

# Ball Valve

CBV valves are typically used in commercial CO<sub>2</sub> refrigeration applications in order to open and to shut off inner flow path by operating the valve stem. The ball valve of series CBV is applicable for subcritical CO<sub>2</sub> refrigeration systems and is a perfect choice for all similar CO<sub>2</sub> systems.



## FEATURES

- STRAIGHTWAY TYPE, FULL PORT, LOW PRESSURE DROP, COST-EFFECTIVE
- VALVE BODY AND VALVE SEAT WITH WELDED STRUCTURE, WITH HIGH PRODUCT RELIABILITY
- ROTATE ¼ CIRCLES FROM FULL-OPEN TO FULL-CLOSE, EASY TO OPERATE
- BIDIRECTIONAL FLOW<sup>1)</sup>
- ROTATION STOP FOR FULL-OPEN AND FULL-CLOSE OF THE VALVE AVAILABLE
- SPECIAL SEALING MATERIALS TO PREVENT INTERNAL LEAKAGE

**Note:** 1) CBV valves fulfill internal tightness requirements of the standard EN12284, paragraph 9.6.3 in both flow directions.  
Installations with shut off function to the atmosphere: Please install the solder connection "B" at the airside. Please see solder connection "A" and "B" at the dimensional drawing page 3.  
Remark: Welding body junction is always at solder connection "A"

## GENERAL SPECIFICATION

- Applicable for R744 (CO<sub>2</sub>)
- Medium temperature TS min./max.:  
-40°C/+150°C
- Max. operating pressure PS: 6,0 MPa (60bar)
- Installation position: liquid, suction and discharge line in all directions
- Certification: PED declaration.



**GENERAL CHARACTERISTICS**

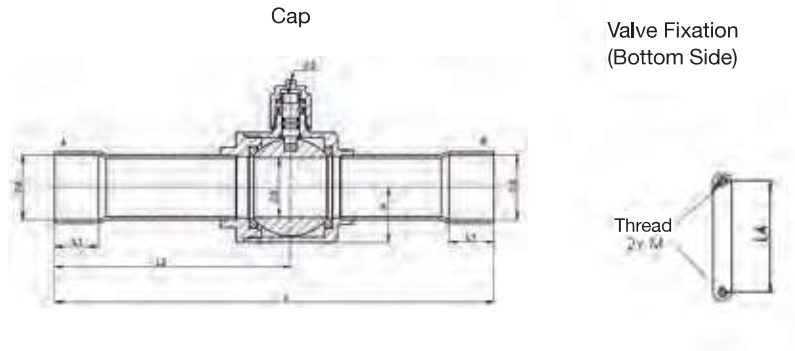
| Model     | Part Number* <sup>1)</sup> | Connection<br>Ø d<br>ODF |      | Kv                  | Wrench<br>Size<br>Cap | PED<br>Category |
|-----------|----------------------------|--------------------------|------|---------------------|-----------------------|-----------------|
|           |                            | [inch]                   | [mm] | [m <sup>3</sup> /h] | [mm]                  |                 |
| CBV02-002 | 10150074202                | -                        | 6    | 1,9                 | H14                   | 4.3             |
| CBV02-001 | 10150074102                | 1/4                      | -    | 1,9                 | H14                   | 4.3             |
| CBV03-001 | 10150074302                | 3/8                      | -    | 5,5                 | H14                   | 4.3             |
| CBV03-002 | 10150074402                | -                        | 10   | 5,5                 | H14                   | 4.3             |
| CBV04-002 | 10150074602                | -                        | 12   | 10,2                | H14                   | 4.3             |
| CBV04-001 | 10150074502                | 1/2                      | -    | 10,2                | H14                   | 4.3             |
| CBV05-001 | 10150074702                | 5/8                      | 16   | 13,8                | H14                   | 4.3             |
| CBV06-002 | 10150074902                | -                        | 18   | 19,5                | H17                   | 4.3             |
| CBV06-001 | 10150074802                | 3/4                      | -    | 19,5                | H17                   | 4.3             |
| CBV07-001 | 10150063002                | 7/8                      | 22   | 28,0                | H17                   | 4.3             |
| CBV09-002 | 10150075002                | -                        | 28   | 51,5                | H17                   | 4.3             |
| CBV09-001 | 10150062902                | 1 1/8                    | -    | 51,5                | H17                   | 4.3             |
| CBV11-001 | 10150075102                | 1 3/8                    | 35   | 80,0                | H17                   | I               |
| CBV13-002 | 10150062802                | 1 5/8                    | -    | 119,8               | H17                   | I               |
| CBV13-003 | 10150075202                | -                        | 42   | 119,8               | H17                   | I               |
| CBV17-001 | 10150075302                | 2 1/8                    | 54   | 225,0               | H19                   | I               |

**Note:** \* Available also as industrial package. Contact Sanhua for more details.

1) Extent of delivery: valve body and standard cap



**DIMENSIONS & WEIGHT**



| Model     | Part Number | L   | L1 | L2  | L4 | D  | H  | M        | Weight |
|-----------|-------------|-----|----|-----|----|----|----|----------|--------|
| CBV02-002 | 10150074202 | 132 | 8  | 68  | 22 | 14 | 16 | M4 x 0,7 | 0,28   |
| CBV02-001 | 10150074102 | 132 | 8  | 68  | 22 | 14 | 16 | M4 x 0,7 | 0,28   |
| CBV03-001 | 10150074302 | 132 | 8  | 68  | 22 | 14 | 16 | M4 x 0,7 | 0,29   |
| CBV03-002 | 10150074402 | 132 | 8  | 68  | 22 | 14 | 16 | M4 x 0,7 | 0,29   |
| CBV04-002 | 10150074602 | 160 | 10 | 85  | 22 | 14 | 16 | M4 x 0,7 | 0,30   |
| CBV04-001 | 10150074502 | 160 | 10 | 85  | 22 | 14 | 16 | M4 x 0,7 | 0,30   |
| CBV05-001 | 10150074702 | 160 | 12 | 85  | 22 | 14 | 16 | M4 x 0,7 | 0,30   |
| CBV06-002 | 10150074902 | 185 | 14 | 99  | 30 | 19 | 20 | M4 x 0,7 | 0,51   |
| CBV06-001 | 10150074802 | 185 | 14 | 99  | 30 | 19 | 20 | M4 x 0,7 | 0,51   |
| CBV07-001 | 10150063002 | 185 | 17 | 99  | 30 | 19 | 20 | M4 x 0,7 | 0,52   |
| CBV09-002 | 10150075002 | 208 | 20 | 112 | 38 | 25 | 25 | M4 x 0,7 | 0,73   |
| CBV09-001 | 10150062902 | 208 | 20 | 112 | 38 | 25 | 25 | M4 x 0,7 | 0,73   |
| CBV11-001 | 10150075102 | 251 | 25 | 136 | 48 | 32 | 31 | M6 x 1,0 | 1,42   |
| CBV13-002 | 10150062802 | 281 | 29 | 151 | 55 | 38 | 35 | M6 x 1,0 | 1,90   |
| CBV13-003 | 10150075202 | 281 | 29 | 151 | 55 | 38 | 35 | M6 x 1,0 | 1,90   |
| CBV17-001 | 10150075302 | 305 | 34 | 167 | 74 | 50 | 46 | M6 x 1,0 | 3,74   |

\* Available also as industrial package. Contact Sanhua for more details.