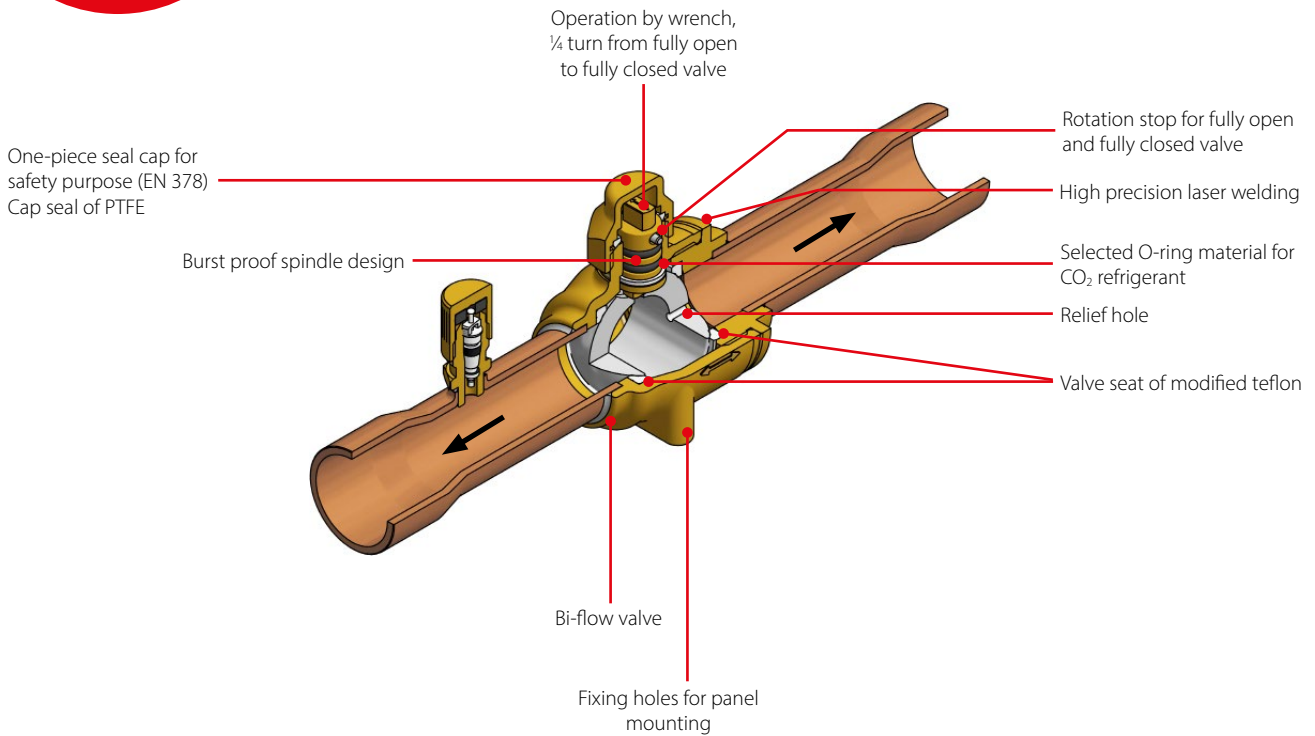
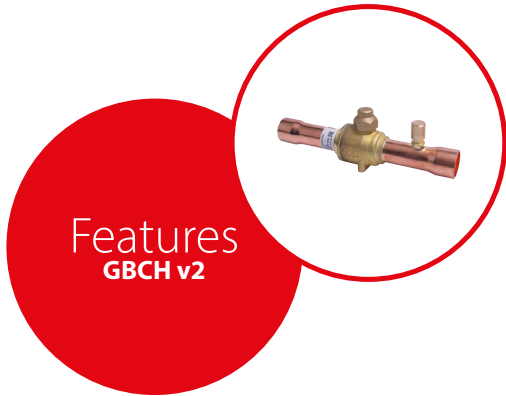


# GBCH version 2, Shut-off ball valve for R744 (CO<sub>2</sub>) high pressure

Danfoss shut-off ball valves, type GBCH v2 for CO<sub>2</sub> high pressure are manually operated shut-off valves. The valves are specifically designed for intrinsic standstill security, meaning that the valves can withstand pressures normally arising when the refrigeration system is shut off, i.e. during servicing or during unexpected power failure.

The valves are approved for use in all parts of the system with pressure ratings lower than the below stated Maximum Working Pressure, typically the liquid, suction, gas-bypass, lines.



