



SPACE CARBON TUBES

Space Carbon Tubes are manufactured by MECANO ID from Carbon fabric / Epoxy resin using RTM (Resin Transfer Molding) process. These tubes are space qualified.

HIGHLIGHTS

- > 4 standard diameters: Ø15, Ø32, Ø50, Ø70
- > Length up to 1900 mm
- > Specific tube on demand
- > Full space qualification file provided

Carbon tubes are used in Space and Defence fields.

Our own specific manufacturing process and tools ensure uniform and repeatable high quality level for each manufactured tube.

Tubes characteristics and dimensions are adjustable with respect to specifications by choosing adapted basic materials and optimized fiber orientations.

It could be validated by performance tests: mechanical compression and quality tests such as non destructive testing (NDT), ultrasonics, micrography, void volume ratio determination and differential scanning calorimetry (DSC).

In accordance with performance requirements of the application, carbon tubes allow weight savings, stability, temperature and corrosion resistance.





SPACE CARBON TUBES

Layout





Applicable documents

CURRENT DATASHEET	Space Carbon Tubes v1.1
INTERNAL SPECIFICATION	MID-ZPB-SPT-002 1/0
QUALIFICATION FILE	MID-ZPB-RPT-001 1/0
LAYOUT	MID-ZP0-COM-006 1/0

Term of use

CFRP tubes are manufactured from external mold which allows to propose different layup (fiber type, plies number and orientation) with the same external diameter.

3 levels are offered:

- Level 1: standard tubes with diameters Ø15; Ø32; Ø50; Ø70 and a pre-defined layup

- Level 2: tubes using our molds Ø15; Ø32; Ø50; Ø70, for which it is easy to adapt a specific layup (fiber type, plies number and orientation)

- Level 3: specific tubes in terms of diameter

It is important to note that the tube external surface (in contact with the mold) shall be privileged to interface other part. The inner surface considers local plie overlapping and surface relief due to the fabric shrinkage.

Dimensions

EXTERNAL DIAMETER	Ø15, Ø32, Ø50, Ø70
LENGTH	1 9 00mm
THICKNESS	1.65mm

You need further sizes or mechanical properties? MECANO ID is specialized in design, sizing and manufacturing of high performance composite parts. For any specific need or any question, you could contact us at : contact@mecano-id.fr - +33 534 608 400