V08/2020-PP

VALVES
PULP AND PAPER

Overview of our product portfolio with product details

For any further questions, please feel free to contact our competent sales team.
Our inside and outside sales team are always at your service!

www.flowtec.at

FLOWTEC

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About Us

Flowtec - About Us

We are general agent and partner of leading international manufacturers and specialists in the fields of industrial valves, and systems and components for the pulp and paper industry.

We have already been offering our international customers an extensive product range for many years. Our expertise is based on many years of experience, in-depth know-how and the possibility to offer solution-oriented concepts at a good price-service ratio.

Flowtec - Industrial Valves

Our wide product range covers industrial valves manufactured by internationally leading companies for almost all applications and requests. We will be pleased to advise you and act as your competent partner from the planning phase through product selection to the initial operation. Our employees have more than 30 years of experience within the pulp and paper industry, as well as the general industry.

With Flowtec you have an experienced partner by your side. We are specialized on handling projects of any size professionally and reliably for our customers.

Flowtec - Systems and Components

Our product range covers investment, replacement and wear and tear components for the pulp and paper production.

We work together with renowned and leading manufacturers within the pulp and paper industry.

Next to our wide product range, we will be pleased to support you further by conducting on-site audits of your systems and subsequently presenting you improvement possibilities and methods to increase your efficiency.

Let us be the strong and reliable partner on your side.

Contact Details

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Overview of our Services

Flowtec operates mainly in Europe. The sales regions include Austria, with Flowtec's head office, and the Eastern European region.

Apart from Slovakia and the Czech Republic, Flowtec serves customers in Poland, Hungary, Romania, Slovenia, Croatia, Bosnia Herzegovina, Serbia, Bulgaria, etc. You can always count on our competent sales team in the respective country.

We would be glad to assist you! Please contact us.

Consulting and Training

- Advice and assistance from the planning phase through product selection to start-up
- Individual trainings at your site or at one of our offices in Graz or Vienna

Planning and Projects

- Professional partner for small and large sized projects
- Ensuring a smooth progress from the project start to the finalization of the project

Warehouse and Assembly

- Modernly equipped workshop allows customized assembly and testing of the valves according to applicable standards and guidelines
- Extensive warehouse in Graz
- Delivery of standard valves within one working day in Austria

Service and Maintenance

- Professional repair and maintenance work on time

Wafer / Lug Butterfly Valves (TTV Valves)

DN (mm):	32 - 600 (up to 1400 on request)
PN (bar) / ANSI:	10 - 16 / CL 150
Body materials:	GGG-50, G-SC 25, 1.4301 (AISI 304), 1.4408 (AISI 316), bronze C352, aluminium bronze C415, 1.4462
Seat materials:	EPDM, NBR, Viton®, silicone (food, steam), EPDM-HT, EPDM white, NBR gas, NR (natural rubber), Hypalon
Disc:	GGG-50, 1.4301 (AISI 304), 1.4408 (AISI 316), bronze C352, aluminium bronze C415, 1.4462, 1.4408 + Halar®, Hastelloy® C, Uranus® B6
Connections:	Lug type, wafer
Face-to-face:	EN 558-R20, API 609 Table 1

- Replaceable seat
- Coating Rilsan 250-300 µm (C5M on request)
- Extended body neck
- Full crossing stem

Options:	Vulcanized, vacuum, special coatings, stainless steel lever, IP68 gearbox, polished disc, gear with locking device
Applications:	Water, seawater, waste water with low concentration of chemicals, process water with low fiber consistency, air, gas, oil, bulk material, vacuum
Approvals:	ATEX, WRAS (on request), ACS (on request), CERTI GAS (on request), FDA (on request), SIL, AD2000 W0/A4

Flanged / Double Flanged Centric Butterfly Valves (TTV Valves)

DN (mm):	50 - 3000
PN (bar) / ANSI:	10 - 16 / CL 150
Body materials:	GGG-50, GS-C 25, 1.4301 (AISI 304), 1.4408 (AISI 316), bronze C352, aluminium bronze C415, 1.4462
Seat materials:	EPDM, NBR, Viton®, silicone (food, steam), EPDM-HT, EPDM white, NBR gas, NR (natural rubber), Hypalon
Disc:	GGG-50, 1.4301 (AISI 304), 1.4408 (AISI 316), bronze C352, aluminium bronze C415, 1.4462, 1.4408 + Halar®, Hastelloy® C, Uranus® B6
Connections:	Flanged, double flanged
Face-to-face:	Flanged: EN 558-R20, API 609 Table 1 Double flanged: EN 558-R13, API 609 Table 2C

- Flanged design: Replaceable seat
- Double flanged design: Vulcanized seat
- Coating Rilsan 250-300 µm (C5M on request)
- One-piece body with flanges
- Full crossing stem

Options:	Vulcanized (flanged design), vacuum, special coatings, stainless steel lever, IP68 gearbox, polished disc, gear with locking device
Applications:	Water, seawater, waste water with low concentration of chemicals, process water with low fiber consistency, air, gas, oil, bulk material, vacuum
Approvals:	ATEX, WRAS (on request), ACS (on request), CERTI GAS (on request), FDA (on request), SIL, AD2000 W0/A4

Double Eccentric Double Flanged Butterfly Valves (TTV Valves)

DN (mm):	50 - 2000
PN (bar) / ANSI:	10/16/25 / CL 150
Body materials:	GGG50, 1.0619, 1.4408
Seat materials:	EPDM, NBR
Disc:	GGG50, 1.4408, aluminium bronze, duplex
Stem:	made of stainless steel, material 1.4021
Corrosion protection body:	Epoxy coating inside and outside 250-300µ / RAL5012
Corrosion protection disc:	Epoxy coating 250-300µ / RAL5012
Connections:	Double flanged
Face-to-face:	EN 558, series 13 and 14

- Two-pieces shaft
- Double eccentric disc in maintenance-free bushings
- Wetted screws made of stainless steel A4
- Gear standard IP67 (40-60µ epoxy coating / color black)

Applications:	Water, waste water, cooling water, drinking water, desalination plants, gas
Approvals:	ATEX, WRAS (on request), CERTI GAS (on request)

Butterfly Valves, Type CST, PTFE-, TFM-, UHMPE lined (ChemValve-Schmid)

DN (mm):	50 - 1050
PN (bar):	10 (DN 50 - 600) 6 (DN 650 - 1050)
Temperature (°C):	-20 up to +200
Body materials:	GGG40.3 epoxy, carbon steel, stainless steel, thermoset polymer
Seat materials:	PTFE, TFM, UHMPE, electrically conductive
Disc:	PFA, PFA cond., 1.4404, 1.4408, 1.4409, 1.4581, polished stainless steel, titanium, Hastelloy®
Connections:	Lug type, wafer

- To shut off and control corrosive and abrasive liquids or gases
- Design of pressure package ensures long-term zero leakage to the atmosphere
- Ball-shaped disc and liner lead to longer lifetime and tightest shut-off
- Special elastomer backups provide gas tightness

Options:	Flexible shaft connection (2-flat parallel, square diagonal or parallel)
Applications:	Corrosive and aggressive liquids and gases, food
Approvals:	ATEX, FDA, SIL, TA Luft

ChemValve-Schmid Valve Technology

Double Offset High Performance Butterfly Valves, Type Colossus (TTV Valves)

