

BROETJE
— AUTOMATION

COMA

Fastening Systems

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Composite Systems

EQUIPMENT

SERVICES

PROCESSES

INTEGRATION

Equipping
the Factory of
the Future

STAXX ONE

single tow end-effector

SINGLE TOW END-EFFECTOR — **STAXX ONE**

The **STAXX ONE** Single Tow End-Effector is a compact, lightweight (40 kg) and highly flexible automated fiber placement tool that mounts on any standard industrial robot.

It allows automated fiber placement of complex parts and it supports a wide range of materials such as as PrePreg, TowPreg and Dry Fiber material. The optional heated layup table can additionally be equipped with an NC-controlled turning device.

Material spool with tow tension control
Optional: Level measurement

Compaction roller out of stainless steel or anti-stick polymer coating

Controlled pneumatic compaction unit
force up to 30dN (~kg)

Backfilm collection spool

Internal water cooling for
prepreg materia

Deflection roll
Optional: Tow break detection

Robust cutting unit for tows above 50k

Controlled Heating unit with infrared emitter,
diode laser or flash-lamp

Material flexibility: Any given width from
1/8" width up to 2" (50,08 mm)

2 Sets of compaction rollers for ¼" and ½"

- › Various material types
(PrePreg, TowPreg, Adhesives, DryFiber, etc.)
- › Flexible Material size
- › Siemens NC Controls
- › Good accessibility for complex parts
- › Modular cell concept, No foundation needed
- › Standardized system components
- › Cell Layout
- › CAM System for offline programmin based
on 3D/2D CAD data
- › Collision analysis
- › Simulation for both, machine and layup concept