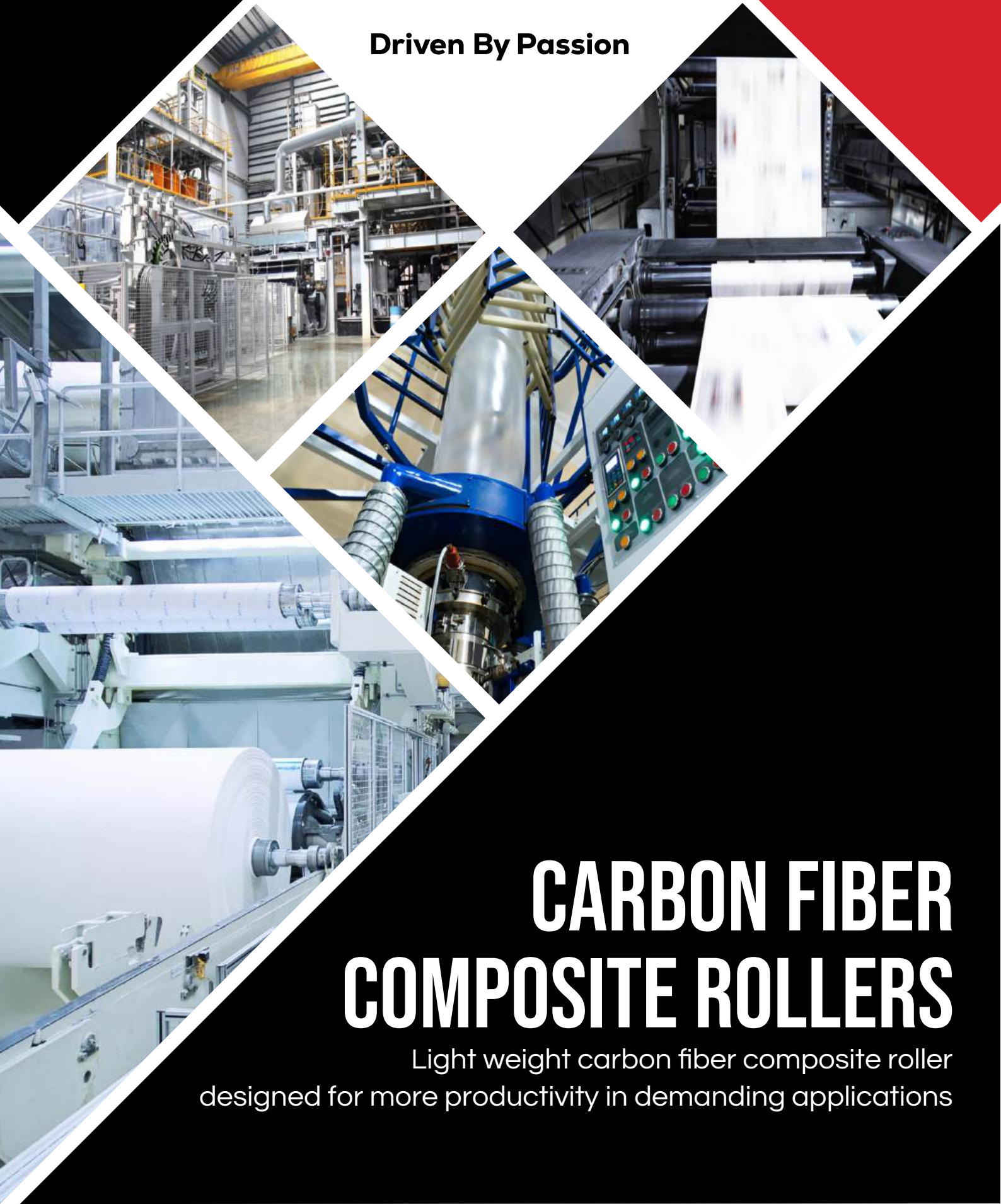




**Driven By Passion**



# **CARBON FIBER COMPOSITE ROLLERS**

Light weight carbon fiber composite roller  
designed for more productivity in demanding applications



# Advanced Manufacturing Excellence in Carbon Fiber Rollers

## Lightweight and Durable Rollers for Every Industry

Carbon Light is a trusted manufacturer of advanced carbon fiber rollers, designed to meet the rigorous demands of modern industrial applications. These rollers combine superior strength, stiffness and lightweight properties, making them ideal for industries such as BOPET, BOPP, CPP Film lines, Slitter, rewinder in Flexible packaging, printing, textiles, paper and material handling.