DN (mm):	50 - 600
PN (bar) / ANSI:	10/16/25, CL 150
Body materials:	1.0619 (A216WCB), 1.4408 (CF8M)
Seat materials:	R-PTFE (-50°C up to +220°C), F316L (-100°C up to +350°C
Disc:	R-PTFE seat: CF8M (polishing), Metal seat: CF8M + hard chrome (polished)
Connections:	Wafer, lug type, flanged

- Replaceable / exchangeable seat design
- R-PTFE: Class VI tightness, 0% leakage, PN 10/16/25,
- Metal: Class V tightness, PN 10/16/25
- Bidirectional

Options:	Seat materials R-PTFE fire-safe, PTFE
Applications:	Steam, air, oil, gas, bitumen, chemicals
Approvals:	ATEX, fire-safe (on request), FDA (on request), SIL (on request), AD2000 W0/A4

Triple Eccentric High Performance Butterfly Valves, Type MTV (Somas)

DN (mm):	80 - 500
PN (bar) / ANSI:	10 - 25 / CL 150
Temperature (°C):	up to +500
Body materials:	1.4408, special materials
Seat materials:	Solid stainless steel, R-PTFE reinforced
Connections:	Wafer, double flanged, lug type

- Solid stainless steel seat due to special geometry
- Suitable for high flow rates and media containing solids
- Ideal shut-off and control valve
- Bi-directional tightness
- Friction and torque minimized design

Options:	Oil and gas applications
Applications:	Hot water and pulp stock up to min. 1%, pulp liquor applications, solids, steam, oil, gas
Approvals:	ATEX, TA Luft (on request), Fire-safe (on request), FDA (on request), SIL

Triple Eccentric High Performance Butterfly Valves, Type VSS (Somas)

DN (mm):	80 - 1600
PN (bar) / ANSI:	10 - 100 / CL 150 - 600
Temperature (°C):	-196 up to +600
Body materials:	1.4408, special materials
Seat materials:	Solid stainless steel, R-PTFE reinforced
Connections:	Wafer, lug type

- Solid stainless steel seat due to special geometry
- Suitable for high flow rates and media containing solids
- Ideal shut-off and control valve
- Bi-directional tightness
- Friction and torque minimized design

Options:	Low-noise design, oil and gas applications, high temperature design, cryogenic design, combustion gas applications
Applications:	Hot water and pulp stock up to min. 1%, pulp liquor applications, steam turbine applications, solids, steam, oil, gas
Approvals:	ATEX, TA Luft (on request), Fire-safe (on request), FDA (on request), SIL

Four Offset High Performance Butterfly Valves (Quadax®)

DN (mm):	50 - 1800
PN (bar) / ANSI:	10 - 160 / CL 150 - 900
Temperature (°C):	-270 up to +800
Body materials:	Carbon steel, stainless steel, special materials
Valve seat materials:	Inconel®, Stellite, other materials on request
Seal ring materials:	Graphite/stainless steel lamella, all metal lamella, Inconel® O-ring, other materials on request
Connections:	Lug type, wafer, double flanged, butt weld ends, top entry

- Shut-off and control butterfly valve for highest requirements in four offset design
- Absolute tightness even at extreme temperatures and pressures

Options:	High temperature and cryogenic design, special materials, safety shut-off function, special face-to-face dimensions
Applications:	Technical gases, power generation, thermosolar, oxygen, LNG/LPG, cryogenic, heating district, pulp and paper, refineries/petrochemicals, tank storage, steel plants
Approvals:	PED 2014/68EU, ASME 16.34, ATEX, TA Luft, ISO 15848, NACE, SIL3, Fire-safe, AD2000 A4, BAM

Four Offset High Performance Butterfly Valves, Gate Valve Replacement (Quadax®)

DN (mm):	50 - 1800
PN (bar) / ANSI:	10 - 160 / CL 150 - 900
Temperature (°C):	-270 up to +800
Body materials:	Carbon steel, stainless steel, special materials
Valve seat materials:	Inconel®, Stellite, other materials on request
Seal ring materials:	Graphite/stainless steel lamella, all metal lamella, Inconel® O-ring, other materials on request
Connections:	Flanged/gate valve replacement

- Shut-off and control butterfly valve for highest requirements in four offset design
- Slide replacement without modifiction of the pipeline

Options:	High temperature and cryogenic design, special materials, safety shut-off function, special face-to-face dimensions
Applications:	Technical gases, power generation, thermosolar, oxygen, LNG/LPG, cryogenic, heating district, pulp and paper, refineries/petrochemicals, tank storage, steel plants
Approvals:	PED 2014/68EU, ASME 16.34, ATEX, TA Luft, ISO 15848, NACE, SIL3, Fire-safe, AD2000 A4, BAM

3-Piece Ball Valves (ICP Valves)

DN (mm):	8 - 100 / 1/4“ - 4“
PN (bar):	63 (to DN50) / 25 (DN65-100)
Body materials:	1.4408
Seat materials:	PTFE
Connections:	BSP threads, NPT threads, socket weld ends, butt weld ends, long butt weld ends

- 3-piece design
- Full bore
- Locking device as standard

Designs:	BSP: Fig. 140/140 ISO, NPT: Fig. 141/141 ISO, SW: Fig. 142/142 ISO, BW: Fig. 143/143 ISO, acc. ASME B16.25 & DIN3239 part 1, Long BW: Fig. 143L-ISO, acc. ASME B16.25 & DIN3239 part 1, cavity balancing hole
Applications:	Water, oil, gas, chemicals
Approvals:	ATEX

3-Piece Ball Valves, Series 800 (JC Valves)

DN (mm):	10 - 50 / 3/8“ - 2“
PN (bar):	PN63 DIN EN butt weld ends long (short on request) / PN130
Body materials:	A105N / F316L / LF2 and Duplex on request
Seat materials:	RPTFE, STANSIT (PTFE-SS), A479 Tp. 316 + TCC
Connections:	Type 800 BSP - CL800 Type 803 DIN EN butt weld ends - PN63 (on request) Type 803L DIN EN butt weld ends long - PN63

- 3-piece body
- Cavity balancing hole
- Blow out proof stem
- Full bore
- Floating ball

Applications:	Water, oil, gas, chemicals, seawater, low pressure steam
Approvals:	ATEX, SIL, TA Luft, Fire-safe, AD2000 W0/A4

DIN Flanged Ball Valves, Floating, Short Pattern Series 516/540, Long Pattern Series 316/340 (JC Valves)

DN (mm):	15 - 200
PN (bar):	16 (to DN200) / 40 (to DN150)
Body materials:	1.0619, 1.4408, other materials on request
Seat materials:	PTFE, R-PTFE, PTFE glass, DEVLON, STANSIT (PTFE-SS), PEEK, nylon
Connections:	Flanged

- 2-piece design
- Full bore
- Floating ball
- Face to face dimensions: EN 558 Series 1 / Series 27
- Cavity balancing hole

Options:	V-port regulation ball, cryogenic construction to -196°C, oil- and grease-free, cavity fillers, cavity relief seats, double packing, oval handwheel (up to 2“), vacuum design up to 10^{-4} bar, PN63/PN100
Applications:	Water, seawater, oil, gas, chemicals, low pressure steam
Approvals:	ATEX, SIL, TA Luft, Fire-safe, AD2000 W0/A4, FDA (on request)

JC VALVES

DIN Flanged Ball Valves, Semi Trunnion, Short Pattern Series 1516/1540, Long Pattern Series 1316/1340 (JC Valves)

