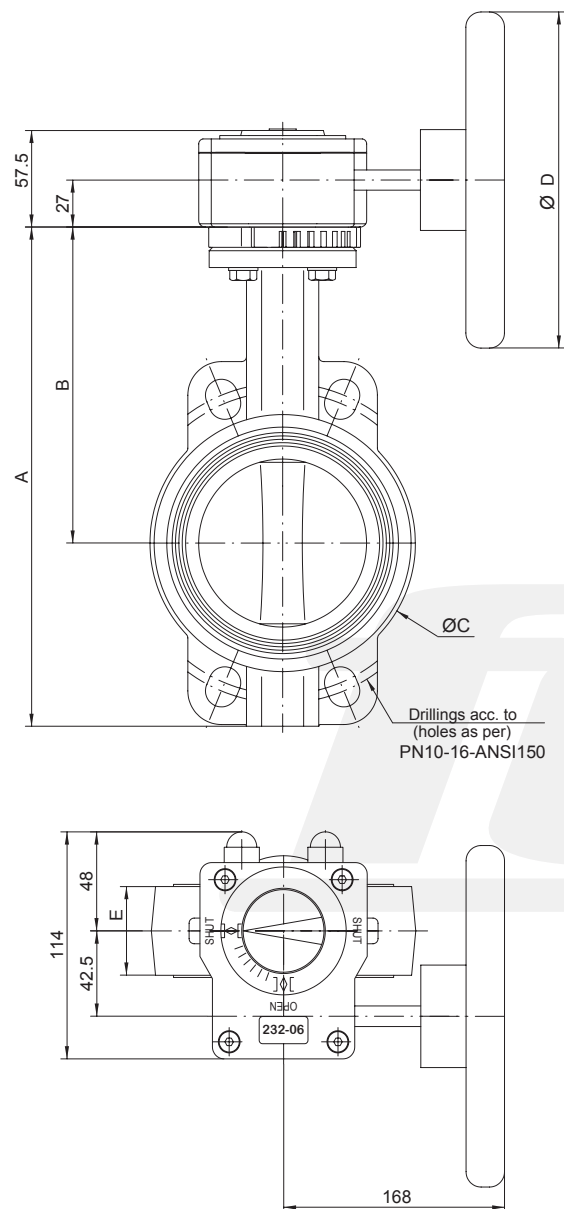




- D** • Bauform: Zwischenflanschgehäuse
 • Design nach API 609
 • Baulänge nach ISO 5752
 • Kopfflansch nach ISO 5211
 • Flanschanschluss: PN10 / PN16 oder ANSI150
 • Flanschbohrungen: metrisch oder UNC
 • Farbton: RAL 3020, signalrot
 • Mit Getriebe

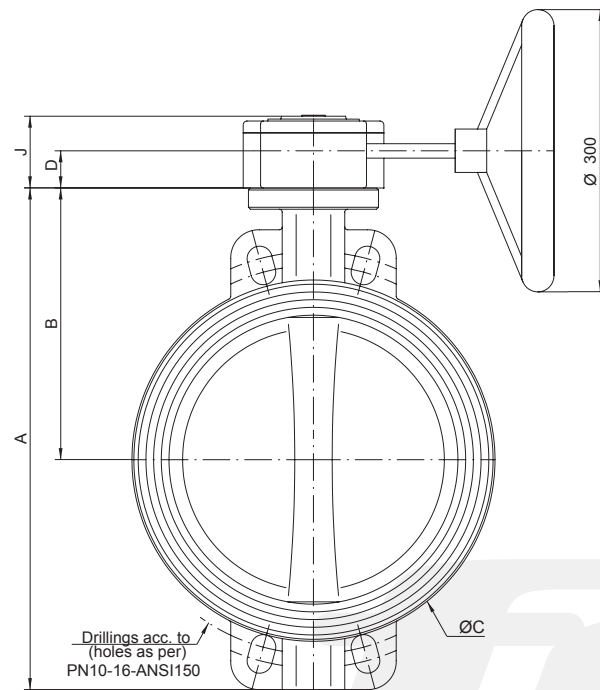
- E** • WAFER type
 • Design acc. to API 609
 • Face to face acc. to ISO 5752
 • Top flange acc. to ISO 5211
 • Flanges: PN10 / PN16 or ANSI150
 • Drilling holes: metric or UNC
 • Colour: RAL 3020, signal red
 • With gear

Drehmomente / Torques

DN	NPS	Nm	Max. Druck / Pressure
32	1 1/4"	5	16 bar
40	1 1/2"	5	16 bar
50	2"	9	16 bar
65	2 1/2"	25	16 bar
80	3"	30	16 bar
100	4"	45	16 bar
125	5"	65	16 bar
150	6"	80	16 bar
200	8"	150	16 bar

Abmessungen / Dimensions [mm]

DN	NPS	A	B	C	D	E
32	1 1/4"	205	139	83	160	33
40	1 1/2"	205	139	83	160	33
50	2"	227	154	104	160	43
65	2 1/2"	246	160	121	160	46
80	3"	260	170	132	160	46
100	4"	295	187	154	160	52
125	5"	324	205	189	200	56
150	6"	349	217	218	200	56
200	8"	442	257	269	200	60



