

ARGUS Flanged ball valve FK79

Technical data sheet

DN15 (1/2") – DN100 (4")

PN16 – PN100, ANSI150 – ANSI600

Material: carbon steel / low temperature carbon steel / stainless steel

Sealing system: soft seated / full metal seated

split body, floating ball

full bore, ends ANSI B16.5 or EN 1092-1

Design to API 6D / ANSI B 16.34 resp. PED 97/23/EC; BS 5351 available on request.

fire safe acc to BS 6755 Part 2, ISO 10497 resp. API 607 6th edition,

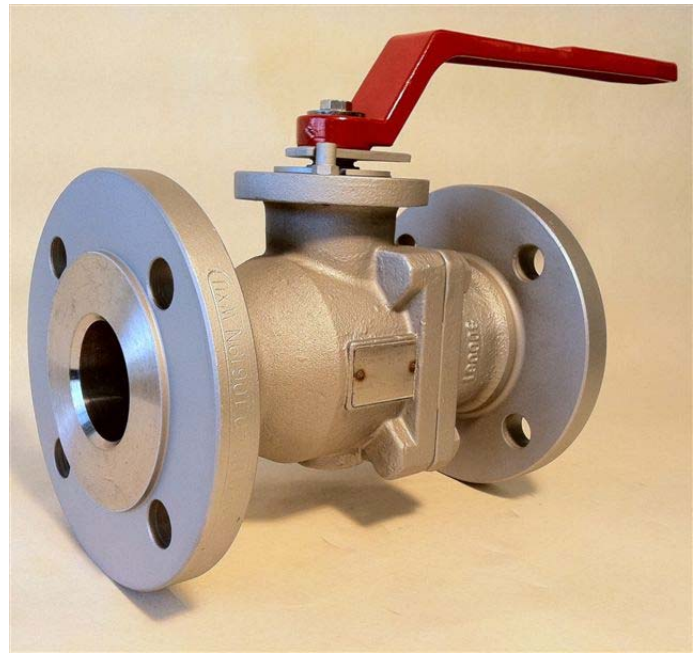
Anti-static Design acc. to. DIN EN ISO 17292 chapter 5.2.7,

Anti blow out Stem, long life double stem seal system.

Stem supported in bearings to ensure seals are free from operating loads.

Stem seal system complies with TA-Luft acc. VDI 2440, EPA fugitive emissions or EN ISO 15848-1:2006 requirements.

Face to face dimensions in accordance with ANSI B16.10, EN 558-1 resp. EN 12982.



Options:

- **High temperature stuffing box / DIN ISO**
- **Semi trunnion version**
- **Metal seated version "M"**
Standard: bi-directional sealing / preferred pressure direction
- **Metal seated version "N"**
Standard: bi-directional sealing
- **Metal coating Standard ENP / NIKADUR**
 - 1) **ENP**: Coating method: Ni , ball electroless nickel plated and hardened;
Coating thickness / hardness: 50 - 80/ > 70 HRC, Max. allowable temperature: + 350°C / + 660 F
 - 2) **NIKADUR**: Coating method: Ni + SiC, ball resp. seats electroless nickel plated and hardened;
Coating thickness / hardness: 50 -80/ > 75 HRC; Max. allow. temperature: + 350°C /+ 66 0 F
- **Metal seated Standard ARGULOY**
 - 1) **ARGULOY**: Coating method: Ni-Basis + Cr + others, ball
resp. seats coating by plasma spraying and bonding;
Coating thickness / hardness: > 500m / 62 HRC Max. allowable temperature: + 550°C / + 1000 F
- **Metal coating Standard CRABIDE**
CRABIDE (Hardlayer)
Hardlayer process: Cr2Cr3 sprayed hardlayer of chromium-carbides bonded to the base material with a nickel-chromium bond which produces a homogenous hard, corrosion and wear resistant layer; Temperature range: up to + 350°C / + 660 F
Layer thickness: 150 – 200 microns; Hardness: 65- 70 HRC
Corrossion resistance: CRABIDE has a good chemical resistance in most environments, due to the high chromium content, and has a good resistance to minor abrasive and adhesive wear.