DN (mm):	200 - 300
PN (bar):	16 (DN250-300) / 40 (DN200-300)
Body materials:	1.0619, 1.4408, other materials on request
Seat materials:	PTFE, R-PTFE, PTFE glass, DEVLON, STANSIT (PTFE-SS), PEEK, nylon
Connections:	Flanged

- 2-piece design
- Full bore
- Semi trunnion ball
- Face to face dimensions: EN 558 Series 27 / Series 1
- Cavity balancing hole

Options:	Oil- and grease-free, double packing, vacuum design up to 10^{-4} bar
Applications:	Water, seawater, oil, gas, chemicals, low pressure steam
Approvals:	ATEX, SIL, TA Luft, Fire-safe, AD2000 W0/A4

JC VALVES

DIN Metal Seated Flanged Ball Valves, Floating, Short Pattern Series 3516/3540 / Long Pattern Series 3316/3340 (JC Valves)

DN (mm):	15 - 150
PN (bar):	16 (up to DN150) / 40 (up to DN100)
Body materials:	1.0619, 1.4408, LCC and other materials on request
Ball materials:	316 + TCC coating, other treatments on request
Seat materials:	316 + TCC coating, other treatments on request
O-rings:	FKM, Aflas (up to 250°C), FFKM-Kalrez (up to 327°C), Graphite above 327°C
Temperature (°C):	up to +500 (depending on material and treatment!)
Connections:	Flanged

- 2-piece design
- Full bore
- Floating ball
- Face to face dimensions: EN 558 Series 1 / EN 558 Series 27
- Cavity balancing hole

Leakage rate:	Class A with Aflas, FKM, FFKM; Class D (B on request) with Graphite
Options:	Special seats, double packing, oval handwheel (up to 2“), PN63/PN100
Applications:	Oil, gas, chemicals, steam, mining
Approvals:	ATEX, SIL, TA Luft, Fire-safe, AD2000 W0/A4

JC VALVES

DIN Flanged 3-Way Ball Valves, Floating, Series 916N (JC Valves)

DN (mm):	25 - 200
PN (bar):	16
Body materials:	1.0619, 1.4408, other materials on request
Seat materials:	PTFE, R-PTFE, PTFE glass, STANSIT (PTFE-SS)
Port combinations:	L-port, T-port
Connections:	Flanged

- 5-piece design (body + 3 connectors + cover)
- Full bore
- Floating ball
- Face to face dimensions: Manufacturer standard
- Cavity balancing hole

Options:	Oil- and grease-free
Applications:	Water, seawater, oil, gas, chemicals, low pressure steam
Approvals:	ATEX, AD2000 W0/A4

JC VALVES

DIN & ANSI Forged Trunnion Design Flanged Ball Valves, Soft / Metal Seated, Series 6000FB / 7000RB (JC Valves)

DN (mm):	40 - 1050 / 1½“ - 42“
PN (bar) / ANSI:	16 - 420 / CL 150 - 2500 (depending on sizes)
Body materials:	A105, F316, LF2, Duplex and other materials on request
Soft seat:	PTFE, R-PTFE, PEEK, DEVLON, nylon, other materials on request
Metal seat:	316 + TCC coating, other treatments on request
Connections:	Flanged

- 3-piece design
- Full bore - series 6000FB
- Reduced bore - series 7000RB
- Trunnion ball
- Spring loaded seats
- API 6D

JC VALVES

Leakage rate:	Class A up to 327° (FFKM-Kalrez O-rings); Class D (B only on request) for temperatures above 327°C
Options:	Construction to -196°C, heating jacket, oil- and grease-free, cavity fillers, double packing, special face-to-face dimensions, special flanges
Applications:	Liquors, water, oil, chemicals, low pressure steam
Approvals:	ATEX, SIL, TA Luft, Fire-safe, AD2000 W0/A4, NACE, API 6D

Ball Valves, Type SKV (Somas)

DN (mm):	25 - 500
PN (bar) / ANSI:	25, 50 / CL 150, 300
Temperature (°C):	-196 up to +550
Body materials:	1.4408, special materials
Seat materials:	HiCo or PTFE/stainless steel (PTFE 53)
Connections:	Flanged

- Manual, shut-off and control valve
- Full bore
- Easy to replace seats without removing the actuator
- Tightness acc. to ANSI Class V to VI

Applications:	Fibrous stock, pulp and pulp liquor applications
Approvals:	ATEX (on request), SIL (on request), FDA (on request), TA Luft (on request)

Compact Ball Valves, Type FA1/FB1/FC1/FA2/FB2/FC2 (Adler)

DN (mm):	10 - 50
PN (bar) / ANSI:	10 - 160 / CL 150 - 1500
Body materials:	Carbon steel, stainless steel, titanium, Hastelloy®, Monel®
Seat materials:	PTFE, R-PTFE (PTFE glass, PTFE metal mixture), PEEK
Connections:	Flanged

- One- or two-piece body
- Cast or forged steel
- Full bore

Options:	Heating jacket, oil- and grease-free, cryogenic design, pressure equalizing hole, oval hand lever, cavity filling in PTFE / metal
Applications:	High pressure shower pipes, white water, water, oil, gases, chemicals, low pressure steam
Approvals:	ATEX, FDA, SIL3, TA Luft, Fire-safe

3-Way Ball Valves, Type FT4/FZ4 and FT6/FZ6 (Adler)

DN (mm):	15 - 150
PN (bar) / ANSI:	10 - 40 / CL 150 - 300 (up to DN 50: PN 63)
Body materials:	Carbon steel, stainless steel, titanium, Monel®, Hastelloy®
Seat materials:	PTFE, R-PTFE (PTFE glass, PTFE metal mixture)
Connections:	Threaded, block flanges

- „L“ or „T“ shaped
- Type FT6/FZ6 for higher pressures

Options:	Heating jacket, oil- and grease-free, cryogenic design, pressure equalizing hole, oval hand lever, cavity filling in PTFE
Applications:	Water, oil, gas, chemicals
Approvals:	ATEX, FDA, SIL3, TA Luft, Fire-safe

Sample Ball Valves (ICP Valves)

DN (mm):	25, 50 / 1“, 2“
PN (bar):	63
Body materials:	1.4408
Seat materials:	R-PTFE
Connections:	Weld-on ends / pipe elbows 90°

- 3-piece design
- Full bore
- Locking device as standard
- For various pipe diameters

Options:	Other diameters on request
Applications:	Sampling, e.g. pulp
Approvals:	ATEX

Sampling Valves, Type TP (Orbinox)

DN (mm):	25/40
PN (bar):	10
Temperature (°C):	up to +120
Body materials:	1.4408
Seat materials:	Soft seat (O-ring NBR), others on request
Connections:	Welding connection, screw connection

- DN 25 for consistency of 0-5%
- DN 40 for consistency of > 3-5% in case of high reject content or long fiber pulp (without flush connection)
- DN 40 for consistency of > 5-8% (with flush connection)

Options:	Pneumatic actuator, flush connections
Applications:	Sampling for pulp stock
Approvals:	ATEX (on request)

Knife Gate Valves, Type EB (Orbinox)

DN (mm):	50 - 1200 (higher on request)
PN (bar) / ANSI:	up to 10 / CL 150
Body materials:	GGG40 (DN 50 - 300), GG25 (DN 350 - 1200), epoxy-coated
Seat materials:	EPDM, NBR, Viton®
Connections:	Wafer

