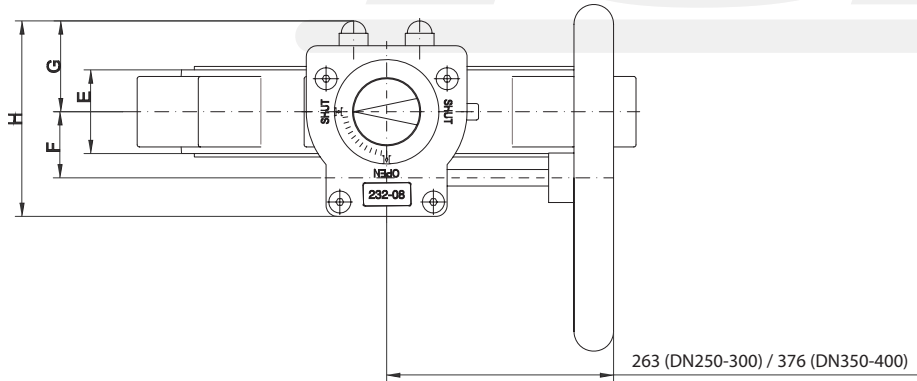
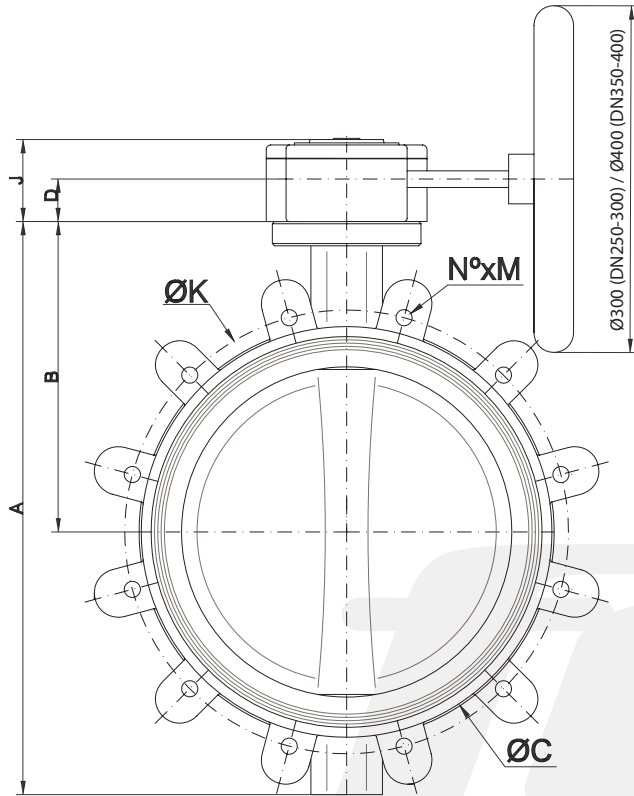


DN250 - DN400



- D**
- Bauform: Anflanschgehäuse
 - 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**
- LUG 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

Werkstoffe / Materials

| Item | Bauteil / Part | Material |
|------|--------------------------|----------------------------|
| 1 | Gehäuse / Body | ASTM A395 / GGG40 |
| 2 | Welle / Shaft | A276 -316 |
| 3 | Scheibe / Disc | A351 CF8M / SS316 / 1.4408 |
| 4 | Sitz / Seat | EPDM |
| 5 | O-Ring | NBR |
| 6 | O-Ring | NBR |
| 7 | Unterlegscheibe / Washer | steel |

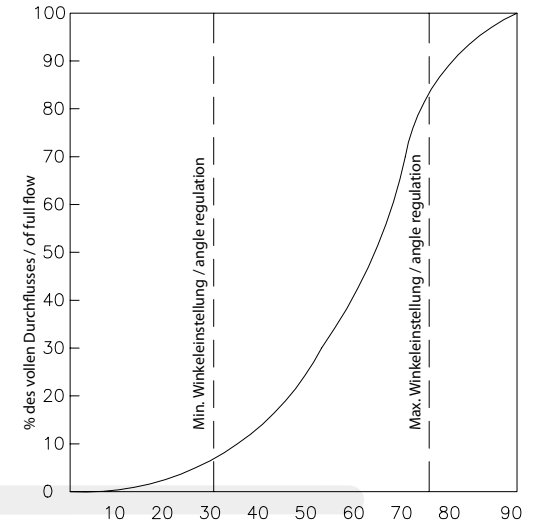
Abmessungen / Dimensions [mm]

