

IMPULSE 360 TD

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All Carbon

Lightweight, extreme strength

Quick built kit

Fuselage and wings already closed

Factory assist program

Spend 2 weeks with us to complete your airframe

STOL performance

Takes off in 150 ft, jumps over 50 ft in 300 ft

Cool Cruiser

Go 900 NM at 170 kts @ 25 Litres/hour

Equipment

- Rudder pedals with toe brakes
- Dual stick controls with Mahogany grips
- Adjustable seats
- Seat upholstery and side pockets covered with Alcantara or Leather
- Four-point harnesses
- Cockpit ventilation with Eyeball air vents
- Cockpit heater with Canopy De-fog
- Large baggage compartment
- Lockable canopy
- Green tinted canopy glass, 90% UV Absorption
- Spring-loaded Elevator trim
- Electrically actuated Fowler flaps
- Lockable fuel caps
- Fuel quantity gauge in center console
- Quick access oil hatch

Engine

- Lycoming 320, 360 series
- MT Propeller with Spinner
- Exhaust system IMPULSE
- Gel battery 35 Ah



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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 26 US Gallons per wing, 52 US Gallons total.

The two part wing is connected to the fuselage via two main bolts on the main spar and a quick disconnect pin on the rear spar, this carries the torsional,

drag & anti-drag loads. The wings are dismantled by removing the main bolts, disconnecting the

drag / anti-drag pins, after pulling the wing out about 4 in, disconnecting the fuel line,

fuel capacity indicator and aileron control tube. Each wing has an empty weight of about 60 lb.



The wing kit come closed, ready to bolt to fuselage, with primed surfaces. No laminating or structural bonding required.

The builder has to trim edges, seal the fuel tanks, install the controls and prepare for painting.



Empennage:

The stabilizer and all control surfaces are constructed of carbon-honeycomb sandwich.

The fin is made of E-glass, which enables the preinstalled antenna to function inside the fin.

The stabilizer has a symmetrical Laminar flow cross section. 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 fin also has a symmetrical laminar flow cross-section.

This is how your quick build kit is delivered:



After one week in our builder assist program your kit has become an aircraft!

The empennage kit comes with stabilizers, elevators and rudder closed, primed surfaces,

no laminating or structural bonding required, all hinges installed. The builder has to trim edges,

install the brackets and prepare for painting.



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Fuselage:

The Fuselage is constructed of a carbon-honeycomb sandwich. The engine mount is a 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.

The fuselage kit comes with fuselage halves joined, primed surfaces, main spar connecting box and rear bulk-head already bonded in place, centre- and side consoles, ring bulkheads and canopy frame with positioning holes for controls and bracket attachment points.

Builder has to bond in the consoles and bulkheads, fit canopy hinge, bond the canopy glass, install controls and canopy lock and prepare surfaces for painting.



Landing gear:

The main gear legs are stainless steel and connected to the fuselage via the engine mount. The main gear 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 via compressed foam cushions.

The tail wheel is a solid rubber tyre 4" x 2".

Landing gear kit comes with machined and welded parts, wheel kit, all fittings and lines, brake fluid reservoir, master brake cylinders and all required hardware.



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.

Control kit comes with torque tube, trim system components, bell cranks, stick grips, rod ends, aluminium tubes cut to length, all required hardware and bearings included.

Fuel system:

Integrated wing tanks with a capacity of 26 US Gallons (100 Litres) each wing.

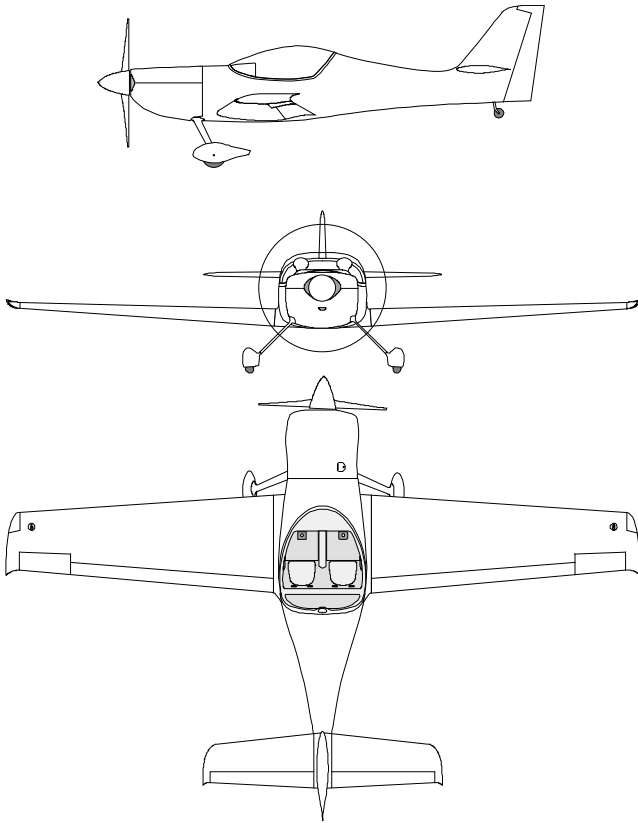
An Electric boost pump in the fuselage transfers fuel from the selected fuel tank via a fuel selector valve to the engine. Tank vents are in each wingtip.

A fuel drain valve is fitted in each wing.

Fuel system comes with capacitance fuel metering system, electric fuel pump, pick ups, filters, hoses, fittings and all required hardware. Builder has to seal tank, install and adjust fuel sensors, assemble and fix fuel pump and lines.



Three side view IMPULSE 360 TD



Performance at MTOW, engine Lycoming IO 360, 180 hp:

Max. level speed in 2000 ft:	100%:	178 kts
	75%:	162 kts
VNE		225 kts
Stall speed		43 kts
Best climb speed:		88 kts
Rate of climb:		2400 ft/min
Speed for best angle of climb:		53 kts
Takeoff over 50 ft obstacle:		300 ft
Landing over 50 ft obstacle:		850 ft
Range :		900 nm



Weights:

Empty weight:	925 lb	420 kg
MToW:	1655 lb	750 kg

Fuel capacity:

26 US Gallons (100 Litres) each wing,
52 US Gallons (200 Litres) total,
to be selected individually
via fuel selector switch

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Dimensions:

Wingspan:	28.7 ft	8,74 m
Wing area:	105.7 ft ²	9,82 m ²
Aspect ratio:		7.78
Stabilizer span:	10.8 ft	3,29 m
Area stabilizer:	22.5 ft ²	2,09 m ²
Aspect ratio stabilizer:		5.19
Length overall:	20.3 ft	6,2 m
Height overall:	5.6 ft	1,7 m
Wheel base:	13.5 ft	4,13 m
Wheel track:	7.2 ft	2,2 m

Design requirements:

FAR 23, utility

Design speeds:

VA	165 kts
VC	175 kts
VD:	240 kts



*Let your IMPULSE bring you to the places
you've always dreamed of...
With fun, safety and speed!*



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