

SOLO

MANUFACTURING 4.0 MONO-ROBOT
AGILE MACHINE

OUR MODEL MONO-ROBOT OF XXL MANUFACTURING



Basic version with out-of-gauge turning gear
(3 – 20 tonnes) with backlash



Basic version on the left having been upgraded
to Gemini with a 2nd robot



Version with linear axis 1 ton turning
machine

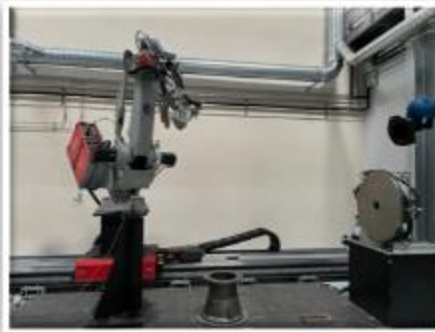
- Combining the performance of direct control (precision and real-time processing of information)
- **Already prepared to operate in multi channel**
- **Scalability towards the Gemini model** with a second robot (axis integration)
- Around **digital control** (complex process control power and ease of use)
- Adapted to **multi-technology manufacturing**
- Integrating **in-process control functions**
- **Production of XXL and high tonnage parts**
- **Agile manufacturing solution** (unit part production without the need for series): ASD, Railway, Naval, Energy, MRO, Mold and Tooling...

SOME SOLO REFERENCES ON VARIOUS PROCESSES

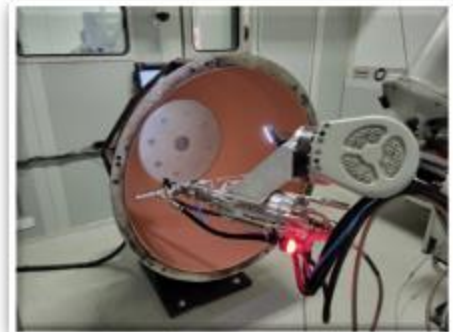
Additive manufacturing Waam



WAAM additive manufacturing
with linear axis

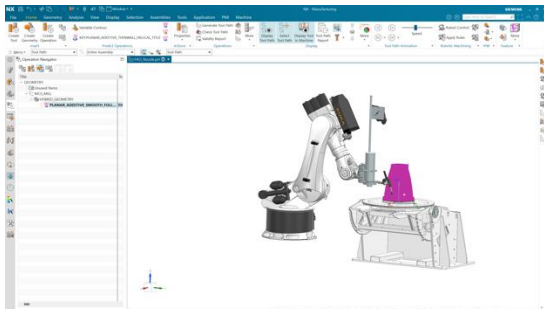


Additive manufacturing Coldspray

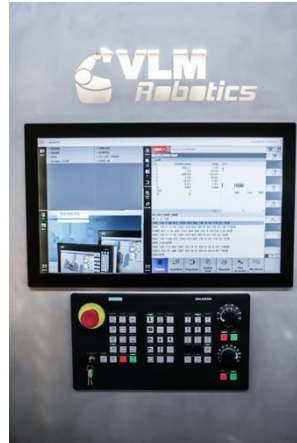


INDUSTRIAL ROBUTNESS

- **Architectural machine customizable** according to dimensions, shapes, type of parts and **evolving in time** with additional axes
- **Multi-technologies** (on one application) & **multi-applications** (machining, bonding, additive manufacturing, NDT ...)
- **Sensor integration** allowing closed loops and adaptives robotics via CNC.
- **Full digital thread** : CAE, CAM, CAD software, digital twin, traceability...
- **Industrial maintainability** : machine tool maintainable by your services + remote diagnosis



NX CAM



A design based on the **CNC, Direct Control and Multi Channel** expertise of VLM ROBOTICS which provides :

- **agility in production**
- **precision of the NDT control**
- **process control via closed loops and synchronous actions**
- **speed of Direct Control**



VLM ROBOTICS' **discriminating expertise** in motion control certified by the **Siemens Solution Partner** label

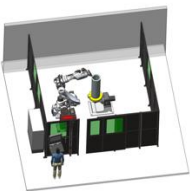


MACHINE CONFIGURED ACCORDING TO YOUR BUSINESS REQUIREMENTS

Turnkey solution delivered!

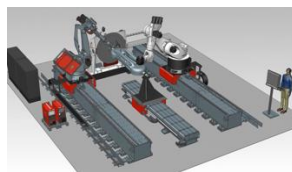
DESIGN

- **Types of parts** L (10 m), Diam (3 m) and weight (20 tons), more contact us
- **Number of axes** (linear, vertical, gantry, AGV)



PROCESSES

- **Technologies** : electric arc, laser, cold spray, fsw, machining, finishing, non-contactless control, bonding, etc.
- **Process and part sensors** : T°, P, UT, IR, scanner, camera, etc. (depending on the process to be controlled)



DIGITAL CONTINUITY

- **Programming** : CAD, process simulation, CAM + in-process monitoring and control
- **Industrial traceability** : data fusion : trajectory, process and product
- **Connected, secure machines** ... remote maintenance or even cloud computing
- **Edge computing** : data analytics (true machine 4.0) and AI
- **Digital Twin** : machine, process, parts