

Installation guide

## Shut-off ball valve

Type GBCT 6s to GBCT 54s

Refrigerant: R744 (CO2)

Temperature range (TS):  $-40 \,^{\circ}\text{C} - 149 \,^{\circ}\text{C} / -40 \,^{\circ}\text{F} - 300 \,^{\circ}\text{F}$ Max. working pressure (PS/MWP):  $140 \,^{\circ}\text{bar} / 2031 \,^{\circ}\text{psig}$ 

#### **CAUTION - RISK OF HIGH PRESSURE**

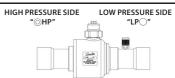
This component shall be installed along with a pressure relief valve set to discharge at no higher than the rated pressure of this component. This component is intended for systems in which the critical pressure of the refrigerant will be exceeded. The relief valve shall comply with the requirements of ASME Section VIII, be marked "UV" and sized based on the refrigeration system capacity.

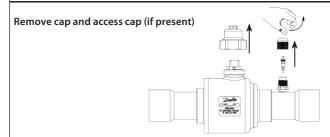
**Warning:** Applicable to all common non-flammable refrigerants, excluding R717 and to noncorrosive gases/liquids dependent on sealing material compatibility.

The design pressure shall not be less than the value outlined in Section 9.2 of ANSI/ ASHRAE 15 for the refrigerant used in the system. Only authorized persons are allowed to operate this valve, as closing can cause build-up of excessive pressure in the system. For the application use with R744 as part of a secondary loop or cascade system should refer to the datasheet for more attentions.



Danfoss recommends that valves are installed so that the HP side is oriented towards the highest pressure side of the system when the valve is in the closed position.



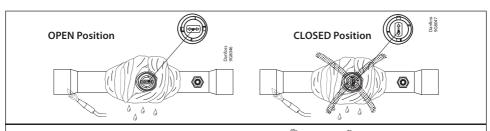


#### Opening valve



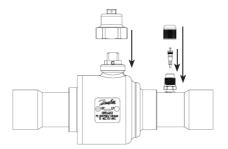
Valve size	Max. Operating Torque		
	Nm	ft-lbs	
6s - 16s	5	4	
18s - 22s	7	5	
28s	9	7	
35s	11	8	
42s	15	11	
54s	34	25	





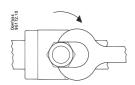


### Install valve core (if present) and cap



Install valve core with approx. torque 0.3 Nm / 0.2 ft-lbs

### Tighten cap



# Tighten the cap with approx. torque

Valve size	Recommended Torque		
	Nm	ft-lbs	
6s - 16s	4-5	3-4	
18s - 22s	7-8	5-6	
28s - 42s	18-20	13-15	
54s	54-61	40-45	



