

TECHNICAL INTRODUCTION
REV.02

WILIER
TURBINE

**WILIER
TURBINE****TURN POWER INTO SPEED**

2

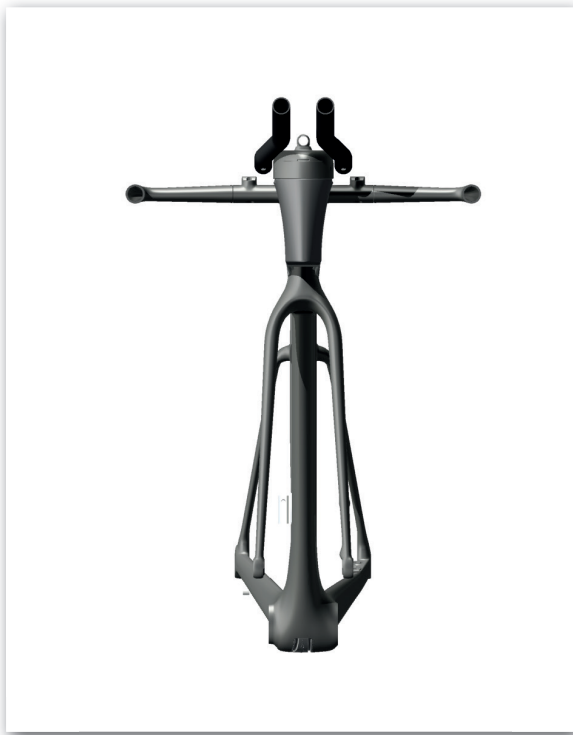
WILIERPEDIA 2019

TRIATHLON / TIME TRIAL

A frame with unique features and a host of innovative aspects, providing the perfect response to the needs of triathletes around the world. A product developed on the basis of four fundamental pillars: aerodynamics; braking efficiency; wide range of positions; ease of transportation.

The ultimate synthesis of these key elements, Wilier Turbine is the new triathlon and time trial frame that embodies all of Wilier Triestina's expertise in the quest for maximum speed.

Wilier Turbine transforms your power into speed, offering the highest possible levels of performance.



AERODYNAMICS, INTEGRATION AND DISC BRAKE

Wilier Turbine was designed using NACA aerodynamic profiles and boasts a truncated rear tail, reducing weight and increasing torsional stiffness. The hydraulic disc brake not only provides superb braking safety in all weather conditions, it also increases the aerodynamic efficiency of the frame. It might seem strange, but this type of braking system enables the outer tubes of the front fork and the rear triangle to be positioned further away from the wheel: this leads to a dramatic reduction in turbulence, improving aerodynamic penetration. The aerodynamics study also focused on the handlebar stem/curve, which we designed directly. The profile of the Wilier Turbine stem is perfectly integrated with the fork, transforming it into a single, streamlined component with no protrusions or cavities. The resulting aerodynamic line is of the highest possible level.



POSITIONING

The number of ergonomic positions that can be achieved with the Wilier Turbine frame are almost infinite. With three frame sizes available, along with three types of seat post and a revolutionary new handlebar design, we can meet the needs of both the world of time trial and triathlon, two sports which call for very different riding styles.



COMPACTABLE HANDLEBAR

We know that travelling the world with a triathlon bike can be complicated: The Wilier Turbine boasts special monocoque carbon handlebars which can be compacted in less than a minute without removing any cables and - above all - without losing the original set-up: an essential feature which facilitates transportation of the entire bike, as well as making it easier to store at home or in the garage.



WILIER
TURBINE

COLOR	BLACK / RED Black / Red
FINISH	MATT & GLOSSY
COLOR CODE	T8



COLOR	BLACK / YELLOW
FINISH	MATT & GLOSSY
COLOR CODE	T9



WILIER TURBINE

COLOR	LIGHT BLUE
FINISH	MATT & GLOSSY
COLOR CODE	T10



COLOR	ASTANA TEAM REPLICA
FINISH	GLOSSY
COLOR CODE	T11



SIZES AND GEOMETRIES



MISURA	H	C/C	L	L1	H1	A	A1	REACH	STACK
	[cm]	[cm]	[cm]	[cm]	[cm]	[°]	[°]	[mm]	[mm]
XS/S	48	47.8	52.0	40.5	8.2	76	72.5	39.7	48.7
M	52	51.8	54.9	40.5	11.8	76	72.5	41.8	52.1
L/XL	56	55.8	57.9	40.5	15.3	76	72.5	43.9	55.5