- D** • Bauform: Zwischenflanschgehäuse
 • Design nach API 609
 • Baulänge nach ISO 5752
 • Kopfflansch nach ISO 5211
 • Flanschanschluss: PN10 / PN16 oder ANSI150
 • Flanschbohrungen: metrisch oder UNC
 • Farbton: RAL 3020, signalrot
 • Mit Getriebe

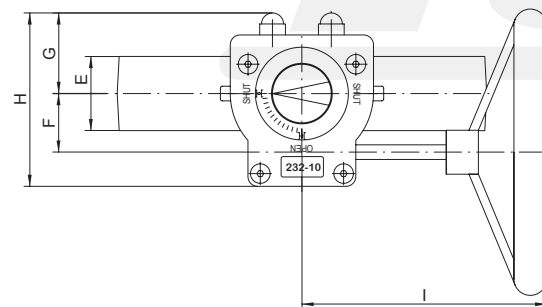
- E** • WAFER type
 • Design acc. to API 609
 • Face to face acc. to ISO 5752
 • Top flange acc. to ISO 5211
 • Flanges: PN10 / PN16 or ANSI150
 • Drilling holes: metric or UNC
 • Colour: RAL 3020, signal red
 • With gear

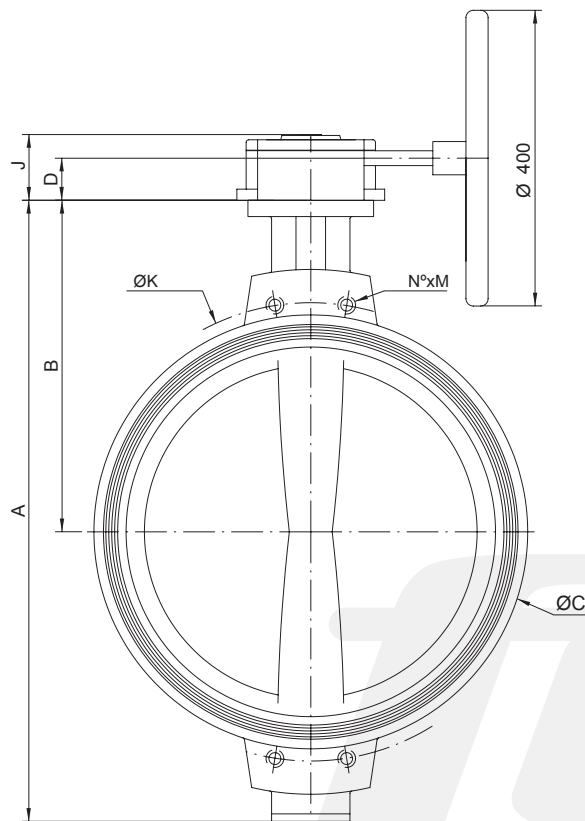
Drehmomente / Torques

DN	NPS	Nm	Max. Druck / Pressure
250	10"	290	16 bar
300	12"	390	16 bar
350	14"	600	16 bar
400	16"	1.450	16 bar

Abmessungen / Dimensions [mm]

DN	NPS	A	B	C	D	E	F	G	H	I	J	K
250	10"	452	255	327	38,5	68	60	82,5	117,5	265	74,5	300
300	12"	522	288	377	38,5	78	60	82,5	117,5	265	74,5	300
350	14"	600	320	435	42,5	78	80	91	218	375	88,5	400
400	16"	658	339	480	42,5	102	80	91	218	375	88,5	400





- D** • Bauform: Zwischenflanschgehäuse
 • Design nach API 609
 • Baulänge nach ISO 5752
 • Kopfanschluss nach ISO 5211
 • Flanschanschluss: PN10 / PN16 oder ANSI150
 • Flanschbohrungen: metrisch oder UNC
 • Farbton: RAL 3020, signalrot
 • Mit Getriebe

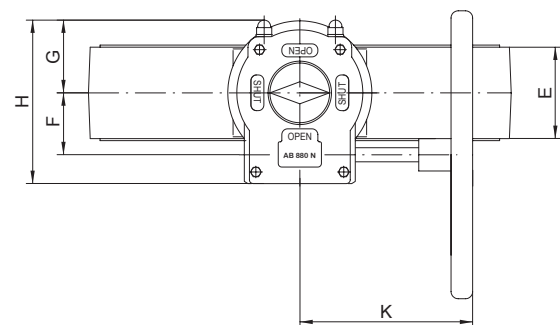
- E** • WAFER type
 • Design acc. to API 609
 • Face to face acc. to ISO 5752
 • Top flange acc. to ISO 5211
 • Flanges: PN10 / PN16 or ANSI150
 • Drilling holes: metric or UNC
 • Colour: RAL 3020, signal red
 • With gear

