

S-20 RAVEN: WHEN STYLE MEETS PERFORMANCE

The S-20 Raven is great hardware for the task of back country flying, float flying, and long haul touring. It's the stylish blending of what has made a couple of other RANS planes so successful and yet has become a character all on its own. We combined the wings, tail, and fuel system from the S-7S Courier, and the engine, control, and seats from the Coyote II. The cabin is very roomy and easily accessible due to sliding seats and wide doors. The 51" wide doors and folding seats allow easy loading in the 21 cubic foot baggage area.

It is a delight to fly, well-balanced and light controls, yet with enough feedback to make you feel like you have something in your hand. The scale of the plane is impressive too, standing tall; yet, the aerodynamic size of the plane is less than that of our vulnerable Coyote II.

Performance is lively. You will see short take offs, typically under 300 feet, climbs of 1000 FPM are common, stalls well under 40 MPH, and cruise spees past 115 MPH. The large flaps allow approach speeds of 35-39 MPH, depending on gross weight. From those who have flown the Raven: It has a big plane ride, with the responsive-ness of a sport plane and natural control feedback.

Another hallmark feature includes the 2-piece landing gear made from one of the best alloys for the job...7075-T6. The 2-piece offers less weight, less drag, less replacement cost, and can be adjusted in camber and toe in.

You expect a fully welded steel fuselage and tail on such a plane, but the level of CNC machining used to create these components is well hidden. Every tube is CNC mitered to a perfect fit, features better welds, and less weight. The wings are a masterpiece of CNC machining, featuring one-piece stamped aluminum ribs, and spars pre-drilled for almost every part that attaches. Assembly time, ready to cover, is usually under 40 hours per wing. Eleveator, horizontal stabilizer, rudder, aileron and flaps come pre-assembled and nearly ready to cover.

With such a high level of fabrication, we've created a fun building plane that'll easily access those places you dream of with plenty of space for your gear, and the performance and utility to make the trip epic.

RANS S-20 RAVEN HIGHLIGHT



2" "Quad" spar features thicker material in four places on the insider diameter. The 35% stiffer than original spars create faster roll rates and increased margins.

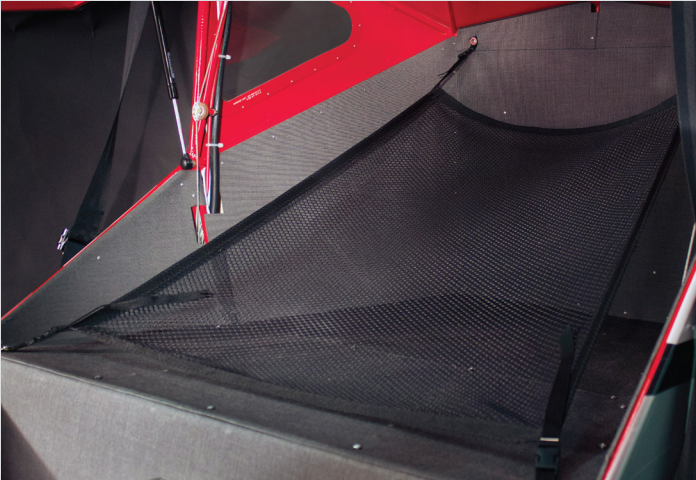
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Lots of panel space allows for any combination of avionics.



Sliding seats have 6" of adjustable range. Easy to adjust in flight, and recline can be adjusted for a custom fit.



Pack even more with a 21.2 cubic foot baggage area, capable of carrying up to 80 lbs.

BUILD TIMES

- Build time: 500-700 hours
- Quick Build time: 250-350 hours

Crating/packing costs are included in pricing. Countries requiring treated wood subject to additional crating fees. All orders are shipped freight collect unless prior arrangements have been made to pre-pay shipping.



RANS®

S-20 RAVEN

Side-by-Side into the Back Country.



