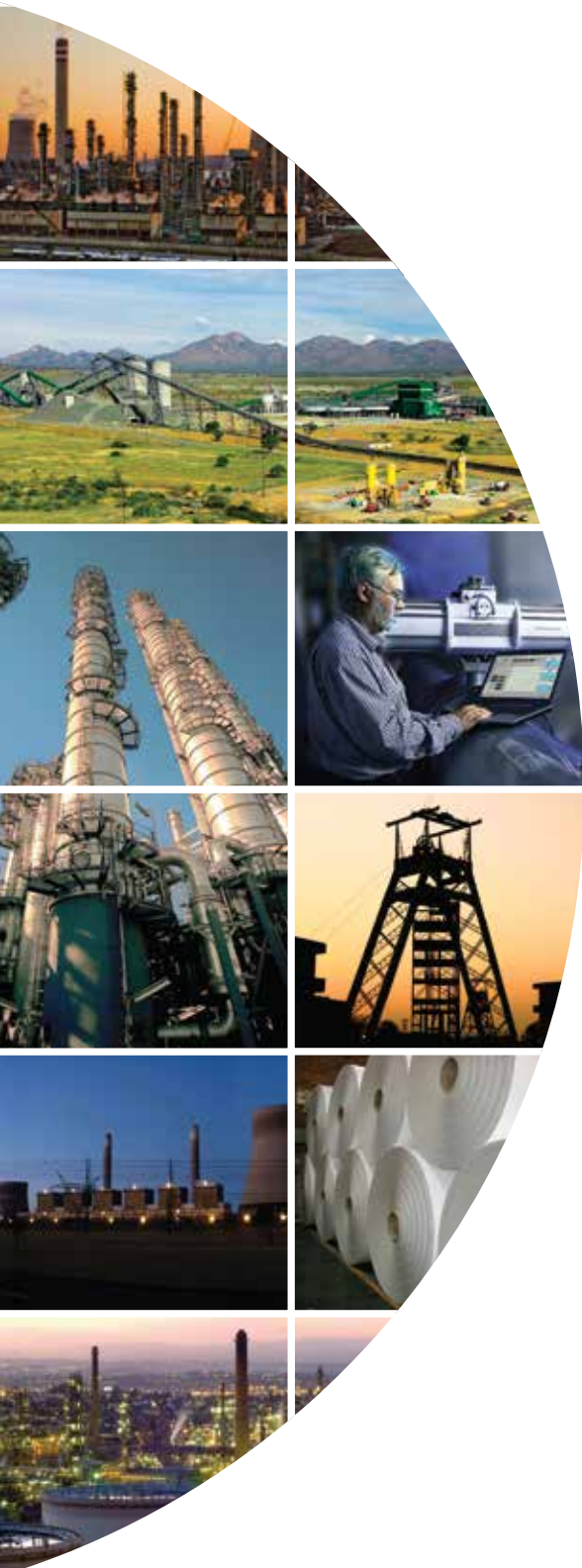




**Valve
& Automation**

Total Valve & Control Solutions®



PRODUCT GUIDE

- Manual Valves •
- On/Off Valves •
- Control Valves •
- Valve Actuators •
- Valve Positioners •
- Valve Repairs •

VISION

Valve & Automation supplies Total Valve & Control Solutions® to the chemical, refining, mining & minerals, pulp & paper, sugar, steel, power generation and other major key process industries throughout Southern Africa. Our specialist skills help customers meet their core business objectives by sizing and selecting optimum Valve & Control Solutions. This together with after sales technical support and reconditioning facilities reduces the Total Cost of Ownership (TCO) thereby helping our customers to increase production, reduce costs and reduce emissions.

We strive to build the V&A Brand and reputation by representing global leading companies in our industry, and by continual investment in our staff as world-class industry experts. We aim to exceed customer expectations with superior processes, systems, products and brands.

Our goal is to be the number one supplier of Total Valve & Control Solutions® in Southern Africa.

MISSION

Valve & Automation supplies optimum Total Valve & Control Solutions® for process applications by using their world-class products and unmatched industry and application knowledge to help our customers meet their core business objectives more efficiently.



Courtesy of Sasol Synfuels



Courtesy of Sasol Chemical Industries



Courtesy of Engen



Courtesy of Sapref





Courtesy of Sappi Chemical Cellulose



Courtesy of Mondi Business Papers



Courtesy of Eskom



Courtesy of PetroSA



Zwick Triple Offset Valve

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THE COMPANY

Since it was founded in 1986, Valve & Automation have earned a reputation for providing optimum solutions for harsh applications in the chemical, refining, mining & minerals, pulp and paper, sugar and power generation industries throughout Southern Africa.

Together with support from world leading suppliers in valves, actuators and positioners, V&A have the experience, know-how and product range to meet the needs of almost any application in industry from isolation, on/off, ESD to modulating control. From complete new packages to OEM parts, V&A can supply your requirements.

Whichever solution is selected, all customers enjoy the back-up of our branches and staff anywhere in Southern Africa. Our support structure ensures that we are able to respond quickly and efficiently from initial enquiry through to supply, technical support and after sales service.

BBBEE

Independent auditors confirm that V&A comply with the Broad Based Black Economic Empowerment Codes of Good Practice as set out by DTI. V&A directors are committed to South Africa and transformation.