- Bi-directional sealing with exchangeable profile seal
- Integrated flange seal ring

Applications:	Especially suitable for water and waste water applications, sludge, clean pulp stock up to 6% consistency
Approvals:	ATEX (on request)

Pulp Knife Gate Valves, Type HK/EX (Orbinox)

DN (mm):	50 - 1200 (higher on request)
PN (bar) / ANSI:	up to 10 / CL 150
Body materials:	GG25, GGG40, 1.4408, special materials
Seat materials:	PTFE, EPDM, NBR, Viton®, metal
Connections:	Wafer

- One-piece body
- Type HK: Seal ring flange-mounted from the outside
- Type EX: Seal ring integrated into the body
- Uni-directional sealing

Options:	Bonnet design, V-port for regulation, flush connections, type EX with FDA approval available (on request)
Applications:	Pulp < 5%, recycled paper pulp, water, waste water, bulk material, sludge
Approvals:	ATEX (on request)

Knife Gate Valve as End-Of-Line Valve, Type ET (Orbinox)

DN (mm):	50 - 750 (higher on request)
PN (bar) / ANSI:	up to 10 / CL 150
Body materials:	1.4408, cast iron
Seat materials:	EPDM, Viton®, NBR, metal, PTFE
Connections:	Lug type

- Acc. to TAPPI Standard
- Drillings acc. to DIN available
- Seal ring integrated into body
- Uni-directional sealing

Options:	Bonnet design, V-port for regulation, flush connections
Applications:	Pulp < 5%, liquids containing solids, recycled paper pulp, water, waste water, bulk material, sludge
Approvals:	ATEX (on request)

Pulp Knife Gate Valve, Type TK/TH/TL (Orbinox)

DN (mm):	50 - 1600
PN (bar) / ANSI:	up to 25 / CL 300
Body materials:	GG25, 1.4408, special materials
Seat materials:	Metal, PTFE, EPDM, NBR, Viton®, special materials
Connections:	Wafer

- Through-going valve plate
- Bi-directional sealing
- TK: Seal ring flange-mounted from the outside
- TL: Seal ring integrated into body
- TH: reinforced construction up to 25 bar

Options:	V-port for regulation, flush connections
Applications:	Pulp < 18%, liquids containing solids, recycled paper pulp, waste water, bulk material, sludge, rejects, syrup (seed magma)
Approvals:	ATEX (on request)

Reject Valve, Type CR (Orbinox)

DN (mm):	100 - 600 (higher on request)
PN (bar) / ANSI:	up to 10 / CL 150
Body materials:	GG25, 1.4408
Seat materials:	Polyurethane, metal
Connections:	Wafer

- Round inlet and larger rectangular outlet
- Hardened gates

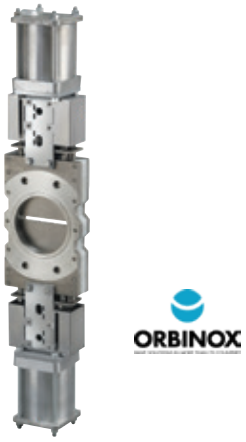
Options:	Transition pieces square/round, bonnet design
Applications:	Especially in recycled paper processing, heavy rejects, glass, clamps, sand, junk traps
Approvals:	ATEX (on request)

Reject Valve, Type DT (Orbinox)

DN (mm):	100 - 600 (higher on request)
PN (bar) / ANSI:	up to 10 / CL 150
Body materials:	Steel, stainless steel
Seat materials:	Metal
Connections:	Wafer

- Double plate knife gate valve enables short opening and closing times and avoids jamming
- UHMW polyethylene body liner

Applications:	Heavy rejects, glass, metal parts, junk traps, especially in recycled paper processing and pulper applications
Approvals:	ATEX (on request)



Silo Outlet Valves, Type XC (Orbinox)

DN (mm):	50 - 600
PN (bar) / ANSI:	up to 10 / CL 150
Body materials:	GG25, 1.4408
Seat materials:	EPDM, PTFE, Viton®, silicone, metal
Connections:	Wafer

- Special design of the body
- Ideal for use as silo outlet valve
- Uni-directional sealing

Options:	Bonnet design
Applications:	As silo outlet valve, bulk material applications, bentonite, starch, powder
Approvals:	ATEX (on request), FDA (on request)

Square Port Knife Gate Valves, Type BC (Orbinox)

DN (mm):	150x150 - 600x600 (higher on request)
PN (bar):	1 (higher on request)
Body materials:	Carbon steel, stainless steel
Seat materials:	EPDM, Viton®, silicone, metal
Connections:	Flanged

- Rectangular / square port low-pressure knife gate valve in welded construction

Applications:	Powdery media
Approvals:	ATEX (on request)

DIN Gate Valves, Cast Design (RT Valves)

DN (mm):	50 - 1000
PN (bar):	6 - 320
Body materials:	1.0619, 1.4408, LCC, other materials on request
Temperature (°C):	-196 up to +650
Connections:	Flanged, welded ends
Design standards:	EN12516

- Different face-to-face acc. DIN EN
- Bolted bonnet or pressure sealed
- Double plate, flexible or solid wedge

Options:	Bellows seal, ISO top flange (convertible), live loaded packing, packing extraction system, stem and/or cryogenic extensions, position indicator, position indicator with limit switches, locking device, drain plug, bypass, pressure relief valve
Applications:	Water, oil, gas, chemicals, steam
Approvals:	ATEX, TA Luft (on request), AD2000 W0/A4 (on request)

DIN High Pressure Double Plate Wedge Gate Valves (Wakmet)

DN (mm):	50 - 600
PN (bar):	40 - 630
Body materials:	Forged steel
Connections:	Flanged, welded ends
Design standards:	EN12516

- 2-plate design
- With cover flange: up to PN100
- With self pressure cover lock: PN160 and higher
- Forged body and bonnet
- Sealing faces up to PN100 made of Cr-Ni-steel or Stellite; PN160 and higher: Stellite

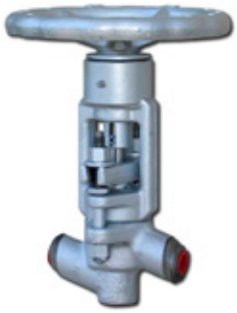
Options:	Live loaded packing, position indicator, position indicator with limit switches, locking device, drain plug, bypass, pressure relief valve
Applications:	Steam, water, gas, oil, condensate
Approvals:	ATEX, TA Luft (on request), AD2000 A4/HPO (on request)

DIN Forged Steel Shut-off and Control Globe Valves with Gland Seal or Bellows Seal (Wakmet)

DN (mm):	15 - 300
PN (bar):	40 - 630 (bellows seal up to PN160)
Body materials:	Forged steel
Connections:	Flanged, socket weld ends, butt weld ends, threaded
Design standards:	DIN

- Graphite packing or bellows seal
- Straight pattern or Y-type
- Shut-off or throttling plug
- With cover flange: up to PN160
- As bayonet lock without cover: PN250 (DN15-50) and higher
- With self pressure cover lock: PN250 (DN65) and higher
- Sealing faces up to PN160: Cr-Ni-steel or Stellite; PN250 and higher: Stellite

Applications:	Steam, water, gas, oil, condensate
Approvals:	ATEX, TA Luft on request, AD2000 A4/HPO on request