## Facts

### Application:

- The valves can be used for applications in liquid, suction lines in refrigeration and air-conditioning systems
- Applicable to R744 (CO<sub>2</sub>)
- ¼ turn from fully open to fully closed
- Rotation stops at fully open and fully closed positions
- Indicator on spindle top shows degree of opening
- Precision laser welded construction
- Burst-proof spindle design
- Valve seal of low friction, tight-sealing modified PTFE Teflon®
- Selected O-ring material for CO<sub>2</sub> refrigerant
- Double O-ring stem seal design
- Customized brass material ensures consistent performance under aggressive environment
- Advanced design ensures trusted bi-flow function
- Drilled and tapped for panel mounting
- Relief hole design to release entrapped liquid
- Temperature range  
-40 – 100 °C / -40 – 212 °F
- Max. working pressure (PS / MWP)  
GBCH 6s - 28s : 90 bar / 1305 psig  
GBCH 35s - 42s : 75 bar / 1085 psig
- Flow direction: Bi-flow
- Approval: CE, UL, EAC

# Technical data and ordering

## GBCH v2 without access port, solder ODF/ODF, copper connections



### Ordering

Type	Solder ODF / ODF connection		Max. working pressure PS / MWP		K <sub>v</sub> value <sup>1)</sup> [m <sup>3</sup> /h]	C <sub>v</sub> value <sup>1)</sup> [gal/min]	Code no.
	[in]	[mm]	[bar]	[psig]			
GBCH 6s	¼	–	90	1305	1.78	2.06	009L7415
	–	6	90	1305	1.78	2.06	009L7395
GBCH 10s	¾	–	90	1305	6.31	7.29	009L7416
	–	10	90	1305	6.31	7.29	009L7396
GBCH 12s	½	–	90	1305	12.8	14.8	009L7417
	–	12	90	1305	12.8	14.8	009L7397
GBCH 16s	¾	16	90	1305	11.7	13.6	009L7418
GBCH 18s	¾	–	90	1305	31.0	35.9	009L7419
	–	18	90	1305	31.0	35.9	009L7399
GBCH 22s	¾	22	90	1305	24.4	28.2	009L7420

<sup>1)</sup> Calculation based on fluid dynamic equations

## GBCH v2 with access port, solder ODF/ODF, copper connections



### Ordering

Type	Solder ODF / ODF connection		Max. working pressure PS / MWP		K <sub>v</sub> value <sup>1)</sup> [m <sup>3</sup> /h]	C <sub>v</sub> value <sup>1)</sup> [gal/min]	Code no.
	[in]	[mm]	[bar]	[psig]			
GBCH 6s	¼	–	90	1305	1.78	2.06	009L7581
	–	6	90	1305	1.78	2.06	009L7580
GBCH 10s	¾	–	90	1305	6.31	7.29	009L7582
	–	10	90	1305	6.31	7.29	009L7583
GBCH 12s	½	–	90	1305	12.8	14.8	009L7585
	–	12	90	1305	12.8	14.8	009L7584
GBCH 16s	¾	16	90	1305	11.7	13.6	009L7586
GBCH 18s	¾	–	90	1305	31.0	35.9	009L7588
	–	18	90	1305	31.0	35.9	009L7587
GBCH 22s	¾	22	90	1305	24.4	28.2	009L7589

<sup>1)</sup> Calculation based on fluid dynamic equations

## GBCH v2 without access port, butt weld, stainless steel connections

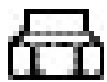


### Ordering

Type	Solder ODF / ODF connection	Max. working pressure PS / MWP		K <sub>v</sub> value <sup>1)</sup> [m <sup>3</sup> /h]	C <sub>v</sub> value <sup>1)</sup> [gal/min]	Code no.
	[mm]	[bar]	[psig]			
GBC 28s	28	90	1305	96	111	009L7406
GBC 35s	35	75	1085	106	123	009L7410
GBC 42s	42	75	1085	150	174	009L7411

<sup>1)</sup> Calculation based on fluid dynamic equations

## Spare parts - Seal cap kit



### Ordering

Type	Valve connection size		Industrial pack	Code no.
	[in]	[mm]		
GBC 6s - 22s	¼ - ¾	6 - 22	6	009L7210
GBC 28s - 35s	1 ½ - 1 ¾	28 - 35	4	009L7211
GBC 42s	1 ¾	42	4	009L7212

## Spare parts - Bracket kit



### Ordering

Type	Valve connection size		Industrial pack	Code no.
	[in]	[mm]		
GBC 6s - 16s	¼ - ¾	6 - 16	12	009G7084
GBC 18s - 22s	¾ - ¾	18 - 22	12	009G7085
GBC 28s	1 ½	28	10	009G7086
GBC 35s	1 ¾	35	5	009G7087
GBC 42s	1 ¾	42	4	009G7088