

# hydreo



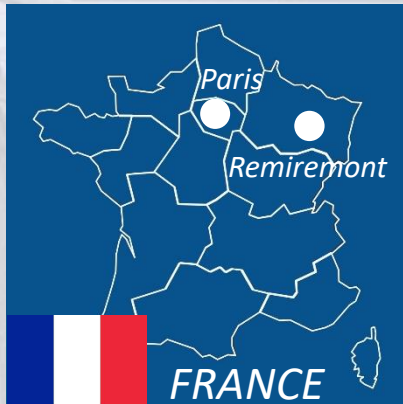
WORKING  
WITH WATER

**hydreo**

Hydromechanical equipment manufacturer



## HISTORY



### HYDREO IN KEY FIGURES

- | **50** years of history
- | More than 1000 references designed or installed
- | **20** Employees
- | A **4 500 m<sup>2</sup>** workshop with:
  - ✓ A technical and specialized engineering design office
  - ✓ A metal-welding workshop,
  - ✓ A machining workshop (milling, turning)
  - ✓ An assembling and testing workshop
  - ✓ A paint shop
  - ✓ 100 tonnes of lifting capacity

**2019**

**HPP, french hydro turbine manufacturer acquires Hydreo**



**2018**

**Acquisition of elléo with HPP, sole french fish-friendly hydrodynamic screws manufacturer**



**2016**

**Engagement between HPP and Hydreo via an economic interest group**



**2011**

**Workshop extension to 4500 m<sup>2</sup>**



**2007**

**Creation of Hydreo Engineering**



**1977**

**Creation of the company ETS G Viry, specialized in manufacturing metal parts for hydropower, hydraulic, and general mechanics sector.**





Private investors

HPP



TURNING WATER INTO POWER

TURBINES



elléo



TURNING WATER INTO POWER

HYDRODYNAMIC SCREWS

hydroeo



WORKING WITH WATER

HYDROMECHANICS

Hydreo belongs to HPP group since 2019.

**Hydreo** is a **leading French manufacturer** specialized in **hydromechanical equipment** for hydro power plants and fluvial supplies.

*Hydreo is your relevant partner for «Made in France» hydromechanics.*



*Hydreo has a unique goal : provide hydromechanical equipments for fluvial works and hydro power plants*

### Design

Hydreo engineering office is responsible for the complete design of equipments such as:

- ✓ Cofferdams
- ✓ Stop logs
- ✓ Trash racks & cleaners
- ✓ Flood, radial, slide, sluice gates
- ✓ Flap gates
- ✓ Pressure relief valves

Standard or customized.  
From **300 kg** to **80 tonnes**, in steel or stainless steel, without height or width limits.

### Manufacturing

With a workshop of 4500 m<sup>2</sup> and more than 100 tonnes of lifting capacity, Hydreo manufactures and assembles all its equipments in its facility.

Certified **ISO 45001:2018**  
Hydreo has a stringent Quality, and Health and Safety Assurance policy.

### Installation & Commissioning

Hydreo supervises every step from components delivery to commissioning.

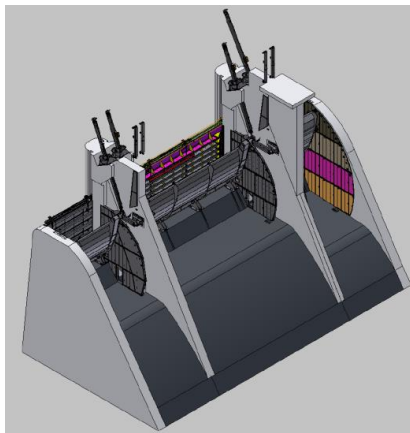
Hydreo has a specialized and skilled assembly team.

Hydreo ensures all follow-up and associated quality control.

### Services

Hydreo offers a wide range of services that extends equipment supply:

- ✓ Contract manufacture
- ✓ Feasibility studies
- ✓ Consulting
- ✓ Refurbishment
- ✓ Maintenance
- ✓ Training

