



ATEC GmbH
Absperrorgan Technik

Product Range

ATEC Sewage Engineering Technology by order of environment

ATEC Penstocks are used as isolating and control devices in the ranges of sewage engineering and waste disposal. They are field-approved for isolating and controlling open channels (inlets and outlets), pits, basins and pipelines.

ATEC Penstocks are used for flow control, for maintaining the sewage level, for flow throttling and distribution of channel flow. The ATEC Flap Valves prevent reflux of the medium.

By means of a specifically selected variety of types and by using different materials, a large choice of ATEC Penstocks is available for virtually any sewage engineering requirement.

They can be delivered in sizes of 150 mm up to very large dimensions and are made of the materials: hot-dip zinc-coated steel, stainless steel, duplex steel or aluminium alloys.

ATEC Performance	Your Advantage
Welded design based on modular concept. For seating and off-seating pressures.	Low cost, any dimension available.
Standardized sealing profiles guarantee permanent tightness, low abrasion and ease of exchangeability. Low operation forces required.	Long life. Reliability. Little maintenance.
Alternatively 4-facing isolating devices available also in reinforced design.	Application for increased working pressures up to 30 mWC. Higher gauge working pressures at request.
Specific choice of material: Hot-dip zinc-coated steel. Stainless steel. Aluminium alloy. Duplex Steel	Applicable for any flow medium.
Variety of penstock designs and methods of fastening.	Existing plants can be re-equipped with ATEC quality penstocks without modification of the buildings.

Installation

Depending on the type, ATEC Penstocks are used for wall or channel mounting.

A. Wall bolting type

Bolting is the most common way of installation. Therefore, we provide fastening claws or frames with drill holes. For fixing, we recommend anchor bolts with chemical capsules including hexagon nut and washer of stainless steel A4. For sealing between wall and penstock a self-adhesive resilient sealing tape is used.

B. Grouting type

ATEC Penstocks with spigot back are placed in the provided recess and fixed. Then the recess is shuttered up and grouted with concrete of proper quality.

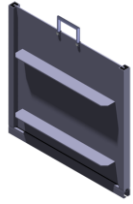



C. Channel recess mounting

Fit the ATEC Penstocks into the recess. The exact height will be adjusted by the screws at the frame invert and the frame has to be aligned by means of the lateral set screws. Then the recess is shuttered up and grouted with appropriate concrete.

D. Installation

ATEC Penstocks shall be mounted by a construction company adhering to **ATEC** operating instructions. For large projects, we recommend to call for supervision by an **ATEC** specialist if installation is done by customer.




