and the second		1999 - 12 Aller
	Orbinox	
Glenfield Dams, reservoirs & hydro solutions	Glenfield	
	Premier	
GUNRIC VALVE	Gunric	
PACES and TECHNOLOGIES for WATE WORLD	ACMO	



DAMS, RESERVOIRS & HYDROPOWER SOLUTIONS



ZOOM



DAMS, RESERVOIRS & HYDROPOWER



DAMS, RESERVOIRS & HYDROPOWER



CONTENT:

TECHNICAL CA APPLICATION N BOTTOM OUTL INTERMEDIATE SPILLWAYS & C HYDROPOWER REVERSE PUM

PRODUCT RAN

SUPPLY SOLUT

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EXPECT **GLOBAL LEADERSHIP & LOCAL COMMITMENT**

WHATEVER YOU MAY NEED, **WE CAN PROVIDE**

Together, Orbinox Valves International, Glenfield Valves Ltd, Premier Valves, Gunric Valves and ACMO, leading global valve manufacturers and part of the AVK Group, form a combined wealth of experience, expertise and resource to globally develop the AVK Dams, Reservoirs and Hydro Power Sector.

Our common product portfolio comprises a large and comprehensive range of valves, including bonneted gate valves, radial and roller gates, discharge valves, large diameter knife gates valves, butterfly valves, check and recoil valves, gate valves, needle valves, spherical and boving valves, etc. for the Dams, Reservoirs & Hydro Power segments.







WHEREVER YOU ARE, **SO ARE WE**

Our geographical presence and product range may be global, but our focus is local. We stay close to our customers throughout the entire process. The proximity allows us to better understand our customers' needs and tailor our solutions to fit them.

Being a global player, we are able to provide highly engineered products and service solutions approved to international standards whilst always understanding and adapting to local specifications and project requirements.



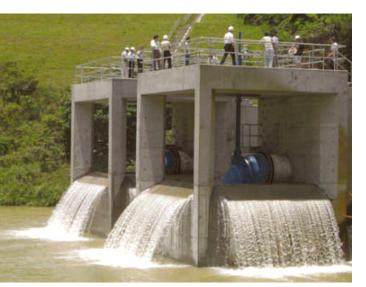
EXPECT **QUALITY & A LONG-TERM PARTNERSHIP**

QUALITY IS ESSENTIAL! WHEN IT COMES TO VALVES, HYDRANTS, FITTINGS AND ACCESSORIES, OUR CUSTOMERS EXPECT LONG LASTING SOLUTIONS

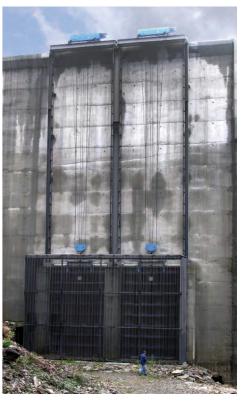




WE BUILD ON AND INVEST IN LONG-TERM PARTNERSHIPS, BECAUSE OUR CUSTOMERS **ARE MUCH MORE VALUABLE THAN A SINGLE TRANSACTION**