SIZING & SELECTION

V&A uses sizing and selection software developed by the valve manufacturers as well as their own which was developed by specialists to IEC standards. This service is offered to customers to assist in selecting the optimum valves for the application. These tools significantly reduce the time required to select and specify the right valve.

TOTAL COST OF OWNERSHIP

Close working relationships with major production plants locally, together with global support systems has ensured that V&A technical specialists fully understand TCO principles and the impact on the end user. Recommendations and solutions offered take all known TCO issues into consideration.

“Optimum solutions, not valves from a catalogue.”

V&A has succeeded in developing technical sales staff into “product and application” specialists, who have a high degree of expertise within their particular area and are able to offer optimum solutions, not valves from a catalogue. These specialists are qualified instrument or mechanical technicians having spent many years themselves in industry giving a better understanding of the demands placed on production, project and maintenance personnel.

INTERNATIONAL SUPPLIER RELATIONSHIPS

Outstanding relationships with our global suppliers are key to success - as is being able to get support globally regardless of where the project may be managed from. V&A technical specialists regularly attend advanced product training internationally.

PROJECT ADMINISTRATION

V&A offers project management support that assists you to install and commission valve packages which is so critical to the success of a project. This support includes project management teams, on-site technical support, document control, critical commissioning and start up spares.

PROJECT EXPERIENCE

Significant experience has been gained since 1986 working with major companies like Sasol, Sappi, Mondi, Eskom, Fluor, Linde and Uhde to name a few. Projects successfully completed by V&A include contracts in excess of R15 million for ESD valves for a Sasol gas plant, R26 million worth of contracts for ESD valves on a Sasol steam plant and R15 Million for ESD valves for a Sasol Ethylene plant. Sappi has awarded contracts for manual and control valves for various projects to values in excess of R100 million. Contracts from Mondi for major projects have exceeded R40 million in the last few years. Significant contracts have also been awarded for pump protection systems for Sulzer and KSB for the Eskom power stations.

QUALITY

V&A supplies valve packages that are tested and shipped with the appropriate test certificates. The quality management systems of the complete supply chain from global leading valve manufacturers to V&A and onto the end user are all certified to ISO9001:2015.

INTELLIGENT VALVE CONTROLLERS & PST

V&A stocks and supplies intelligent valve position controllers and ESD Partial Stroke Testing units that help you realize savings from initial installation through to operation simplifying calibration and diagnostics as well as improving safety performance and maintenance management. Local facilities are available for inspection, testing and repair where protocols such as PROFIBUS and HART are routinely handled.



AFTER SALES SERVICE & OEM PARTS

V&A fully understands the need for world class service and support for production plants. OEM parts stocked in regional warehouses, V&A can deliver what is required urgently, minimising downtime and production losses. Sourcing valves from our principals internationally is routinely done as part of our ongoing service. Thinking globally but acting locally is part of V&A's success.

*"Thinking globally,
acting locally."*






VALVE REPAIRS & RECONDITIONING

Factory accredited facilities are available in both Vereeniging and Durban where skilled technicians with knowledge and experience carry out the required repairs and reconditioning using OEM components.




All final testing is done to appropriate industry and plant standards.






BALL VALVES

			
Series	715 / 730	515 / 530	3515 / 3530
Design	Floating Ball End Entry	Floating Ball Split Body	Floating Ball Metal Seats
Features	<ul style="list-style-type: none"> • End entry • Reduced bore • Fire-safe certified • Blow-out proof stem • Antistatic device 	<ul style="list-style-type: none"> • Split Body • Full bore • Fire-safe certified • Blow-out proof stem • Antistatic device 	<ul style="list-style-type: none"> • Split Body • Full bore • HT-65 Overlay on ball • Blow-out proof stem • Antistatic device
Size Range	15mm to 300mm 1/2" to 12"	15mm to 200mm 1/2" to 8"	15mm to 200mm 1/2" to 8"
Pressure Rating	ANSI 150 - 300	ANSI 150 - 300	ANSI 150 - 300
Temperatures	-40°C to 260°C	-40°C to 260°C	-50°C to 500°C
End Connections	Flanged	Flanged	Flanged
Body Materials	Carbon steel / Stainless steel / Alloy steels / Special alloys	Carbon steel / Stainless steel / Alloy steels / Special alloys	Carbon steel / Stainless steel / Alloy steels / Special alloys
Ball Materials	Stainless steel	Stainless steel	316SS + HT-65 Overlay
Seat Materials	PTFE / PEEK / Carbon-Graphite / SS filled PTFE	PTFE / PEEK / Carbon-Graphite / SS filled PTFE	316SS + HT-65 Overlay
Options & accessories	<ul style="list-style-type: none"> • Manual, pneumatic or electric actuators • Cavity relief (Standard) • NACE MR.01.75 (Standard) • CE and ATEX marked 	<ul style="list-style-type: none"> • Manual, pneumatic or electric actuators • Cavity relief (Standard) • NACE MR.01.75 (Standard) • CE and ATEX marked 	<ul style="list-style-type: none"> • Manual, pneumatic or electric actuators • Bubble tight to 327°C / Class V to 500°C • Slurry option ball & seat • CE and ATEX marked
Applications	Chemical processing, synthetic fuels, hydrocarbons, steam and other applications throughout process industries	Chemical processing, synthetic fuels, hydrocarbons, steam and other applications throughout process industries	Severe service applications, catalyst, hydrocarbons, natural gas, steam, abrasive media throughout process industries
	JC	JC	JC




