

# SPECIFICATION AND DESCRIPTION P2006T

This document applies only to the Tecnam P2006T and is published for the purpose of providing general information for the evaluation of design, powerplant, performance and equipment.

#### http://www.tecnam.com/aircraft/P2006T/



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Cover photo: P2006T flying over Capri island

### **GENERAL DESCRIPTION**

# TECNAM P2006T IN A CLASS OF ITS OWN

The Tecnam P2006T Twin has established itself as the aircraft of choice for not only the world's most reputable Flight Training Organisations but private owners alike. A firm favorite with leading General Aviation fight-test journalists, who praise its styling, handling, and very low operating costs.



NASA Leaptech

With so many P2006T already in service worldwide, it consistently comes out on top following the most stringent of competitor fly-off evaluations. Not just from Flight Schools but Tecnam has also won orders from NASA, a number of Air Forces and other niche operators who now fly specialist versions of the Twin, such at the P2006T SMP version too.

At the heart of the P2006T is the Rotax912S aircraft engine. The Rotax 912S is FAR 33 certified and is currently the only aircraft engine approved to operate on automotive fuel, giving it a significant edge over standard GA engines.

Some of the key benefits of the P2006T's engines include a reduced frontal area and better power-to-weight ratio. Lower fuel consumption, lower propeller rpm resulting in higher efficiency and a lower noise profileand stable cylinder head temperatures due to liquid cooling. It's relatively high power to weight (rated at 73 kW/100 hp) makes the Rotax 912S a popular choice in the aviation industry. This twin-engine formula offers higher safety and lower operating costs than its single engine counterparts. The P2006T light twin-

engine aircraft has in fact a lower standard empty weight than comparable single engine four seat aircraft in the 180 hp or 200 hp class.

The Tecnam P2006T has the best Payload/Maximum Takeoff Weight ratio (0.36) among its direct competitors. This can be attributed to the high structural and systems efficiency and because of the excellent power to weight ratio of the Rotax engine.

The wing-mounted engines relieve the aerodynamic load on the wing with a consequently lighter structure. The remarkable efficiency of the Tecnam P2006T is also attributable to the low propeller speed and the low engine drag. These, together with a streamlined fuselage, result in unparalleled aerodynamic efficiency.

Boasting the highest ceiling and climb speed among its competitors, operators especially value the option to use automotive fuel as well as AVGAS. This not only leads to dramatically reduced direct costs but also makes it possible to fly in areas where AVGAS is difficult to find or perhaps prohibitively expensive. The dependable

twin-engine configuration of the Tecnam P2006T allows it to be flown over long distances and in areas where ground facilities are poor.

The Tecnam P2006T high wing feature is unique in its class and is especially valued by operators in the training environment as a further safety benefit as the engines and the props are out of the way in the event of a gear up landing.

#### Construction

Tecnam P2006T is a twin-engine four-seat aircraft with fully retractable landing gear. The superior high-wing configuration offers stability, superior cabin visibility and easy access for passengers and luggage. Tecnam has used its extensive experience with aluminum airframes to create in the Tecnam P2006 a robust yet very light airframe, resulting in an outstanding payload-to-total weight ratio.

The wings are of traditional construction, that is essentially a mono spar configuration. Integral fuel tanks are located outboard of the engines, holding 100 litres each for a total of 200 litres.

A laminar flow NACA 63A airfoil of moderate thickness has been selected for the semitapered wing platform. This offers low drag and good high altitude performance. The wide slotted aluminum flaps are electrically operated and allow for stall speeds below 48kts. These flaps offer the potential for very steep approaches and short landings. Frise ailerons allow aggressive roll rates with minimal adverse yaw. Aileron control is via internal cabin

cables linked to push-rods in the wing leading edges. Particular attention has been paid to the cabin's structural design in order to ensure the required crashworthiness as prescribed in recent amendments to the FAA-FAR23 and EASA-CS23 codes. Fuselage structure, seats and seatbelts combine to protect occupants in event of a hard landing. The Tecnam P2006T's ability to conform to such rigid safety requirements has been proven during dynamic tests carried out by a certified laboratory, demonstrating forward load factors up to 26g. The horizontal stabilator is an all-moving structure, designed for remarkable longitudinal control stability with excellent control authority. A wide trim-tab, part of the stabilator trailing edge, doubles as an anti-servo tab device. The cabletype pitch trim is controlled by a wheel located between the pilots' seats and is fitted with a position indicator. As with most of the aircraft body, the horizontal stabilator and the vertical fin are metallic. The rudder features an electrically controlled trim-tab with a position indicator situated on the instrument panel.

