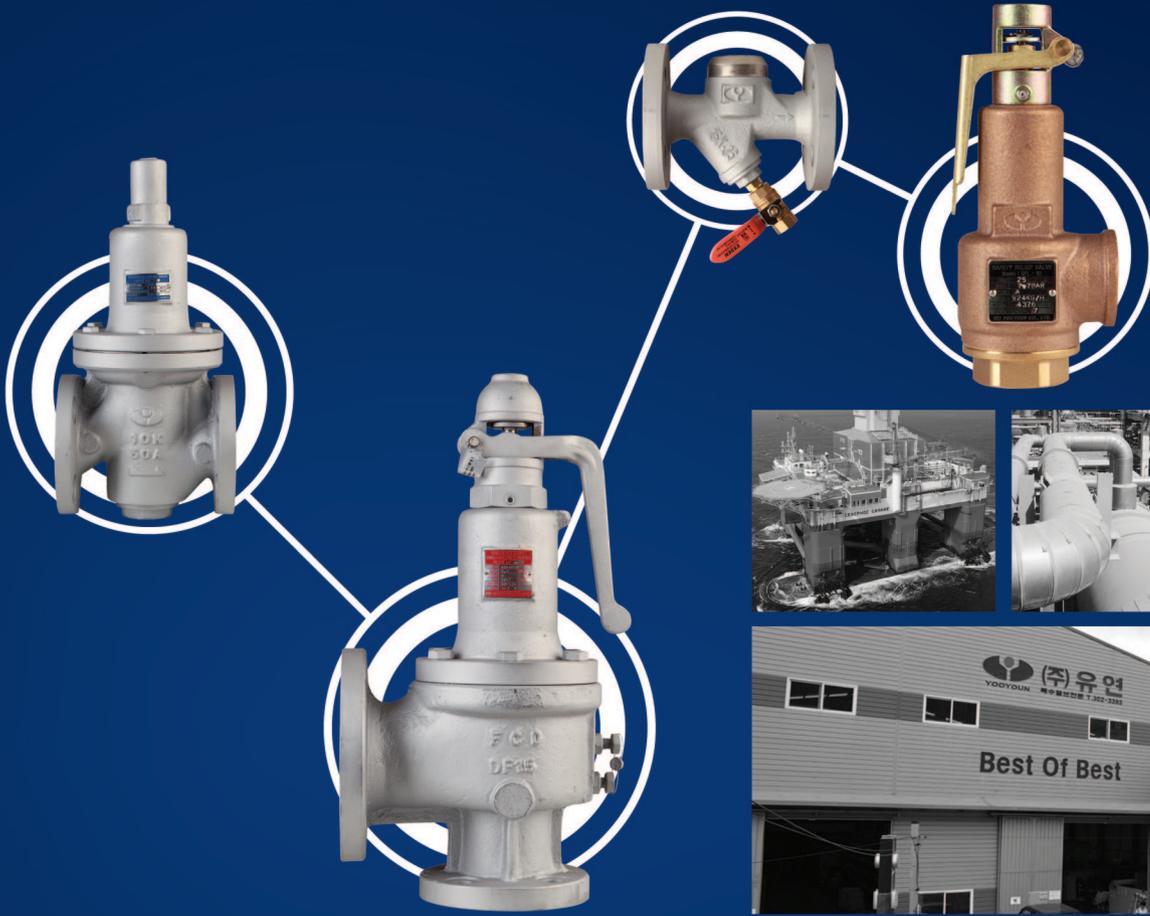




www.yooyoun.co.kr



Best of Best  
**YOOPYOUN CO., LTD.**

## SAFETY RELIEF VALVE



**MODEL**  
SFL-1S  
**SIZE**  
15A~50A  
**SET.Pressure**  
Max 11kgf/cm<sup>2</sup>



**MODEL**  
SFL-3S  
**SIZE**  
15A~50A  
**SET.Pressure**  
Max 33kgf/cm<sup>2</sup>



**MODEL**  
SFF-1F / SFF-2F  
**SIZE**  
15A×25A~150A×200A  
**SET.Pressure**  
Max 11kgf/cm<sup>2</sup>  
Max 22kgf/cm<sup>2</sup>



**MODEL**  
SFF-3F  
**SIZE**  
15A×25A~40A×65A  
**SET.Pressure**  
Max 33kgf/cm<sup>2</sup>

SCS 13 / SCS 14 / SCS 15 Available | ANSI / JIS / DIN Flanged Available

## VACUUM BREAKER



**MODEL**  
VB-1S  
**SIZE**  
15A, 20A



**MODEL**  
RDD-1F  
**SIZE**  
15A~150A  
**SET.Pressure**  
0.5K~8Kgf/cm<sup>2</sup>



**MODEL**  
RDC-1F  
**SIZE**  
15A~150A  
**SET.Pressure**  
0.5K~8Kgf/cm<sup>2</sup>



**MODEL**  
RDD-1S  
**SIZE**  
15A~40A  
**SET.Pressure**  
0.5K~8Kgf/cm<sup>2</sup>



**MODEL**  
RDD-3F  
**SIZE**  
15A~50A  
**SET.Pressure**  
0.5K~10Kgf/cm<sup>2</sup>



**MODEL**  
RDP-1F  
**SIZE**  
15A~250A  
**SET.Pressure**  
0.5K~8Kgf/cm<sup>2</sup>



**MODEL**  
RDST-1S  
**SIZE**  
15A~40A  
**SET.Pressure**  
0.5K~8Kgf/cm<sup>2</sup>

## PRESSURE REGULATING VALVE



**MODEL**  
RGD-1F  
**SIZE**  
15A~150A  
**SET.Pressure**  
0.5K~8Kgf/cm<sup>2</sup>



**MODEL**  
RGC-1F  
**SIZE**  
15A~150A  
**SET.Pressure**  
0.5K~8Kgf/cm<sup>2</sup>



**MODEL**  
TDC-1S  
**SIZE**  
15A~50A  
**Design Pressure**  
Max 16kgf/cm<sup>2</sup>



**MODEL**  
TDC-1F / TDC-2F  
**SIZE**  
15A~50A  
**Design Pressure**  
Max 16kgf/cm<sup>2</sup>  
Max 20kgf/cm<sup>2</sup>

DISC TYPE



**MODEL**  
TDC-3S  
**SIZE**  
10A  
**Design Pressure**  
Max 30kgf/cm<sup>2</sup>



**MODEL**  
TDC-4S  
**SIZE**  
15A~25A  
**Design Pressure**  
Max 20kgf/cm<sup>2</sup>

DISC TYPE



**MODEL**  
TBP-1S  
**SIZE**  
15A~25A  
**Design Pressure**  
Max 16kgf/cm<sup>2</sup>



**MODEL**  
TBK-1S  
**SIZE**  
15A~50A  
**Design Pressure**  
Max 10kgf/cm<sup>2</sup>



**MODEL**  
TBK-1F  
**SIZE**  
32A~50A  
**Design Pressure**  
Max 16kgf/cm<sup>2</sup>



**MODEL**  
TFT-1S  
**SIZE**  
15A~50A  
**Design Pressure**  
Max 10kgf/cm<sup>2</sup>

BYPASS TYPE

BUCKET TYPE

BALL FLOAT TYPE

## STEAM TRAP



**MODEL**  
TFT-1F / TFT-2F  
**SIZE**  
15A~50A  
**Design Pressure**  
Max 10kgf/cm<sup>2</sup>  
Max 20kgf/cm<sup>2</sup>

**BALL FLOAT TYPE**

## Y-STRAINER



**MODEL**  
STY-1F  
**SIZE**  
15A~200A  
**Design Pressure**  
Max 16kgf/cm<sup>2</sup>



**MODEL**  
STY-1S  
**SIZE**  
15A~50A  
**Design Pressure**  
Max 10kgf/cm<sup>2</sup>

## GLOBE VALVE



**MODEL**  
YGL-1F  
**SIZE**  
15A~50A  
**Design Pressure**  
Max 16kgf/cm<sup>2</sup>

## ANGLE VALVE



**MODEL**  
YAN-1F  
**SIZE**  
15A~40A  
**Design Pressure**  
Max 16kgf/cm<sup>2</sup>

## SIGHT CHECK



**MODEL**  
YSC-1S  
**SIZE**  
15A~25A  
**Design Pressure**  
Max 10kgf/cm<sup>2</sup>

## SIGHT GLASS



**MODEL**  
YSG-1S  
**SIZE**  
15A~50A  
**Design Pressure**  
Max 10kgf/cm<sup>2</sup>



**MODEL**  
YSG-1F  
**SIZE**  
15A~50A  
**Design Pressure**  
Max 10kgf/cm<sup>2</sup>

## AIR TRAP



**MODEL**  
TAT-1S / TAT-1F  
**SIZE**  
15A~25A  
**Design Pressure**  
Max 10kgf/cm<sup>2</sup>



**MODEL**  
TAT-3F  
**SIZE**  
15A~25A  
**Design Pressure**  
Max 30kgf/cm<sup>2</sup>

## TEMP. REGULATING VALVE



**MODEL**  
YTR-1F  
**SIZE**  
15A~100A  
**Temp. Range**  
60~80°C / MAX 120°C



**MODEL**  
YTR-2F  
**SIZE**  
15A~25A  
**Temp. Range**  
50~110°C / MAX 160°C

## AIR VENT YAV-1S (WATER), YSV-1S(STEAM), YAV-1F (OIL, LIQUID)



**MODEL**  
YAV-1S(WATER)  
**SIZE**  
15A~20A  
**Design Pressure**  
Max 10kgf/cm<sup>2</sup>



**MODEL**  
YSV-1S(STEAM)  
**SIZE**  
15A  
**Design Pressure**  
Max 10kgf/cm<sup>2</sup>



**MODEL**  
YAV-1F(OIL, LIQUID)  
**SIZE**  
15A~25A  
**Design Pressure**  
Max 16kgf/cm<sup>2</sup>

# Certificates



## CERTIFICATION NAME

ISO 9001:2008  
 SAFETY CERTIFICATION FOR  
 SEMI-CONDUCTOR SAFETY VALVE  
 INN-OBIZ  
 APPROVAL CERTIFICATION FOR QUALITY  
 APPROVAL SYSTEM  
 GENERAL COMPONENT APPROVAL  
 DESIGN ASSESSMENT CERTIFICATE  
 CSEL

## AUTHORITY

DNV  
 KOREAN OCCUPATIONAL  
 SAFETY AND HEALTH AGENCY  
 KOREAN SMALL&MIDIUM  
 BUSSINESS COOPERATION  
 KR  
 LR  
 ABS  
 STATE ADMINISTRATION FOR  
 MARKET REGULATION, P.R. CHINA

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#### AIR TRAP / AIR VENT

TAT-1S / TAT-1F / TAT-3F / YAV-1S / YSV-1S / YAV-1F

# 1 SAFETY RELIEF VALVE

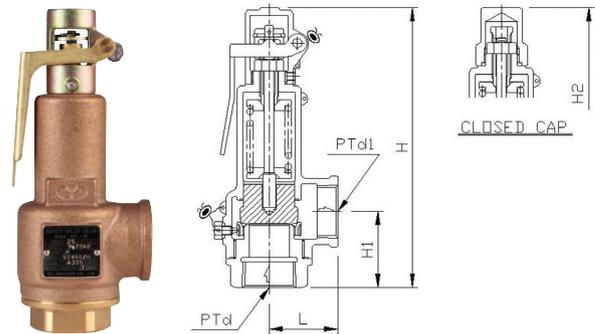
## ○ SFL-S1

|                     |  |
|---------------------|--|
| Material            | BODY/BONNET: BRONZE<br>TRIM: BRASS                   |
| Working Pressure    | 0.35~1, 1~2.5, 2.5~5.5,<br>5.5~11kgf/cm <sup>2</sup> |
| Working Temperature | MAX. 220℃  |
| Connection          | PT screwed   |
| Type                | LEVER : STEAM / AIR<br>NO LEVER : WATER / LIQUID     |

| Size    | dt | Ds | L  | H1 | H   | Lift | d(PT) |
|---------|----|----|----|----|-----|------|-------|
| 15Ax20A | 20 | 21 | 38 | 42 | 163 | 1.0  | 15    |
| 20Ax20A | 20 | 21 | 38 | 42 | 163 | 1.0  | 20    |
| 25Ax25A | 25 | 26 | 43 | 48 | 178 | 1.7  | 25    |
| 32Ax32A | 32 | 33 | 50 | 58 | 180 | 2.2  | 32    |
| 40Ax40a | 40 | 41 | 56 | 60 | 203 | 2.3  | 40    |
| 50Ax50A | 50 | 51 | 70 | 77 | 275 | 2.5  | 50    |

## ○ Features

- Angle type spring loaded lift safety relief valve for steam, air, water, oil.
- Suitable for small and medium capacity.
- Quickly popping reaction and correct re-setting.
- Easy adjustment of set pressure and blow-down pressure.
- Easy to install by small size and light weight.
- The simple structure of this valve allows to operating accurately and maintaining easily.



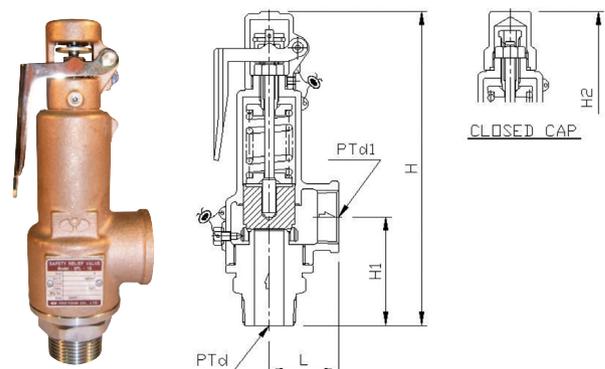
## ○ SFL-3S

|                     |   |
|---------------------|---|
| Material            | BODY/BONNET: CAST BRONZE<br>TRIM: STAINLESS STEEL |
| Working Pressure    | 0.5~5, 5~15<br>15~33kgf/cm <sup>2</sup>           |
| Working Temperature | MAX. 220℃   |
| Connection          | PT screwed  |
| Type                | LEVER : STEAM / AIR<br>NO LEVER : WATER / LIQUID  |

| Size    | dt | Ds | L  | H1  | H   | Lift | d(PT) |
|---------|----|----|----|-----|-----|------|-------|
| 15Ax20A | 13 | 14 | 38 | 60  | 181 | 0.8  | 15    |
| 20Ax20A | 13 | 14 | 38 | 62  | 183 | 0.8  | 20    |
| 25Ax25A | 18 | 19 | 43 | 68  | 197 | 1.2  | 25    |
| 32Ax32A | 23 | 24 | 50 | 80  | 200 | 2.2  | 32    |
| 40Ax40A | 25 | 26 | 56 | 84  | 230 | 2.2  | 40    |
| 50Ax50A | 32 | 33 | 70 | 102 | 300 | 4.5  | 50    |

## ○ Features

- Lever type could execute the discharge inspection manually at over 75% of discharge pressure.
- Excellent durability owing to the disc and seat material of stainless steel designed.
- Quickly popping reaction and correct re-setting.
- Its sealing structure does not allow controlling pressure optionally.