BALL VALVES

			
Duball DL	1515 / 1530	6000 / 7000	Series
Floating Ball Split Body	Semi-Trunnion Split Body	Trunnion Mounted	Design
<ul style="list-style-type: none"> • Modular design / no brackets • Easy to service arrangement • Floating ball • Blow-out proof stem • Trunnion mounted >400mm 	<ul style="list-style-type: none"> • Semi-Trunnion mounted • Full bore • Fire-safe certified • Blow-out proof stem • Antistatic device 	<ul style="list-style-type: none"> • Trunnion mounted • Fire-safe to international stds • Anti blow-out stem • Bi-directional • Spring loaded seats 	Features
25mm to 400mm 1" to 16"	50mm to 600mm 2" to 24"	50mm to 1050mm 2" to 42"	Size Range
PN10 - 40 ANSI 150 - 300	ANSI 150 - 600	PN16 - 420 ANSI 150 - 2500	Pressure Rating
Up to 250°C	-50°C to 500°C	-196°C to 550°C	Temperatures
Flanged	Flanged	Flanged / Butt Weld	End Connections
Stainless steel (Std) Other materials on request	Carbon steel / Stainless steel / Alloy steels / Special alloys	Carbon steel / Stainless steel / Alloy steels / Special alloys	Body Materials
Stainless steel / Hard chromed / Solid Stellite	SS / 316SS + HT-65 Overlay	CS / SS / ENP / Hard chromed / Tungsten / Stellite	Ball Materials
PTFE / Reinforced PTFE / Stellite	PTFE / 316SS + HT-65 Overlay / Tungsten	PTFE / Stellite / Tungsten / Other options on request	Seat Materials
<ul style="list-style-type: none"> • Manual, pneumatic or electric actuators • Graphite packing • Fire-safe & antistatic • Scraper seats • Ceramic linings 	<ul style="list-style-type: none"> • Manual, pneumatic or electric actuators • Steam jackets • Slurry option ball & seats • CE and ATEX marked 	<ul style="list-style-type: none"> • Manual, pneumatic or electric actuators • Cryogenic / Extended bonnet • 3 way & custom options 	Options & accessories
Isolation, on/off and control for wide range of applications in liquids, gases and steam throughout process industries	Severe service applications, catalyst, hydrocarbons, natural gas, steam, abrasive media throughout process industries	Severe service applications, catalyst, hydrocarbons, natural gas, steam, abrasive media throughout process industries	Applications
NAF	JC	JC	




BUTTERFLY VALVES

			
Series	VAC-BF	NK	Torex
Design	Resilient Seat - Wafer	Lined Butterfly Valve	High Performance Butterfly
Features	<ul style="list-style-type: none"> • Bi-directional tight shutoff • Triple shaft bearing • Low torque • Modular design / no brackets • Long service life and reliability 	<ul style="list-style-type: none"> • TA-Luft requirements • Self-adjusting stem seals • External corrosion protection • 3 to 3,5mm thick linings • Upper and lower bearings 	<ul style="list-style-type: none"> • Modular design / no brackets • One piece leak-proof body • Triple offset design • Small offset - low torques • Metaloplast bearings
Size Range	20mm to 2000mm 3/4" to 80"	50mm to 1050mm 2" to 42"	80mm to 700mm 3" to 28"
Pressure Rating	PN6 / 10 / 16 ANSI 150	PN10 ANSI 150	PN10 - 40 ANSI 150 - 300
Temperatures	-20°C to 180°C	-60°C to 200°C	Up to 350°C
End Connections	Wafer / Lug / Double flanged	Wafer / Lug / Double flanged	Wafer / Lug
Body Materials	AI / CI / CS / SS Other materials on request	Ductile iron fully lined with PTFE	Carbon steel / Stainless steel Other materials on request
Disc Materials	AI Br / CI / SS / Rilsan / Halar Other materials on request	PTFE / Stainless steel / Special alloys	Carbon steel / Stainless steel Other materials on request
Seat Materials	NBR / EPDM / FPM / SILICON	PTFE	Inconel / PTFE
Options & accessories	<ul style="list-style-type: none"> • Manual override gearboxes • Manual, pneumatic or electric actuators • E/P and SMART positioners • Limit switches 	<ul style="list-style-type: none"> • Manual, pneumatic or electric actuators • Stuffing box • Stem monitoring connection • Earthing cable 	<ul style="list-style-type: none"> • Manual Graphite packing for steam • Fire-safe • Degreased for oxygen • O-ring for stem sealing • Unex up to 1000mm
Applications	Isolation, on/off and control for liquids and gases throughout process industries. Universal applications	Isolation, on/off and control for acids and other corrosive media throughout process industries	Isolation, on/off and control for liquids, gases and steam throughout the chemical, P&P and process industries
	VAC VALVES®	RICHTER	NAF