Our Carbon Fiber rollers are engineered with precision to deliver superior performance in demanding industrial environment. The following specifications highlight the advanced features and capabilities that make our rollers the ideal choice for high-speeds and heavy duty applications.



# Unique high-performance coatings for CFRP rollers

Intelligent, functional design for more productivity...

Carbon Light offers unique high-performance coatings for special purpose roller applications. These coatings offer improved properties to the rollers including:

- High abrasion resistant to handle delicate web materials (avoid scratches on film).
- High hardness coating suitable for special applications (wear resistance, thick film).
- Corrosion resistant coating protect rollers from vulnerable coating chemicals.
- Antistatic coating to avoid dust entrapment.
- Unique surfaces patterns viz, grooving, diamond shape (avoid web wrinkles, attain film flatness).



## Dimensions

Length up to 5500 mm  
Dia up to 800 mm



## Noise Free Operation

Vibration free running  
at high speed



## Innovation

Patented  
Coatings



## Precision

High accuracy, consistent  
and reliable performance



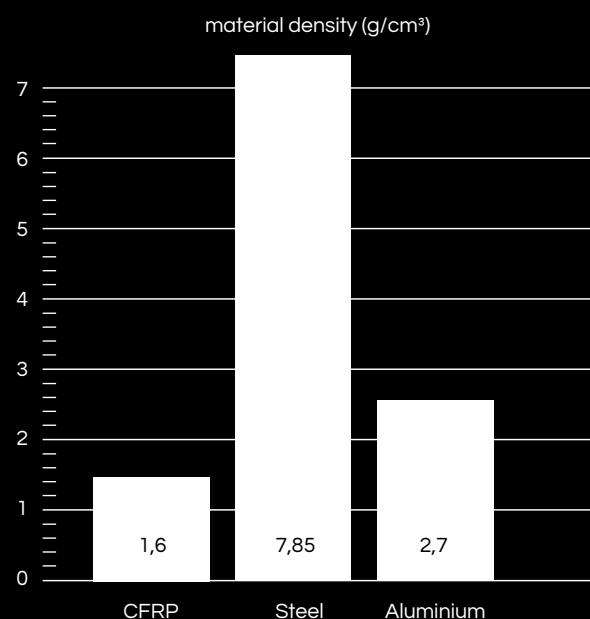
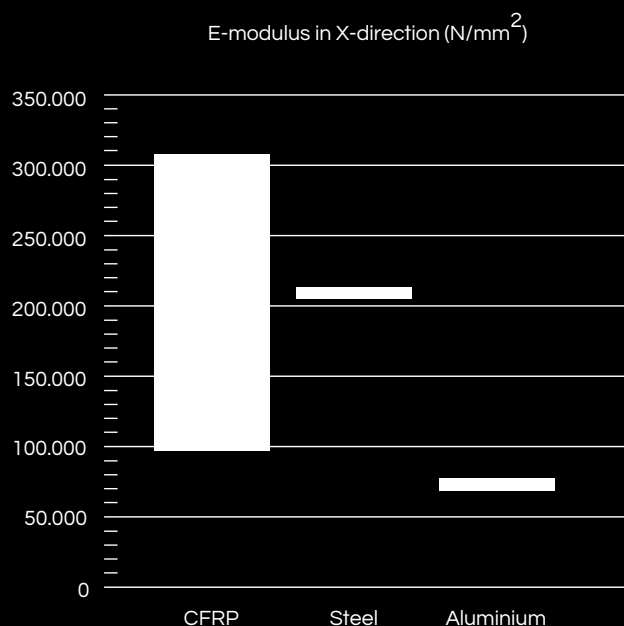
## Agility

