



**DANOBAT**

**ADMP<sup>®</sup>**

**AUTOMATED DRY  
MATERIAL PLACEMENT**



# DISRUPTIVE AUTOMATION INTEGRATOR

DANOBAT Composites Division offers turnkey automation solution for manufacturing composite parts with dry fabric and fibers (Tape, NCF & Woven).

**DISRUPTIVE.** New manufacturing automation technology to produce aerospace components with dry material capable of increasing deposition rate by one to two orders of magnitude compared to pre-preg material.

**AUTOMATION.** Automation for manufacturing processes used to cut and place dry material for manufacturing advanced composites for a more efficient high-quality production process.



**INTEGRATOR.** We can automate one or several processes used in manufacturing. We bring the best available technology, solutions and machine tool expertise to solve your manufacturing needs.

## STRENGTH



DANOBATGROUP is the Machine Tool division of MONDRAGON Corporation, one of the most important European holding companies. Its production represents 40% of the total Spanish machine tool market.

We are a leading supplier to the aerospace industry. The most advanced machining solutions for critical components of the landing gear and aircraft engines (rotor, stator and main shafts) are supplied to OEM-s and the leading airlines world-wide.

	 <b>MONDRAGON</b>	 <b>DANOBATGROUP</b>
<b>TURNOVER</b> (Million €)	<b>12,903</b>	<b>230</b>
<b>WORKFORCE</b>	<b>80,321</b>	<b>1,222</b>
<b>EXPORT RATE</b>	<b>70%</b>	<b>90%</b>

**1,885**  
RESEARCHERS

**14**  
TECHNOLOGY  
CENTERS

OWN  
UNIVERSITY WITH  
**4,000**  
STUDENTS

**94**  
PRODUCTION  
SUBSIDIARIES  
WORLDWIDE

## ENGAGE by a collaborative approach

A collaborative client focused approach in order to define the draft project that most adapts to our partner particular case creating long term relationships.



## ATTRACT by design and innovation

We develop highly specialized turnkey solutions for automation that can improve your production efficiency.

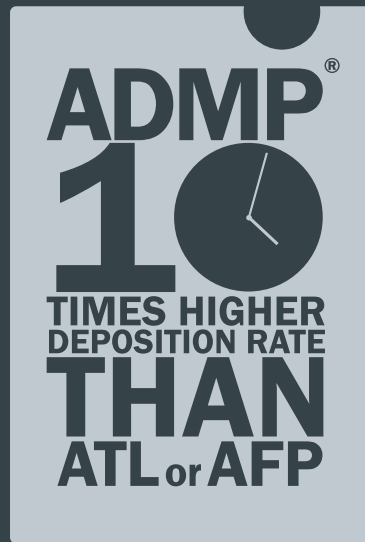
# ADMP® Automated Dry Material Placement

## DRY COMPOSITES

Unlike current, conventional processes that use prepreg material, we work with dry fibers and fabrics.

Automated process	ATL / AFP	DFP	<b>ADMP®</b>
Material	prepeg UD	dry fiber UD	<b>dry fiber &amp; fabric UD &amp; Multiaxial</b>
Format	tape / tow	tow	<b>tape / NCF / woven</b>

## PRODUCTIVITY / MULTIAXIAL DEPOSITION TECHNOLOGY



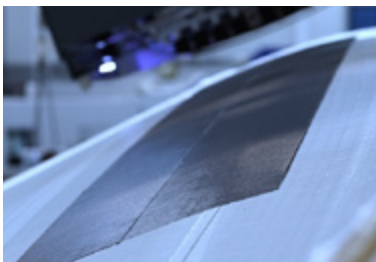
HIGHER PRODUCTIVITY  
by ADMP®

A DANOBAT technology with the capability of laying, with the same head, a wide range of dry multiaxial fabrics.

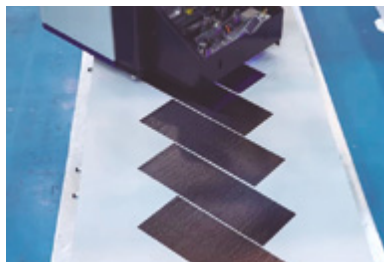
Fabrics width from 100 mm up to 2 m, or more.

## COMPLEX GEOMETRIES

▼ Placement on double curvature



▼ Placement at any orientation



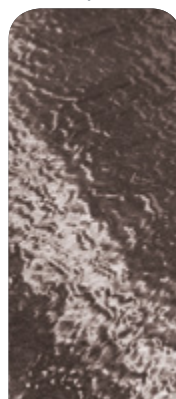
▼ Prekitted preform placement



## WIDE RANGE OF MATERIALS

Fabrics	tape / NCF / woven
Fibre types	carbon, glass
Fibre directions	UD, biax, triax, quadrax
Areal weight	125 gsm ... 1800 gsm
Fabric thickness	0.25 mm ... 2.5 mm
Roll width	200 mm ... 2000 mm ... more
Min. ply length	150 mm

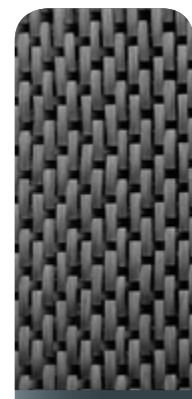
tape



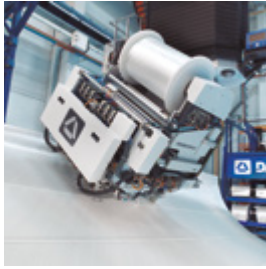
NCF



woven



# ADMP® APPLICATIONS



Wind blade



Skin covers



Stringer



Spar