## DISCHARGE CAPACITIES

## ○ SFL-S1

1. Air (kg/h at 20°C with 10% accumulation)
2. Saturated steam (kg/h with 3% accumulation)
3. Water(m<sup>3</sup>/h with 10% accumulation)

KS B 6216  
KS B 6216  
API RP520

| Size<br>press | 15A & 20A |       |       | 25A   |       |       | 32A   |       |       | 40A   |       |       | 50A   |       |       |
|---------------|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|               | air       | steam | water | air   | steam | water | air   | steam | water | air   | steam | water | air   | steam | water |
| 1             | 99        | 57    | 1.3   | 208   | 120   | 2.8   | 341   | 197   | 4.7   | 443   | 256   | 6.1   | 599   | 346   | 8.2   |
| 2             | 150       | 86    | 1.9   | 315   | 181   | 4.0   | 517   | 297   | 6.6   | 671   | 386   | 8.6   | 907   | 522   | 11.6  |
| 3             | 200       | 115   | 2.3   | 422   | 242   | 4.9   | 693   | 397   | 8.1   | 900   | 516   | 10.5  | 1,216 | 698   | 14.2  |
| 4             | 251       | 144   | 2.6   | 529   | 303   | 5.6   | 868   | 497   | 9.3   | 1,128 | 646   | 12.1  | 1,525 | 873   | 16.4  |
| 5             | 302       | 173   | 2.9   | 636   | 364   | 6.3   | 1,044 | 597   | 10.4  | 1,356 | 776   | 13.6  | 1,834 | 1,049 | 18.4  |
| 6             | 353       | 202   | 3.2   | 743   | 425   | 6.9   | 1,220 | 697   | 11.4  | 1,585 | 906   | 14.9  | 2,142 | 1,225 | 20.1  |
| 7             | 404       | 231   | 3.5   | 850   | 485   | 7.5   | 1,396 | 797   | 12.4  | 1,813 | 1,036 | 16.1  | 2,451 | 1,400 | 21.8  |
| 8             | 455       | 260   | 3.7   | 957   | 546   | 8.0   | 1,572 | 897   | 13.2  | 2,041 | 1,166 | 17.2  | 2,760 | 1,576 | 23.3  |
| 9             | 505       | 289   | 3.9   | 1,064 | 607   | 8.5   | 1,747 | 997   | 14.0  | 2,270 | 1,296 | 18.2  | 3,069 | 1,752 | 24.7  |
| 10            | 556       | 317   | 4.2   | 1,171 | 668   | 8.9   | 1,923 | 1,097 | 14.8  | 2,498 | 1,425 | 19.2  | 3,377 | 1,927 | 26.0  |

## ○ SFL-3S

| Size<br>press | 15A & 20A |       |       | 25A   |       |       | 32A   |       |       | 40A  |       |       | 50A   |       |       |
|---------------|-----------|-------|-------|-------|-------|-------|-------|-------|-------|------|-------|-------|-------|-------|-------|
|               | air       | steam | water | air   | steam | water | air   | steam | water | air  | steam | water | air   | steam | water |
| 10.0          | 261       | 151   | 2.3   | 530   | 308   | 4.8   | 1,228 | 712   | 11.0  | 1330 | 772   | 11.9  | 3,454 | 2,003 | 30.9  |
| 11.0          | 284       | 165   | 2.4   | 579   | 336   | 5.0   | 1,340 | 777   | 11.5  | 1452 | 842   | 12.5  | 3,770 | 2,186 | 32.4  |
| 12.0          | 308       | 179   | 2.6   | 627   | 364   | 5.2   | 1,453 | 842   | 12.0  | 1574 | 912   | 13.0  | 4,086 | 2,368 | 33.9  |
| 13.0          | 332       | 192   | 2.7   | 676   | 392   | 5.4   | 1,565 | 907   | 12.5  | 1695 | 983   | 13.6  | 4,401 | 2,551 | 35.3  |
| 14.0          | 356       | 206   | 2.8   | 724   | 420   | 5.6   | 1,677 | 972   | 13.0  | 1817 | 1053  | 14.1  | 4,717 | 2,733 | 36.6  |
| 15.0          | 380       | 220   | 2.9   | 773   | 448   | 5.8   | 1,789 | 1,037 | 13.5  | 1939 | 1123  | 14.6  | 5,033 | 2,916 | 37.9  |
| 16.0          | 403       | 234   | 3.0   | 821   | 476   | 6.0   | 1,902 | 1,102 | 13.9  | 2060 | 1194  | 15.1  | 5,349 | 3,099 | 39.1  |
| 17.0          | 427       | 247   | 3.0   | 870   | 504   | 6.2   | 2,014 | 1,167 | 14.3  | 2182 | 1264  | 15.5  | 5,664 | 3,281 | 40.3  |
| 18.0          | 451       | 261   | 3.1   | 918   | 532   | 6.4   | 2,126 | 1,232 | 14.7  | 2303 | 1334  | 16.0  | 5,980 | 3,464 | 41.5  |
| 19.0          | 475       | 275   | 3.2   | 967   | 560   | 6.5   | 2,239 | 1,296 | 15.2  | 2425 | 1405  | 16.4  | 6,296 | 3,646 | 42.6  |
| 20.0          | 499       | 289   | 3.3   | 1,015 | 588   | 6.7   | 2,350 | 1,361 | 15.5  | 2547 | 1475  | 16.8  | 6,612 | 3,829 | 43.7  |
| 21.0          | 523       | 303   | 3.4   | 1,064 | 616   | 6.9   | 2,463 | 1,426 | 15.9  | 2668 | 1545  | 17.3  | 6,927 | 4,012 | 44.8  |
| 22.0          | 546       | 316   | 3.5   | 1,112 | 644   | 7.0   | 2,575 | 1,491 | 16.3  | 2790 | 1616  | 17.7  | 7,243 | 4,194 | 45.9  |
| 23.0          | 570       | 330   | 3.5   | 1,161 | 672   | 7.2   | 2,688 | 1,556 | 16.7  | 2912 | 1686  | 18.1  | 7,559 | 4,377 | 46.9  |
| 24.0          | 594       | 344   | 3.6   | 1,209 | 700   | 7.4   | 2,800 | 1,621 | 17.0  | 3033 | 1756  | 18.4  | 7,875 | 4,559 | 47.9  |
| 25.0          | 618       | 358   | 3.7   | 1,258 | 728   | 7.5   | 2,912 | 1,686 | 17.4  | 3155 | 1827  | 18.8  | 8,190 | 4,742 | 48.9  |
| 26.0          | 642       | 371   | 3.8   | 1,306 | 756   | 7.7   | 3,024 | 1,751 | 17.7  | 3276 | 1897  | 19.2  | 8,506 | 4,924 | 49.9  |
| 27.0          | 665       | 385   | 3.8   | 1,355 | 784   | 7.8   | 3,136 | 1,816 | 18.1  | 3398 | 1967  | 19.6  | 8,822 | 5,107 | 50.8  |
| 28.0          | 689       | 399   | 3.9   | 1,403 | 812   | 7.9   | 3,249 | 1,881 | 18.4  | 3520 | 2037  | 19.9  | 9,138 | 5,290 | 51.7  |
| 29.0          | 713       | 413   | 4.0   | 1,451 | 840   | 8.1   | 3,361 | 1,946 | 18.7  | 3641 | 2018  | 20.3  | 9,453 | 5,472 | 52.7  |
| 30.0          | 737       | 426   | 4.0   | 1,500 | 868   | 8.2   | 3,473 | 2,011 | 19.0  | 3763 | 2178  | 20.6  | 9,769 | 5,655 | 53.6  |

# FULL BORE SAFETY RELIEF VALVE

## ○ SFF-1F / SFF-2F

|                     |   |   |
|---------------------|---|---|
| Body                | DUCTILE IRON / BRONZE /<br>CAST STEEL / STAINLESS STEEL |   |
| Trim                | STAINLESS STEEL   |   |
| Set. Pressure       | 0.35~1, 1~3<br>3~6, 6~11                                | 0.35~1, 1~3<br>3~6 / 12~22kgf/cm <sup>2</sup> |
| Working Temperature | MAX. 220°C  |   |
| Connection          | KS B 6216 (JIS B 2220)                                  |   |
| Type                | LEVER : STEAM / AIR<br>NO LEVER : WATER / LIQUID        |   |

| Size      | L   | ds   | dt   | H1  | H2  |
|-----------|-----|------|------|-----|-----|
| 15Ax25A   | 95  | 14.5 | 11.5 | 85  | 220 |
| 20Ax25A   | 95  | 17.5 | 15   | 85  | 220 |
| 25Ax40A   | 100 | 22   | 19   | 105 | 240 |
| 32Ax65A   | 125 | 29   | 24   | 125 | 320 |
| 40Ax65A   | 130 | 35   | 30   | 125 | 320 |
| 50Ax80A   | 145 | 44   | 38   | 135 | 360 |
| 65Ax100A  | 155 | 57   | 49   | 155 | 460 |
| 80Ax125A  | 170 | 71   | 61   | 170 | 600 |
| 100Ax150A | 210 | 88   | 76   | 195 | 690 |
| 125Ax200A | 220 | 114  | 95   | 230 | 690 |
| 150Ax200A | 225 | 133  | 115  | 230 | 725 |
| 200Ax250A | 270 | 175  | 150  | 255 | 866 |

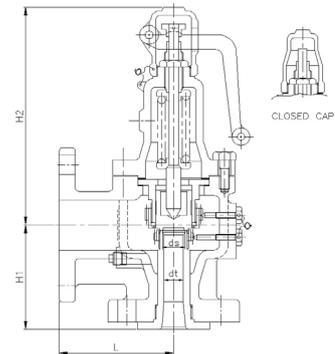
## ○ SFF-3F

|                     |   |  |
|---------------------|---|--|
| Body                | DUCTILE IRON / BRONZE /<br>CAST STEEL / STAINLESS STEEL |  |
| Trim                | STAINLESS STEEL   |  |
| Set. Pressure       | 22 ~ 33kgf/cm <sup>2</sup>                              |  |
| Working Temperature | MAX. 220°C  |  |
| Connection          | KS B 6216 (JIS B 2220)                                  |  |
| Type                | LEVER : STEAM / AIR<br>NO LEVER : WATER / LIQUID        |  |

| Size    | L   | ds   | dt   | H1  | H2  |
|---------|-----|------|------|-----|-----|
| 15Ax25A | 95  | 14.5 | 11.5 | 85  | 220 |
| 20Ax25A | 95  | 17.5 | 15   | 85  | 220 |
| 25Ax40A | 100 | 22   | 19   | 105 | 240 |
| 32Ax65A | 125 | 29   | 24   | 125 | 320 |
| 40Ax65A | 125 | 35   | 30   | 125 | 320 |

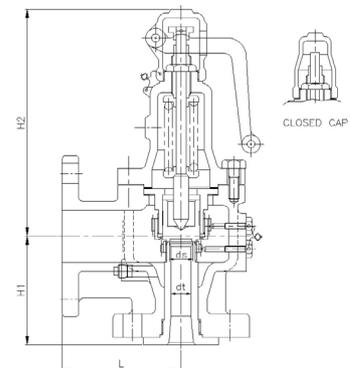
## ○ Features

- This is generally used for large-size steam boiler, various pressure vessels and tracing equipment as safety valve and relief valve in pump.
- Suitable for large capacity
- The main parts are made of the good materials in accurate
- Lever type could execute the discharge inspection manually at over 75% of discharge pressure
- Excellent durability owing to the disc and seat material of stainless steel designed and stellite welding.
- It can give a good performance at the high pressure
- It's sealing structure does not allow controlling pressure optionally.
- ANSI, DIN flange are available upon request.



## ○ Features

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- The main parts are made of the good materials in accurate
- Lever type could execute the discharge inspection manually at over 75% of discharge pressure
- Excellent durability owing to the disc and seat material of stainless steel designed and stellite welding.
- It can give a good performance at the high pressure
- It's sealing structure does not allow controlling pressure optionally.
- ANSI, DIN flange are available upon request.



# DISCHARGE CAPACITIES

## SFF-1F/2F

- 1. Air (kg/h at 20°C with 10% accumulation)
- 2. Saturated steam (kg/h with 3% accumulation)
- 3. Water(m<sup>3</sup>/h with 10% accumulation)

KS B 6216  
KS B 6216  
API RP520

| Size<br>press | 15A   |       |       | 20A   |       |       | 25A   |       |       | 32A   |       |       | 40A    |       |       |
|---------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|
|               | air   | steam | water | air    | steam | water |
| 1             | 144   | 84    | 2.2   | 244   | 143   | 3.7   | 392   | 230   | 5.9   | 625   | 367   | 9.5   | 976    | 574   | 14.8  |
| 2             | 217   | 127   | 3.1   | 370   | 216   | 5.2   | 594   | 347   | 8.4   | 947   | 554   | 13.4  | 1,480  | 865   | 20.9  |
| 3             | 291   | 170   | 3.8   | 496   | 289   | 6.4   | 796   | 464   | 10.3  | 1,269 | 740   | 16.4  | 1,983  | 1,156 | 25.7  |
| 4             | 365   | 213   | 4.4   | 622   | 362   | 7.4   | 997   | 581   | 11.9  | 1,592 | 926   | 19.0  | 2,487  | 1,447 | 29.6  |
| 5             | 439   | 255   | 4.9   | 748   | 435   | 8.3   | 1,199 | 697   | 13.3  | 1,914 | 1,113 | 21.2  | 2,990  | 1,738 | 36.3  |
| 6             | 513   | 298   | 5.3   | 873   | 507   | 9.1   | 1,401 | 814   | 14.6  | 2,236 | 1,299 | 23.2  | 3,494  | 2,029 | 33.1  |
| 7             | 587   | 341   | 5.8   | 999   | 580   | 9.8   | 1,603 | 931   | 15.7  | 2,558 | 1,485 | 25.1  | 3,997  | 2,321 | 39.2  |
| 8             | 661   | 384   | 6.2   | 1,125 | 653   | 10.5  | 1,805 | 1,048 | 16.8  | 2,880 | 1,672 | 26.8  | 4,501  | 2,612 | 41.9  |
| 9             | 735   | 427   | 6.5   | 1,251 | 726   | 11.1  | 2,007 | 1,164 | 17.8  | 3,203 | 1,858 | 28.4  | 5,004  | 2,903 | 44.4  |
| 10            | 809   | 469   | 6.9   | 1,377 | 799   | 11.7  | 2,209 | 1,281 | 18.8  | 3,525 | 2,044 | 30.0  | 5,508  | 3,194 | 46.8  |
| 11            | 883   | 512   | 7.2   | 1,503 | 871   | 12.3  | 2,411 | 1,398 | 19.7  | 3,847 | 2,231 | 31.4  | 6,011  | 3,485 | 49.1  |
| 12            | 957   | 555   | 7.5   | 1,629 | 944   | 12.8  | 2,613 | 1,515 | 20.6  | 4,169 | 2,417 | 32.8  | 6,514  | 3,776 | 51.3  |
| 13            | 1,031 | 598   | 7.8   | 1,755 | 1,017 | 13.3  | 2,815 | 1,632 | 21.4  | 4,492 | 2,603 | 34.2  | 7,018  | 4,067 | 53.4  |
| 14            | 1,105 | 641   | 8.1   | 1,880 | 1,090 | 13.9  | 3,017 | 1,748 | 22.2  | 4,814 | 2,789 | 35.5  | 7,521  | 4,359 | 55.4  |
| 15            | 1,179 | 683   | 8.4   | 2,006 | 1,162 | 14.3  | 3,219 | 1,865 | 23.0  | 5,136 | 2,976 | 36.7  | 8,025  | 4,650 | 57.4  |
| 16            | 1,253 | 726   | 8.7   | 2,132 | 1,235 | 14.8  | 3,421 | 1,982 | 23.8  | 5,458 | 3,162 | 37.9  | 8,528  | 4,941 | 59.2  |
| 17            | 1,327 | 769   | 9.0   | 2,258 | 1,308 | 15.3  | 3,623 | 2,099 | 24.5  | 5,780 | 3,348 | 39.1  | 9,032  | 5,232 | 61.1  |
| 18            | 1,401 | 812   | 9.2   | 2,384 | 1,381 | 15.7  | 3,825 | 2,215 | 25.2  | 6,103 | 3,535 | 40.2  | 9,535  | 5,523 | 62.8  |
| 19            | 1,475 | 854   | 9.5   | 2,510 | 1,454 | 16.1  | 4,027 | 2,332 | 25.9  | 6,425 | 3,721 | 41.3  | 10,039 | 5,814 | 64.6  |
| 20            | 1,549 | 897   | 9.7   | 2,636 | 1,526 | 16.6  | 4,229 | 2,449 | 26.6  | 6,747 | 3,907 | 42.4  | 10,542 | 6,105 | 66.2  |

