impulse aircraft

IMPULSE Aircraft

Fast, light, fun…

Equipment

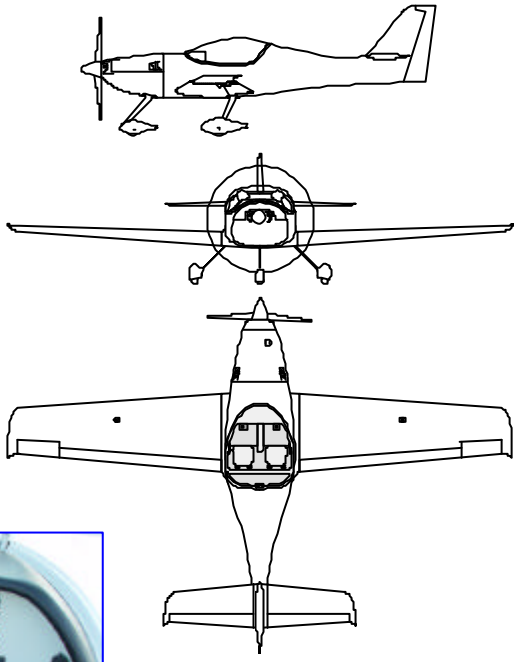
- Rudder pedals with toe brakes on pilot's side
- Dual stick controls with Mahogany Stick grips
- Adjustable seats
- Four-point harnesses
- Cockpit ventilation with Eyeball air vents
- Cockpit heater with Canopy De-fog
- Large baggage compartment, taking up to 20 kg.
- Lockable canopy
- Green tinted canopy glass, 90% UV Absorption
- Mechanical Elevator trim
- Electrically actuated Fowler flaps
- Circuit breaker switches for all electric circuits
- Fuel quantity gauge in centre console
- Quick access oil hatch

Engine

- Rotax 912 S (100 HP),
  Jabiru 2200 (80 HP), Jabiru 3300 (120 HP)
- MT fixed pitch 2 blade Propeller with Spinner
- Ignition key (same key is used for canopy lock)
- Gel battery 20 Ah

Basic Panel

- Airspeed, Altimeter, Compass, Slip indicator
- Panel mount for Garmin GPS 296 or 295
- COM Becker 4201
- Engine: RPM with hour meter, Oil T&P, CHT
- Intercom PS Engineering PM 501 with headset plugs



Impulse Aircraft UK. Chatteris Airfield, March, Cambs. PE15 0EA. Tel: 01354 742 340
www.impulse-aircraft.co.uk www.impulse-aircraft.de

impulse aircraft

Wing:

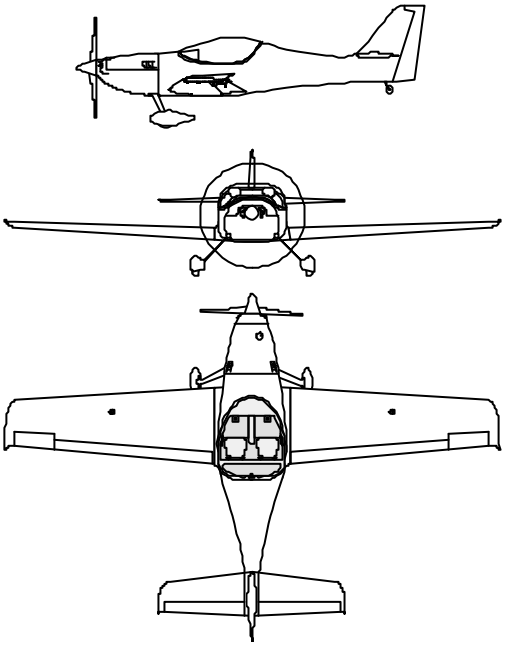
The wing has a natural laminar flow cross section,
Capable of a lift coefficient of 3.2 with Fowler flaps
Extended to 30 degrees when fully down.
The structure is constructed of carbon-honeycomb
Sandwich with a single box-type main spar.
Integral wing fuel tanks each side with a maximum
Capacity of 13 US Gallons (50 Litres) per wing,
52 US Gallons (100 Litres) total.
The two-part wing is connected to the fuselage via two
Main bolts on the main spar and a pin on the rear spar,
This carries the torsional, drag & anti-drag loads.
Each wing has an empty weight of about 50 lbs (25 kg)

Empennage:

The stabilizer and all control surfaces are
constructed of carbon-honeycomb sandwich.
The fin is made of E-glass, which enables the
radio antenna to function inside the fin.
There are two stabilizer halves, mounted to the
fuselage on one solid carbon beam. The
elevators are linked via an automatic clutch. The
elevators have three ball bearing hinge points
each. The tail surfaces have a symmetrical
Laminar flow cross section.