DIN Forged Piston Check and Piston Closing Check Valves (Wakmet)

DN (mm):	15 - 300
PN (bar):	40 - 630
Body materials:	Forged steel
Connections:	Flanged, socket weld ends, butt weld ends, threaded
Design standards:	DIN

- With cover flange: up to PN160
- With screwed cover: PN250 (DN15-25) and higher
- Self pressure cover lock: PN250 (DN32) and higher
- Check disc with closing spring
- Sealing faces up to PN160 made of Cr-Ni-steel or Stellite; PN250 and higher: Stellite

Applications:	Steam, water, gas, oil, condensate
Approvals:	ATEX, TA Luft on request, AD2000 A4/HPO on request

DIN Swing Check Valves in Forged Design (Wakmet)

DN (mm):	50 - 600
PN (bar):	40 - 630
Body materials:	Various forged materials
Connections:	Flanged, socket weld ends, butt weld ends
Design standards:	DIN

- With cover flange: up to PN100
- With self pressure cover lock: PN160 and higher
- Sealing faces up to PN100 made of Cr-Ni-steel or Stellite; PN160 and higher: Stellite

Applications:	Water, steam, gas, oil, condensate
Approvals:	ATEX, TA Luft on request, AD2000 A4/HPO on request

DIN Shut-off and Control Globe Valves with Gland Seal or Bellows Seal (LDM Valves)

DN (mm):	15 - 400
PN (bar):	16 - 40
Temperature (°C):	-60 up to +400
Body materials:	1.0619 (Type UV226) / 1.4581 (Type UV236), LCB, other materials on request
Gland seal:	Graphite packing equipped with backseat - Type S
Bellows seal:	Stainless steel bellows with safety graphite packing - Type R
Trim material:	Stainless steel
Connections:	Flanged
Design standards:	DIN

- Gland seal: Series UV226-S & UV236-S
- Bellows seal: Series UV226-R & UV236-R
- Straight through
- Pressure balanced plug from DN200
- Flow characteristic: on/off, linear
- Position indicator

Options:	Control plug, oil- and grease-free, ASTM body/bonnet material, non explosive execution
Applications:	Water, oil, gas, chemicals, low pressure steam
Approvals:	ATEX on request, TA Luft on request, AD2000 A4/W5 on request

DIN Shut-off and Control Globe Valves „Stellite Version“ with Gland Seal or Bellows Seal (LDM Valves)

DN (mm):	15 - 400
PN (bar):	16 - 40
Temperature (°C):	-60 up to +550
Body materials:	1.0619 (Type UV227) / 1.4581 (Type UV237), LCB, other materials on request
Gland seal:	Graphite packing equipped with backseat
Bellows seal:	Stainless steel bellows with safety graphite packing
Plug/seat hard overlay executions:	CrNiMoTi/CrNiMn, CrNiMoTi/Stellite 6, Stellite 6/Stellite 6, 13Cr/Stellite 6
Connections:	Flanged
Design standards:	DIN

- Gland seal: Series UV227-S & UV237-S
- Bellows seal: Series UV227-R & UV237-R
- Straight through, with hard metal overlay seat and spiral-wound cover gasket
- Pressure balanced plug from DN200
- Flow characteristic: on/off, linear
- Position indicator

Applications:	Steam, water, gas, oil, condensate
Approvals:	ATEX on request, TA Luft on request, AD2000 A4/W5 on request

Ball Segment Valves, Wafer Design, Centric / Eccentric, Type KVTW-A (Somas)

DN (mm):	25/2 - 250
PN (bar) / ANSI:	10 - 100 / CL 150 - 300
Temperature (°C):	-196 up to +550
Body materials:	1.4408, Hastelloy® C, titanium, special materials
Seat materials:	PTFE (10% carbon), PTFE 53 (50% 1.4435), HiCo, PEEK (high temperature resistant plastic), without seat (hard chromed cover plate)
Connections:	Wafer

- Somas standard face-to-face dimensions
- Centric (type KVTW) or eccentric (type KVXW) design
- Low-Noise: noise reduction for high differential pressures
- V-groove (type KVMW) for high consistency pulp
- Particularly high Kv-values

Options:	Manual override, safety interlock at the actuator
Applications:	Pulp stock up to 10%, steam, water, solid-containing gases, rejects
Approvals:	ATEX, FDA (on request), SIL, TA Luft (on request)

SOMAS®

Ball Segment Valves, Wafer Design, Short Face-to-Face Dimension, Centric / Eccentric, Type KVTW-D (Somas)

DN (mm):	25/2 - 250
PN (bar) / ANSI:	up to 25 / CL 150
Temperature (°C):	-196 up to +550
Body materials:	1.4408, Hastelloy® C, titanium, special materials
Seat materials:	PTFE (10% carbon), PTFE 53 (50% 1.4435), HiCo, PEEK (high temperature resistant plastic), without seat (hard chromed cover plate)
Connections:	Wafer

- Short face-to-face dimension
- Centric (Type KVTW) or eccentric (Type KVXW) design
- Low-Noise: noise reduction for high differential pressures
- V-groove (type KVMW) for high consistency pulp
- Particularly high Kv-values

Options:	Manual override, safety interlock at the actuator
Applications:	Pulp stock up to 10%, steam, water, solid-containing gases, rejects
Approvals:	ATEX, FDA (on request), SIL, TA Luft (on request)

SOMAS®

Ball Segment Valves, Flanged Design, Centric / Eccentric, Type KVTF-L / KVTF-B (Somas)

DN (mm):	25/2 - 65 (KVTF-L), 80-700 (KVTF-B)
PN (bar) / ANSI:	up to 50 / CL 150 - 300
Temperature (°C):	-196 up to +550
Body materials:	1.4408, Hastelloy® C, titanium, special materials
Seat materials:	PTFE (10% carbon), PTFE 53 (50% 1.4435), HiCo, PEEK (high temperature resistant plastic), without seat (hard chromed cover plate)
Connections:	Flanged

- Face-to-face dimension acc. to EN 558, series 15
- Full bore
- Centric (Type KVTW) or eccentric (Type KVXW) design
- Low-Noise: noise reduction for high differential pressures
- V-groove (type KVMW) for high consistency pulp
- Particularly high Kv-values

Options:	Manual override, safety interlock at the actuator
Applications:	Pulp stock up to 10%, steam, water, solid-containing gases, rejects
Approvals:	ATEX, FDA (on request), SIL, TA Luft (on request)

Ball Segment Valves, Flanged Design, Short Face-to-Face Dimension, Centric / Eccentric, Type KVTF-C (Somas)

DN (mm):	80 - 400
PN (bar) / ANSI:	up to 25 / CL 150
Temperature (°C):	-196 up to +550
Body materials:	1.4408, Hastelloy® C, titanium, special materials
Seat materials:	PTFE (10% carbon), PTFE 53 (50% 1.4435), HiCo, PEEK (high temperature resistant plastic), without seat (hard chromed cover plate)
Connections:	Flanged

- Short face-to-face dimension acc. to EN 558:2008 series 36
- Reduced bore
- Centric (Type KVTW) or eccentric (Type KVXW) design
- Low-Noise: noise reduction for high differential pressures
- V-groove (type KVMW) for high consistency pulp

Options:	Manual override, safety interlock at the actuator
Applications:	Pulp stock up to 10%, steam, water, solid-containing gases, rejects
Approvals:	ATEX, FDA (on request), SIL, TA Luft (on request)

