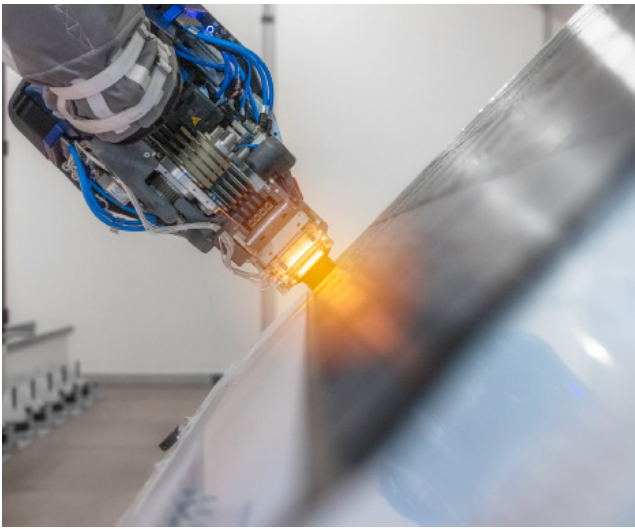


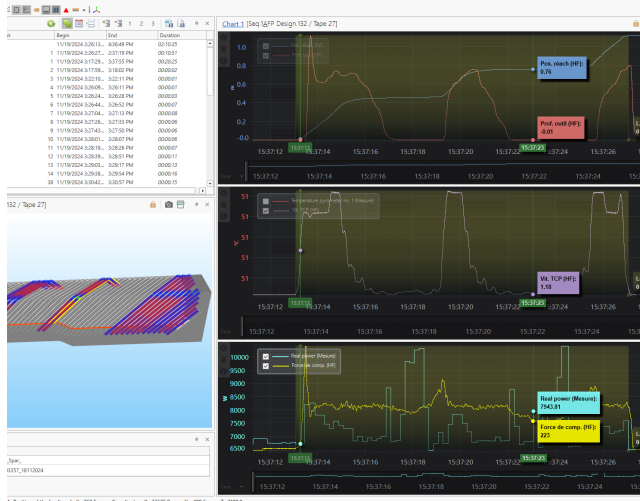


Coriolis Retrofits

Keeping the AFP machines at the edge of technology.

Coriolis is in a constant process of improving its machine.

The new developments are designed to be also available on already installed machine, to keep them up to the latest technology.