Fuselage:

The Fuselage is constructed of a carbon-honeycomb
Sandwich. The engine mount is welded steel
Frame made of 4130 Chrome-Moly steel.
The centre spar box, into which the two wings main
Spars are connected, is under the pilot's knees.
The main bulkhead takes the torsional
Loads of the wing and serves as the backrest.



Landing gear tail dragger:

The main gear legs are aluminium and connected to
The fuselage via the engine mount. The main wheels
are 5 x 5.00 " with toe actuated hydraulic disc brakes.
The tail wheel is coupled via springs to the rudder.
Steering can be overridden with the brakes via an
Over centre clutch to provide a tight turn radius.
Shock damping is provided by compressed foam
Cushions. The tail wheel is a solid rubber tyre 4´´ x 2´´.

Landing gear trigear

The main gear legs are aluminium and connected to
The fuselage via composite structure bulkheads and
Carbon bushings. The nosewheel is free castoring.
Steering is with rudder and brakes. The main wheels
are 5 x 5.00 " with toe actuated hydraulic disc brakes,
nosewheel is a 4 x 4´´ tyre.

Impulse Aircraft UK. Chatteris Airfield, March, Cambs. PE15 0EA. Tel: 01354 742 340
www.impulse-aircraft.co.uk www.impulse-aircraft.de

Control system:

Elevator and Ailerons are actuated via carbon push-pull tubes,
manual elevator trim system, flaps are actuated by an electric
worm drive via carbon torque tubes.
Rudder control is via steel cables.

Ballistic recovery system:

The BRS container is mounted behind the engine under the cowling, the main straps are attached to the firewall, and the balance line is fixed behind the cockpit.

Performance at MToW

Listed weights and performance data are for Tail dragger aircraft including BRS, add 5 kg (11 lbs) empty weight for trigear version, subtract app. 10 km/h (6 kts) for trigear for cruise and max. level speeds. Jabiru 3300 available only in Tail dragger aircraft!

	Rotax 912 S	***Jabiru 3300***	***Jabiru 2200***
VNE	270 km/h 145 kts	270 km/h 145 kts	270 km/h 145 kts
Airspeed @ 100%:	270 km/h 145 kts	270 km/h 145 kts	255 km/h 138 kts
75%:	250 km/h 134 kts	250 km/h 134 kts	225 km/h 121 kts
Stall speed	62 km/h 33 kts	62 km/h 33 kts	62 km/h 33 kts
Best climb speed:	160 km/h 86 kts	160 km/h 86 kts	160 km/h 86 kts
Rate of climb:	1900 ft/min	1300 ft/min	1100 ft/min
Speed for best angle of climb:	85 km/h 45 kts	85 km/h 45 kts	85 km/h 45 kts
Service ceiling:	22.000 ft	10.000 ft	10.000 ft
Takeoff over 50 ft obstacle:	120m 390 ft	180 m 590 ft	280 m 920 ft
Landing over 50 ft obstacle:	200 m 656 ft	260 m 855 ft	260 m 855 ft
Range:	1400 km 755 NM	1200 km 645 NM	1400 km 755 NM

Impulse Aircraft UK. Chatteris Airfield, March, Cambs. PE15 0EA. Tel: 01354 742 340
www.impulse-aircraft.co.uk www.impulse-aircraft.de

impulse aircraft

Weights:

Empty weight Rotax 912 S:	295 kg
Jabiru 2200:	260 kg
Jabiru 3300:	295 kg
Max Takeoff weight:	450 kg
Max. baggage compartment load:	20 kg

Dimensions:

Wingspan:	8,74 m
Wing area:	9,82 m²
Aspect ratio:	7.78
Stabilizer span:	3,29 m
Area stabilizer:	2,09 m²
Length overall:	6,2 m
Cockpit width:	1,18 m
Height overall Tail dragger:	1,7 m
Trigear:	2,30 m

Certifications:

Germany	Ultraleicht LTF UL 2003, 472,5 kg MToW
Belgium	ULM 450 kg MToW
France	ULM 472,5 kg MToW
Italy	Ultraleggero 450 kg MToW
Great Britain	CAP 482 450 kg MToW
New Zealand	Advanced Microlight 560 kg MToW

Design data:

VFE:	140 km/h	75 kts
VA:	220 km/h	118 kts
VC:	245 km/h	133 kts
VD:	330 km/h	178 kts
Safe load factors:	+-6 G, tested to 10,7 G	

Impulse Aircraft UK. Chatteris Airfield, March, Cambs. PE15 0EA. Tel: 01354 742 340
www.impulse-aircraft.co.uk www.impulse-aircraft.de