

ARGUS Flanged ball valve HK35

Technical data sheet

DN50 (2") – DN400 (16")
ANSI900 – ANSI2500

Material: low temperature carbon steel / stainless steel
Sealing system: Metal to metal sealing system

Two piece body resp. three piece body, trunnion mounted ball design,
full bore resp. reduced bore, ends ANSI B16.5, EN 1092-1;
(Remarks: Welded end design resp. Special connections e.g. Graylock, Norsok
etc. are available on request.)

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

Fire safe Design and Construction in acc. to BS 5351 resp. EN ISO 17 292

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 adjustable stuffing box in standard and high
temperature according to low emission demands.

e.g. High temperature version with adjustable stuffing box.

Special designs and options (other options available on request):

- Powder, Fines or Granular service Pockets keep the seats free from media build up and blocking
- Powder, Fines or Granular service

Topwork drilling Code „419“ on top of the body Stem seals free from operation side loads,
bearing elements without sealing functions

Topwork drilling Code „519“ on body Stem seals free from operation side loads,
bearing elements without sealing functions

ARGUS Metal to metal coatings:

- **Metal coating Standard ARGULOY (spray fusion coating with afterwards heat treatment)**
 - 1) **ARGULOY:** Coating method: Ni-Basis + Cr + others, Ball resp. seats coating by plasma spraying and bonding;
Coating thickness / hardness: > 500µm / 62 HRC Max. allowable temperature: + 550°C / + 1000 F
- **Metal coating Standard CRABIDE HVOF/ *Optional coatings available on demand***
 - 1) **CRABIDE (Hardlayer):** Hardlayer process: Cr₃Cr₂-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 + 650°C / + 1202° F Layer thickness: 150 – 200 microns; Hardness: approx. 68 HRC Corrosion 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.



Materials:

Item	Description	PED description	Material Specification	Nearest Typical ASTM E equivalent
1 A	Body	P355NL1+N	LCS TSTE 355N DIN 1.0566	A350LF2
		X6CrNiMoTi17-12-2	SS DIN 1.4571	A182 Gr. F 316
		X2CrNiMoN22-5-3	Duplex DIN 1.4462	A182 F51
			A 182 F347H S10 Original	A 182 F347H S10
			ss DIN 1.4308	A 351-CF8C- S11
1 B	Flanges	P355NL1+N	A350LF2 (ANSI)	A350 Gr. LF2
		P250GH+N	C22.8 (DIN)	A105
		P355NL1+N	TSTE 355N DIN 1.0566 (DIN)	A350 Gr.LF2
		X6CrNiMoTi17-12-2	SS DIN 1.4571	A351 Gr.CF8M
		X2CrNiMoN22-5-3	Duplex DIN 1.4462	A182 F51
			A 182 F347H S10 Original	A 182 F347H S10
2	Ball	X6CrNiMoTi17-12-2	SS DIN 1.4571	A182 Gr. F 316
		X2CrNiMoN22-5-3	Duplex DIN 1.4462	A182 F51
		X2CrNiMoN22-5-3 CRABIDE	Duplex DIN 1.4462 CRABIDE	A182 F51 CRABIDE
		X2CrNiMoN22-5-3 ARGULOY	Duplex DIN 1.4462 ARGULOY	A182 F51 ARGULOY
		GX5CrNiMo19-11-2 CRABIDE	SS DIN 1.4408 CRABIDE	A351 Gr.CF8M CRABIDE
		GX5CrNiMo19-11-2 ARGULOY	SS DIN 1.4408 ARGULOY	A351 Gr.CF8M ARGULOY
			A 182 F347H S10 Original	A 182 F347H S10
			ss DIN 1.4541	A 182 F321
3	Stem	X2CrNiMoN22-5-3	Duplex DIN 1.4462	A182 F51
		X5CrNiCuNB16-4		17-4 PH
		X2CrNiMnMoNnb211653	Nitronic DIN 1.3964	Nitronic 50
4	Stem seals		PTFE/ss; Graphite	
5	Ball seats	X6CrNiMoTi17-12-2	SS DIN 1.4571	A182 Gr. F 316
		X2CrNiMoN22-5-3	Duplex DIN 1.4462	A182 F51
		X2CrNiMoN22-5-3 CRABIDE	Duplex DIN 1.4462 CRABIDE	A182 F51 CRABIDE
		X2CrNiMoN22-5-3 ARGULOY	Duplex DIN 1.4462 ARGULOY	A182 F51 ARGULOY
		GX5CrNiMo19-11-2 CRABIDE	SS DIN 1.4408 CRABIDE	A351 Gr.CF8M CRABIDE
		GX5CrNiMo19-11-2 ARGULOY	SS DIN 1.4408 ARGULOY	A351 Gr.CF8M ARGULOY
			A 182 F347H S10 Original	A 182 F347H S10
	ss DIN 1.4541	A 182 F321		
6	Body seals		PTFE , Graphite	
7	Bolts		A193 B7; A194 8M; 1.4980, A193 B7M	
			resp. special materials	
8	Nuts		A194 Gr.4, A194 8M, DIN 1.4980,	
			resp. special materials	