CORROSION RESISTANT / LINED VALVES

			
CV / BC	KN	RSS	Series
Check Valves	Lined Ball Valve	Lined Globe Control Valve	Design
<ul style="list-style-type: none"> • 5-6mm thick lining • Lining pure PFA or PTFE • Liquids, vapours & gases • Vertical or horizontal • External corrosive protection 	<ul style="list-style-type: none"> • ENVIPAK stem sealing • Live loaded seat rings • Blow-out proof stem • Minimised or cavity free • 3,5mm thick linings 	<ul style="list-style-type: none"> • Corrosive resistant lining • Fast and simple maintenance • PTFE bellows • Replaceable plug & seat • Environmental packaging 	Features
15mm to 150mm 1/2" to 6"	15mm to 200mm 1/2" to 8"	15mm to 150mm 1/2" to 6"	Size Range
PN16 ANSI 150	PN16 - 25 ANSI 150	PN16 ANSI 150	Pressure Rating
-60°C to 180°C	-60°C to 200°C	-60°C to 180°C	Temperatures
Flanged	Flanged / Wafer	Flanged	End Connections
Ductile iron lined with virgin pure PFA or PTFE	Ductile iron lined with PFA / FEP / PVDF	Ductile iron / Cast steel lined with PFE / FEP / PVDF	Body Materials
PTFE, stainless steel or Hastelloy	SS core lined with PFA / FEP / PVDF	Reinforced PTFE / Hastelloy C / Titanium etc	Ball / Disc / Plug Materials
Modified PTFE	PTFE / Modified PTFE	Reinforced PTFE / Hastelloy C / Titanium etc	Seat Materials
	<ul style="list-style-type: none"> • "V-Control ball" • Ceramic ball • 5mm lining • One piece ball / stem • Bolt-on steam jackets 	<ul style="list-style-type: none"> • Heavy duty or Hastelloy bellows • Kv values ≤ 0.8 • Special design for chlorine • Alarm connection 	Options & accessories
To prevent backflow of aggressive liquids, gases and vapours throughout chemical process chemical industries	Isolation, on/off and control for acids and other corrosive media throughout process industries	Control of corrosive, pure and or slightly solids-laden media throughout chemical process industries	Applications
RICHTER	RICHTER	RICHTER	




CONTROL VALVES - ROTARY PROCESS

			
Series	Torex	Setball	Duball DL / Trimball DL
Design	High Performance Butterfly	V-Shaped Ball	Split Body Floating Ball
Features	<ul style="list-style-type: none"> • SIL 3 certified • Modular design / no brackets • One piece leak-proof body • Triple offset design • Small offset - low torques 	<ul style="list-style-type: none"> • SIL 3 certified • Modular design / no brackets • One piece leak-proof body • Top and bottom bearings • Seats easily converted 	<ul style="list-style-type: none"> • SIL 3 certified • Modular design / no brackets • Easy to service arrangement • Floating ball / Trunnion > DN400 • Blow-out proof stem
Size Range	80mm to 700mm 3" to 28"	25mm to 500mm 1" to 20"	25mm to 500mm 1" to 20"
Pressure Rating	PN10 - 40 ANSI 150 - 300	PN10 - 40 ANSI 150 - 300	PN10 - 40 ANSI 150 - 300
Temperatures	Up to 350°C	Up to 250°C	Up to 250°C
End Connections	Wafer / Lug	Wafer / Flanged	Flanged
Body Materials	Stainless steel (Std) Other materials on request	Stainless steel (Std) Other materials on request	Stainless steel (Std) Other materials on request
Ball / Disc / Materials	Stainless steel (Std) Other materials on request	Stainless steel (Std) Other materials on request	Stainless steel / Hard chromed / Solid stellite
Seat Materials	Inconel / PTFE	Stellite / PTFE	PTFE / Carbon reinforced PTFE / Stellite
Options & accessories	<ul style="list-style-type: none"> • Graphite packing for steam • Fire-safe • Degreased for oxygen • Stem sealing for vacuum • O-ring for stem sealing 	<ul style="list-style-type: none"> • Z-Trim option reduces noise and cavitation • Degreased for oxygen • Stem sealing for vacuum • O-ring for stem sealing 	<ul style="list-style-type: none"> • Z-Trim option reduces noise and cavitation • Graphite packing • Fire-safe and antistatic • Scraper seats • Ceramic linings
Applications	Control and on/off for liquids, gases and steam throughout the chemical, pulp and paper and other process industries	<ul style="list-style-type: none"> • If media contains solids • If wide control range is required • High pressure drops 	Control and on/off for liquids, hydrocarbons and gases in the chemical, pulp and paper and other process industries
	NAF	NAF	NAF