Standardized material selection as follows:

Item	Description	PED material code	Material DIN EN	Nearest technical ASTM Equivalent
1	Body / Flanges	GP240GH+N	CS Casting DIN 1.0619	A216WCB
		G20Mn5	LCS Casting DIN 1.6220	A352LCB
		P355NL1+N	LCS TSTE 355N DIN 1.0566	A350LF2
		X6CrNiMoTi17-12-2	SS DIN 1.4571	A182 Gr. F 316
		GX5CrNiMo19-11-2	SS DIN 1.4408	A351 Gr.CF8M
2	Ball	X2CrNiMoN22-5-3	Duplex DIN 1.4462	A182 F51
		NiCu30FE	Monel	
		X2CrNiMoN22-5-3 ENP	Duplex DIN 1.4462 ENP	A182 F51 ENP
		X2CrNiMoN22-5-3 CRABIDE	Duplex DIN 1.4462 CRABIDE	A182 F51 CRABIDE
		X2CrNiMoN22-5-3 ARGULOY	Duplex DIN 1.4462 ARGULOY	A182 F51 ARGULOY
		X6CrNiMoTi17-12-2 ENP	SS DIN 1.4571 ENP	A351 Gr.CF8M ENP
		X6CrNiMoTi17-12-2 CRABIDE	SS DIN 1.4571 CRABIDE	A351 Gr.CF8M Crabide
	X6CrNiMoTi17-12-2 ARGULOY	SS DIN 1.4571 ARGULOY	A351 Gr.CF8M ARGULOY	
3	Stem	X2CrNiMoN22-5-3	Duplex DIN 1.4462	A182 F51
		X5CrNiCuNB16-4	17-4 PH	17-4PH
		X2CrNiMMoNNb21653	Nitronic	Nitronic 50
4	Stem seals		PTFE; Graphite	
5	Ball seats		PTFE, POM, LYTON	
			PTFE/ss, POM/ss; LYTON spring loaded, cavity relief	
		X2CrNiMoN22-5-3 ENP	Duplex DIN 1.4462 Nikadur	A182 F51 Nikadur
		X2CrNiMoN22-5-3 CRABIDE	Duplex DIN 1.4462 CRABIDE	A182 F51 CRABIDE
		X2CrNiMoN22-5-3 ARGULOY	Duplex DIN 1.4462 ARGULOY	A182 F51 ARGULOY
6	Body seals		PTFE ; Graphite	
7	Bolts		A193 B7; A194 8M; A4-70	
8	Nuts		A194 Gr.4, A194 8M, A4-70	

Dimensions: FK 79 DIN EN 558-1 Gr. 27 / 28 Standard design
PN 16 / PN 40 Investment casting version

DN	PN	l 1 EN 558-1 Gr. 27	l 2 EN 558-1 Gr. 27	l 1 EN 558-1 Gr. 28	l 2 EN 558-1 Gr.28	h2	h11	h15	r1	d0	SW 2-FL	Connection plate DIN/ISO 5211
15	40	115	51,5	130	56	65,5	45	117	220	15	14	F05
20	40	120	54,5	150	70	66,5	46	118	220	20	14	F05
25	40	125	57	160	80	67,5	47	119	220	25	14	F05
32	40	130	58	180	90	79	58,5	131	220	30	14	F05
40	40	140	53	200	100	101	76,5	150	270	38	17	F07
50	40	150	58	230	115	108,5	84	157,5	270	48	17	F07
80	40	180	78	310	75	153	126	182	327,5	76	19	F10
100	40	190	94	350	94	169	142	198	327,5	100	19	F10
80	16	180	75	310	75	153	126	182	327,5	76	19	F10
100	16	190	91	350	91	169	142	198	327,5	100	19	F10