| Size<br>press | 50A    |       |       | 65A    |        |       | 80A    |        |       | 100A   |        |       |
|---------------|--------|-------|-------|--------|--------|-------|--------|--------|-------|--------|--------|-------|
|               | air    | steam | water | air    | steam  | water | air    | steam  | water | air    | steam  | water |
| 1             | 1,566  | 921   | 23.8  | 2,605  | 1,531  | 39.5  | 4,036  | 2,372  | 61.2  | 6,269  | 4,053  | 95.0  |
| 2             | 2,374  | 1,388 | 33.6  | 3,948  | 2,307  | 55.9  | 6,118  | 3,576  | 86.6  | 9,501  | 5,614  | 134.4 |
| 3             | 3,182  | 1,855 | 41.2  | 5,291  | 3,084  | 68.4  | 8,200  | 4,780  | 106.1 | 12,734 | 7,483  | 164.6 |
| 4             | 3,990  | 2,322 | 47.5  | 6,634  | 3,861  | 79.0  | 10,281 | 5,983  | 122.5 | 15,967 | 9,352  | 190.1 |
| 5             | 4,798  | 2,789 | 53.1  | 7,977  | 4,637  | 88.3  | 12,363 | 7,187  | 136.9 | 19,200 | 11,222 | 212.5 |
| 6             | 5,605  | 3,256 | 58.2  | 9,320  | 5,414  | 96.8  | 14,444 | 8,391  | 150.0 | 22,433 | 13,091 | 232.8 |
| 7             | 6,413  | 3,723 | 62.9  | 10,663 | 6,191  | 104.5 | 16,526 | 9,594  | 162.0 | 25,665 | 14,960 | 251.5 |
| 8             | 7,221  | 4,190 | 67.2  | 12,007 | 6,968  | 111.7 | 18,607 | 10,798 | 173.2 | 28,898 | 16,830 | 268.8 |
| 9             | 8,029  | 4,658 | 71.3  | 13,350 | 7,744  | 118.5 | 20,689 | 12,002 | 183.7 | 32,131 | 18,699 | 285.1 |
| 10            | 8,837  | 5,125 | 75.1  | 14,693 | 8,521  | 124.9 | 22,770 | 13,205 | 193.6 | 35,364 | 20,569 | 300.6 |
| 11            | 9,644  | 5,592 | 78.8  | 16,036 | 9,298  | 131.0 | 24,852 | 14,409 | 203.1 | 38,597 | 22,438 | 315.2 |
| 12            | 10,452 | 6,059 | 82.3  | 17,379 | 10,074 | 136.9 | 26,934 | 15,613 | 212.1 | 41,829 | 24,307 | 329.2 |
| 13            | 11,260 | 6,526 | 85.7  | 18,722 | 10,851 | 142.4 | 29,015 | 16,816 | 220.8 | 45,062 | 26,177 | 342.7 |
| 14            | 12,068 | 6,993 | 88.9  | 20,065 | 11,628 | 147.8 | 31,097 | 18,020 | 229.1 | 48,295 | 28,046 | 355.6 |
| 15            | 12,875 | 7,460 | 92.0  | 21,409 | 12,404 | 153.0 | 33,178 | 19,224 | 237.1 | 51,528 | 29,915 | 368.1 |
| 16            | 13,683 | 7,927 | 95.0  | 22,752 | 13,181 | 158.0 | 35,260 | 20,427 | 244.9 | 54,761 | 31,785 | 380.2 |
| 17            | 14,491 | 8,394 | 98.0  | 24,095 | 13,958 | 162.9 | 37,341 | 21,631 | 252.5 | 57,993 | 33,654 | 391.9 |
| 18            | 15,299 | 8,861 | 100.8 | 25,438 | 14,734 | 167.6 | 39,423 | 22,835 | 259.8 | 61,226 | 35,524 | 403.2 |
| 19            | 16,107 | 9,329 | 103.6 | 26,781 | 15,511 | 172.2 | 41,505 | 24,038 | 266.9 | 64,459 | 37,393 | 414.3 |
| 20            | 16,914 | 9,796 | 106.3 | 28,124 | 16,288 | 176.7 | 43,586 | 25,242 | 273.8 | 67,692 | 39,262 | 425.1 |

## SFF-3F

| Size<br>press | 15A   |       |       | 20A   |       |       | 25A   |       |       | 32A    |       |       | 40A    |        |       |
|---------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|--------|--------|-------|
|               | air   | steam | water | air   | steam | water | air   | steam | water | air    | steam | water | air    | steam  | water |
| 21            | 1,623 | 940   | 10.0  | 2,761 | 1,599 | 17.0  | 4,431 | 2,566 | 27.2  | 7,069  | 4,094 | 43.4  | 11,046 | 6,396  | 67.9  |
| 22            | 1,697 | 983   | 10.2  | 2,887 | 1,672 | 17.4  | 4,624 | 2,683 | 27.9  | 7,391  | 4,280 | 44.5  | 11,549 | 6,688  | 69.5  |
| 23            | 1,771 | 1,026 | 10.4  | 3,013 | 1,745 | 17.8  | 4,834 | 2,799 | 28.5  | 7,713  | 4,466 | 45.5  | 12,053 | 6,979  | 71.0  |
| 24            | 1,845 | 1,068 | 10.7  | 3,139 | 1,818 | 18.1  | 5,036 | 2,916 | 29.1  | 8,036  | 4,653 | 46.4  | 12,556 | 7,270  | 72.6  |
| 25            | 1,919 | 1,111 | 10.9  | 3,265 | 1,890 | 18.5  | 5,238 | 3,033 | 29.7  | 8,358  | 4,839 | 47.4  | 13,060 | 7,561  | 74.0  |
| 26            | 1,993 | 1,154 | 11.1  | 3,391 | 1,963 | 18.9  | 5,440 | 3,150 | 30.3  | 8,680  | 5,025 | 48.3  | 13,563 | 7,852  | 75.5  |
| 27            | 2,067 | 1,197 | 11.3  | 3,517 | 2,036 | 19.2  | 5,642 | 3,266 | 30.9  | 9,003  | 5,212 | 49.2  | 14,067 | 8,143  | 77.0  |
| 28            | 2,141 | 1,239 | 11.5  | 3,643 | 2,109 | 19.6  | 5,844 | 3,383 | 31.4  | 9,325  | 5,398 | 50.2  | 14,570 | 8,434  | 78.4  |
| 29            | 2,215 | 1,282 | 11.7  | 3,768 | 2,181 | 19.9  | 6,046 | 3,500 | 32.0  | 9,647  | 5,584 | 51.0  | 15,073 | 8,726  | 79.8  |
| 30            | 2,289 | 1,325 | 11.9  | 3,894 | 2,254 | 20.3  | 6,248 | 3,617 | 32.5  | 9,969  | 5,771 | 51.9  | 15,577 | 9,017  | 81.1  |
| 31            | 2,363 | 1,368 | 12.1  | 4,020 | 2,327 | 20.6  | 6,450 | 3,733 | 33.1  | 10,291 | 5,957 | 52.8  | 16,080 | 9,308  | 82.5  |
| 32            | 2,437 | 1,411 | 12.3  | 4,146 | 2,400 | 20.9  | 6,652 | 3,850 | 33.6  | 10,614 | 6,143 | 53.6  | 16,584 | 9,599  | 83.8  |
| 33            | 2,511 | 1,453 | 12.5  | 4,272 | 2,473 | 21.3  | 6,854 | 3,967 | 34.1  | 10,936 | 6,330 | 54.4  | 17,087 | 9,890  | 85.1  |
| 34            | 2,585 | 1,496 | 12.7  | 4,398 | 2,545 | 21.6  | 7,056 | 4,084 | 34.6  | 11,258 | 6,516 | 55.3  | 17,591 | 10,181 | 86.4  |
| 35            | 2,659 | 1,539 | 12.9  | 4,524 | 2,618 | 21.9  | 7,258 | 4,201 | 35.1  | 11,580 | 6,702 | 56.1  | 18,094 | 10,472 | 87.6  |

| Size<br>press | 50A    |        |       | 65A    |        |       | 80A    |        |       | 100A    |        |       |
|---------------|--------|--------|-------|--------|--------|-------|--------|--------|-------|---------|--------|-------|
|               | air    | steam  | water | air    | steam  | water | air    | steam  | water | air     | steam  | water |
| 21            | 17,722 | 10,263 | 108.9 | 29,467 | 17,064 | 181.1 | 45,668 | 26,446 | 280.6 | 70,925  | 41,131 | 435.5 |
| 22            | 18,530 | 10,730 | 111.4 | 30,811 | 17,841 | 185.3 | 47,749 | 27,649 | 287.2 | 74,157  | 42,941 | 445.8 |
| 23            | 19,338 | 11,197 | 114.0 | 32,154 | 18,618 | 189.5 | 49,831 | 28,853 | 293.6 | 77,390  | 44,811 | 455.8 |
| 24            | 20,146 | 11,664 | 116.4 | 33,497 | 19,394 | 193.6 | 51,912 | 30,057 | 300.0 | 80,623  | 46,680 | 465.6 |
| 25            | 20,953 | 12,131 | 118.8 | 34,840 | 20,171 | 197.5 | 53,994 | 31,260 | 306.1 | 83,856  | 48,549 | 475.2 |
| 26            | 21,761 | 12,598 | 121.2 | 36,183 | 20,948 | 201.5 | 56,075 | 32,464 | 312.2 | 87,088  | 50,419 | 484.6 |
| 27            | 22,569 | 13,065 | 123.5 | 37,526 | 21,724 | 205.3 | 58,157 | 33,668 | 318.2 | 90,321  | 52,288 | 493.9 |
| 28            | 23,377 | 13,533 | 125.7 | 38,869 | 22,501 | 209.1 | 60,239 | 34,871 | 324.0 | 93,554  | 54,158 | 502.9 |
| 29            | 24,184 | 14,000 | 128.0 | 40,213 | 23,278 | 212.8 | 62,320 | 36,075 | 329.7 | 96,787  | 56,027 | 511.8 |
| 30            | 24,992 | 14,467 | 130.1 | 41,556 | 24,054 | 216.4 | 64,402 | 37,279 | 335.4 | 100,019 | 57,896 | 520.6 |
| 31            | 25,800 | 14,934 | 132.3 | 42,899 | 24,831 | 220.0 | 66,483 | 38,482 | 340.9 | 103,253 | 59,766 | 529.2 |
| 32            | 26,608 | 15,401 | 134.4 | 44,242 | 25,608 | 223.5 | 68,565 | 39,686 | 346.4 | 106,485 | 61,635 | 537.7 |
| 33            | 27,416 | 15,868 | 136.5 | 45,585 | 26,384 | 227.0 | 70,646 | 40,890 | 351.7 | 109,718 | 63,504 | 546.0 |
| 34            | 28,223 | 16,335 | 138.5 | 46,928 | 27,161 | 230.4 | 72,728 | 42,094 | 357.0 | 112,951 | 65,373 | 554.2 |
| 35            | 29,031 | 16,802 | 140.6 | 48,271 | 27,938 | 233.7 | 74,810 | 43,297 | 362.2 | 116,184 | 67,242 | 562.3 |

# PRESSURE REDUCING VALVE

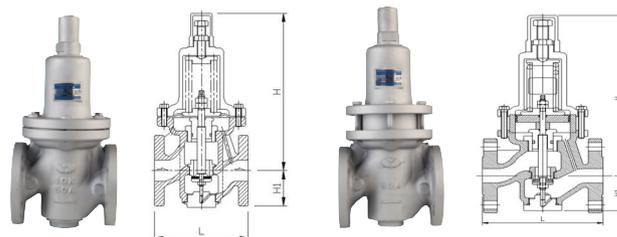
## RDD-1F / RDC-1F

|                     | RDD-1F   | RDC-1F                        |
|---------------------|--|-------------------------------|
| Body                | DUCTILE IRON / CAST STEEL / STAINLESS STEEL / BRONZE |                               |
| Trim                | TRIM: BRONZE, SYNTHETIC RUBBER                       |                               |
| Type                | DIAPHRAGM  | CYLINDER                      |
| Inlet Pressure      | 16kgf/cm <sup>2</sup>                                |                               |
| Outlet Pressure     | 0.5~4, 4~8kgf/cm <sup>2</sup>                        | 0.5~4, 4~8kgf/cm <sup>2</sup> |
| Max Reducing Ratio  | 10:1   |                               |
| Working Temperature | MAX. 80°C  | MAX. 120°C                    |
| Working Fluid       | WATER / AIR / LIQUID                                 | WATER / AIR / LIQUID / OIL    |
| Connection          | JIS 10K FF   |                               |

| Size | L   | H1  | H   | Size | L   | H1  | H   |
|------|-----|-----|-----|------|-----|-----|-----|
| 15A  | 160 | 65  | 275 | 15A  | 160 | 65  | 285 |
| 20A  | 160 | 65  | 275 | 20A  | 160 | 65  | 285 |
| 25A  | 160 | 65  | 275 | 25A  | 160 | 65  | 285 |
| 32A  | 180 | 72  | 310 | 32A  | 180 | 70  | 340 |
| 40A  | 180 | 72  | 310 | 40A  | 180 | 70  | 340 |
| 50A  | 190 | 80  | 330 | 50A  | 190 | 80  | 350 |
| 65A  | 230 | 105 | 445 | 65A  | 230 | 105 | 465 |
| 80A  | 250 | 105 | 445 | 80A  | 250 | 105 | 465 |
| 100A | 310 | 145 | 505 | 100A | 300 | 145 | 540 |
| 125A | 366 | 174 | 626 | 125A | 370 | 174 | 626 |
| 150A | 400 | 180 | 636 | 150A | 403 | 180 | 636 |