				///////////////////////////////////////			///////////////////////////////////////	<u>,</u> ///		///////////////////////////////////////	///////////////////////////////////////	///////////////////////////////////////								///////////////////////////////////////
VALVE TYPE																		VA	LVE	TY
VALVE TYPE	Bonneted Gate	Radial Gate	Roller Gate	Stop Gate	Penstock / Sluice Gate	Free Discharge		Fabricated Butterfly	Butterfly	High Performance Butterfly	Knife Gate	Wedge Gate e	High Performance Gate	Tilting Disc / Butterfly Check	Recoil Check	Slanted Seat Check	Needle Control	Automatic Control	Air	Spherical
Bottom Outlets																				
Intake Gate		<u> </u>	•	<u> </u>	<u> </u>	ļ'														
Guard Valve	•	<u> </u>	·'	<u> </u>	<u> </u>	<u> </u> '				•	•	•						•	•	
Discharge Valve		•	L'	'	<u> </u>	•	•										•			
Intermediate Outlets																				
Intake Tower		, 1	1	I	1	1		1 1		I	I	I	I	I	I	l	I	1	1	1
Intake			•	'	1	[]														
Intermediate Outlet		, ,	1	1	1	1		1		I	I	I	I	I	I	l	I	1	1	
Intake Gate]		•	'	<u> </u>)														
Guard Valve	•		<u> </u> '	'	<u> </u> '	<u> </u>				•	•	•						•	•	
Control / Discharge Valve		•		<u> </u>	L'	•	•		•	•		•	•				•	•	•	
Spillways & Canals																				
Spillway		1 - 1				1		1											1	
Gate		•	•	•	•															
Canal						1				1	1								1	
Gate Hydro Power & Reverse Pumped Storage		•	•	•	•															
Hydro Power Station																				
Intake Control	•	•	•	1	•	,			•	•	•	•						•	•	
Turbine Protection			•	+'	+'	+		•	•	•	~	-							•	•
Turbine Bypass / Tailrace	•	$\left \right $		'	<u> </u> '	•	•		-	-	•	•					•		•	•
Reverse Pumped Storage				/							-	-					-	-	-	
Reverse Pumped Storage	•			,	,	1		•	•	•	•	•		•	•	•		•	•	•
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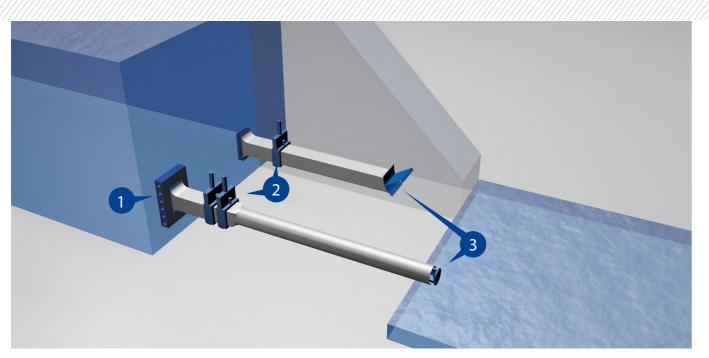
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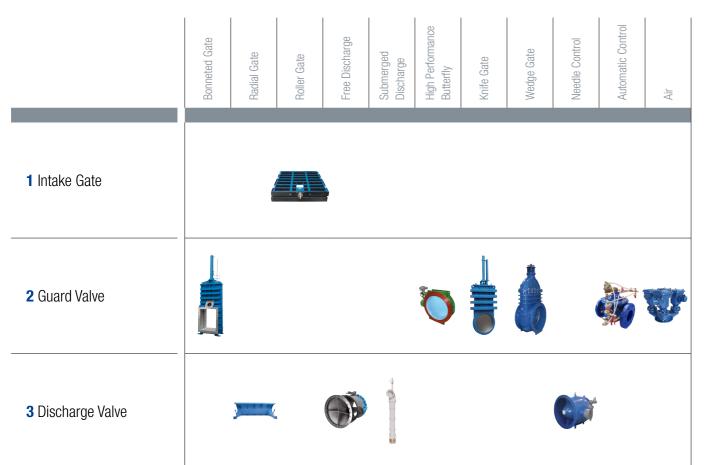