CONTROL VALVES - ROTARY PROCESS




			
W / G	Tri-Shark	Tri-Con	Series
Ball Control	Triple Eccentric Control	Triple Eccentric / TOV	Design
<ul style="list-style-type: none"> • Replaceable control disc • Low noise / Anti-cavitation • Flow characterisation • Large turndown ratio • Bi-directional 	<ul style="list-style-type: none"> • Rangeability 100 : 1 • Equal percentage characteristic • 15dBA Noise attenuation • Reduced cavitation • Field replaceable trims 	<ul style="list-style-type: none"> • SIL 3 - Zero leakage • Self-centering disc • Metal to metal seats • Inherently fire-safe & tested • Quarter turn torque seated 	Features
25mm to 800mm 2" to 32"	80mm to 900mm 3" to 36"	50mm to 2200mm 2" to 88"	Size Range
PN16 - 420 ANSI 300 - 2500	PN16 - 100 ANSI 150 - 900	PN16 - 100 ANSI 150 - 900	Pressure Rating
-196°C to 600°C	-196°C to 815°C	-196°C to 815°C	Temperatures
Flanged / Butt weld / RJ	Double flanged / Lug / Wafer	Double flanged / Lug / Wafer / Gate valve face to face	End Connections
Carbon steel / Stainless steel / Special alloys	Carbon steel / Stainless steel / Alloy steels / Special alloys	Carbon steel / Stainless steel / Alloy steels / Special alloys	Body Materials
Carbon steel / Stainless steel / Nitrided / Tungsten carbide	Carbon steel / Stainless steel / Alloy steels	Carbon steel / Stainless steel / Alloy steels / Special alloys	Ball / Disc / Plug Materials
Metal or soft	Laminated metal Solid stainless steel	Laminated metal Solid stainless steel	Seat Materials
<ul style="list-style-type: none"> • Silencer trim • Expanded outlet for gases • Full or reduced bore 	<ul style="list-style-type: none"> • Replacement trims • Electric or pneumatic actuators • High cycle bearings • Degreased for oxygen 	<ul style="list-style-type: none"> • High cycle bearings • Steam jackets • Degreased for oxygen 	Options & accessories
Severe service applications for liquids or gasses where noise reduction, anti-cavitation or high flows are required	Severe service applications for liquids, steam or gasses where noise reduction, anti-cavitation with metal to metal seat zero leakage is required	<ul style="list-style-type: none"> • Steam / Gas / Process • Severe service • On/off and control • SD & ESD 	Applications
ARCA	ZWICK	ZWICK	

CONTROL VALVES - LINEAR PROCESS AND STEAM




			
Series	ARTES	ECOTROL	DS500
Design	Injection Desuperheater	Globe Control Valve	Steam Conditioning
Features	<ul style="list-style-type: none"> • Tight shut-off in closed position • No separate control valve • High cooling water KV 16 • Precise control of steam • Controllability up to 50:1 	<ul style="list-style-type: none"> • Reliable high performance • Lower maintenance costs • Tight shutoff / Simple top entry • Environmental packing • Pipeless positioner mounting 	<ul style="list-style-type: none"> • Pressure reducing desuperheating • Low noise multistage cage • Variable modular construction • Steam atomising system
Size Range	Inlet flange 25mm (1") Mounted flange 80mm (3")	15mm to 400mm 1/2" to 16"	Up to 1000mm Up to 40"
Pressure Rating	Up to PN400 Up to ANSI 2500	PN16 - 250 ANSI 150 - 1500	PN16 - 420 ANSI 150 - 2500
Temperatures	To suit application	-196°C to 530°C	To suit application
End Connections	Flanged	Flanged / BW / RJ	Flanged / Welded
Body Materials	Forged DIN and ASTM to suit application	Carbon steel / Stainless steel / Special alloys	Forged DIN and ASTM to suit application
Plug Materials	Forged DIN and ASTM to suit application	Stainless steel / SS hard faced / Stellite / Soft seated	Forged DIN and ASTM to suit application
Seat Materials	Forged DIN and ASTM to suit application	Stainless steel / Stellite / SS hard faced	Stellite and special alloys to suit application
Options & accessories	<ul style="list-style-type: none"> • Pneumatic, electric or hydraulic actuators 	<ul style="list-style-type: none"> • Bellows seal • Extended bonnet • Low dB and anti-cavitation trims • Cryogenic configuration • Heating jacket 	<ul style="list-style-type: none"> • Pneumatic, electric or hydraulic actuators • Bolted or pressure seal bonnet
Applications	Steam temperature reduction in all process industries	Well suited to a variety of applications from standard to severe service in the refining and chemical industries	Steam pressure reduction and desuperheating. HP / LP bypass stations
	ARCA	ARCA	ARCA

GATE & GLOBE VALVES

EXPANDING PLUG DBB

			
HP	HP	V&A EPV	Series
High Pressure Gate	High Pressure Globe	Expanding Plug DBB	Design
<ul style="list-style-type: none"> • Forged steel construction • Pressure seal bonnet • Easily actuated • Flexible wedge • Large seat surfaces 	<ul style="list-style-type: none"> • Forged steel construction • Conical sealing surface in Alloy 6 • Graphite gland packing • Easy to remove for maintenance • Hand wheel bearing mounted 	<ul style="list-style-type: none"> • Twin-seating slips provide bubble-tight seal • One-piece precision machined canshaft • Large diameter trunnion • Thermal relief from body cavity • Manual body bleed valve 	Features
50mm to 550mm 2" to 22"	15mm to 100mm 1/2" to 4"	50mm to 900mm 2" to 36"	Size Range
PN160 - 600 ANSI 900 - 2500	PN64 - 600 ANSI 600 - 2500	ANSI 150 - 900	Pressure Rating
Up to 550°C	Up to 550°C	-46°C to 149°C	Temperatures
Butt weld / Flanged	Butt weld / Flanged	Flanged	End Connections
Alloy steel	Carbon steel / Alloy steel	ASTM A216 WCC	Body Materials
Alloy steel with Alloy 6 welded overlay	Alloy steel with Alloy 6 welded overlay	ASTM A216 WCC - ENP	Internal / Disc Materials
Alloy steel with Alloy 6 welded overlay	Alloy steel with Alloy 6 welded overlay	Viton (Other materials on request)	Seat Materials
<ul style="list-style-type: none"> • Manual, pneumatic or electric actuators • Parallel slide wedge 	<ul style="list-style-type: none"> • Manual, pneumatic or electric actuators • Limit switches • Locking device 	<ul style="list-style-type: none"> • Manual, pneumatic or electric actuators • Limit switches • Automatic body bleed valve • Operator extensions 	Options & accessories
Isolation of high pressure steam and condensate in the power generation industry	Regulation and isolation of high pressure steam and condensate in the power generation industry	<ul style="list-style-type: none"> • Tank farms storage isolation • Multi-product manifolds • Loading / unloading terminals • Airport fuel hydrants 	Applications
HP VALVES	HP VALVES	VE® SERIES	

