



CASH VALVE MODEL C600 CRYOGENIC RELIEF VALVE

A pressure relief valve for industrial gas service at temperatures down to -320°F (-196°C)



FEATURES

- All valves are cleaned and packaged for oxygen service.
- Bubble tight to 95% of set pressure.
- Color coded labels for ease of set pressure identification.
- PTFE and fluorosilicone seat materials provide leak free performance and longer cycle life.
- Reseat pressure greater than 75% of set pressure.
- Pipe away adapter available.
- Tamper resistant adjustment screw.
- Repeatable performance.
- 100% factory tested.

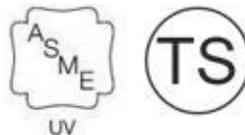
GENERAL APPLICATION

The C600 protects piping, storage tanks and process equipment used in the distribution of industrial gases against damage caused by liquefied gas expansion.

TECHNICAL DATA

| | |
|--------------------|---------------------------------------|
| Material: | |
| Body | Brass |
| Seat | PTFE or Fluorosilicone |
| Spring | Stainless steel |
| Sizes: | 1/4", 3/8", 1/2" |
| Connections: | Threaded NPT and SAE-6 |
| Pressure range: | 15 to 600 psig (1.1 to 41.3 barg) |
| Temperature range: | -320° to +200°F (-196° to +93.3°C) |

Code:



CASH VALVE MODEL C600 CRYOGENIC RELIEF VALVE

SPECIFICATIONS

PARTS AND MATERIALS

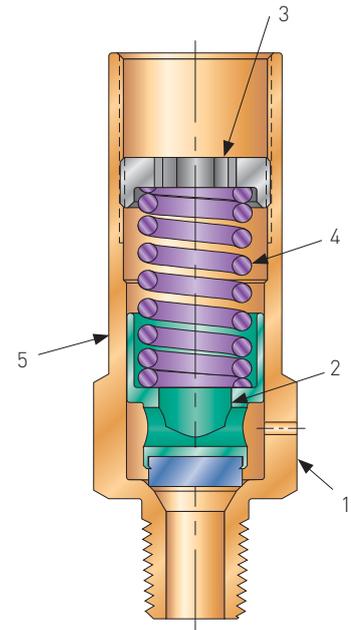
| Item | Description | Material |
|------|-----------------|--------------------------|
| 1 | Body | BRS ASMT B16 |
| 2 | Piston sub | BRS ASMT B16 / PTFE |
| 3 | Adjusting screw | BRS ASMT B16 |
| 4 | Spring | SST ASTM A313-302 / 17-7 |
| 5 | Label | Polyester |

SIZES (in)

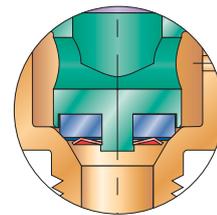
| Valve size | Height | Wrenching hex | Orifice size |
|------------|--------|---------------|--------------|
| 1/4 | 2.83 | 7/8 | 0.29 |
| 3/8 | 2.83 | 7/8 | 0.29 |
| 1/2 | 3.00 | 7/8 | 0.29 |

LABEL CODES

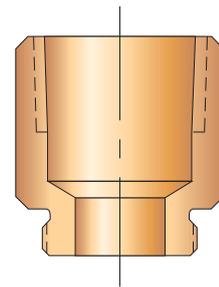
| Psi | Bar | Color |
|-----|------|-------------|
| 22 | 1.5 | Yellow |
| 35 | 2.4 | Purple |
| 50 | 3.4 | White |
| 100 | 6.9 | Gray |
| 125 | 8.6 | Green |
| 150 | 10.3 | Red |
| 230 | 15.9 | Blue |
| 250 | 17.2 | Light blue |
| 350 | 24.1 | Orange |
| 400 | 27.6 | Black |
| 450 | 31.0 | Pink |
| 500 | 34.5 | Light green |



PTFE SEAT



OPTIONAL FLUOROSILICONE SEAT



OUTLET PIPE ADAPTER
 Variation 02: 3/8 NPT connection
 Variation 03: 1/2 NPT connection