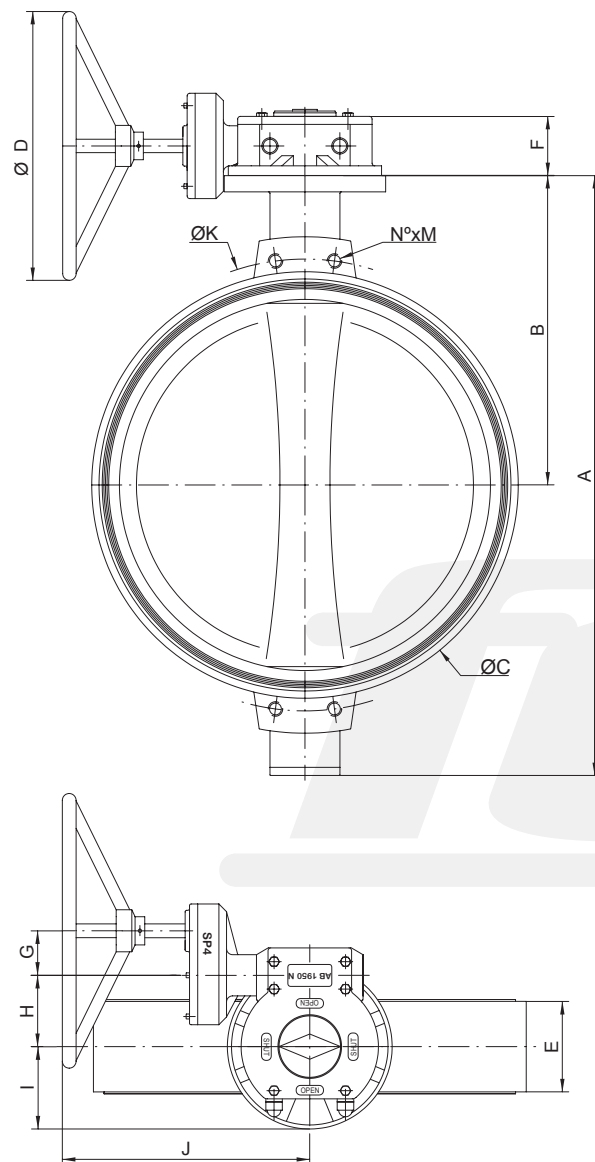
Drehmomente / Torques

DN	NPS	Nm	Max. Druck / Pressure
450	18"	1.600	16 bar
500	20"	2.250	16 bar
600	24"	3.000	10 bar

Abmessungen / Dimensions [mm]

DN	NPS	A	B	C	D	E	F	G	H	J	K	PN10-ØK	PN10-N°xM	PN16-ØK	PN16-N°xM	ANSI150-ØK	ANSI150-N°xM
450	18"	790	413	532	42	114	86	100	226	90	195	565	4xM24	585	4xM27	578	4x1 1/8"
500	20"	840	448	587	42	127	86	100	226	90	195	620	4xM24	650	4xM30	635	4x1 1/8"
600	24"	980	512	681	48	154	105	110	258	100	230	725	4xM27	770	4xM33	749,3	4x1 1/4"





- D** • Bauform: Zwischenflanschgehäuse
 • Design nach API 609
 • Baulänge nach ISO 5752
 • Kopfanschluss nach ISO 5211
 • Flanschanschluss: PN10 / PN16 oder ANSI150
 • Flanschbohrungen: metrisch oder UNC
 • Farbton: RAL 3020, signalrot
 • Mit Getriebe

- E** • WAFER type
 • Design acc. to API 609
 • Face to face acc. to ISO 5752
 • Top flange acc. to ISO 5211
 • Flanges: PN10 / PN16 or ANSI150
 • Drilling holes: metric or UNC
 • Colour: RAL 3020, signal red
 • With gear

Drehmomente / Torques

DN	NPS	Nm	Max. Druck / Pressure
700	28"	4.200	10 bar
800	32"	5.380	10 bar
1000	40"	13.000	10 bar

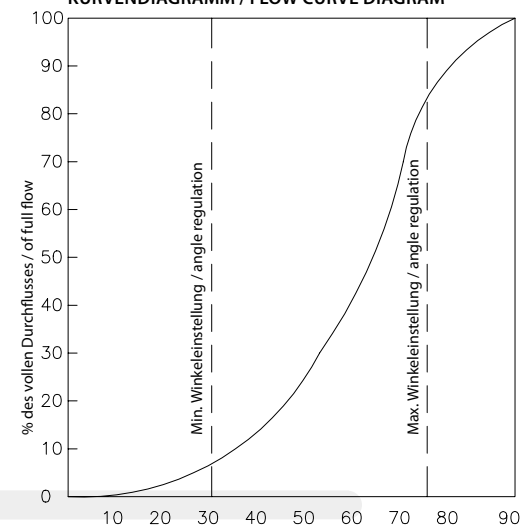
Abmessungen / Dimensions [mm]

DN	NPS	A	B	C	D	E	F	G	H	I	J	PN10-ØK	PN10-N°xM	PN16-ØK	PN16-N°xM	ANSI150-ØK	ANSI150-N°xM
700	28"	1115	575	793	500	165	110	81	130	150	450	840	4xM27	840	4xM33	863,6	4x1 1/4"
800	32"	1210	635	903	500	190	110	81	130	150	450	950	4xM30	950	4xM36	978	4x1 1/2"
1000	40"	1450	750	1120	600	216	121	81	182	170	490	1160	4xM33	1170	4xM39	1200	4x1 1/2"

