Brochure **Butterfly Valves**

SODECO valves

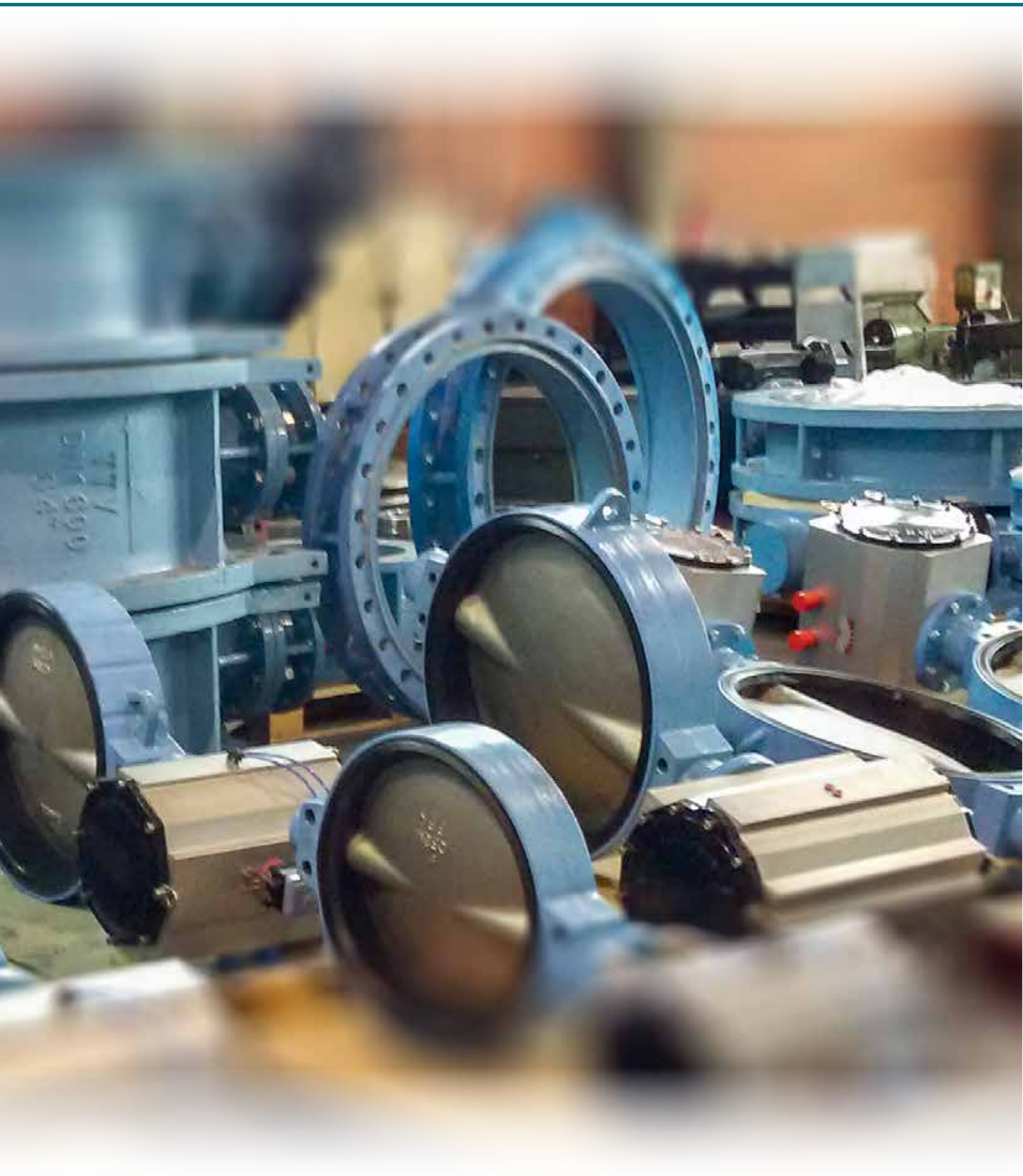
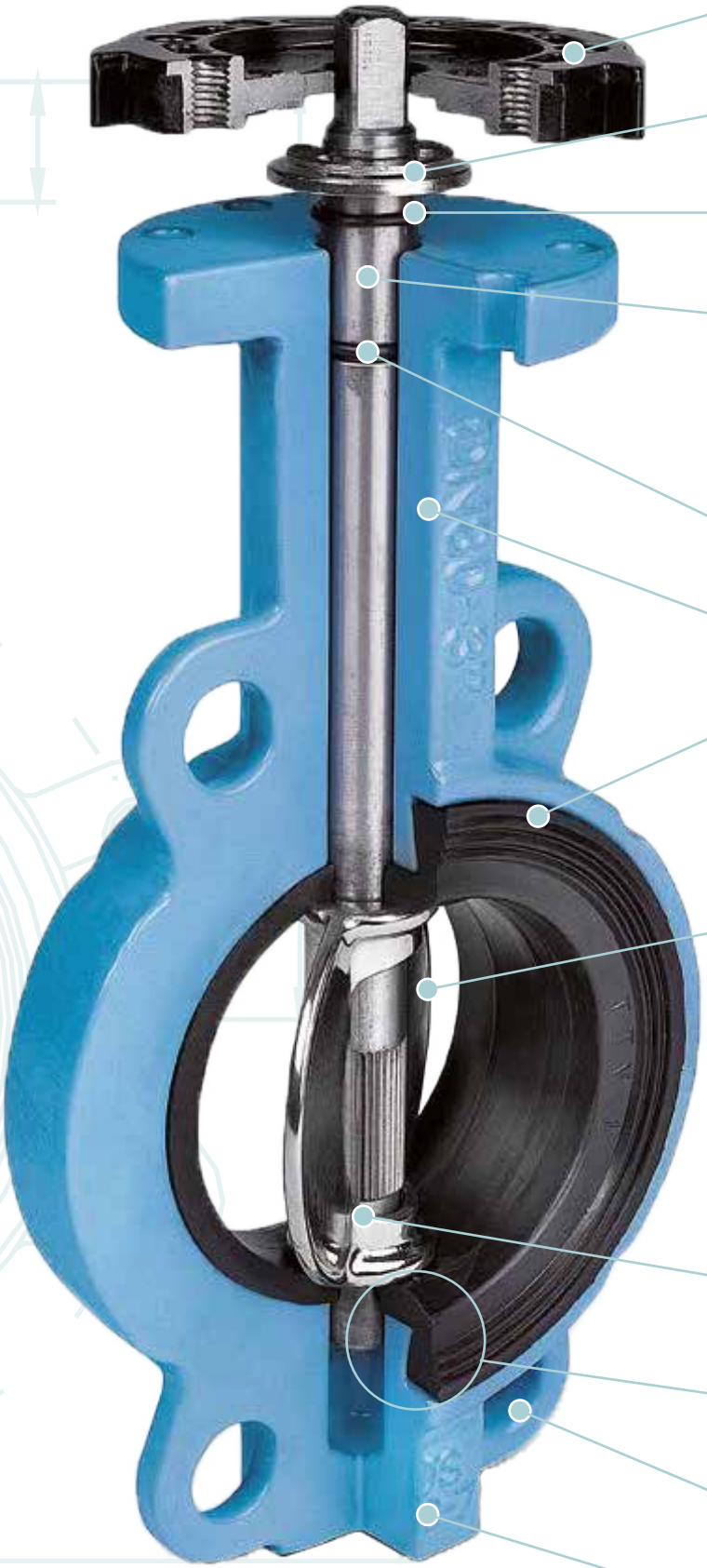