FRAME KEYPOINTS

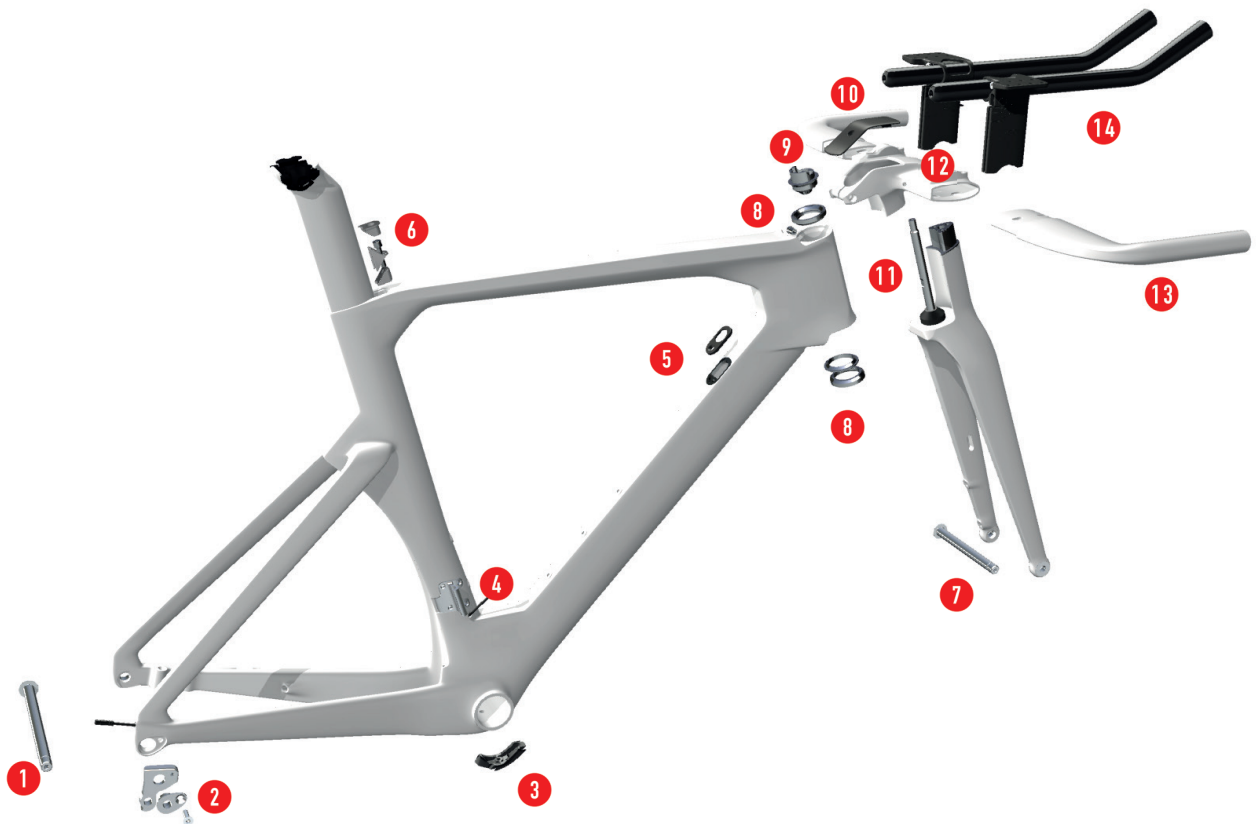


APPROXIMATE TIGHTENING TORQUES

LIST	Nm	LIST	Nm
ALU/CARBON STEM ON ROAD AND MTB	5	COLLAR COMMAND LEVERS ON CARBON MTB HANDLEBAR	4
SHIMANO/CAMPAGNOLO/FSA CRANKSET 386 (central bolt)	40	BOLTS FOR WATER BOTTLE CAGE	2.5
CRANKSET GEAR BOLTS LIGHT ALLOY	10	101 SR SEATPOST WITH DOUBLE REGULATION CLAMP	8
BOTTOM BRACKET (threaded coupling)	30	EXPANDER CAP	4
REAR DERAILLEUR BOLT	8	PEDALS	40
FRONT DERAILLEUR BOLT ROAD (integrated)	7	SEATPOST	4
FRONT DERAILLEUR BOLT ROAD (cable tie)	3	THRU AXLE HUBS	3/4
FRONT DERAILLEUR BOLT MTB (integrated)	7	FORK EXPANDER	8
FRONT DERAILLEUR BOLT MTB (a fascetta)	3	BRAKES (caliper,disc)	5
COLLAR COMMAND LEVERS ON ALU ROAD HANDLEBAR	10	INTERCHANGEABLE FIXING SCREWS	3
COLLAR COMMAND LEVERS ON CARBON ROAD HANDLEBAR	8	PASSING SCREWS CABLE GUIDE PLATE	3
COLLAR COMMAND LEVERS ON ALU MTB HANDLEBAR	5	REPLACEABLE FIXING SCREWS CABLE STOPPERS	5



SPARE PARTS LIST



	B2B CODE	DESCRIPTION
1	WTPTA12171	REAR THRU AXLE
2	HGACCE59.5	DROPOUT
3	HGACCE39.5	PLATE CABLE GUIDE
4	WTP110A-7-	F/D MOUNT
5	WTP-TT-PLATE	DT PLATE
6	WTP110A-9	EXPANDER TURBINE
7	WTPTA12126	FRONT THRU AXLE
8	MR155	FSA BEARINGS
9	WTP-TT-CONE	CENTERING CONE
10	WTP-TT-COVSTEM	STEM COVER
11	WTP-TT-PIN - S	STEERING PIN S SIZE
	WTP-TT-PIN - M	STEERING PIN M SIZE
	WTP-TT-PIN - L	STEERING PIN L SIZE
12	WTP-TT-STEM	TURBINE STEM
13	WTP-TT-HBAR	TURBINE BARS
14	WTP-TT-AERO	AERO EXTENSIONS
	WTPTURB-HYDR	HYDRATION SYSTEM



FAQ

Is it possible to fold the handlebar?

The Turbine has been designed for ease of packing and transportation. The handlebars can be dismantled in less than one minute without disconnecting any cables or hoses and reassembled without changing ride position.

How can I find the best configuration to optimise my ride-position?

