

# ECON® Ball valve Type: 7722 Steel Socket weld B16.11 Class 300/600







#### **Characteristics**

Type: 7722 Norm: ASME

Construction type: 2-way
Housing construction: 3-part
Housing material: Steel

Material quality: ASTM A216 WCB Surface protection: Chemical blackened

Connection: Socket weld

Standard welding connection: B16.11 Top flange standard: ISO 5211 Direct Mount

Material ball: ASTM A351 CF8M

Seat material: TF 4103

Spindle material: ASTM A276 316 Grade S Primary spindle seal material: RPTFE Secondary spindle seal material: FPM (FKM) Tertiary spindle seal material: RPTFE

**Body seal: RPTFE** 

Material connection piece: ASTM A216 WCB

Actuator material: 1.4301

Minimum medium temperature (continuous): -29 °C Maximum medium temperature (continuous): 220 °C

## **Application**

- Industrial and maritime applications.
- Liquid and gaseous media.
- Recommended in: Chemical

#### **Technical Information**

- Connection according to ASME B16.11, size 1/4" to 2" full bore also meet the EN 12760 standard.
- Floating ball.

- Pressure class: Class 600 up to and including 2.1/2". Class 300 for 3" and 4".
- With direct-mount top flange according to ISO 5211.
- Closed neck design with leak detection opening.
- The chevron seal set used as a spindle seal and the axial seal ensure a longer service life and lower torque.
- Equipped with a robust, lockable lever.
- Average temperature for a tap with standard TF 4103 seats: -29°C/+220°C. Up to a maximum of 280° C for taps with PEEK seats.

## Construction

- Three-part housing construction.
- Design certified according to ISO 7121, MSS SP-110 and MSS SP-72.
- Wall thickness according to EN 12516-1 and ASME B16.34.
- Full or reduced bore.
- Design with antistatic equipment between ball and housing.

#### **Approval**

- Fugitive emission certified according to the German Technical Instructions on Air Quality Control (TA-Luft), VDI 2440, point 3.3.1.3.
- Fugitive emission certified according to ISO 15848-1, CO1 and CO2.
- Safety integrity level (SIL) 2.

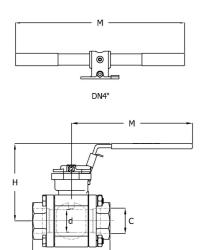
#### **Options**

- Design with worm gearbox, pneumatic, electric or hydraulic drives.
- Position feedback for manual and automatic valves.
- Available with different seat materials such as TF 4215, TFM 1600 and PEEK.
- Fire-safe design available.
- Stainless steel extended spindle for insulation.
- With connection for earthing.
- With 30°, 60° or 90° V-shaped ball bore for modulating applications.
- Connections with BSPP thread according to ISO 228-1, NPT thread according to ASME B1.20.1, socket weld according to EN 12760 and butt weld according to ASME B16.25 S40 or EN 12627.

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# Ball Valves | Ball valves with welding connection



## Size table:

DN	Full bore	d	L	Н	М	С	Weight
		mm	mm	mm	mm	mm	kg
3/8" (10)	Yes	15	71	83	140	17.8	0.9
1/2" (15)	Yes	15	72	83	140	21.9	1
3/4" (20)	No	15	72	83	140	27.4	1
1" (25)	No	20	97	88	140	34.1	1.5
1" (25)	Yes	25	109	97	165	34.1	2
1.1/2" [40]	No	31.8	118	103	165	49	3
2" (50)	No	38	129	130	202	61.5	4.5
2" (50)	Yes	50	145	139	202	61.5	6.5
2.1/2" [65]	No	50	145	139	202	74	6.5
3" (80)	No	65	185	178	257	90	12.5
4" (100)	No	76	205	188	257	115.5	16.5

			Pressure	e and temperatur	e range			
Seat material + DN full bore	-29	50	100	150	200	250	300	[°C]
TF4103 & TFM1600 1/4" - 1"	102.1	100.2	68	34	0	-	-	[bar]
TF4215 1/4" - 1"	102.1	100.2	93.2	63	32	0	-	[bar]
PEEK 1/4" - 1"	102.1	100.2	93.2	77	48	18	0	[bar]
TF4103 & TFM1600 1.1/4" - 1.1/2"	80	80	55	28	0	-	-	[bar]
TF4215 1.1/4" - 1.1/2"	80	80	80	55	28	0	-	[bar]
PEEK 1.1/4" - 1.1/2"	80	80	80	77	48	18	0	[bar]
TF4103 & TFM1600 2"	76	76	53	27	0	-	-	[bar]
TF4215 2"	76	76	76	51	25	0	-	[bar]
PEEK 2"	76	76	76	76	47	18	0	[bar]
TF4103 & TFM1600 2.1/2"	69	69	48	24	0	-	-	[bar]
TF4215 2.1/2"	69	69	69	47	24	0	-	[bar]
PEEK 2.1/2"	69	69	69	69	42	16	0	[bar]
TF4103 & TFM1600 3" - 4"	51.1	50.1	34	17	0	-	-	[bar]
TF4215 3" - 4"	51.1	50.1	46.6	45.1	23	0	-	[bar]
PEEK 3" - 4"	51.1	50.1	46.6	45.1	43.8	17	0	[bar]

