 130 | 165      | 125 | 4 | 18 | -              | - | 180 | 23 | 90             | Rp 2           | 28 | 130 |   |   |   |
| 80  | 3     | 185     | 150 | 8 | 19 | 200 | 25 | -              | -              | -  | -   | 200      | 160 | 8 | 18 | -              | - | 240 | 25 | -              | -              | -  | -   | - | - |   |
| 100 | 4     | 210     | 175 | 8 | 19 | 230 | 27 | -              | -              | -  | -   | 220      | 180 | 8 | 18 | -              | - | 250 | 27 | -              | -              | -  | -   | - | - |   |
| 150 | 6     | 282     | 240 | 8 | 23 | 270 | 28 | -              | -              | -  | -   | 285      | 240 | 8 | 22 | -              | - | 280 | 27 | -              | -              | -  | -   | - | - |   |

■ ANSI (Unit: inch)

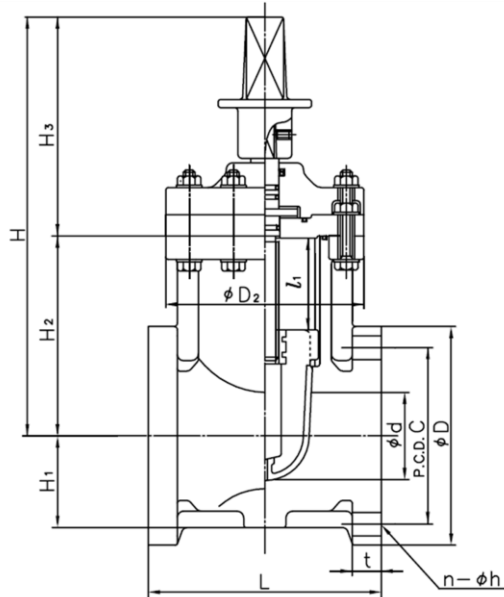
|       |     |      |      |                |                        |       |                |                |                | FLANGED |      |               |      |   |      |                |   |       |      | THREADED       |                |                 |      |      |
|-------|-----|------|------|----------------|------------------------|-------|----------------|----------------|----------------|---------|------|---------------|------|---|------|----------------|---|-------|------|----------------|----------------|-----------------|------|------|
| inch  | mm  | d    | d'   | D <sub>1</sub> | LIFT<br>l <sub>1</sub> | H     | H <sub>1</sub> | H <sub>2</sub> | H <sub>3</sub> | d       | d'   | ANSI Class150 |      |   |      |                |   |       | d'   | D <sub>1</sub> | d <sub>2</sub> | ℓ               | L    |      |
|       |     |      |      |                |                        |       |                |                |                |         |      | D             | C    | n | h    | n <sub>1</sub> | M | L     |      |                |                |                 |      | t    |
| 1 1/2 | 40  | 1.57 | 1.18 | 4.72           | 1.65                   | 10.55 | 1.97           | 4.21           | 6.34           | 1.57    | -    | 5.00          | 3.88 | 4 | 0.62 | -              | - | 6.50  | 0.87 | 1.57           | 3.54           | 1 1/2-11 1/2NPT | 0.98 | 4.53 |
| 2     | 50  | 1.97 | -    | 5.12           | 2.09                   | 11.81 | 2.28           | 5.28           | 6.54           | 1.97    | -    | 6.00          | 4.75 | 4 | 0.75 | -              | - | 7.00  | 0.91 | 1.97           | 4.02           | 2-11 1/2NPT     | 1.10 | 5.12 |
| 3     | 80  | 2.95 | -    | 6.69           | 3.03                   | 14.21 | 3.03           | 6.69           | 7.52           | 2.95    | -    | 7.50          | 6.00 | 4 | 0.75 | -              | - | 8.00  | 0.98 | -              | -              | -               | -    | -    |
| 4     | 100 | 3.94 | -    | 7.68           | 4.02                   | 16.30 | 3.50           | 8.15           | 8.15           | 3.94    | -    | 9.00          | 7.50 | 8 | 0.75 | -              | - | 9.00  | 1.06 | -              | -              | -               | -    | -    |
| 6     | 150 | 5.91 | 5.12 | 10.63          | 5.20                   | 19.55 | 4.02           | 10.34          | 9.19           | 5.91    | 5.12 | 11.00         | 9.50 | 8 | 0.88 | -              | - | 10.50 | 0.06 | -              | -              | -               | -    | -    |