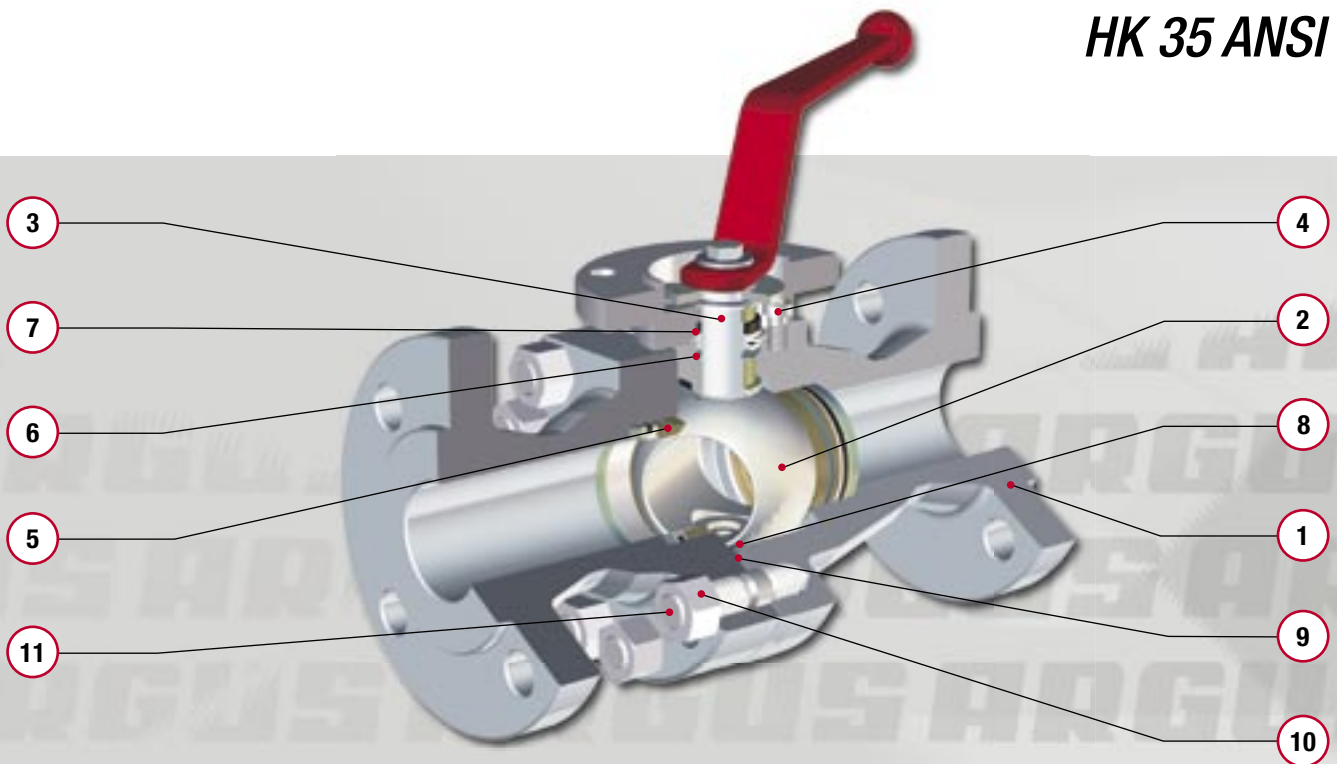
Ball valves – Full bore design : Face to Face dimensions according to EN 558-1, flanged EN 1091.1B, or ANSI B16.10-2000 RF resp. RTJ, (Welded end version acc. to DIN EN 12982 / DIN 3357 T2 – on request)

Diameter Inch/mm	ISO 14 313:1999 Table 4							
	PN 250 (Class 1500)				PN 420 (Class 2500)			

	RF	Welding end	RTJ	ID FB Bore Diameter	RF	Welding end	RTJ	ID FB Bore Diameter
2 50	368	368	371	49	451	451	454	42
3 80	470	470	473	74	578	578	584	62
4 100	546	546	549	100	673	673	683	87
6 150	705	705	711	144	914	914	927	131
8 200	832	832	841	192	1022	1022	1038	179
10 250	991	991	1000	239	1270	1270	1292	223
12 300	1130	1130	1146	287	1422	1422	1445	265
14 350	1257	1257	1276	315	-	-	-	-
16 400	1384	1384	1407	360	-	-	-	-

