





# **OUR RANGE**

- > Recognized expertise
- > Experienced installation teams
- > A responsive and efficient After-Sales Service



# ldsa

- > Multi-purpose
- > Precision
- > High-performance
- > Reliability



#### **KEY FIGURES**

- > Turnover of over €11.5M
- > 30 employees
- > 5000 m<sup>2</sup> (assembly, production, offices).
- > The company works with more than 20 countries
- Over 200 machines were designed and had been installed

# EXPERIENCE, THOROUGHNESS & INNOVATION FOR YOUR PROJECTS

LDSA is the first European pioneer in the design of VERY HIGH PRESSURE WATER JET CUTTING MACHINES. After more than 25 years, they were able to become the French leader and one of the major European manufacturers.

#### The company has always been able to adapt to the changes in customer needs and to the water jet cutting market.

LDSA provides the competences and advice of their R&D department.

Their engineers ensure feasibility studies, the qualification and optimisation of processes as well as the design and manufacture of complete systems of up to 20 simultaneous axes.

#### LDSA has the most complete offer on the market with 4 ranges of «upgradeable» machines, with a wide choice of table

dimensions from 1,000x1,000 mm up to 18,000x6,000 mm as a standard (forward stroke).

The fact that they are multi-purpose, reliable and precise enables you to **cut all types of materials,** and to make components in complex or simple forms **with optimum productivity!** 

# LDSA machines are equipped with intensifier or direct drive pumps.

3,800 to 6,200 bars supplied by their two historical partners: the world leader KMT (USA), and the European leader BFT (Austria).

Our privileged relations with these two world references again prove even more, how attentive we are to being **up to date with the needs and requirements of the market**.

Our expertise in specialised machines and in robotics also enable us to offer complete customised systems according to the specific needs of our customers.



#### OUR FIELDS OF EXPERTISE



The design and manufacture of water jet cutting machines. We ensure installation that is adapted to the customer's needs: production constraints, security standards...



After-Sales Service. Responsive and professional.



Production department. Pre-sales, process industrialisation, feasibility test, analyses, pre-series...



**Electricity department -** Engineering and installation and industrial electricity.

- Dual Bridge configuration, model WJA II 30.20 2P 2TI 3X5X AW

# WATER POWER PROFICIENCY

For thousands of years this power has shaped incredible landscapes. This is the power that LDSA puts in your hands...

#### **CUTTING PRINCIPLE**



- > Water is first filtered to eliminate any impurities.
- > It is compressed with a special pump that can reach up to 6,200 bars.
- > When passing through an opening calibrated at approximately 0.1 to 0.40 mm in diameter, water accelerates up to 2 to 3 times the speed of sound.
- > The energy that is thereby accumulated by the water molecules in combination with the abrasive attachments, makes it possible to cut almost any material.



## **ADVANTAGES OF WATER JET CUTTING**



A cold cutting method that does not change the molecular structure of cut materials

including heterogeneous materials

All materials can be cut,

Exceptionally precise

and clean cutting even

for extreme thicknesses



Low water consumption ecological process with no toxic fumes (air particles, smoke, vapour)



Inexpensive consumables



cardboard, polypropylene.... • 500 mm for hard materials

glass wool, rubber, paper,

 600 mm and more for soft materials

rock, sandwich panel, aluminium, brass, plastic, carbon...

• 200 mm for very hard materials steel, titanium, stainless steel...

Up to 6,200 bars, discover **ULTRA-HIGH** PRESSURE

For further information and cutting videos, visit the website at www.ldsa-france.fr

# THE MOST COMPLETE RANGE ON THE MARKET WITH 4 UPGRADEABLE MODELS



#### **WJA II TYPE**

#### MULTI-PURPOSE, STURDY & TOP-OF-THE-RANGE Adaptable to all your projects with options available

- 3-axis head, 5-axis head and ACTIVE 5-axis head
- 4<sup>th</sup> rotational axis
- CNC, motor, coder,
- touch screen by FANUC
- Up to 4 heads per bridge
- Up to 4 bridges Table\* up to 18 x 6 m.





- ACTIVE 5-axis head
- CNC, motor, coder, touch screen by FANUC
- Integrated ballast system - Integrated pump
- Table\* 4 x 2 m



### **ECJET III TYPE**

LDSA TECHNOLOGY ACCESSIBLE TO EVERYONE Available in projects requiring simple execution

- 3-axis head
- CNC, motor, coder by FANUC
  Table\* up to 3 x 2 m



## **LCJET III TYPE**

MULTI-PURPOSE, PRECISE, ALL-STAINLESS STEEL HOUSING Adapted to environmental restrictions requiring increased protection

- 3-axis head, 5-axis head
- and ACTIVE 5-axis head
- touch screen by FANUC
- Integrated ballast system - Table\* 1,2 x 1,2 m
- CNC, motor, coder,



### SPECIFIC DEVELOPMENT **SPECIAL MACHINES**

According to your environmental and production restrictions, we develop customised configurations at your request.

CONSULT US

# DIFFERENT TYPES OF PUMPS ADAPTED TO YOUR NEEDS





DIRECT DRIVE TYPE HIGH PRESSURE

**INTENSIFIER TYPE** 

- Max. 6,200 bars

**ULTRA-HIGH PRESSURE** 

- Projects that require optimum productivity

Max. 3,800 barsLow percent load



# INTENSIFIER TYPE

and/or for very hard materials and extreme thicknesses

VERY HIGH PRESSURE
- Max. 4,150 bars
- High percent load, reliable, economical



## VERY HIGH PRESSURE - Unique variation range on

- the market, from 100 bars to 4,150 bars
- Brush-less motor
- Energy-saving
- Ideal for composites





# MAN/MACHINE INTERFACE

INTUITIVE CONTROL, SIMPLE, HIGHLY ERGONOMIC

- > Touch screen (except for ECJET III)
- Interactive management upkeep, diagnosis and maintenance
- > Mobile console on wheels
- > Simple control
- > Simple profils pre-programmed are integrated
- > Status by mail remote surveillance via the web,
- through which the condition of the machine can be verified via an internet connection





# ACCESSORIES

- > PAA Abrasive Feed Tube
- > TAA Abrasive Hopper
- > Abrasive regulator (controlled by CNC)
- > SEBA Automatic Sludge Extraction System
- > Belt filter filtration of cutting water for compliance with the applicable standards
- > SKID Water recycling
- > Water softener and Dialyzer

> ...

# **OPTIONS**

- > 5-axis head: 3D and/or 2.5D cutting
- > Multiple heads up to 4 heads per bridge
- > Multiple bridges up to 4 bridges
- > Fourth rotational axis
- > SDAC Camera-Assisted Surface Planing
- > Pneumatic drilling unit
- > Integrated or external ballast system
- > Bi-zonal work surface
- > Aiming/positioning laser> Chamber, housing
- > ...



#### They trust in us





/ AERONAUTICAL / AEROSPACE / INDUSTRY / AUTOMOTIVE / NAVAL / NUCLEAR / SHEET METAL & METALLURGY / MARBLE MASONRY / TEACHING...

Do you have a project or a technical question ? CONTACT US.



THE REFERENCE IN ULTRA-HIGH PRESSURE WATER JET CUTTING

ZI de POPEY - 1 Impasse des lettres 55000 BAR-LE-DUC Tel. +33 3 29 77 12 12 - Fax. +33 3 29 79 68 41

www.ldsa-france.fr