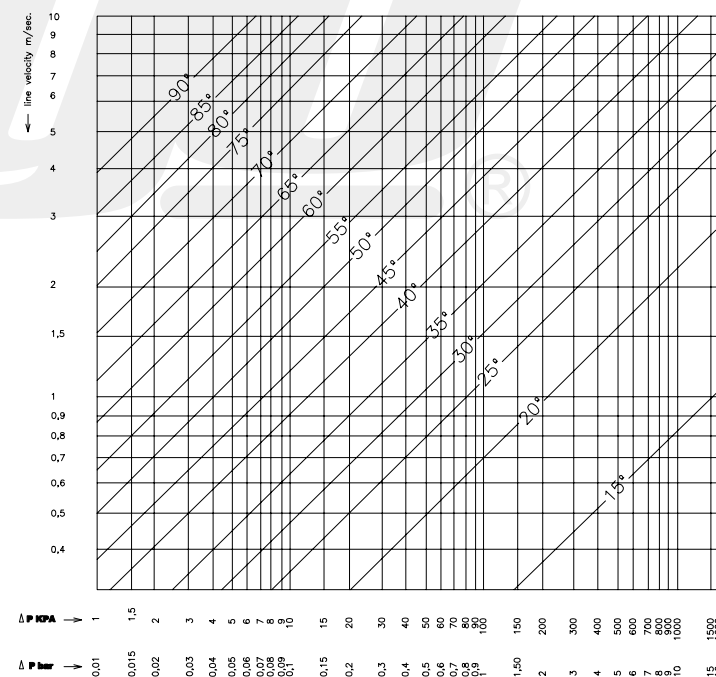
SEATS / SITZDICHTUNGEN

Material	ISO 1629	Chemical name	Utilities	Temperature
EPDM			Water, sea water, weak, mineral, alcohols, ketones	-20 ... 100°C
EPDM ... B				
EPDM ... HT	EPDM	Ethylene Propylene Terpolymer	High temperature	-20 ... 130°C
EPDM ... KP			KTW Approval	-20 ... 130°C
NORDEL			Abrasion resistance	-20 ... 95°C
NATURAL				
NATURAL ... B	NR	1,4 cis Polisoprene	Very good abrasion resistance	-15 ... 70°C
NEOPRENE				
NEOPRENE ... B	CR	Polychloroprene	Moderate resistance to oil and greases	-25 ... 80°C
BUTYL	IIR	Isobutylene-Isoprene	Permeability inert gas	-10 ... 95°C
NITRLE			Oil, greases, gas oil, H ₂	
NITRILE CARBOX.	NBR ... X	Acrylonitrile-butadiene copolymer	Furthermore abrasion resistance	-10 ... 100°C
NITRILE ... B (white)	NBR	Acrylonitrile-butadiene copolymer	FDA (Food) 21 CFR 177.2600	-10 ... 120°C
HYPALON	CSM	Chlorosulfonated polyethylene	Moderate resistance to oil and greases	-20 ... 125°C
ECO	ECO	Epichlorhydrin ethylen oxide copolymer	Brine, refrigerant fluid	-40 ... 125°C
SILICONE				
FOOD SILICONE	MVQ	Poly (methyl-vinyl) siloxane	Highest and lowest temperature resistance	-60 ... 180°C
STEAM SILICONE			Steam water	-60 ... 140°C
FLUORSILICONE	FMVQ	Poly (fluor methyl-vinyl) siloxane	Oil, greases	-60 ... 180°C
VITON				
VITON ... B	FPM	Hexafluorpropylene vinylidene copolymer	Best chemical resistance	-15 ... 190°C
VITON ... GF		HPF-VDF-TFE-CSM Tetrapolymer	Oxygenated gasolines	-15 ... 190°C
FLUCAST AB/P	*	*	Excellent abrasion resistance	-25 ... 75°C
FLUCAST AF100	*	*	Excellent resistance to strong acids and basis	0 ... 180°C