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

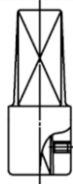
## Product dimension

### Soft Seal Type (Type S)

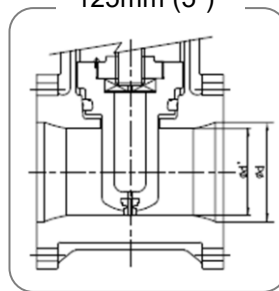
65mm (2 1/2"), 125mm (5")



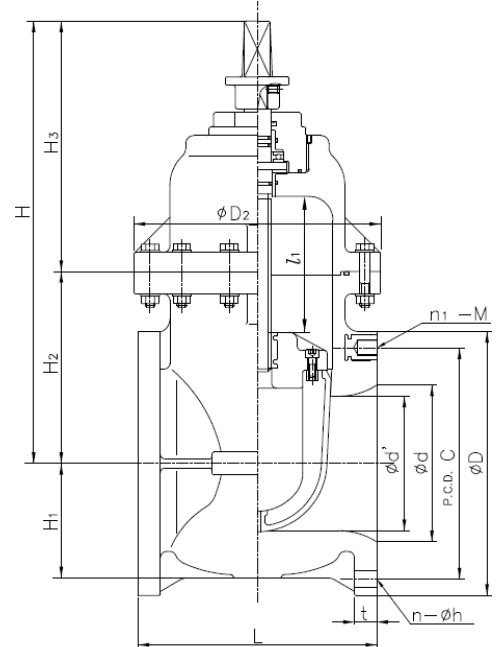
WRENCH NUT FOR  
CLOCKWISE OPENING



125mm (5")



200mm (8")



■ JIS, DIN (Unit: mm)

| mm  | inch  | d   | d'  | D <sub>2</sub> | l <sub>1</sub> | H <sub>1</sub> | H <sub>2</sub> | H <sub>3</sub> | H   |
|-----|-------|-----|-----|----------------|----------------|----------------|----------------|----------------|-----|
| 65  | 2 1/2 | 65  | -   | 155            | 67             | 68             | 152            | 169            | 321 |
| 125 | 5     | 125 | 110 | 235            | 112            | 89             | 227            | 200            | 427 |
| 200 | 8     | 196 | 168 | 310            | 175            | 143            | 240            | 315            | 555 |

| mm  | inch  | JIS 10K |     |    |    |                |     |     |    | DIN PN10 |     |   |    |                |     |     |    |
|-----|-------|---------|-----|----|----|----------------|-----|-----|----|----------|-----|---|----|----------------|-----|-----|----|
|     |       | FLANGED |     |    |    |                |     |     |    | FLANGED  |     |   |    |                |     |     |    |
|     |       | D       | C   | n  | h  | n <sub>1</sub> | M   | L   | t  | D        | C   | n | h  | n <sub>1</sub> | M   | L   | t  |
| 65  | 2 1/2 | 175     | 140 | 4  | 19 | -              | -   | 190 | 24 | 185      | 145 | 4 | 18 | -              | -   | 210 | 24 |
| 125 | 5     | 250     | 210 | 8  | 23 | -              | -   | 260 | 27 | 250      | 210 | 8 | 18 | -              | -   | 260 | 27 |
| 200 | 8     | 330     | 290 | 10 | 23 | 2              | M20 | 290 | 28 | 340      | 295 | 6 | 22 | 2              | M20 | 300 | 33 |

