

MACHINES-OUTILS/PROMO-REPORTAGE

Mazak
SMOOTH
TECHNOLOGY

Company Profile

Company name

Hydro Leduc

President

François Porel

Machines

HCN-4000

INTEGREX i-200 S

HCN-6000 + PALLETECH

QUICK TURN NEXUS 100

QUICK TURN 200MY

SUPER QUICK TURN 200 MS

DUAL TURN 20

Hydro Leduc: Mazak delivers reliability and precision

The manufacturer Hydro Leduc has been known for its hydraulic engineering expertise for an impressive 80 years. Their production process requires the purchase of high-performance machine tools, and the company has recently acquired two additional machines.

The company was founded in 1938 in Sartrouville, North-West of Paris, by René Leduc, by the then Technical Director of Breguet Aviation and inventor of the ramjet. It quickly moved towards the production of hydromechanical components for use in the construction of hydraulic generators, industrial vehicles and public works vehicles; aviation; the oil industry; shipbuilding; agriculture; and toolmaking.

Controlled quality

Hydro Leduc specialises in the design and manufacture of piston pumps, actuators, hydraulic motors, hydro-pneumatic accumulators and hydraulic components. It also provides micro-hydraulic solutions. Azerailles in Northeastern France is home to the development and production of Hydro Leduc products. They have all the experience they need within the business. This autonomy guarantees them total control of the products that they manufacture, a high level of responsiveness and responsibility for all steps in the component life cycle. Quality is therefore highly controlled.

Well-equipped factory floor

The company extends over 14,000 m². Its objective is to design, produce, improve and develop innovative solutions. "Our objective is to meet, and even exceed, our customers' quality expectations," explained Philippe Porel, Managing Director. To deliver the most effective and quickest response to our customers' needs, the factory floor is divided efficiently into a number of product-specific production lines. Each machine on the factory floor is assigned to a production line.

There are ten Mazak machines in the factory. The latest arrivals are an HCN-4000 horizontal machining center and an INTEGREX i-200 S multi-tasking machine. "Mazak machines are extremely reliable and provide a high level of precision and very good repeatability. We also appreciate the availability of technicians and the prompt response from the services offered by Mazak, including the aftersales support, the parts department and the application service, which gives process and machining strategy implementation support," explained Bruno Joly, Supply Chain Director.



The HCN-4000 is integrated into an island that produces the dimpled shafts used in the pumps produced by Hydro Leduc. These are high-precision components, both with regard to size and surface condition. This is why Hydro Leduc has chosen the Mazak HCN-4000, which is dynamic, precise and tough. This production machine, intended for complex machining, uses EIA/ISO programming. "We estimate that this machine's pallet magazine saves us 30 minutes during series transfers," noted Bruno Joly.

As for the INTEGREG i-200 S, this machine will be used to machine very-high-precision individual and very-small-series parts, mainly destined for use in micromechanical engineering. Operators work autonomously at the machine, choosing tools, picking up parts and of course writing programs, thanks to the great flexibility and simplicity of the MAZATROL Smooth X CNC and its conversational programming. "The staff were trained by Mazak before using the INTEGREG i-200 S. The machine operators picked it up quickly and are very proud to work with the INTEGREG," added Bruno Joly. The INTEGREG i-200 S combines the capabilities of a high-power turning center and a machining center. The configuration of this machine includes a second turning spindle so that parts can be produced without requiring further work, which guarantees precision and quality. "Compared to similar machines, the second spindle saves us around two minutes per part, and we have also improved the quality of the parts as we don't need to produce them in two steps. For these two machines, the OEE is better compared to the other machines because the machines are more reliable:

the availability rate is higher," explained Bruno Joly. Hydro Leduc also has a PALLETECH flexible production line, also designed by the Japanese manufacturer, Mazak. It includes four HCN-6000 horizontal machining centers and can handle forty-eight 500-mm x 500-mm pallets. This production line is used to machine housings. The company also uses a two-axis QUICK TURN NEXUS 100 to machine small revolving parts, a four-axis QUICK TURN 200 MY for machining used to manufacture individual parts and a three-axis SUPER QUICK TURN 200 MS with a second spindle to machine parts without any secondary work. After 20 years of loyal service, the DUAL TURN 20, which was used to machine caps, with its two spindles, two turret lathes and automated loading, has found a buyer in the second-hand machinery market and has made its new user very happy.

Continuous innovation

The Hydro Leduc group operates around the world. It comprises four commercial subsidiaries across the European and Chinese markets, and one factory in the United States. Between 2009 and 2018, the number of employees increased from around 160 to 320 and turnover rose from around €20 M to €58 M. Hydro Leduc exports more than 65% of its production volume to 60 countries. This innovative group has registered 180 patents. "We supply a complete engineering and production solution. This is the Hydro Leduc added value," added Bruno Joly.

For more information visit www.mazakeu.fr

Mazak

YAMAZAKI MAZAK EUROPE N.V.
T +32 16 39 16 11 E sales@mazak.be

YAMAZAKI MAZAK FRANCE S.A.S.
T +33 (0) 1 69 31 81 00 E accueil@mazak.fr

YAMAZAKI MAZAK UK LTD
T +44 (0) 1905 755 755 E info@mazak.co.uk

YAMAZAKI MAZAK DEUTSCHLAND GMBH
T +49 (0) 7161 675 0 E vertrieb@mazak.de

**YAMAZAKI MAZAK DEUTSCHLAND GMBH
- NIEDERLASSUNG ÖSTERREICH**
T +43 (0) 6245 2 15 04 E vertrieb@mazak.at

YAMAZAKI MAZAK TURKEY MAKINA LTD. STI
T +90 (0) 216 309 21 00 E info@mazak.com.tr

YAMAZAKI MAZAK DANMARK A/S
T +45 44 22 77 00 E mail@mazak.dk

**YAMAZAKI MAZAK
NEDERLAND B.V.**
T +31 (0) 30 634 4030 E sales@mazak.nl

YAMAZAKI MAZAK ITALIA S.R.L.
T +39 (0) 331 575800 E mazakitalia@mazak.it

**YAMAZAKI MAZAK
CENTRAL EUROPE S.R.O.**
T +420 226 21 1131 E mazak@mazak-ce.cz

**YAMAZAKI MAZAK CENTRAL EUROPE SP. Z.O.O
(Branch Office Poland)**
T +48 (0) 32 35 004 30 60 E kontakt@mazak.com.pl

**YAMAZAKI MAZAK CENTRAL EUROPE S.R.O
(Branch Office Hungary)**
T +36 (0) 23 920 480 E info@mazak.hu

YAMAZAKI MAZAK UK Ltd-Sucursal em Portugal
T +351 (0) 964 777 473 E sales@mazak.pt