



Excellence in Wastewater, Water & Flood Protection

Products & Solutions

#GUIDINGWATER



Products & Solutions

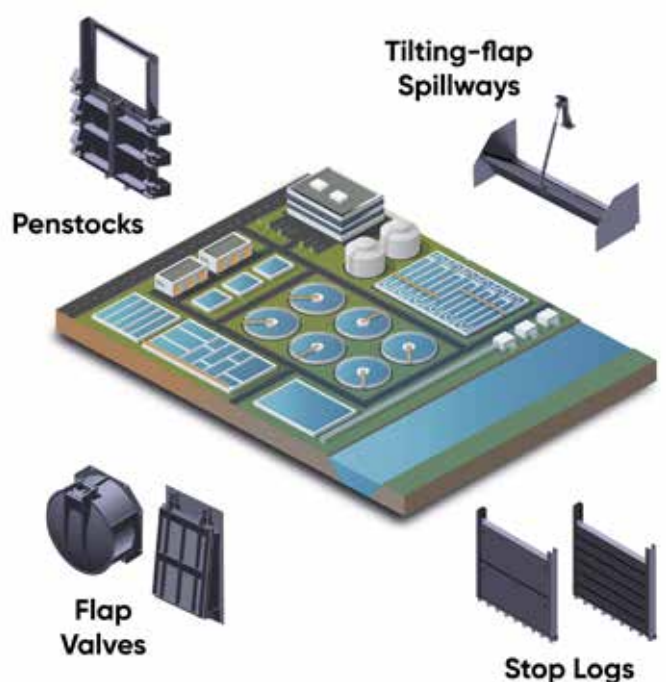
ATEC GmbH is your leading designer and manufacturer of penstocks and your dedicated partner for wastewater and water solutions.

Due to our long-term experience in designing penstocks, we can offer you a wide range of components that will meet your very specific needs.

We offer:

- Engineering expertise
- Wide range of penstocks, gates, flush valves & telescopic valves
- Standard penstock solutions with modular setups
- Tailor-made technical solutions:
 - Penstocks for high water pressure
 - Penstocks in large dimensions
 - Penstocks made from special materials
- Certified manufacturing out of Germany

Thanks to our well-proven and tested modular product design, we can combine almost any penstocks with all our operating gears. Use our competence and expertise to create your customized solution.





Wastewater



Water



**Flood
Protection**



Applications

We do more than just manufacturing and designing penstocks for waste water applications. Benefit from our complete component portfolio including experienced engineering capabilities for sophisticated water and flood protection applications.

Our wide product range offers standard products but also tailor-made technical solutions for your specific needs, like penstocks for high water pressure, in large dimensions or made out of special materials.

Channel Penstocks

Product Information



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/AlMg3/neoprene S.S. 1.4301/1.4301/neoprene S.S. 1.4571/1.4571/neoprene	S.S. 1.4301/AlMg3/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 (mm) 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 3000 x 3000	1000 x 1000 up to largest dimensions
Type of operation	Lifting handle	Manual **) Electric actuator **) Hydraulic or pneumatic actuator. See operating gears for more variants.	Manual **) Electric actuator **) Hydraulic or pneumatic actuator. See operating gears for more variants.	Manual **) Electric actuator **) Hydraulic or pneumatic actuator. See operating gears for more variants.
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 3000 x 3000. 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.

Weir Type Channel Penstocks

Product Information



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	<p>Welded frame of C-profile. Guides inserted in frame.</p> <p>Lip sealing clamped into frame. Wall sealing by means of self-adhesive sealing tape.</p> <p>Wall bolting by variable fastening claws. Operating device consisting of welded bearing bracket with fixed stem and stem nut attached to the door.</p>	<p>Welded frame of C-profile with thrust bridge and bolted-on profile seal as well as enclosed flush invert seal.</p> <p>Penstock door with reinforcing ribs and plastic skids.</p> <p>Wall bolting by variable fastening claws. Operating gear directly mounted on thrust bridge.</p>	<p>Welded frame of G-profile with thrust bridge and bolted-on profile seal as well as enclosed flush invert seal.</p> <p>Penstock door with reinforcing ribs and plastic skids.</p> <p>Operating gear directly mounted on thrust bridge.</p>
Materials: frame/door/seal	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 (mm) 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 for more variants.	Manual **) Electric actuator **) Hydraulic or pneumatic actuator. See operating gears for more variants.	Manual **) Electric actuator **) Hydraulic or pneumatic actuator. See operating gears for more variants.
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.