#### Landing gear

The retractable landing gear of the Tecnam P2006T is powered by a reversible electric pump. The main landing gear has trailing link suspension, constructed from high strength aluminum alloys and high tensile 15CDV6 steel which is directly attached to the fuselage main bulkheads. An oleopneumatic shock absorber provides excellent

ground load absorption.

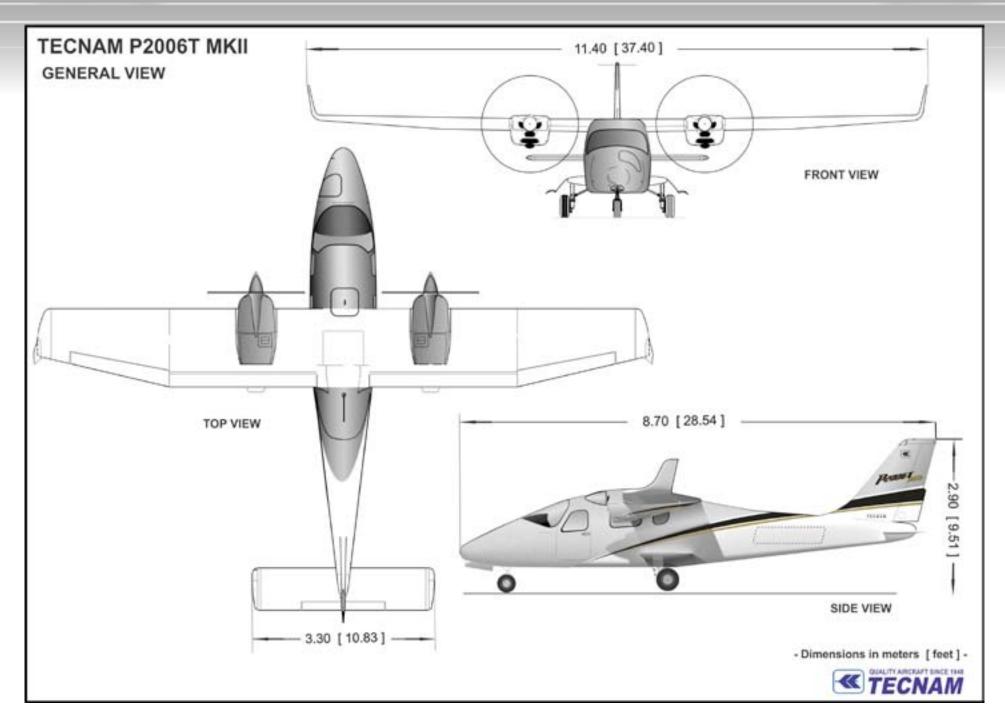
The main landing gear retraction is very simple, rotating through 90° into two fuselage side pods. The main gear of the Tecnam P2006T is actuated by an aluminum pushrod, which is connected to the hydraulic ram. The main landing gear is equipped with Cleveland wheels (6.00-6) and rudder pedals with toe brakes. The nose landing gear features a 5.00-5 wheel and telescopic strut with an oleo-pneumatic shock absorber. It is linked to the cabin's front bulkhead through a steel truss.

The gear extension of the Tecnam P2006T is fast for higher safety and is operated by a hydraulic ram through a drag brace, which in turn locks it into the down position. When extended, the nose wheel is connected by push-rods to the rudder pedals. A system of lights and a warning horn informs the pilot of the status of the landing gear's, extended/retracted position.

A back-up system ensures the gear can be extended even in the event of a main system failure.

#### Certification

The Model P2006T is certified to the requirements of EASA CS-23 - FAR 23 including day, night, VFR and IFR. Export certification requirements may require additional equipment and charges.

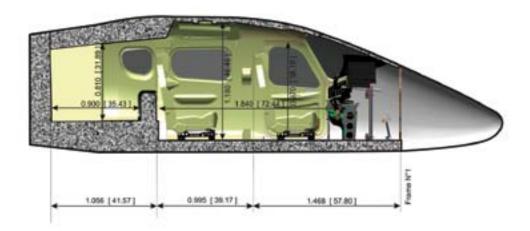


# EXTERIOR AND INTERIOR DIMENSIONS

The generous interior dimensions of the Tecnam P2006T allow maximum space for pilots and passengers alike. With its two doors, its upholstered seats complete with headrests and vertical adjustment, the cabin provides great flexibility for pilots of varying physical size to optimise their comfort.