TABLE OF CONTENTS

Nameplate with production date and main specifications firmly attached for identification and traceability



- Top flange and shaft fully compliant and according to ISO 5211 standard for easy automation
- Anti-blowout protection system prevents the shaft from being ejected due to internal pressure build-up
- Secondary O-ring seal to prevent intrusion of moisture and dirt in shaft area
- The shaft is produced with tight tolerances to ensure perfect alignment and tight fit
- One-piece shaft results in a strong and rigid construction; AISI 420 shaft material gives high strength and maximal torsion resistance
- Primary O-ring for perfect sealing
- Long neck to allow for insulation
- Replacable seat available in many different materials; no flange gasket needed!
- High-precision finish of seat to ensure perfect tightness at shaft area
- Fully machined disc with rounded and polished edges to reduce torque and wear and to increase operating life with 100% tight shutoff guaranteed
- Streamlined disc for high capacities (Cv value)
- Nameplate with production date and main specifications firmly attached for identification and traceability
- Pin-less connection shaft to disc; this avoids pins being broken off; the disc is always securely connected to the shaft for reliable operation of the valve
- Liner is anchored to the body with a dove-tail connection to avoid the seat to move during operation
- Centering holes for easy installation for both DIN and ASME/ANSI flanges
- Quality casting body in ductile cast iron GGG-50, Rilsan coated – fully rated PN16

WAFER

EPDM

N1234EH

- Body in ductile iron GGG-50, Rilsan coated
- Disc in stainless steel AISI 316
- Seat in EPDM

N1234EPD
N1234EPE

- **N1234EPD**: with double acting pneumatic actuator
- **N1234EPE**: with pneumatic actuator spring return, spring to close, air to open

N1234EAD
N1234EAS

- **N1234EAD**: with double acting pneumatic actuator
- **N1234EAS**: with pneumatic actuator spring return, spring to close, air to open

NBR

N1234BH

- Body in ductile iron GGG-50, Rilsan coated
- Disc in stainless steel AISI 316
- Seat in Buna N (NBR)

N1234BPD
N1234BPE

- **N1234BPD**: with double acting pneumatic actuator
- **N1234BPE**: with pneumatic actuator spring return, spring to close, air to open

N1234BAD
N1234BAS

- **N1234BAD**: with double acting pneumatic actuator
- **N1234BAS**: with pneumatic actuator spring return, spring to close, air to open

VITON

N1234VH

- Body in ductile iron GGG-50, Rilsan coated
- Disc in stainless steel AISI 316
- Seat in Viton

N1234VPD
N1234VPE

- **N1234VPD**: with double acting pneumatic actuator
- **N1234VPE**: with pneumatic actuator spring return, spring to close, air to open

N1234VAD
N1234VAS

- **N1234VAD**: with double acting pneumatic actuator
- **N1234VAS**: with pneumatic actuator spring return, spring to close, air to open

LUG

EPDM

N2234EH

- Body in ductile iron GGG-50, Rilsan coated
- Disc in stainless steel AISI 316
- Seat in EPDM

N2234EPD
N2234EPE

- **N2234EPD**: with double acting pneumatic actuator
- **N2234EPE**: with pneumatic actuator spring return, spring to close, air to open

N2234EAD
N2234EAS

- **N2234EAD**: with double acting pneumatic actuator
- **N2234EAS**: with pneumatic actuator spring return, spring to close, air to open

NBR

N2234BH

- Body in ductile iron GGG-50, Rilsan coated
- Disc in stainless steel AISI 316
- Seat in Buna N

N2234BPD
N2234BPE

- **N2234BPD**: with double acting pneumatic actuator
- **N2234BPE**: with pneumatic actuator spring return, spring to close, air to open

N2234BAD
N2234BAS

- **N2234BAD**: with double acting pneumatic actuator
- **N2234BAS**: with pneumatic actuator spring return, spring to close, air to open

VITON

N2234VH

- Body in ductile iron GGG-50, Rilsan coated
- Disc in stainless steel AISI 316
- Seat in Viton

N2234VPD
N2234VPE

- **N2234VPD**: with double acting pneumatic actuator
- **N2234VPE**: with pneumatic actuator spring return, spring to close, air to open

N2234VAD
N2234VAS

- **N2234VAD**: with double acting pneumatic actuator
- **N2234VAS**: with pneumatic actuator spring return, spring to close, air to open

WAFER

EPDM — N1212EH

- Body in ductile iron GGG-50, Rilsan coated
- Disc in stainless steel AISI 316 (DN 32 - DN 100), nodular iron GGG-50, Rilsan coated (DN 125 - DN 300)
- Seat in EPDM

N1212EPD N1212EPE

- **N1212EPD**: with double acting pneumatic actuator
- **N1212EPE**: with pneumatic actuator spring return, spring to close, air to open

N1212EAD N1212EAS

- **N1212EAD**: with double acting pneumatic actuator
- **N1212EAS**: with pneumatic actuator spring return, spring to close, air to open