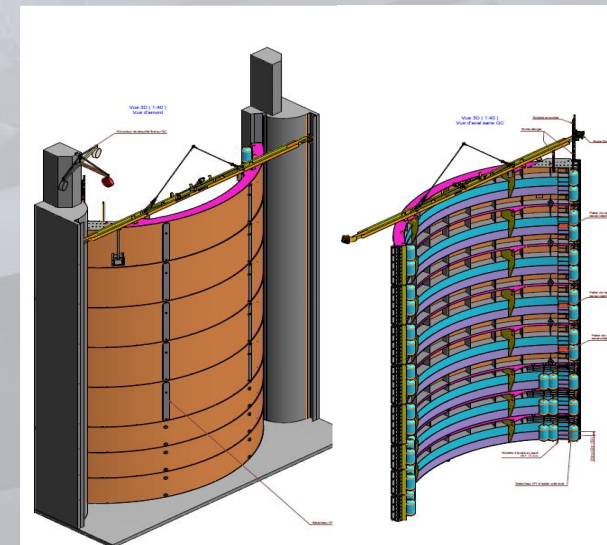




Stop logs are removable safety devices.

From a private intake to EDF major civil engineering works, Hydroeo designs, manufactures and installs stop logs, customized for each site and operating conditions.

- | Floating
- | Single-walled
- | Double-walled
- | Braced
- | Cellular (Circular or diaphragm type)
- | Self waterproof /retractable/ with suction cup
- | Temporary worksite stop logs



### KEMBS STOP LOG (5 elements) – FRANCE

- > Client: **Hydroelectrical site of EDF de Kembs on the Rhin**
- > Length: **31 m**
- > Height: **12 m**
- > Weight: **250 tonnes**

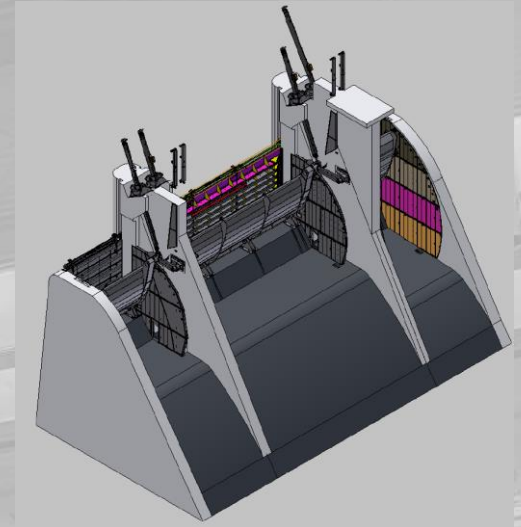




## FLAP GATES

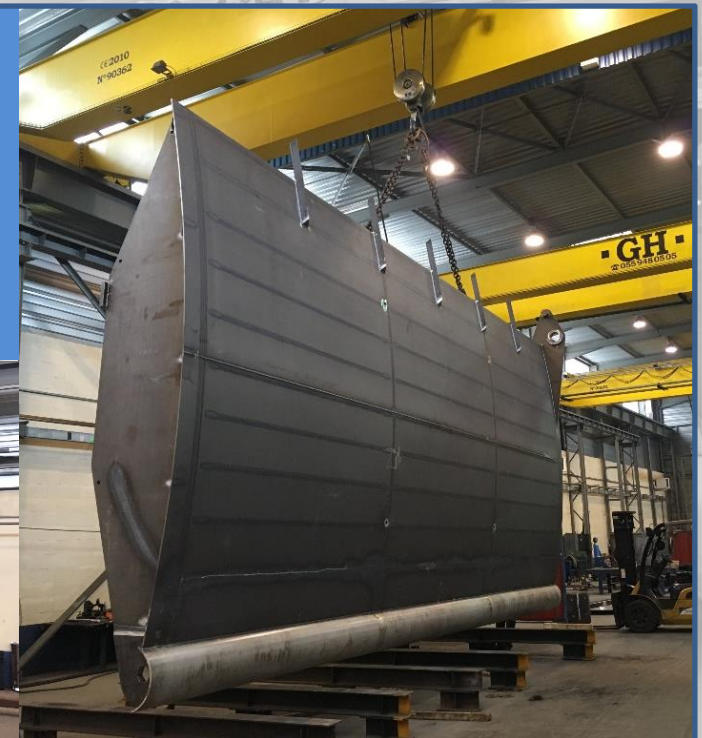
From the regulation of a fish pass to 50 tonnes gates, Hydreo designs, manufactures and installs gates on rivers or on maritime works. All the accessories are supplied with our gates (control systems, floats, hydraulic power unit, cylinders, regulation system, etc.).