Each seat is provided with three-point seat belts with inertia reel. Specific care has been given to cabin interiors and acoustic comfort. The ventilation system features one vent outlet for each occupant. The heating system uniformly warms the cabin and a defrost manifold prevents the windshield from fogging up even while taxiing.

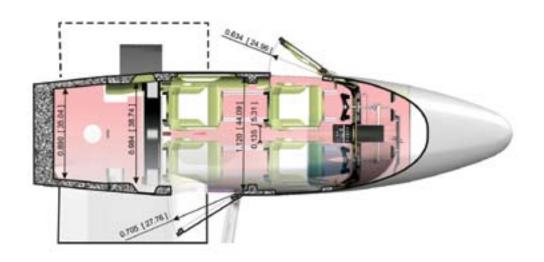
Large windows, together with the high wings, provide excellent visibility for a very pleasant flight, as well as for safe ground operations. The cabin has a spacious luggage compartment of 350 litres, which is easily accessible.



Dimensions	ft	m
Overall Height	8.46	2,58
Overall Length	28.5	8,7

Wing	ft	m
Span (overall)	37.4	11.4
Area	159.1 ft <sup>2</sup>	14,8 mq

Cabin	ft	m
Height	3	0,91
Width	4	1,22
Cabin lenght with baggage	11	3,35



DESIGN WEIGHT AND LOADING	STAND	STANDARD VFR		
DESIGN WEIGHT AND EGADING	kg	lb		
Maximum Take Off Weight	1.230	2,712		
Empty Weight, VFR Standard	819	1,806		
Useful Load	411	906		
Baggage allowance	80	176		
Limit Loads Factor	+3,8	+3,8 -1,78 G		
Ultimate Loads Factors	+5,7 - 2,67 G			

DEDECOMANCE	STAN	STANDARD		
PERFORMANCE	Variable Pi	Variable Pitch Propeller		
Max Cruise Speed KTAS	150 kts	278 km/h		
Stall Speed (Flaps Down Power Off) KCAS	55 kts	102 km/h		
Practical ceiling	14000 ft	4267 m		
Take off run	988 ft	301 m		
Take off distance	1293 ft	394 m		
Landing Run	758 ft	231 m		
Landing Distance	1145 ft	349 m		
Rate of climb	1036 ft/min	5,3 m/sec		
Range	669 NM	1239 km		



### **POWERPLANT & ACCESSORIES**

The Tecnam P2006T is equipped with two four-cylinder four-stroke Rotax 912S engines of 100hp (73kW) each. These are liquid cooled with an integral reduction gearbox (1:2.4286) driving constant speed propellers with pitch feathering devices.

Engine mounts are made of high strength chromemolybdenum steel tubes with the engines mounted on vibration absorbing mounts.

Very easy and convenient access to the engine compartment allows for fast daily inspections. From an operational point of view, the following benefits of the Tecnam P2006T should be stressed: the option to use either automotive fuel or AVGAS allows operators to dramatically reduce the direct costs, making it possible to fly to locations where AVGAS is difficult to obtain or prohibitively expensive.

The twin-engine configuration of the Tecnam P2006T is extremely dependable, enabling the aircraft to travel long distances over water or

rough terrain. The fuel system features two fuel tanks integral with the wing box for a total capacity of 200 litres.

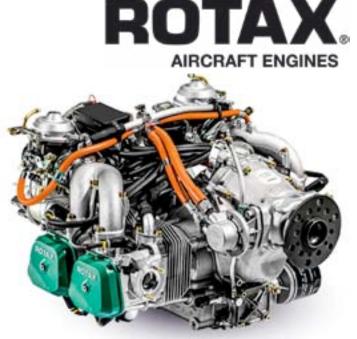
Each engine is equipped with a mechanically driven fuel pump with an electric backup pump. Tank selection and cross feeding are controlled by two valves positioned overhead the pilot.

