

Valvole Sfera  
*Ball Valves*

## Valvola ZVS Sfera

Eccellente prodotto per impieghi dove si richieda un passaggio totale. La valvola Sfera ZVS-VVS di Bardiani Valvole è realizzata sia con comando pneumatico che manuale. Questa valvola rappresenta la soluzione ideale per liquidi altamente viscosi oppure quando si è in presenza di elevate pressioni.

## ZVS Ball valve

*An excellent product for uses requiring a total passage. The ZVS-VVS by Bardiani Valvole is made in both manual and pneumatic models. This valve provides an ideal solution to highly viscous liquids or in high-pressure applications.*



## Dati Tecnici Technical details

### Struttura valvola

La valvola sfera, sia a 2 vie che a 3 vie é composta dal corpo valvola con diversi tipi di attacchi, dalla sfera e da un perno di rotazione.

- attacchi da DN10 a DN100: DIN, SMS, IDF, BS(RJT), ISO, Clamp, Flangia (connessioni diverse a richiesta)
- pressione massima prodotto 2 vie:  
64 bar (928 psi) DN10--20  
40 bar (580 psi) DN25--40  
25 bar (362 psi) DN50--100
- pressione massima prodotto 3 vie:  
40 bar (580 psi) DN10--40  
25 bar (362 psi) DN50--65  
16 bar (232 psi) DN80--100
- temperatura massima prodotto: 160°C (320°F)
- temperatura minima prodotto: -20°C (-4°F)
- materiale a contatto col prodotto: AISI 316L (1.4404)
- materiale guarnizioni a contatto col prodotto: P.T.F.E + FKM
- finitura superficiale a contatto col prodotto: Ra0.8µm (altri tipi di finitura a richiesta).

### Struttura attuatore pneumatico

- attacchi aria 1/8" (BSP)
- pressione aria da 6bar (87 psi) a 8 bar (116 psi)
- materiale AISI 304L (1.4307)
- materiale guarnizioni NBR

### Valve structure

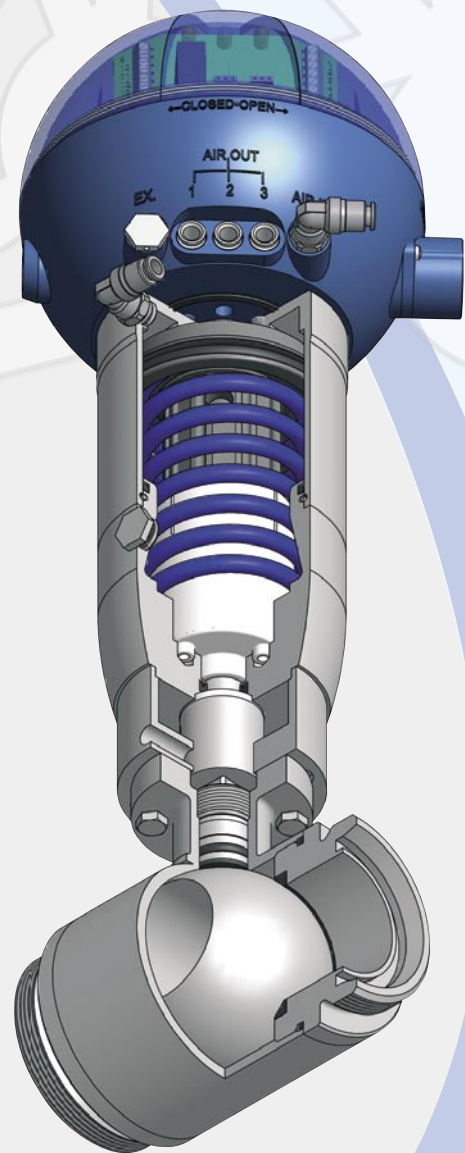
Either 2 or 3 ways ball valves are made of body valve with a variety of end connections, ball and rotation shaft.

