

# Item 434 stainless steel ball valves



## Macro Ball valves

# Category Other stainless steel ball valves

2-way full-bore stainless steel ball valve, DIN 11851 threaded-ends

## features

#### **GENERAL FEATURES:**

- The valve is manufactured in 316L stainless steel and suggested for particular hygienic conditions (food industry applications).
- $\cdot$  Ends: as per DIN 11851 specifications.
- · Working temperature: from -20°C to +150°C
- · Working pressure: see diagram.
- · Fluid range: food industries.
- · ISO 5211 flange connection.
- · The manual version (with lever) doesn't have the ISO 5211 flange connection and its therefore not possible to mount on it any kind of actuators.

#### ON REQUEST:

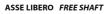
- · Connection: SMS MACON DIN male.
- · Seals made of:
  - PTFE glass filled,
  - PTFE with carbon graphite,
  - High-molecular weight polyethylene.
- · For other applications, please contact our sales department.

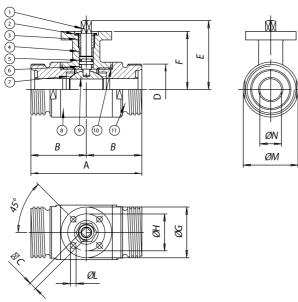
### CERTIFICATIONS:

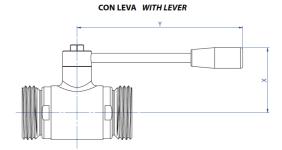
- $\cdot$  ATEX version in conformity with European Directive 2014/34/EU.
- $\cdot$  ATEX certificate on request.
- · In compliance with European Directive 2014/68/EU PED.



# dimensions







La versione con leva non ha la flangia montaggio attuatore a norma ISO 5211 e non è possibile montare alcun tipo di attuatore.

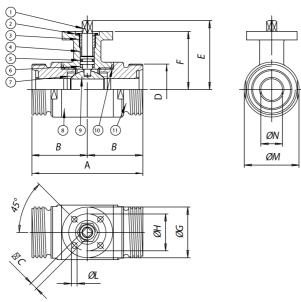
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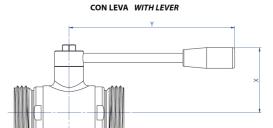
	DIMENSIONS													
SIZE														
DN [mm]	[inch]	Α	В	□C	D	E	F	øG	øΗ	øL	øΜ	øN	X	Y
DN 10	3/8"	88	44	6	28	47	39	46	36	6	30	10	50	110
DN 15	1/2"	92	46	6	34	49,5	41,5	46	36	6	35	15	55	110
DN 20	3/4"	102	51	6	44	53	45	46	36	6	42	20	60	110
DN 25	1"	106	53	9	52	64,5	51,5	65	50	7	52	25	65	160
DN 32	1" 1/4	112	56	9	58	69,5	56,5	65	50	7	60	32	70	160
DN 40	1" 1/2	126	63	14	65	89	76	65	50	7	74	40	80	190
DN 50	2"	136	68	14	78	97	84	65	50	7	90	50	90	190
DN 65	2" 1/2	154	68	17	95	109,5	94,5	90	70	9	110	65	110	220
DN 80	3"	184	92	17	110	121	106	90	70	9	141	80	130	285
DN 100	4"	190	95	17	130	135	120	125	102	11	160	100	150	310



# materials

## ASSE LIBERO FREE SHAFT





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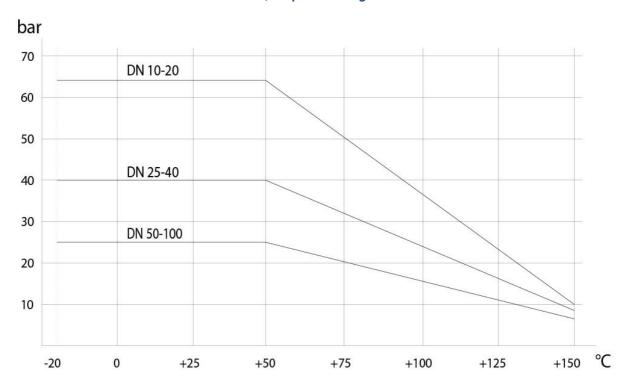
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MATERIALS									
1	Shaft	316L S.S.	1.4401	UNI X2CrNiMo 17 12					
2	Nut	303 S.S.							
3	Gland nut ring	304L S.S. (303 S.S.)							
4*	Top tight ring	P.T.F.E.							
5*	Shaft o-ring	FKM							
6*	Washer	P.T.F.E.							
7*	Seals	P.T.F.E.							
8	Body	316L S.S.	1.4401	UNI X2CrNiMo 17 12					
9	Ball	316L S.S.	1.4401	UNI X2CrNiMo 17 12					
10*	End sealings	P.T.F.E.							
11	End	316L S.S.	1.4401	UNI X2CrNiMo 17 12					
	* Compone	ents of spare part kit KGBV63							

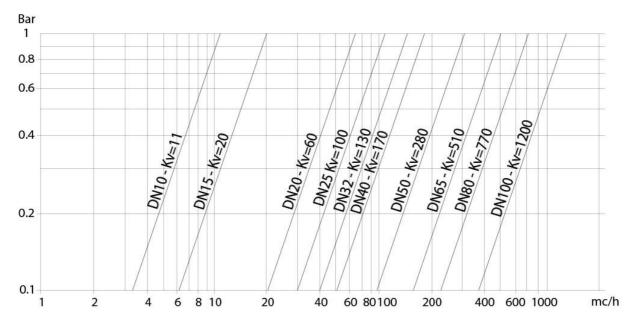


# diagrams and breakaway torque

## Pressure/temperature diagram



## Flow/pressure loss diagram and Kv nominal coefficient



Kv is the coefficient, expressed in m<sup>3</sup>/h (with water at 15°C) causing a pressure loss of 1 bar.





BREAKAWAY TORQUES Nm											
SIZE	DN 10 3/8"	DN 15 1/2"	DN 20 3/4"	DN 25 1"	DN 32 1"1/4	DN 40 1"1/2	DN 50 2"	DN 65 2"1/2	DN 80 3"	DN 100 4"	
PN 25 bar							41	63	95	148	
PN 40 bar				15	20	28					
PN 63 bar	7	8	11								

Torque can vary depending on temperature and type of fluid; a safety factor of 1.4 must be applied. Torque can drop on high frequency of operations. The actuator/valve sizing, indicated on the following pages, are based for valves to be used with liquids or gaseous fluids, clean, and for medium temperatures. For further information, or different uses please contact our sales department.