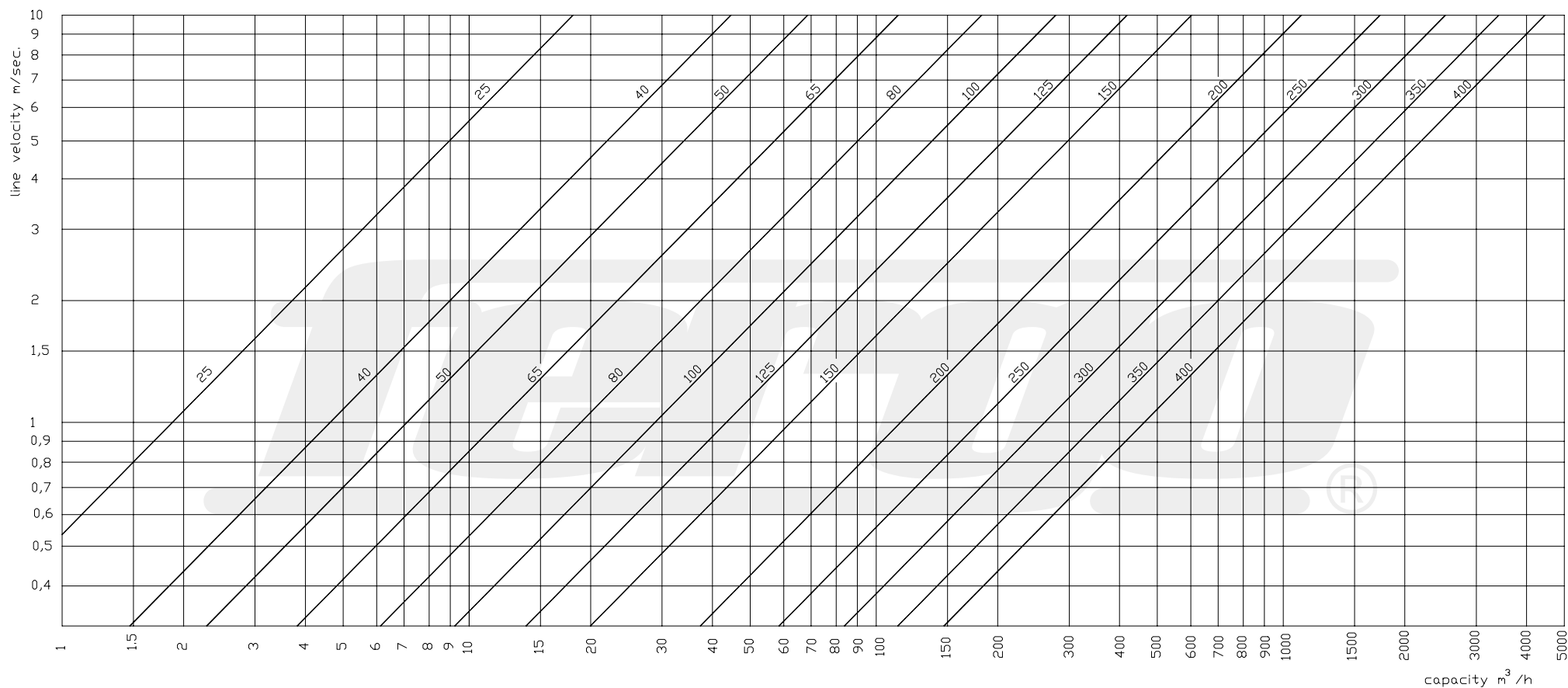
KURVENDIAGRAMM / FLOW CURVE DIAGRAM



DRUCKVERLUSTDIAGRAMM / PRESSURE LOSS DIAGRAM

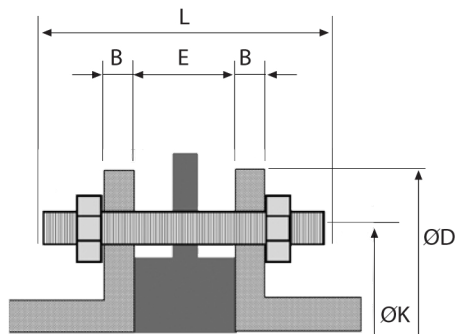


DURCHFLUSSDIAGRAMM / FLOW CHART

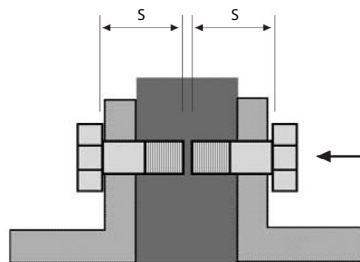


Design and materials can be changed without notice. Errors and omissions excepted