WHITE EPDM — N1234EWH

- Body in ductile iron GGG-50, Rilsan coated
- Disc in stainless steel AISI 316
- Seat in white EPDM

N1234EWPD N1234EWPE

- **N1234EWPD**: with double acting pneumatic actuator
- **N1234EWPE**: with pneumatic actuator spring return, spring to close, air to open

N1234EWAD N1234EWAS

- **N1234EWAD**: with double acting pneumatic actuator
- **N1234EWAS**: with pneumatic actuator spring return, spring to close, air to open

LUG

EPDM — N1234ERTTV

- Body in ductile iron GGG-50, Rilsan coated
- Disc in stainless steel AISI 316
- Seat in EPDM
- With gearbox

NBR — N2212BH

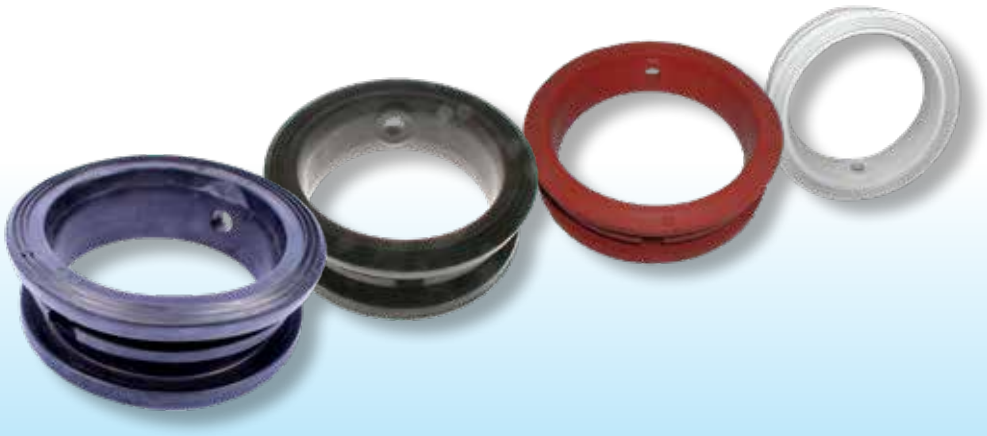
- Body in ductile iron GGG-50, Rilsan coated
- Disc in stainless steel AISI 316 (DN 32 - DN 100), ductile iron, Rilsan coated (DN 125 - DN 300)
- Seat in Buna N (NBR)

NBR GAS — N2234BGGH

- Body in ductile iron GGG-50, RAL 1016
- Disc in stainless steel AISI 316
- Seat in Buna-N Gas, glued, for temp. -20°C ~ +60°C (acc. to EN-549)

SEAT SELECTION

	COLOR	APPLICATIONS	LIMITATIONS	ORIENTATIVE WORKING TEMPERATURE
EPDM	Black	Mineral acid solutions, mineral bases alcaline solutions, organic salts dissolutions, alcohols, water and sea water	Not recommended for organic hydrocarbons	-10 ºC ~ 110 ºC
EPDM-H.T.	Black	Super heated water	Not recommended for hydro-carbons	-10 ºC ~ 130 ºC
NBR	Black	Mineral oils, vegetable oils, gas, non-aromatic hydrocarbons, animal fats, vegetable fats, air	Organic acids, some mineral ac-ids, chlorine, alcohols, aromatic hydrocarbons.	-10 ºC ~ 90 ºC
CSM (HYPALON)®	Black	Mineral acid dissolutions, organic and inor-ganic acids, oxidizing substances	Mineral and vegetable oils, hydrocarbons, animal and veg-etable fats, cetones, nitric acid.	-10 ºC ~ 80 ºC
VITON FPM (VITON)®	Black	Acids, fats, hydrocarbons, veg-etable and mineral oils, fuels	Steam and hot water (max.30 ºC) unleaded gasoline,cetones, amines, freon 22	-5 ºC ~ 180 ºC
NR (POLYSOPRENO)	Black	Water, alcohols, abrassion re-sistance, cetones, alimentary	Hydrocarbons, acids, bases and atmospheric agents	-10 ºC ~ 60 ºC
MVQ (SILICONE)	White Red/Black	Low and high temperature resistance, alimentary	Hydrocarbons, strong acids, strong bases, super heated water, steam	-30 ºC ~ 150 ºC
STEAM SILICONE	Grey	Steam and super heated water	Hydrocarbons, strong acids and strong bases	-50 ºC ~ 160 ºC