Penstocks

Product Information



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/seal	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 (mm) w x h or DN	150 x 150 up to 300 x 300	150 x 150 up to 1200 x 1200	150 x 150 up to 2000 x 2000	150 x 150 up to largest dimensions
Type of operation	Manual **) Electric actuator **) Hydraulic or pneumatic actuator. See operating gears for more variants.	Manual **) Electric actuator **) Hydraulic or pneumatic actuator. See operating gears for more variants.	Manual **) Electric actuator **) Hydraulic or pneumatic actuator. See operating gears for more variants.	Manual **) Electric actuator **) Hydraulic or pneumatic actuator. See operating gears for more variants.
Range of application	Mounting to chamber-, channel or pipe outlet up to size 300 x 300 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 2000 x 2000 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.

Weir Type Penstocks

Product Information



Type	ATEC ECOTEC Weir Type Penstock (lightweight)	ATEC COMPATEC Weir Type Penstock (medium duty)	ATEC UNITEC Weir Type Penstock (medium to 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 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. 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/seal	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 (mm) w x h or DN	150 x 150 up to 300 x 300	150 x 150 up to 1200 x 1200	150 x 150 up to 2000 x 2000	150 x 150 up to largest dimensions
Type of operation	Manual **) Electric actuator **) Hydraulic or pneumatic actuator. See operating gears for more variants.	Manual **) Electric actuator **) Hydraulic or pneumatic actuator. See operating gears for more variants.	Manual **) Electric actuator **) Hydraulic or pneumatic actuator. See operating gears for more variants.	Manual **) Electric actuator **) Hydraulic or pneumatic actuator. See operating gears for more variants.
Range of application	Mounting to chamber-, channel or pipe outlet up to size 300 x 300 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 2000 x 2000 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.

Spillways / Flap Valves

Product Information



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/seal	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 (mm) w x h or DN	200 x 200 up to largest dimensions	DN 150 or 200 x 200 up to largest 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.

Operating Gears I

Product Information



Type	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
Watertight or submersible type: Stem bearing	-	X	X	X	X	-
Watertight or submersible type: Gearbox	-	-	-	X	X	-
Watertight or submersible type: 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

Operating Gears II

Product Information



Type	Ceiling mounted operating gear		Protruding / central headstock			Operating support bracket		
Suitable for DN or w x h	150 - 2000		150 - 2000			150 up to largest dimensions		
Operating equipment	Operating key or gearbox with operating key	Handwheel or crank- handle resp. equipped with gearbox	Electric actuator	Pneumatic or hydraulic actuator	Handwheel or crank- handle resp. equipped with gearbox	Electric actuator	Pneumatic or hydraulic actuator	
Type of bearing	Plain bearing; Rolling bearing	Plain bearing; Rolling bearing	Rolling bearing	-	Plain bearing; Rolling bearing	Rolling bearing	-	
Type of stem	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 *)	Piston rod	
Watertight or submersible type: Ceiling duct	X	X	X	X	X	X	X	
Watertight or submersible type: Stem bearing	-	-	-	-	-	-	-	
Watertight or submersible type: Gearbox	-	-	-	-	-	-	-	
Watertight or submersible type: Electric actuator	-	-	-	-	-	-	-	

*) 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

Extended Range of ATEC Solutions

Product Information

The ATEC product range includes other customized solutions like:

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

Please contact us for more Information.



Additional Notes

Installation / Mounting Information

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.

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