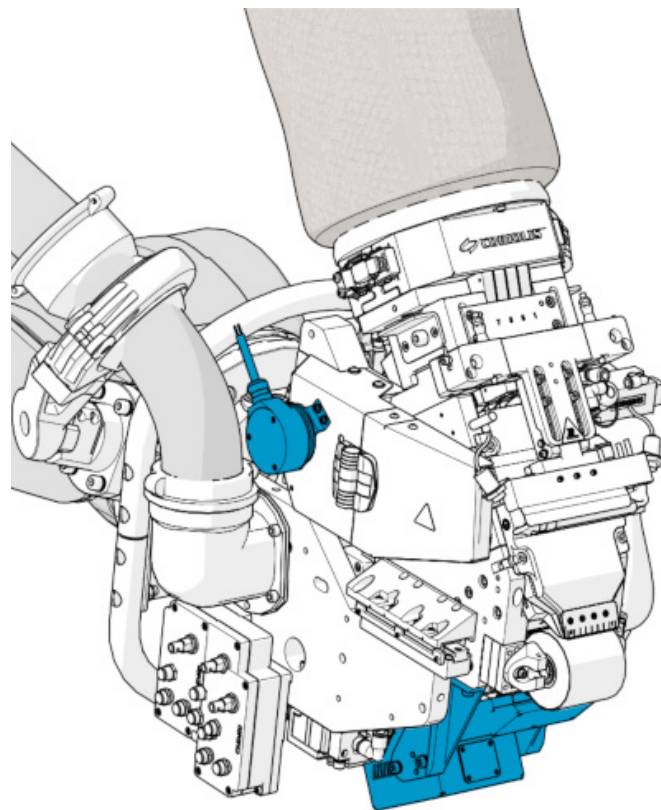
Content

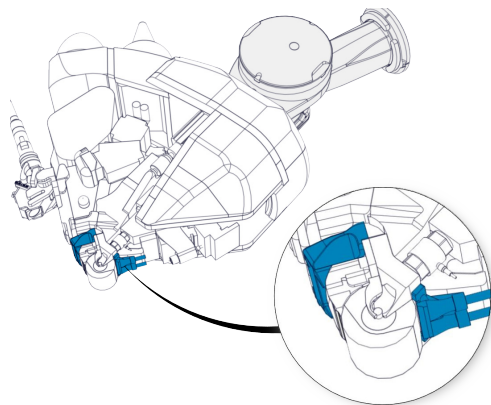
ADD-ON

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Air Blades

Why ?

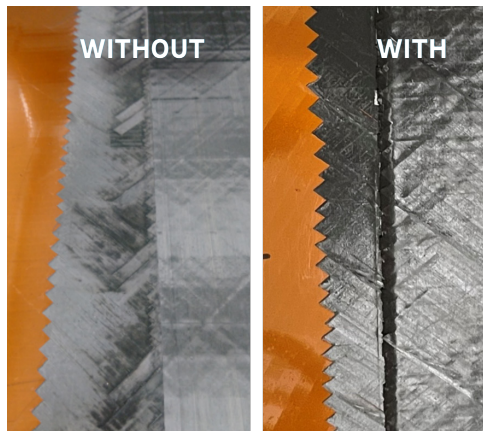
- New roller cooling system to reduce the sparkles during TP layup and extend roller life expectancy.
- Increase the layup quality in layup and at the cutting

How ?

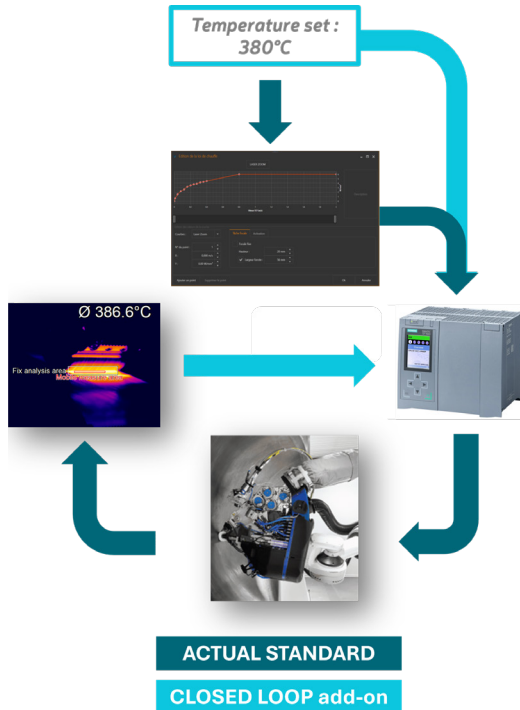
- Parts to be mounted on the head.
- Head effector to be updated.
- PLC to update.

Who ?

- Any customer using TP material.
- Not compatible with the laserbeam limiter.



Closed Loop



Why ?

- Control of the LASER power to match the required temperature.
- No more heating laws.

How ?

- Control of the LASER power based on the feedback of the IR camera.
- Installation and demonstration by CORIOLIS experts.

Who ?

- Any customer with LASER heating device in HMI-V5.
- Limited to local 2D at lower speed(<200mm/s) for a control at $\pm 20^{\circ}\text{C}$.

Trajectories Optimization

Why ?

- Reducing the in-trajectories stops.
- Save up to 0,8sec/tape.