ANSCHLUSSMAßE / CONNECTIONS PN10

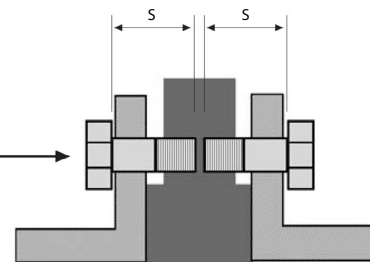


AK110

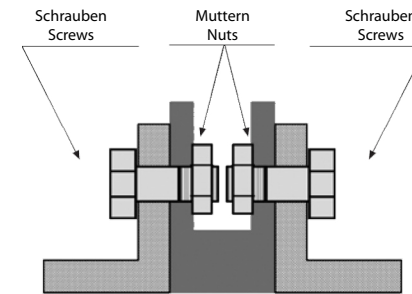


AK110 ≥ DN450

Schrauben
Screws



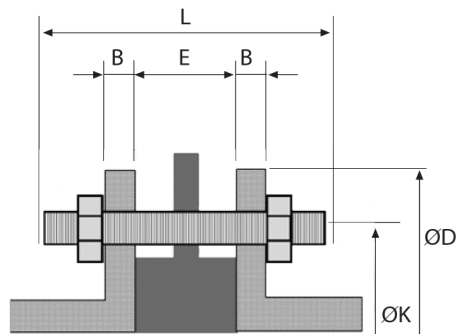
AK111



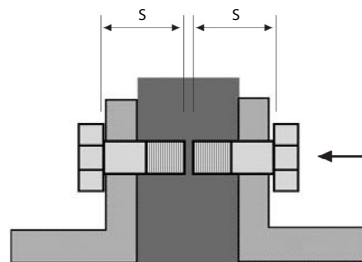
AK113

Armatur / Valve		AK110 - Zwischenflanschführung / Wafer Type									AK111 - Anflanschführung / Lug Type			AK113 - Flanschführung / Flanged Type (DIN 2632)			
		Gewindestange / Threaded rod			Nuts / Muttern			Schrauben / Screws			Schrauben / Screws			Dicke Thickness	Lochkreis Centers	Bohrungen Holes	Extern External
DN	Breite Width	Länge Lengh	Gewinde Thread	Menge Quantity	Gewinde Thread	Menge Quantity	Länge Lengh	Gewinde Thread	Menge Quantity	Länge Lengh	Gewinde Thread	Menge Quantity					
DN	Inch	E	L	M	N°	M	N°	S	M	N°	S	M	N°	B	K	N°	D
32	1 1/4"	33	110	M16	4	M16	8	--	--	--	30	M16	8	16	100	4	140
40	1 1/2"	33	110	M16	4	M16	8	--	--	--	30	M16	8	16	110	4	150
50	2"	43	120	M16	4	M16	8	--	--	--	35	M16	8	18	125	4	165
65	2 1/2"	46	125	M16	4	M16	8	--	--	--	35	M16	8	18	145	4	185
80	3"	46	130	M16	8	M16	16	--	--	--	40	M16	16	20	160	8	200
100	4"	52	135	M16	8	M16	16	--	--	--	40	M16	16	20	180	8	220
125	5"	56	140	M16	8	M16	16	--	--	--	45	M16	16	22	210	8	250
150	6"	56	150	M20	8	M20	16	--	--	--	45	M20	16	22	240	8	285
200	8"	60	160	M20	8	M20	16	--	--	--	50	M20	16	24	295	8	340
250	10"	68	170	M20	12	M20	24	--	--	--	55	M20	24	26	350	12	395
300	12"	78	180	M20	12	M20	24	--	--	--	60	M20	24	26	400	12	445
350	14"	78	180	M20	16	M20	32	--	--	--	60	M20	32	26	460	16	505
400	16"	102	215	M24	16	M24	32	--	--	--	70	M24	32	26	515	16	565
450	18"	114	230	M24	16	M24	32	80	M24	8	80	M24	40	28	565	20	615
500	20"	127	240	M24	16	M24	32	80	M24	8	85	M24	40	28	620	20	670
600	24"	154	270	M27	16	M27	32	90	M27	8	--	--	--	28	725	20	780
700	28"	165	305	M27	20	M27	40	100	M27	8	--	--	--	30	840	24	895
800	32"	190	330	M30	20	M30	40	110	M30	8	--	--	--	32	950	24	1015
900	36"	203	347	M30	24	M30	48	120	M30	8	--	--	--	34	1050	28	1115
1000	40"	216	366	M33	24	M33	48	130	M33	8	--	--	--	34	1160	28	1230
1200	48"	254	419	M36	28	M36	56	150	M36	8	--	--	--	38	1380	32	1455