ATEC – Channel Penstocks

				
Type	ATEC ZTEC Handstop	ATEC LTEC Channel Penstock (lightweight)	ATEC UNITEC Channel Penstock (medium to heavy duty)	ATEC MULTITEC Channel Penstock (heavy duty)
Design features	Welded U-shape frame of C-profile with inserted profile seal and flush invert gasket. Door with lifting handle, from width = 800 mm with reinforcing ribs.	Welded U-shape frame of C-profile with inserted profile seal and flush invert gasket. Door from width = 800 mm with reinforcing ribs. Operating device consisting of welded bearing bracket with fixed stem and stem nut attached to the door.	Welded frame of C-profile with thrust bridge and bolted-on profile seal as well as enclosed flush invert seal. Penstock door with reinforcing ribs and plastic skids. Wall bolting by fastening claws. Operating gear directly mounted on thrust bridge.	Welded frame of G-profile with thrust bridge and bolted-on profile seal as well as enclosed flush invert seal. Penstock door with reinforcing ribs and plastic skids. Operating gear directly mounted on thrust bridge.
Materials: frame / door / seal	S.S. 1.4301/AIMg3/neoprene S.S. 1.4301/1.4301/neoprene S.S. 1.4571/1.4571/neoprene	S.S. 1.4301/AIMg3/neoprene S.S. 1.4301/1.4301/neoprene S.S. 1.4571/1.4571/neoprene	Hot-dip zinc-coated steel/ hot-dip zinc-coated steel/ neoprene S.S. 1.4301/1.4301/neoprene S.S. 1.4571/1.4571/neoprene *)	Hot-dip zinc-coated steel/ hot-dip zinc-coated steel/ neoprene S.S. 1.4301/1.4301/neoprene S.S. 1.4571/1.4571/neoprene *)
Facing	3 facings On- and off-seating pressures	3 facings On- and off-seating pressures	3 facings On- and off-seating pressures	3 facings On- and off-seating pressures
Aperture	Square Rectangular	Square Rectangular	Square Rectangular	Square Rectangular
Type of invert	Straight Round Trapezoidal	Straight Round Trapezoidal	Straight Round Trapezoidal	Straight Round Trapezoidal
Type of fixing	Grouting Bolting to channel outlet Channel bolting	Grouting Bolting to channel outlet Channel bolting	Grouting Bolting to channel outlet Channel bolting	Grouting Bolting to channel outlet Channel bolting
Dimensions w x h or DN	150 x 150 up to 1000 x 1000	150 x 150 up to 1200 x 1200	1000 x 1000 up to 3000x3000	1000x1000 up to very large dimensions
Type of operation	Lifting handle	Manual**) Electric actuator**) Hydraulic or pneumatic actuator See operating gears	Manual**) Electric actuator**) Hydraulic or pneumatic actuator See operating gears	Manual**) Electric actuator**) Hydraulic or pneumatic actuator See operating gears
Range of application	Installation in open channel or mounting to channel outlet with widths up to 1000 mm and door heights up to 1000 mm. This door size should not be exceeded because of the required pull.	Installation in open channel or mounting to channel outlet with widths up to 1200 mm and door heights up to 1200 mm, suitable for isolation or throttling of the flow medium.	Mounting in open channel or mounting to channel outlet up to size 2500 x 2500. Suitable for isolation, control or throttling of the flow medium.	Mounting in open channel or mounting to channel outlet up to very large dimensions. Suitable for isolation, control or throttling of the flow medium.

*) Other materials or various combinations on request.

**) Rising stem on request.





ATEC – Weir Type Channel Penstocks

			
Type	ATEC ECOTEC Weir Type Channel Penstock (lightweight)	ATEC UNITEC Weir Type Channel Penstock (medium to heavy duty)	ATEC MULTITEC Weir Type Channel Penstock (heavy duty)
Design features	Welded frame of C-profile. Guides inserted in frame. Lip sealing clamped into frame. Wall sealing by means of self-adhesive sealing tape. Wall bolting by variable fastening claws. Operating device consisting of welded bearing bracket with fixed stem and stem nut attached to the door.	Welded frame of C-profile with thrust bridge and bolted-on profile seal as well as enclosed flush invert seal. Penstock door with reinforcing ribs and plastic skids. Wall bolting by variable fastening claws. Operating gear directly mounted on thrust bridge.	Welded frame of G-profile with thrust bridge and bolted-on profile seal as well as enclosed flush invert seal. Penstock door with reinforcing ribs and plastic skids. Operating gear directly mounted on thrust bridge.
Materials: frame / door / sealing	S.S. 1.4301/1.4301/neoprene S.S. 1.4571/1.4571/neoprene	Hot-dip zinc-coated steel/ hot-dip zinc-coated steel/ neoprene S.S. 1.4301/1.4301/neoprene S.S. 1.4571/1.4571/neoprene *)	Hot-dip zinc-coated steel/ hot-dip zinc-coated steel/ neoprene S.S. 1.4301/1.4301/neoprene S.S. 1.4571/1.4571/neoprene *)
Facing	3 facings On- and off-seating pressures	3 facings On- and off-seating pressures	3 facings On- and off-seating pressures
Aperture	Square Rectangular	Square Rectangular	Square Rectangular
Type of invert	Straight	Straight	Straight
Type of fixing	Wall bolting	Wall bolting	Wall bolting
Dimensions w x h or DN	150 x 150 up to 1200 x 1200	1000 x 1000 up to 3000 x 3000	1000 x 1000 up to very large dimensions
Type of operation	Manual** Electric actuator** Hydraulic or pneumatic actuator See Operating Gears	Manual** Electric actuator** Hydraulic or pneumatic actuator See Operating Gears	Manual** Electric actuator** Hydraulic or pneumatic actuator See Operating Gears
Range of application	Mounting to channel outlet up to size 1200 x 1200. Suitable for discharge and level control.	Mounting to channel outlet up to size 3000 x 3000. Suitable for discharge and level control.	Mounting to channel outlet up to very large dimensions. Suitable for discharge and level control.