STANDARD EQUIPMENT

AIRFRAME

- 4130 Chromoly Steel welded fuselage and tail frames\*
- Tubular aluminum wing structure w/ custom extruded spars\*\*
- Stamped aluminum ribs\*\*
- Sheet aluminum leading edge\*\*
- Pitot static system
- Lexan Windshield
- Cabin skylight
- Aero-Servo differential ailerons\*\*
- Ball bearing aircraft control pulleys
- Cable operated rudder and ailerons
- Push-pull tube operated elevator
- Double stainless steel tail braces
- Pre-drilled streamline aluminum struts\*\*
- Adjustable aft lift strut
- 4130 Streamline jury struts
- Exit fairings for control rods and cables
- Molded fiberglass wing tips (carbon fiber optional)
- 26 Gallon fuel system (13 gal. in each wing with sight gauges), Flush Fuel Caps, .75 gal header tank
- 51" curved doors with gas lift cylinders
- Deluxe upholstered seats w/map pockets, 5" in-flight adjust fore and aft with recline
- Lap and shoulder belts (3-point)
- Dual control sticks and rudder pedals
- Dual side hydraulic toe brakes
- Park brake & stainless steel braided brake lines
- Single panel mount throttle
- Eyeball vents (mount in panel)
- Electric elevator trim mounted to pilot control stick with indicator on panel
- Center mounted 4-position flap handle
- 7075-T6 Aluminum landing gear
- Hydraulic 6" wheels and brakes
- Telescoping steerable nose gear (Trike)
- Full swivel steerable tail wheel (Tailwheel)
- Sheet aluminum baggage compartment open to cabin for easy access w/cargo net
- CNC machined aluminum sheet boot cowl w/ joggle for flush cowling fit up
- AN hardware and fasteners
- Pre-cut aluminum floor board
- Aircraft fabric, tapes, close outs, pacards, and decals.

\*Fuselage, tail, and other components come completely welded. No welding required!  
\*\*Precision CNC machined parts.

KIT AND OPTION INFORMATION

AIRFRAME KIT LESS FIREWALL FWD

Airframe kit including all standard features Available as Trike or Taildragger.

ROTAX 912ULS ENGINE INSTALL KIT

- Low drag 2-piece fiberglass cowling, oil check door, cowling removes quickly with 1/4 turn fasteners
- 12" Spinner
- 4-Point rubber isolated engine mount
- Stainless steel exhaust system
- Cooling system
- Oil Cooler
- Pre-assembled oil lines with fire sleeves
- Fuel lines and fittings
- ACS ignition switch
- Hardware
- Pre-fabricated battery, starter and ground cables.
- Add'l options include engine, propeller, and propeller installation hardware.)

ENGINE

Rotax 912 ULS (100 hp) available factory new. (Due to currency fluctuation, prices are updated frequently. **Please call for current pricing.**)

PROP OPTIONS

- 3-Blade Whirl Wind Ground Adjustable Composite
- 3-Blade Warp Drive Ground Adjustable w/HP-L Hub

BRAKE AND TIRE OPTIONS

See our website for the large selection of tire, wheel, and brake options from 800 x 6 to large diameter bush tires.

