Available configurations

Inox-Val	
Radiamont	
Wafer	
Wafer Split	
Split Body	
Split Body, API 608 (on request only)	

VALPRES

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VALPRES

V-ball

BONOMI GROUP

Introduction

V-balls can be used on liquid, gas and steam service and grant an accurate and precise flow control with a rangeability up to 500:1. Main charateristics of Valpres V-ball valves are: bubble tight shut off, easy maintenance/clogging free, quick response (when actuated), compact solutions. Furthermore, a generous stock ensures fast delivery for all sizes, ratings and configurations.

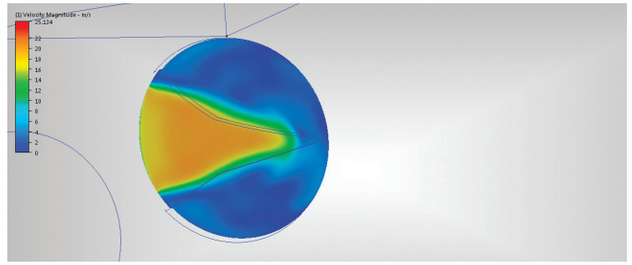
Typically V-balls are used in agriculture, food processing/ biotechnologies, bleach chemicals, water treatment, pulp&paper, HVAC, chemical, power.

Applications:

- Low Pressure steam heating systems [0,5-1Bar].
- Process Steam [3-15Bar] Main incoming lines and auxiliary branch lines.
- Steam reclamation systems.
- Chilled water equipment and systems.
- Hot water.
- Glycol and water mix.
- Water side of air handling apparatus in HVAC systems.
- Natural gas lines.
- Autoclaves.

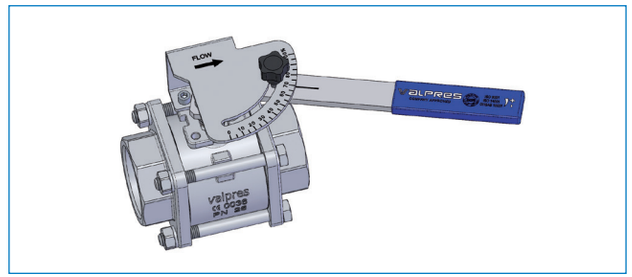
Valpres V-ball design has been validated using finite element analysis software FEA, computational fluid dynamics software CFD and Flow Loop testing.

Flow Loop testing facility



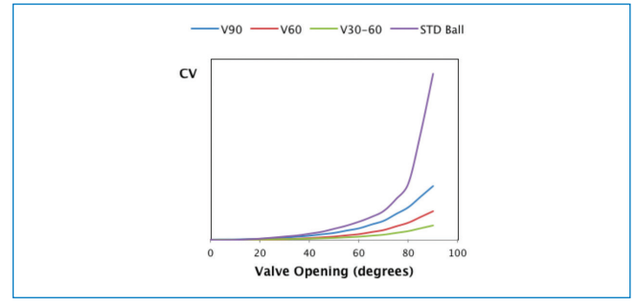
Velocity plot FCD

Produced with 30°-60°, 60°, 90° and customized patterns, V-balls are available with different equal percentage flow characteristic curves (typical Cv curves available upon request or on Valpres main catalogue): as the ball rotates, either using a manual wrench or an actuator, desired flow rates can be achieved by positioning the ball anywhere between 0° and 90°.
They have high flow coefficients (Cv) compared to conventional control valves: a smaller V-ball size can be used to achieve the required flow rate without giving up to high rangeability, avoiding split range installation.
Manual operated valves can be equipped with a large dial for an easy and fast reading of the valve position.



Actuated valves are equipped with Valbia pneumatic actuator, complete with positioner and other instrumentation as required by the specific application.
Valpres V-ball valves have soft seats, bubble tight shut-off and can control or shut-off in both flow directions, therefore additional shut-off valves are not required when using a V-ball valve, which saves the user cost and reduces the number of overall components in the system.
Also, the simple and rugged design of Valpres V-balls makes maintenance an extremely easy and unexpensive task.
Smaller footprint: an advantage of Valpres V-ball valves 1/4 turn rotation is that they may be operated and shut off even at high pressures with smaller actuators than conventional control valves.

This means a smaller overall footprint of valve+actuator and an advantage in terms of weight.



Typical Cv/Kv values

		Opening (Degrees)	90°	
Valve type	Pressure class range	SIZE[inch]	Kv	Cv
V 90 	PN16 - PN100 Class150-600	1/2"	8	10
		3/4"	19	22
		1"	34	39
		1" 1/4	55	64
		1" 1/2	80	93
		2"	147	170
		3"	335	387
		4"	583	675
	PN16 - PN50 150-300#	6"	1274	1473
F_L	-	-	0,50	0,50
X_t	-	-	0,24	0,24
V 60 	PN16 - PN100 Class 150-600	1/2"	5	6
		3/4"	11	12
		1"	19	22
		1" 1/4	31	36
		1" 1/2	49	57
		2"	77	89
		3"	196	227
		4"	307	355
	PN16 - PN50 150-300#	6"	691	799
F_L	-	-	0,50	0,50
X_t	-	-	0,24	0,24
V 30-60 	PN16 - PN100 Class 150-600	1/2"	2	3
		3/4"	5	6
		1"	10	11
		1" 1/4	16	18
		1" 1/2	24	28
		2"	38	44
		3"	96	111
		4"	151	174
	PN16 - PN50 150-300#	6"	339	392
F_L	-	-	0,5	0,5
X_t	-	-	0,24	0,24

Figures valid for series: Inox-val, Radiamont, Wafer and Split Body for the relevant sizes and pressure classes.