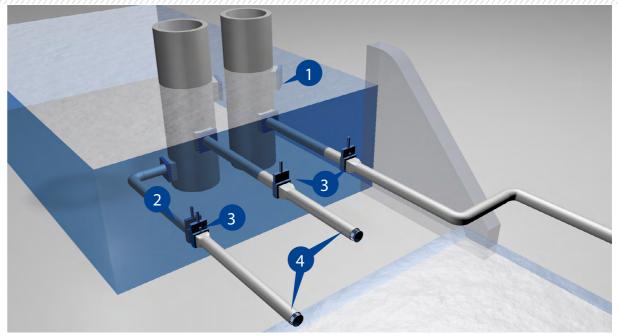
APPLICATIONS



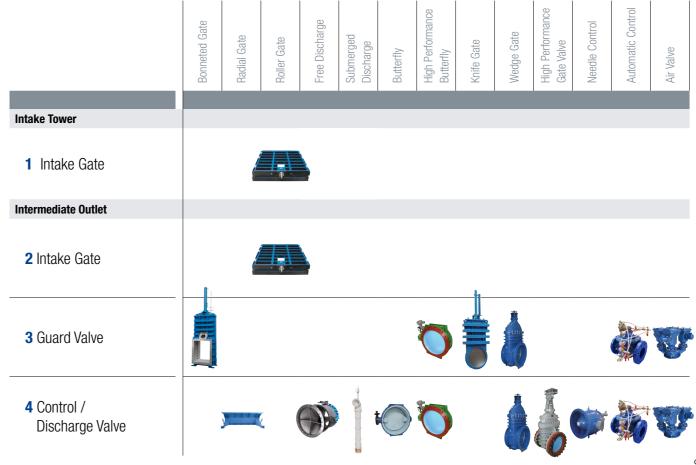
BOTTOM OUTLETS







INTERMEDIATE OUTL

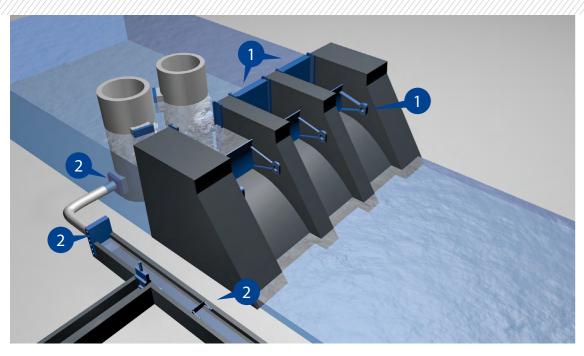


APPLICATIONS

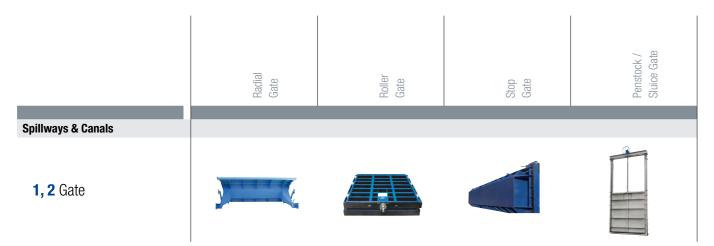
Discharge Butterfly High Performance Butterfly Knife Gate Wedge Gate High Performance Gate Valve Cate Valve Needle Control Automatic Control
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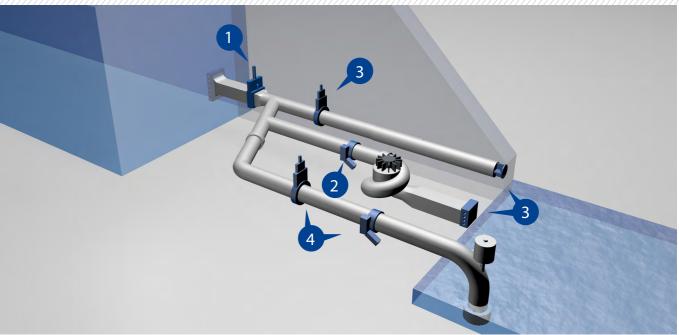
APPLICATIONS



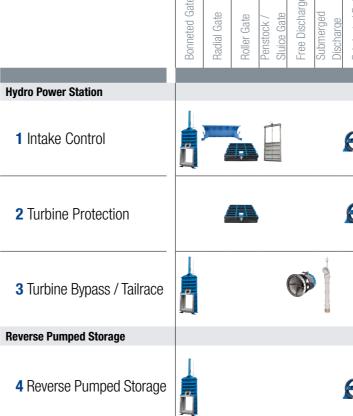
SPILLWAYS & CANALS







HYDROPOWER STATIONS AND REVERSE PUMPED STORAGE



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APPLICATIONS

			Ø	O	Fabricated Butterfly
	t		ŧ	Ĭ	Butterfly
)		0)	High Performance Butterfly
					Knife Gate
				6	Wedge Gate
	}))	Tilting Disc / Butterfly Check
					Recoil Check
					Slanted Seat Check
	t				Needle Control
		B		S	Automatic Control
•	V	V	Ţ	V	Air Valve
		Ų	Ų		Spherical

