

ATZ Technology Solutions

PRODUCT CATALOGUE 2026

Electric Penstock & Sluice Gate Packages

Stainless steel gates fabricated in Vietnam, driven by **Enertork (Korea)** electric actuators with torque protection — sized, supplied and commissioned as one package.

Gates
SS304 / SS316L penstocks and sluice gates, made to order

Actuators
Enertork TM / TMi multi-turn + SB bevel gearboxes

Engineering
Sizing datasheet for every gate, installation support

For water treatment plants, pumping stations, flood control, irrigation and drainage projects in Vietnam, Laos and Cambodia.

ATZ Technology Solutions Co., Ltd.
Enertork authorized partner · Ho Chi Minh City, Vietnam

Gate fabrication partner
Hồng Hà (Công ty TNHH Cơ khí Môi trường Hồng Hà)

One package, two specialists

A gate and its actuator only work well when they are designed together. ATZ and Hồng Hà deliver both as one package — the gate is built for the actuator, and the actuator is sized for the gate — so the contractor deals with one supplier and one datasheet.



ATZ Technology Solutions

DRIVE & ENGINEERING

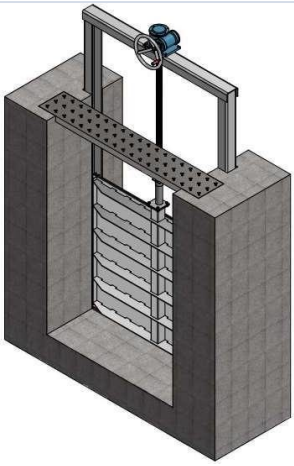
- Enertork authorized partner in Vietnam
- Actuator and gearbox sizing, one datasheet per gate
- Supply of actuators, bevel gearboxes and cross shafts
- Installation, torque/limit setting and commissioning
- After-sales service and spare parts

Hồng Hà

GATE DESIGN & FABRICATION

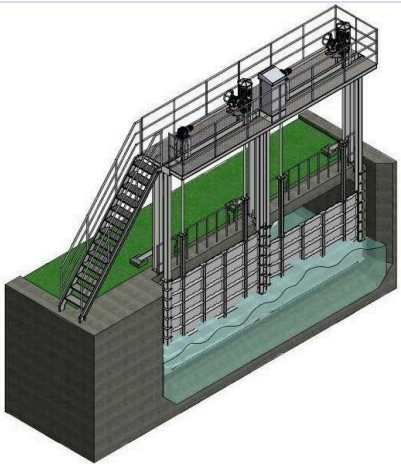
- Design and shop drawings to your opening size
- Fabrication in stainless steel SS304 / SS316L
- Frames, leaves, guides, seals and stems
- Workshop assembly before delivery
- Installation of gates on site

Gate types



Wall-mounted penstock

For intakes, tank outlets and culvert ends. Frame anchored to the wall, single rising stem.



Channel sluice gate

Installed in open channels and canals, with operating platform and access stairs.



Large gates

Wide or tall openings with stiffened leaves; two stems driven together.



Two-stem & two-tier gates

One actuator drives both stems through bevel gearboxes; separate actuators for upper and lower leaves.

Item	Standard execution
Size	Made to order to the opening size and drawings
Frame, leaf, stem	Stainless steel SS304; SS316L for seawater and aggressive water
Seals	EPDM rubber seals, guide rollers
Stem	Rising stem, trapezoidal thread, stem guides at calculated spacing
Operation	Electric actuator with handwheel for manual override

Enertork electric actuators





Multi-turn actuators TM / TMi

- Made in Korea by Enertork
- TM Basic or TMi Integral with built-in local controls
- Open / close torque switches and limit switches
- Handwheel for manual operation
- 380–415 V, 3-phase, 50 Hz (other supplies on request)
- Options: position feedback 4–20 mA, modulating control, IP68 versions, subject to model

Bevel gearboxes SB series

- For two-stem gates driven by one actuator
- Ratios such as 3.5:1, 4:1 and 5:1
- Cross shaft and couplings keep both stems in step
- Manual and motor-input versions

Reference: Enertork actuators have been in service since 2013 at Hòa Khánh Tây water treatment plant (Long An, Vietnam) — more than 100 units.

Why sizing and torque protection matter



Many damaged gates were driven by **geared motors with external limit switches** and no torque protection. When the gate jams or reaches the seat, the motor keeps pushing until the stem bends or the frame breaks.

Enertork actuators stop on a **torque switch set to the calculated value**, so the stem and frame are never overloaded.

Photo: gate with bent stem and broken frame, driven by a geared motor without torque protection.

How we size every gate

1. Water load	Hydrostatic force from maximum water level, sill level and gate size (worst case: one side dry)
2. Lifting force	Seal friction + leaf weight + stem weight, with safety factor
3. Stem check	Minimum stem diameter and buckling check with real guide spacing
4. Torque & speed	Stem torque from thread pitch; output speed from required gate speed
5. Drive	Direct mount, or one actuator + two bevel gearboxes
6. Selection	Enertork model, power, torque setting, thrust and stem bore

Send us: opening width × height, number of stems, sill level, maximum water level, operating floor level, gate weight (if known), required speed and power supply. We return a **sizing datasheet** and quotation.

From Vietnam to your project site

We supply contractors and owners in **Vietnam, Laos and Cambodia** — water supply, flood protection, drainage pumping stations and irrigation schemes.

1. **Inquiry**
   Gate list, drawings or photos by email, WhatsApp or Zalo
2. **Offer**
   Sizing datasheets and quotation in English (USD)
3. **Fabrication**
   Gates fabricated and assembled in Vietnam; actuators from Korea
4. **Delivery**
   Export documents; by road or sea under agreed Incoterms
5. **Site support**
   Installation guidance and commissioning on site



Enertork actuators installed by ATZ at Phan Thiết water treatment plant, Vietnam.



ATZ Technology Solutions Co., Ltd.

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