FUSELAGE OPTIONS

- Powder coated fuselage, tail & door frames
- Internal corrosion protection

INTERIOR OPTIONS

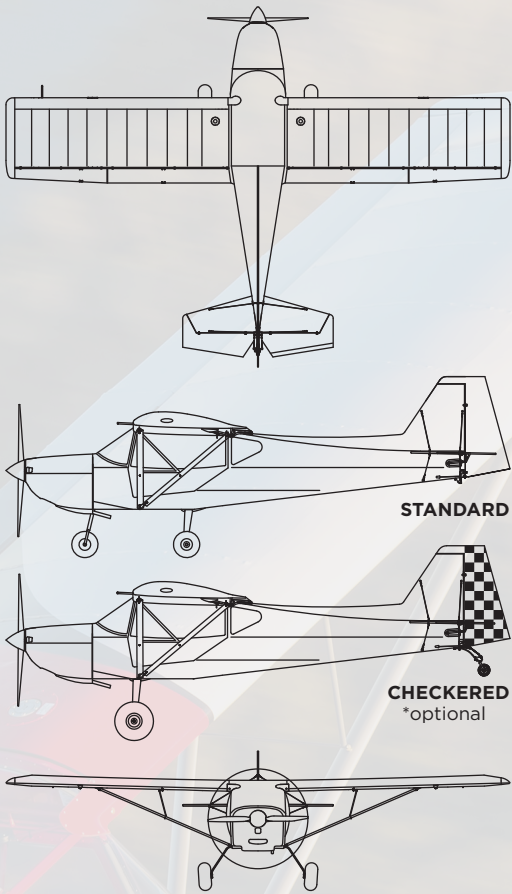
- Heater - muffler style for 912ULS
- Heater - radiant style (only with water cooled engines)

UPHOLSTERY OPTIONS

- Standard upholstery (includes seat covers in gray Velvet fabric)
- Non-standard upholstery color
- Headreasts

OTHER OPTIONS

- Gascolator
- Canopy cover
- Carbon Fiber Cowl
- Carbon Fiber Wing Tips
- Carbon Fiber Boot Cowl
- AVEO Strobes



Convertible gear configuration comes standard on all S-2o Raven airframes.

PARTIAL KITS

WING KIT

Main structure, fuel tanks, close outs, ribs, lift struts, jury struts, ailerons, flaps, wing tips, and more.

FUSELAGE & TAIL KIT

Fuselage, formers, main gear, wheels and brakes, rudder pedals, tail section, tail wheel, control stick assembly, baggage compartment, boot cowl, COMM & ELT antenna mount plates, floor boards, wear plates, hardware, and more.

COVERING KIT

Covering supplies, fabric, closeouts, and more.

FINISHING KIT

Seats, seatbelts, Station 3 closeout, placards, windshield, headset jack mounts, cabin fuel system, and more.

ENGINE INSTALL KIT

ROTAX 912ULS Install Kit (less engine).

SPECS AND PERFORMANCE

SPECIFICATIONS

Wing Span	30 ft 3 in
Area	152.7 sq ft
Mean Chord	5 ft
Aspect	6.0:1
Length	21 ft
Height - Taildragger*	6 ft 2 in
Height - Trike*	7 ft 11 in
Cockpit Width	46.5 in
Headroom	40 in
Legroom	46 in
Number of Seats	2
Doors	2
Landing Gear**	F/TDTK
Baggage Volume	21.2 cu ft
Baggage Capacity	80 lbs
Fuel Capacity	26 gal

POWER PLANT

Engine	Rotax 912ULS
Output	100 hp
Oil Capacity	3.0 qts
Coolant Capacity	4.4 qts
Propeller Diameter	75 in ****
Propeller Type	Ground Adj.
Gear Reduction	1:2.43
Fuel G.P.H @ 75%	5.0

PERFORMANCE\*\*\*

Take Off Roll	300 ft
Rate of Climb	900 fpm
Service Ceiling	14,500 ft
Cruise	110 mph
VNE	130 mph
Stall Clean	39 mph
Stall Flaps	33 mph
Roll Rate	80°/sec
Glide Ratio	8.5:1
Landing Roll	340 ft
Endurance	5.2 hrs
Range	572 miles

WEIGHTS AND LOADINGS

Gross Weight	1320 lbs
Empty Weight***	732 lbs
Useful Load ***	588 lbs
Wing Loading	8.9 lbs
Power Loading	13.20
Limit Load Factors	+4 -2

\*\*\*Approximately  
\*w/Standard Tires  
\*\*F/TDTK= Fixed, Convertible/ Taildragger or Trike  
\*\*\*\*Tailwheel Only, 70 in dia. on Trikes