WAFER

EPDM — 16232EH

- Body in ductile iron EN GJS-400-15
- Disc in ductile iron EN GJS-400-15, epoxy coated
- Seat in EPDM

EPDM HT — 16234ETH

- Body in ductile iron EN GJS-400-15
- Disc in stainless steel ASTM A351 CF8M
- Seat in EPDM for high temperature

NBR — 16238BH

- Body in ductile iron EN GJS-400-15
- Disc in Aluminium bronze C958
- Seat in Buna N (NBR)

LUG

EPDM — 26232EH

- Body in ductile iron EN GJS-400-15
- Disc in ductile iron EN GJS-400-15, epoxy coated
- Seat in EPDM

EPDM HT — 26234ETH

- Body in ductile iron EN GJS-400-15
- Disc in stainless steel ASTM A351 CF8M
- Seat in EPDM for high temperature

Operation

- Lever

- Gearbox

- Pneumatic

- Electric

WAFER

N1234PSH

- Body in ductile iron GGG-50, Rilsan coated
- Disc in stainless steel AISI 316
- Seat in PTFE

N1234PSPD N1234PSPE

- **N1234PSPD**: with double acting pneumatic actuator
- **N1234PSPE**: with pneumatic actuator spring return, spring to close, air to open

N1234PSAD N1234PSAS

- **N1234PSAD**: with double acting pneumatic actuator
- **N1234PSAS**: with pneumatic actuator spring return, spring to close, air to open

Lug type also available on request

- Body in nodular cast iron GGG 40.3 (0.7043)

210T	Disc in stainless steel - seat in TFM - free stem
210TH	Disc in stainless steel - seat in TFM - lever operated
240T	PFA coated disc - seat in TFM - free stem
240TH	PFA coated disc - seat in TFM - lever operated
211T	Disc in Hastelloy C22 - seat in TFM - free stem
211TH	Disc in Hastelloy C22 - seat in TFM - lever operated

LUG

- Body in nodular cast iron GGG 40.3 (0.7043)

310T	Disc in stainless steel - seat in TFM - free stem
310TH	Disc in stainless steel - seat in TFM - lever operated
340T	PFA coated disc - seat in TFM - free stem
340TH	PFA coated disc - seat in TFM - lever operated

- Wafer type, lug type, flanged
- Body & disc: Carbon steel, stainless steel
  Other materials on request
- Mounting flange: ISO 5211
- Seat options: PTFE
  PTFE + 15% glassfiber
  PTFE + 15% graphite
  PTFE with metal seat in AISI 316
  Metal seated AISI 316
  Metal seated (Inconel)
  Other materials on request
- Temperature range: - 17 & 27 series: -29°C ~ +210°C
  - 18 & 28 series: -29°C ~ +210°C
  - 19 & 29 series: -29°C ~ +500°C
- Pressure rating: DIN PN 16, 25, 40
  ANSI class 150, 300
- Size: 2" - 48" (DN 50 - DN 1200)
- Operation: Bare stem
  Lever
  Gearbox
  Pneumatic actuator
  Electric actuator
- Fugitive emissions test acc. to TA-Luft, ISO 15848-1, ANSI/ISA-SP93
- The full series obtained SIL3 classification according to IEC 61508-1
- Patented seat retainer ring attaches without bolts allowing complete uninterrupted seal face
- Optional: positioners, limit switches, solenoid valves, silencers, fire safe,...