| DN | NPS | A | B | C | D | E | F | G | H | J | PN10-ØK | PN10-N°xM | PN16-ØK | PN16-N°xM | ANSI150-ØK | ANSI150-N°xM |
|-----|-----|-----|-----|-----|------|-----|----|------|-----|------|---------|-----------|---------|-----------|------------|--------------|
| 250 | 10" | 452 | 255 | 327 | 38,5 | 68 | 60 | 82,5 | 118 | 74,5 | 350 | 12xM20 | 355 | 12xM24 | 362 | 12x7/8" |
| 300 | 12" | 522 | 288 | 377 | 38,5 | 78 | 60 | 82,5 | 118 | 74,5 | 400 | 12xM20 | 410 | 12xM24 | 431,8 | 12x7/8" |
| 350 | 14" | 600 | 320 | 435 | 42,5 | 78 | 80 | 91 | 218 | 88,5 | 460 | 16xM20 | 470 | 16xM24 | 476,3 | 12x1" |
| 400 | 16" | 658 | 339 | 480 | 42,5 | 102 | 80 | 91 | 218 | 88,5 | 515 | 16xM24 | 525 | 16xM27 | 539,8 | 16x1" |

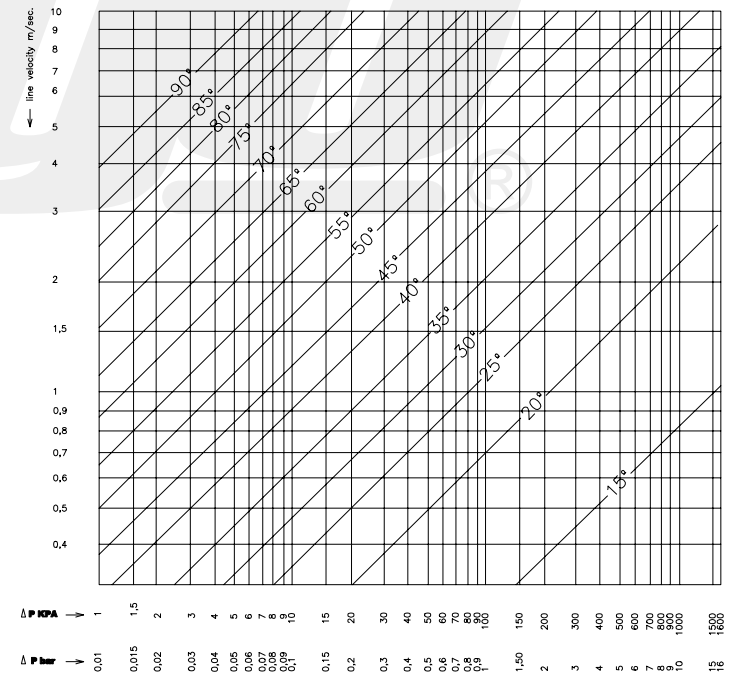
SEATS / SITZDICHTUNGEN

| 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 | Epiclorhydrin 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 |

