

# **//// PRODUCT AND MATERIAL GUIDE ////**

**CARBON POWERED SHAPES**





# TABLE OF CONTENTS

---

*/// Welcome to our Product and Material guide. ///*

- 4 OUR COMPANY
- 5 PRODUCT LINE-UP
- 6 PRODUCT LINES
  - > STREET LINE
  - > RACE LINE
  - > FULLSIX CUSTOM LINE
- 7 MATERIAL TYPES
  - > FINISH TYPES
  - > LACQUER
- 8 WE GUARANTEE QUALITY
  - > BAR CODE SYSTEM
  - > CERTIFICATE OF AUTHENTICITY
  - > CLAIMS
- 9
  - > PRODUCTION
  - > RESEARCH & DEVELOPMENT
  - > ACM TECHNOLOGIES
  - > AUTOCLAVE TECHNOLOGY VS. WET LAMINATION PROCESS
- 10 ONE-PIECE FUEL TANKS
  - > TECHNOLOGY
  - > STRUCTURE
  - > COATING
  - > BRASS INSERTS
  - > TUBING
- 11 > QUALITY TESTING
- 12 CONTACT

# OUR COMPANY

CDT Group, a company based in the European Union, has been one of the world leaders in the production of high quality carbon fiber parts since 2008, both as an **original equipment manufacturer (OEM)** and as an **aftermarket manufacturer**. Luxury car and motorcycle manufacturers

such as BMW and Lamborghini, and premium motorcycle parts companies who trust their reputation with CDT Group.

The FullSix brand was designed with the desire to achieve perfection. Through the use of precision robotics, first class **autoclave technology**,

advanced composite materials and implementing **ISO 9001 - 2008**, we guarantee our customers will receive only the best carbon fiber products.

## /// FullSix stands for

- > PERFECT LOOK
- > PRECISE FITTING
- > OUTSTANDING PERFORMANCE
- > SUPREME QUALITY ///



# PRODUCT LINE-UP

FullSix offers *the widest product range of aftermarket Ducati parts:*

We have over **90** parts for the Ducati Panigale and counting!

FullSix also offers *unique products* which are not available from any other company such as *one-piece fuel tanks* for the Ducati Panigale, 1098, Streetfighter, Monster

821/1200 and BMW S1000RR/S1000R and *monocoque tail* for the Ducati Panigale.

*FullSix products are currently available for the following superbikes:*

## Ducati

- > Diavel
- > Monster  
696/796/1100
- > Hypermotard
- > Multistrada 1200
- > Streetfighter
- > 749/999
- > 748/916/996/998
- > 848/1098/1198
- > 899/1199 Panigale
- > 1299 Panigale
- > Monster 821/1200
- > Scrambler 2015

## BMW

- > F 800 GS, 2013-
- > R 1200 GS, 2013-
- > S 1000 RR, 2010-2011
- > S 1000 RR, 2012-2014
- > S 1000 RR, 2015-
- > S 1000 R, 2014-
- > R nineT

## MV Agusta

- > Brutale 750/910/1078
- > Brutale 800
- > F3 675
- > F4 750/1000

## Yamaha

- > YZF R1, 2015-

# PRODUCT LINES

FullSix offers three product lines that caters to different performance and cosmetic needs:

## STREET Line

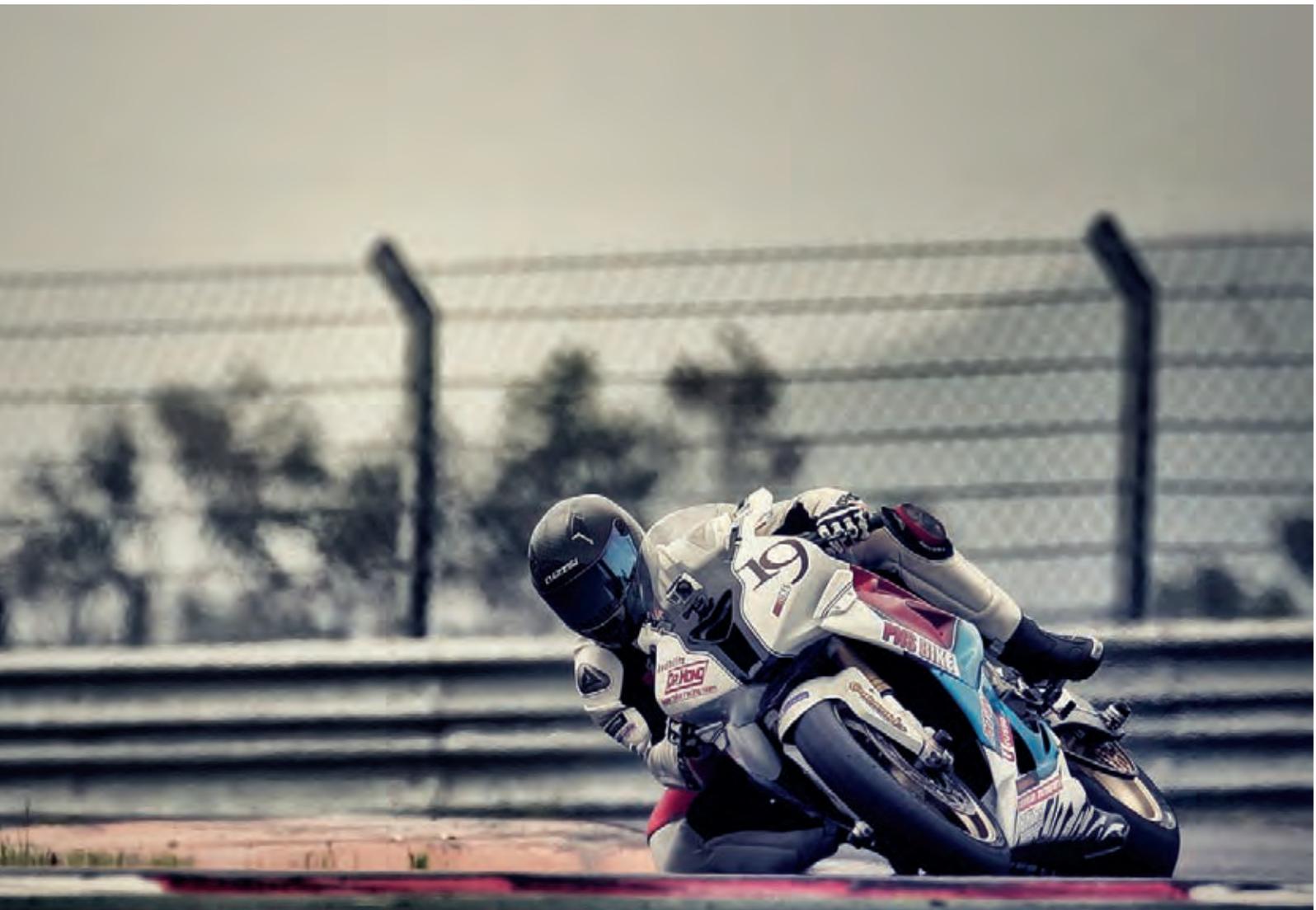
/// Street line parts are carbon fiber components that *replace OEM parts*, to enhance both the visual appearance and performance of your motorbike. ///

## RACE Line

/// *Race line* components are *fully race compliant* and incorporate features from World Superbike and British Superbike, such as *oversized air intakes and improved aerodynamics*, to give you a winning advantage. ///

## FULLSIX Custom Line

/// FullSix Custom components are *exclusively designed in collaboration with renowned motorcycle designers*. ///