**Dimensions: FK 79 DIN EN 558-1 Gr. 28
PN 63/100 forged material version**

DN	PN	l 1 EN 558-1 Gr. 28	l 2	h2	h15	r1	d0	Connection plate DIN/ISO 5211
15	63/100	130	65	47,5	120	173	15	F05
20	63/100	150	75	54,5	126	173	20	F05
25	63/100	160	80	57	128,5	173	25	F05
40	63/100	200	100	82	152,5	220	38	F07
50	63/100	230	115	89,5	160	220	48	F07

**Dimensions: FK 79 ANSI B16.34 Standard design
class 150 Investment casting version**

Inch	Flange	l1	l2	h2	h11	h15	r1	d0	Topwork
1/2	RF	108	49	65	45	117	220	15	F05
3/4	RF	117,5	54,5	66	46	118	220	20	F05
1	RF	127	57	67	47	119	220	25	F05
1 1/2	RF	165,1	75	101	76,5	150	270	38	F07
2	RF	177,8	85	108,5	84	157,5	270	48	F07

**Dimensions: FK 79 ANSI B16.34 Standard design
Class 300 Investment casting version**

Inch	Flange	l1	l2	h2	h11	h15	r1	d0	Topwork
1/2	RF	139,7	58	65	45	117	220	15	F05
3/4	RF	152,4	66	66	46	118	220	20	F05
1	RF	165,1	75	67	47	119	220	25	F05
1 1/2	RF	190,5	85	101	76,5	150	270	38	F07
2	RF	215,9	105	108,5	84	157,5	270	48	F07

**Dimensions: FK 79 ANSI B16.34 Standard design
Class 600 Investment casting version**

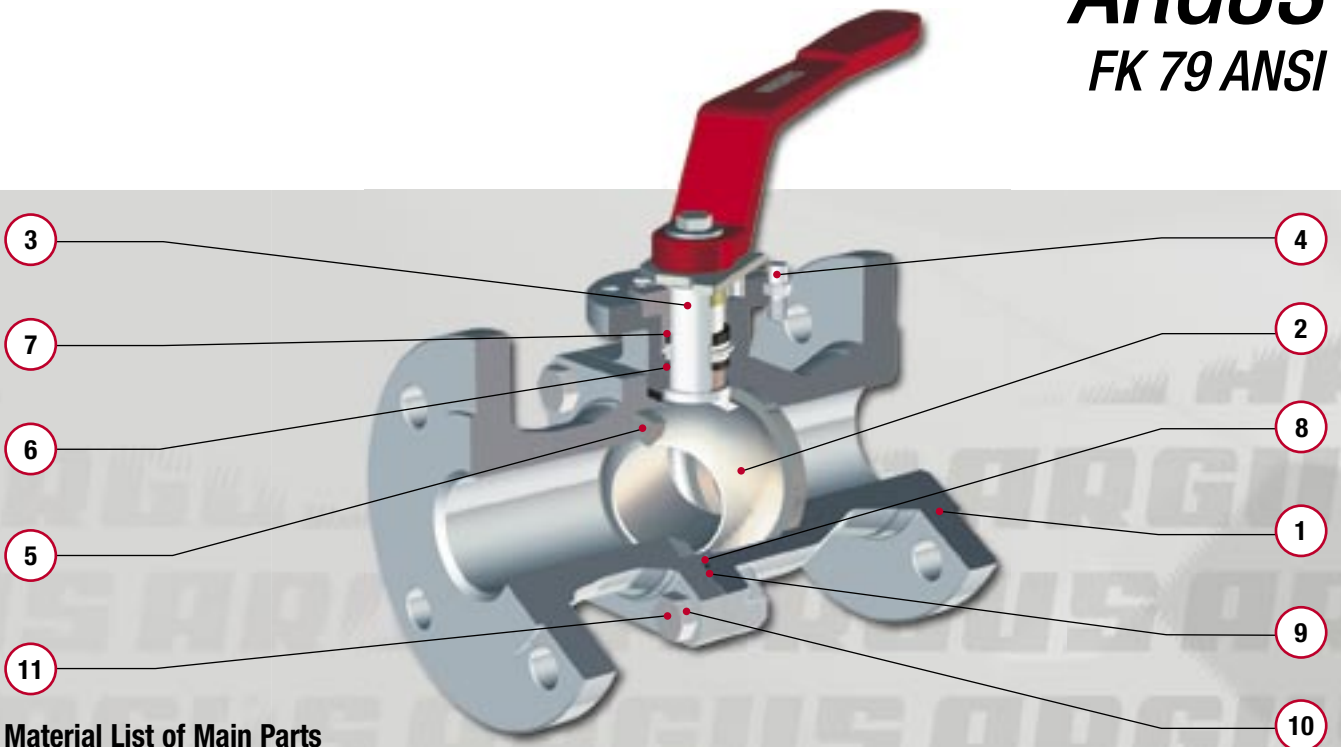
Inch	Flange	l1	l2	h2	h15	r1	d0	Topwork
1/2	RF	165,1	74	47,5	120,5	155	15	F05
3/4	RF	190,5	95,5	58,5	130	173	20	F05
1	RF	216,9	108	61	132,5	173	25	F05
1 1/2	RF	241,3	120,5	94	164,5	220	38	F07
2	RF	292,1	146	101,5	172	220	48	F07

