

# P2002 Sierra RG



QUALITY AIRCRAFT SINCE 1948

**TECNAM**

**Advanced Ultra Light**

**ENGINE**

Manufacturer	Rotax	
Model	912 ULS2	
Power	100 hp	
Number of Cylinders	4	

**PROPELLER**

Manufacturer	Tonini	
Model	GT	
Number of Blades	2	
Type	V.P.	

**DESIGNED WEIGHT and LOADING**

	lb	kg
Designed Maximum Take-off weight	1370	620
Limit Loads	+4 / -2 g	+4 / -2 g
Ultimate Loads	+6 / -3 g	+6 / -3 g

**DIMENSION**

Baggage Allowance	44 lb	20 kg
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**PERFORMANCE (450 KG) 100 hp**

Speed	Kts	Km/h
Maximum at Sea Level, Gross Weight	136	252
Cruise, 75% power	128	237
Vne	157	290
Stall Speed	Kts	Km/h
Flaps Down, power off	35	65
Rate of Climb at Sea Level	1400 ft/m	
Service Ceiling	13,110 ft	4300 m
Takeoff Performance	ft	m
Ground roll	394	120
Total over 50 fr obstacle	721	220
Landing Performance	ft	m
Ground roll	394	120
Total over 50 fr obstacle	885	270

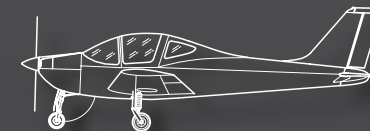
<b>FUEL TANK CAPACITY</b>	50x2 Lt	13,2x2 GAL.
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<b>FUEL ECONOMY</b>	17 Lt./Hr.	4,5 GAL./Hr.
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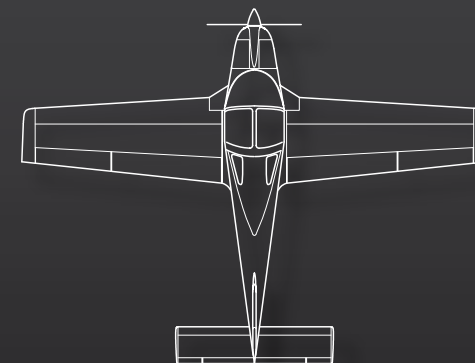
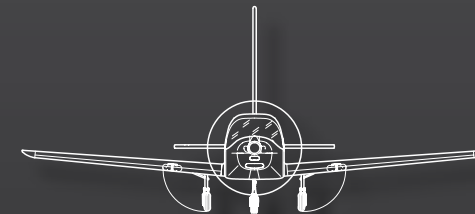
The SIERRA RG is the retractable gear version of the P 2002 SIERRA, derived directly from the Certified P2002 JR. The P2002 SIERRA RG differs from the JR in that the retraction system is pneumatic rather than hydraulic. The choice of this different retraction system was chosen due to the limited weight allowance imposed. This pneumatic system is derived from that already successfully used in the P92RG, with good results

To design the P2002 Sierra RG Tecnam has made use of the most advanced systems of 3D design, fluid dynamics and structural analysis, resulting in one of the best two-seater low wing aircraft with retractable gear in its category. Tapered laminar flow wing, slotted flaps, up turned wing tips and a streamlined fuselage give the P2002 superlative performance, a complete harmony of controls with dashing style.

The final product is a symphony of aerodynamic and structural efficiency, with fluid and grace. Designed around the pilot, this aircraft will delight even the most demanding, while remaining safe, comfortable and easy to fly even for those new to this class of aircraft.



Wing Span	29,5 ft	9 m
Wing Area	124 sq/ft	11,5 m <sup>2</sup>
Fuselage Length	21,7 ft	6,63 m
Fuselage Height	7,5 ft	2,3 m



**Advantages**

- Superior performance and flight characteristics
- 237 km/h (128 kts) cruise speed
- Pneumatic retractable landing gear
- Stable and responsive
- High level of comfort that makes it ideal for long routes
- Excellent visibility
- Sliding canopy can be opened in flight
- Exciting, yet easy to fly

