

Forest-Liné Aerostar

High Speed Horizontal Machining center



To process aircraft structural parts up to 2 x 4 m such as ribs, bulkheads or frames with a high chip removal rate, the Forest-Liné Aerostar is the ultimate solution.

- Closed loop structure
- Gear-driven or Torque motor A/C milling heads designed and manufactured in-house
- Linear motors on X, Y and Z-axis for reduced noise, no wear over time, and high quality finish
- Clever Twist & Tilt loading station
- Pallet with embedded vacuum network
- User-friendly human machine interface
- Flexible configuration Stand alone or FMS Multi-pallet and multi-machine cell options
- Optimized transport and installation time
- Flat floor installation

Over 50 High Speed Horizontal Machining center in production worldwide

Thanks to the use of most advanced technologies for high-speed machining, the Forest-Liné Aerostar is the perfect solution allowing fast removal of large volume of material such as aluminum alloys due to its horizontal structure and allowing no deflection of the thin walls that are a common occurrence in “pocket machining”.

The lightweight and rigid mobile structure associated with linear motors drives allow a smooth movement that guarantees accuracies and excellent surface finish on the machined parts when operating at high feed rate and acceleration.

The closed structure ensures high rigidity while considerably reducing the effects of rises in temperature, thus providing high precision and geometrical stability

The **Forest-Liné Aerostar** is a very compact machine with an optimized footprint requiring no heavy cost foundation.

Loading & unloading of the parts on the pallets are done offline, outside of the machining zone, on an intelligent twist and tilt loading station.

OPTIONS & SERVICES

Ergonomic & Automation

- Stand alone with Automated Pallet System
- FMS cell automation

Parts & chip management

- Chip conveyor
- Coolant systems

Head & Tool Management

- Automatic Tool Changer
- Tool management
- Integrated tool calibration laser
- Tools ID
- Right angle heads

Secure process

- Geometry Fives Axis Check System (GFACS)
- Collision detection device
- Spindle-mounted probe
- 3D-model for simulation software

Customized project on request.

Optimize process

- Power adaptive control
- Post-processor

Safety & Protection

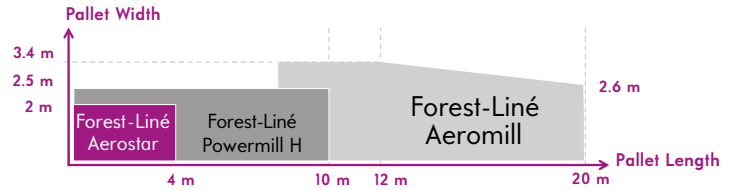
- Full enclosure
- Lighting of the working area
- Fumes and oil mist collection system

Production starting kit

- 2 weeks assistance after final acceptance
- 1 week engineering training

Diagnostic

- Remote Maintenance System (RMS)
- Global services: complete life-cycle support



FOREST-LINÉ AEROSTAR SPECIFICATIONS

Pallet	
Size	2 x 4 m
Maximum Load	2,500 kg
X Axis (Longitudinal)	
Travel	4,100 mm
Feed rate	80 m/min
Acceleration	5 m/s ²
Y Axis (Horizontal)	
Travel	2,100 mm
Feed rate	60 m/min
Acceleration	5 m/s ²
Z Axis (Vertical)	
Travel	750 mm
Feed rate	60 m/min
Acceleration	5 m/s ²
C Axis (Rotary)	
Travel	+/- 360 deg; n x 360 deg
Feed rate	20 - 40 rpm
A Axis (Rotary)	
Travel	+/- 110 deg
Feed rate	20 - 40 rpm
HF-Spindle	
Power (SI)	Up to 125 kW
Torque (SI)	Up to 163 Nm
RPM	Up to 30,000 rpm

FEATURES

- CNC: SIEMENS 840D SL
- User-friendly integrated HMI: FL Vision
- Linear motors on X, Y and Z-axis
- Vacuum network embedded in the pallet
- Direct measuring system
- Eco design
- CE certification

SOME REFERENCES

Airbus — Avic Cdac — Hongdu — Sac — Sxac — Bae Systems — Dassault Aviation — Figeac Aero — IAI — Sabca

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CONTACT US

Fives Machining - Forest-Liné Capdenac facility

44, boulevard François Mitterrand - 12700 Capdenac - FRANCE - Tel.: +33 (0)5 65 63 80 27 - www.fivesgroup.com

mcc-europe@fivesgroup.com - mcc-china@fivesgroup.com - mcc-asean@fivesgroup.com

mcc-russia@fivesgroup.com - mcc-americas@fivesgroup.com