■ ANSI (Unit: inch)

| inch  | mm  | ANSI          |      |       |      |                |      |       |       |
|-------|-----|---------------|------|-------|------|----------------|------|-------|-------|
|       |     | FLANGED       |      |       |      |                |      |       |       |
|       |     | ANSI Class150 |      |       |      |                |      |       |       |
|       |     | D             | C    | n     | h    | n <sub>1</sub> | M    | L     | t     |
| 2 1/2 | 65  | 2.56          | -    | 6.10  | 2.64 | 2.68           | 5.98 | 6.65  | 12.64 |
| 5     | 125 | 4.92          | 4.33 | 9.25  | 4.41 | 3.50           | 8.94 | 7.87  | 16.81 |
| 8     | 200 | 7.72          | 6.61 | 12.20 | 6.89 | 5.63           | 9.45 | 12.40 | 21.85 |

| D     | C     | n | h    | n <sub>1</sub> | M     | L     | t    |
|-------|-------|---|------|----------------|-------|-------|------|
| 7.00  | 5.50  | 4 | 0.75 | -              | -     | 7.50  | 0.94 |
| 10.00 | 8.50  | 8 | 0.88 | -              | -     | 10.24 | 1.06 |
| 13.50 | 11.75 | 6 | 0.88 | 2              | W 3/4 | 11.50 | 1.30 |

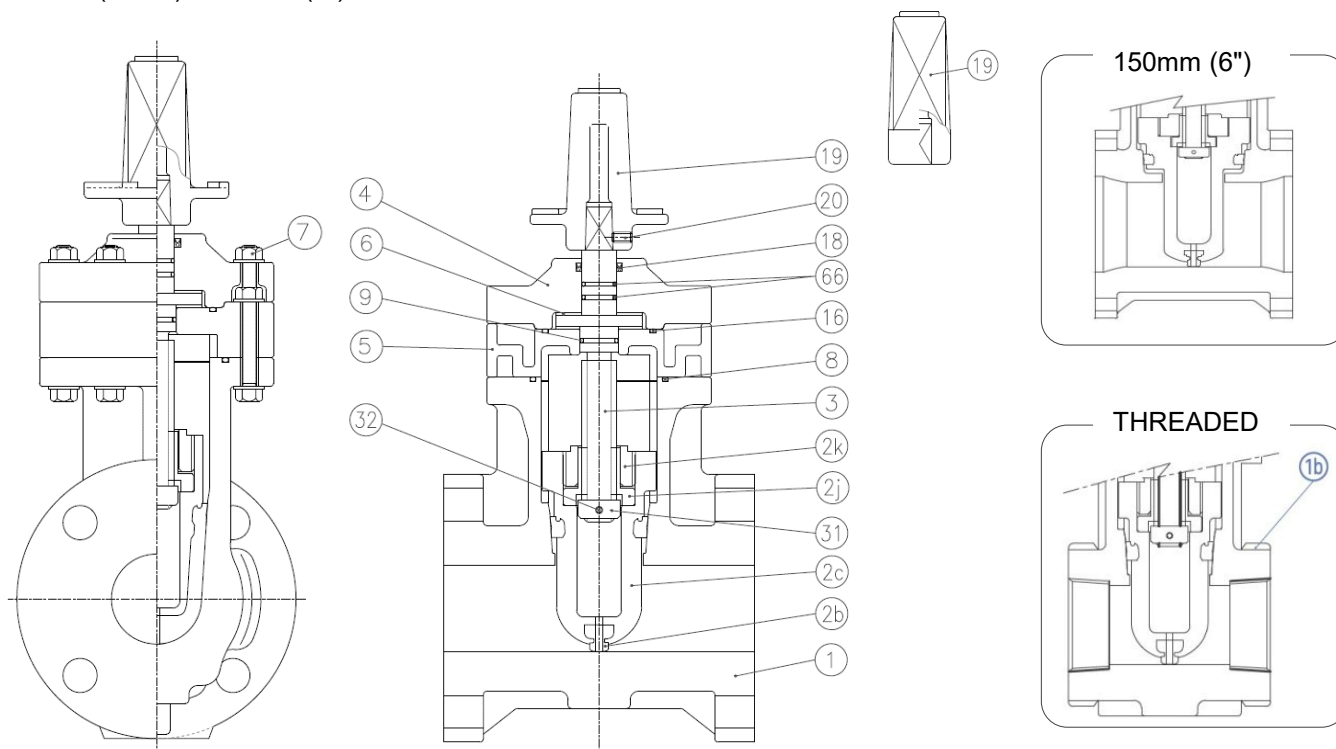
Note: The shape and appearance of assembly differ a little with nominal size compared to this drawing.