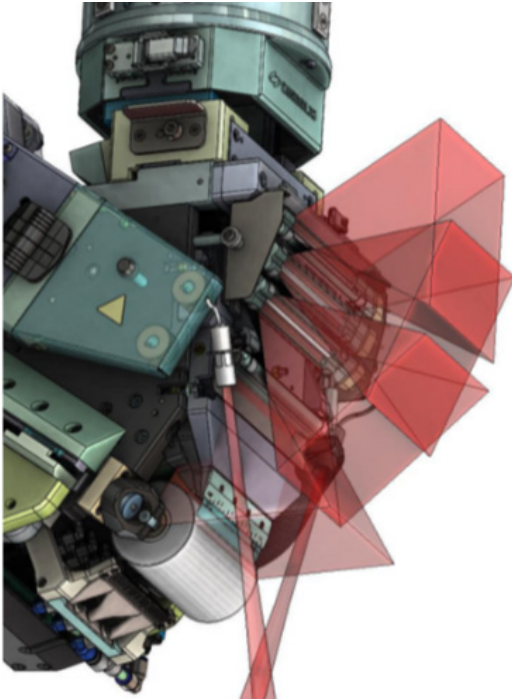
How ?

- Remote connexion to install the optimization.
- Can be followed by productivity demonstration.

Who ?

- Any customer wishing to increase productivity or layup path efficiency.

3 IR Lamp Support



Why ?

- To layup faster some TS material that is or not tacky enough, or with high steering areas.
- Preheat the subtract to ensure a better bonding while laying up.

How ?

- Adding on the head a support with two extra lamps.
- Effector update.
- Validation of the capacity of the head to supply the energy. If not new cables to pull through the pipes.

Who ?

- Any customer with a C1 machine.

Splice Detection & Evacuation

Why ?

- Based on the process, some specification might require to not layup any splice in the part.

How ?

- A contrast sensor, mounted on the creel, is used to detect splice marks. Splice marking is mandatory and must be applied by the material supplier.
- The position of the splice in the fiber sheath is calculated and the evacuation optimized based on the next course length.

Who ?

- Customer with C1 machines.
- On going development for C1.2.





High Frequency Data Export

Why ?

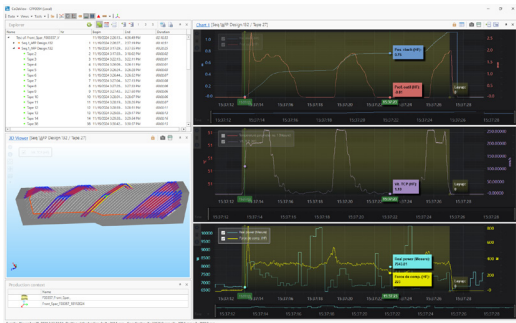
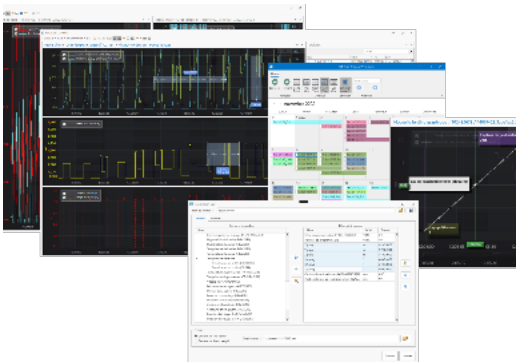
- Access to high frequency data from the layout.
- CoDa will give access to 3D visualization and the possibility to process it out of the HMI PC.

How ?

- On-site retrofit by CORIOLIS expert.

Who ?

- HMI V5.8 and beyond : CoDa.
- HMI V3 : access to a specific development software(if enough demand, CoDa might be implemented for V3 as well).





Virtual Dry Run

Why ?

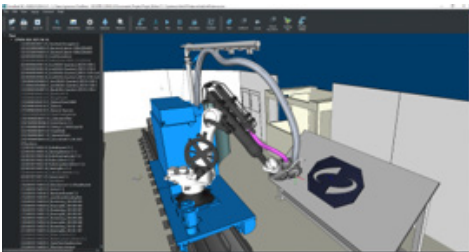
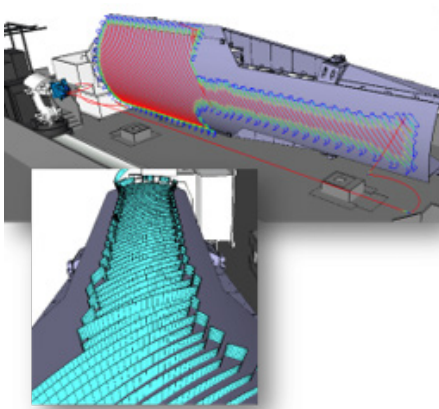
- Using a new program might require some dry run to validate it, where operator runs the machine at low speed. To gain time, SIMUReal allows to run the program through a digital twin of the machine and virtually dry run it.
- With SIMUReal some more advanced analysis would also be accessible as tubes simulation, material layup, or process performance.