ANSCHLUSSMAßE / CONNECTIONS PN16

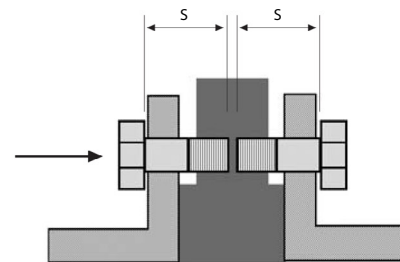


AK110

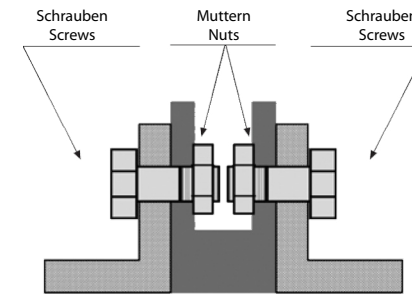


AK110 ≥ DN450

Schrauben
Screws



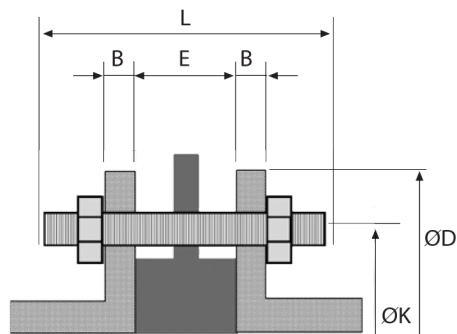
AK111



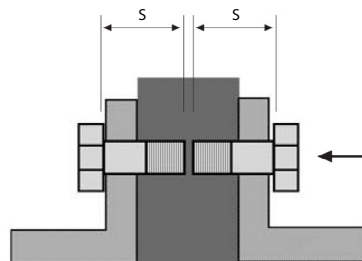
AK113

Armatur / Valve		AK110 - Zwischenflanschführung / Wafer Type									AK111 - Anflanschführung / Lug Type			AK113 - Flanschführung / Flanged Type (DIN 2632)			
		Gewindestange / Threaded rod			Nuts / Muttern			Schrauben / Screws			Schrauben / Screws			Dicke Thickness	Lochkreis Centers	Bohrungen Holes	Extern External
DN	Breite Width	Länge Lengh	Gewinde Thread	Menge Quantity	Gewinde Thread	Menge Quantity	Länge Lengh	Gewinde Thread	Menge Quantity	Länge Lengh	Gewinde Thread	Menge Quantity					
DN	Inch	E	L	M	N°	M	N°	S	M	N°	S	M	N°	B	K	N°	D
32	1 1/4"	33	110	M16	4	M16	8	--	--	--	30	M16	8	16	100	4	140
40	1 1/2"	33	110	M16	4	M16	8	--	--	--	30	M16	8	16	110	4	150
50	2"	43	120	M16	4	M16	8	--	--	--	35	M16	8	18	125	4	165
65	2 1/2"	46	125	M16	4	M16	8	--	--	--	35	M16	8	18	145	4	185
80	3"	46	130	M16	8	M16	16	--	--	--	40	M16	16	20	160	8	200
100	4"	52	135	M16	8	M16	16	--	--	--	40	M16	16	20	180	8	220
125	5"	56	140	M16	8	M16	16	--	--	--	45	M16	16	22	210	8	250
150	6"	56	150	M20	8	M20	16	--	--	--	45	M20	16	22	240	8	285
200	8"	60	160	M20	12	M20	16	--	--	--	50	M20	24	24	295	12	340
250	10"	68	180	M24	12	M24	24	--	--	--	55	M24	24	26	355	12	405
300	12"	78	195	M24	12	M24	24	--	--	--	65	M24	24	28	410	12	460
350	14"	78	195	M24	16	M24	32	--	--	--	65	M24	32	30	470	16	520
400	16"	102	235	M27	16	M27	32	--	--	--	80	M27	32	32	525	16	580
450	18"	114	250	M27	16	M27	32	80	M27	8	85	M27	40	34	585	20	640
500	20"	127	270	M30	16	M30	32	80	M30	8	95	M30	40	34	650	20	715
600	24"	154	300	M33	16	M33	32	90	M33	8	--	--	--	36	770	20	840
700	28"	165	325	M33	20	M33	40	100	M33	8	--	--	--	36	840	24	910
800	32"	190	355	M36	20	M36	40	110	M36	8	--	--	--	38	950	24	1025
900	36"	203	372	M36	24	M36	48	120	M36	8	--	--	--	40	1050	28	1125
1000	40"	216	396	M39	24	M39	48	130	M39	8	--	--	--	42	1170	28	1255
1200	48"	254	459	M45	28	M45	56	160	M39	8	--	--	--	48	1390	32	1485