## Parts list

Soft Seal Type (Type 66)

32mm (1 1/2") - 150mm (6")

(Wrench nut for  
Clockwise opening. )



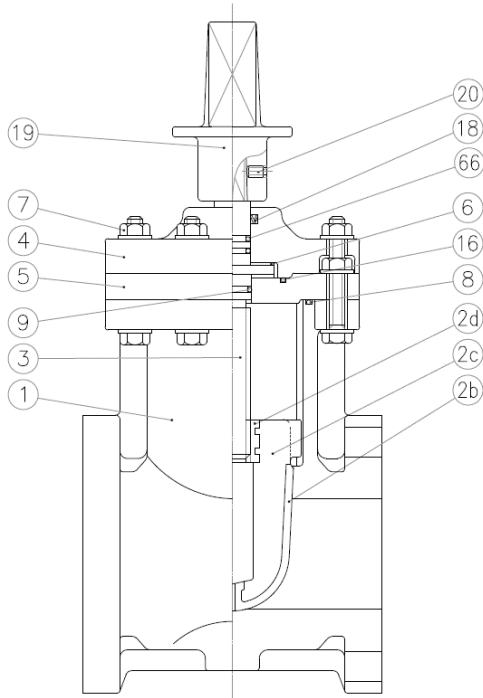
| PART NO./NAME                   | QTY  | MATERIAL        | PART NO./NAME        | QTY  | MATERIAL        | PART NO./NAME      | QTY  | MATERIAL        |
|---------------------------------|------|-----------------|----------------------|------|-----------------|--------------------|------|-----------------|
| 1 BODY                          | 1    | HI-PVC          | 3 STEM               | 1    | STAINLESS STEEL | 16 O-RING ( D )    | 1    | EPDM            |
| 1b RING                         | 1Set | STAINLESS STEEL | 4 BONNET (LID) ( A ) | 1    | HI-PVC          | 18 DUST SEAL       | 1    | EPDM            |
| 2b SEAT                         | 1    | SBR, NBR        | 5 BONNET (LID) ( B ) | 1    | HI-PVC          | 19 CAP ( A ) *     | 1    | FCD450          |
| 2c GATE (BODY) ( A )            | 1    | U-PVC, HI-PVC   | 6 THRUST RING        | 1Set | PP              | 20 SET SCREW ( B ) | 1    | STAINLESS STEEL |
| 2j INTERNAL<br>THREAD DEFLECTOR | 1    | COPPER ALLOY    | 7 BOLT/NUT ( A )     | -    | STAINLESS STEEL | 31 STOPPER         | 1    | STAINLESS STEEL |
| 2k DEFLECTOR RETAINER           | 1    | HI-PVC          | 8 O-RING ( B )       | 1    | SBR, NBR        | 32 PIN ( A )       | 1    | STAINLESS STEEL |
|                                 |      |                 | 9 O-RING ( C )       | 1    | SBR, NBR        | 66 O-RING ( H )    | 1Set | EPDM            |

\* For 30 mm and 40 mm, the cap (A) is coated with epoxy powder (white).

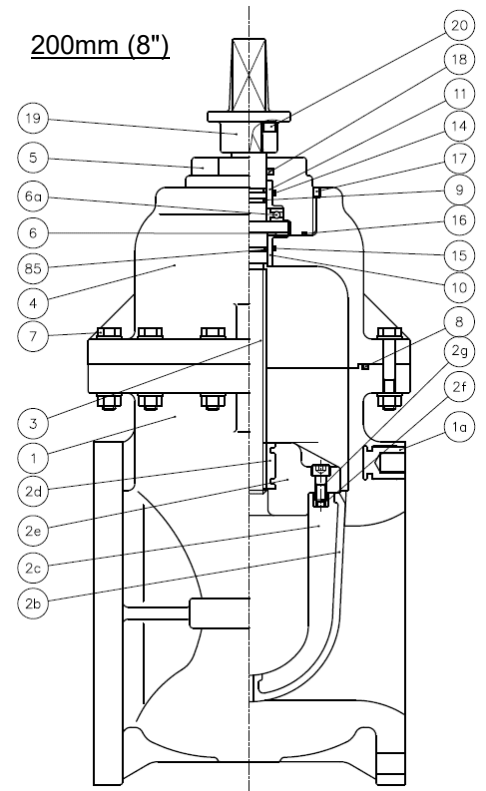
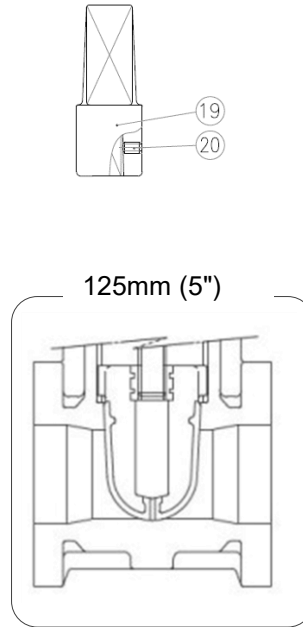
## Parts list