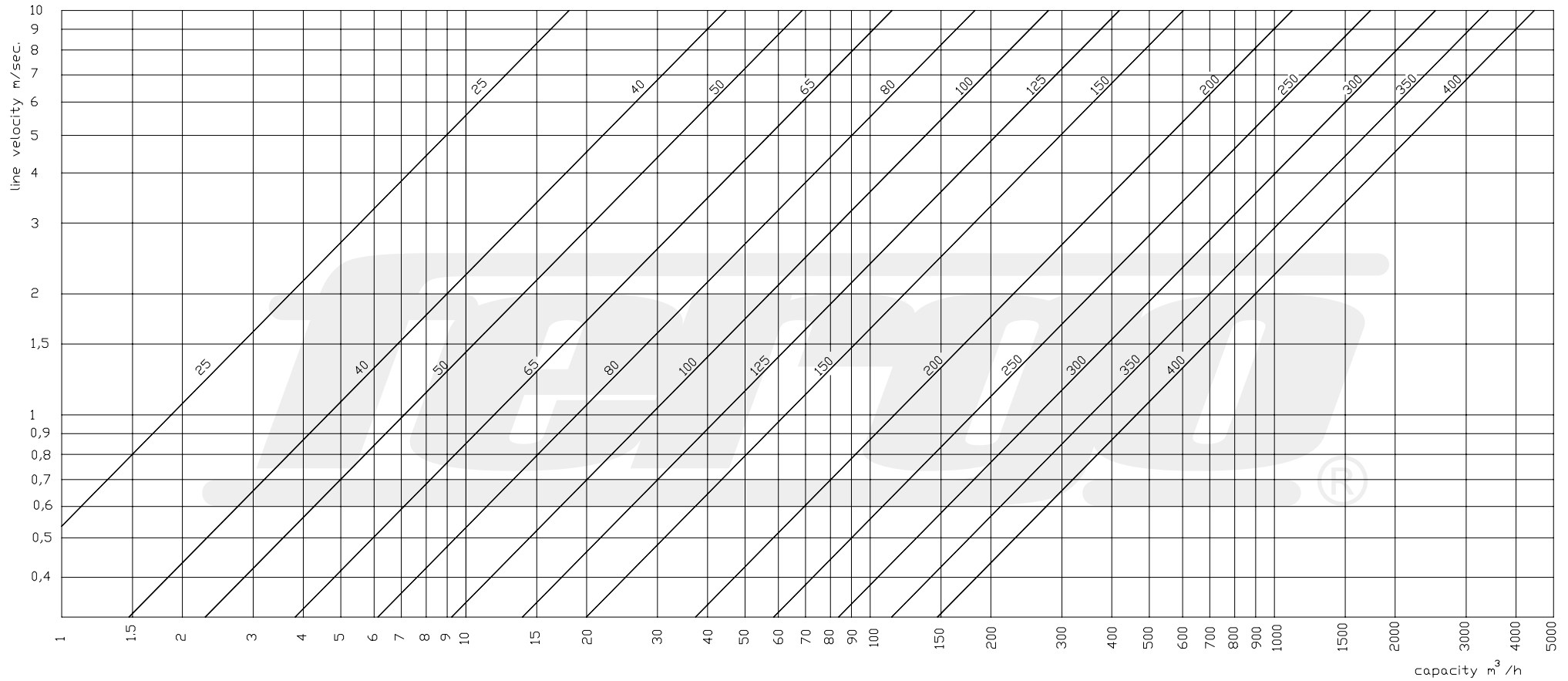
KURVENDIAGRAMM / FLOW CURVE DIAGRAM



DRUCKVERLUSTDIAGRAMM / PRESSURE LOSS DIAGRAM

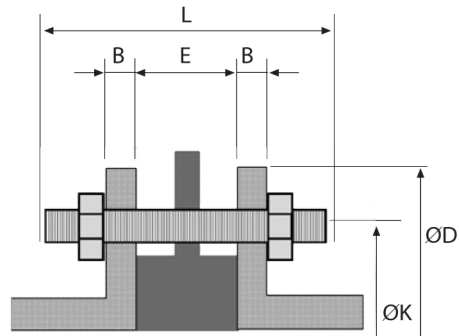


DURCHFLUSSDIAGRAMM / FLOW CHART

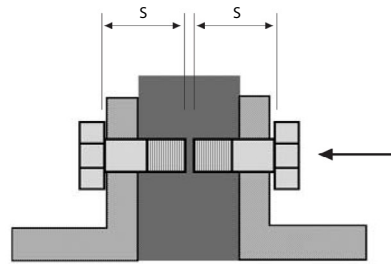


Design and materials can be changed without notice. Errors and omissions excepted