Ball Segment Valves, Medium and High Consistency Valves (Somas)

DN (mm):	100/150 - 350/400
PN (bar) / ANSI:	25 / CL 150
Body materials:	1.4408, CF8M
Seat materials:	PTFE 53 (50% 1.4435), HiCo
Connections:	Flanged

- Smaller nominal inlet to outlet size
- V-groove

Applications:	Specially designed for high stock consistencies > 10%
Approvals:	ATEX (on request), SIL (on request), FDA (on request), TA Luft (on request)

Ball Segment Valves, Basis Weight Valve (Somas)

DN (mm):	50 - 350
PN (bar):	10 - 25
Temperature (°C):	-196 up to +550
Body materials:	1.4408, Hastelloy® C, titanium, special materials
Seat materials:	PTFE (10% carbon), PTFE 53 (50% 1.4435), HiCo
Connections:	Wafer, flanged

- Based on the Somas ball segment valve
- Complete unit - with special electric actuators

Applications:	Basis weight regulation, especially constructed to meet the requirements of the paper industry
Approvals:	ATEX (on request), SIL (on request), FDA (on request), TA Luft (on request)

2- and 3-Way Control Valves

DN (mm):	15 - 300
PN (bar):	16 - 40
Temperature (°C):	-20 up to +500
Body materials:	Ductile iron, cast steel, stainless steel
Seat materials:	1.4028/1.4027, 1.4571/1.4581
Plug materials:	1.4021/1.4027, 1.4571/1.4581
Kvs values:	1,6 - 1000 m^3/h
Connections:	Flanges acc. to EN 1092

- Mixing or diverting function
- Rangeability 50:1
- Leakage rate Class III/IV acc. to EN 1349
- Face to face-dimensions acc. to EN 558-1, series 1

Options:	Bellow seal, perforated plug, oxygen and food execution
Applications:	Hot water, steam, power generation, chemical industry, heating and ventilation
Approvals:	CE, ATEX, ISO 9001:2015, TRD 100/110/201, TRB 801, ISO 14001:2015, OHSAS

Micro Flow Valves (Badger Meter)

DN (mm):	15 - 50 / 1/4“ - 2“
PN (bar):	up to 340
Temperature (°C):	-70 up to +530
Body materials:	Stainless steel
Seat materials:	Stainless steel, stellited, Hastelloy®, tantalum
Kvs range:	0.0000015 - 5.1
Connections:	Flanged, threaded and special connections

- Variety of combinations of materials, innervalve and other components
- Globe or angle design

Options:	Bellow seal, cooling fins, extended stem, special packings
Applications:	General industry, research, development, pilot plants, liquids, gases, steam
Approvals:	ATEX, SIL, TA Luft, FDA

All-Ceramic and Partially Ceramic Modular Ball Valves (Cera System)

Ball valves and sliding disc valves are getting highly wear-resistant due to the strategic use of ceramic components. These valves are mainly used for control and on/off applications for abrasive, corrosive, and solid-containing media like fly ash, lime milk, lime mud, kaolin, titanium dioxide, acids, alkaline solutions, pigments, etc. Due to its modular design, „Cera Valve“ provides numerous different designs for many different application possibilities.

- DN (mm): 15 - 300
- PN (bar): up to 40 (higher pressures possible)
- Temperature (°C): -30 up to +950
- Compact or flanged design
- Control and on/off valve
- Flow rates from 1m³/h up to 2,800m³/h
- Spring-loaded sealing system with trunnion mounted and floating ball, also hardened metal or tungsten carbide ball available
- Used ceramics: Aluminium oxide, zirconium oxide, silicon carbide, silicon nitride
- Approvals: TA Luft, SIL, ATEX
- Applications: where corrosion, temperature and abrasion meet; chemical industry, pulp and paper industry, steel mills, power plants, waste incineration plants, pneumatic conveyor systems, liquors, MgO, fillers, rejects, sand, TiO_2, corrosive vapours.

Sliding Disc Valves (Cera System)

The sliding disc valve is dead space-free and gas tight and is particularly suitable for regulation of low volumes as well as dosing tasks. In the case of type SSC, the medium flows solely through ceramic (no metallic contact). Suitable for control and on/off applications.

Key data:

- DN (mm): 1 - 200
- PN (bar): up to 40
- Temperature (°C): up to +450 (higher on request)

Designs:

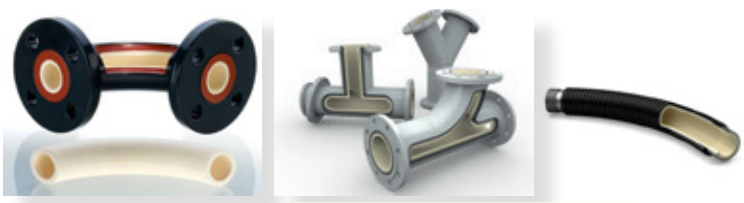
- Design for chemical industry (type SSC)
- Light-weight design (type SDL)
- 4-plate design (type SVC)

Applications:

- Where corrosion, temperature and abrasion meet; highly corrosive media, pharmaceutical products, products for microelectronics (pure silicon), liquors, MgO, fillers, TiO_2, corrosive vapours.

Wear Protection of Pipes, Pipe Elbows, T/Y-Pieces, Orifice Plates, Reducers (Cera System)

The pipe elbows made of one-piece cast ceramic are nominal size conform. These pipe elbows are characterized by the use of premium ceramics, low weight, and step-free transition. The components can also be adapted to existing systems, without changing the pipelines.



Pinch Valves RF VALVE, Type BE / BO (RF Valves)

DN (mm):	25 - 1500
PN (bar):	up to 20
Temperature (°C):	-50 up to +150
Body materials:	Cast iron, ductile iron, cast steel, stainless steel, aluminium
Sleeve materials:	NR, SBR, EPDM, IIR, NBR, CR, FPM, CSM
Actuation:	Manual, pneumatic, electric, hydraulic
Connections:	Flanged

- Control and on/off applications
- Patented non-stretch tube design with expansion arches
- Wide range of elastomer qualities
- In-line quick tube change
- Face-to-face dimensions according to DIN/EN, ISO, ASME
- Full bore
- Self-cleaning

Options:	SMART Valve wear monitoring sensor, opening tags, conical tubes, fail close systems
Applications:	Abrasive, corrosive, scaling or coating slurries, liquids and powders, liquors in pulp production
Approvals:	ATEX, PED, ISO 9001, FDA

Pinch Valves, Type aiRFlex® (RF Valves)

DN (mm):	25 - 1500
PN (bar):	up to 4
Temperature (°C):	-50 up to +150
Body materials:	Cast iron, aluminium, stainless steel on request
Sleeve materials:	NR, SBR, EPDM, IIR, NBR, CR, FPM, CSM
Actuation:	Compressed air/liquids
Connections:	Flanged

- Control and on/off applications
- Patented non-stretch tube design with expansion arches
- Wide range of elastomer qualities
- Simple and cost-effective solution for low pressures
- In-line quick tube change
- Face-to-face dimension according to ASME B16.1
- Full bore
- Self-cleaning

Options:	SMART Valve wear monitoring sensor, fail close and quick opening systems
Applications:	Abrasive, corrosive, scaling or coating slurries, liquids and powders
Approvals:	ATEX, PED, ISO 9001, FDA

Tilting Disc Check Valves, Type RM (Orbinox)

