

**Energy** Valves for nuclear power plants

# UK6612 AWARDED



SISTO

## Company



SISTO Armaturen S.A. – a company of the KSB Group – is developing, designing, manufacturing and distributing valves and accessories for the nuclear power industry.

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## Qualifications

System based

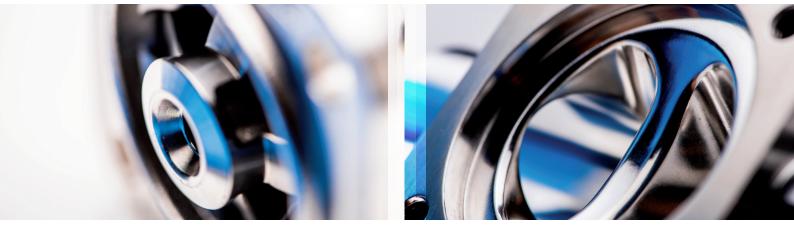
## Design and Manufacturing standards

Hard rubber lining according to AVSD 6.1/50 Diaphragm manufacturing according to WPB-A 21.00-2/1 PMUC ACQPA WRAS ACS RCC-M (BTS 45.C.015 & CTS 45.C.015)

ISO 9001:2015 ISO 14001:2015 ISO 45001:2018

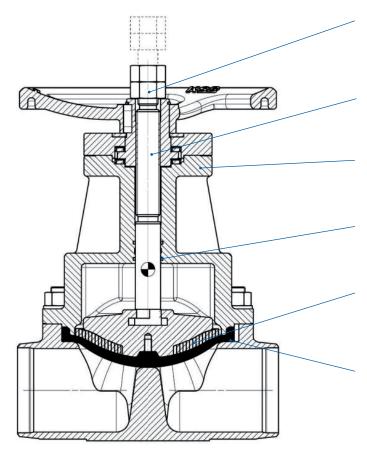
KTA 1401 HAF 604 ESPN NPE GQAS

AD 2000 / DIN EN ISO 3834 Directive 2014/68/EU DIN EN ISO 3834



#### SISTO-20NA

Diaphragm valve



DN08 – DN150

PN20 or according to pressure and temperature specification and pipe loads

Temperature: max. 100 °C (higher temperatures on demand)

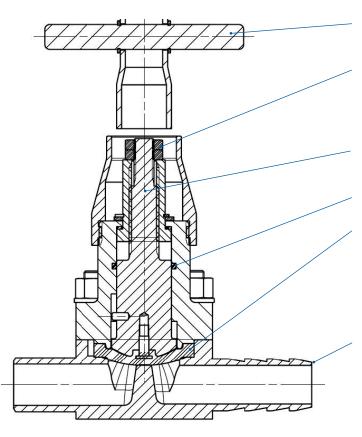
Materials according specifications (e.g.: RCC-M, ASME, KTA)

- Integrated travel stop in closed direction Perfect diaphragm position (valve closed) Overload protection of the diaphragm against excessive force application (handwheel and actuator)
- 2. Non-rotating, rising stem Position indicator Direct actuator mounting possible
- 3. Actuator flange according to EN ISO 5210 Electrical actuator mounting possible under operation load PB and in any position without bonnet disassembling
- Back-up seal by two o-rings Grease chamber between the two o-rings for a reliable stem guide
- 5. Spiral spring support
  Optimized functional security in any position (open-closed-intermediate)
  Increased service life of the diaphragms
  Maintenance free
- 6. Enclosed diaphragm in off-load area
  Bonnet and body assembled metal on metal in force closure
  Absolute tightness to atmosphere and passage
  All moving parts are hermetically separated from the fluid
  by the diaphragm
  Long service life

References	Hinkley Point C - United Kingdom	Q2, Q3
	Taishan 1 + 2 – China (Type 120/121/220/221/222)	Q2, Q3, NC
	Flamanville 3 - France	NC
	Ringhals - Sweden	Q2



Drain valve / Diaphragm valve



- 1. Plug on key Protection against unauthorized operation
- 2. Integrated travel stop in closed directionPerfect diaphragm position (valve closed)Overload protection of the diaphragm against excessive force application (plug on key)
- 3. Non-rotating, rising stem Opening indicator
- 4. Back-up seal by o-ring
- 5. Enclosed diaphragm in off-load area
  Bonnet and body assembled metal on metal in force closure
  Absolute tightness to atmosphere and passage
  All moving parts are hermetically separated from the fluid
  by the diaphragm
  Long service life
- 6. Customized pipe connections Butt weld end Hose connection Others

DN15 – DN25 PN16 or according to pressure and temperature specification and pipe loads Temperature: max. 100 °C (higher temperatures on demand) Materials according to specifications (e.g.: RCC-M, ASME, KTA)