*) Other materials or various combinations on request.

***) Rising stem on request.


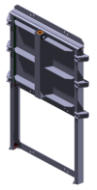

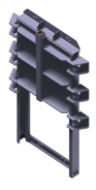
ATEC –Penstocks

				
Type	ATEC ECOTEC Penstock (lightweight)	ATEC COMPATEC Penstock (medium duty)	ATEC UNITEC Penstock (medium to heavy duty)	ATEC MULTITEC Penstock (heavy duty)
Design features	Welded frame of C-profile. Guides inserted in frame. Lip sealing clamped into frame. Wall sealing by means of self-adhesive sealing tape. Wall bolting by variable fastening claws.	Welded frame made of torsion proof rolled steel sections. Guides inserted in frame. Lip sealing clamped into frame. Wall sealing by means of self-adhesive sealing tape. Wall bolting by variable fastening claws.	Welded frame of C-profile with bolted-on profile seal. Penstock door with reinforcing ribs and plastic skids. Wall sealing by means of self-adhesive sealing tape. For pressure to 6mWC bolted-on wall sealing. Wall bolting by welded-on fastening claws.	Welded frame of G-profile with bolted-on profile seal as well as enclosed flush invert seal. Penstock door with reinforcing ribs and plastic skids. Wall sealing by means of self-adhesive sealing tape. For pressure > 6mWC bolted-on wall sealing. Wall bolting by welded-on fastening claws.
Materials: frame / door / sealing	S.S. 1.4301/1.4301/neoprene S.S. 1.4571/1.4571/neoprene	S.S. 1.4301/1.4301/neoprene S.S. 1.4571/1.4571/neoprene	Hot-dip zinc-coated steel/ hot-dip zinc-coated steel/ neoprene S.S. 1.4301/1.4301/neoprene S.S. 1.4571/1.4571/neoprene *)	Hot-dip zinc-coated steel/ hot-dip zinc-coated steel/ neoprene S.S. 1.4301/1.4301/neoprene S.S. 1.4571/1.4571/neoprene *)
Facing	4 facings On- and off-seating pressures	4 facings On- and off-seating pressures	4 facings On- and off-seating pressures	4 facings On- and off-seating pressures
Aperture	Square Rectangular	Square Rectangular	Square Rectangular	Square Rectangular
Type of invert	Straight Round	Straight Round	Straight Round	Straight Round
Type of fixing	Wall bolting Grouting	Wall bolting Grouting	Wall bolting Grouting	Wall bolting Grouting
Dimensions w x h or DN	150 x 150 up to 1200 x 1200	150 x 150 up to 1200 x 1200	150 x 150 up to 2000 x 2000	150 x 150 up to very large dimensions
Type of operation	Manual** Electric actuator** Hydraulic or pneumatic actuator See Operating Gears	Manual** Electric actuator** Hydraulic or pneumatic actuator See Operating Gears	Manual** Electric actuator** Hydraulic or pneumatic actuator See Operating Gears	Manual** Electric actuator** Hydraulic or pneumatic actuator See Operating Gears
Range of application	Mounting to chamber-, channel or pipe outlet up to size 1200 x 1200 and 4 mWC. Suitable for isolation, control or throttling of the flow medium.	Mounting to chamber-, channel or pipe outlet up to size 1200 x 1200 and 6 mWC. Suitable for isolation, control or throttling of the flow medium.	Mounting to chamber-, channel or pipe outlet up to size 1200 x 1200 and 6 mWC. Suitable for isolation, control or throttling of the flow medium.	Mounting to chamber-, channel or pipe outlet up to very large dimensions and 30 mWC. Suitable for isolation, control or throttling of the flow medium.