- connections from DN10 to DN100: DIN, SMS, IDF, BS(RJT), ISO, Clamp, Flange (different connections upon request)
- max. working pressure 2 ways:  
64 bar (928 psi) DN10--20  
40 bar (580 psi) DN25--40  
25 bar (362 psi) DN50--100
- max. working pressure 3 ways:  
40 bar (580 psi) DN10--40  
25 bar (362 psi) DN50--65  
16 bar (232 psi) DN80--100
- max. product temperature: 160°C (320°F)
- min. product temperature: -20°C (-4°F)
- material in contact with the product: AISI 316L (1.4404)
- gaskets in contact with the product: P.T.F.E + FKM
- finish on surfaces in contact with the product: Ra0.8µm (other types of surface finish upon request).

### Pneumatic actuator specifications

- air connectors 1/8" (BSP)
- air pressure from 6 bar (87 psi) to 8 bar (116 psi)
- material AISI 304L (1.4307)
- gasket material NBR

# MACH



ZVS

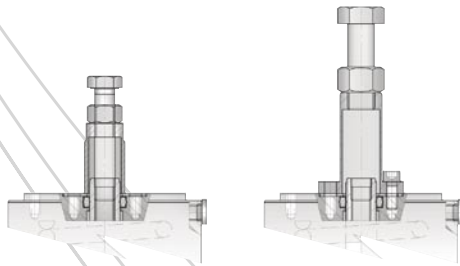


### **Comando manuale**

Affidabile ed estremamente flessibile, la valvola manuale VVS sfrutta tutta la componentistica della valvola ZVS, tranne la parte pneumatica.

### **Hand control**

*Reliable and extremely flexible, the VVS manual valve uses all the parts from the ZVS valve apart from the pneumatic components.*



### **Limitatore di corsa**

Accessorio che consente una escursione meccanicamente regolabile della valvola.

### **Stroke limiter**

*This is an adjustable device, which can limit the length of stroke of an actuator.*

### **Esecuzioni speciali su richiesta**

Ogni accessorio è disponibile su richiesta del cliente per tutti i diametri e tutte le configurazioni corpi valvola. E' inoltre possibile la personalizzazione di attacchi, diametri oppure soluzioni non presenti a catalogo. Bardiani Valvole consiglia di consultare sempre l'ufficio tecnico in fase d'ordine per ulteriori informazioni e studi di fattibilità.

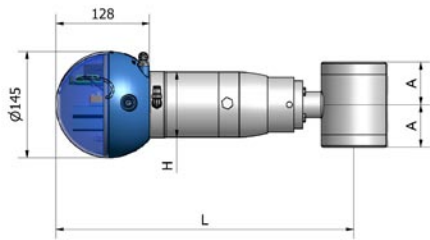
### **Special options and variation on request**

*On request most accessories are available for all sizes of valve and body configurations. Additionally special ports, diameters and other tailor-made solutions are available. Bardiani Valve can also provide technical support, advice and feasibility analysis for other requests.*

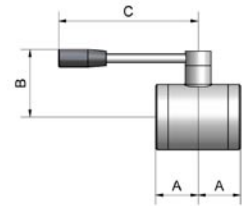
**Dimensioni (mm)**  
**Dimensions (mm)**

**Valvole sfera a 2 vie / Ball Valves at 2 ways**

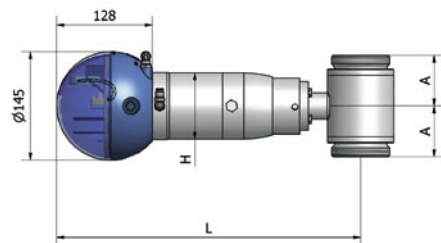
FEMMINA / MALE ISO



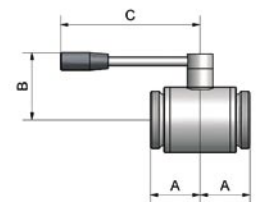
DN	A	B	C	H	L
3/8"	26	50	110	90	371.5
1/2"	31	55	110		374
3/4"	36	60	110		377.5
1"	41	65	160		384
1" 1/4	46	70	160	105	389
1" 1/2	52	80	190		389
1" 1/2	52	80	190		411
2"	58	90	190		419
2" 1/2	64	110	235	168	432
2" 1/2	64	110	235		499
3"	75	130	285		510
4"	89	150	310		527



