

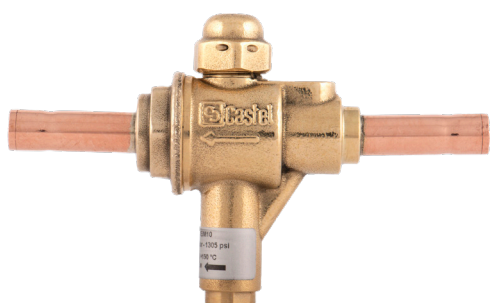
BALL VALVES WITH INTEGRAL BYPASS RELIEF 6531E

FOR REFRIGERATION APPLICATIONS
THAT USE TRANSCRITICAL **R744 REFRIGERANT**



CASTEL: GREEN EXTREME

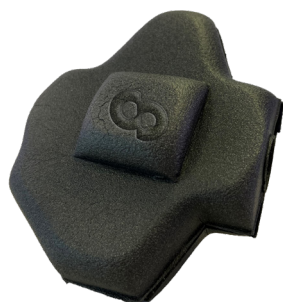
Sustainability is part of the responsibilities of each one of us. Castel meets this need by developing cutting-edge products for CO₂ systems and hi-tech solutions that reduce environmental impact, both directly and indirectly.



6531E/7



6531E/5A



Protective Cover

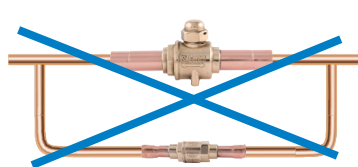
Features

Castel proposes a new wide range of Ball Valves with Integral Bypass series 6531E, for CO₂ transcritical and subcritical systems with a maximum working pressure up to 90 bar. The New Ball Valves series 6531E allow the refrigerant to flow only in one direction. They can be installed in all lines where it is necessary to discharge eventually overpressure during maintenance.

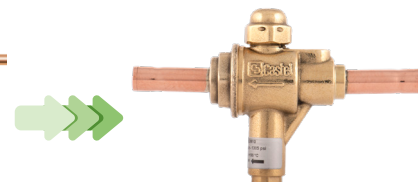
Benefits

The 6531E Valve allows protection of system parts from excessive refrigerant overpressure, eliminating the need for complex and costly brazing and parallel joining operations. Compact design simplifies installation.

- Protects the system from overpressure during maintenance
- Easy to install, thanks to a compact design
- Reduces the leakage risk: two functions in one component
- Brass cap designed for the installation of the tamper proof seal
- Steel spindle design prevents any risk of ejection

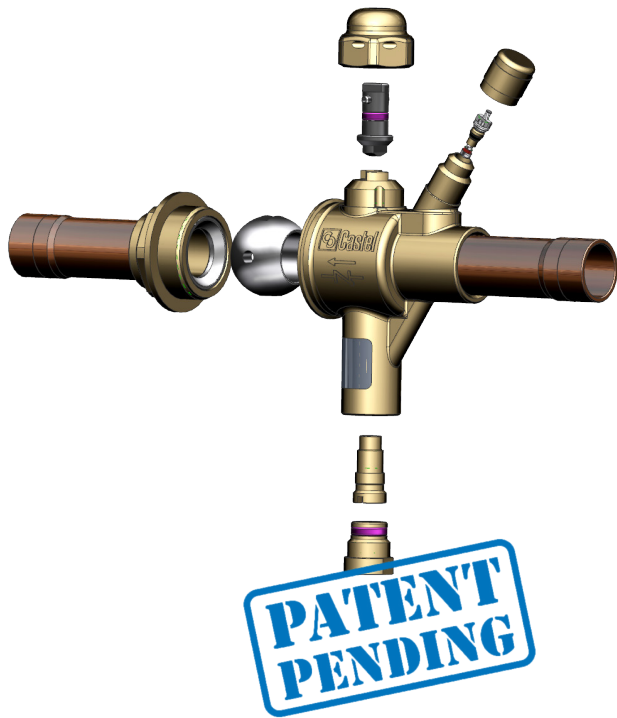


Standard installation



Castel new solution

By incorporating the use of a check valve, there is a significant reduction in the number of brazings, leading to material cost savings, increased productivity and a reduced risk of leaks.