*) Other materials or various combinations on request/ Rising stem on request.

***) Rising stem on request.



ATEC –Weir Type Penstocks

				
Type	ATEC ECOTEC Weir Type Penstock (lightweight)	ATEC COMPATEC Weir Type Penstock (medium duty)	ATEC UNITEC Weir Type Penstock (heavy duty)	ATEC MULTITEC Weir Type Penstock (heavy duty)
Design features	Welded frame of C-profile. Guides inserted in frame. Lip sealing clamped into frame. Wall sealing by means of self-adhesive sealing tape. Wall bolting by variable fastening claws.	Welded frame made of torsionproof rolled steel sections. Guides inserted in frame. Lip sealing clamped into frame. Wall sealing by means of self-adhesive sealing tape. Wall bolting by variable fastening claws.	Welded frame of C-profile with bolted-on profile seal. Penstock door with reinforcing ribs and plastic skids. Wall sealing by means of self-adhesive sealing tape. For pressure to 6mWC bolted-on wall sealing. Wall bolting by welded-on fastening claws.	Welded frame of G-profile with bolted-on profile seal. Penstock door with reinforcing ribs and plastic skids. Wall sealing by means of self-adhesive sealing tape. For pressure > 6mWC bolted-on wall sealing. Wall bolting by welded-on fastening claws.
Materials: frame / door / sealing	S.S. 1.4301/1.4301/neoprene S.S. 1.4571/1.4571/neoprene	S.S. 1.4301/1.4301/neoprene S.S. 1.4571/1.4571/neoprene	Hot-dip zinc-coated steel/ hot-dip zinc-coated steel/ neoprene S.S. 1.4301/1.4301/neoprene S.S. 1.4571/1.4571/neoprene *)	Hot-dip zinc-coated steel/ hot-dip zinc-coated steel/ neoprene S.S. 1.4301/1.4301/neoprene S.S. 1.4571/1.4571/neoprene *)
Facing	4 facings On- and off-seating pressures	4 facings On- and off-seating pressures	4 facings On- and off-seating pressures	4 facings On- and off-seating pressures
Aperture	Square Rectangular	Square Rectangular	Square Rectangular	Square Rectangular
Type of invert	Straight	Straight	Straight	Straight
Type of fixing	Wall bolting	Wall bolting	Wall bolting	Wall bolting
Dimensions w x h or DN	150 x 150 up to 1200 x 1200	150 x 150 up to 1200 x 1200	150 x 150 up to 2000 x 2000	150 x 150 up to very large dimensions
Type of operation	Manual** Electric actuator** Hydraulic or pneumatic actuator See Operating Gears	Manual** Electric actuator** Hydraulic or pneumatic actuator See Operating Gears	Manual** Electric actuator** Hydraulic or pneumatic actuator See Operating Gears	Manual** Electric actuator** Hydraulic or pneumatic actuator See Operating Gears
Range of application	Mounting to chamber-, channel or pipe outlet up to size 1200 x 1200 and 4 mWC. Suitable for isolation, control or throttling of the flow medium.	Mounting to chamber-, channel or pipe outlet up to size 1200 x 1200 and 6 mWC. Suitable for isolation, control or throttling of the flow medium.	Mounting to chamber-, channel or pipe outlet up to very large dimensions and 30 mWC. Suitable for isolation, control or throttling of the flow medium.	Mounting to chamber-, channel or pipe outlet up to very large dimensions and 30 mWC. Suitable for isolation, control or throttling of the flow medium.