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HK 35 ANSI



Material List of Main Parts

Item	Description	Material Specification *	Nearest Typical ASTM-Equivalent
1	Body / Flange	1.0566 (TstE355N) 1.0460 (C22G2) SS 1.4571	A350 LF2 A 105 A182 F316Ti
2	Ball	SS Duplex SS Duplex hardfaced	A182 F51 A182 F51 hardfaced
3	Stem	1.4462 (Duplex)	A182 F51
4	Gland Bolts	8.8 A4-70'	
5	Ball Seats	POM' SS Duplex hardfaced	
6	Primary Stem Seal	FPM	
7	Secondary Stem Seal	Celastic	
8	Body Seal	FPM	
9	Secondary Body Seal	Celastic	
10	Bolts	A193 B7 (ASTM) A4-70	
11	Nuts	A194-Gr.4 (ASTM) A4-70	

* For detailed information see our ANSI catalogue



ARGUS HK 35

DN 50 ANSI Cl. 600-1500 Full Bore DN 80 ANSI Cl. 600-1500 Reduced Bore

Description:

The HK 35 ball valve with its many innovative design features represents the highest standards in valve technology and is designed to meet the API-6D, ANSI 16.34 and BS 5351 requirements.

Long lifetime and low operating torques due to the clear separation of the sealing and bearing functions, on both ball and stem.

Design:

Split body design with superfine finished trunnion mounted ball, anti-blowout stem, spring loaded ball seats, cavity relief and anti-static device. Long life double stem seal system and stem supported in bearings to ensure seals are free from operating loads. 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.

Accessories and Options:

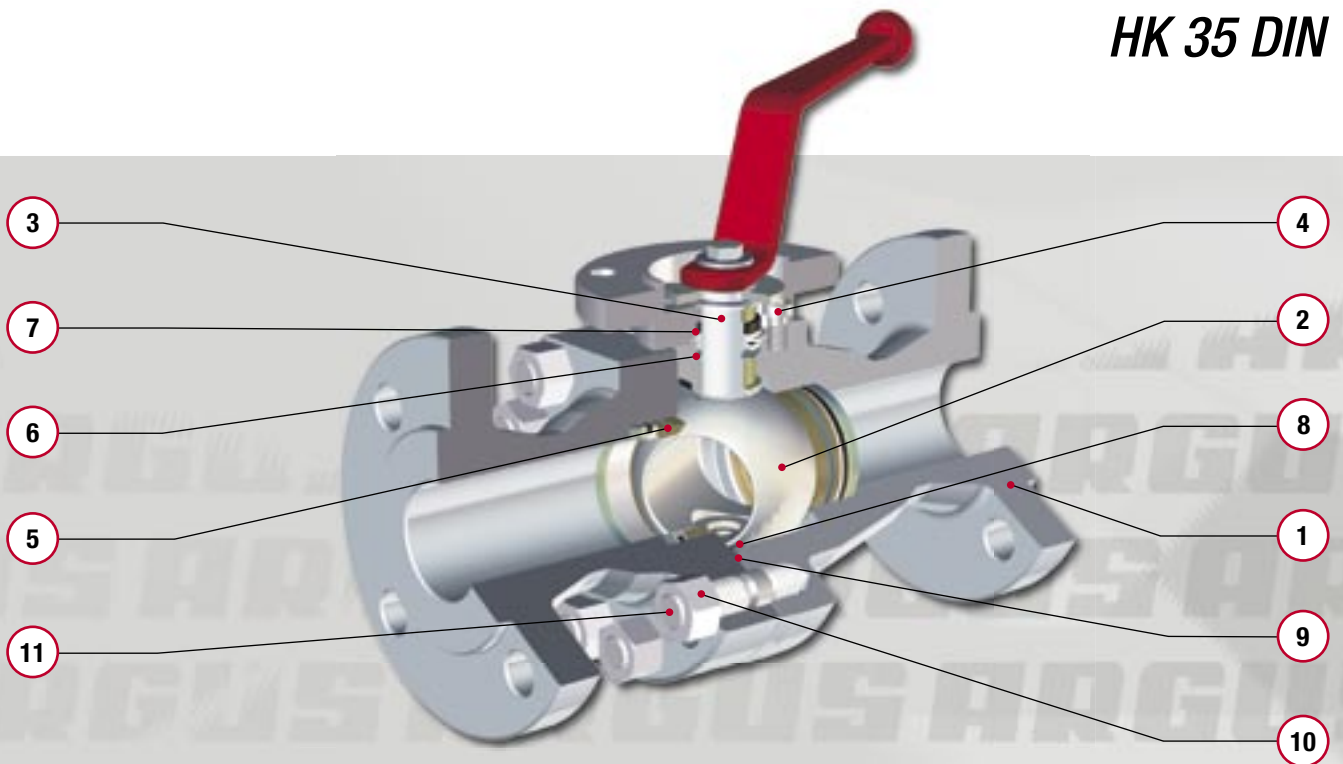
- Limit switches
- Locking devices
- Extended wrenches
- Stem extensions
- Metal to metal seats and/or extended bonnets with stuffing box for high/low temperatures and abrasive medium and high cycle applications
- Drain and vent/bleed connections