ANSCHLUSSMAßE / CONNECTIONS PN10

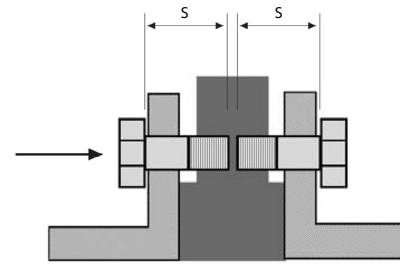


AK110

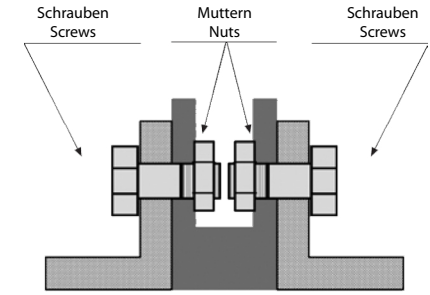


AK110 ≥ DN450

Schrauben
Screws



AK111

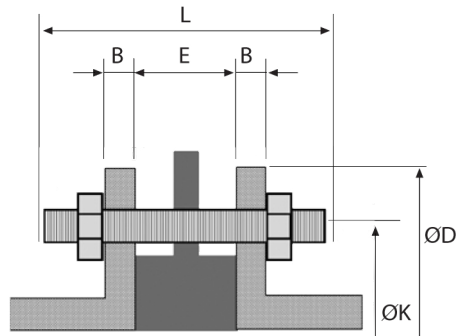


AK113

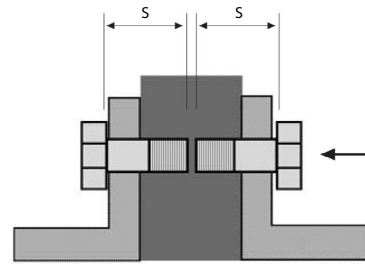
| Armatur / Valve | | AK110 - Zwischenflanschführung / Wafer Type | | | | | | | | | AK111 - Anflanschführung / Lug Type | | | AK113 - Flanschführung / Flanged Type (DIN 2632) | | | |
|-----------------|-----------------|---|-------------------|-------------------|-------------------|-------------------|----------------|--------------------|-------------------|----------------|-------------------------------------|-------------------|----|--|----------------------|--------------------|--------------------|
| | | 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 | B | | | | |
| 32 | 1 1/4" | 33 | M16 | 4 | M16 | 8 | -- | -- | -- | 30 | M16 | 8 | 16 | 100 | 4 | 140 | |
| 40 | 1 1/2" | 33 | M16 | 4 | M16 | 8 | -- | -- | -- | 30 | M16 | 8 | 16 | 110 | 4 | 150 | |
| 50 | 2" | 43 | M16 | 4 | M16 | 8 | -- | -- | -- | 35 | M16 | 8 | 18 | 125 | 4 | 165 | |
| 65 | 2 1/2" | 46 | M16 | 4 | M16 | 8 | -- | -- | -- | 35 | M16 | 8 | 18 | 145 | 4 | 185 | |
| 80 | 3" | 46 | M16 | 8 | M16 | 16 | -- | -- | -- | 40 | M16 | 16 | 20 | 160 | 8 | 200 | |
| 100 | 4" | 52 | M16 | 8 | M16 | 16 | -- | -- | -- | 40 | M16 | 16 | 20 | 180 | 8 | 220 | |
| 125 | 5" | 56 | M16 | 8 | M16 | 16 | -- | -- | -- | 45 | M16 | 16 | 22 | 210 | 8 | 250 | |
| 150 | 6" | 56 | M20 | 8 | M20 | 16 | -- | -- | -- | 45 | M20 | 16 | 22 | 240 | 8 | 285 | |
| 200 | 8" | 60 | M20 | 8 | M20 | 16 | -- | -- | -- | 50 | M20 | 16 | 24 | 295 | 8 | 340 | |
| 250 | 10" | 68 | M20 | 12 | M20 | 24 | -- | -- | -- | 55 | M20 | 24 | 26 | 350 | 12 | 395 | |
| 300 | 12" | 78 | M20 | 12 | M20 | 24 | -- | -- | -- | 60 | M20 | 24 | 26 | 400 | 12 | 445 | |
| 350 | 14" | 78 | M20 | 16 | M20 | 32 | -- | -- | -- | 60 | M20 | 32 | 26 | 460 | 16 | 505 | |
| 400 | 16" | 102 | M24 | 16 | M24 | 32 | -- | -- | -- | 70 | M24 | 32 | 26 | 515 | 16 | 565 | |
| 450 | 18" | 114 | M24 | 16 | M24 | 32 | 80 | M24 | 8 | 80 | M24 | 40 | 28 | 565 | 20 | 615 | |
| 500 | 20" | 127 | M24 | 16 | M24 | 32 | 80 | M24 | 8 | 85 | M24 | 40 | 28 | 620 | 20 | 670 | |
| 600 | 24" | 154 | M27 | 16 | M27 | 32 | 90 | M27 | 8 | -- | -- | -- | 28 | 725 | 20 | 780 | |
| 700 | 28" | 165 | M27 | 20 | M27 | 40 | 100 | M27 | 8 | -- | -- | -- | 30 | 840 | 24 | 895 | |
| 800 | 32" | 190 | M30 | 20 | M30 | 40 | 110 | M30 | 8 | -- | -- | -- | 32 | 950 | 24 | 1015 | |
| 900 | 36" | 203 | M30 | 24 | M30 | 48 | 120 | M30 | 8 | -- | -- | -- | 34 | 1050 | 28 | 1115 | |
| 1000 | 40" | 216 | M33 | 24 | M33 | 48 | 130 | M33 | 8 | -- | -- | -- | 34 | 1160 | 28 | 1230 | |
| 1200 | 48" | 254 | M36 | 28 | M36 | 56 | 150 | M36 | 8 | -- | -- | -- | 38 | 1380 | 32 | 1455 | |