Accessories:

- Locking device
- DIN ISO Stem Extension
- Spindle extension

ARGUS

FK 79 ANSI



Material List of Main Parts

Item	Description	Material Specification *	Nearest Typical ASTM-Equivalent
1	Body / Flange	CS Casting 1.0619 CS Low Temp. CS Low Temp. A350 LF2 (ASTM) SS 1.4571 Duplex SS; Monel etc. optional	A216WCB A350 LF2 A182 F51
2	Ball	Duplex SS Monel Duplex SS hardfaced	A182 F51
3	Stem	Duplex SS Monel 17-4PH	A182 F51
4	Gland Bolts	8.8 A4-70	A194-B8M
5	Ball Seats	PTFE; POM; Lyton Duplex SS hardfaced	
6	Primary Stem Seal	PTFE	
7	Secondary Stem Seal	Celastic	
8	Body Seal	PTFE	
9	Secondary Body Seal	Celastic	
10	Bolts	A193 B7 (ASTM) A193 B8MN (ASTM) A4-70	
11	Nuts	A194 Gr.4 (ASTM) A194 8M (ASTM) A4-70	

* For detailed information see our ANSI catalogue



ARGUS FK 79

DN 15-50 ANSI Cl. 150 Full Bore
DN 15-50 ANSI Cl. 300 Full Bore
DN 15-50 ANSI Cl. 600 Full Bore

Description:

The FK 79 ball valve with its many innovative design features represents the highest standard in valve technology and is designed to meet the API-6D, ANSI 16.34 and BS 5351 requirements

Design:

Split body design with superfine finished seat supported ball, anti-blow-out stem, compact ball seats and anti-static device. Long life double stem seal system and stem supported in bearings to ensure seals are free from operating loads. With mounting plate to DIN/ISO 5211. Stem sealing construction complies with the latest TA-Luft and EPA (method 21) fugitive emissions requirements. Firesafe to BS 6755 and API 607.

DIN/ISO 5211 mounting plate for easy assembly with actuators included.

FK 79 DN 15-25: ISO-mounting plate to DIN/ISO 5211 F05.

FK 79 DN 40+50: ISO-mounting plate to DIN/ISO 5211 F07.

