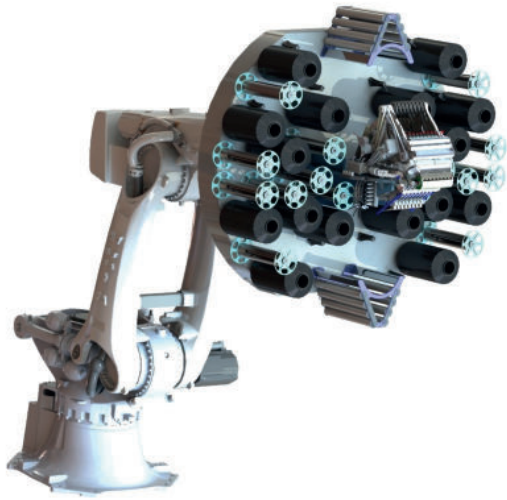


Coriolis C3

Fiber placement dockable head for large parts

- High speed layup with gantry and robot
- ½" and ¼" thermoset, thermoplastic and dry fiber manufacturing capability
- Suitable for large curved parts



Robot configuration

CORIOLIS C3

TECHNICAL INFORMATION

AFP process specifications

Fiber width	1/4 and 1/2 in
Head configuration	8 and 16 spools
Cut and feed repeatability*	± 2.5 mm at 1 m/s
Compaction force control	10 N/mm
Maximum lay-up speed*	1.5 m/s
Tolerance between course laid up on separate tapes	+2.5/-0 mm
Minimum distance between cutting and feeding an individual fiber**	10 mm
Minimum fiber length*	90 mm
Dynamic head compliance	±5 mm
Dockable head	Carbon fiber spools embedded in the head
Docking station for multiple heads	Active or passive station
Material heating source	IR or Laser
HMI for advanced production management	Coriolis HMI V5
Offline programming software	Coriolis CADFiber® and CATFiber®
Controller	Sinumerik One
Head carrier	Robot KR800 or Gantry

Robotic cell configuration

Robot	Kuka KR 800 or Titan
Horizontal axis positioner	From 6T to 2x40T

Gantry cell configuration

AXIS	Stroke	Speed	Acceleration	Positional Accuracy	Repetability
X	20 m	70 m/min	2 m/s ²	±0.10 mm	± 0.05 mm
Y	7 m	90 m/min	3 m/s ²	±0.10 mm	± 0.05 mm
Z	2.1 m	120 m/min	4 m/s ²	±0.10 mm	± 0.05 mm
A	±100°	2.62 rad/s	8 rad/s ²	±25 arcsec	±15 arcsec
B	±25°	0.80 rad/s	5 rad/s ²	±25 arcsec	±15 arcsec
C	±200°	8.4 rad/s	17 rad/s ²	±25 arcsec	±15 arcsec

*Depends on the material, heat source and part shape and controller

** Lay-up speed can be limited

APPLICATIONS

Fuselage & panel

Concave or convex panels with double curvatures
Complex parts with narrow radius

Spar & frame

High compaction around edges
Ply drop-offs and ramps over corners

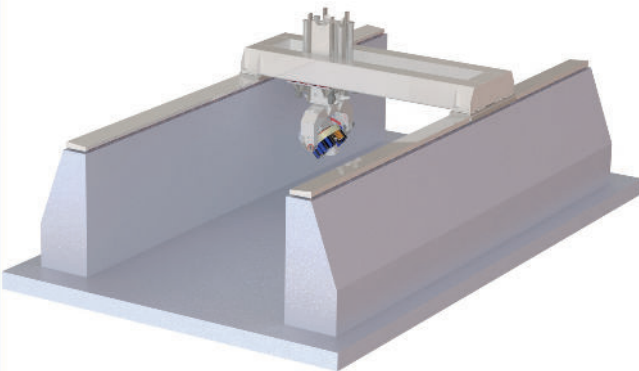
MATERIALS

Thermoset prepreg	135 to 268 gsm dry
Thermoplastic prepreg	135 to 268 gsm dry
Dry fiber	135 to 268 gsm dry

PACKAGING

Spool

Maximum diameter	200 mm
Maximum gross weight	9 kg
Maximum width	407 mm
Backing film rewinder	



Gantry configuration