KNIFE GATE VALVES




			
Series	MV	HG	SLV / SLH / SLX
Design	Standard Knife Gate	Through Going Knife Gate	Slurry Knife Gate
Features	<ul style="list-style-type: none"> • Easy operation • One piece body design • Packing system in TwinPack • Robust top works • Easy to change seats 	<ul style="list-style-type: none"> • Compact design • Fully bi-directional • Packing system in TwinPack • PTFE body gasket • Easy to change seats 	<ul style="list-style-type: none"> • Full bore for maximum flow • Reinforced seat design • Packing system in TwinPack • Removable bottom lid • Easy to change seats
Size Range	50mm to 1000mm 2" to 40"	80mm to 800mm 3" to 32"	80mm to 600mm 3" to 24"
Pressure Rating	PN10 ANSI 150	PN10 ANSI 150	PN10 - 50 ANSI 150 - 300
Temperatures	Up to 180°C	Up to 180°C	Up to 120°C
End Connections	Wafer	Wafer	Wafer
Body Materials	Stainless steel / Cast iron Other materials on request	Stainless steel / Cast iron Other materials on request	Cast iron with epoxy coating internally & externally
Blade Materials	Stainless steel / Hard chromed	Stainless steel / Hard chromed	Stainless steel / Duplex SS / Hard chromed
Seat Materials	PTFE / EPDM / Viton / Nitrile / Polyurethane / Metal	PTFE / Nitrile / Polyurethane / Metal	EPDM
Options & accessories	<ul style="list-style-type: none"> • Manual, pneumatic or electric actuators • Chain wheel • Open/close limit switches • Positioners 	<ul style="list-style-type: none"> • Manual, pneumatic or electric actuators • Chain wheel • Open/close limit switches • Positioners 	<ul style="list-style-type: none"> • Purge ports to evacuate residue • Manual, pneumatic or electric actuators • Chain wheel • Open/close limit switches • Positioners
Applications	Low consistency pulp < max. 5% / Black liquor / White liquor / Water, sewage and sludge / Powder / Pellets / Slurries	Pulp with conc. > 5% / Black & white liquor > 40% / Rejects / Lime mud slurry / Fly ash / Slurries / Powder / Dust / Cyclones	Sand slurries / Cement / Fly ash / Powder and other abrasive media including high pressure slurries
	STAFSJÖ	STAFSJÖ	STAFSJÖ

RECIRCULATION VALVES




TRIPLE OFFSET VALVES

			
SSV	SHP	Tri-Con	Series
Minimum Flow Protection	Minimum Flow Protection	Triple Offset	Design
<ul style="list-style-type: none"> • Max DP of 250 bar • Self-acting - controlled by medium (no external power) • Built-in check valve • No special maintenance 	<ul style="list-style-type: none"> • Max DP of 300 bar • Automatic modulating control • Multi-stage pressure reduction • Wear protection hydraulic bypass • Low-wear continuous operation 	<ul style="list-style-type: none"> • SIL 3 - Zero leakage • Self-centering disc • Metal to metal seats • Inherently fire-safe & tested • Quarter turn torque seated 	Features
25mm to 600mm 1" to 24"	100mm to 250mm 4" to 10"	50mm to 2200mm 2" to 88"	Size Range
PN10 - 400 ANSI 150 - 2500	PN250 - 420 ANSI 1500 - 2500	PN16 - 100 ANSI 150 - 900	Pressure Rating
-250°C to 400°C	-250°C to 400°C	-196°C to 815°C	Temperatures
Flanged	Flanged / Butt weld	Double-flanged / Lug / Wafer / Gate valve face to face	End Connections
Forged Carbon or Stainless steel / Special alloys	Forged Carbon or Stainless steel / Special alloys	Carbon steel / Stainless steel / Alloy steels / Special alloys	Body Materials
Forged Stainless steel / Hardfaced / Stellite	Forged Stainless / Hardfaced / Stellite	Carbon steel / Stainless steel / Alloy steels	Internal / Disc Materials
Forged Stainless steel / Hardfaced / Stellite	Forged Stainless / Hardfaced / Stellite	Laminated metal Solid stainless steel	Seat Materials
<ul style="list-style-type: none"> • PTFE / KALREZ seals to suit media • Check in bypass line 		<ul style="list-style-type: none"> • High cycle bearings • Steam jackets • Degreased for oxygen • Double block and bleed 	Options & accessories
Protects multi stage centrifugal pumps during minimum flow conditions by preventing overheating, excessive noise, instability and cavitation	Protection of high pressure multi stage pumps in the power generation industry preventing overheating, excessive noise instability and cavitation	<ul style="list-style-type: none"> • Steam / Gas / Process • Severe service • On/off and control • SD & ESD 	Applications
SCHROEDER	SCHROEDER	ZWICK	