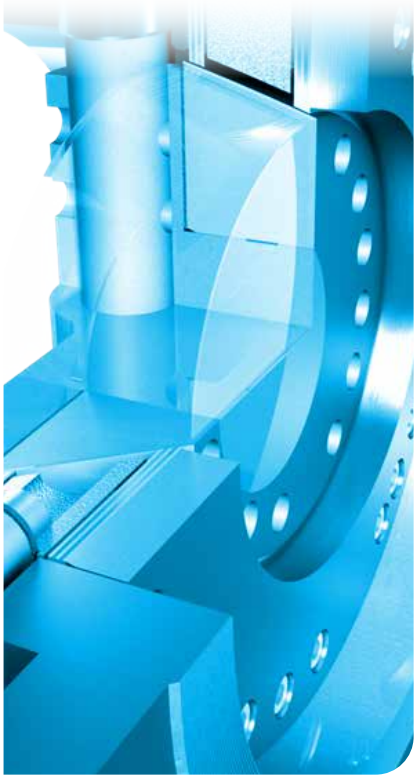
WAFER TYPE 17, 18 & 19

- **17**: soft seat
- **18**: soft seat + metal seated
- **19**: metal seated

LUG TYPE 27, 28 & 29

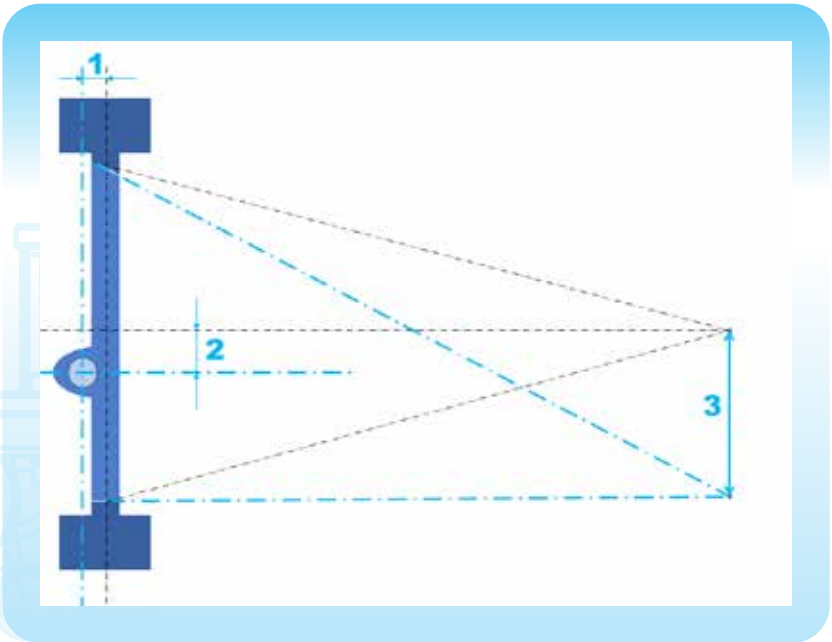
- **27**: soft seat
- **28**: soft seat + metal seated
- **29**: metal seated

OPTIONS



- Wafer type, lug type, double flanged, butt weld
- Design: API 609, BS 5155, ANSI B16.34, ASME SEC VII
- Body: carbon steel, stainless steel, Duplex, Hastelloy, Monel
  other materials on request
- Face-to-face dimensions: API609, ISO 5752
- Mounting flange: ISO5211
- Temperature range: -196°C ... +700°C
  For other temperature ranges, please contact our office
- Pressure rating: ANSI class 150 to 2500, PN 6 to PN 400
- Size: 3” - 60” (DN 80 - DN 1500)
- Operation: manual (gearbox)
  electric actuator
  pneumatic actuator
  hydraulic actuator

- Bi-directional zero leakage
- Zero seat/seal friction
- Fire-Safe
- Low torques
- Standard materials conform to NACE
  exotic materials also available on request
- Also available as Double Block&Bleed
  (DBB) or with heating jacket



OFFSET 1

The axis of the shaft is placed behind the centerline of the sealing point to provide positive sealing and increased sealing capacity.

OFFSET 2

The axis of the shaft is eccentric to the center of the valve and the pipe line to reduce the running torque and the friction between the disc and seat.