### Soft Seal Type (Type S)

65mm (2 1/2"), 125mm (5")



(Wrench nut for  
Clockwise opening. )



| PART NO./NAME                            | QTY | MATERIAL        |
|------------------------------------------|-----|-----------------|
| 1 BODY                                   | 1   | HI-PVC          |
| 1a EMBEDDED BODY FITTING <sup>(1)</sup>  | 4   | COPPER ALLOY    |
| 2b SEAT                                  | 1   | SBR, NBR        |
| 2c GATE (BODY) ( A )                     | 1   | C-PVC           |
| 2d GATE (BODY)<br>EMBEDDED FITTING ( A ) | 1   | BRONZE CASTING  |
| 2e GETE (BODY) ( B ) <sup>(2)</sup>      | 1   | PP              |
| 2f GATE (BODY)<br>EMBEDDED FITTING ( B ) | 4   | COPPER ALLOY    |
| 2g BOLT ( A ) <sup>(2)</sup>             | 4   | STAINLESS STEEL |
| 3 STEM                                   | 1   | STAINLESS STEEL |

| PART NO./NAME                    | QTY    | MATERIAL                        |
|----------------------------------|--------|---------------------------------|
| 4 BONNET (LID) ( A )             | 1      | HI-PVC                          |
| 5 BONNET (LID) ( B )             | 1      | HI-PVC                          |
| 6 THRUST RING <sup>(5)</sup>     | 1Set/1 | PP                              |
| 6a THRUST BEARING <sup>(2)</sup> | 1      | HIGH CARBON<br>CHROMIUM BEARING |
| 7 BOLT/ NUT                      | -      | STAINLESS STEEL                 |
| 8 O-RING ( B )                   | 1      | EPDM, NBR SBR <sup>(4)</sup>    |
| 9 O-RING ( C ) <sup>(3)</sup>    | 1,2    | EPDM, NBR SBR <sup>(4)</sup>    |
| 10 BUSH ( A ) <sup>(2)</sup>     | 1      | PP                              |
| 11 BUSH ( B ) <sup>(2)</sup>     | 1      | PP                              |

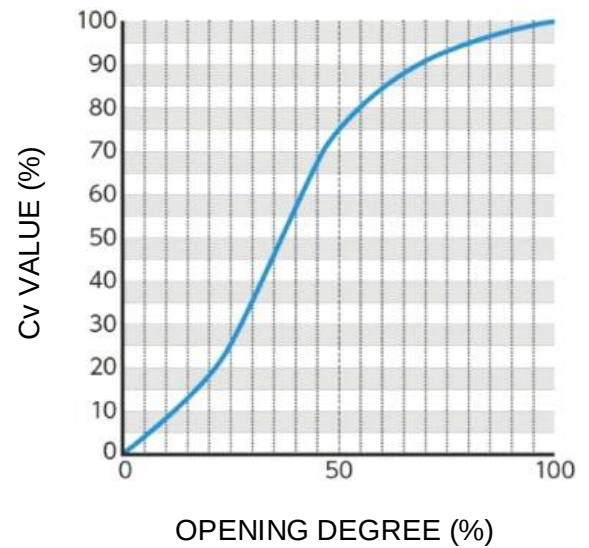
| PART NO./NAME                  | QTY | MATERIAL                           |
|--------------------------------|-----|------------------------------------|
| 14 O-RING ( E ) <sup>(2)</sup> | 2   | EPDM, NBR, SBR                     |
| 15 O-RING ( F ) <sup>(2)</sup> | 1   | EPDM, NBR, SBR                     |
| 16 O-RING ( D )                | 1   | EPDM, NBR SBR <sup>(4)</sup>       |
| 17 SCREW                       | 1   | STAINLESS STEEL                    |
| 18 DUST SEAL                   | 1   | EPDM                               |
| 19 CAP ( A )                   | 1   | CAST IRON<br>Epoxy powder coating. |
| 20 SET SCREW ( B )             | 1   | STAINLESS STEEL                    |
| 66 O-RING ( H )                | 2   | EPDM                               |
| 85 O-RING ( M ) <sup>(2)</sup> | 1   | EPDM, NBR, SBR                     |