CASH VALVE MODEL C600 CRYOGENIC RELIEF VALVE

CAPACITIES

SERVICE: ASME SECTION VIII AIR, ENGLISH, (SCFM) SLOPE = 0.792 SCFM/PSIA

| Set press. (psig) | Capacity (SCFM) |
|-------------------|-----------------|-------------------|-----------------|-------------------|-----------------|-------------------|-----------------|
| 15 | 26 | 100 | 99 | 270 | 247 | 440 | 395 |
| 20 | 30 | 110 | 107 | 280 | 256 | 450 | 404 |
| 25 | 34 | 120 | 116 | 290 | 264 | 460 | 412 |
| 30 | 38 | 130 | 125 | 300 | 273 | 470 | 421 |
| 35 | 42 | 140 | 134 | 310 | 282 | 480 | 430 |
| 40 | 46 | 150 | 142 | 320 | 290 | 490 | 439 |
| 45 | 51 | 160 | 151 | 330 | 299 | 500 | 447 |
| 50 | 55 | 170 | 160 | 340 | 308 | 510 | 456 |
| 55 | 60 | 180 | 168 | 350 | 317 | 520 | 465 |
| 60 | 64 | 190 | 177 | 360 | 325 | 530 | 473 |
| 65 | 68 | 200 | 186 | 370 | 334 | 540 | 482 |
| 70 | 73 | 210 | 195 | 380 | 343 | 550 | 491 |
| 75 | 77 | 220 | 203 | 390 | 351 | 560 | 500 |
| 80 | 81 | 230 | 212 | 400 | 360 | 570 | 508 |
| 85 | 86 | 240 | 221 | 410 | 369 | 580 | 517 |
| 90 | 90 | 250 | 229 | 420 | 378 | 590 | 526 |
| 95 | 94 | 260 | 238 | 430 | 386 | 600 | 534 |

SERVICE: ASME SECTION VIII AIR, METRIC, (Nm³/hr) SLOPE = 17.05 (Nm³/hr)/BARA

| Set press. (barg) | Capacity (Nm ³ /hr) | Set press. (barg) | Capacity (Nm ³ /hr) | Set press. (barg) | Capacity (Nm ³ /hr) | Set press. (barg) | Capacity (Nm ³ /hr) |
|-------------------|--------------------------------|-------------------|--------------------------------|-------------------|--------------------------------|-------------------|--------------------------------|
| 1.1 | 40 | 7.5 | 158 | 18 | 355 | 31 | 599 |
| 1.5 | 46 | 8 | 167 | 19 | 374 | 32 | 617 |
| 2 | 55 | 8.5 | 177 | 20 | 392 | 33 | 636 |
| 2.5 | 64 | 9 | 186 | 21 | 411 | 34 | 655 |
| 3 | 74 | 9.5 | 195 | 22 | 430 | 35 | 674 |
| 3.5 | 83 | 10 | 205 | 23 | 449 | 36 | 692 |
| 4 | 92 | 11 | 224 | 24 | 467 | 37 | 711 |
| 4.5 | 102 | 12 | 242 | 25 | 486 | 38 | 730 |
| 5 | 111 | 13 | 261 | 26 | 505 | 39 | 749 |
| 5.5 | 120 | 14 | 280 | 27 | 524 | 40 | 767 |
| 6 | 130 | 15 | 299 | 28 | 542 | 41 | 786 |
| 6.5 | 139 | 16 | 317 | 29 | 561 | 41.3 | 792 |
| 7 | 149 | 17 | 336 | 30 | 580 | | |

CASH VALVE MODEL C600 CRYOGENIC RELIEF VALVE

CAPACITIES

SELECTION GUIDE

| | | | | | | | | | |
|-------------------------|--|----------|----------|----------|----------|----------|-----------|----------|----------|
| Example: | C600 | M | A | B | T | - | 01 | K | 1 |
| Model | | | | | | | | | |
| C600 | Safety valve | | | | | | | | |
| Connection | | | | | | | | | |
| M | Male NPT | | | | | | | | |
| S | Male SAE | | | | | | | | |
| Connection size | | | | | | | | | |
| A | 1/4" | | | | | | | | |
| B | 3/8" | | | | | | | | |
| C | 1/2" | | | | | | | | |
| D | 3/16" (SAE only) | | | | | | | | |
| Orifice size | | | | | | | | | |
| B | [0.066 in ²] | | | | | | | | |
| Seat material | | | | | | | | | |
| T | PTFE (90 - 600 psig only) | | | | | | | | |
| F | Fluorosilicone (FVMQ) (15 - 140 psig only) | | | | | | | | |
| Design variation | | | | | | | | | |
| (-) | Indicates original design | | | | | | | | |
| Variation | | | | | | | | | |
| 01 | Standard version | | | | | | | | |
| 02 | With pipe adapter 3/8" NPT | | | | | | | | |
| 03 | With pipe adapter 1/2" NPT | | | | | | | | |
| Service | | | | | | | | | |
| K | Air/gas ASME Section VIII (PTFE seat only) | | | | | | | | |
| N | Non-code air/gas | | | | | | | | |
| Spring range | Refer to table below | | | | | | | | |

STANDARD SPRING RANGES (psig)

| Seat Material | Spring Material | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---------------|-----------------|---------|---------|----------|-----------|-----------|-----------|-----------|
| F - FVMQ | SST | 15 - 45 | 46 - 89 | 90 - 135 | 136 - 140 | ---- | ---- | ---- |
| T - PTFE | | ---- | ---- | | 136 - 235 | 236 - 350 | 351 - 500 | 501 - 600 |

Note:

Please specify the required set point on your order.

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