*) Other materials or various combinations on request/ Rising stem on request.

***) Rising stem on request.








ATEC – Spillways / Flap Valves

		
Type	ATEC WEIRTEC Tilting-flap Spillway	ATEC CIRTEC / RECTEC Flap Valve
Design features	Welded frame with lateral sealing plates, spillway body of torsionproof hollow design. Longitudinal facing with rubber tape bolted on frame and spillway body serving at the same time as bearing and articulation; lateral facing with profile rubber attached to the spillway body. Operation by floor stand with fixed stem.	Welded frame with flap facing inserted in frame or flap. Flaps available in 3 types: a) plain flap b) hollow-float flap c) flap with lever & counterweight
Materials: frame / door / sealing	Hot-dip zinc-coated steel/ hot-dip zinc-coated steel/ neoprene S.S. 1.4301/1.4301/neoprene S.S. 1.4571/1.4571/neoprene	Hot-dip zinc-coated steel/ hot-dip zinc-coated steel/ neoprene S.S. 1.4301/1.4301/neoprene S.S. 1.4571/1.4571/neoprene
Facing	3 facings	Circular facing or 4 facings
Aperture	Square Rectangular	Square Rectangular Circular
Type of invert	Straight	–
Type of fixing	Wall bolting	Wall bolting Flange mounting
Dimensions w x h or DN	200 x 200 up to very large dimensions	DN 150 or 200 x 200 up to very large dimensions
Type of operation	Manual** Electric actuator** Hydraulic or pneumatic actuator See Operating Gears	Automatic
Range of application	Installation in structure recess of large discharge width with low heights of travel, suitable for level control, scum discharge, etc.	Installation at retaining reservoirs etc., suitable as non-return device of a free-discharge line against flooding. On request special design for pump discharge line.

*) Other materials or various combinations on request.












**) Rising stem on request

ATEC – Operating Gears

							
							
Type of operating gear		Manual lifting rod	Protruding top bracket With Handwheel	Wall bracket with square cap	Wall bracket with gearbox	Wall bracket with electric actuator	Wall bracket with cylinder
Suitable for DN or w x h		150 - 400	150 - 1200	150 - 1200	150 - 2000	150 - 2000	150 - 2000
Operating equipment		Manual lifting rod	Operating key	Operating key	Operating key, handwheel or crank handle	Electric actuator	Cylinder
Type of bearing		-	Plain bearing Rolling bearing	Plain bearing Rolling bearing	Rolling bearing	Rolling bearing	-
Type of stem		-	Fixed stem or extension stem *)	Fixed stem or extension stem *)	Fixed stem or extension stem *)	Fixed stem or extension stem *)	Piston rod
Watertight or submersible type	Ceiling duct	-	X	X	X	X	X
	Stem bearing	-	X	X	X	X	-
	Gearbox	-	-	-	X	X	-
	Electric actuator	-	-	-	-	X	-

*) For installation depth lower than 3 x DN | At actuation below floor level or 3 x DN + 500mm at operating height 900mm above floor level, an extension stem will be used. Rising stem on request.
 X = available type

ATEC – Operating Gears

											
											
Type of operating gear		Wall bracket with hydraulic or pneumatic actuator	Ceiling mounted operating gear	Protruding headstock		Central headstock		Operating support bracket			
Suitable for DN or w x h		150 - 2000	150 - 2000	150 - 2000		150 - 2000		150 up to very large dimensions			
Operating equipment		Hydraulic or pneumatic actuator	Operating key or gearbox with operating key	Handwheel or crank-handle resp. equipped with gearbox	El. actuator	Pneumatic or hydr. actuator	Handwheel or crank-handle resp. equipped with gearbox	El. actuator	Handwheel or crank-handle resp. equipped with gearbox		
Type of bearing		Flange connected	Plain bearing; Rolling bearing	Plain bearing; Rolling bearing	Rolling bearing	Plain bearing	Plain Bearing; Rolling bearing	Rolling bearing	Rolling bearing		
Type of stem		Piston rod	Fixed stem or Extension stem *)	Fixed stem or extension stem *)	Fixed stem or extension stem *)	Piston rod	Fixed stem or extension stem *)	Fixed stem or extension stem *)	Fixed stem or extension stem *)		
Watertight or submersible type		Ceiling duct	X	X	X	X	X	X	X	X	
		Stem bearing	-	-	-	-	-	-	-	-	-
		Gearbox	-	-	-	-	-	-	-	-	-
		Electric actuator	-	-	-	-	-	-	-	-	-