₽ re l

PRODUCT RANGE Penstock / **Bonneted Gate** Stop Gate **Radial Gate Roller Gate** Sluice Gate Carbon or stainless steel Carbon or stainlees steel Carbon steel fabricated gate, roller Carbon steel fabricated gate, elas-Three and four side sealing. fabricated gate, three or four side Stainlees steel full frame and gate, fabricated body and gate, bronze system for guiding purposes, tomer seals, normally operated seat and hydraulic or electric sealing with elastomer seals and elastomer seals and hydraulic or with auxiliary lifting equipment EPDM seals, HMWPE guides and hydraulic or electric actuation. electric actuation. various actuation solutions (manual, actuation. / crane. pneumatic, electric...etc). Specifics: Specifics: Specifics: Specifics: Specifics: Size: Size: Size: Size: Size: Up to 2500 x 3500 mm Up to 20000 x 7000 mm Up to 6000 x 8000 mm Up to 20000 x 7000 mm Up to 4000 x 4000 mm Pressure: Pressure: Pressure: Pressure: Pressure: Up to 20 bar Gate height Up to 10 bar Gate height 4-side: 1 bar on / 0,6 bar off 3-side: Gate height



Free **Discharge Valve**

Cast body or carbon steel / stainless steel fabricated body, elastomer seat and hydraulic or electric actuator.

Specifics:

Size: Up to DN3000

Pressure: Up to 20 bar

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Discharge Valve Terminal discharge valve providing

flow control. Type – End of line single flanged.

Specifics:
Size: DN200 – 1800
Pressure:

Submerged

Carbon or stainless steel submerged energy dissipation and fabricated body and disc, elastomer seal and hydraulic or electric actuator.

Pressure:

Up to 10 bar (DN3500)

Up to 16 bar (DN2000)

Up to 25 bar (DN1000)

Fabricated

Butterfly Valve

electric actuator.	and double flanged connection.
Specifics:	Specifics:
Size: Up to DN3500	Size: DN200 – 2800

Pressure: PN10, 16 & 25 bar

Butterfly Valve



ZOOM

ligh Performance **Butterfly Valve**

Double eccentric butterfly valve Boving type double eccentric with seal on disc design. Fully biresilient seal on disk and stainless steel body seat. Drop tight shut-off directional with drop tight shut off in preferred direction and double flanged connection.

Specifics:

Size: DN100 - 3000

> Pressure: PN10, 16, 25 & 40 bar



Knife Gate Valve

Bonneted valve, carbon or stainless steel fabricated body bonnet and gate, elastomer or bronze seat and hydraulic or electric actuation.

Specifics:	
Size: Up to DN3500	
Pressure:	





Slanted Seat Check Valve

Three piece design with replaceable central section, with multiple doors for rapid closing times without slamming and high pressure flushing for cleaning.

Specifics:

Size: DN500 – 2000	

Pressure: PN10, 16, 25 & 40 bar



Nedge Gate Valve

Metal seated gate valve for isolation. Double Flanged (PN 25 available in certain sizes).

Specifics:

Pressure:

10 & 16 bar

DN50-2400

Size:

guides and shoes, and thrust bearings. Specifics:

Size: DN80 - 1800 Pressure:

PN10, 15, 25, 40 & 64 bar



Needle **Control Valve**

Flow, level and pressure control valve used for in-line and terminal applications.

Specifics:

Pressure:

DN80 - 2000

Size:

bar

diaphragm type valve. Large passageways for higher flow rates and greater cavitation resistance.

Specifics:
Size: DN50 – 500

Pressure: PN10, 16, 25 & 40 bar

PN10, 16, 25, 40, 64 & 100

10 & 16 bar







ZOOM

PRODUCT RANGE



ligh Performance Gate Valve

Heavy duty ductile iron or steel cast valve, with weld deposit seats, extruded dovetail channel





Automatic **Control Valve**

Ductile iron body/bonnet and stainless steel body seat globe/



Carbon or stainless steel fabricated body and disc, metal or elastomer seat and optional hydraulic damper and counterweight.

Specifics:
Size:
Up to DN2000

Pressure: Up to 16 bar



Air Valve

Triple function ventilation air valves with aerokinetic performance. Large discharge capacities and drop tight shut off for full pressure range.