- | Level control flap gates
- | Flap gates with or without integrated side wall
- | Box-type structure
- | Tube-type structure



### BONNEVILLE FLAP GATE – FRANCE

- > Client: Régie de Gaz et d'Électricité de Bonneville
- > Length: 10 m
- > Height: 5 m
- > Weight: 15 tonnes

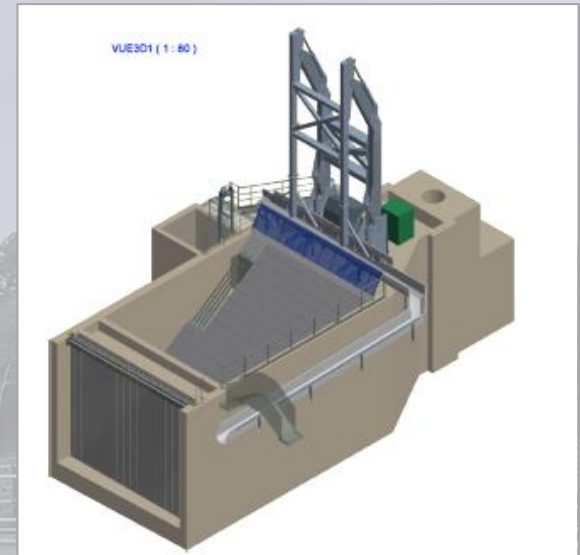




From light installations (for fish farming) to more than 20 tonnes equipment, Hydreo trash rack cleaners are entirely designed and manufactured in our workshop, shop test assembled and accepted before shipping.

They are dimensioned for a continuous operation in the most harsh environments.

- | Hydraulic
- | Stationary
- | Mobile
- | Single arm
- | Chain type
- | Telescopic extended rack (powered)
- | Fish Farming



### TRASH RACK CLEANER FOR A GOLD MINE'S Hydro Station- AFRICA (DRC)

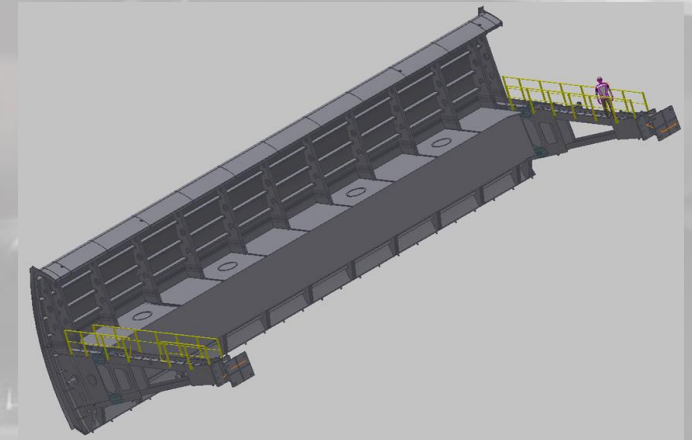
- > Client: HPP
- > Range: **15 m**
- > Weight: **20 tonnes**





Hydreo designs, manufactures and installs all type of gates : from canoe pass to first stage structures.  
Gates ensures regulation and obstruction of water flows and enables water level management.

- | Standard vertical-lift gates
- | Special gates
- | Relief gates
- | Security/guard/flood/regulating/canoe pass gates
- | Segmental sluice with or without flap
- | Fixed-wheel gates
- | Hydraulic/manual/electrical controls



### 4 GALET-WHEELED GUARD GATES FOR KEMBS' PLANT(G5)

Each is composed of 2 gate leaves.  
They are safety devices for the power plant.

- > Client: **EDF-DTG - France**
- > Width: 3.3 m
- > Length : 6.3 m
- > Weight: **22.5 tonnes per gate**





## PROTECTION LOG BOOM/ FLOATING BOOM

Hydreo log booms are suitable for pre-treatment of floating waste. A boom is more likely to be composed of 12m length elements tied with each others.

The anchorage to the bank depends on the type of watercourse.



## INTAKE TRASH RACKS

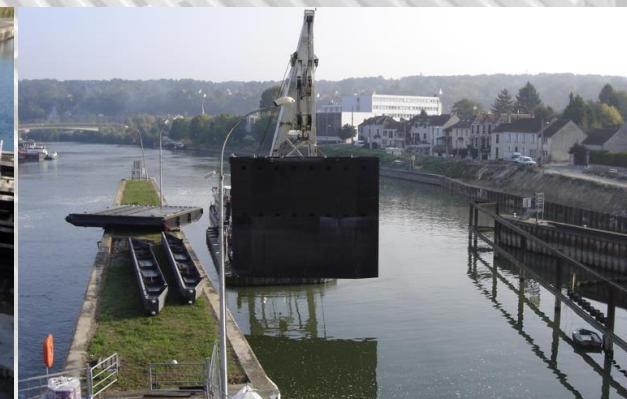
Hydreo is specialized in designing and manufacturing trash racks.