TANK / STORAGE PROTECTION EQUIPMENT

			
100	120	300	Series
Pressure Vacuum Valves	Pressure Vacuum Valves	Flame Arrestor	Design
<ul style="list-style-type: none"> • ATEX Approved & API 2000 • ATEX Cert Ex II 1/2 G c IIB • Wide seat air cushion seal • Self draining housing • Teflon diaphragm and seal 	<ul style="list-style-type: none"> • ATEX Approved & API 2000 • ATEX Cert Ex II 1/2 G c IIB • Wide seat air cushion seal • Self draining housing • Teflon diaphragm and seal 	<ul style="list-style-type: none"> • ATEX Cert Ex II 1/2 G c IIA • Crimped ribbon element • Modular design • Easy to remove and clean • Easy to install 	Features
50mm to 300mm 2" to 12"	50mm to 300mm 2" to 12"	50mm to 900mm 2" to 12"	Size Range
PN160 ANSI 150	PN16 ANSI 150	PN16 ANSI 150	Pressure Rating
-20°C to 60°C	-20°C to 60°C		Temperatures
Flanged	Flanged		End Connections
Aluminium / Carbon steel / Stainless Steel	Aluminium / Carbon steel / Stainless Steel	Aluminium / Carbon steel / Stainless Steel	Body Materials
Stainless Steel AISI 304 + Teflon Pallet Seal	Stainless Steel AISI 304 + Teflon Pallet Seal	Stainless Steel Crimped Ribbon	Internal / Disc Materials
Stainless Steel AISI 304 + Teflon Pallet Seal	Stainless Steel AISI 304 + Teflon Pallet Seal		Seat Materials
<ul style="list-style-type: none"> • Nitrile, Viton or Klingrit seals • Paint and powder coating to customer specifications 	<ul style="list-style-type: none"> • Nitrile, Viton or Klingrit seals • Paint and powder coating to customer specifications 	<ul style="list-style-type: none"> • Paint or powder coating to customer specifications • End of line weatherproof hood 	Options & accessories
Provides safety for bulk storage facilities by preventing tank collapse or rupture while "pumping in and out" or during sudden pressure or vacuum change	Provides safety for bulk storage facilities by preventing tank collapse or rupture while "pumping in and out" or during sudden pressure or vacuum change and where vapors must be piped away	To protect potentially explosive mixtures from igniting and to confine a fire within an enclosed, controlled, or regulated location	Applications
STORAGETECH	STORAGETECH	STORAGETECH	

VALVE ACTUATORS - PNEUMATIC

			
Series	RP	Turnex	SY
Design	Rack & Pinion	High Modulating Control	Pneumatic Scotch Yoke
Features	<ul style="list-style-type: none"> • Maintenance-free, high-cycle bearings • Pre-tensioned springs for safety • One piece blow-out proof shaft • Accurately machined rack / pinion reduces backlash • Highly corrosion-resistant body and end caps • External stroke adjustment +/- 5° • Mounting to international standards 	<ul style="list-style-type: none"> • SIL 3 certified • Pneumatic 90° operation • Modular system • Internal air passages - no external air pipes • Long life maintenance-free • Limit adjustments in both directions • Direct mounting to NAF valves - no brackets • Piston rod mounted in PTFE bearings for smooth operation • Flexible system of sleeves for various shaft sizes 	<ul style="list-style-type: none"> • SIL 3 and FSMS certified • Heavy duty mechanism for modulating service • Modular construction allows multiple configurations • Spring cartridge encapsulated for safety • Stroke adjustment +/- 5° • Wide bronze sliding block for long life • High strength thrust bar supports transverse loads • Internal parts corrosion protected
Torque Rating	Up to 6,421 Nm	Up to 20,000 Nm	Up to 250,000 Nm
Max Pressure	8 Bar	8 Bar	12 Bar
Materials	Extruded anodised aluminium body for superior corrosion resistance	Aluminium body and housing epoxy coated with stainless steel tie rods and fasteners	Carbon steel, electroless nickel plated cylinders with internal corrosion protection. High strength internal alloys
Options & accessories	<ul style="list-style-type: none"> • Double-acting and spring return • Manual overrides • Position monitors • Intelligent valve positioners 	<ul style="list-style-type: none"> • Double-acting and spring return • Manual overrides • High temp extensions • Position monitors • SMART valve positioners 	<ul style="list-style-type: none"> • Double-acting and spring return • Symmetric or canted yoke • High cycle option • Manual overrides • Position monitors • SMART valve positioners
Applications	On/off and modulating control for quarter turn valves	On/off and modulating control for quarter turn valves	On/off, ESD systems and heavy duty modulating control for quarter turn valves
	ACTREG	NAF	ACTREG

