

# MACHINE SHOP

The HYDRO Exploitation machine shop in Martigny constructs various mechanical parts for mechanical reconditioning or for spare parts. It is also required to supply any necessary parts for refitting during operations.



## Methodology

- advice and analysis of options
- calculated propositions
- acquisition of materials
- manufacture of parts
- final inspection and delivery

## Specific skills

HYDRO Exploitation staff have the advantage of a long experience of a variety of maintenance work and in particular knowledge of hydroelectric installation components. Furthermore, our mechanics, who have considerable experience in machining parts, guarantee and continually develop their specialised knowledge, which is increasingly rare in Switzerland.

## Client benefits

Clients who choose this type of service benefit from the following advantages :

- flexible and rapid intervention when there are problems
- precision and rigour in the manufacture and installation of components
- support and advice from HYDRO Exploitation engineering during particular projects

The machine stock consists of :

## ADDITIONAL SERVICES

**Central workshops: a new milling centre, unique in French-speaking Switzerland**

Commissioning of our new CORREA AXIA 70 milling centre in our machining workshop, to take place soon, will open up a new era for HYDRO Exploitation. This equipment is unique in French-speaking Switzerland. By adding it to our stock of machines we are increasing our versatility and our production capacity.

**Servicing of mechanical components**

This service deals with the inspection of large diameter safety equipment (butterfly valves, globe valves, bell housings) as well as the examination of large injectors and pumps. Servicing is performed in accordance with the facility's own maintenance plans and the requirements of suppliers.

**Renovation of wheels**

HYDRO Exploitation provides all the services needed to maintain and repair impellers and turbine wheels (Francis, Pelton, and Kaplan) as well as their constituent components, regardless of size. This work is carried out in our workshops or on site for wheel polishing.

**Non-destructive testing (NDT)**

Non-destructive testing makes it possible to detect cracks or porosity, bulk defects in a mechanical part, without altering it.

**Fast and non-destructive analysis of metals and their alloys**

Analysing metals and their alloys allows the quantification of the various elements in a sample, without destroying or changing it.

CNC Vertical lathes	CNC Gamberoni Ø 2'630 mm vertical lathe CNC DOOSAN Ø 1'600 mm vertical lathe
CNC Milling machines	CNC MTE, 3'000 x 1'200 x 1'500 mm milling machine CNC CORREA AXIA 70, 7000 x 1500 x 2500 mm milling machine CNC Fehlmann Picomax 56 TOP milling machine
CNC Turning lathes	Masturn, banc 3 m cyclic engine lathe Ø max 820 mm 2 Masturn, cyclic lathe 2 m Ø max 820 mm CNC slant bed lathe with C-axis milling function Colchester Triumph VS2100 lathe
Conventional Machines	Emcomat 20 D engine lathe Schaublin lathe 125 Pedersen VPU 930 knee-and-column milling machine EMCO FB-450L milling machine EMCO FB-4 milling machine Caser/Lodifex radial drilling machine 2 drilling machines Fehlmann Picomax (P20-2010 / P20-2015) Sermac column type drilling machine CHEVALIER FSG-2040 AD III planing machine
Measuring and inspection apparatus	2 FARO 3D measurement arms Magnetic-particle inspection Ultrasound inspection Penetrant inspection


### Central Workshops

Along the water, discover the profession of hydroelectric operator in pictures.

### REFERENCES

HYDRO Exploitation

### PUBLICATIONS

 Fiche technique

### CONTACT

**HYDRO EXPLOITATION SA**

 Rue de l'Industrie 10, 1951 Sion

 +41 (0)27 328 44 11