FEMMINA / MALE DIN

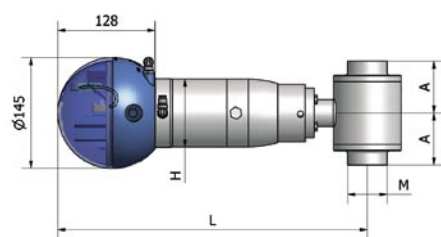


DN	A	B	C	H	L
10	44	50	110	90	371.5
15	46	55	110		374
20	51	60	110		377.5
25	53	65	160		384
32	56	70	160	105	389
40	63	80	190		389
40	63	80	190		411
50	68	90	190		409.5
65	77	110	235	168	432
65	77	110	235		499
80	92	130	285		510
100	95	150	310		527

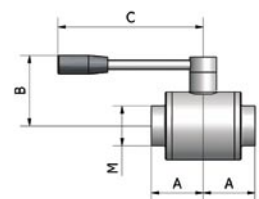


SALDARE / WELDING

S/S DIN  
11850/2



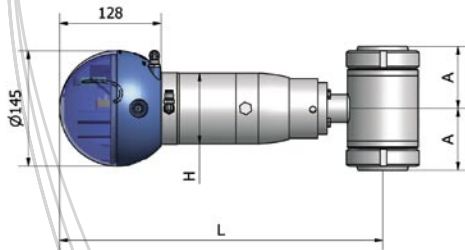
DN	A	B	C	H	L	M	M
10	44	50	110	90	371.5	12x1	13x1.5
15	46	55	110		374	18x1	19x1.5
20	51	60	110		377.5	22x1.5	23x1.5
25	53	65	160		384	28x1.5	29x1.5
32	56	70	160	105	389	34x1.5	35x1.5
40	63	80	190		389	40x1.5	41x1.5
40	63	80	190		411	40x1.5	41x1.5
50	68	90	190		419	52x1.5	53x1.5
65	77	110	235	168	432	70x2	70x2
65	77	110	235		499	70x2	70x2
80	92	130	285		510	85x2	85x2
100	95	150	310		527	101.6x2	104x2



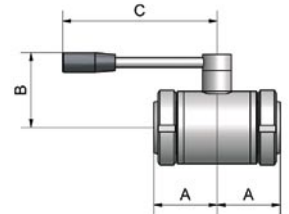
# ZVS

Dimensioni (mm)  
Dimensions (mm)

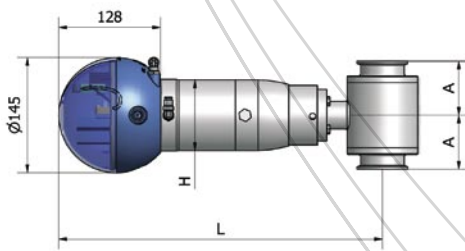
MASCHIO+GIRELLA / LINER+NUT DIN



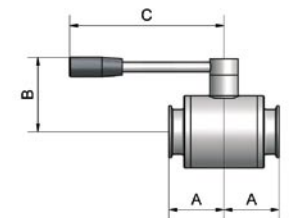
DN	A	B	C	H	L
10	50	50	110	90	371.5
15	52	55	110		374
20	59	60	110		377.5
25	62	65	160		384
32	65	70	160		389
40	72	80	190	105	411
40	72	80	190		419
50	78	90	190		432
65	86	110	235	168	499
65	86	110	235		510
80	97	130	285		527
100	103	150	310		



CLAMP

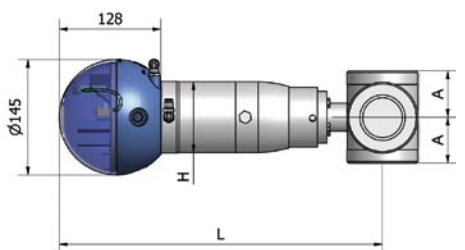


DN	A	B	C	H	L
1/2"	44	50	110	90	374
3/4"	46	55	110		377.5
1"	53	65	160		384
1" 1/2	63	80	190		389
1" 1/2	63	80	190	105	411
2"	68	90	190		419
2" 1/2	77	110	235		432
2" 1/2	77	110	235	168	499
3"	92	130	285		510
4"	95	150	310		527

