



A new kit by Pro-Composites, Inc – manufactured in **the USA**

The Personal Cruiser is a truly affordable new single place "full sized" ALL COMPOSITE aircraft. It sports a generous 29" wide cabin to accommodate pilots of all sizes.

The latest home-building composite methods are used which greatly reduce build time. A new method referred to as Fold-a-plane reduces finishing work as the fuselage is shipped as pre-laminated flat panels that are later joined and "folded" to create the fuselage and turtle deck. This process allows the airframe to be modified easily to accommodate builder variations like scratch building but with reduced construction time. The airframe can be completed in 800 hours. Assistance and fast build options available – we want you in the air safely and as quick as your budget will allow.

Sleek and Efficient - the design is now approaching 50 mpg. With a few extra aerodynamic improvements it will surpass the proven economy cruise of 116 mph at 2.5 gallons per hour. Top speed is close to 170 mph on 95 hp.

The Personal Cruiser prototype currently uses the proven Corvair automotive engine converted for aircraft use by www.flycorvair.com. Engine weights of up to 250 lbs from 65-115 hp are suitable.

The airframe kit price is \$9,710. In the air complete from \$18k to \$28k.

Specifications

Type	Fixed wing, Single place
Gross Weight	1250 lbs
Empty Weight	775 lbs or less
Useful Load	475 lbs
Fuel Capacity	15 U.S. Gallons
Engine HP	65 hp-115 hp

Performance

Top Speed	168 mph
High Cruise	160 mph @ 4.8 gph
Econ. Cruise power	115 mph @ 2.5 gph
Va	147 mph
Vne	212 mph
Rate of Climb	700-1500 feet/min
Stall	58 mph (Clean)
Load factor	+4.5g/-3.0 at 1250lbs
Take-off / Landing	400 ft/ 350ft

Fuselage

Length	17' 4"
Cabin Width	29" interior dimension
Baggage area	Approx. 5 cu ft.

Wing Data

Area	76.5 sqft
Span	25.5 ft
M.A.C.	36 in
Airfoil	Eppler
Aspect Ratio	8
Dihedral	6 degrees total

V-Tail Data

Area	16 sq ft
Span	6.125 ft

Landing Gear

Fixed Tri-gear w/castering nose wheel

Frequently Asked Questions

Why consider the Personal Cruiser? The Personal Cruiser is a relatively spacious full size single place aircraft for someone who desires a great looking plane that is truly affordable to build and operate. Compare kit prices with other companies and you soon realize the value that comes with purchasing a kit from Pro-Composites, Inc. If most of your flying is solo the Personal Cruiser is a great choice.

Where is Pro-Composites, Inc. located? Pro-Composites, Inc. is an Illinois corporation and our business office is located outside of Chicago. Composites parts are manufactured in our facility currently located at Waukegan Regional Airport (KUGN) approximately 25 miles north of O'Hare airport. Come for a visit!

Is help available? Yes. On-site assistance is available for a reasonable fee and workshops at our facility to help with the initial learning curve.

Why the V-Tail? The choice for a V-tail was made for looks and efficiency. It is more efficient to use two control surfaces than three – less drag. A mixer works well supplying distinct control of the yawl and pitch to the combined rudder and elevator (rudder-vator). Also it takes less time to build and finish!

What about Tail-Wag? No noticeable “wag” has been detected and it flies just like a standard tail.

How efficient is the Personal Cruiser? The current tested fuel consumption is 116 mph at 2.5 gph. Which is 46 mile per gallon. The testing was accomplished using GPS ground speed averaging three cardinal directions. With wheel pants and a few fairings we could pass 50 miles per gallon.

How difficult is it to build? The construction manual is written for first time builders. The techniques require no special tools and the plane can be built in a one car garage – until the final assembly of the wings, then a two car garage or temporary use of a hanger is required. It can be built by one person and no one needs to “buck” rivets. Occasionally assistance is helpful, especially when putting the fuselage into the forms – but other than that – no ongoing help is required.

Can it meet LSA requirements? YES! We have a tested our LSA configuration. With the addition of vortex generators, a Warp drive prop at 10 degrees and a gross weight of 1,050lbs the Personal Cruiser will meet the stall and top speed requirements of an LSA.

I am a large pilot, Will I fit? If you have tried to squeeze into other popular two place homebuilt planes and have been disappointed the Personal Cruiser at 29" wide cabin should accommodate you. Also, the rudder pedals can be located to best suite your needs, even the turtle deck can easily be modified for taller pilots. A 6' 3" pilot recently sat in the Personal Cruiser with room to spare.

What is the estimated build time? A first time builder can complete the plane in 800 hours or even less with an experienced advisor.

Can the wings be removed? Yes, though the Personal Cruiser is not specifically designed for quick removal of the wings. They are held with 4 main bolts through the 3 piece spar and bolts on the rear spar. The aileron linkage and electrical can be disconnected. It takes approximately 45 minutes to remove each wing.

Can I use a different engine? Yes. “Auto-conversion” is not in the cards for some builders so we fully support builders who prefer a Jabiru, Continental and others. Cowlings will be modified and developed as the need arises.

What will the TOTAL Cost be? Depending on your choice of engine, instruments, avionics and how much you want to spend on dressing it up will determine your total outlay:

Estimated Cost to Completion

	<u>Low</u>	<u>High</u>
Airframe	\$9,710	\$9,710
Epoxy & Misc. Supplies	\$1,500	\$1,500
Engine/FWF	\$5,000	\$9,000
Avionics & Instruments	\$500	\$5,000
Paint and Interior	\$600	\$2,500
Shipping & Crating	\$450	\$450
Total	\$17,760	\$28,160

Why the Corvair Engine? The Corvair engine is a home-builder option that is proven and some builders will building the power plant too. The Corvair engine is being flown by hundreds of pilots in the US. It is also well supported by an online community and a company that supplies flight tested and proven methods and parts to completely convert a Corvair engine core to aircraft use. Not everyone is an engine builder – so the fully converted Corvair engine can be purchased ready to install from William Wynne. More information is available at: www.flycorvair.com.

Upon ordering when can I expect my kit? Typically the fuselage kits (Kit A) are stocked a ready to ship. If you purchase a full kit now you will receive kit A within two weeks, Kit B with in 30-45 days. Sub Kits C and D in 60-90 days. If you are ready for the follow on kits before then we'll do our best to rush them to you.

What is the designed structural loading for the wings and fuselage? The wing was built to design loads of 4.5g/-3g with +9g/-6g safety factor. It is in utility category at gross weight of 1,250lbs. The fuselage and tail are well beyond that simply due to the minimum number of exterior layers needed for impact resistance.

Can I do aerobatics in the Personal Cruiser? Currently all positive G - Lazy aerobatics are okay. The design is in the Utility category all the time. With a power plant that would support inverted flight, it would be possible for more aggressive aerobatics. The roll rate is phenomenal.

Ordering:

The Personal Cruiser is purchased in Sub Kits and delivered as needed. Get Started with Kit A and order Kit B when you have your tail finished.

Sub Kit - A - Fuselage & Tail Kit	\$2,625
Sub Kit - B - Wing Kit, main gear legs	\$3,595
Sub Kit - C - Control System	\$2,195
Sub Kit - D - Canopy, Cowling, Fuel Tank Kit	\$1,295
Engine Mount - Corvair, with Nose gear strut attachment	\$675