



Hydro-Mechanical Equipment

**künz**





Weir - Hydropower Plant Illspitz, Austria

**Kuenz Hydro-Mechanical Equipment Ensures Maximum Safety.**

## Proven Technology

The world needs renewable energy. Decades of expertise make Kuenz the first choice for Hydro-Mechanical Equipment in Europe and North America.

Whether for new construction, revitalization or customized solutions – Kuenz offers innovative and first class quality products to customers in the energy and waste management sectors.

- 1 Planning and conceptual design
- 2 Engineering
- 3 Manufacturing
- 4 Assembly and commissioning

**Customized Concepts for your project.**

## All from One Source

Decades of experience, well-trained personnel and interdisciplinary balanced concepts make Kuenz an efficient full-service provider.

### Our Core Competence

- Planning and conceptual design
- Mechanical, electrical und hydraulic engineering
- Manufacturing Steel construction, mechanics, electrics and anti-corrosion protection
- Assembly and commissioning

Everything from one source.







HPP Rheinfelden, Germany and Switzerland

# Hydro-Mechanical Equipment for Run-of-River Power Plants

## Durability and Safety

Endurance and safety are the basic requirements for equipment in generating stations. Project specific optimized products by Kuenz guarantee safe operation for decades.

### Trash Rack

A flow and vibration optimized design guarantees utmost protection of the turbine and low loss of energy.

- Closure size from 30 to 400 m<sup>2</sup>
- Clear width of trash rack bars from 20 mm
- Aerodynamic designed rack support
- Welded or bolted execution
- Designed stainless, hot-galvanized, painted or untreated
- Withdrawable or braced rack sections

### Stop Logs

Modular systems from Kuenz are individually applicable.

- Designed as panel or stackable
- Clear width of the single element from 5 to 30 m
- Clear height of the single element from 1 to 4 m
- Optional with venting valve
- Weight from 3 to 30 t
- Assembly in recesses or connected to the intake
- Designed as fixed or a sliding wheel construction
- Optional with automatic grappling beam

### Flap Gates

Ideal for the regulation of the water levels and the removal of debris and splash water.

- Gate size from von 25 to 120 m<sup>2</sup>
- Weight up to 50 t
- Hydraulically actuated
- Optional: opens self-acting and without external energy

### Radial Gates

Project specific design and manufacture.

Construction with or without flap.

- Gate size from 50 to 300 m<sup>2</sup>
- Clear width 10 to 40 m; Clear height 5 to 15 m
- Weight up to 160 t
- Hydraulic drive
- Clear height of flap from 1 to 4.5 m

### Sluice Gate

Operation or revision gates.

- Designed as sliding or fixed wheel construction
- Optional sealed in both directions
- Clear width up to 10 m, clear height up to 8 m
- Hydraulically actuated

Trash Rack



Stop Logs



Flap Gate



Radial Gate with Flap



Sluice Gate





## Experience and Proven. Custom Solutions

Kuenz offers customized solutions for Hydro-Mechanical Equipment. Long term experience and many proven solutions available.



Floating Bulk Heads for Spillway  
- HPP Adriach, Austria



Spillway Flashboard Gates  
- Swan Lake Dam, Ketchikan, United States



Weir Needles  
- HPP Illspitz, Austria



Bottom Outlet Gate, Revision Gate  
- Punt dal Gall Dam, Switzerland



Draft Tube Gate, Kopswerk II, Austria

### High Head Gates



Outlet Gate, Obervermuntwerk II, Austria

### High Head Gates for Pumped Storage Power Plants

## Highest Precision

Kuenz delivers draft tube gates, bottom outlets and emergency gates designed with utmost accuracy during manufacturing and assembly and guarantees trouble-free operation in pumped storage power plants by means of state-of-the-art construction practises.

#### Gates are designed as sliding gates or fixed wheel construction:

- Site-specific dimensions
- Hydrostatic heads up to 200 m
- Emergency gate or control gate
- Hydraulic drive
- Lining of gate shafts

### Crane Systems and Trash Rack Cleaning Machines

## Integrated Solutions

Besides Hydro-Mechanical Equipment Kuenz also offers a comprehensive portfolio of Cranes and Trash Rack Cleaning Machines. Whatever the situation requires - Kuenz offers the appropriate innovative and efficient solution.

#### Kuenz Cranes or Trash Rack Cleaning Machines can be used for:

- Removal of debris at the intake
- Removal of bulky debris, trash rack or stop log panels using a hydraulic crane or auxilliary hoist
- Debris push rakes optional
- Assembly and maintenance operations



Stop log lifting with TRCM



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