DN (mm):	40 - 900
PN (bar):	10 - 40
Temperature (°C):	up to +400
Body materials:	1.4408, special materials
Seat materials:	Metal
Connections:	Wafer

- Robust design
- Metal sealing
- Eccentric design
- Quick closing reaction due to oblique sealing
- Short face-to-face dimension
- Also suitable for low differential pressures

ORBINOX

Options:	Auxiliary spring, counterweight, hydraulic damping device
Applications:	White water, pulp < 5%, sludge, wastewater treatment plants, food and beverage, water, steam, gas, air
Approvals:	ATEX (on request)

Wafer Swing Check Valves, Type CSC / CSCF (ChemValve-Schmid)

DN (mm):	50 - 1000
PN (bar) / ANSI:	10 - 16 / CL 150
Body materials:	1.0619, 1.4408, 1.4404, bronze, duplex, super duplex, PP, PTFE + 25% glass
Seat materials:	Metal, NBR, EPDM, Viton®, PTFE

- Cast disc with opening limit
- Tight-closing already in case of low pressure difference by additional spring (DN50-200)
- Ring screw for mounting (standard)
- Centering by outer diameter of body
- Short weight-saving overall length

ChemValve-Schmid Valve Technology

Applications:	Liquids, gases, steams
Approvals:	AD2000 W0, FDA (on request), ATEX

Dual Plate Check Valves, Type DDC (ChemValve-Schmid)

DN (mm):	50 - 1000
PN (bar) / ANSI:	10 - 100 / CL 150 - 600
Body materials:	1.4301, 1.0038, 2.1090, 1.4404
Seat materials:	Metal, NBR, EPDM, Viton®, PTFE

- Eccentric disc for low zeta values and a minimum of pressure drop
- Equipped with special springs for minimal opening pressures and short closing times
- Favorable for hydraulic installations
- Available in API overall lengths and according to ASTM materials

ChemValve-Schmid Valve Technology

Applications:	Liquids, gases, steams
Approvals:	AD2000 W0, FDA (on request), ATEX

Check Valves, Type CSD / CVD (ChemValve-Schmid)

DN (mm):	15 - 350
PN (bar) / ANSI:	6 - 40 / CL 150 - 300
Body materials:	1.0619, 1.4408, 1.4404, bronze, duplex, super duplex, Hastelloy®, titanium, Uranus®, etc.
Seat materials:	Metal, NBR, EPDM, Viton®, PTFE

- Up to DN100: Cast-on centering collar with wide flange connection faces
- DN125-350: Centering through body (external diameter) or optionally with centering ring
- Guiding of valve plate by body ribs
- Protected spring bearing quality
- Body made of investment casting
- Broad connection faces secure optimal holding of the flange sealings

Options:	Special springs for variable opening pressures
Applications:	Liquids, gases, steams
Approvals:	AD2000 W0, FDA (on request), ATEX

ChemValve-Schmid Valve Technology

Check Valves, Forged Design, Type DSF (ChemValve-Schmid)

DN (mm):	15 - 100
PN (bar) / ANSI:	10 - 250 / CL 150 - 2500
Body materials:	1.0619, 1.4408
Seat materials:	Metal, NBR, EPDM, Viton®, PTFE

- From bar material
- Broad flange connection on both sides
- Guiding of valve plate by body ribs
- Centering through body (external diameter)

Applications:	Liquids, gases, steams
Approvals:	AD2000 W0, FDA (on request), ATEX

ChemValve-Schmid Valve Technology

Non Return Nozzle Check Valves, Type CSL streamLiner (ChemValve-Schmid)

DN (mm):	15 - 100 (DN125-350 made of solid material)
PN (bar) / ANSI:	10 - 250 / CL 150 - 2500
Body materials:	Stainless steel casting as well as special materials in solid material
Seat materials:	Metal, NBR, EPDM, Viton®, PTFE

- Low pressure loss
- Non-slam closure

Applications:	Liquids, gases, steams
Approvals:	AD2000 W0, FDA (on request), ATEX

ChemValve-Schmid Valve Technology

PTFE Lined Check Valves, Type DTEF (ChemValve-Schmid)

DN (mm):	15 - 150
PN (bar) / ANSI:	10 / CL 150
Body materials:	PTFE + 25% glass, TFM/PTFE cond. FDA
Valve plate:	PTFE + 25% glass, TFM/PTFE cond. FDA
Seat materials:	Without sealing, Viton®, EPDM, NBR
Connections:	Mounting between flanges acc. to DIN EN 1092-1

- Hastelloy® spring coated with PTFE/PFA tube and welded on the ends

Applications:	Corrosive and aggressive liquids and gases, food
Approvals:	ATEX, FDA, SIL

ChemValve-Schmid Valve Technology

DIN Piston Check and Piston Closing Check Valves

DN (mm):	15 - 200
PN (bar):	16 - 40
Temperature (°C):	-10 up to +400
Body materials:	1.0619, 1.4581, LCB, other materials on request
Plug/seat:	In stainless steel, in hard overlay execution (CrNiMoTi / CrNiMn, CrNiMoTi / Stellite 6, Stellite 6 / Stellite 6, 13Cr / Stellite 6)
Connections:	Flanged
Design standards:	DIN

- Different design options available (with spring, without spring, check closing, check closing without spring)

Options:	Oil- and grease-free, ASTM body/bonnet material
Applications:	Water, oil, gas, chemicals, low pressure steam
Approvals:	ATEX on request, TA Luft on request, AD2000 A4/W5 on request

DIN Swing Check Valves in Cast Design (RT Valves)

DN (mm):	50 - 1000
PN (bar):	6 - 320
Body materials:	1.0619, 1.4408, LCC, other materials on request
Temperature (°C):	-196 up to +650
Connections:	Flanged, welded ends
Design standards:	DIN EN12516

- Different face to face acc. DIN EN
- Bolted bonnet or pressure sealed

Options:	Position indicator, position indicator with limit switches, hydraulic brake, bypass, pressure relief valve, stop device with handwheel
Applications:	Water, oil, gas, chemicals, steam
Approvals:	ATEX, TA Luft (on request), SIL, AD2000 W0/A4

DIN Safety Relief Valves, Type 1400 DIN (TOSACA)

DN (mm):	15x25 - 400x500
PN (bar):	16 - 100
Temperature (°C):	-196 up to +455
Body materials:	Cast iron, carbon steel, stainless steel, duplex
Seat materials:	PTFE, Viton®, AISI 316L, AISI 316L+Stellite
Spring:	1.8159, AISI 302
Disc:	AISI 316L
Connections:	Flanged (DIN)
Design standards:	EN12516-1, EN4126-1/7

- Special materials available on request
- CR - Cryogenic version
- LP - Low pressure version

Options:	Lifting device, packed lifting lever, open bonnet, bellow seal, heating jacket, ECTFE coating
Applications:	Steam, gases, liquids
Approvals:	CE, ATEX, ISO9001:2008, AD2004 A4 (on request), UV-Stamp (on request)

TOSACA Safety relief valves

DIN Safety Relief Valves, Threaded, Type 1216 (TOSACA)

DN (Zoll):	1/2“x3/4“ - 2“x2“
PN (bar):	40
Temperature (°C):	-196 up to +455
Body materials:	A351 CF3M
Seat materials:	PTFE, Viton®, AISI 316L
Spring:	AISI 302, 17-7 PH
Disc:	AISI 316L
Connections:	BSP/NPT threads
Design standards:	EN12516-1, EN4126-1/7