Quick response to  
line speed



## Longlife

High stiffness, longer  
bearing life

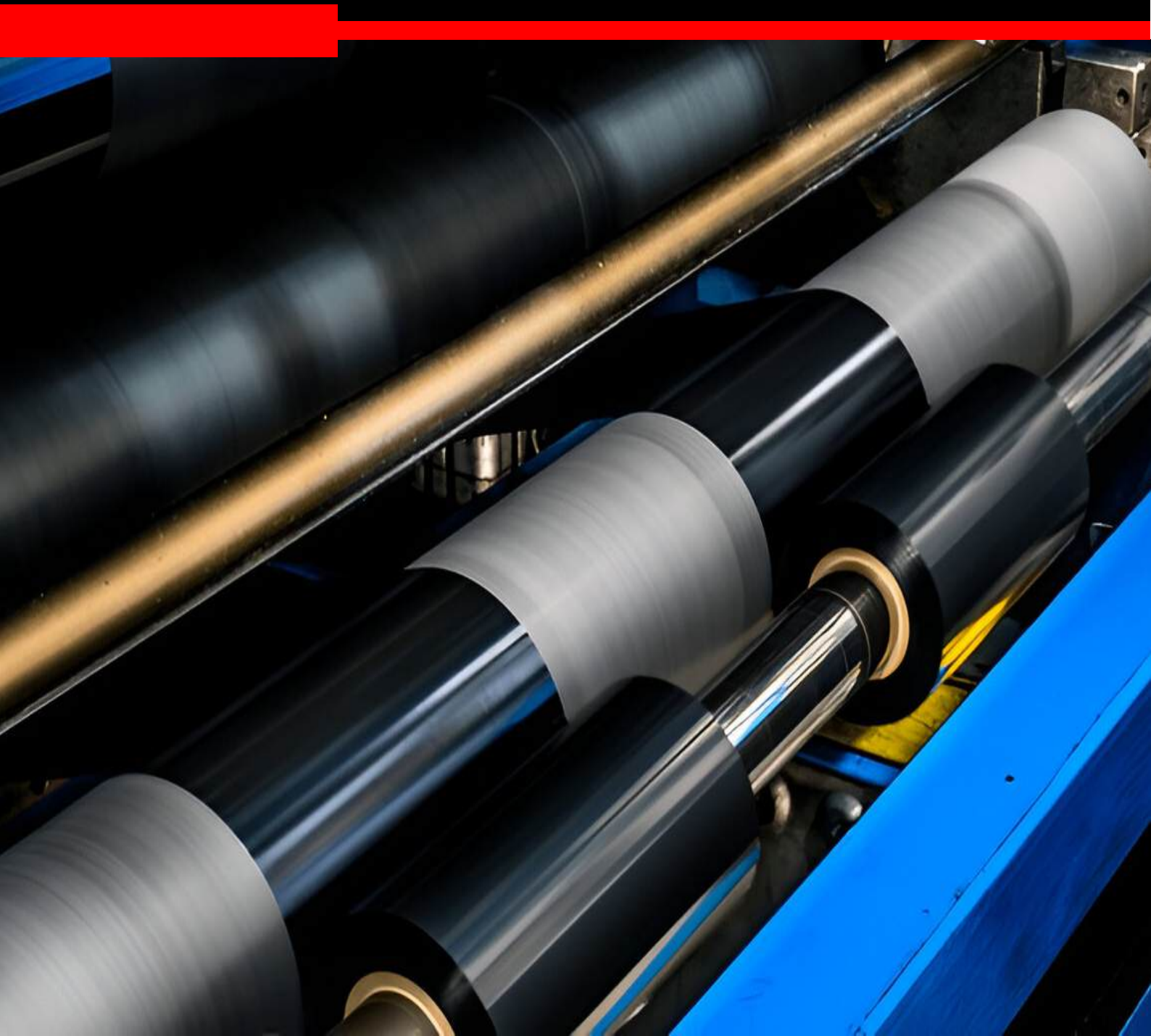




# Carbon light composite rollers for increased process reliability

Our advanced carbon fiber rollers have set a quality benchmark for the industry. We are leading the industry towards the obsolescence of metal rollers. Our rollers are manufactured using high strength CF filaments & highly controlled filament winding process.