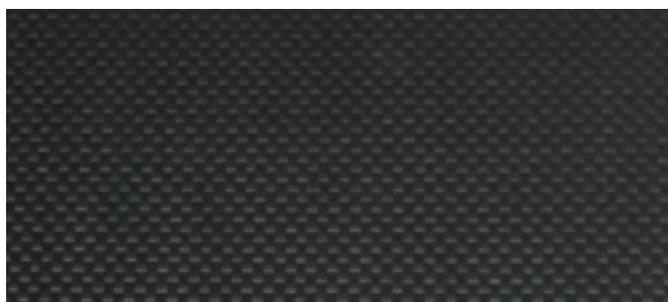


# MATERIAL TYPES

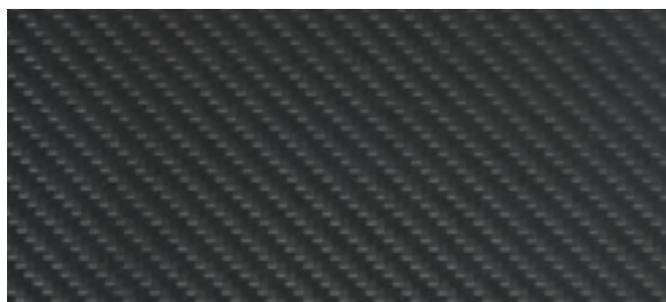
FullSix components are available in a variety of weaves and finishes. Carbon fiber fabrics may be manufactured using a **plain weave** which features a uniform, grid-like pattern or a **twill weave** which features a diagonal pattern. Each weave offers a unique look that can only be achieved with carbon fiber.

Ducati and MV Agusta parts originally feature a 200 plain weave while BMW utilizes a 245 twill weave.

All FullSix parts utilize carbon fiber which is pre-pregated with resin and stored at sub-zero temperatures. Parts made with **“pre-preg”** carbon fiber have more even resin distribution which increases strength and durability and eliminates the problem of pinholes in the finish.



**200 Plain**



**245 Twill**

## FINISH TYPES

FullSix offers three types of finishes for the street and racetrack. Street riders can choose from a **gloss or matte clearcoat** which offers UV protection. Racers have the option of purchasing **paint-ready »raw«** carbon fiber which omits a clearcoat to reduce weight.

## LACQUER

Lacquered FullSix carbon fiber parts feature **UV-resistant** clearcoat which ensures that each piece will maintain its dazzling finish for many years to come. Some manufacturers that offer cheaper autoclaved parts (up to 30% less) finish their products with inexpensive **polishes which don't have UV protection**; within one to two years of exposure to the

sun, those parts will develop ugly brownish-yellow discoloration that cannot be fixed. Don't be fooled by lower prices, it is often achieved through the use of inferior finishing products that cut costs and quality.

**Keep in mind that high quality paint is one of the main factors that increase the price of the product!**

# WE GUARANTEE QUALITY

## BAR CODE SYSTEM

To ensure that CDT delivers only the best parts for your motorcycle, we have developed a **proprietary production monitoring system** that ensures that all FullSix products

are manufactured according to the latest protocols and “best-in-the-industry” standards. Through the use of unique **barcode technology**, CDT Group is the only company in

the market that is **capable of tracing products and monitoring quality throughout the entire manufacturing process**, resulting in products that you can completely trust.

## CERTIFICATE OF AUTHENTICITY

Each FullSix product comes with a **certificate of authenticity** and **is imprinted with a unique serial number and barcode** which allows CDT Group to trace the part through the entire manufacturing process for quality control.



## CLAIMS

Although a significant portion of our manufacturing process is automated, some steps are still performed by human hands. CDT Group implements **quality control points throughout production**, including a final inspection before a part leaves our factory, but we recognize that mistakes may happen.

CDT Group is one of the rare companies which stands behind its promise of quality and **will replace products with a manufacturer's defect without question**. If you are experiencing an issue with installation, fitment or the finish, please provide us with the serial number of your part, a photo of

the defect and a brief description of the issue. For issues with installation or fitment, please submit photos of the parts when mounted. Your feedback is greatly appreciated as it helps us maintain the highest level of quality.

## PRODUCTION

CDT Group is known worldwide for its **quality parts** which are made from only the best materials and technology. We use only five star materials, shaping them into real pieces of art with our **precisely engineered autoclave technology**.

*All steps of of the production process are manufactured to perfection: from the cutting of fabric to the final paint job.*

## RESEARCH & DEVELOPMENT

The CDT Group's R&D team is **constantly monitoring and improving the manufacturing processes** used for the production of high-tech carbon-fiber composite products.