(1) (2) Used only for 200 mm. (3) The quantity of use is 1 piece for 65 mm and 125 mm and 2 pieces for 200 mm.

(4) Only 200 mm is selectable to SBR. (5) The quantity of use is 1 set (2pieces) for 65 mm and 125 mm and 1 piece for 200 mm.

\* For 65 mm and 200 mm, the cap (A) is coated with epoxy powder (white).

## Cv value for each opening degree



### TYPE S FULL-OPEN Cv VALUE

| mm                     | 32    | 40    | 50  | 65    | 80  | 100 | 125  | 150  | 200  |
|------------------------|-------|-------|-----|-------|-----|-----|------|------|------|
| inch                   | 1 1/4 | 1 1/2 | 2   | 2 1/2 | 3   | 4   | 5    | 6    | 8    |
| GATE VALVE<br>(TYPE S) | 130   | 130   | 180 | 415   | 470 | 690 | 1000 | 1400 | 2900 |

The values shown are reference values, not guaranteed values.

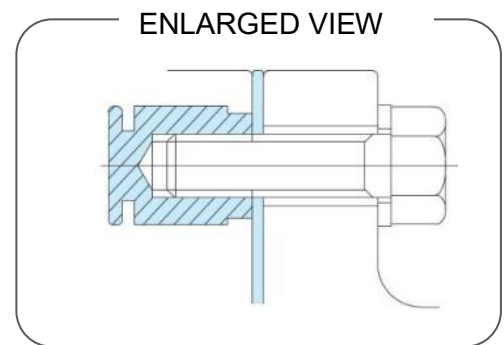
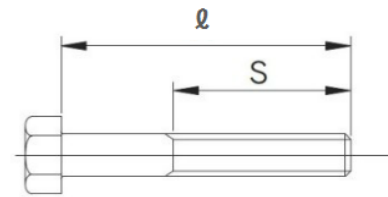
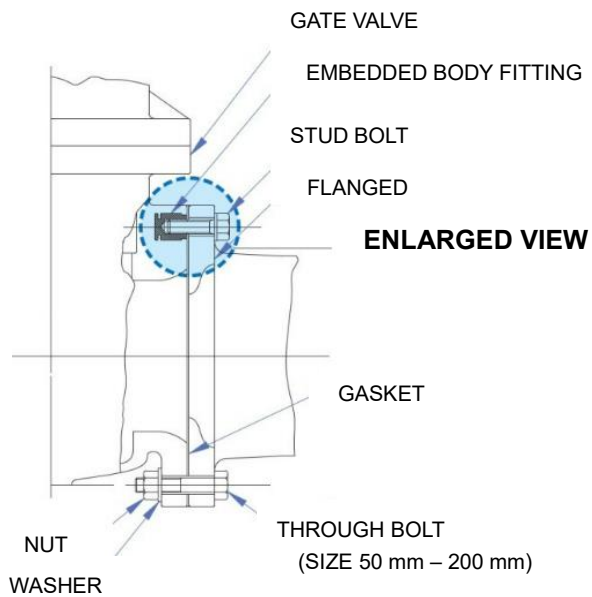
## Product weight

### INSIDE SCREW CAP TYPE SOFT SEAL TYPE (TYPE S)

UNIT : kg

| mm  | inch  | INSIDE SCREW<br>CAP TYPE |
|-----|-------|--------------------------|
| 32  | 1 1/2 | 4.0                      |
| 40  | 1 1/2 | 4.0                      |
| 50  | 2     | 5.0                      |
| 65  | 2 1/2 | 6.0                      |
| 80  | 3     | 9.0                      |
| 100 | 4     | 13.0                     |
| 125 | 5     | 15.5                     |
| 150 | 6     | 23.0                     |
| 200 | 8     | 32.0                     |