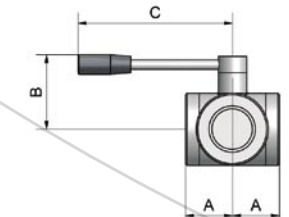


## Valvole sfera a 3 vie / Ball Valves at 3 ways

FEMMINA / MALE ISO

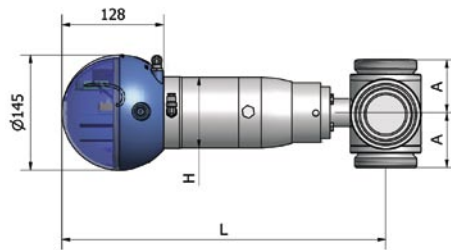


DN	A	B	C	H	L
3/8"	36	60	110	90	377
1/2"	41	65	110		379.5
3/4"	46	70	160		391
1"	51	80	160		393.5
1" 1/4	59	95	160		416.5
1" 1/2	67	110	190	105	416.5
1" 1/2	67	110	190		424
2"	72	120	190		426.5
2" 1/2	80	130	235	168	439
2" 1/2	80	130	285		506
3"	100	145	310		520
4"	120	160	310		538

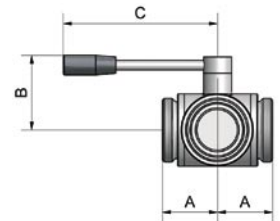


## Dimensioni (mm) Dimensions (mm)

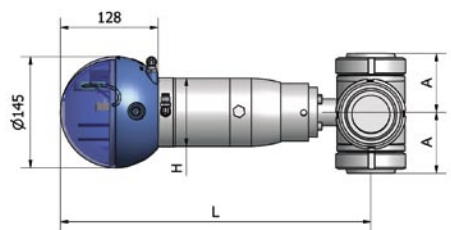
### FEMMINA / MALE DIN



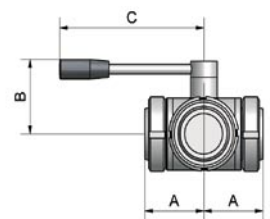
DN	A	B	C	H	L
10	54	60	110	90	377
15	59	65	110		379.5
20	65	70	160		391
25	70	80	160		393.5
32	78	95	190		416.5
40	86	110	190	105	416.5
40	86	110	190		424
50	91	120	235		426.5
65	98	130	285	168	439
65	98	130	285		506
80	128	145	310		520
100	143	160	310	538	



### MASCHIO+GIRELLA / LINER+NUT DIN

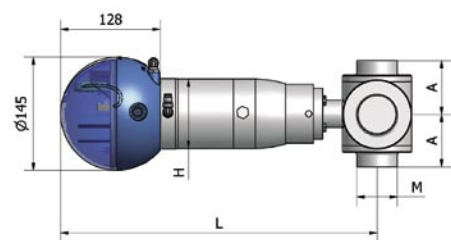


DN	A	B	C	H	L
10	54	50	110	90	377
15	56	55	110		379.5
20	61	60	110		391
25	63	65	160		393.5
32	66	70	160		416.5
40	73	80	190	105	416.5
40	73	80	190		424
50	78	90	190		426.5
65	87	110	235	168	439
65	87	110	235		506
80	102	130	285		520
100	105	150	310	538	