ANSCHLUSSMAßE / CONNECTIONS ANSI 150 LBS

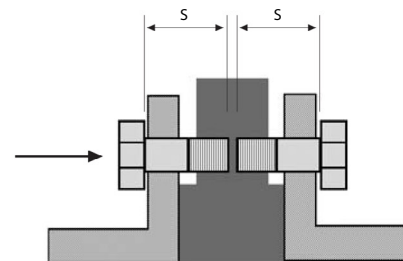


AK110

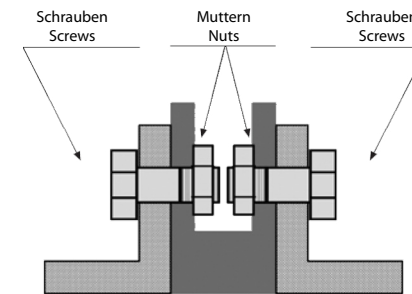


AK110 ≥ DN450

Schrauben
Screws



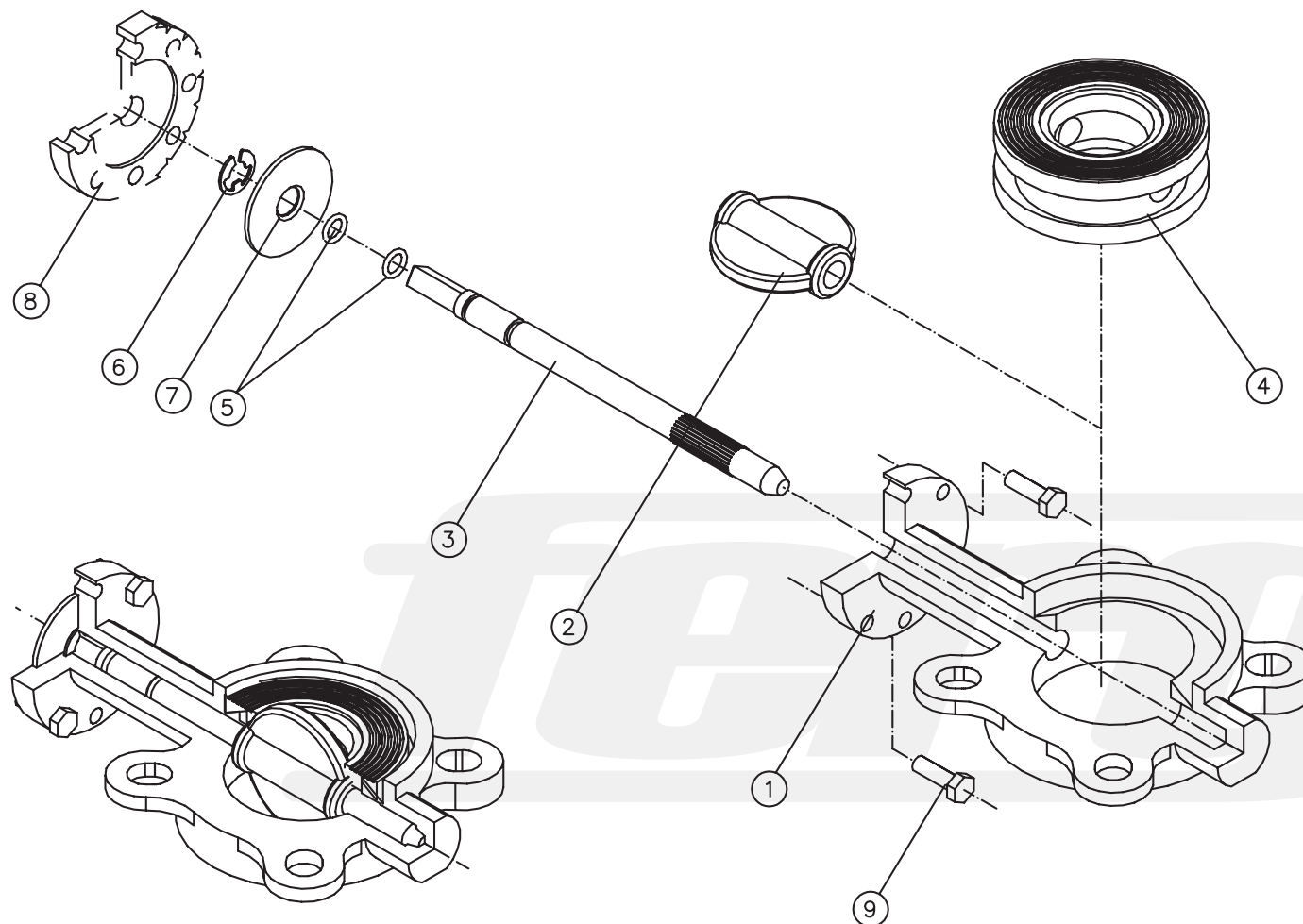
AK111



AK113

Armatur / Valve			AK110 - Zwischenflanschführung / Wafer Type									AK111 - Anflanschführung / Lug Type			AK113 - Flanschführung / Flanged Type (DIN 2632)			
			Gewindestange / Threaded rod			Nuts / Muttern			Schrauben / Screws			Schrauben / Screws						
DN		Breite Width	Länge Lengh	Gewinde Thread	Menge Quantity	Gewinde Thread	Menge Quantity	Länge Lengh	Gewinde Thread	Menge Quantity	Länge Lengh	Gewinde Thread	Menge Quantity	Dicke Thickness	Lochkreis Centers	Bohrungen Holes	Extern External	
DN	Inch	E	L	M	N°	M	N°	S	M	N°	S	M	N°	B	K	N°	D	
32	1 1/4"	33	110	5/8"	4	5/8"	8	--	--	--	30	5/8"	8	15,9	88,9	4	117,5	
40	1 1/2"	33	110	5/8"	4	5/8"	8	--	--	--	30	5/8"	8	17,5	98,4	4	127,0	
50	2"	43	120	5/8"	4	5/8"	8	--	--	--	35	5/8"	8	19,1	120,6	4	152,4	
65	2 1/2"	46	130	5/8"	4	5/8"	8	--	--	--	40	5/8"	8	22,2	139,7	4	177,8	
80	3"	46	135	5/8"	8	5/8"	16	--	--	--	40	5/8"	16	23,8	152,4	4	190,5	
100	4"	52	140	5/8"	8	5/8"	16	--	--	--	45	5/8"	16	23,8	190,5	8	228,6	
125	5"	56	155	3/4"	8	3/4"	16	--	--	--	45	3/4"	16	23,8	215,9	8	254,0	
150	6"	56	155	3/4"	8	3/4"	16	--	--	--	45	3/4"	16	25,4	241,3	8	279,4	
200	8"	60	165	3/4"	8	3/4"	16	--	--	--	50	3/4"	16	28,6	298,4	8	342,9	
250	10"	68	185	7/8"	12	7/8"	24	--	--	--	60	7/8"	24	30,2	361,9	12	406,4	
300	12"	78	200	7/8"	12	7/8"	24	--	--	--	65	7/8"	24	31,8	431,8	12	482,6	
350	14"	78	215	1"	12	1"	24	--	--	--	70	1"	24	34,9	476,2	12	533,4	
400	16"	102	245	1"	16	1"	32	--	--	--	85	1"	32	36,5	539,7	16	596,9	
450	18"	114	265	1 1/8"	16	1 1/8"	32	70	1 1/8"	8	90	1 1/8"	32	39,7	577,8	16	635,0	
500	20"	127	285	1 1/8"	16	1 1/8"	32	75	1 1/8"	8	100	1 1/8"	40	42,9	635,0	20	698,5	
600	24"	154	305	1 1/4"	16	1 1/4"	32	75	1 1/4"	8	--	--	--	47,6	749,3	20	812,8	

EXPLOSIONSZEICHNUNG / EXPLODED ASSEMBLY



Demontage / Disassembly

- D** 1. Sechskantschrauben lösen (N°9)
2. Abdeckplatte abnehmen (N°8)
3. Welle herausziehen (N°3)
4. Scheibe entnehmen (N°2)
5. Sitz herausnehmen (N°4)

- E** 1. To unscrew the subjection's screws (N°9)
2. To take out the cover (N°8)
3. To remove the central shaft (N°3)
4. To take out the disk (N°2)
5. To remove the seat of the body (N°4)

Montage / Assembly

- D** 1. Sitz einbauen (N°4)
2. Scheibe einbauen (N°2)
3. Welle einsetzen (N°3)
4. Abdeckplatte aufsetzen (N°8)
5. Sechskantschrauben anziehen (N°9)

- E** 1. To assemble the seat in the body (N°4)
2. To assemble the disk (N°2)
3. To insert the central shaft (N°3)
4. To insert the cover (N°8)
5. To screw the subjection's screws (N°9)

Werkstoffe / Materials

Nr. Bauteil / Part

- | | |
|---|--------------------------------|
| 1 | ISO-Flansch / Top flange |
| 2 | Scheibe / Disc |
| 3 | Welle / Shaft |
| 4 | Sitz / Seat |
| 5 | O-Ringe / O-rings |
| 6 | Ringfeder / Circlip |
| 7 | Unterlegscheibe / Washer |
| 8 | Abdeckplatte / Cover |
| 9 | Sechskantschraube / Hex. screw |