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

ANSI	Cl. 600 -1500 Mat.-Code 1D07D4D442	Cl. 600 -1500 Mat.-Code 4D07D4D442	Cl. 600 -1500 Mat.-Code 1ADAD4D442	Cl. 600 -1500 Mat.-Code 4ADAD4D442
Body	CS-Low Temp.	SS	CS-Low Temp.	SS
Ball/Stem	SS	SS	SS	SS
Ball Seats	POM/ SS	POM/ SS	SS	SS
Stem Seals	FPM/Celastc	FPM/Celastc	FPM/Celastc	FPM/Celastc
Body Seals	FPM/Celastc	FPM/Celastc	FPM/Celastc	FPM/Celastc
Seat Springs	SS	SS	SS	SS

ARGUS

HK 35 DIN



Werkstoffe der Hauptkomponenten

Nr.	Bezeichnung	Werkstoffbezeichnung	Vergleichbarer ASTM - Werkstoff
1	Gehäuse / Flansch	P355 NL1 (TStE355N) C22G2 (C22.BN) 1.4571	A350 LF2 A105 A182 F316 Ti
2	Kugel	1.4462 (Duplex) 1.4462 (Duplex) hartbeschichtet	A182 F51 A182 F51 hartbeschichtet
3	Schaltwelle	1.4462 (Duplex)	A182 F51
4	Schrauben	8.8 A4-70	A193 B8M
5	Kugeldichtung	POM 1.4462 (Duplex) hartbeschichtet	
6	Primäre Schaltwellenabdichtung	FPM	
7	Sekundäre Schaltwellenabdichtung	Celastic	
8	Primäre Gehäuseabdichtung	FPM	
9	Sekundäre Gehäuseabdichtung	Celastic	
10	Schrauben	A193 B7 (ASTM) A193 B8MN (ASTM)	
11	Muttern	A194 Gr. 4 (ASTM) A4-70 (ASTM)	

ARGUS HK 35

DN 50 DIN PN 100-250
DN 80 DIN PN 100-250

Beschreibung:

Der Hochdruck-Kugelhahn HK 35 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.

Die Trennung der Dichtungs- und Lagerungsfunktion sowohl bei der Kugel als auch bei der Schaltwelle ergibt ausgezeichnete Betriebszeiten und geringe Drehmomente.

Konstruktionsmerkmale:

Zweiteiliges Gehäuse (split body), gelagerte Kugel, Anti-blow-out-Schaltwelle, federunterstützte Kugeldichtung, druckentlastend und 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.

Zubehör und Optionen:

- Endlagenrückmeldung
- Abschließvorrichtung
- Schaltwellenverlängerung
- Metallische Dichtungen und/oder Hochtemperaturstopfbuchsen für sehr hohe/niedrige Temperaturen und/oder abrasive Medien und/oder Anwendung mit sehr hoher Schalthäufigkeit
- Anschlüsse für Entleerung/Belüftung und zum Spülen

Standardwerkstoffe:

DIN	PN 100-250 Mat.-Code 1D07D4D442	PN 100-250 Mat.-Code 4D07D4D442	PN 100-250 Mat.-Code 1ADAD4D442	PN 100-250 Mat.-Code 4ADAD4D442
Gehäuse	C-Stahl	CrNi-Stahl	C-Stahl	CrNi-Stahl
Kugel/Schaltwelle	CrNi-Stahl	CrNi-Stahl	CrNi-Stahl hartbeschichtet	CrNi-Stahl hartbeschichtet
Ringkolben	POM/CrNi-Stahl	POM/CrNi-Stahl	CrNi-Stahl hartbeschichtet	CrNi-Stahl hartbeschichtet
Schaltwellenabdichtung	FPM/Celastec	FPM/Celastec	FPM/Celastec	FPM/Celastec
Gehäuseabdichtung	FPM/Celastec	FPM/Celastec	FPM/Celastec	FPM/Celastec
Tellerfedern	CrNi-Stahl	CrNi-Stahl	CrNi-Stahl	CrNi-Stahl