## Construction

- The Tecnam line employs a monocoque tail cone section with sheet aluminium over steel tubing for the forward section.
- The aluminium tapered wing has a conventional structure with a forward load bearing spar and a conventional rear spar. The wing halves are attached to the fuselage by a very strong carry-through made of 2024-T3 grade aluminium fixed to the cabin truss.
- The fuel tanks hold 13.2 gal/50l each, located in the wing leading edges separated from the fuselage for safety.
- The sliding canopy allows 360° of vision in the cockpit. This canopy can be fully opened in flight below 70 knots
- The all moving Stabilator is fitted with a trim tab controlled by buttons on the control column.
- The excellent flying characteristic with neutral handling makes it extremely stable and easy to fly for people of any weight/height.
- The ailerons are effective in allowing for a quick roll rate without being overly sensitive.
- All control surfaces are made out of aluminium.
- The canopy has full rollover protection.
- The whole structure of the wings and the cabin is practically the same as the P2002JR, CS-VLA certified, and has passed many static and dynamic tests.

## Interior

- Seats are adjustable and increase in height as they are moved forward.
- The luggage area allowing for 44 pounds/20 kg of weight, located behind the seats with ample room for several travel bags
- All Tecnam aircraft have dual control sticks with a curve at the base for ease of ingress and egress.
- The dual controls come standard with PTT and electric stabilator trim on both sticks with a trim indicator on the panel.
- The fresh air vents are conveniently located on each side of the panel.
- The aircraft comes with dual rudder pedals, connected to a steerable nose wheel.
- The interior is spacious, ergonomic and comfortable.
- Cabin is a roomy 44 in/112 cm wide.
- The wide instrument panel is designed to accommodate a full variety of instrumentation.
- Four point harness system is standard



## Landing Gear

- The main landing gear is aluminium alloy with a rubber shock absorber system that is robust enough for rough strips. The retraction is by pneumatic cylinders.
- The trailing link nose gear uses an oleo-pneumatic shock absorber that provides excellent ground load absorption. The same system is used on the certified P2006.
- An electric compressor pressurises the pneumatic system. The system has many safety devices and two separate reservoirs. One tank supplies the air for normal retraction while the second provides air in case of the main system failing. Should there be a total failure, the landing gear will drop under gravity.
- The main landing gear wheels and brakes are conventional aircraft size (5.00x5).
- The brake lever control and the parking brake are located forward between the seats.

## Engine and Propeller

- The top and bottom engine cowls are quickly and easily removable making any maintenance easy to accomplish. The top cowl has 2 large hinged openings for easy access to the engine compartment, without the need for tools to allow effective pre-flight inspections.
- The engine's mount is steel-tubing with the engine on shock mounts. It also supports the nose wheel, while the retraction cylinder is anchored to the main fuselage structure.
- The power plant is a Rotax 912 ULS2 series (100 Hp) four-cylinder, four-stroke engine.
- The engine is a partially liquid and partially air cooled with an integral 1:2.4286 reduction gearbox.
- An electric variable pitch wood and composite propeller comes as standard,
- The quick drain gascolator is installed in the engine compartment with easy outside access.
- The fuel system uses a mechanical engine driven pump with an electrical back-up pump.
- The engine installation allows the option for an additional 40 Ah alternator.
- The battery is easily accessible through a hinged door in the rear fuselage.