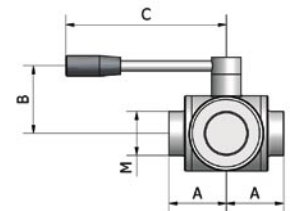


### SALDARE / WELDING

### S/S DIN 11850/2



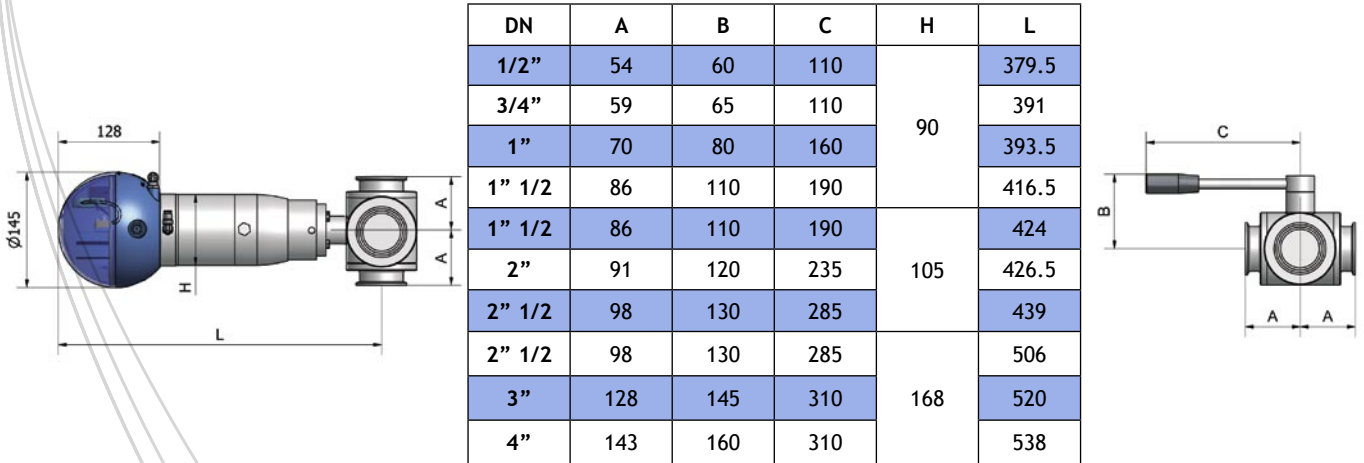
DN	A	B	C	H	L	M	M
10	44	50	110	90	371.5	12x1	13x1.5
15	46	55	110		374	18x1	19x1.5
20	51	60	110		377.5	22x1.5	23x1.5
25	53	65	160		384	28x1.5	29x1.5
32	56	70	160		389	34x1.5	35x1.5
40	63	80	190	105	389	40x1.5	41x1.5
40	63	80	190		411	40x1.5	41x1.5
50	68	90	190		419	52x1.5	53x1.5
65	77	110	235	168	432	70x2	70x2
65	77	110	235		499	70x2	70x2
80	92	130	285		510	85x2	85x2
100	95	150	310	527	101.6x2	104x2	



# ZVS

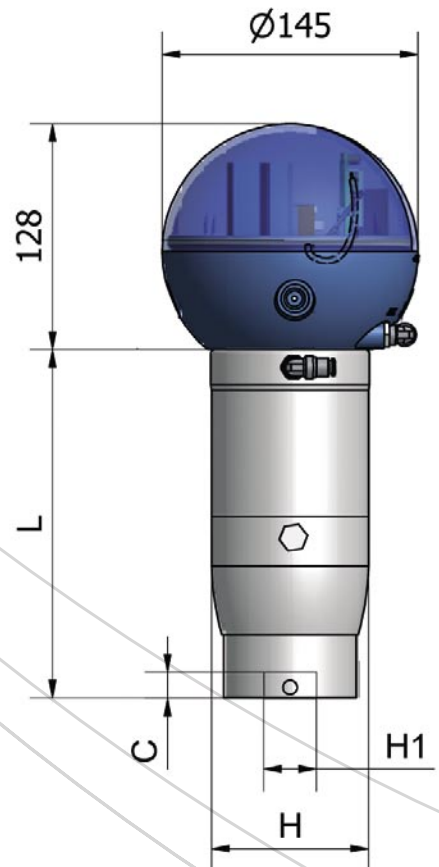
## Dimensioni (mm) Dimensions (mm)

