



Coexpair available equipment for coupons & plates manufacturing

At the heart of our engineering services there is the set-up of process parameters for (SQ)RTM. Manufacturing of flat panels for coupons is a common task; Automated lay-up equipment and tools are available in different sizes and thicknesses in our workshop in Namur. Experts & workers are working together to deliver you plates or tubes for your material screening.

1 - AFP machines



	Gantry G4025	Robot R4025
Surface (W x L)	1 x 2,4 m ²	1 x 2,4 m ²
Numerical command	Siemens Sinumerik One	Siemens Sinumerik One Run my robot Direct Control
Axis	3	6 (1 rotating axis)
Tow Configuration	4 x 1/4"	4 x 1/4"
Spool size	3" inner diameter 11" long	3" inner diameter 11" long
Max. lay-up speed	700 mm/s	1000 mm/s
Minimal length of tow	80 mm	80 mm
Roller Compacting force up to	45 kg	45 kg
Full process datalogging	Floware TM	Floware TM

Both AFP machines are in daily use in Coexpair Dynamics' workshop. These machines and M&P engineers support could be helpful for panels manufacturing, machine parameters setting or comparison. A comprehensive report is supplied for each delivered preform to ensure parameters and lessons learned are transferred to customer who is welcome to visit us during the tests made for its order.

An in-situ consolidation thermoplastic machine is also available.



2 - Available RTM Workstations

After hand lay-up or automatic layup, the plates can be injected by RTM on dry-fibers or SQRTM on Prepreg. Coexpair has a large experience in parameter set-up for aerospace & defense resins. Equipment are similar to industrial one and allows very repeatable coupons.

Three workstations are available depending on your needs:



	EQ99 / EQ59	E178
Surface (W x L)	0,65 x 1 m ²	1,3 x 4,2 m ²
Daylight	25 to 400 mm	100 to 650 mm
Max. upper bolster deflection	< 0,15 mm	< 0,15 mm / m
Mould loading	Rails & trolley	Rails & Trolley
Closing pressure	20 bar / 132 metric ton	12 bar / 630 metric ton
Heating / max. temperature	28 kW / 200°C	150 kW / 200°C
Temperature TC inputs	12 TC	12 TC
Automatic daylight	-	☒
Automatic Injection	Master™	Master™
Full process datalogging	Floware™	Floware™
Automatic reports	Maestro™	Maestro™
Vacuum system	☒	☒

3 - Available Injection systems

Three types of injection system are available.



	5 000 cc	10 000 cc	3x 15 000 cc
Maximum resin pressure	21 bar	11 bar	11 bar
Maximum resin flowrate	750 cc/min	1000 cc/min	3000 cc/min
Max. temperature	180°C	180°C	180°C
Mould TC inputs	8 TC	8 TC	12 TC
Degassins system with vacuum pump (volume available for degassing)	☒ 6000 cc	☒ 12 000 cc	☒ 3 x 15500 cc
Component	1K resin	1K resin	1 K or 2 K (R&D)
Heated injection line	☒	☒	☒
SQRTM injection head	-	☒	☒
Full process datalogging	Floware™	Floware™	Floware™
Automatic reports	Maestro™	Maestro™	Maestro™

Contact us for more information:

- alice.salmon@coexpair.com
- cedric.deroover@coexdyn.com