

3-WAY BALL VALVES



SHAPE OF TECHNOLOGY

Refrigeration and air conditioning is a fast-developing field where today's players need to be dynamic and competitive more than before. This is why Castel focuses on developing products with ever-improving performance, to be at your side in new applications and areas of use.

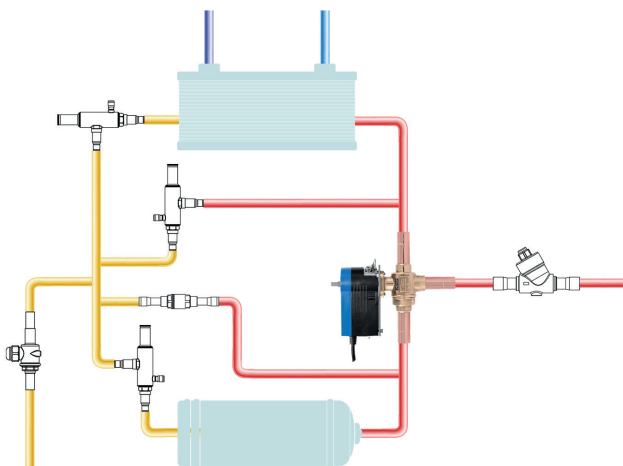
INCREASING REFRIGERATION PERFORMANCE IS NOW POSSIBLE USING CASTEL 3-WAY BALL VALVES

Future-proof 3-way ball valve

Castel offers an innovative product as an alternative to current market solution. Valves are designed to operate in low environmental impact fluid systems and recommended in all those installations where the focus on being environmentally friendly is the basis of the design.

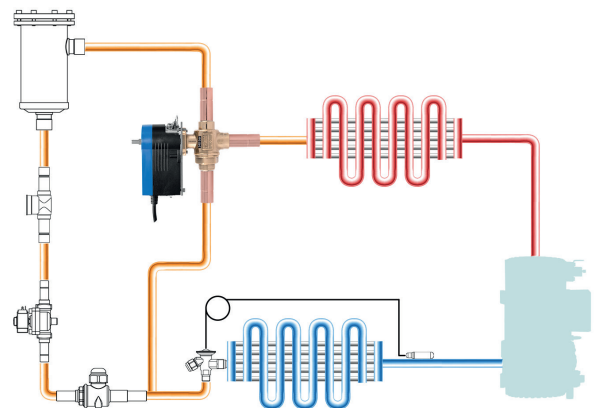
Improve Energy Efficiency with Heat Recovery

Having sensitivity for the environment also means optimizing power consumption and recovering heat.



Simplify Maintenance when Replacing the Filter

Using a 3-way valve on the filter section allows you to keep the system running when replacing the filter itself. It also allows economic savings by replacing the installation of two 2-way valves.



Optimize Control System with Proportional Flow Control

The 3-way ball valve allows the system to control the flow of the fluid, redirecting it in the most precise way without adding too high pressure drops. These enhanced ball valves deliver controllable flow characteristics from the nearly closed to the fully open position of the valve.



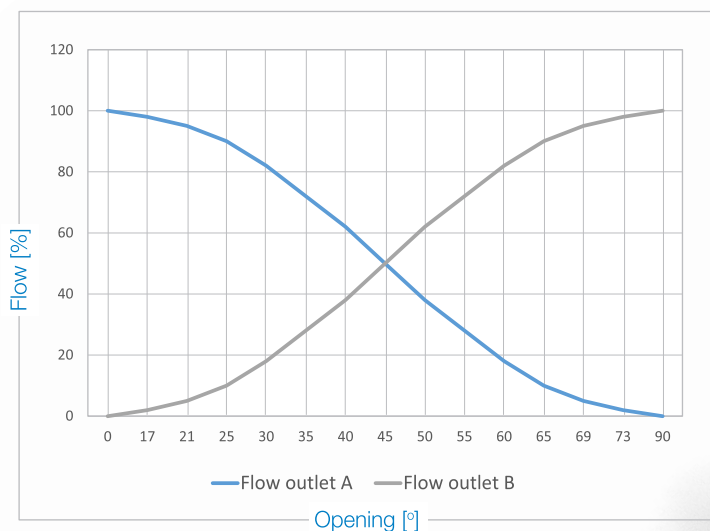
66 Series
O-Shaped



67 Series
V-Shaped



Flow Capacity vs Rotation



Easy and Complete Valve Selection

Catalogue has been organized according to the customer application, selectable between manual valves, motorized valves with CASTEL actuators and pre-set valves to be applied with multi-brand actuators.

FOLLOW F-GAS FOR A SAFER WORLD

F-GAS evolution has an impact on the design of refrigeration installations. CASTEL follows this trend by extending the valve range and its compatibility with refrigerants. Valves can be applied with CO₂ (GoGreen line), HC/HFC/HFO (Polyhedra line), and with glycol water where a secondary water circuit is used to distribute the energy in the plant.