CLAMP

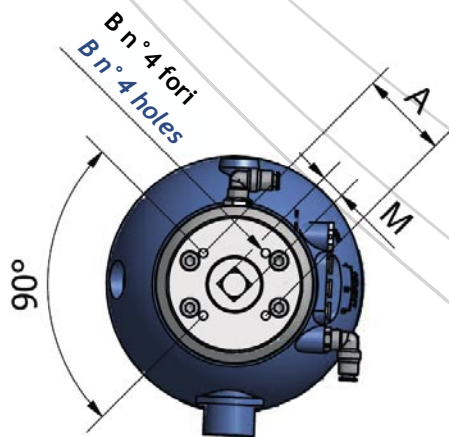


## Dimensioni attuatore pneumatico MACH per valvola Sfera Dimensions of pneumatic actuator MACH for Ball valve

	ATTACCO CONNECTIONS ISO 5211	A	B	C	H	H1	L	M
83 SE - DE	F.03	36	M5	10	90	24	204	9
	F.04	42	M5	10		30	204	11
	F.05	50	M6	16		30	207	14
98 SE - DE	F.05	50	M6	16	105	30	207	14
	F.07	70	M8	16		30	209	17
156 SE - DE	F.07	70	M8	18	168	45	276	17
	F.10	102	M10	19		45	279	22
	F.10	102	M10	19		45	279	22



Legenda/Key	
SE	Semplice Effetto Single acting
DE	Doppio Effetto Double Acting
83 - 98 - 156	Diametro attuatore Actuator diameter





**Pesi (KG)**  
**Weights (KG)**

**Valvola sfera - 2 vie - Manuale**  
*Ball valve - 2 ways - Manual*

DN	F/F	F/F ISO	CLAMP	S/S
25 - 1"	1.3	1.1	1.33	1.1
32	1.55	-	-	1.2
40 - 1" 1/2	2.56	2.33	2.43	2.3
50 - 2"	3.68	3.43	3.51	3.4
65 - 2" 1/2	6.17	5.75	5.8	5.6
80 - 3"	9.28	8.98	9	8.8
100 - 4"	14	15.5	13.6	13

**Valvola sfera - 2 vie - Pneumatica**  
*Ball valve - 2 ways - Pneumatic*

DN	F/F	F/F ISO	CLAMP	S/S
25 - 1"	5.6	5.2	5.66	5.3
32	5.85	-	-	5.5
40 - 1" 1/2	6.9	6.8	6.8	8.2
50 - 2"	9.7	9.3	9.4	9.5
65 - 2" 1/2	26	25.5	25.4	24
80 - 3"	29	28.9	28.5	28
100 - 4"	33.5	34.5	33	33

**Nota bene**

- I pesi indicati sopra si riferiscono alla configurazione standard: attuatore a semplice effetto (solo valvole pneumatiche).
- Verificare sempre il peso della relativa unità di controllo Giotto Top abbinata alla singola valvola.
- I pesi indicati hanno valore puramente indicativo.

**Take note**

- Above weights refer to standard configurations: single acting actuator (only pneumatic valves).
- Please check the weight of the "Giotto Top" valve control unit
- Above weights have pure indicative values.

Legenda/Key	
F/F ISO	Femmina Male
F/F	Femmina Male
S/S	Saldare Welding
-	Su richiesta On demand

**Valvola sfera - 3 vie - Manuale**  
*Ball valve - 3 ways - Manual*

DN	F/F	F/F ISO	CLAMP
25 - 1"	3	2.5	2.5
32	5	-	-
40 - 1" 1/2	7.5	6.8	7.2
50 - 2"	9	8	8.6
65 - 2" 1/2	11	10	10.8
80 - 3"	22.5	20	22
100 - 4"	35	33	35

**Valvola sfera - 3 vie - Pneumatica**  
*Ball valve - 3 ways - Pneumatic*

DN	F/F	F/F ISO	CLAMP
25 - 1"	7.3	6.8	7.5
32	9.3	-	-
40 - 1" 1/2	13.4	12.7	7.2
50 - 2"	28.5	28	28.3
65 - 2" 1/2	30.5	29.5	30.5
80 - 3"	42	40.5	41.5
100 - 4"	55.5	52.5	54.5

### Nota bene

- I pesi indicati sopra si riferiscono alla configurazione standard: attuatore a semplice effetto (solo valvole pneumatiche).
- Verificare sempre il peso della relativa unità di controllo Giotto Top abbinata alla singola valvola.
- I pesi indicati hanno valore puramente indicativo.

### Take note

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- Please check the weight of the "Giotto Top" valve control unit
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Legenda/Key	
F/F ISO	Femmina Male
F/F	Femmina Male
S/S	Saldare Welding
-	Su richiesta On demand