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

ANSCHLUSSMAßE / CONNECTIONS PN16

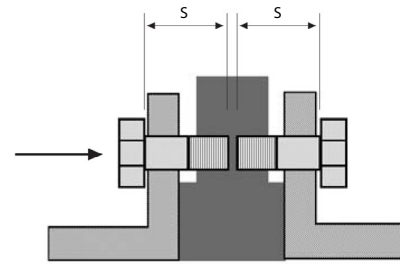


AK110

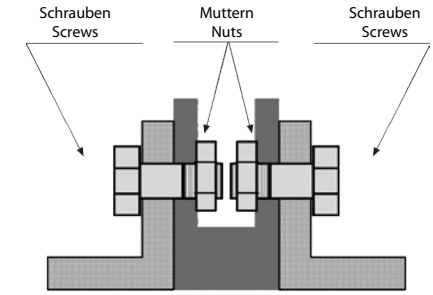


AK110 ≥ DN450

Schrauben
Screws



AK111

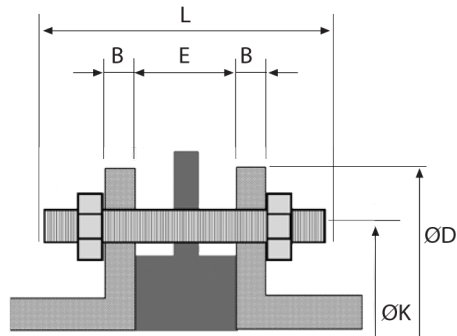


AK113

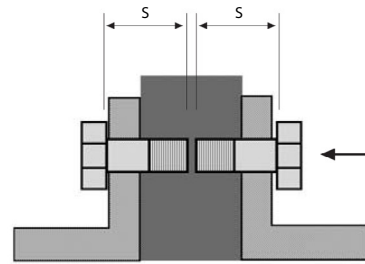
| Armatur / Valve | | AK110 - Zwischenflanschführung / Wafer Type | | | | | | | | | AK111 - Anflanschführung / Lug Type | | | AK113 - Flanschführung / Flanged Type (DIN 2632) | | | |
|-----------------|-----------------|---|-------------------|-------------------|-------------------|-------------------|----------------|--------------------|-------------------|----------------|-------------------------------------|-------------------|----|--|----------------------|--------------------|--------------------|
| | | 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 | B | | | | |
| 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 | 40 | 34 | 585 | 20 | 640 | |
| 500 | 20" | 127 | 270 | M30 | 16 | M30 | 32 | 80 | M30 | 8 | 95 | 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 | |