- Adjustment to new standards
- Fish-friendly
- Replacement, repair or maintenance
- Steel, synthetic, rectangular or circular section bars



## LOCK GATES

Hydreo lock gates are customized depending on the scale of the layout and the function required.





## TURBINES MANUFACTURING AND REFURBISHMENT

Hydreo manufactures and assembles turbines on behalf of HPP. Most components of the turbine are manufactured in Hydreo's workshop.

The factory acceptance tests of the assembled machine can be witnessed by the customer.

The turbine is either partially or entirely dismantled before the shipment on site.

Hydreo owns the manufacturing and refurbishment expertise of Kaplan, Francis, Pelton turbines and hydrodynamics screws.

- | Sheet-metal work
- | Metal-welding workshop
- | Machining workshop
- | Pressure testing
- | Assembly and testing shop
- | Paint shop





### Manufacturing as subcontractor

- | Metal-welding
- | Machining
- | Factory assembly

### Hydromechanic Expertise

- | Layout /Design
- | Studies/ Analysis
- | Trainings

### Rehabilitation

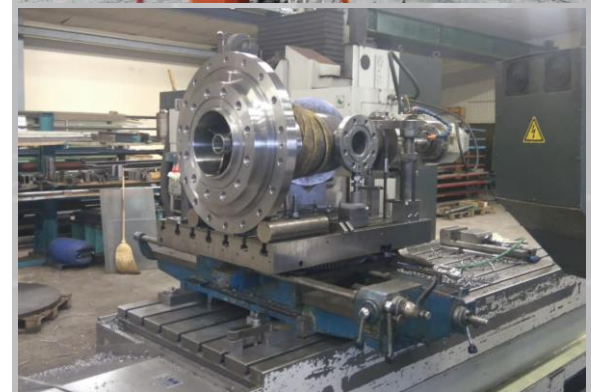
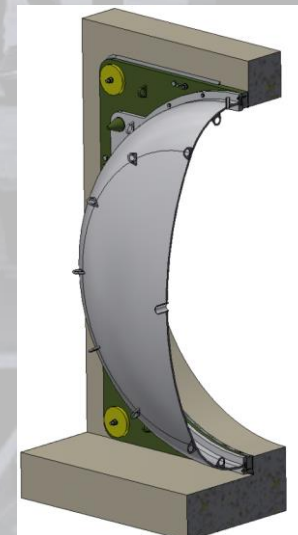
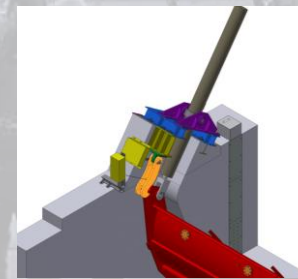
- | Site's rehabilitation
- | Existing equipment assessment
- | Equipment refurbishment
- | New hydromechanical equipment

### Maintenance

- | Technical support
- | Monitoring
- | Remote control

### Feasibility study

- | Site identification / assessment
- | Layout proposal (civil works)
- | Cost estimate (CAPEX, OPEX)





hydreo



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WITH WATER

HPP



TURNING WATER  
INTO POWER

elléo



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hydreo

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ISO 45001:2018



## REGISTRATION CERTIFICATE



*This document certifies that the administration systems of*  
**CHL – HYDREO**

*Route de Fallières, Saint Nabord Fallières, 88201 Remiremont Cedex.*

*have been assessed and approved by QAS International  
to the following management systems, standards and guidelines:*

**ISO 45001: 2018**

*The approved administration systems apply to the following:*

*Manufacture and Installation of Water Gate equipment, Turbines,  
and hydroelectric equipment in the National and International territory.*

Original Approval 11th February 2020  
Current Certificate 11th February 2020  
Certificate Expiry 11th February 2021  
Certificate Number FRHS1016

Signed: Certification Officer

**On behalf of QAS International**

This certificate remains valid while the holder maintains their quality administration systems in accordance with the standards and guidelines stated above, which will be audited annually by QAS International. The holder is entitled to display the above registration mark for the duration of this certificate, which should be returned to QAS International upon reasonable request.  
Issuing Office: QAS, 5 Technology Park, Colindale Lane, London, NW9 6BX, UK.