VALVE POSITIONERS - INTELLIGENT

		
Series	D30 (IS)	D3 (IS / EExd)
Features	<ul style="list-style-type: none"> • Rotary & linear control • Single or double-acting • Easy to operate, instant quick calibration • Very robust, modular, high air capacity positioner • Designed to fit large down to small valves • Suitable for tough environments • Friction clutch and spring loaded shaft • Intrinsically safe • Diagnostics Standard • Local alarm monitoring • ValveSight FDT/DTM diagnostics • AMS SnapOn application • Multiple of options incl 4-20 mA position feed-back, integrated limit switches, 270 deg travel range, fail in last set position function, external pressure gauges, integrated pressure sensors, remote mounting 	<ul style="list-style-type: none"> • Rotary & linear control • Single or double-acting • Extremely low air/energy consumption - zero bleed - meets EPA 6.0 SCFH leak limit => can use NG as supply medium • Friction clutch and spring loaded shaft • Explosion proof • Intrinsically safe • Digital Poppets Air Relay • Fail Freeze option • Multitude of options incl 4-20 mA position feed-back, integrated limit switches, 270 deg travel range, fail in last set position function, external pressure gauges, integrated pressure sensors, remote mounting
Signal Supply	4-20mA (without communication)	4-20mA (without communication)
Max Pressure	8 Bar	8 Bar
Communication	<ul style="list-style-type: none"> • HART • Profibus-PA • Foundation Fieldbus HI 	<ul style="list-style-type: none"> • HART • Profibus-PA • Foundation Fieldbus • Wireless ISA 100
Options & accessories	<ul style="list-style-type: none"> • 4-20mA position feedback • Integrated limit switches • Integrated air pressure sensors • Pressure gauge block • Fail last position • Remote mounting 	<ul style="list-style-type: none"> • 4-20mA position feedback • Integrated limit switches • 270 deg travel range • Fail in last set position function • External pressure gauges • Integrated pressure sensors • Remote mounting
Applications	Modulating control for rotary and linear control valves	Modulating control for rotary and linear control valves
	PMV	PMV

VALVE POSITION MONITORS

<p>ROTARY ACCUTRAK - Small Zytel Enclosure Zytel engineered resin high impact strength and chemical resistance weatherproof enclosure for Non Hazardous or Intrinsically Safe Applications (Zone 0) Switches: 1 or 2 x V3 SPDT or mechanical switches 1 or 2 x V3 SPDT gold plated mechanical switches (Simple Apparatus - EExia) 1 or 2 x Inductive proximity (Intrinsically Safe EExia) 1 or 2 x Magnum XT90 hermetically sealed (Simple Apparatus - EExia) Conduit Entry: 1 or 2 x M20, PG13.5, 1/2"NPT or 3/4"NPT Position Transmitters: RS, CS</p>	
<p>ROTARY ELIMINATOR - LZI Enclosure EExme II T6 Approved Cert# 95D.117589 Grilamid resin enclosure with high corrosion resistance for Zone 1 or 2 Hazardous Area Applications Switches: 1, 2, 3 or 4 Magnum XT90 sensors Terminal Block: 9 or 12 point Exe Conduit Entry: 1 or 2 x M20, M25, 3/4"NPT Alternative Enclosure Materials: 316 Stainless steel, Aluminium, NAB</p>	
<p>ROTARY ACCUTRAK - EExd IIC Enclosure EExd IIC T5/T6 Approved Cert# 95D.118345 Switches: 1, 2, 3 or 4 x V3 SPDT mechanical switches 1 or 2 x DPDT mechanical switches 1 or 2 x Inductive proximity 1, 2, 3, or 4 x Magnum XT90 hermetically sealed Conduit Entry: 1 or 2 x M20, M25, 3/4"NPT Alternative Enclosure Materials: 316 Stainless steel</p>	
<p>QUANTUM - EExme Enclosure EExme II T6 Approved Cert# 96D.119514 Grilamid resin enclosure with high corrosion resistance for Zone 1 or 2 Hazardous Area Applications Materials: 316 Stainless steel, Aluminium Switches: 1 or 2 x Magnum XT90 hermetically sealed Terminal Block: 9 point Exe Conduit Entry: 1 or 2 x M20, M25, PG13.5, PG16, PG21, 1/2"NPT or 3/4"NPT Solenoid: Falcon</p>	
<p>QUANTUM - EExia Enclosure EExia IIC T6 Approved Cert# 97D.122489 Grilamid resin enclosure with high corrosion resistance for Zone 0, 1 or 2 Hazardous Area Applications Alternative Enclosure Materials: 316 Stainless steel (as shown) Switches: 1 or 2 x V3 SPDT gold plated mechanical switches 1 or 2 x Inductive proximity 1, 2, 3, or 4 x Magnum XT90 hermetically sealed Conduit Entry: 1 or 2 x M20, M25, PG13.5, PG16, PG21, 1/2"NPT or 3/4"NPT Solenoid: Falcon</p>	
<p style="text-align: center;">WESTLOCK</p>	



VALVE REPAIR CENTRE



- Repairs & Reconditioning
- Seat Leakage Testing
- Body pressure testing
- Positioner Calibration
- 5 Ton Overhead Crane
- 3 Ton Forklift
- Hydraulic Torque Wrench
- Large laydown area