CASTEL is engaged to limit the impact on the environment by following directives about hazardous and chemical substances. Possibility is also given to sell the valves on different continents by applying international and regional standards.


3-WAY MOTORIZED VALVES WITH 24VAC/DC CASTEL ACTUATOR (ON-OFF/MODULATING)

Catalogue Number					Connections		Ball Port Ø [mm]	Kv Factor [m³/h]	TS [°C]	
Classic PS = 45 bar	PolyHedra PS = 50 bar	GoGreen PS = 80 bar	GoGreen PS = 130 bar	GoGreen PS = 140 bar	ODS				min.	max.
					Ø [in.]	Ø [mm]				
6690M/3A2	6690NM/3A2	6690EM/3A2	6697EM/3A2		3/8"	-	13,5	4,6	-40	+150
6690M/M10A2	6690NM/M10A2	6690EM/M10A2		6698EM/M10A2	-	10				
6690M/M12A2	6690NM/M12A2	6690EM/M12A2		6698EM/M12A2	-	12				
6690M/4A2	6690NM/4A2	6690EM/4A2	6697EM/4A2		1/2"	-				
6690M/5A2	6690NM/5A2	6690EM/5A2	6697EM/5A2	6698EM/M16A2	5/8"	16				
6690M/M18A2	6690NM/M18A2	6690EM/M18A2		6698EM/M18A2	-	18				
6690M/6A2	6690NM/6A2	6690EM/6A2	6697EM/6A2		3/4"	-				
6690M/7A2	6690NM/7A2	6690EM/7A2	6697EM/7A2	6698EM/M22A2	7/8"	22				
6690M/M28A2	6690NM/M28A2	6690EM/M28A2		6698EM/M28A2	-	28				
6690M/9A2	6690NM/9A2	6690EM/9A2	6697EM/9A2		1.1/8"	-				
6690M/11A2	6690NM/11A2	6690EM/11A2	6697EM/11A2	6698EM/M35A2	1.3/8"	35				
6690M/13A2	6690NM/13A2	6690EM/13A2	6697EM/13A2		1.5/8"	-				
6690M/M42A2	6690NM/M42A2	6690EM/M42A2		6698EM/M42A2	-	42				
				6698EM/M60A2	-	60				
6690M/17A2	6690NM/17A2	6690EM/17A2	6697EM/17A2		2.1/8"	-				
6690M/21A2	6690NM/21A2				2.5/8"	-				
6690M/M64A2	6690NM/M64A2				-	64				
				6698EM/M73A2	-	73				

3-WAY VALVES TO BE MOTORIZED (Factory set for multi-brand actuators)

Catalogue Number					Connections		Ball Port Ø [mm]	Kv Factor [m³/h]	TS [°C]	
Classic MWP = 650 psi PS = 45 bar	PolyHedra MWP = 725 psi PS = 50 bar	GoGreen MWP = 1160 psi PS = 80 bar	GoGreen MWP = 1885 psi PS = 130 bar	GoGreen MWP = 2030 psi PS = 140 bar	ODS				min.	max.
					Ø [in.]	Ø [mm]				
6690B/3	6690NB/3	6690EB/3	6697EB/3		3/8"	-	13,5	4,6	-40	+150
6690B/M10	6690NB/M10	6690EB/M10		6698EB/M10	-	10				
6690B/M12	6690NB/M12	6690EB/M12		6698EB/M12	-	12				
6690B/4	6690NB/4	6690EB/4	6697EB/4		1/2"	-				
6690B/5	6690NB/5	6690EB/5	6697EB/5	6698EB/M16	5/8"	16				
6690B/M18	6690NB/M18	6690EB/M18		6698EB/M18	-	18				
6690B/6	6690NB/6	6690EB/6	6697EB/6		3/4"	-				
6690B/7	6690NB/7	6690EB/7	6697EB/7	6698EB/M22	7/8"	22				
6690B/M28	6690NB/M28	6690EB/M28		6698EB/M28	-	28				
6690B/9	6690NB/9	6690EB/9	6697EB/9 *		1.1/8"	-				
6690B/11 *	6690NB/11 *	6690EB/11 *	6697EB/11 *	6698EB/M35 *	1.3/8"	35				
6690B/13 *	6690NB/13 *	6690EB/13 *	6697EB/13 *		1.5/8"	-				
6690B/M42 *	6690NB/M42 *	6690EB/M42 *		6698EB/M42 *	-	42				
				6698EB/M60	-	60				
6690B/17	6690NB/17	6690EB/17	6697EB/17		2.1/8"	-				
6690B/21	6690NB/21				2.5/8"	-				
6690B/M64	6690NB/M64				-	64				
				6698EB/M73	-	73				

* NOT UL APPROVED

NOTE: Valves are also available with 230Vac motor (on-off) or with adaptor to be operated manually. Ordering codes of 230V motorized valves and manual valves can be found in CASTEL general catalogue.

Castel®



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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