### **ROTAX 912 S3**



- 4-stroke liquid-/air-cooled engine with opposed cylinders
- Dry sump forced lubrication with separate oil tank, automatic adjustment by hydraulic valve tappets
- · Mechanical fuel pump
- · Dual electronic ignition
- Propeller speed reduction unit
- · Air intake system
- · Gearbox Reduction Ratio 2,43:1





### STANDARD EQUIPMENT

#### FLIGHT INSTRUMENTS and INDICATORS

Magnetic Compass

Airspeed Ind., Kts, Two

Altimeter Dual Mode (In/Mb), Two

Vertical Speed

**Directional Electric** 

Attitude Horizon Electric, Two

Turn and Bank Indicator

O.A.T.

Pitot System Heated

Static System

Alternate Static Source

Stall Warning Audible

Landing Gear Position Light, Three

Landing Gear-In-Transit/Not Locked Light

Stabilator Trim Position Indicator

**Rudder Trim Position Indicator** 

#### **ENGINE INSTRUMENTS**

Tachometer + Hour Recorder, Two

Manifold, Dual

Oil Press, Two

Oil Temp., Two

Head Temp., Two

Fuel Press., Two

Ammeter

Voltmeter

Lh + Rh Fuel Qty

Annunciator Panel Lighted Push To Test:

-Lh Low Fuel

- -Rh Low Fuel
- -Lh Low Oil Press
- -Rh Low Oil Press
- -Lh Low Voltage
- -Rh Low Voltage
- -Pilot Door Open

#### **FLIGHT CONTROLS**

Hydraulic Toe Brakes

Parking Brake

Electric Flaps

**Dual Flight Controls** 

Steerable Nose Wheel

Aileron and Elevator Lock

Stabilator Trim (Manual)

**Engine Controls** 

- -Throttle, Two
- -Propellers, Two
- -Carburettor Heat, Two
- -Choke, Two

Flight Trim Controls

- -Rudder With Indicator
- -Stabilator With Indicator

Landing Gear, Retractable Electro-Hydraulic

Landing Gear Selector Switch

Landing Gear Warning Horn

Landing Gear Emergency Extension

Fuel Control Selector With On/Off Crossfeed

Overhead Panel Switches:

-Starter Lh and Rh

- -Fuel Pump Lh and Rh
- -Left Engine Lh and Rh Ignition Switches
- -Right Engine Lh and Rh Ignition Switches

#### **ELECTRICAL SYSTEM**

12 volt 35 AH gill 35a

12 volt alternators-40 amp., two

rocker switches internally lighted

- -master switch
- -landing light
- -taxi light
- -navigation lights
- -strobe light
- -pitot heat
- -map light

external power supply receptical

circuit breaker panel

static discharge wicks

#### **FUEL SYSTEM**

Two Integral Fuel Tanks With 200 Litres

**Total Capacity** 

Engine Driven Fuel Pumps, Two

Auxiliary Fuel Pumps, Electric, Two

Fuel Tank Quick Drain, Two

2 X Shut Off Valves With Cross Feed

#### **INTERIOR**

Pilot and Co-Pilot Seats Simulated Leather

- Adjustable Fore and Aft

- Vertical Adjustment
Two Rear Passenger Seats
Seat Belts & Shoulder Harness, All Seats
Wall To Wall Carpeting
Fire Extinguisher
Map & Storage Pockets
Radio Call Plate
Tow Bar
Soundproofing
Luggage Compartments
Overhead Cockpit Speaker
Four Position Intercom System
First Aid Kit

#### **INTERIOR LIGHTING**

Avionics Instruments Internally Lighted Avionics Radios Internally Lighted Engine Instruments Internally Lighted Flight Instruments Internally Lighted Compass Internally Lighted Map Light Dimmers

#### **EXTERIOR**

Epoxy Corrosion Proofing, All Structure Lh Front Door Pilot/Co-Pilot, Lock and Key Rh Rear Door Passenger Rear Window All Windows Tinted
Retractable Landing Gear
Tie Down Rings
Main Wheels, 6.00 X 6 - Nose 5.00 X 5

#### **EXTERIOR LIGHTS**

Nav. Lights LED With Strobe Full LED Tso Vertical Tail Strobe Landing/Taxi Light LED