## Features

- A direct operated pressure reducing valve for water and air services with feature of the minimum differential pressure and of the best performance from a small flow to large flow
- The valve is designed to enable inside inspection by disassembling
- The upper part of valve so that maintenance is very convenient
- Easy adjustment of set pressure and to maintain safety flow
- Easy maintenance and checking
- ANSI, DIN flanges are available upon request



RDD-1F

RDC-1F

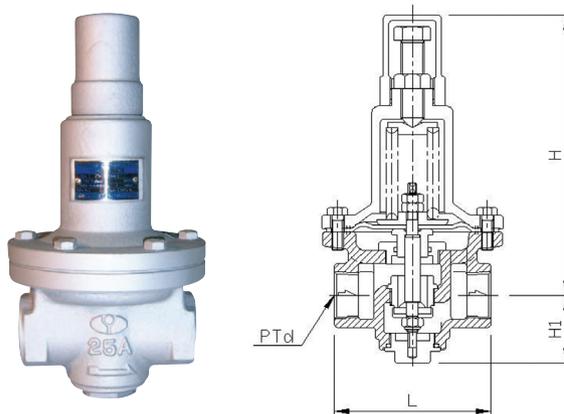
## RDD-1S

|                     |  |
|---------------------|--|
| Material            | BODY: DUCTILE IRON<br>TRIM: BRONZE, SYNTHETIC RUBBER |
| Inlet Pressure      | 10kgf/cm <sup>2</sup>                                |
| Outlet Pressure     | 0.5~4, 4~8kgf/cm <sup>2</sup>                        |
| Max Reducing Ratio  | 10:1   |
| Working Temperature | MAX.80°C   |
| Working Fluid       | WATER / AIR / LIQUID                                 |
| Connection          | PT screwed   |

| Size | L   | H1 | H   | d(PT)     |
|------|-----|----|-----|-----------|
| 15A  | 100 | 48 | 200 | PT 1/2"   |
| 20A  | 100 | 48 | 200 | PT 3/4"   |
| 25A  | 110 | 51 | 200 | PT 1"     |
| 32A  | 150 | 75 | 280 | PT 1-1/4" |
| 40A  | 150 | 75 | 280 | PT 1-1/2" |

## Features

- It has an excellent endurance because of its small size and simple structure
- This valve can be used for the pressure regulation on the feed water and elevated water tank of middle or high building to each floor



# PRESSURE REDUCING VALVE

2

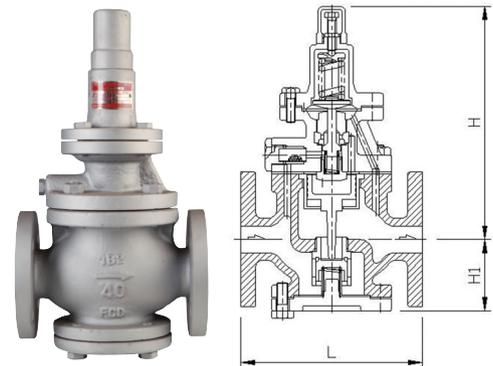
## RDP-1F

|                     |   |
|---------------------|---|
| Body                | DUCTILE IRON CAST STEEL                       |
| Trim                | BRONZE  |
| Inlet Pressure      | 10kgf/cm <sup>2</sup> I 20kgf/cm <sup>2</sup> |
| Outlet Pressure     | 0.5~8kgf/cm <sup>2</sup>                      |
| Max Reducing Ratio  | 10:1  |
| Working Temperature | MAX.220℃                                      |
| Working Fluid       | STEAM   |
| Connection          | JIS 10K FF                                    |

| Size | L   | H1  | H   |
|------|-----|-----|-----|
| 15A  | 165 | 75  | 270 |
| 20A  | 165 | 75  | 270 |
| 25A  | 170 | 75  | 270 |
| 32A  | 200 | 85  | 275 |
| 40A  | 200 | 85  | 275 |
| 50A  | 220 | 92  | 285 |
| 65A  | 250 | 110 | 310 |
| 80A  | 290 | 130 | 350 |
| 100A | 320 | 150 | 370 |
| 125A | 390 | 172 | 500 |
| 150A | 420 | 187 | 520 |
| 200A | 550 | 238 | 590 |
| 250A | 620 | 266 | 685 |

## Features

- The mechanism that automatically adjusts the pressure in pressure reducing valve uses the balance between the steam pressure and the adjustment spring
- The steam flowing through the pilot valve is controlled by the balance between the adjustment spring and the secondary pressure
- This steam causes the piston to fall and rise, which controls the amount of opening of the main valve



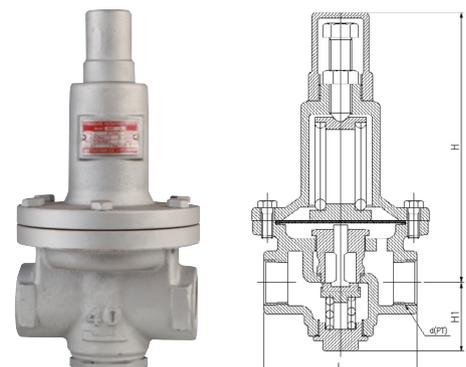
## RDST-1S

|                     |   |
|---------------------|---|
| Material            | BODY: DUCTILE IRON<br>TRIM: STAINLESS STEEL |
| Inlet Pressure      | 10kgf/cm <sup>2</sup>                       |
| Outlet Pressure     | 0.5~8kgf/cm <sup>2</sup>                    |
| Max Reducing Ratio  | 10:1  |
| Working Temperature | MAX.220℃                                    |
| Working Fluid       | STEAM                                       |
| Connection          | PT screwed                                  |

| Size | L   | H1 | H   | d(PT)     |
|------|-----|----|-----|-----------|
| 15A  | 120 | 48 | 200 | PT 1/2"   |
| 20A  | 120 | 48 | 200 | PT 3/4"   |
| 25A  | 120 | 51 | 200 | PT 1"     |
| 32A  | 151 | 75 | 280 | PT 1-1/4" |
| 40A  | 155 | 75 | 280 | PT 1-1/2" |

## Features

- It has an excellent endurance because of its small size and simple structure
- Easy installation by screwed type



# PRESSURE REDUCING VALVE

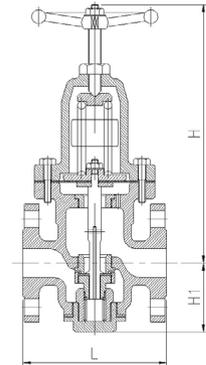
## ○ RDD-3F

|                     |                                   |
|---------------------|-----------------------------------|
| Body                | CAST STEEL I STAINLESS STEEL      |
| Trim                | STAINLESS STEEL, SYNTHETIC RUBBER |
| Inlet Pressure      | 30kgf/cm <sup>2</sup>             |
| Outlet Pressure     | 0.5~4, 4~10kgf/cm <sup>2</sup>    |
| Max Reducing Ratio  | 10:1                              |
| Working Temperature | MAX.80℃                           |
| Working Fluid       | WATER / AIR / LIQUID              |
| Connection          | JIS 30K RF                        |

| Size | L   | H1 | H   |
|------|-----|----|-----|
| 15A  | 145 | 77 | 290 |
| 20A  | 145 | 77 | 290 |
| 25A  | 150 | 77 | 290 |
| 32A  | 180 | 90 | 320 |
| 40A  | 180 | 90 | 320 |
| 50A  | 180 | 90 | 320 |

## ○ Features

- It is a direct operated pressure reducing valve suitable for application at the high pressured air and gas service line up to 30kgf/cm<sup>2</sup>{0.3MPa} & requiring the stable flow from small one to large capacity
- Adjust for control air line, service air line of ship
- ANSI, DIN flanges are available upon request



# PRESSURE REDUCING VALVE

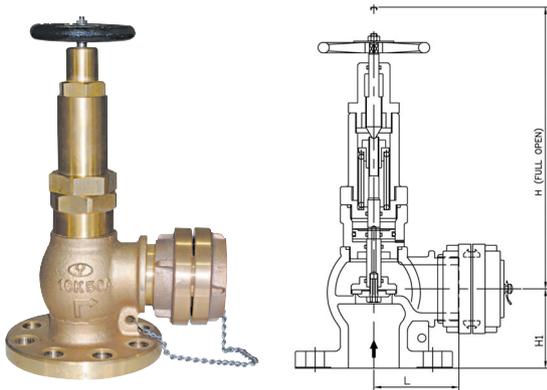
2

## HRD-1FA / HRD-1F / HRD-2F / HRD-3F

|                     |  |
|---------------------|--|
| Material            | BODY: CAST BRONZE<br>TRIM: STAINLESS STEEL/ MONEL<br>COUPLING: CAST BRONZE |
| Inlet Pressure      | MAX. 16kgf/cm <sup>2</sup>   |
| Outlet Pressure     | MAX. 10kgf/cm <sup>2</sup>   |
| Working Temperature | MAX. 80°C  |
| Working Fluid       | GLOBE TYPE / ANGLE TYPE / PISTON TYPE                                      |
| Connection          | JIS 10K / 16K FLANGE / ANSI 150# FLANGE                                    |
| Outlet              | STORZ C Coupling, JIS Coupling, BS 336                                     |

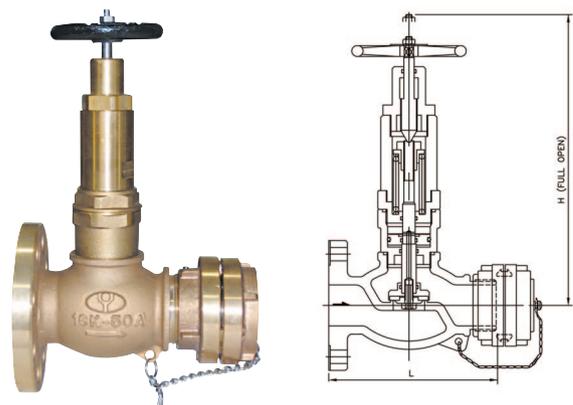
## Features

- It is auto valve that reduce second pressure and keep constantly
- It is used for fire fighting of offshore



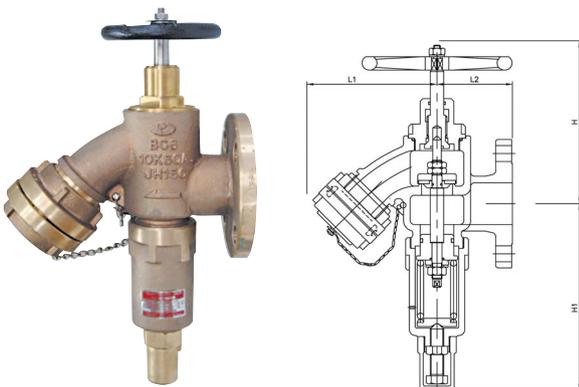
HRD-1FA

| Size        | L1    | H1    | H     |
|-------------|-------|-------|-------|
| 1-1/2"(40A) | 85.0  | 80.0  | 280.0 |
| 2"(50A)     | 85.0  | 80.0  | 280.0 |
| 2-1/2"(65A) | 100.0 | 100.0 | 385.0 |
| 3" (80A)    | 110.0 | 110.0 | 385.0 |



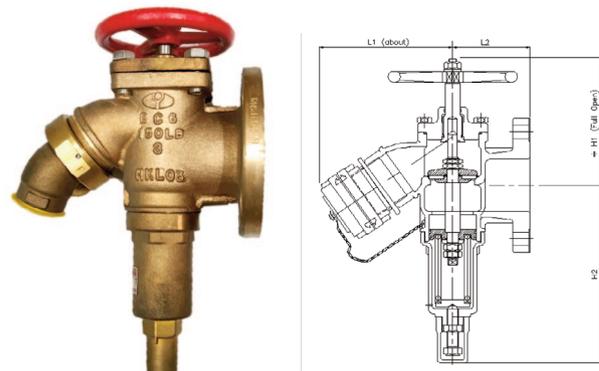
HRD-1F

| Size        | L1    | H     |
|-------------|-------|-------|
| 1"(25A)     | 140.0 | 286.0 |
| 1-1/2"(40A) | 150.0 | 286.0 |
| 2"(50A)     | 155.0 | 286.0 |
| 2-1/2"(65A) | 215.0 | 418.5 |
| 3" (80A)    | 220.0 | 418.5 |



HRD-2F

| Size        | L1    | L2   | H      | H1    |
|-------------|-------|------|--------|-------|
| 1-1/2"(40A) | 160.0 | 90.0 | 190.0  | 230.0 |
| 2"(50A)     | 160.0 | 90.0 | 190.02 | 235.0 |



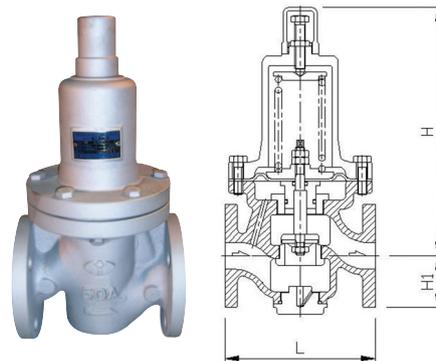
HRD-3F

| Size        | L1    | L2    | H     | H1    |
|-------------|-------|-------|-------|-------|
| 2-1/2"(65A) | 210.0 | 110.0 | 200.0 | 255.0 |
| 3"(80A)     | 210.0 | 110.0 | 200.0 | 255.0 |

# PRIMARY REGULATING VALVE

## RGD-1F

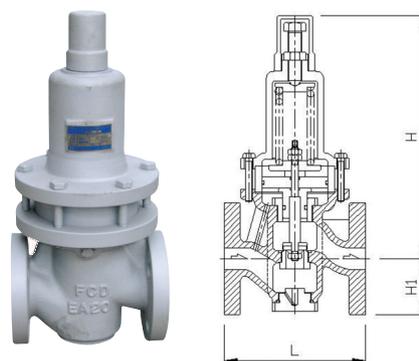
|                     |   |
|---------------------|---|
| Body                | DUCTILE IRON / CAST STEEL<br>/ BRONZE / STAINLESS STEEL |
| Trim                | BRONZE, SYNTHETIC RUBBER                                |
| Adjustment Range    | 0.5~8kgf/cm <sup>2</sup>                                |
| Working Temperature | MAX. 120°C  |
| Working Fluid       | WATER/AIR   |
| Type                | DIAPHRAGM   |
| Connection          | JIS B 2220 FLANGE                                       |



| Size | L   | H1  | H   |
|------|-----|-----|-----|
| 15A  | 160 | 65  | 275 |
| 20A  | 160 | 65  | 275 |
| 25A  | 160 | 65  | 275 |
| 32A  | 180 | 72  | 310 |
| 40A  | 180 | 72  | 310 |
| 50A  | 190 | 80  | 330 |
| 65A  | 230 | 105 | 445 |
| 80A  | 250 | 105 | 445 |
| 100A | 300 | 145 | 505 |
| 125A | 370 | 174 | 586 |
| 150A | 403 | 180 | 636 |