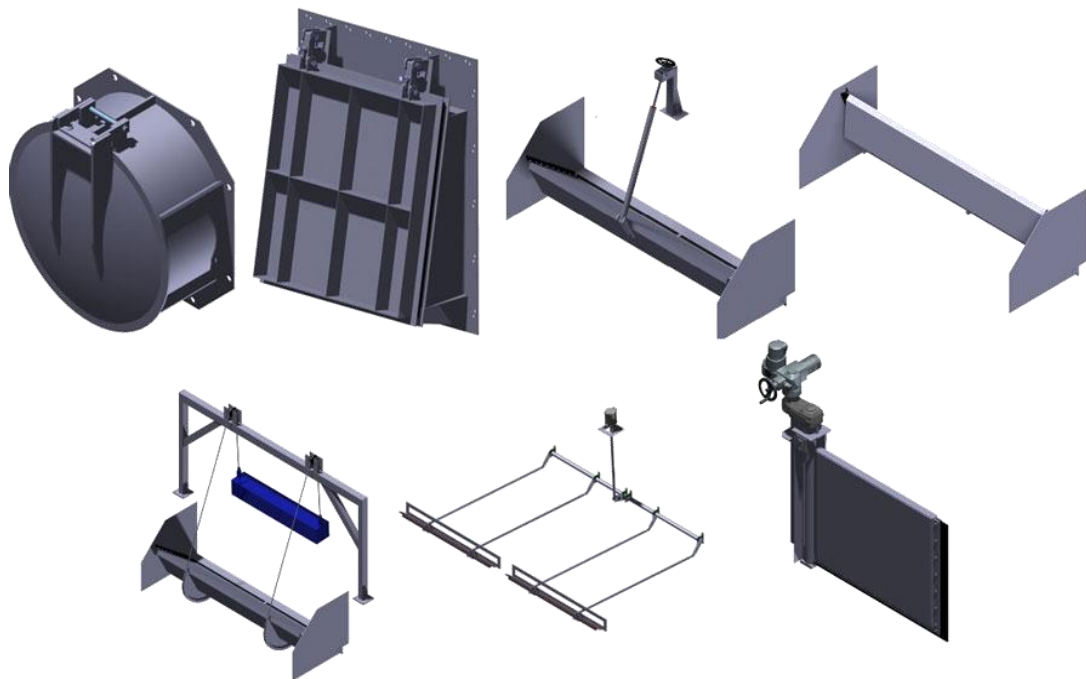
*) For installation depths smaller than 3 x DN at actuation below floor level or 3 x DN + 500mm at operating height 900mm above floor level, an extension stem will be used. Rising stem on request.
 X = available type

Extended ATEC Range of Sewage Products

The ATEC product range includes other customized solutions like:

- Weight-loaded Flap Valves
- Tidal Flaps
- Isolating and Flushing Valves
- Reversing Flaps
- Telescopic Valves and Basin Inlets

Please contact us for more Information.



Note:

The content and works published on these pages are protected by copyright. Any duplication, processing, distribution or any form of utilisation beyond the scope of copyright shall require the prior written consent of the author or authors in question.



ATEC Absperrorgan Technik GmbH
Badenbergstraße 40
D - 89520 Heidenheim / Germany
Tel: +49 7321/277777
Fax: +49 7321/277778
Email: info@atec-hdh.de
Homepage: www.atec-hdh.de