Castel®
Italian technology

# Ball valves
# 6570-6571

# Applications

The ball valves, shown in this chapter, are classified "Pressure accessories" in the sense of the Pressure Equipment Directive 97/23/EC, Article 1, Section 2.1.4 and are subject of Article 3, Section 1.3 of the same Directive. They are designed for installation on commercial refrigerating systems and on civil and industrial conditioning plants, which use the following refrigerant fluids: R22, R134a, R404A, R407C, R410A, R507. For specific applications with refrigerant fluids not listed above, always proper to the Group II, please contact Castel Technical Department. Ball valves series 6570, 6571 are approved by Underwriters Laboratories Inc. of the United States according to UL 207 Standard.

# Constructions

### The specific design of Castel ball valves:

- Ensures the internal equilibrium of pressures when the valve is closed.
- Permits the bi-directional flow of the refrigerant and, consequently, the assembly on the plant without taking into account the direction of the refrigerant.
- Prevents any risk of ejection or explosion of the spindle.

The laser welding of the body and the seal gasket, assembled on the spindle, prevent any leaks.
The opening and closing of the valve is realized by turning the spindle one fourth of a turn. A standstill in turning realizes either a full opening or a full closing, moreover the arrow printed on the spindle head shows the flow direction.

### Ball valves are available in the following two types:

- Type 6570 (full port) and type 6571 (reduced port) without access fitting.
- Type 6570/A (full port) with access fitting. These ball valves are equipped with valve core 8394/A and blind nut 7020/20.

### The main parts of the valves are made with the following materials:

- Hot forged brass EN 12420 – CW 617N for body and cap that cover the spindle.
- Hot forged brass EN 12420 – CW 617N for ball.
- Copper tube EN 12735-1 – Cu-DHP for solder connections.
- Steel, with proper surface protection, for the spindle.
- Chloroprene rubber (CR) for outlet seal gaskets.
- P.T.F.E. for seat ball gaskets.

# Installation

The ball valves can be installed in any section of a refrigerating system, where it is necessary to intercept the refrigerating flow. The following tables show the main functional characteristics of a ball valve:

- PS
- TS
- Kv factor
- Ball port diameter

# General Characteristics

| | Catalogue Number | | Connections | | Ball Port Ø [mm] | Kv Factor [m³/h] | PED Directive | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | without access fitting | with access fitting | ODS | | | | TS [°C] | | PS [bar] | Risk Category |
| | | | Ø [in.] | Ø [mm] | | | min. | max. | | |
| SERIES 6570 6571 | 6570/M6 | 6570/M6A | – | 6 | 10 | 0,8 | -40 | +150 | 45 | Art. 3.3 |
| | 6570/2 | 6570/2A | 1/4" | – | | | | | | |
| | 6570/3 | 6570/3A | 3/8" | – | | 3 | | | | |
| | 6570/M10 | 6570/M10A | – | 10 | | | | | | |
| | 6570/M12 | 6570/M12A | – | 12 | | 5 | | | | |
| | 6570/4 | 6570/4A | 1/2" | – | | | | | | |
| | 6570/M15 | 6570/M15A | – | 15 | 15 | 17 | | | | |
| | 6570/5 | 6570/5A | 5/8" | 16 | | | | | | |
| | 6570/M18 | 6570/M18A | – | 18 | | | | | | |
| | 6570/6 | 6570/6A | 3/4" | – | | | | | | |
| | 6570/7 | 6570/7A | 7/8" | 22 | 19 | 29 | | | | |
| | 6570/M28 | 6570/M28A | – | 28 | 25 | 51 | | | | |
| | 6570/9 | 6570/9A | 1.1/8" | – | | | | | | |
| | 6571/5 | – | 5/8" | 16 | 10 | 5 | -40 | +150 | 45 | Art. 3.3 |
| | 6571/7 | | 7/8" | 22 | 15 | 17 | | | | |
| | 6571/M28 | | – | 28 | 19 | 29 | | | | |
| | 6571/9 | | 1.1/8" | – | | | | | | |
| | 6571/11 | | 1.3/8" | 35 | 25 | 51 | | | | |

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Castel has always been aware of environmental sustainability issues and gives its contribution to a cleaner environment, supplying the refrigeration and air conditioning industry with state-of-the-art and environment-friendly technology. With its commitment and steady research in its laboratories, Castel has developed a whole range of products using natural refrigerants, which reduce emissions to the minimum.

ISO 14001



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