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

ANSCHLUSSMAßE / CONNECTIONS ANSI 150 LBS

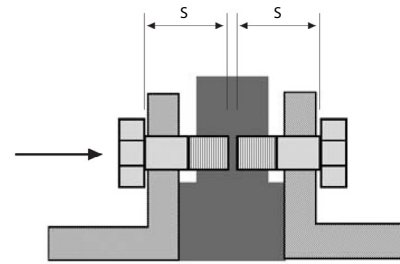


AK110

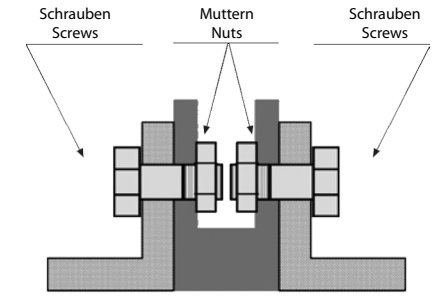


AK110 ≥ DN450

Schrauben
Screws



AK111

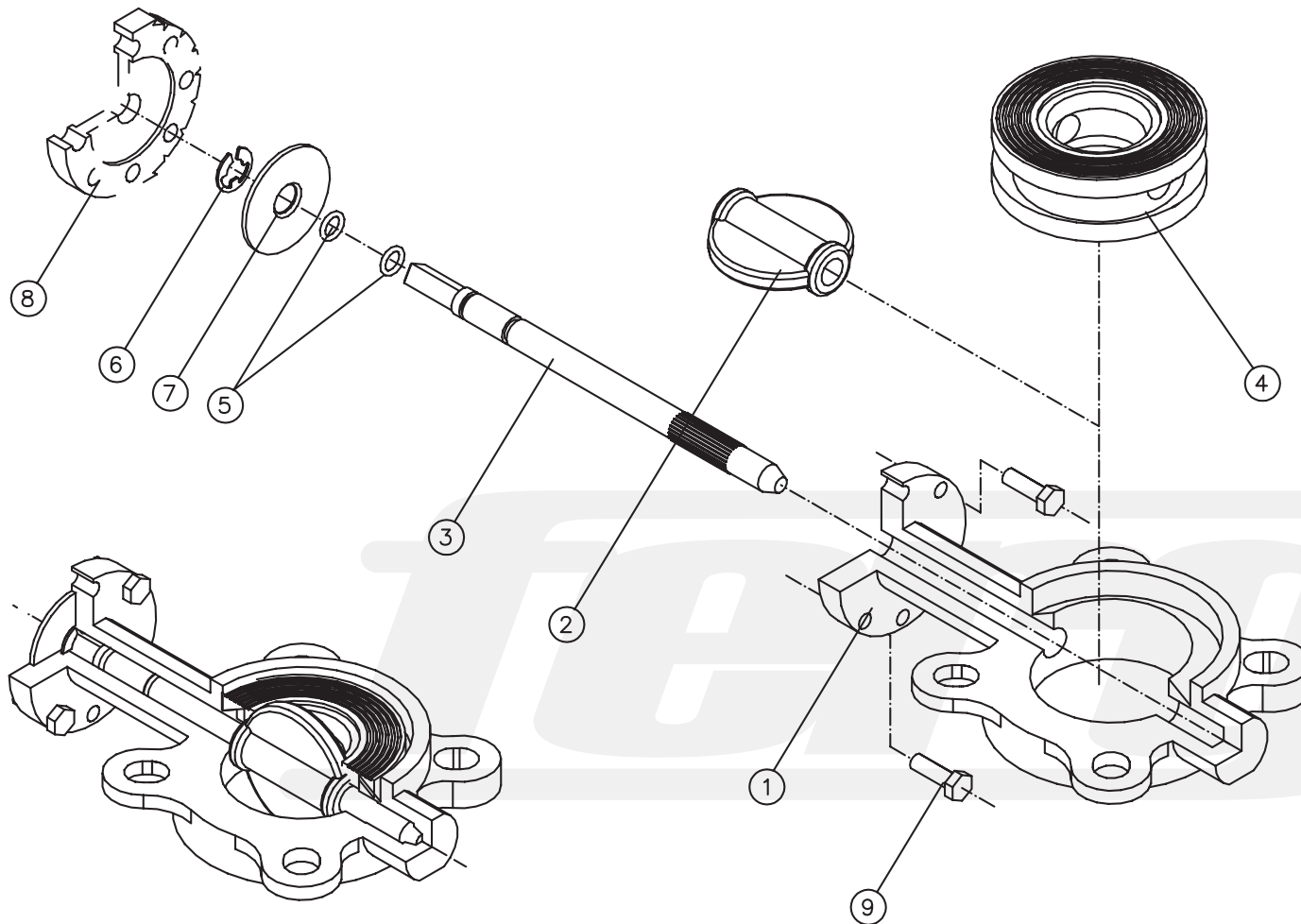


AK113

| 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 | | | 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 | B | | | | |
| 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 |

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

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 subject'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 assemble the cover (N°8)
 5. To screw the subject'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 |

AK110/111/113

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