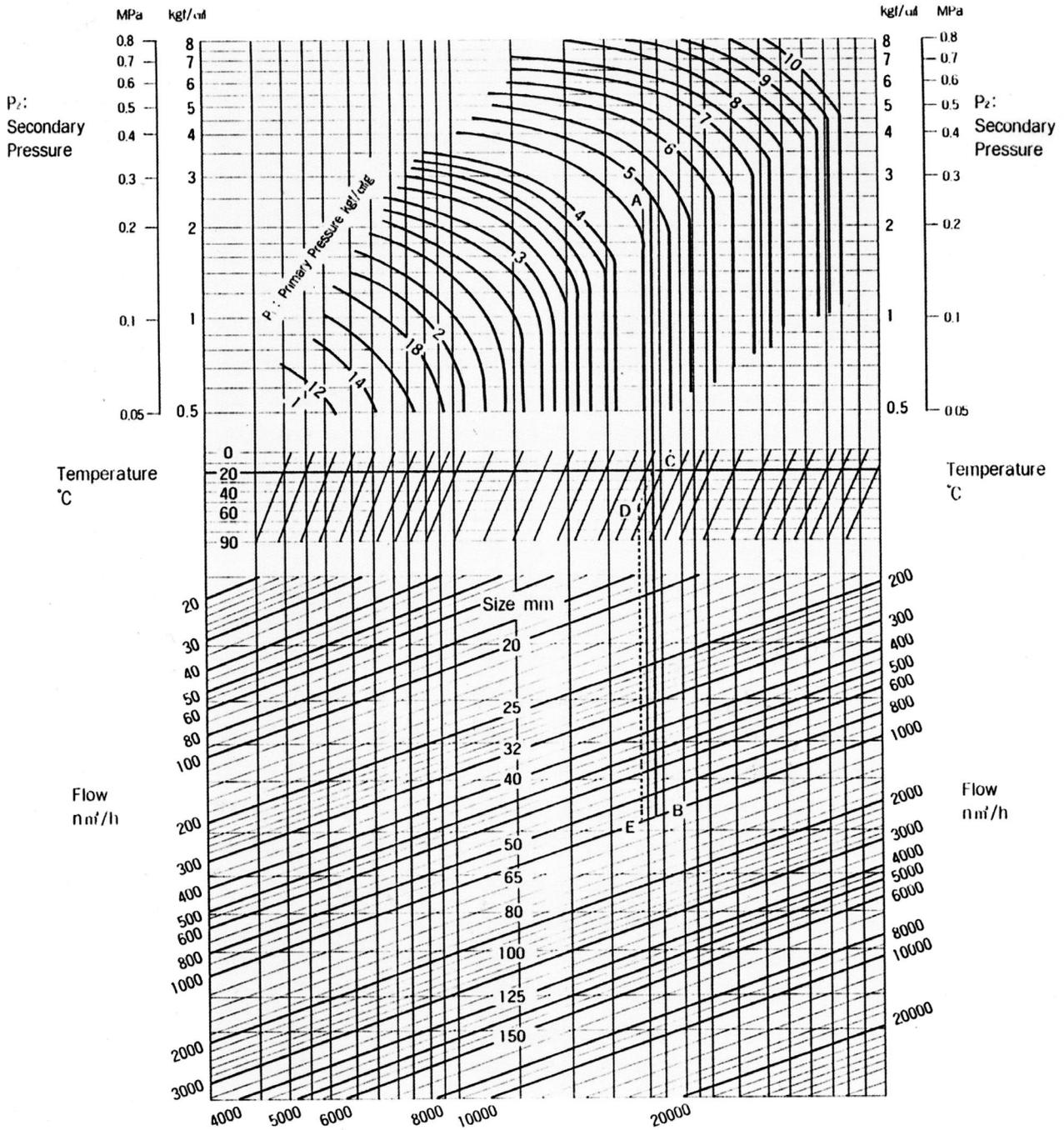
## RGC-1F

|                     |   |
|---------------------|---|
| Body                | DUCTILE IRON / CAST STEEL<br>/ BRONZE / STAINLESS STEEL |
| Trim                | BRONZE, SYNTHETIC RUBBER                                |
| Adjustment Range    | 0.5~8kgf/cm <sup>2</sup>                                |
| Working Temperature | MAX. 120°C  |
| Working Fluid       | WATER / AIR / LIQUID / OIL                              |
| Type                | PISTON  |
| Connection          | JIS B 2220 FLANGE                                       |



| Size | L   | H1  | H   |
|------|-----|-----|-----|
| 15A  | 160 | 65  | 285 |
| 20A  | 160 | 65  | 285 |
| 25A  | 160 | 65  | 285 |
| 32A  | 180 | 72  | 340 |
| 40A  | 180 | 72  | 340 |
| 50A  | 190 | 80  | 350 |
| 65A  | 230 | 105 | 465 |
| 80A  | 250 | 105 | 465 |
| 100A | 300 | 145 | 540 |
| 125A | 370 | 174 | 626 |
| 150A | 403 | 180 | 636 |

## TABLE FOR SIZING (RDD-1F - AIR)



### ※ HOW TO USE THE CHART

Where,  
 Primary pressure : 5kgf/cm<sup>2</sup>g(0.5MPa)  
 Secondary pressure : 2.5kgf/cm<sup>2</sup>g(0.25MPa)  
 Flow (air) S.G.=1 : 1000Nm<sup>3</sup>/h  
 Fluid temperature : 20°C

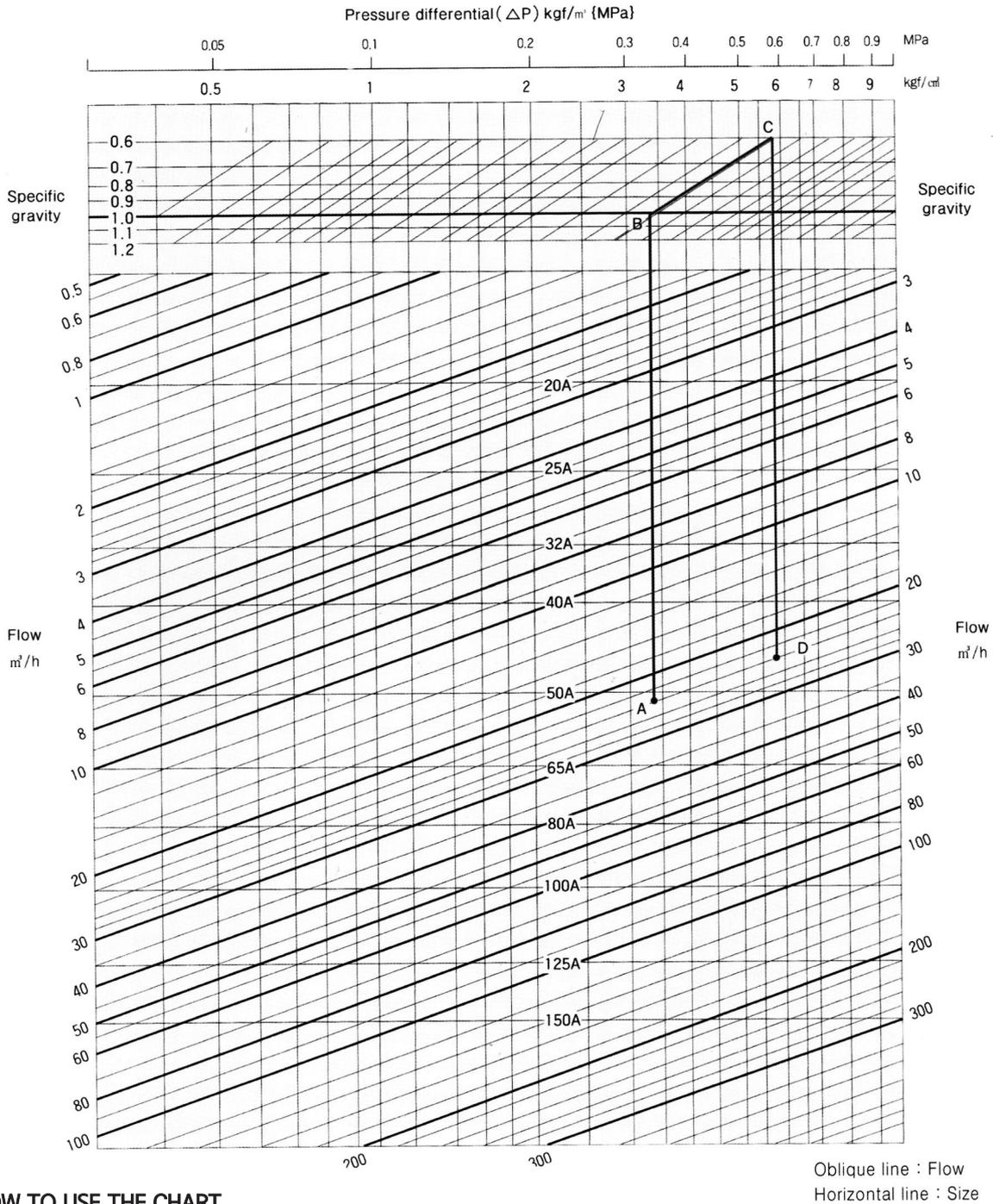
Obtain a cross point "A" on the vertical line down from primary pressure 5kgf/cm<sup>2</sup>g(0.5MPa) with horizontal line of secondary pressure 2.5kgf/cm<sup>2</sup>g(0.25MPa). Obtain a cross point "B" on the vertical line down from the point "A" with the oblique line of Flow 1000Nm<sup>3</sup>/h. As the point "B" is between size 40 and 50mm, select safer size 50mm.

Where,  
 Same conditions except  
 Fluid temperature : 60°C

Obtain a cross point "C" on the vertical line down from the cross point "A" with the horizontal line of temperature 20°C. Obtain a point "D" by moving to the parallel line of temperature 60°C from the point "C". Obtain a cross point "E" on the oblique line of Flow 1000Nm<sup>3</sup>/h. As the point "E" is between size 40 and 50mm, select safer size 50mm.

Oblique line : Flow  
 Horizontal line : Size

# TABLE FOR SIZING (RDD-1F - LIQUID)

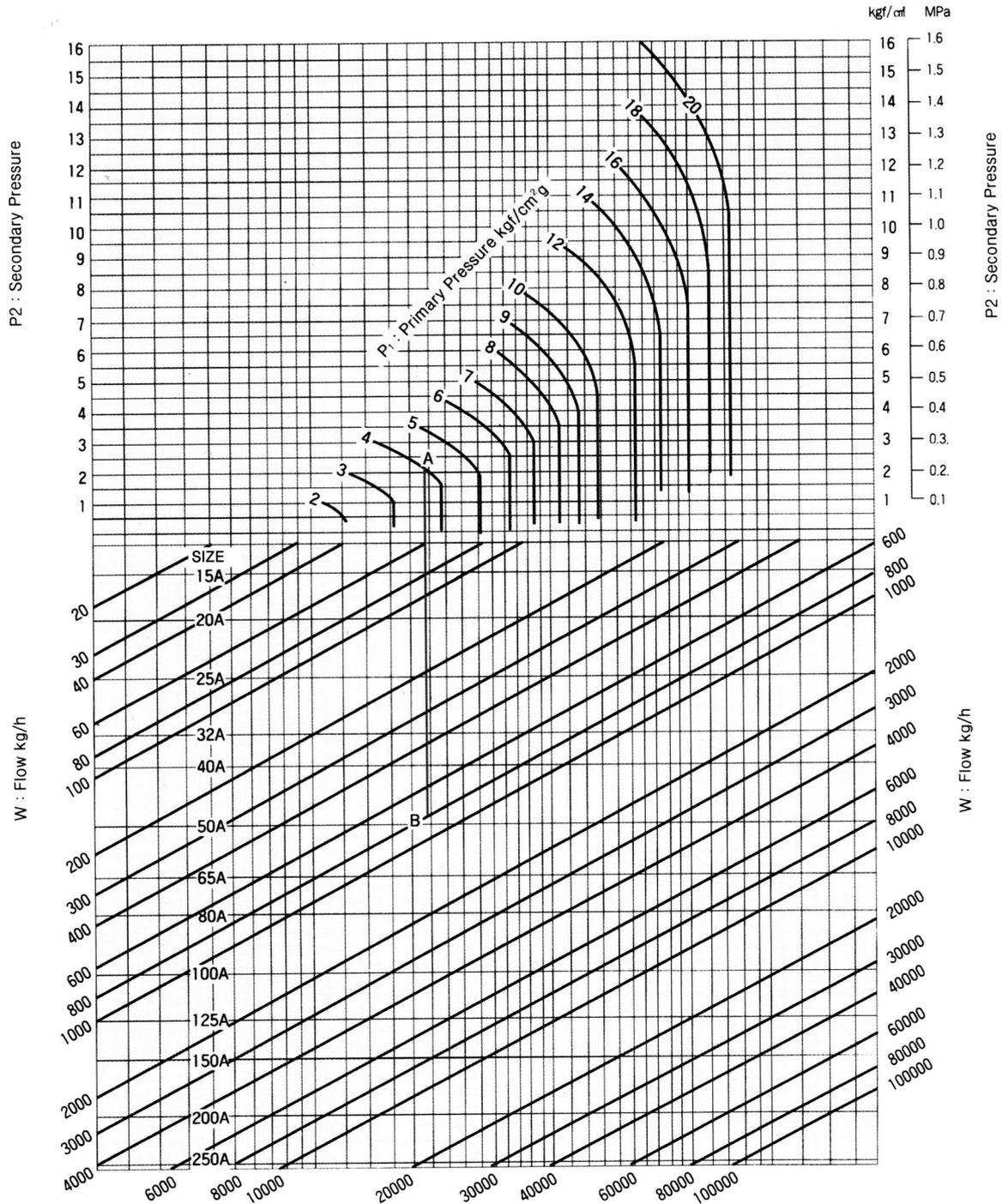


## ※ HOW TO USE THE CHART

Where,  
 Primary pressure : 5.5kgf/cm<sup>2</sup>{0.55MPa}  
 Secondary pressure : 2kgf/cm<sup>2</sup>{0.2MPa}  
 Pressure differential : 3.5kgf/cm<sup>2</sup>{0.35MPa}  
 Specific gravity : 1 (water)  
 Flow : 24m<sup>3</sup>/h  
 Obtain a cross point "A" by tracing down vertically from the pressure differential of 3.5kgf/cm<sup>2</sup>{0.35MPa} on the top up to the line of Flow 24m<sup>3</sup>/h. As the point "A" is between size 50 and 65mm, select safer size 65mm.

Where,  
 Same conditions except  
 Specific gravity : 0.6  
 Obtain a cross point "B" by tracing down vertically from the pressure differential of 3.5kgf/cm<sup>2</sup>{0.35MPa} up to the line of specific gravity 1.0 and move in parallel with the slant line up to the cross point "C" on the line of the specific gravity 0.6 Trace down vertically to the point "D" on the cross line of Flow 24m<sup>3</sup>/h. As the point "D" is between size 40 and 50mm, select safer size 50mm.