Accessories and Options:

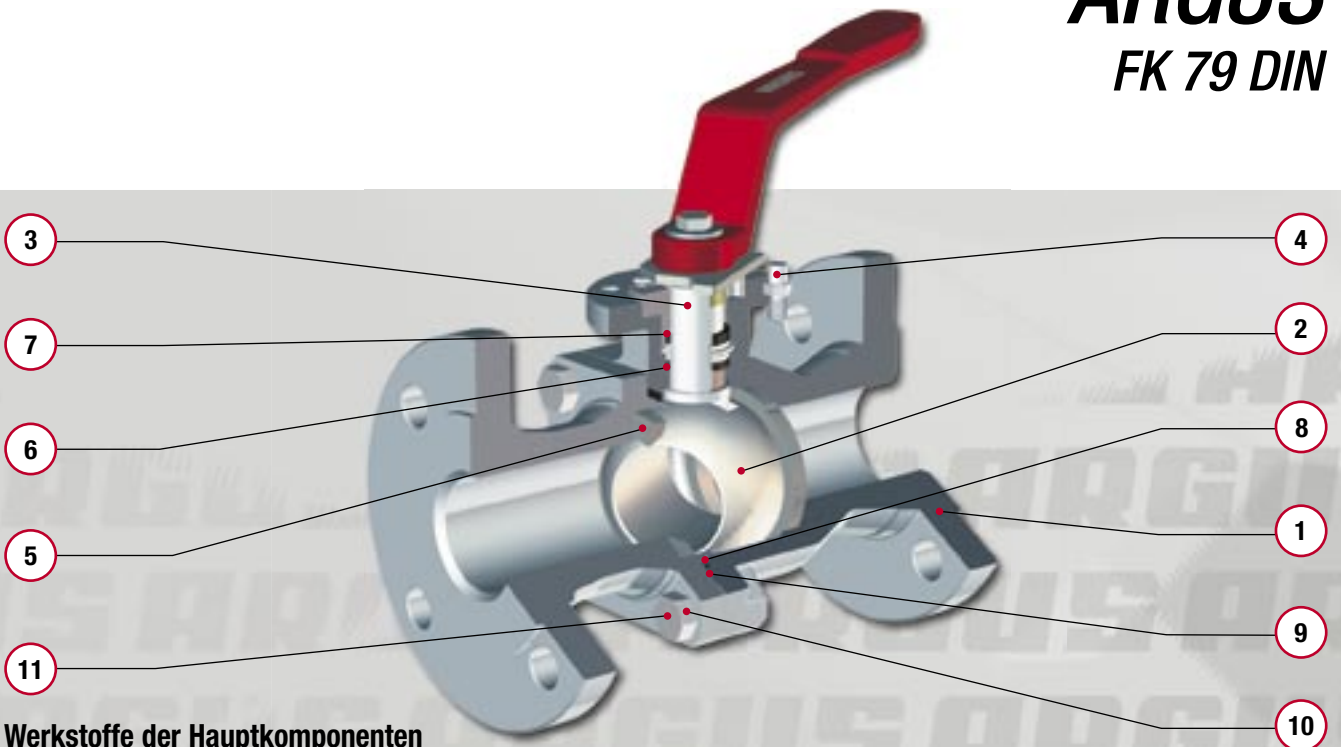
- Limit switches
- Locking devices
- Extended wrenches
- Stem extensions
- Steam jackets for indirect process heating
- Round, gull wing and spring return “deadman” handles
- Metal to metal seats and/or extended bonnets with stuffing box for high/low temperatures and abrasive medium and high cycle applications
- Drain connection

Standard Material Combinations (preferably to order – short delivery time):

ANSI	Cl. 150-600 Mat.-Code 1D0500D552	Cl. 150-600 Mat.-Code 1ADAD2D552	Cl. 150-600 Mat.-Code 4D0500D552	Cl. 150-600 Mat.-Code 4ADAD2D552
Body	CS	CS	SS	SS
Ball/Stem	Duplex SS	Duplex SS hardmetal coated	Duplex SS	Duplex SS hardmetal coated
Ball Seats	PTFE	Duplex SS hardmetal coated	PTFE	Duplex SS hardmetal coated
Stem Seals	PTFE/Celastic	PTFE/Celastic	PTFE/Celastic	PTFE/Celastic
Body Seals	PTFE/Celastic	PTFE/Celastic	PTFE/Celastic	PTFE/Celastic