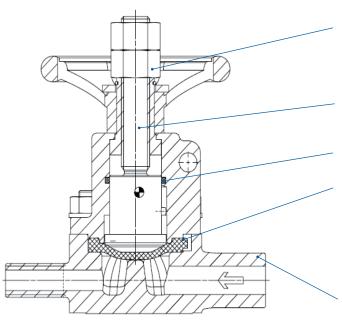
R

References	Olkiluoto 3 – Finland (Type 640)	Q3
	Taishan 1 + 2 – China (Type 653)	Q2, Q3, NC
	P4 and P'4 design reactors – France	Q3



#### SISTO-InstNA

#### Instrument isolation valve / Diaphragm valve



- 1. Integrated travel stop in closed direction Perfect diaphragm position (valve closed) Overload protection of the diaphragm against excessive force application (handwheel)
- 2. Non-rotating, rising stem Opening indicator
- 3. Back-up seal by o-ring
- 4. Enclosed diaphragm in off-load area
  Bonnet and body assembled metal on metal in force closure
  Absolute tightness to atmosphere and passage
  All moving parts are hermetically separated from the fluid
  by the diaphragm
  Long service life
- 5. Customized pipe connections Male or female threaded Socket weld ends / butt weld ends Others

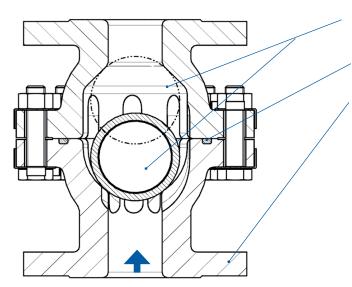
PN16 or according to pressure and temperature specification and pipe loads

Temperature: max. 100 °C (higher temperatures on demand) Materials according to specifications (e.g.: RCC-M, ASME, KTA)

References	P4 and P'4 design reactors – France	Q3
References	Hinkley Point C - United Kingdom	Q3

#### SISTO-KRVNA

Floating ball vent valve



- 1. Floating ball Lining: EPDM auto changing sealing surfaces
- 2. Static sealing

3. Pipe connections Flanges Optionally with counterflanges

4. Medium operated

DN25, 50, 80, 100, 150

PN16 or according to pressure and temperature specification

and pipe loads Temperature: max. 100 °C (higher temperatures on demand)

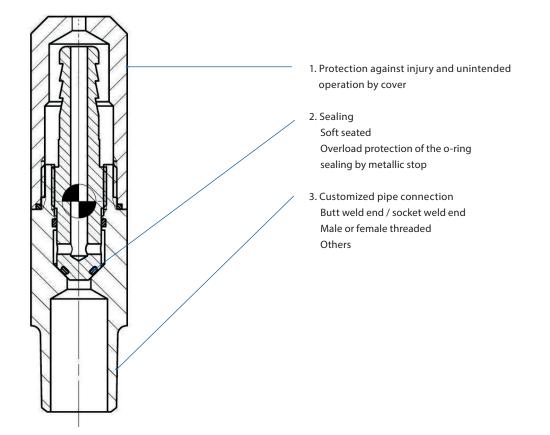
Materials according to specifications (e.g.: RCC-M, ASME, KTA)

References	Hinkley Point C - United Kingdom	Q2, Q3
	Taishan 1 + 2 – China (Type 330)	Q3
	Flamanville 3 – France	Q3
	Olkiluoto 3 – Finland (Type 53)	Q3
	Angra 1 + 2 + 3 – Brazil (Type 98)	AS3
	Isar 2 – Germany (Type 98)	AS3
	Neckarwestheim 2 – Germany (Type 98)	AS3
	Emsland – Germany (Type 98)	AS3
	Fangchanggang 3 +4 - China	Q3
	P4-P'4-CPY-CPO-N4 - France	Q3
	Forsmark - Sweden	NC
	Jules Horowitz - France	NC
	Philippsburg 2 (Type 98) - Germany	AS3



#### SISTO-VentNA

Vent valve



DN15 PN16 Temperature: max. 120 °C Materials according to specifications (e.g.: RCC-M, ASME, KTA)

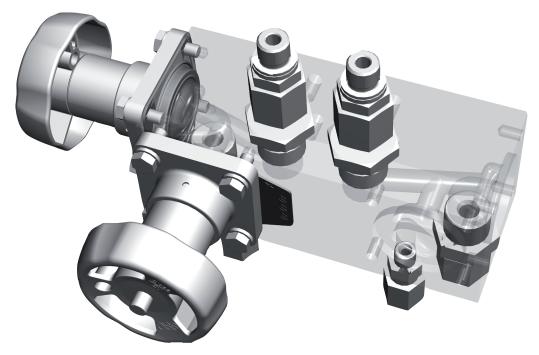
References	Olkiluoto 3 – Finland (Type 641)	Q3
	Taishan 1 + 2 – China (Type 441)	Q2, Q3, NC
	P4 and P'4 design reactors – France	Q3