Construction

Body and Cover: Hot forged brass EN 12420 – CW 617N

Connections: Reinforced copper tube for solder connections sizes 3/8" to 1.1/8"



100% FACTORY HELIUM TESTED TO ENSURE PERFORMANCE WITHOUT LOSSES



FULL SIZE PORTS GUARANTEE LOW PRESSURE DROP



MAXIMUM WORKING PRESSURE PS 90 BAR



WORKING TEMPERATURE TS -40/+150°C

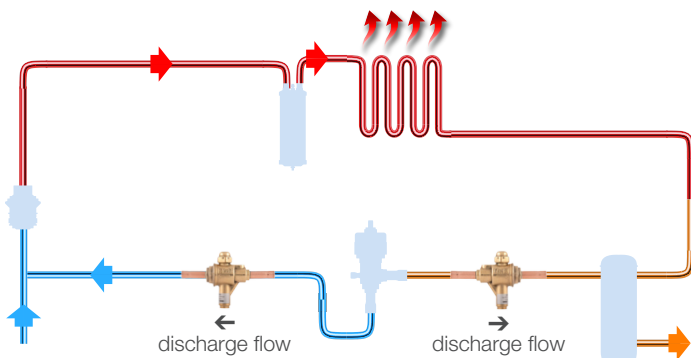


REINFORCED COPPER CONNECTIONS FROM 3/8" TO 1. 1/8"

Examples of installation

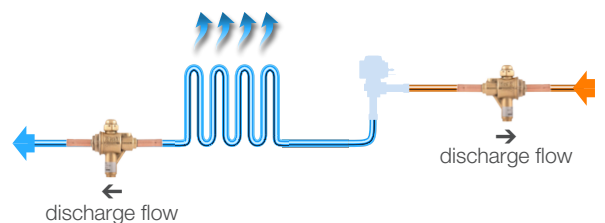
Flash gas line installation

The new Ball Valve 6531E with integral bypass relief can be installed in flash gas line to discharge eventually overpressure during the maintenance of flash gas valve.



Evaporation installation

The Ball Valve isolates the evaporator while the integral bypass relief allows the reverse passage of the refrigerant in the event of overpressure in the evaporator itself.




BALL VALVES WITH BYPASS, COPPER ODS CONNECTIONS - APPROVED BY UNDERWRITERS LABORATORIES INC.


Drawing	Part number	Connections		Ball port Ø [mm]	Kv [m ³ /h]	PS [bar]	MWP [psi] (1)	TS [°C]		Package pcs
		ODS						min.	max.	
		Ø [in.]	Ø [mm]							
	6531E/3	NEW	3/8"	-	3	90	1305	-40	+150	24
	6531E/M10		-	10						
	6531E/M12		-	12	17					
	6531E/4		1/2"	-						
	6531E/5		5/8"	16						
	6531E/6		3/4"	-	8					
	6531E/7		7/8"	22						
	6531E/9		1.1/8"	-						

(1): according to UL approval

Bypass MinOPD = 0,1bar

Bypass Kv = 0,14m³/h
BALL VALVES WITH BYPASS, WITH COPPER ODS CONNECTIONS, WITH ACCESS FITTING - APPROVED BY UNDERWRITERS LABORATORIES INC.


Drawing	Part number	Connections		Ball port Ø [mm]	Kv [m ³ /h]	PS [bar]	MWP [psi] (1)	TS [°C]		Package pcs	
		ODS						min.	max.		
		Ø [in.]	Ø [mm]								
	6531E/3A	NEW	3/8"	-	3	90	1305	-40	+150	24	
	6531E/M10A		-	10							5
	6531E/M12A		-	12	17						
	6531E/4A		1/2"	-							19
	6531E/5A		5/8"	16	8						
	6531E/6A		3/4"	-							
	6531E/7A		7/8"	22							
	6531E/9A		1.1/8"	-							

(1): according to UL approval

Bypass MinOPD = 0,1bar

Bypass Kv = 0,14m³/h
BALL VALVES WITH BYPASS - COVERS

Drawing	Part number	For ball valves	Package Pcs.
	9902/X01	6531E/3 6531E/3A 6531E/M10 6531E/M10A 6531E/M12 6531E/M12A 6531E/4 6531E/4A 6531E/5 6531E/5A	1
	9902/X02	6531E/7 6531E/7A 6531E/9 6531E/9A	

GO GREEN

R744 • NATURAL REFRIGERANT



ISO 14001

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. The large range of products belonging to the Castel "GoGreen" line has been developed to be used in CO₂ (R744) filled systems.

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