Filament winding provides the best manufacturing technique for producing high-strength, fatigue-resistant, high performance composite rollers at affordable prices.



# Carbon fiber rollers increase quality and lower the total cost of ownership

- Improve your web quality — Less web deflection, roller slippage and web breaking.
- Increase your machine output — Our CF rollers are capable to operate at higher speeds than conventional rollers.
- Capable to run at wider web widths — Carbon Light rollers can span longer distances than metal rollers while achieving lower web deflection.
- Reduce your operating costs — Our rollers extend the life of the machine bearing's life due to ultra light weight and provide significantly better corrosion resistance as compared to metal rollers.
- Reduce drive mechanisms — Our ultralight rollers facilitate smooth web movement requiring minimal roller drive mechanism.







## Carbon fiber rollers in the printing, papermaking and allied industries

There is an increasing trend for using carbon fiber in the printing industry for components such as print cylinder sleeves, for easier handling and idler rollers, to achieve higher rotational speeds than metal rollers for a given diameter.

Use of CF rollers are particularly important when wide web widths are used such as in papermaking, polymer film manufacturing, printing and coating, as well as in the manufacturing of substrates such as paper and plastic films. These processes rely on a series of rollers to guide and transport the substrate through the machines and control its tension as well as transfer inks and coatings onto the moving web.

Traditionally these rollers were made of steel or aluminum, however, lighter weight carbon fiber composite rollers are now being used to replace conventional rollers.



# A Unique Portfolio For All Industries

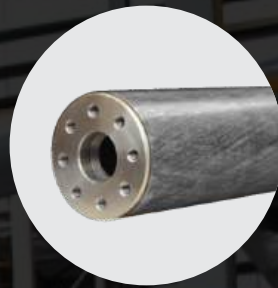
Carbon Light offers carbon fiber rollers that are lightweight and engineered for superior performance at higher critical speed. We deliver custom-configured to meet the unique requirements of each application, ensuring maximum efficiency and durability.



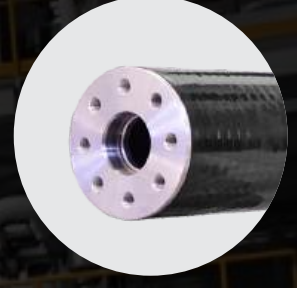
EPDM Coated Diamond  
Grooved Roller



Cork Tape Coated  
Roller



Sacrificial Coating  
Roller



Ceramic Coated  
Grooved Roller



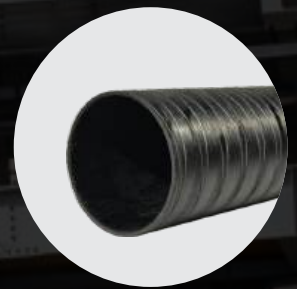
Smoothlite  
Roller



Silicone Coated  
Grooved Roller



Tufflite Coated  
Roller



Tufflite Coated  
Grooved Roller

## Why choose Carbon Light?

Whether it's about parts for R&D concepts or series production, we use our knowledge, experience and skills with integrity and work with passion and care to create excellent solutions. We have the following resources at our disposal for the CFRP rollers and shafts:

- Production of collars and bushings
- Customized production (built to print / built to spec)
- Roller surface according to customer requirements
- In-house balancing
- Our design studio provides support with model simulations
- Thanks to our own R&D to improve our products constantly
- Stringent in-house testing of incoming & outgoing materials and components



## Looking for the right solution?

Whether you are in the concept phase or preparing for series production, our engineers will be happy to provide you a custom tailored solution to you application and quality requirements.

### Carbon Light Pvt. Ltd.

Global Leader of Advanced Composite Products Manufacturer

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