# Ball Valves | Ball valves with welding connection

External tube diameter of connection mm	Pressure rating	Face to Face norm	Manual operation	Mounting flange	Mounting flange 2	Bore	With locking device	Maximum operating pressure bar	Article
17.8	Class 600	Manufacturer standard	Handle	F03	F04	Full bore	Yes	102	13278885
21.9	Class 600	Manufacturer standard	Handle	F03	F04	Full bore	Yes	102	13278886
27.4	Class 600	Manufacturer standard	Handle	F03	F04	Reduced bore	Yes	102	13278878
34.1	Class 600	Manufacturer standard	Handle	F03	F04	Reduced bore	Yes	102	13278879
34.1	Class 600	Manufacturer standard	Handle	F04	F05	Full bore	Yes	102	13278888
49	Class 600	Manufacturer standard	Handle	F04	F05	Reduced bore	Yes	80	13278881
61.5	Class 600	Manufacturer standard	Handle	F07		Reduced bore	Yes	80	13278882
61.5	Class 600	Manufacturer standard	Handle	F07		Full bore	Yes	76	13278891
74	Class 600	Manufacturer standard	Handle	F07		Reduced bore	Yes	76	13278883
90	Class 600	Manufacturer standard	Handle	F07	F10	Reduced bore	Yes	69	13279024
115.5	Class 300	Manufacturer standard	Handle	F07	F10	Reduced bore	Yes	51	13279025
	diameter of connection mm  17.8  21.9  27.4  34.1  34.1  49  61.5  61.5  74  90	diameter of connection         Pressure rating           17.8         Class 600           21.9         Class 600           27.4         Class 600           34.1         Class 600           49         Class 600           61.5         Class 600           74         Class 600           90         Class 600	diameter of connection         Pressure rating         Face to Face norm           17.8         Class 600         Manufacturer standard           21.9         Class 600         Manufacturer standard           27.4         Class 600         Manufacturer standard           34.1         Class 600         Manufacturer standard           49         Class 600         Manufacturer standard           61.5         Class 600         Manufacturer standard           61.5         Class 600         Manufacturer standard           74         Class 600         Manufacturer standard           90         Class 600         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bore27.4Class 600Manufacturer standardHandleF03F04Reduced bore34.1Class 600Manufacturer standardHandleF03F04Reduced bore49Class 600Manufacturer standardHandleF04F05Full bore49Class 600Manufacturer standardHandleF04F05Reduced bore61.5Class 600Manufacturer standardHandleF07Reduced bore61.5Class 600Manufacturer standardHandleF07Reduced bore74Class 600Manufacturer standardHandleF07Reduced bore90Class 600Manufacturer standardHandleF07F10Reduced bore115.5Class 300ManufacturerHandleF07F10Reduced bore	diameter of connection mmPressure ratingFace to Face normManual operationMounting flangeMounting flange 2BoreWith locking device17.8Class 600Manufacturer standard standardHandleF03F04Full boreYes21.9Class 600Manufacturer standard standardHandleF03F04Full boreYes27.4Class 600Manufacturer standard standardHandleF03F04Reduced boreYes34.1Class 600Manufacturer standard standardHandleF04F05Full boreYes49Class 600Manufacturer standard standardHandleF04F05Reduced boreYes61.5Class 600Manufacturer standard standardHandleF07Reduced boreYes61.5Class 600Manufacturer standard standardHandleF07Full boreYes74Class 600Manufacturer standard standardHandleF07F10Reduced boreYes90Class 600Manufacturer standard standardHandleF07F10Reduced boreYes	diameter of connection mm  17.8 Class 600 Manufacturer standard Handle F03 F04 Full bore Yes 102  21.9 Class 600 Manufacturer standard Handle F03 F04 Reduced bore Yes 102  34.1 Class 600 Manufacturer standard Handle F03 F04 Reduced bore Yes 102  34.1 Class 600 Manufacturer standard Handle F03 F04 Reduced bore Yes 102  49 Class 600 Manufacturer standard Handle F04 F05 Full bore Yes 102  49 Class 600 Manufacturer standard Handle F04 F05 Reduced bore Yes 80  61.5 Class 600 Manufacturer standard Handle F07 Reduced bore Yes 80  61.5 Class 600 Manufacturer standard Handle F07 Reduced bore Yes 80  61.5 Class 600 Manufacturer standard Handle F07 Reduced bore Yes 80  61.5 Class 600 Manufacturer standard Handle F07 Reduced bore Yes 76  74 Class 600 Manufacturer standard Handle F07 Reduced bore Yes 76  90 Class 600 Manufacturer standard Handle F07 Reduced bore Yes 69  115.5 Class 600 Manufacturer standard Handle F07 F10 Reduced bore Yes 69

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