# TABLE FOR SIZING (RDP-1F/2F - STEAM)



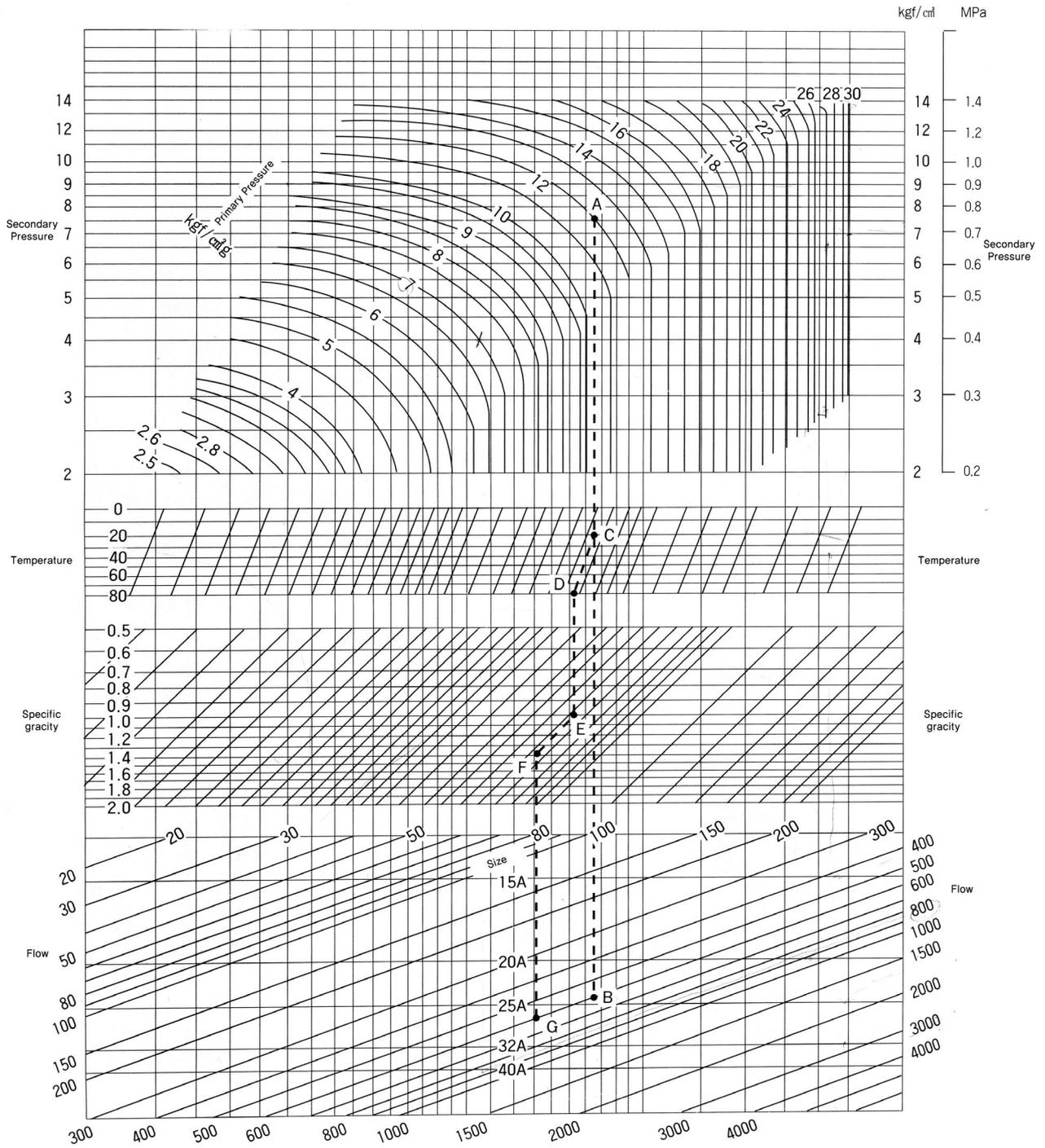
## ※ HOW TO USE THE CHART

Where,  
 Primary pressure : 4kgf/cm<sup>2</sup>g(0.4Mpa)  
 Secondary pressure : 2kgf/cm<sup>2</sup>g(0.2MPa)  
 Flow (Saturated steam) : 800kg/h

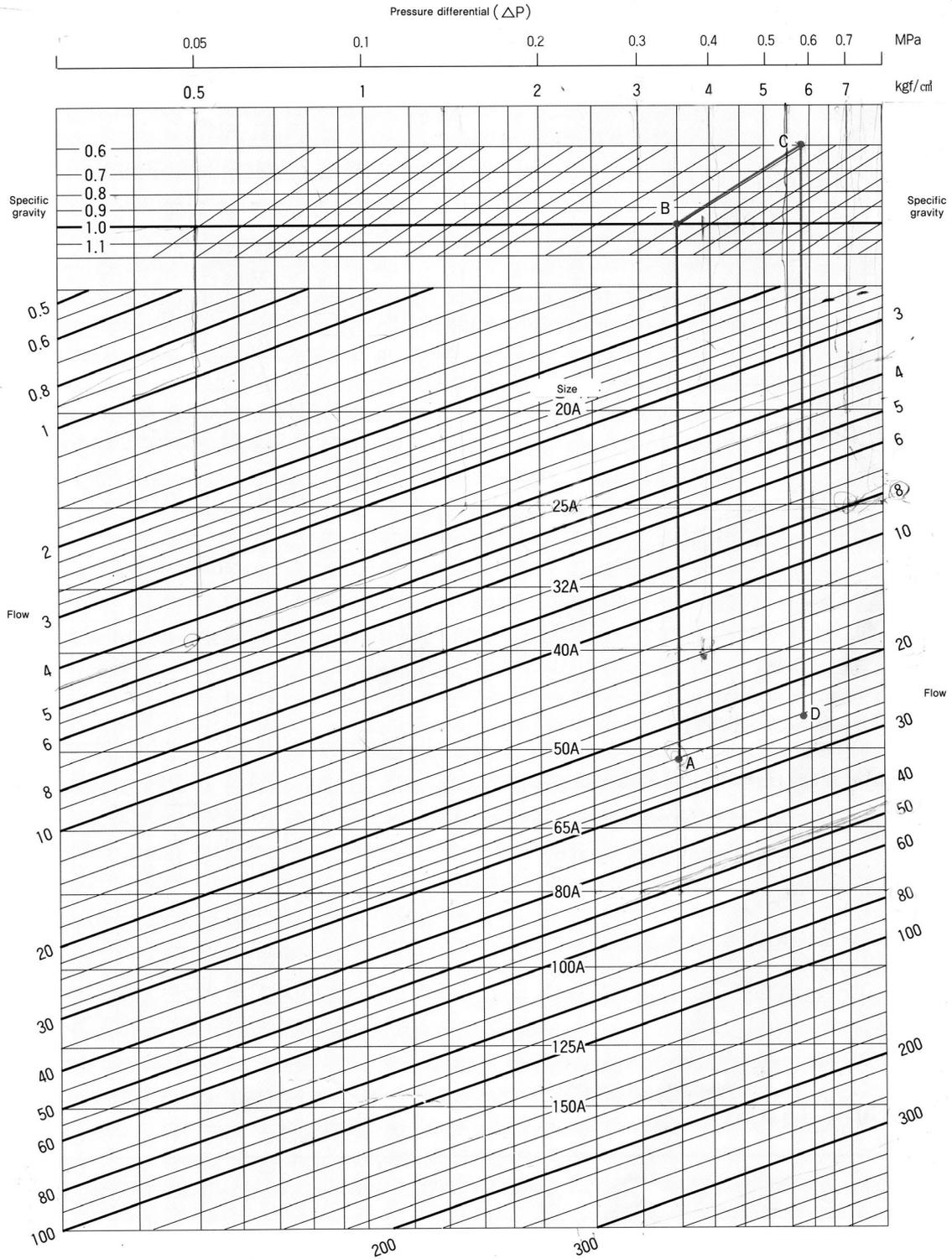
Obtain a cross point "A" on the vertical line of primary pressure 4kgf/cm<sup>2</sup>g(0.4Mpa) with horizontal line of secondary pressure 2kgf/cm<sup>2</sup>g(0.2MPa).

Obtain a cross point "B" on the vertical line down from the point "A" with the oblique line of flow 800kg/h. As the point "B" is between size 40 and 50mm, select safer size 50mm.

# TABLE FOR SIZING (RDD-3F - AIR)



# TABLE FOR SIZING (RGD-1F - LIQUID)



# 4

# STEAM TRAP

## TDC-1S

### Material

BODY : DUCTILE IRON  
TRIM : STAINLESS STEEL

### Working Temperature

MAX. 220°C

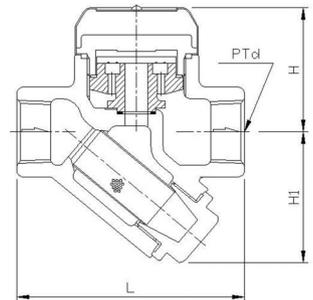
### Working Pressure

MAX. 16kgf/cm<sup>2</sup>  
MIN. 0.35kgf/cm<sup>2</sup>

### Connection

PT screwed

| Size | L    | H1  | H  | D         |
|------|------|-----|----|-----------|
| 15A  | 90   | 56  | 52 | PT 1/2"   |
| 20A  | 95.0 | 56  | 52 | PT 3/4"   |
| 25A  | 100  | 61  | 52 | PT 1"     |
| 32A  | 180  | 110 | 95 | PT 1-1/4" |
| 40A  | 180  | 110 | 95 | PT 1-1/2" |



## TDC-1F

### Material

BODY : DUCTILE IRON  
TRIM : STAINLESS STEEL

### Working Temperature

MAX. 220°C

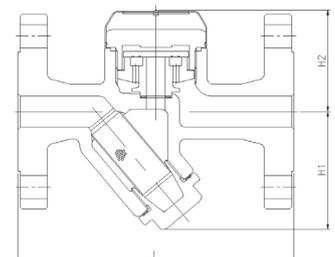
### Working Pressure

MAX. 16kgf/cm<sup>2</sup>  
MIN. 0.35kgf/cm<sup>2</sup>

### Connection

JIS 5K, 10K, 16K FF Flange

| Size | Connection      | L   | H1  | H2 |
|------|-----------------|-----|-----|----|
| 15A  | JIS 5K FF       | 130 | 60  | 52 |
|      | JIS 10K/ 16K FF | 136 | 60  | 52 |
| 20A  | JIS 5K FF       | 132 | 60  | 52 |
|      | JIS 10K/ 16K FF | 140 | 60  | 52 |
| 25A  | JIS 5K FF       | 142 | 60  | 52 |
|      | JIS 10K/ 16K FF | 150 | 60  | 52 |
| 32A  | JIS 5K FF       | 185 | 95  | 70 |
|      | JIS 10K/ 16K FF | 190 | 95  | 70 |
| 40A  | JIS 5K FF       | 260 | 112 | 94 |
|      | JIS 10K/ 16K FF | 260 | 112 | 94 |
| 50A  | JIS 5K FF       | 260 | 112 | 94 |
|      | JIS 10K/ 16K FF | 260 | 112 | 94 |



# STEAM TRAP

# 4

## ● TDC-3S

**Material**

BODY : STAINLESS STEEL  
TRIM : STAINLESS STEEL

**Working Temperature**

MAX. 400°C

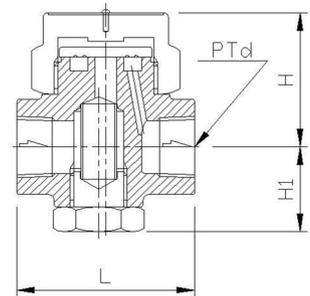
**Working Pressure**

MAX. 30kgf/cm<sup>2</sup>  
MIN. 0.35kgf/cm<sup>2</sup>

**Connection**

PT screwed

| Size | L  | H1 | H  | d(PT)   |
|------|----|----|----|---------|
| 10A  | 50 | 24 | 40 | PT 3/8" |



## ● TDC-4S

**Material**

BODY : STAINLESS STEEL  
TRIM : STAINLESS STEEL

**Working Temperature**

MAX. 220°C

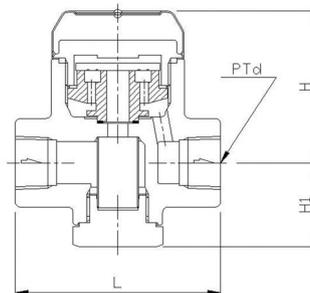
**Working Pressure**

MAX. 20kgf/cm<sup>2</sup>  
MIN. 0.35kgf/cm<sup>2</sup>

**Connection**

PT screwed

| Size | L  | H1 | H  | d(PT)   |
|------|----|----|----|---------|
| 15A  | 80 | 34 | 60 | PT 1/2" |
| 20A  | 80 | 34 | 60 | PT 3/4" |
| 25A  | 90 | 34 | 63 | PT 1"   |



# 4

# STEAM TRAP

## ○ TBK-1S

**Material**

BODY : DUCTILE IRON  
TRIM : STAINLESS STEEL

**Working Temperature**

MAX. 220°C

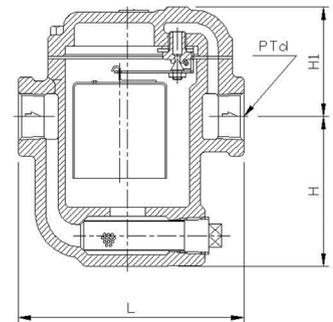
**Working Pressure**

MAX. 10kgf/cm<sup>2</sup>  
MIN. 0.35kgf/cm<sup>2</sup>

**Connection**

PT screwed

| Size | L   | H1  | H   | d(PT)   |
|------|-----|-----|-----|---------|
| 15A  | 127 | 80  | 71  | PT ½"   |
| 20A  | 127 | 82  | 71  | PT ¾"   |
| 25A  | 136 | 101 | 74  | PT 1"   |
| 32A  | 189 | 190 | 90  | PT 1-¼" |
| 40A  | 189 | 190 | 90  | PT 1-½" |
| 50A  | -   | 200 | 100 | PT 2"   |



## ○ TBK-1F

**Material**

BODY : DUCTILE IRON  
TRIM : STAINLESS STEEL

**Working Temperature**

MAX. 220°C

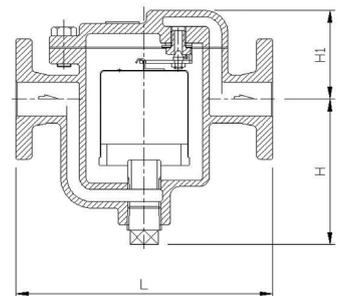
**Working Pressure**

MAX. 8, 16kgf/cm<sup>2</sup>  
MIN. 0.35kgf/cm<sup>2</sup>

**Connection**

JIS 10K FF Flange

| Size | L   | H1  | H   |
|------|-----|-----|-----|
| 32A  | 250 | 170 | 250 |
| 40A  | 250 | 170 | 250 |
| 50A  | 290 | 210 | 280 |



