



ARCHITECTURES AND PERFORMANCE

ROBOT AFP



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CHARACTERISTICS

MTORRES AFP ROBOT combines the high productivity solution of **TORRESFIBERLAYUP** with the most versatile machine architecture to produce multiple CFRP part geometries with a reduced investment. This modular design with automatic head exchange capability allows to combine different machine technologies on a unique cell.

MAIN FEATURES	
Robot Arm	KUKA KR1000
Control	SIEMENS 840D SL + Volumetric Compensation System up to 25
X axis - travel	4.000 - 40.000 mm (modular)
C axis - travel	Continuous
X axis - speed and acceleration	60m/min- 2 m/s ²
C axis - speed and acceleration	35 rpm - 450 °/s ²
Head Stock-Tail Stock Tool Rotary System	3 Tons - 12 Tons
Probing system	RENISHAW RMP60
SOFTWARE	Own Programming Tool and Postprocessor. TORFIBER
Applications	Thermoset, Dry Fiber (up to 30m/min)

ROBOT AFP CHARACTERISTICS

AFP HEADS	
Automatic Head Exchange capability	AFP - AFP
Number of tows	Up to 16 Tows
Tow width	1/8", 1/4", 1/2"
Minimum tape length	(modular)
X axis - speed and acceleration	132mm (116mm Optional)

MACHINE CONFIGURATION

Long Range Robot. KUKA KR100 - 750
 Head Stock-Tail Stock Tool Rotary System. 12 Tons - 20 Tons - 90 Tons
 Hybrid machine configuration. ATL-AFP
 2- working zone set up
 Integrated laser projection system
 Ultrasonic ply cutting

ENGINEERING - SERVICES

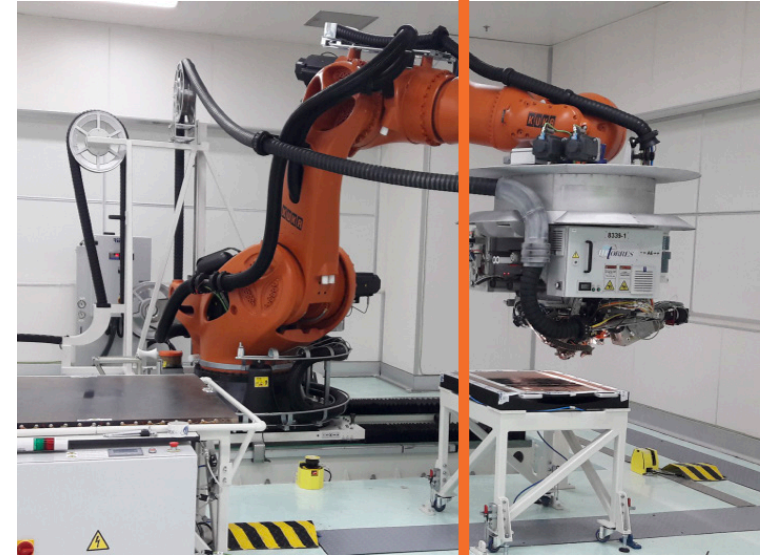
Foundation engineering design, Production support, Part programming
 Optimization, Functional and Geometrical check

HEAD CONFIGURATION

On Line quality Inspection System
 Automatic Course/Tow tune

SOFTWARE

MTorres Simulation Tool. TORFIBERSIM
 TORRESFACTORY



APPLICATIONS

Laser heat for fast Dry Fiber and ISC
 Thermoplastics layup