OFFSET 3

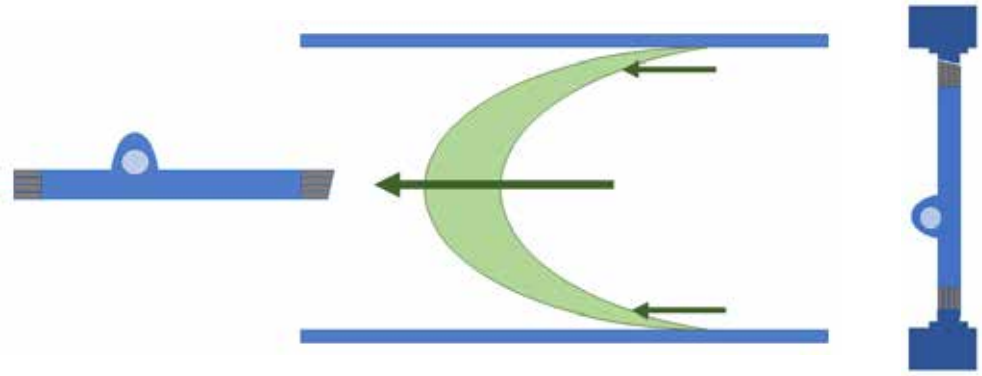
The seat cone axis is offset from the shaft centerline to eliminate friction during closing and opening to achieve uniform, compressive sealing around the entire seat.

SEAT DESIGN

COMPETITOR

Laminate is on the leading edge of valve disc, exposing it to the erosive effects of the line media.

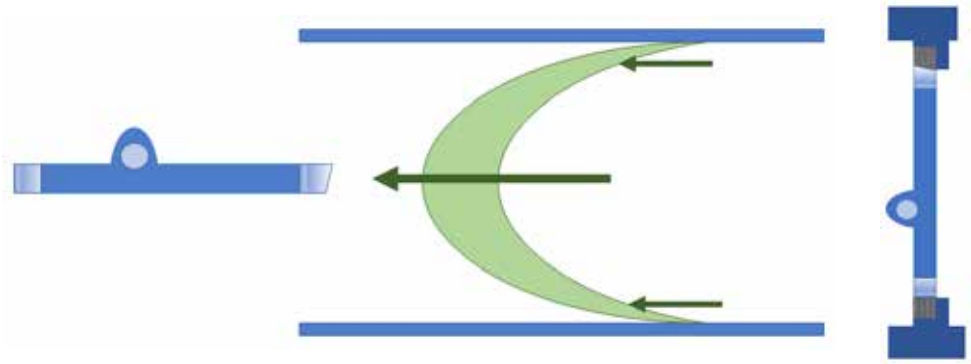
The laminate can easily be damaged by the fluid velocity or any solids in suspension, causing it to 'de-laminate' and leak.



SODECO

Laminate is positioned in the valve body away from flow path.

Disc seal is solid and can be hardened for long service life and durability.

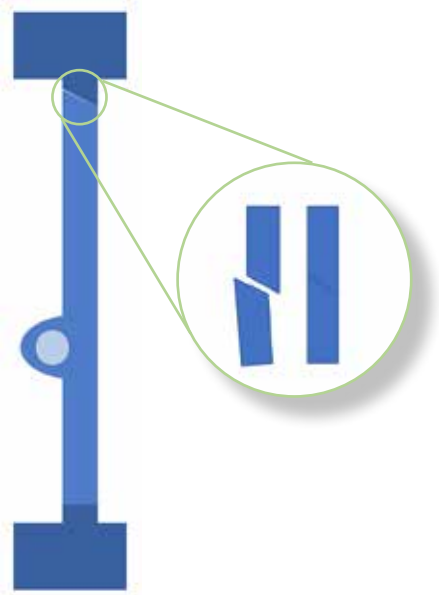


CONCENTRIC

- Constant friction
- Friction → wear
- Limited in terms of pressure and temperature
- Limited regulation
- Bubbletight, non-Fire Safe

DOUBLE OFFSET

- Reduced friction
- Friction → wear (less)
- Larger pressure and temperature range
- Better regulation
- Bubbletight & Fire Safe, depending on version



TRIPLE OFFSET

- No friction
- No friction, no wear
- For high pressure and temperature (sealing metal to metal)
- Ideal for regulation (no "stick & slip" effect)
- Bubbletight & Fire Safe

ALSO AVAILABLE

NOTES

NOTES

NOTES

SODECO
valves

01/2020

www.sodeco-valves.com