



**ROSSINI**

## Carbon fibre mandrels and idle rollers



high longevity



humidity  
resistant



manual  
handling



mechanical  
resistance



quality  
certified

Carbon fibre mandrels and idle rollers are designed for reduced weight and high critical/natural speed as well for a minimized deflection to the applied load; they are available with aluminum or steel inserts according to OEM's specs. Lightweight, low-rotational or translational inertia allow faster speeds, reduced vibration, increased bearing lifetime, decreased waste and improved quality of the final products. Better performance than traditional steel mandrel particularly when wide web widths, heavy loads, and faster speeds are needed.

CFKP tube offers numerous advantages compared to steel:

- Massive weight reduction up to 70% lighter than steel
- Adjustable damping
- Very high rigidity or soft if you like

- High thermal stability and thus no deformations in the vicinity of heat sources
- Resonance frequency following your requirements
- Corrosion and chemical resistant roller body
- Very high fatigue strength

Carbon fiber tubes can be coated with most of the same materials that metal rollers can be coated with. Many standard coatings are available like tungsten carbide, chromium, elastomer, polyurethane, but please ask if you need a specific type of coating.

## structure

Carbon, alloy or stainless steel journals are assembled with high modulus carbon fibre tubes designed according to the required load and deflection specified by the OEM drawings. The pneumatic mandrels have a special distribution circuit of the compressed air in closed chamber. Upon request many coatings are available for the carbon tube surface.

## specifications

<b>Carbon fibre tube</b>	Carbon fibre quality and angle of positioning depending by external diameter, length and max accepted deflection to the applied load
<b>Journals raw material</b>	Carbon steel Alloy steel Satinless steel

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**Rossini World**  
 Italy • France • Spain  
 Germany • United Kingdom  
 Romania • Brasil • China  
 United States • India

**Rossini S.p.A. HeadQuarters**  
 Via de Gasperi, 5  
 20027 Rescaldina - Milano - Italy  
 Tel. +39 0331 47 27 11 - Fax +39 0331 57 97 46  
 comm.dept@rossini-spa.it

**WWW.ROSSINI-SPA.IT**