Our R&D is oriented towards functionalization of high-quality carbon-fiber composite parts and the launching of innovative products exhibiting state-of-the-art properties. Current major R&D projects are focused in

the development of **Autoclave Composite Monocoque (ACM) technology and utilizing nanotechnology to produce superior parts.**

## ACM TECHNOLOGIES

CDT Group is the inventor of Autoclave Composite Monocoque (ACM) technology and is **the only company in the world that is able to produce a high decorative finish complex-shaped closed-body monocoques out of a single carbon fiber-based unit** (e.g. one-piece fuel tanks for motorcycles).

Since ACM allows CDT Group to manufacture parts as a single piece rather than combining two or more pieces together, a great deal of cutting, trimming and bonding is eliminated from the production process.

In contrast to conventional bonding, **ACM technology provides monocoques with supreme mechanical strength, significantly reduced weight, chemical resistance and a flawless finish.**

## AUTOCLAVE TECHNOLOGY VS. WET LAMINATION PROCESS

**Autoclave technology** utilized by CDT Group **has numerous advantages over the wet lamination / wet lay-up techniques** used by many competitors, resulting in parts with superior visual appearance, fit and performance:

- > **Autoclaved parts are thinner and lighter yet stronger and stiffer.**
- > **Autoclaved parts** can be manufactured with **higher levels of precision and detail** which is essential when replicating OEM specifications or creating intricate shapes.
- > **Wet laminated parts suffer from pin holes in the finish due to high porosity.**
- > **Wet laminated parts suffer from fiber distortions** which have a negative impact on the visual appearance of the part surface.

*“The only drawback to autoclaved parts is that the material and manufacturing costs are higher compared to wet laminated parts; however, the additional costs translate into superior levels of strength, precision and beauty which cannot be achieved through any other manufacturing techniques.”*



# ONE-PIECE FUEL TANKS

Despite claims *that it was impossible, CDT Group has successfully developed* innovative ACM technology to manufacture flawless hollow carbon fiber parts. We have *developed a fuel tank that solves the problems that have plagued carbon fiber tanks in the past.* The risk of leaking seams caused by temperature fluctuations or the dissolving of the glued seams by fuel meant that they were only bought by the bravest of motorcyclists. Rest-assured, today you can forget the difficulties associated with fuel tanks made of two halves which made carbon fiber fuel tanks the most dangerous part of a motorcycle.

## TECHNOLOGY

Using our *proprietary Autoclave Composite Monocoque (ACM)* technology, CDT Group can produce components that are *up to 75% lighter* than their OEM counterparts.

## STRUCTURE

Our multi-layered monocoque structures are designed *for maximum strength and visual appeal.* Each piece begins with a hybrid shell that is designed to maintain structural integrity and prevent deformation under

stress. Next, protective layers of composite materials are applied to reinforce key areas and resist tank punctures that may be caused by penetration or abrasion (e.g. in the event of a crash). Finally, a decorative layer that becomes the brilliant exterior that you see is applied.

## COATING

Each fuel tank receives *internal coatings* which is *gasoline and ethanol resistant* so that all surfaces that make contact with fuel are not affected chemically.

## BRASS INSERTS

*Brass inserts* are pre-laminated to prevent micro-corrosion. The geometry of each insert is studied to *prevent the inserts from rotating and separating from the tank* when under high stress.

## TUBING

CDT Group uses *multi-layered internal tubing for fuel tanks as used by OEM manufacturers.* They are *resistant to gasoline and ethanol* and are specifically designed to fit each fuel tank.



## QUALITY TESTING

Each FullSix fuel tank design must pass **a point of impact test** which simulates puncture damage. Each tank must be able to resist the force of a 15kg weight dropped from a height of 1m that lands in a 3mm point

of impact. No punctures are permitted.

To demonstrate our commitment to quality, CDT tanks are **manufactured in accordance with build requirements established by European**

### **Commission for fuel tanks**

(Directive 97/24/EC, Chapter 6, Annex I) and includes testing for permeability, shock absorption, mechanical strength, fuel-resistance, fire-resistance and high-temperature resistance.





To see full product list of carbon fiber parts for cars and motorcycles, visit us at  
[www.fullsixcarbon.com](http://www.fullsixcarbon.com)

Place for your contact  
information