Specifics:

Size: DN25 - 250

Pressure: PN10, 16 & 25 bar



Metal seated high performance, fast acting, non slam check valve.

Specifics:

Size: DN50 - 1400

Pressure: PN10. 16 & 25 bar



Spherical Valve

Cast or fabricated, metallic/ soft designs, with movable service seal. Counterweight/ hydraulically operated with digital instrumentation systems.

Specifics:

Size DN300 - 2000

Pressure: PN10, 16, 25, 40 & 64 bar



SUPPLY SOLUTION PROVIDER

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ORBINOX is present in more than 70 countries with over 50 years of experience designing, manufacturing and marketing knife gate valves, penstocks, dampers and valves for hydraulic works.

Product guality and customer satisfaction are our goals. We have a highly qualified and experienced team providing the best solutions to suit the needs of our customers.

Our global presence enables us to be close to our customers in order to offer technical advice and respond to their requirements. We think globally, whilst applying local expertise.

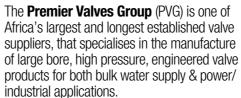
Glenfield

Glenfield Valves, located in Scotland since 1852 have been designing and manufacturing specialist engineered valves for more than 150 years.

Our products are installed worldwide in dams, reservoir and hydropower applications.

Providing engineered valve solutions ranging from 50mm to 3000mm according to most of the worlds international design standards has made the Glenfield name synonymous with engineering excellence worldwide.

Our team of highly qualified engineers and project managers are available to assist in the design, procurement, installation and planned maintenance of a complete range of AVK Group products.



PVG is based in its own 46,000 sgm factory facility outside Johannesburg, and also offers valve factory repair and refurbishment services, as well as, on site installation, commissioning and preventative maintenance services.

Gunric Valves, is a premium industrial valve supplier, providing customised butterfly and check valves for unique industrial applications.

Gunric is recognised internationally as a leading manufacturer of butterfly and tilting disk check valves.

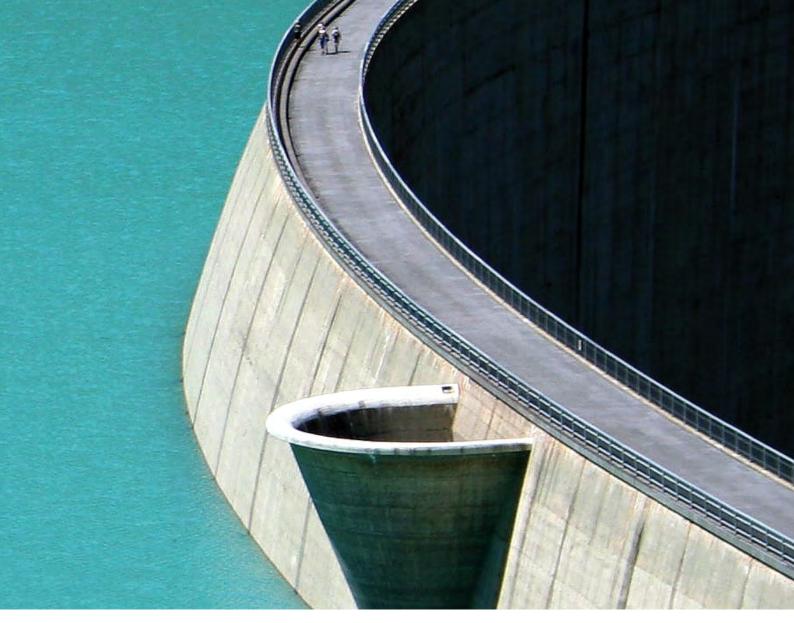
Built for extreme pressure and temperature applications, products from Gunric are ideally suited for the water, oil, process, mining, power generation, petrochemical, gas, sugar and steel industries.

SUPPLY SOLUTION PROVIDER



ACMO designs and manufactures hydraulic equiment for water distribution, water transmission, irrigation and water treatment. The ACMO Group support and develop technologies which combine to make efficient and safe systems for the management of water ecosystems.

ACMO operates across five office locations and over 10 international agencies. Thanks to its acquired know-how in water projects, ACMO provide information and assistance, with specific studies for the update of installed equipment.















Glenfield Dams, reservoirs & hydro solutions

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