ARGUS

FK 79 DIN



Werkstoffe der Hauptkomponenten

Nr.	Bezeichnung	Werkstoffbezeichnung	Vergleichbarer ASTM - Werkstoff
1	Gehäuse / Flansch	GP240GH (GS-C 25N) P355NL1 (TStE 355N) C2262 1.4408 (CrNi-Stahl) 1.4571 (CrNi-Stahl) 1.4462 (Duplex); Monel etc. opt.	A216 WCB A350 LF2 A105 A351 CF8M A182 F316Ti
2	Kugel	1.4462 (Duplex) Monel 1.4462 (Duplex) hartbeschichtet	A182 F51
3	Schaltwelle	1.4462 (Duplex) Monel 17-4PH	A182 F51
4	Schrauben	8.8 A4-70	
5	Kugeldichtung	PTFE; POM; Lyton 1.4462 (Duplex) hartbeschichtet	
6	Primäre Schaltwellenabdichtung	PTFE	
7	Sekundäre Schaltwellenabdichtung	Celastic	
8	Primäre Gehäuseabdichtung	PTFE	
9	Sekundäre Gehäuseabdichtung	Celastic	
10	Schrauben	A193 B7 (ASTM) A193 B8MN (ASTM) A4-70	
11	Muttern	A194 Gr.4 (ASTM) A194 8M (ASTM) A4-70	

ARGUS FK 79

DN 15-50 DIN PN 16-100

Beschreibung:

Der Kugelhahn FK 79 steht aufgrund seiner besonderen, innovativen Konstruktion für den höchsten Standard in der Kugelhahntechnologie. Er entspricht den geltenden technischen Regeln für Druckbehälter (TRB) und den in Bezug stehenden AD-Merkblättern sowie DIN-Normen.

Konstruktionsmerkmale:

Zweiteiliges Gehäuse (split body), schwimmende Kugel, Anti-blow-out-Schaltwelle, Kompaktdichtung, Anti-static. Die spezielle Lagerung der Schaltwelle verhindert das Auftreten schädlicher Kräfte im Bereich der Schaltwellenabdichtung. Das ARGUS Doppeldichtsystem an der Schaltwelle ist so ausgeführt, daß es die neuesten Anforderungen nach TA Luft und EPA (method 21, USA) erfüllt.

Fire safe nach BS 6755 und API 607.

Anschlussplatte gemäß DIN/ISO 5211, ermöglicht eine genormte Antriebsadaption.

FK 79 DN 15-25: Anschlussplatte nach DIN/ISO 5211 F05.

FK 79 DN 32-50: Anschlussplatte nach DIN/ISO 5211 F07.

Zubehör und Optionen:

- Endlagenrückmeldung
- Abschließvorrichtung
- Schaltwellenverlängerung
- Heizmantel
- Metallische Dichtungen und/oder Hochtemperaturstopfbuchsen für sehr hohe/niedrige Temperaturen und/oder abrasive Medien und/oder Anwendung mit sehr hoher Schalzhäufigkeit

Standardwerkstoffe:

DIN	PN 16-100 Mat.-Code 1D0500D552	PN 16-100 Mat.-Code 1ADAD2D552	PN 16-100 Mat.-Code 4D0500D552	PN 16-100 Mat.-Code 4ADAD2D552
Gehäuse	C-Stahl	C-Stahl	CrNi-Stahl	CrNi-Stahl
Kugel/Schaltwelle	CrNi-Stahl	CrNi-Stahl hartbeschichtet	CrNi-Stahl	CrNi-Stahl hartbeschichtet
Kugeldichtung	PTFE	CrNi-Stahl hartbeschichtet	PTFE	CrNi-Stahl hartbeschichtet
Schaltwellenabdichtung	PTFE/Celastec	PTFE/Celastec	PTFE/Celastec	PTFE/Celastec
Gehäuseabdichtung	PTFE/Celastec	PTFE/Celastec	PTFE/Celastec	PTFE/Celastec