How ?

- SIMUREAL Software : give access to the digital twin (based on the machine archive).
- Might need an HMI upgrade to implement the virtual dry run certificate.

Who ?

- Any customer with NC controller



HMI V3 to HMI V5

Why ?

- Implementation of a more user-friendly HMI with 3D visualization, live graphics, customizable parameter setup.
- Access to the latest development (CoDa, Closed loop...).

How ?

- On-site retrofit by CORIOLIS expert.
- New acceptance.

Who ?

- Customer in HMI V3.
- Controller : KUKA & SIEMENS.



Compact Optic

Why ?

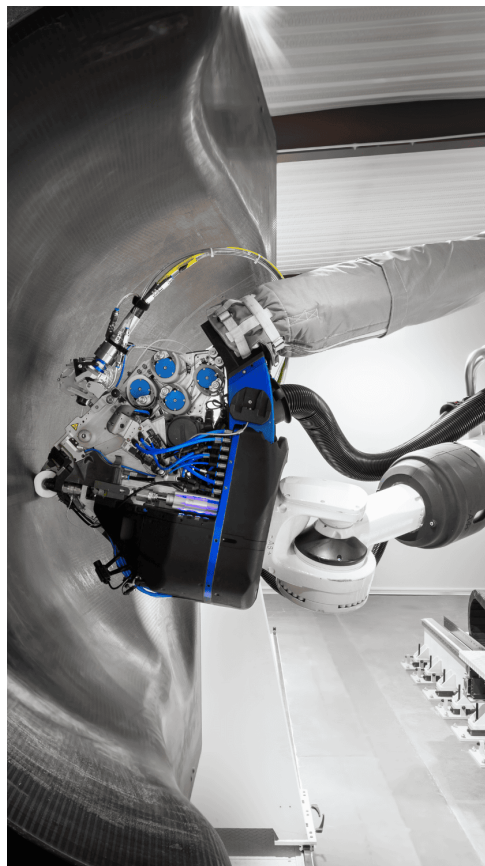
- More compact optic, lighter, stiffer.
- More user friendly : dedicated blocs for dedicated configurations and CAD effector.
- Retro compatibility with the older optic.

How ?

- On-site retrofit by CORIOLIS expert.
- New acceptance.

Who ?

- Any customer with a LASER AFP.



SMP to KEBA

Why ?

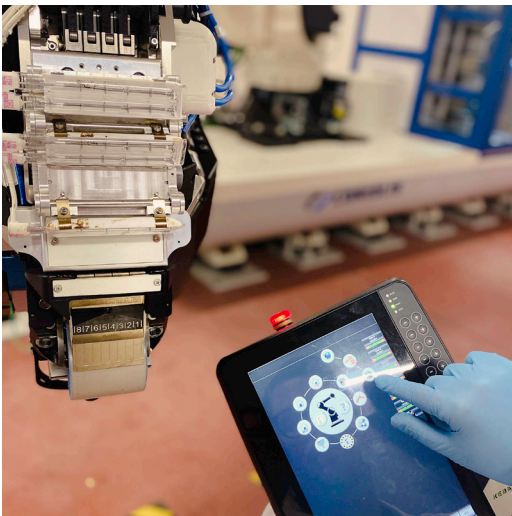
- SIEMENS SMP is now obsolete.
- KEBA now introduce a wireless pendant.

How ?

- Modification of the cell to integrate the KEBA.
- Update of the NC controller.

Who ?

- Any customer with a NC controller, it might also require an HMI update.
- Customer with a wired KEBA to get a wireless pendant.



NC: 840d to SINUMERIK ONE

Why ?

- To avoid the obsolescence of the 840d.

How ?

- On-site retrofit by CORIOLIS expert.
- New acceptance.

Who ?

- Any customer with an 840d NC.
- Can be linked with an HMI update.





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