## Standard Equipment

<ul style="list-style-type: none"> <li><b>FLIGHT INSTRUMENTS AND INDICATORS</b></li> </ul> <p>Flight instruments and indicators</p> <p>Magnetic compass</p> <p>Airspeed ind., (Km/h)</p> <p>Altimeter (IN/Mb)</p> <p>Vertical speed</p> <p>Bank indicator</p> <p>Flaps indicator</p> <p>Pitot system</p> <p>Static system</p> <p>Stabilator trim position indicator</p> <p>Landing gear position light, three</p> <p>Landing gear-in-transit/not locked light</p>	<ul style="list-style-type: none"> <li><b>ENGINE INSTRUMENTS</b></li> </ul> <p>Tachometer</p> <p>Hour recorder</p> <p>Oil press.</p> <p>Oil temp.</p> <p>Head temp.</p> <p>Fuel press.</p> <p>Voltmeter</p> <p>Lh + rh fuel qty</p>	<p>Engine controls:</p> <p>_ Throttle, two</p> <p>_ Choke</p> <p>Flight trim controls:</p> <p>_ Stabilator with indicator</p> <p>Fuel control selector with on/off</p> <p>Panel switches:</p> <p>_ Starter</p> <p>_ Fuel pump</p> <p>_ Engine lh and rh ignition switches</p> <p>Landing gear, retractable pneumatic</p> <p>Landing gear selector switch</p> <p>Landing gear warning horn</p>	<p>Landing gear emergency extension</p>	<ul style="list-style-type: none"> <li><b>ELECTRICAL SYSTEM</b></li> </ul> <p>12 Volt 18a amp. Battery</p> <p>12 Volt alternators-20 amp.</p> <p>Switches:</p> <p>_ landing light</p> <p>_ strobe light</p> <p>Circuit fuses panel</p>	<ul style="list-style-type: none"> <li><b>FUEL SYSTEM</b></li> </ul> <p>Two integral fuel tanks with 100 litres. Total capacity</p> <p>Engine driven fuel pump</p> <p>Auxiliary fuel pumps, electric</p> <p>Fuel quick drain</p>	<ul style="list-style-type: none"> <li><b>INTERIOR</b></li> </ul> <p>Pilot and copilot seats:</p> <p>_ Adjustable fore and aft</p> <p>Seat belts &amp; shoulder harness, all seats</p> <p>Wall to wall carpeting</p> <p>Luggage compartments</p>	<ul style="list-style-type: none"> <li><b>EXTERIOR LIGHTS</b></li> </ul> <p>Vertical tail strobe</p>	<ul style="list-style-type: none"> <li><b>CABIN COMFORT SYSTEM</b></li> </ul> <p>Ventilator adjustable, 2 place</p>	<ul style="list-style-type: none"> <li><b>POWERPLANT AND PROPELLER</b></li> </ul> <p>Engine - 1 ROTAX 912ULS2 100 hp, 4 cylinders. Liquid/air cooled, integrated reduction gear</p> <p>Dual ignition system</p> <p>Throttle control lh/rh</p> <p>Tubular steel engine mount</p> <p>Propeller - gt propeller, 2 blade variable pitch</p> <p>Propeller spinner</p>	<ul style="list-style-type: none"> <li><b>PRODUCT SUPPORT/ DOCUMENTS</b></li> </ul> <p>Manufacturers full two year limited warranty</p> <p>Pilots operation handbook</p> <p>Maintenance manual</p>
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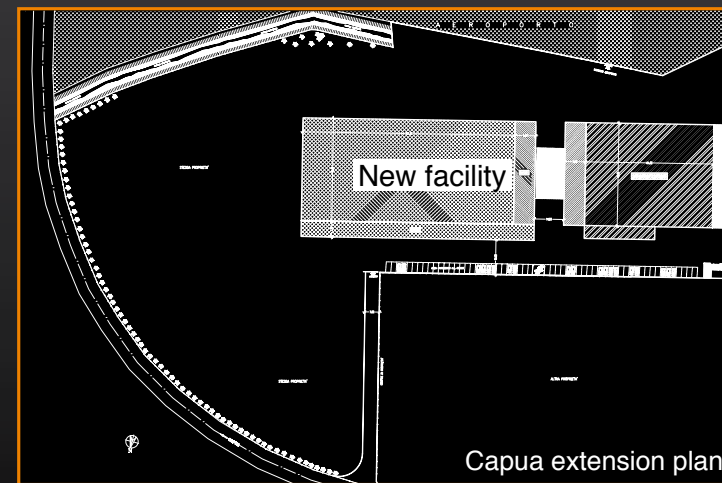
Costruzioni Aeronautiche Tecnam operates in two facilities. The Casoria facility is located adjacent to the Napoli Capodichino Airport and covers an area of 108000 sq ft with 43100 sq ft of enclosed facilities. The Capua facility is located adjacent to the "Oreste Salomone" Airport, covers an area of 129000 sq ft with 43100 sq ft of enclosed facilities. In 2007 construction began on an extension of the Capua facility, adding a new area of 387000 sq ft with 64600 sq ft of enclosed facilities. This extension will double the production capacity of the Capua plant. Modern reinforced concrete buildings are used for manufacturing processes, design activities and office administration.



Capua plant



Casoria plant



Capua extension plan