- Special materials available on request
- CR - Cryogenic version
- C - Clamp version

Options:	Lifting device, packed lifting lever, heating jacket, ECTFE coating
Applications:	Steam, gases, liquids
Approvals:	CE, ATEX, ISO9001:2008, AD2004 A4 (on request), UV-Stamp (on request)

TOSACA Safety relief valves

Pressure Reducing Valves (VALFONTA)

DN (mm):	8 - 150
PN (bar):	16 - 40
Temperature (°C):	up to +250
Body materials:	Ductile iron, cast steel, stainless steel, bronze, special materials
Connections:	Threaded, flanged (DIN, ANSI), welded ends

- European manufacturing
- Short delivery times
- Special executions according to customer requirements

Applications:	Steam, water, other liquids, oil, air, other gases
Approvals:	CE, ATEX, ISO 9001:2015

Excess Pressure Valves (VALFONTA)

DN (mm):	15 - 150
PN (bar):	16 - 40
Temperature (°C):	up to +350
Body materials:	Ductile iron, cast steel, stainless steel, bronze, special materials
Connections:	Threaded, flanged (DIN, ANSI), welded ends

- European manufacturing
- Short delivery times
- Special executions according to customer requirements

Applications:	Steam, water, other liquids, oil, air, other gases
Approvals:	CE, ATEX, ISO 9001:2015

DIN and ANSI Strainers in Cast or Forged Design

DN (mm):	15 - 400 / 1/2“ - 36“
PN (bar):	16 - 40 / CL 150 - 2500
Body materials:	GG25, GGG40, 1.0619 (A216 WCB), A352 LCB, 1.4408 (A351 CF8M), 1.4581, other materials on request; forged body executions on request
Mesh screen material:	Stainless steel
Connections:	Flanged, female thread, socket weld ends, butt weld ends
Design standards:	DIN / ASME B16.34

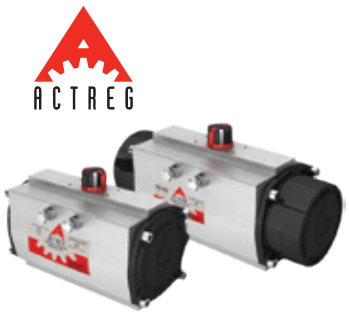
- Y-type
- Different mesh sizes available
- Face-to-face length acc. to EN 558-1 Series 1 or ASME B16.34
- Pressure seal design CL 900 - 2500

Options:	Oil- and grease-free, drain plug
Applications:	Water, oil, gas, chemicals, low pressure steam
Approvals:	ATEX on request, TA Luft on request, AD2000 A4/W5 on request, NACE on request

Pneumatic Actuators „Rack-and-pinion“ (Actreg)

Body materials:	Aluminium
Torques:	up to 6,500 Nm
Temperature range:	-30°C up to +100°C
Low temperature version:	-40°C up to +80°C
Extremely low temperature version:	-60°C up to +80°C
High temperature version:	-15°C up to +150°C

- Aluminium body is hard anodized (outside and inside)
- Standard mounted travel stops for valve position adjustment in open and close position (+/- 5° at each end)
- Multi-function position indicator



Pneumatic Actuators „Scotch-yoke“ (Somas)

Body materials:	Aluminium
Torques:	up to 19.925 Nm
Temperature range:	-40°C up to +90°C
High temperature version:	+120°C

- Standard mounted travel stops for valve position adjustment in open and close position (+/- 5° at each end)
- Patented backlash-free torque transmission
- Low friction seals
- Optimized torque curve
- Mounting block for all accessories acc. to VDI/ VDE 3845

Options:	Hand operated, locking device, larger air connections
Approvals:	ATEX

Electric Actuators, Fail Safe, Type FS-FSQT (Schiebel)

Voltage:	24 V - 400 V AC/DC
Positioning time Fail Safe:	1 - 10 sec.
90° turn actuator FSQT (Fail safe quarter turn):	up to max. 32,000 Nm
Linear actuator FS:	up to max. 190 kN

- For on/off and control functions
- Easy to change positioning time
- Modulating operation possible due to decoupled fail-safe unit

Options:	ATEX version, analog position feedback signal 4-20 mA, bus connection, handwheel

Electric Actuators, Type CM (Schiebel)

Voltage:	24 V - 400 V AC/DC (special voltages on request)
90° turn actuator FSQT (Fail safe quarter turn):	up to max. 15,000 Nm (higher for AB series)
Rotary actuator:	up to max. 500 Nm (higher for AB series)
Linear actuator:	up to max. 35 kN (higher for AB series)

- For on/off and control functions
- Adjustable speed and positioning time
- Compact, space-saving construction

Options:	Fail-safe, ATEX version, analog position feedback signal 4-20 mA, bus connection

Electric Actuators (AUMA)

Voltage:	24 V - 690 V AC/DC
90° turn actuator:	up to max. 675,000 Nm
Rotary actuator:	up to max. 32,000 Nm
Linear actuator:	up to max. 270 kN

- For on/off and control functions
- Standardized control technology for DCS

Options:	ATEX version, analog position feedback signal 4-20 mA, bus connection

Electric Part-Turn Actuators (J+J)

Torque:	10 - 300 Nm
Voltage:	12 V - 230 V AC/DC
Ambient temperature (°C):	-20 up to +70
Body materials:	Polyamide (PA6), polypropylene (PP)
Degree of protection:	IP65, IP67

- Construction acc. to ISO 5211 / DIN 3337
- Design: heating resistor, limit switches, manual override

Options:	Fail-safe with battery, positioning system for control applications

Digital Positioners

Design:	Digital
Supply air pressure:	up to 10 bar High air capacity at minimum air consumption
Software:	Diagnosis solutions for maintenance, integration into existing diagnostic systems via DTM device

- Auto-calibration (digital)
- Modular construction
- Compact, well-proven, and flexible design
- Exhaust opening with thread connection

Options:	HART, profibus, foundation field bus, partial stroke, contactless sensor
Approvals:	ATEX, SIL2

Analog Positioners, Type V200 (VAC)

Design:	Analog
Supply air pressure:	up to 8 bar

- Optimized pilot valves for reduced air consumption and better air capacity
- Feedback units or option modules can be installed easily, even later, in the standard housing
- Simple calibration, external zero and span adjustment
- High gain pilot valve and super high gain pilot valve
- Built in gauge ports
- Bright visible indicator, flat or Dome style
- Stainless steel cam

Options:	Feedback 4-20 mA, mechanical and inductive limit switches, intrinsically safe, potentiometer, nickel coated, TUFRAM® coated
Approvals:	Nema 4X

Accessories

Limit Switches, Limit Switch Boxes

Portfolio:	Available from all well-known manufacturers
Design:	Mechanical, inductive, etc.
Mounting:	Directly at the actuator/valve or via limit switch box at the actuator

Solenoid Valves

Portfolio:	Available from all well-known manufacturers
Design:	NAMUR or Inline
Function:	3/2-, 5/2- or 5/3-way
Voltage range:	up to 230 V AC/DC
Options:	ATEX, cryogenic design

Pneumatic Accessories

Filter regulators
Throttle plates and silencers
Quick exhaust and booster valves
Valve islands

Mounting Accessories

Mounting kits for automation
Mounting kits for manual valves
Reducing sleeves and adapters
Stem extensions