## PIPE BOLT DIMENSIONS (REFERENCE)



|                 | mm  | inch  | JIS 10K STANDARD<br>AV TS FLANGE |                |     |     |
|-----------------|-----|-------|----------------------------------|----------------|-----|-----|
|                 |     |       | BOLT<br>NUT<br>SIZE              | WASHER<br>SIZE | $l$ | $S$ |
| THROUGH<br>BOLT | 32  | 1 1/4 | M16                              | 16             | 70  | 38  |
|                 | 40  | 1 1/2 | M16                              | 16             | 70  | 38  |
|                 | 50  | 2     | M16                              | 16             | 75  | 38  |
|                 | 65  | 2 1/2 | M16                              | 16             | 75  | 38  |
|                 | 80  | 3     | M16                              | 16             | 80  | 38  |
|                 | 100 | 4     | M16                              | 16             | 80  | 38  |
|                 | 125 | 5     | M20                              | 20             | 85  | 46  |
|                 | 150 | 6     | M20                              | 20             | 90  | 46  |
|                 | 200 | 8     | M20                              | 20             | 90  | 46  |
| STUD<br>BOLT    | 200 | 8     | M20                              | 20             | 50  | 46  |

## Product model code list

### GATE VALVE SOFT SEAL (TYPE S) TYPE 66

| ACTUATION           | TYPE            | OPERATING SYSTEM | STEM MATERIAL / OPEN DIRECTION   | BODY MATERIAL | SEAL MATERIAL       | CONNECTION / STANDARD                                                                                                    | SIZE                            |
|---------------------|-----------------|------------------|----------------------------------|---------------|---------------------|--------------------------------------------------------------------------------------------------------------------------|---------------------------------|
| <b>V</b>            | <b>S6</b>       | <b>C</b>         | <b>*</b>                         | <b>I</b>      | <b>*</b>            | <b>*</b>                                                                                                                 | <b>***</b>                      |
| :<br>V MANUAL VALVE | :<br>S6 TYPE 66 | :<br>C TOP CAP   | :<br>R SUS, RIGHT<br>L SUS, LEFT | :<br>I HI-PVC | :<br>S SBR<br>N NBR | :<br>F1 FLANGED, 10K<br>FD FLANGED, DIN<br>FA FLANGED, ANSI<br>NJ THREADED, JIS<br>ND THREADED, DIN<br>NA THREADED, ANSI | :<br>032 32mm<br>}<br>150 150mm |

### SOFT SEAL (TYPE S) INSIDE SCREW CAP TYPE

| ACTUATION           | TYPE              | OPERATING SYSTEM | STEM MATERIAL / OPEN DIRECTION   | BODY MATERIAL | SEAL MATERIAL       | CONNECTION / STANDARD                                       | SIZE                                    |
|---------------------|-------------------|------------------|----------------------------------|---------------|---------------------|-------------------------------------------------------------|-----------------------------------------|
| <b>V</b>            | <b>SG</b>         | <b>C</b>         | <b>*</b>                         | <b>I</b>      | <b>*</b>            | <b>*</b>                                                    | <b>***</b>                              |
| :<br>V MANUAL VALVE | :<br>SG SOFT SEAL | :<br>C TOP CAP   | :<br>R SUS, RIGHT<br>L SUS, LEFT | :<br>I HI-PVC | :<br>S SBR<br>N NBR | :<br>F1 FLANGED, 10K<br>FD FLANGED, DIN<br>FA FLANGED, ANSI | :<br>065 65mm<br>125 125mm<br>200 200mm |

## Installation, Operation and Maintenance Manual

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

[https://www.asahi-yukizai.co.jp/en/product/mt\\_pdf/a\\_manual\\_valve\\_5\\_01\\_H-V011-E-17.pdf](https://www.asahi-yukizai.co.jp/en/product/mt_pdf/a_manual_valve_5_01_H-V011-E-17.pdf)