With three frame sizes available and an innovative handlebar design with an almost infinite number of adjustments available, the Turbine can accommodate almost any desired ride position. Download the Fit-Guide from the Support Section on the Wilier website to assist with ride position configuration.

How many seatpost types can be installed?

It is possible to mount three different kinds of seatpost: -25/0/+65.

What brake systems can be fitted?

Only hydraulic disc brake systems can be fitted to Turbine. Indeed, the disc brake has a high braking efficiency in every weather condition, increasing the aerodynamic efficiency too.

Where is possible to buy Turbine?

It is possible to buy Turbine in any official Wilier Triestina dealer. Check the following page to find the closest dealer to your place: <https://wilier.com/en/dealer-locator>

How is it possible to pack Turbine when travelling?

Turbine can be quickly and easily dismantled for travel. It will fit into a wide range of standard bike bags and boxes, such as the range offered by Scicon.

Where can I see Turbine in action?

Turbine has been designed for triathlon racing at the highest level. Our Wilier sponsored athlete Andreas Drietz is taking part in races worldwide on a Wilier Turbine, including the prestigious Ironman World Championships in Kona. The Turbine will also be raced in the Pro Peloton by the Direct Energie Pro Cycling Team.

What are the key aerodynamic features of the frame?

All aspects of the Turbine frame have been optimized for aerodynamic performance with extensive use of aerodynamic NACA profiles with truncated Kamm Tail aerofoil sections to save weight and increase torsional stiffness. The handlebar has been developed as a single aerodynamic entity and has an extremely wide range of adjustment.

Which groupsets are available on Turbine?

Turbine is available with electronic groupsets from Shimano and Sram.