## ○ TFT-1S

### Material

BODY : DUCTILE IRON  
TRIM : STAINLESS STEEL

### Working Temperature

MAX. 220°C

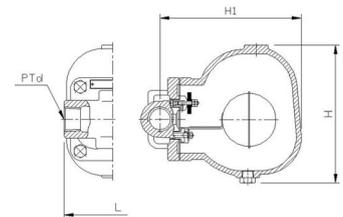
### Working Pressure

MAX. 10kgf/cm<sup>2</sup>  
MIN. 0.35kgf/cm<sup>2</sup>

### Connection

PT screwed

| Size | L   | H1  | H   | d(PT)     |
|------|-----|-----|-----|-----------|
| 15A  | 120 | 120 | 155 | PT 1/2"   |
| 20A  | 120 | 120 | 155 | PT 3/4"   |
| 25A  | 120 | 120 | 190 | PT 1"     |
| 32A  | 270 | 240 | 295 | PT 1-1/4" |
| 40A  | 270 | 240 | 295 | PT 1-1/2" |
| 50A  | 300 | 260 | 310 | PT 2"     |



## ○ TFT-1F / TFT-2F

### Material

BODY : DUCTILE IRON  
TRIM : STAINLESS STEEL

### Working Temperature

MAX. 220°C

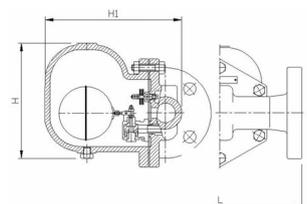
### Working Pressure

MAX. 4.5, 10kgf/cm<sup>2</sup>  
MIN. 0.35kgf/cm<sup>2</sup>

### Connection

JIS 10K FF Flange  
JIS 20K RF Flange

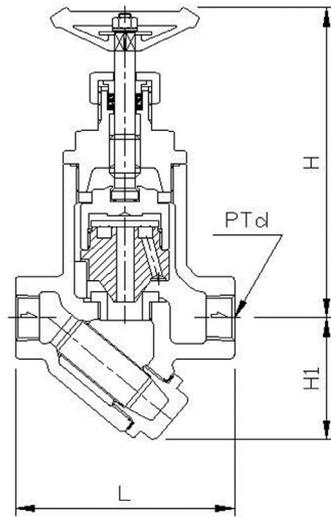
| Size | L   | H1  | H   |
|------|-----|-----|-----|
| 15A  | 200 | 185 | 190 |
| 20A  | 200 | 185 | 190 |
| 25A  | 215 | 185 | 190 |
| 32A  | 320 | 240 | 295 |
| 40A  | 320 | 240 | 295 |
| 50A  | 360 | 260 | 310 |



# BY PASS TYPE STEAM TRAP

## ○ TBP-1S

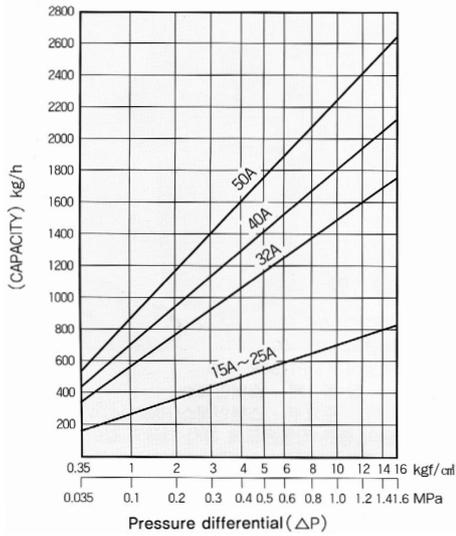
|                     |  |
|---------------------|--|
| Material            | BODY : DUCTILE IRON<br>TRIM : STAINLESS STEEL              |
| Working Pressure    | MAX. 16kgf/cm <sup>2</sup><br>MIN. 0.35kgf/cm <sup>2</sup> |
| Working Temperature | MAX. 220℃  |
| Connection          | PT screwed   |



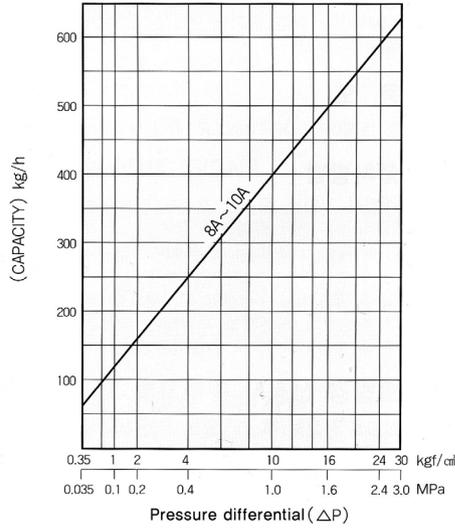
| Size | L   | H1 | H   | d(PT)   |
|------|-----|----|-----|---------|
| 15A  | 100 | 58 | 150 | PT 1/2" |
| 20A  | 110 | 58 | 150 | PT 3/4" |
| 25A  | 110 | 60 | 150 | PT 1    |

# CAPACITY TABLE

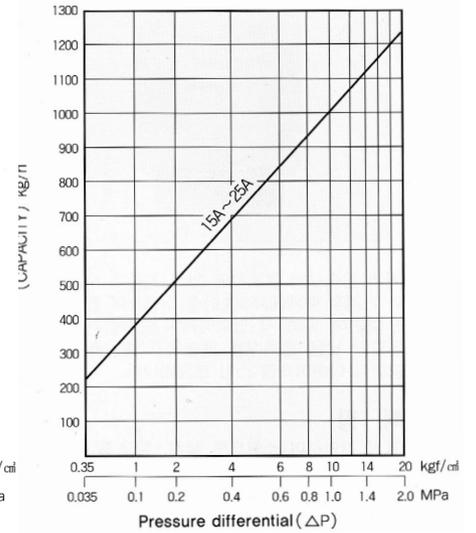
TDC-1S / TDC-1F



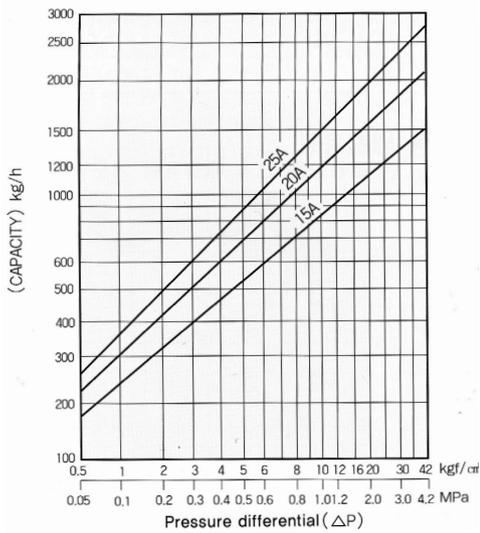
TDC-3S(8A-10A)



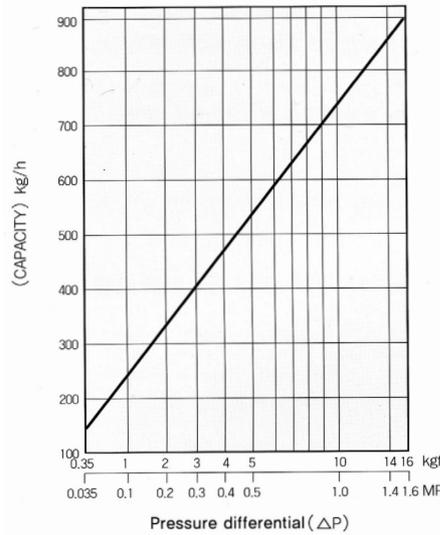
TDC-3S / TDC-3F(15A-25A)



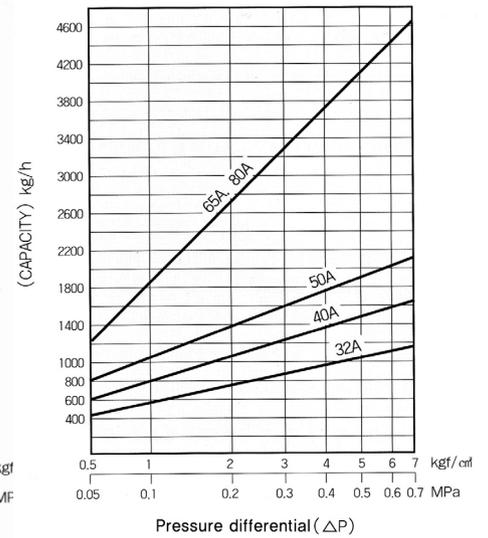
TDC-4S / TDC-4F



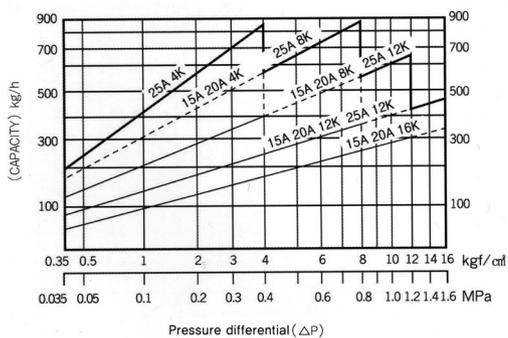
TBP-1S



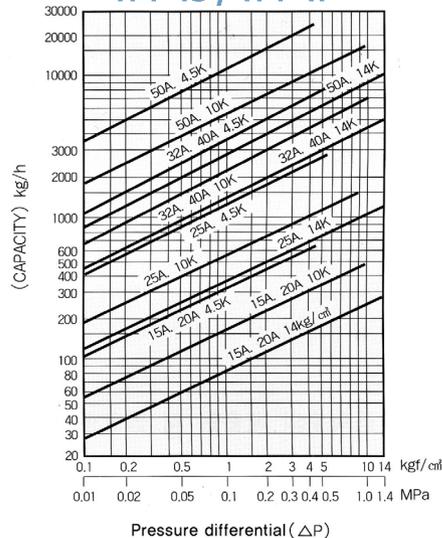
TBK-1F



TBK-1S



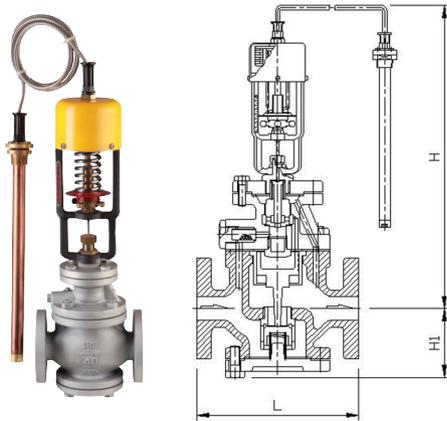
TFT-1S / TFT-1F



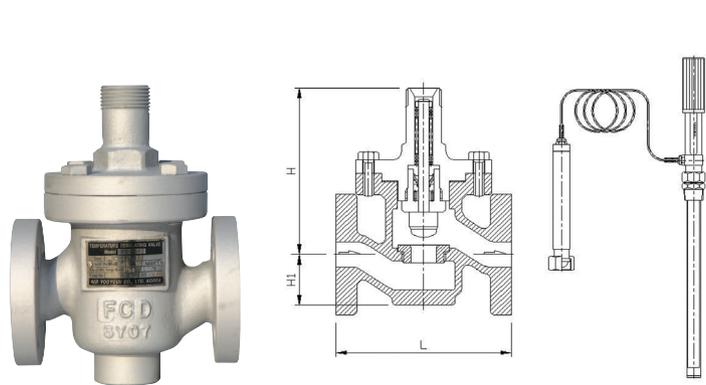
# TEMP. REGULATING VALVE

|                       | YTR-1F                     |   | YTR-2F                             |
|-----------------------|----------------------------|---|------------------------------------|
| Body                  | DUCTILE IRON               | I | CAST STEEL / DUCTILE IRON / BRONZE |
| Trim                  | STAINLESS STEEL            |   |                                    |
| Sensor                | COPPER TUBE                |   |                                    |
| Working Pressure      | MAX. 10kgf/cm <sup>2</sup> | I | MAX. 10kgf/cm <sup>2</sup>         |
| Working Temperature   | MAX. 220℃                  |   |                                    |
| Capillary tube Length | 2M / 3M                    | I | 3M / 5M                            |
| Temperature Range     | 60~80℃ / MAX 120℃          | I | 50~110℃ / MAX 160℃                 |

## YTR-1F



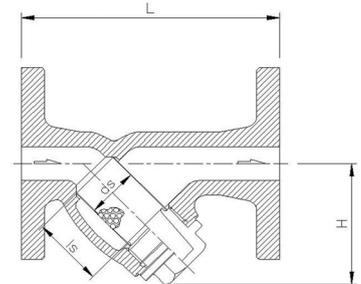
## YTR-2F



|        | Size | L   | H1  | H   |
|--------|------|-----|-----|-----|
| YTR-1F | 15A  | 165 | 75  | 270 |
|        | 20A  | 165 | 75  | 270 |
|        | 25A  | 170 | 75  | 270 |
|        | 32A  | 200 | 85  | 275 |
|        | 40A  | 200 | 85  | 275 |
|        | 50A  | 220 | 92  | 283 |
|        | 65A  | 250 | 110 | 310 |
|        | 80A  | 290 | 130 | 350 |
|        | 100A | 320 | 150 | 370 |
| YTR-2F | 15A  | 140 | 65  | 140 |
|        | 20A  | 140 | 65  | 140 |
|        | 25A  | 150 | 70  | 140 |
|        | 32A  | 190 | 138 | 212 |
|        | 40A  | 190 | 138 | 212 |

## ○ STY-1F

|                     |  |
|---------------------|--|
| Body                | CAST IRON<br>DUCTILE IRON / CAST STEEL / BRONZE        |
| Trim                | STAINLESS STEEL  |
| Working Pressure    | MAX. 10kg/cm <sup>2</sup><br>MAX. 16kg/cm <sup>2</sup> |
| Working Temperature | MAX. 220°C   |
| Connection          | JIS 10K FF Flange                                      |



### CAST IRON

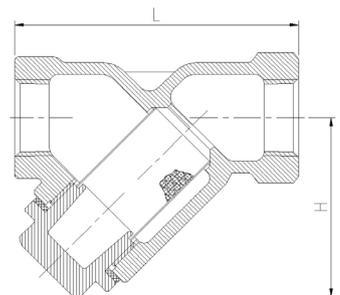
| Size | L   | H   |
|------|-----|-----|
| 15A  | 125 | 60  |
| 20A  | 140 | 75  |
| 25A  | 165 | 85  |
| 32A  | 178 | 95  |
| 40A  | 195 | 105 |
| 50A  | 220 | 115 |
| 65A  | 285 | 160 |
| 80A  | 305 | 190 |
| 100A | 360 | 275 |

### DUCTILE IRON / CAST STEEL / BRONZE

| Size | L   | H   |
|------|-----|-----|
| 15A  | 125 | 60  |
| 20A  | 130 | 75  |
| 25A  | 165 | 85  |
| 32A  | 170 | 95  |
| 40A  | 170 | 105 |
| 50A  | 240 | 115 |
| 65A  | 260 | 160 |
| 80A  | 290 | 190 |
| 100A | 350 | 220 |