Products

#### SISTO-MultiportNA

Compact multiport diaphragm valve



Compact design

Minimized dead zone

Multifunctional

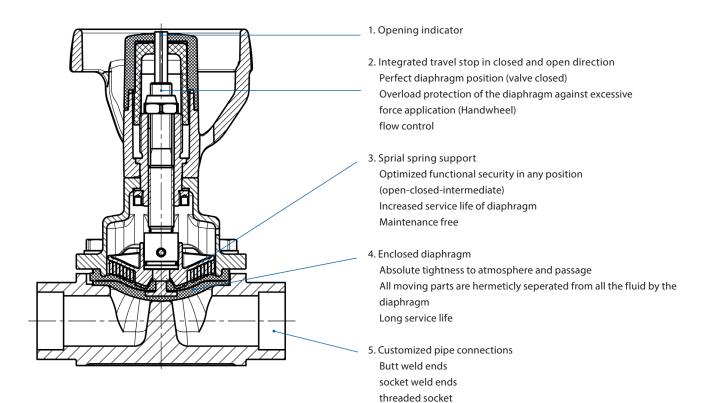
Customized connections

PN20 Temperature: max. 100 °C Materials according to specifications (e.g.: RCC-M, ASME, KTA)



#### SISTO-20

diaphragm valve



DN15 - DN50 PN16 Temperature: max. 100 °C Materials according to specifications (e.g.: RCC-M, ASME, KTA)



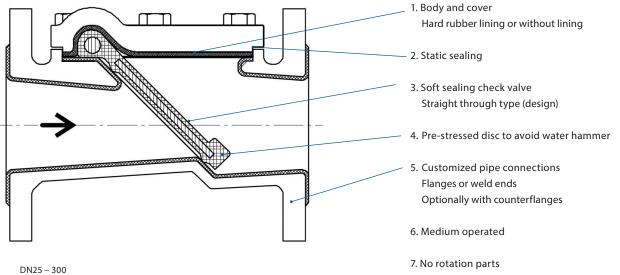
#### CPO, CPY, P4, P'4, N4 - France





#### SISTO-RSKNA

Swing check valve



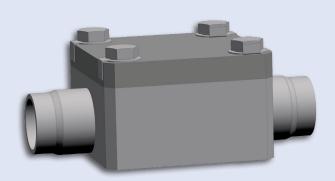
PN16 or according to pressure and temperature specification and pipe loads

Temperature: max. 100 °C (higher temperatures on demand) Material: Body and cover JS-1025, steel or stainless steel or

according to specification (e.g.: RCC-M, ASME, KTA)

References	Olkiluoto 3 – Finland (Type 216)	Q3, Q4
	Taishan 1 + 2 – China (Type 375)	Q3
	Isar 2 – Germany (Type 216)	AS3, AS5
	Neckarwestheim 2 – Germany (Type 216)	AS3, AS5
	Emsland – Germany (Type 216)	AS3, AS5
	Beznau – Switzerland (AKZ)	Q3
	Unterweser – Germany (Type 216)	AS3
	Biblis B – Germany (Type 216)	AS3
	Philippsburg 2 – Germany	AS3
	Brunsbüttel – Germany	AS3





#### SISTO

#### SISTO products and competencies



SISTO-20 stainless steel

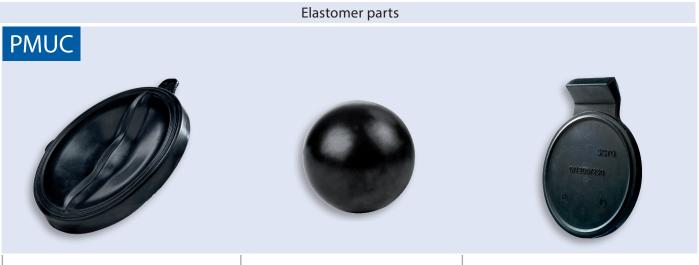
SISTO-16RGAMAXX





mechanically polished and electropolished





Diaphragms

Balls

Discs



In house execution of customized corrosion protections with **ACQPA** (level 1 and 2) certified personnel.

In house execution of **visual inspections** with ISO 9712 (level 1 and 2) certified personnel according customized inspection plans.





Execution of **Non-destructive testing** (NDT) with ISO 9712 (level 1, 2 and 3) certified personnel according customized inspection plans.





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