#### **CABIN COMFORT SYSTEM**

Windshield Defroster Ventilator Adjustable, 4 Place Heating System

Oil and Water Coolers, Two

#### POWERPLANT and PROPELLER

Engines - 2 Rotax 912S3 100 Hp, 4 Cylinders Liquid/Air Cooled, Integrated Reduction Gear Dual Ignition System Throttle Control Lh/Rh Tubular Steel Engine Mount Propellers - 2 Mt, 2 Blade, Constant Speed, Full Feathering Propeller Spinner, Two Propeller Control Lh/Rh Air Filter, Two Carburettor Heat With Manual Control

#### PRODUCT SUPPORT/DOCUMENTS

Manufacturer's Full Two Year Limited Warranty Pilot's Operation Handbook Maintenance Manual Parts Catalog Aircraft Log Book Engine Log Book

#### STANDARD GARMIN AVIONICS PACKAGE

- GTN 650 COMM/NAV/GPS Multifunction Display with GI-106A VOR/LOC/GS/GPS Indicator
- GNC 255A COM/NAV with MD200 VOR Indicator
- · GTX 345 Transponder ADS-B OUT
- GMA 340 Audio Panel

Others:

- DME KING KN63 with KD572 Indicator
- Microphone Telex 100T
- · Pilot and Co-Pilot Ptt
- ELT 406 ARTEX



## STANDARD AVIONICS





#### STANDARD GARMIN AVIONICS PACKAGE

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- GNC 255A COM/NAV with MD200 VOR Indicator
- GTX 345 TRANSPONDER ADS-B IN/OUT
- GMA 340 AUDIO PANEL Others:
- DME KING KN63 with KD572 Indicator
- MICROPHONE TELEX 100T
- PILOT and CO-PILOT PTT
- ELT 406 ARTEX

### **AVIONICS OPTION 1**





#### **GARMIN G950 PACKAGE**

*Includes the following equipment:* 

- G950 Integrated Flight Deck System
- GDU-1040 Primary Flight Display (PFD)
- GDU-1040 Multi-Function Display (MFD)
- GDC-74A Air Data Computer with OAT Probe
- GRS-77 AHRS
- GMU-44 Magnetometer
- GMA-1347 Digital Audio Panel with Marker Beacon/Intercom
- GTX345R Mode S Transponder (ADSB IN and OUT)
- Dual GIA-63W NAV/COM/GPS/WAAS with GS#1
- · MD302 Back Up instrument
- DME KING KN63 Integrated control displayed on PFD

Non-Additive. Replaces all Standard Avionics.

### **AVIONICS OPTION 2**

### **P2006T MkII**







#### **GARMIN G1000 Nxi PACKAGE**

*Includes the following equipment:* 

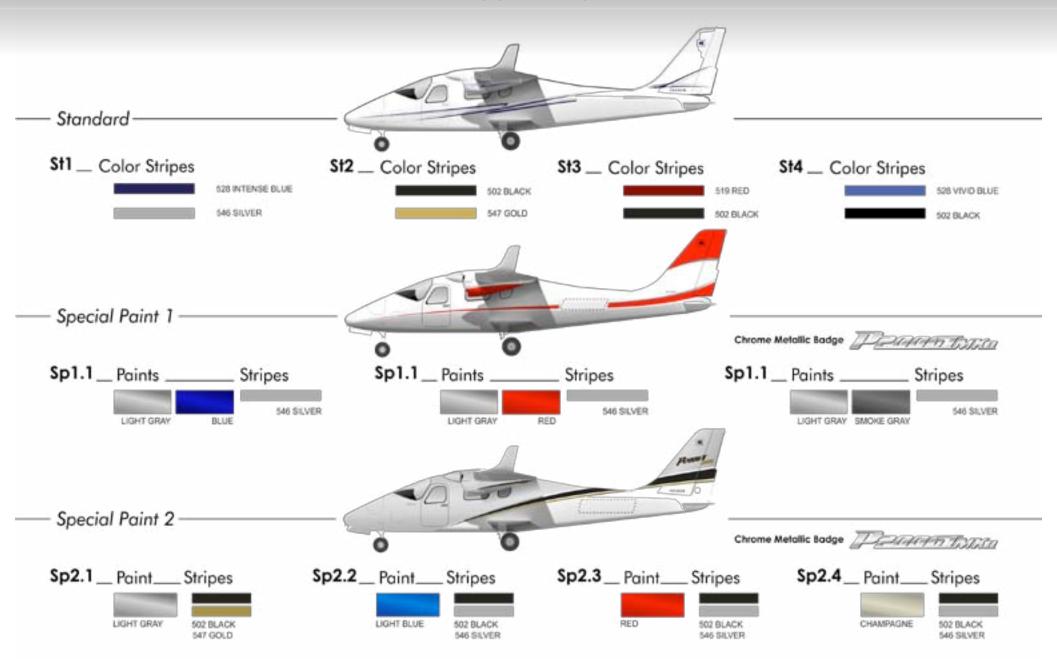
G1000 Nxi Integrated Flight Deck System, includes:

- GDU 1050 1O-inch PFD
- GDU 1050 1O-inch MFD
- Dual GEA 71 Engine & Airframe unit
- Dual GIA 63WAAS Com/Nav/GPS/GS/LOC
- GMA1347 Digital audio system
- GMU44 Magnetometer
- GDC72 Air data computer
- GRS79 AHRS
- GTP59 OAT
- GTX345R Mode S Transponder (ADSB IN and OUT)
- MD302 Back Up instrument
- DME KING KN63 Integrated control displayed on PFD

Non-Additive. Replaces all Standard Avionics.



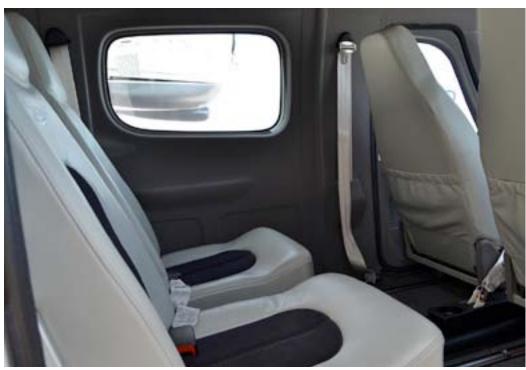
# **PAINT SCHEMES**





# **INTERIOR**

Premium Leather anthracite gray



P2006T Premium Interior

Standard Interior comes with blue seats and ivory cabin.

**Premium option** makes your aircraft more precious: Alcantara leather and a dark ceiling improve your flying experience with unique ingredients. Your aircraft interiors is now more exclusive and comfortable while guaranteeing absolute compliance with the industry's strictest standards.



Premium Leather anthracite light gray

# **OPTIONS**

### Standard Analogue Version

Code	Kg	Description
T101	5,5	KCS55A HSI Slaved Compass System (exchange for Standard DG with Heading Bug)
T102	6,0	GTN 650 Com/Nav/GPS with Antennas and inst. with GI106A Indicator
T103	6,1	GTN 750 Com/Nav/GPS with Antennas and inst. with GI106A Indicator (Exchange for Standard GTN560)
T104	5,0	KING KR87 ADF with KI 227 Indicator

### **Glass Version**

Code	Kg	Description
T106	4,5	KING KR87 ADF (displayed on PFD)
T106/A	4,5	BECKER RA4502 ADF Remote Unit
T108	5,5	TAS 600 AVIDYNE Traffic Advisory System
T109	3,0	L-3 Storm Scope WX 500

### Standard Analogue & Glass Version

Code	Kg	Description
T110	9,0	S-TEC Autopilot System 55X DUAL AXIS with Automatic Electric Trim Turn, Coordinator (exchange for Std TC) and DG with Heading Bug (exchange for Standard DG)
T111	3,0	Electric TRIM (S-TEC, already included in the optino 110)
T112	0,5	Power Supply from built-in Generator (Max 20 Amps (each) @ 5800rpm
T113	1,5	Debris Protection
T114	1,0	Suround View Windows
T115/A	2,0	Leather Seats Two-Coloured (New Look)
T116	6,0	Special Paint two colors T116/A

Code	Kg	Description
T116/A	5,5	Premium Luxury Interiors (Leather Seats Two-Coloured New Look and Wall side Panel Matt Gray)
T117	28	TKS System
T119	5,5	Alternators 70 Amps (Exchange for standard 40 Amps)
T122	0,5	Cabin Hole 267mm Diameter (ref. Mod. 2006_229)
T123	0,5	Cabin Hatches small (two) 359x272 + 150x150 mm (lenght x width) (ref. Mod. 2006_170)
T124	1,5	Tailcone Hatch 395x305 mm (lenght x width) (ref. Mod. 2006_261)
T125		Fuselage Cover