## ○ STY-1S

|                     | STY-1S                    | STY-S           |
|---------------------|---------------------------|-----------------|
| Body                | BRONZE                    | STAINLESS STEEL |
| Trim                | STAINLESS STEEL           |                 |
| Working Pressure    | MAX. 10kg/cm <sup>2</sup> |                 |
| Working Temperature | MAX. 120°C                |                 |
| Connection          | PT screwed                |                 |



### STY-1S (BRONZE)

| Size | L   | H   |
|------|-----|-----|
| 15A  | 75  | 50  |
| 20A  | 85  | 60  |
| 25A  | 105 | 75  |
| 32A  | 115 | 82  |
| 40A  | 135 | 95  |
| 50A  | 145 | 105 |

### STY-S (STAINLESS STEEL)

| Size | L   | H  |
|------|-----|----|
| 15A  | 59  | 42 |
| 20A  | 74  | 52 |
| 25A  | 83  | 58 |
| 32A  | 103 | 65 |
| 40A  | 107 | 73 |
| 50A  | 124 | 85 |

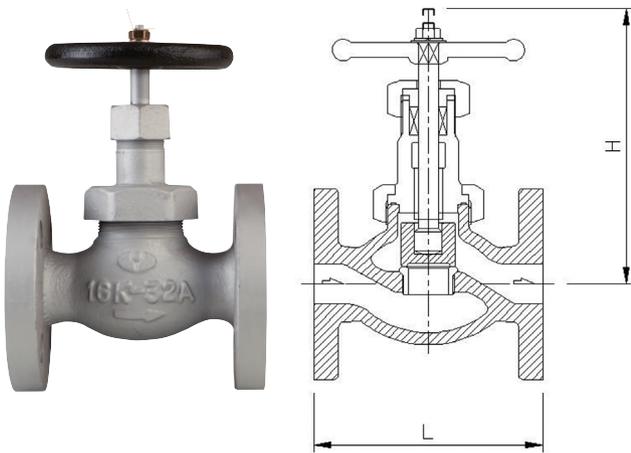
# GLOBE VALVE ANGLE VALVE

|                     | YGL-1F                     | YAN-1F     |
|---------------------|----------------------------|------------|
| Body                | DUCTILE IRON               |            |
| Trim                | STAINLESS STEEL            |            |
| Type                | GLOBE TYPE                 | ANGLE TYPE |
| Working Pressure    | MAX. 16kgf/cm <sup>2</sup> |            |
| Working Temperature | MAX. 220°C                 |            |
| Connection          | JIS 16K FF Flange          |            |

## Features

- They are widely used in industry to regulate fluid flow in both on/off and throttling service
- Globe and Angle valves are suitable for throttling as well as shut-off

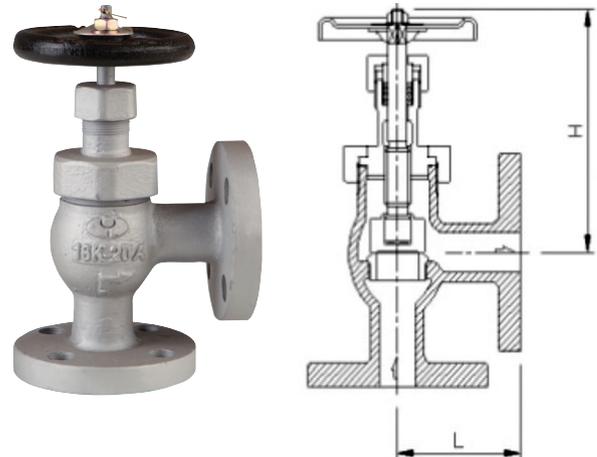
### YGL-1F



### YGL-1F

| Size | L   | H   |
|------|-----|-----|
| 15A  | 110 | 135 |
| 20A  | 120 | 145 |
| 25A  | 130 | 165 |
| 32A  | 160 | 180 |
| 40A  | 180 | 195 |
| 50A  | 205 | 225 |

### YAN-1F



### YAN-1F

| Size | L   | H   |
|------|-----|-----|
| 15A  | 70  | 135 |
| 20A  | 75  | 145 |
| 25A  | 85  | 165 |
| 32A  | 95  | 180 |
| 40A  | 100 | 195 |

# SIGHT CHECK SIGHT GLASS

7

|                     | YSC-1S                       |   | YSG-1S          |            | YSG-1F |
|---------------------|------------------------------|---|-----------------|------------|--------|
| Body                | CAST BRONZE                  | I | DUCTILE IRON    |            |        |
| Trim                | COPPER, STAINLESS STEEL      | I | STAINLESS STEEL |            |        |
| Working Pressure    | MAX. 10kgf/cm <sup>2</sup>   |   |                 |            |        |
| Working Temperature | MAX. 150°C                   |   |                 |            |        |
| Type                | BALL TYPE                    | I | FLAPPER TYPE    |            |        |
| Fluid               | WATER / AIR / STEAM / LIQUID |   |                 |            |        |
| Connection          | PT screwed                   |   | I               | JIS 10K FF |        |

## YSC-1S

| Size | L  | H   | d(PT)   |
|------|----|-----|---------|
| 15A  | 80 | 95  | PT 1/2" |
| 20A  | 80 | 95  | PT 3/4" |
| 25A  | 80 | 100 | PT 1"   |

## YSG-1S

| Size | L   | H   | d(PT)     |
|------|-----|-----|-----------|
| 15A  | 95  | 85  | PT 1/2"   |
| 20A  | 95  | 85  | PT 3/4"   |
| 25A  | 100 | 85  | PT 1"     |
| 32A  | 155 | 113 | PT 1-1/4" |
| 40A  | 155 | 113 | PT 1-1/2" |
| 50A  | 161 | 128 | PT 2"     |

## YSG-1F

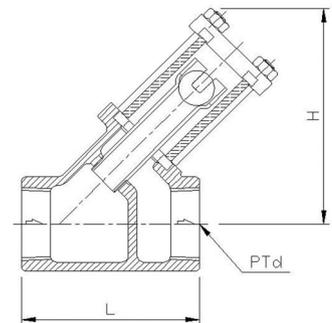
| Size | L   | H   |
|------|-----|-----|
| 15A  | 150 | 95  |
| 20A  | 150 | 100 |
| 25A  | 170 | 125 |
| 32A  | 200 | 135 |
| 40A  | 200 | 140 |
| 50A  | 220 | 155 |

## Features

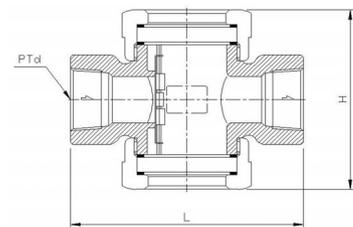
- It is device to be used visually to check the flow condition at the both side through the transparent inside
- The oscillating amount of the flapper responding to flux is to depend upon the flow condition enough to check easily



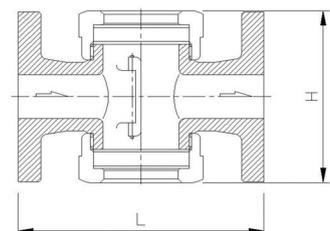
YSC-1S



YSG-1S

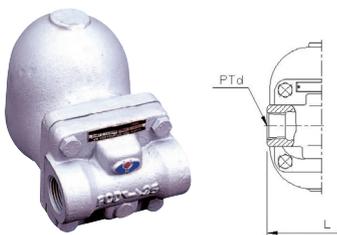


YSG-1F

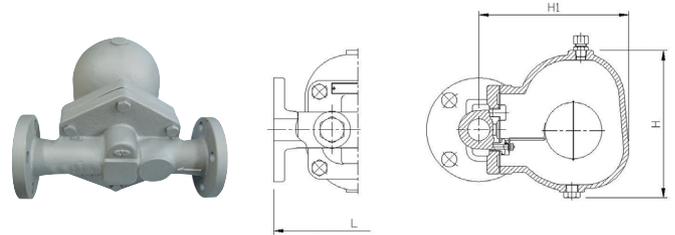


|                     | TAT-1S                     | TAT-1F | TAT-3F                     |
|---------------------|----------------------------|--------|----------------------------|
| Body                | DUCTILE IRON               | I      | CAST STEEL                 |
| Trim                | STAINLESS STEEL            |        |                            |
| Working Pressure    | MAX. 10kgf/cm <sup>2</sup> | I      | MAX. 30kgf/cm <sup>2</sup> |
| Working Temperature | MAX. 100°C                 |        |                            |
| Connection          | PT screwed                 | I      | JIS 10K FF                 |
|                     |                            | I      | JIS 30K RF                 |

### ○ TAT-1S



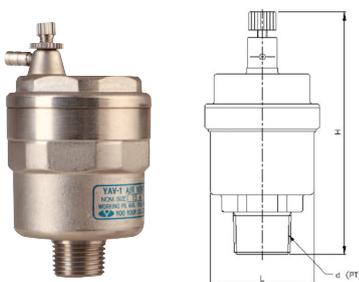
### ○ TAT-1F / 3F



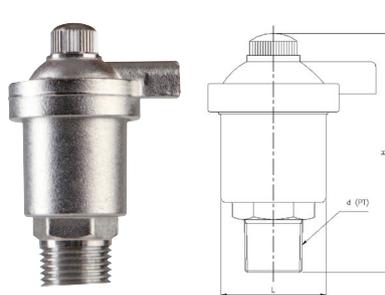
|        | Size | L   | H2  | H1  | d(PT) |
|--------|------|-----|-----|-----|-------|
| TAT-1S | 15A  | 120 | 155 | 120 | PT ½" |
|        | 20A  | 120 | 155 | 120 | PT ¾" |
|        | 25A  | 120 | 155 | 120 | PT 1" |
| TAT-1F | 15A  | 200 | 190 | 185 | 15    |
|        | 20A  | 200 | 190 | 185 | 20    |
|        | 25A  | 215 | 190 | 185 | 25    |
| TAT-3F | 15A  | 205 | 190 | 185 | 15    |
|        | 20A  | 205 | 190 | 185 | 20    |
|        | 25A  | 220 | 190 | 185 | 25    |

|                     | YAV-1S                     | YSV-1S     | YAV-1F                     |
|---------------------|----------------------------|------------|----------------------------|
| Body                | BRASS                      |            | DUCTILE IRON               |
| Trim                | NBR                        | WAX        | STAINLESS STEEL            |
| Working Pressure    | MAX. 10kgf/cm <sup>2</sup> |            | MAX. 16kgf/cm <sup>2</sup> |
| Working Temperature | MAX. 80°C                  | MAX. 220°C | MAX. 220°C                 |
| Connection          | PT screwed                 |            | JIS 16K FF                 |
| Fluid               | WATER                      | STEAM      | OIL / Liquide              |

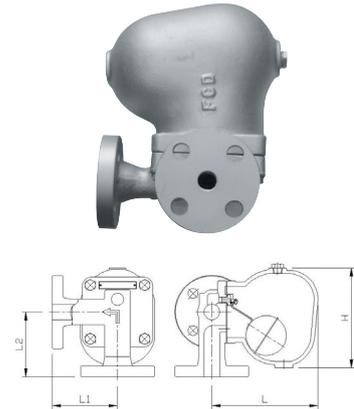
## YAV-1S



## YSV-1S

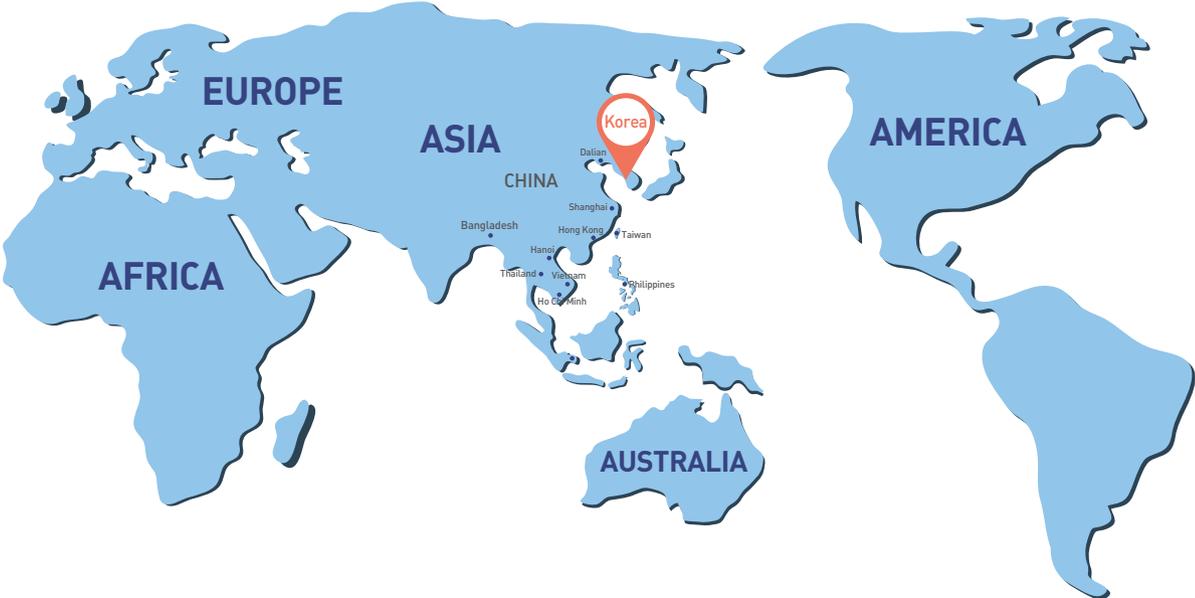


## YAV-1F



|        | Size | L   | H   | d(PT)   |
|--------|------|-----|-----|---------|
| YAV-1S | 15A  | 80  | 95  | PT 1/2" |
|        | 20A  | 80  | 95  | PT 3/4" |
| YSV-1S | 15A  | 30  | 75  | PT 1/2" |
| YAV-1F | 15A  | 220 | 185 | 15      |
|        | 20A  | 220 | 185 | 20      |
|        | 25A  | 220 | 185 | 25      |

# GLOBAL NETWORK



## Overseas

### \_Europe & The Middle East & Africa



# SUPPLY RECORDS

○ Export  
\_Asia



IMAE MACHINERY AND EQUIPMENT INDUSTRIAL JSC



台灣國際造船股份有限公司  
CSBC CORPORATION, TAIWAN



OVERALL SYSTEM



PETROLIMEX



COSCO GROUP

## Product List

1. SAFETY RELIEF VALVE
2. PRESSURE REDUCING VALVE
3. PRIMARY REGULATING VALVE
4. STEAM TRAP
5. TEMP. REGULATING VALVE
6. Y-STRAINER
7. ETC.
  - GLOBE VALVE/ANGLE VALVE
  - SIGHT GLASS/SIGHT CHECK
  - AIR VENT/AIR TRAP



Best of Best  
**YOYOOUN CO., LTD.**

HEAD OFFICE / FACTORY (47033) 441, Hasinbeonyeong-ro, Sasang-gu, Busan, Korea

Tel +82-51-302-3393 Fax +82-51-302-3305

E-mail [yyn@yooyoun.co.kr](mailto:yyn@yooyoun.co.kr)

Homepage [www.yooyoun.co.kr](http://www.yooyoun.co.kr)