

RANS S-6S Coyote II (Kit)

Overview

The design goal of the S-6S was to create a fast build kit plane with traditional aircraft fabric covering. The basic airframe is based off the successful S-6ES. In the tradition of the ES series most parts are preformed and pre-finished. Typically on fabric planes, the inside is painted or covered with fabric. Many hours of tedious labor is saved with the use of a molded interior kit. Final assembly can begin once inventory and inspection is complete. Only the outside of the plane and the instrument panel require painting. Even the panel can be ordered powder coated.

A Super Six can be built in the confines of an average garage using normal shop tools and skills. The Super Six is an excellent project for the first-time builder wanting the challenge of traditional aircraft fabric. Because of the high level of "out of the box" finish and preparation, more time can be spent on the details resulting in a highly professional finish with performance to match. The new sport wing offers great performance in both STOL and cruise speeds. At 30' 8" span and a slight taper the handling is with little adverse yaw and snappy roll rate. The sport wing will function well on floats and at high altitude. The advanced construction of the sport wing also allows a very precise shape airfoil in short build times.

With the standard wing the stock 80 HP Rotax 912 UL engine cruise speeds are in excess of a 100 mph. Fuel burn rates of less than 5 gallons per hour common. The 100 HP ups the cruise a few MPH, with a large increase in climb, all at a small increase in fuel burn. Overhaul times as high as 2000 hours have been reported by operators.

Kits delivered as of 01/08: 1842 (includes ES Series)

The point of building from a kit is to have the convenience and value. Kit aircraft have as a whole come a long way since we started, and a much higher level of fabrication and completeness is present. We welcome this, because we believe the more provided, the more likely you end up with a plane that performs as per our claims. A kit that is lacking puts the builder in the design, engineer and fabricate role. That should be reserved for those who build from plans. You as a consumer pay for a kit, not a surprise list of things you still need to buy or fabricate. I hope you enjoy the photo of the S-6S kit, and can appreciate the level of finish, fabrication, and detail provide in our standard kits.

S-6S SPECIFICATIONS

Engine Type	80HP/100HP
Wing Span	30ft 4 in
Area	137.6 sq ft
Mean Chord.....	4 ft 6 in
Aspect.....	6.73
Length.....	20 ft 9 in
Height*	7 ft 8 in
Cockpit Width	45 in
Headroom.....	39 in
Legroom	41 in
Number of Seats.....	2
Doors	2
Landing Gear**	F/TD/TR
Baggage Volume	6 cu ft
Baggage Capacity	50 lbs
Aux. Baggage Volume***	7 cu ft
Aux. Baggage Capacity	30 lbs
Fuel Capacity.....	18 gal US

POWER PLANT	912UL/912ULS
Engine	Rotax 912 UL/912 ULS
Output.....	80 hp/100 hp
Oil Capacity	3.0 qts
Coolant Capacity	4.4 qts
Propeller type****	
Gear Reduction	1:2.27/1:2.43
Fuel G.P.H. @75%.....	4.5 / 5.0

PERFORMANCE

Take Off Roll.....	220ft/210ft
Rate of Climb.....	950 fpm/1250fpm
Service Ceiling.....	14,000ft/16,000ft
Cruise	110 mph/115 mph
VNE	130 mph
Stall Clean	41 mph
Stall Flaps.....	36 mph
Roll Rate.....	80° / sec
Glide Ratio.....	9:1
Landing Roll.....	260 ft
Endurance	4 hrs / 3.6 hrs
Range	440 miles / 414 miles

WEIGHTS AND LOADINGS

Gross Weight.....	1320 lbs
Empty Weight	700 lbs
Useful Load	620 lbs
Wing Loading.....	9.59 lbs
Power Loading.....	16.50/13.20 lbs
Limit Load Factors.....	+4-2

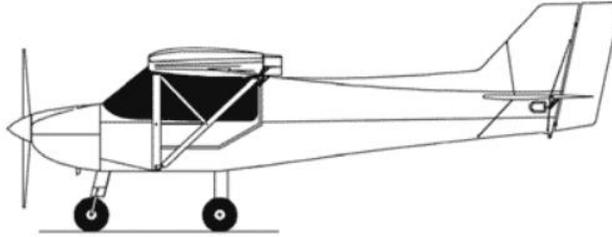
* Trike height is shown, Taildraggers are 6 ft.

**F/TD/TR=Fixed Taildragger/ Trike

***Baggage Compartment optional

****Refer to Optional Props available

Performance at sea level and maximum gross weight.



S-6S Coyote II

STANDARD EQUIPMENT

AIRFRAME

- Welded 4130 chromoly steel powder coated cockpit cage
- Aluminum tube tail cone assembles from pre-drilled parts
- Most parts powder coated or anodized
- Cabin skylight
- Differential ailerons, operated by cables and push-pull tubes
- Dual elevator horns, push pull operated elevator
- Ball bearing aircraft control pulleys, all cables pre-assembled
- Pre-drilled aluminum struts with adjustable aft lift strut
- 3" Main wing spar 2" Trailing wing spar
- Pitot/static system
- Stamped aluminum ribs
- Sheet aluminum leading edge
- Molded wing tips
- 9 Gallon fuel tank in each wing, w/ visual fuel quantity indicators
- Folding tail & wings
- Aluminum tail ribs
- Double cable braced tail
- Aluminum framed LEXAN curved doors with gas door lift cylinders
- Dual air vents
- Dual control sticks
- Dual rudder pedals
- Single panel mount throttle
- Panel mounted elevator trim
- Center flap handle
- Single hydraulic toe brakes
- Aluminum wheels/ Aircraft grade tires
- Park Brake
- Tapered spring steel main gear
- Telescoping steerable nose gear (Trike)

- Gear leg fairings
- Full swivel steerable tail wheel (Tailwheel)
- Full interior kit with behind seat baggage storage
- Deluxe upholstered seats with map pockets, adjust fore and aft, 4 positions
- Lap and shoulder belts
- In-cockpit fuel sump drain
- Pre-cut floorboard w/ aluminum wear plate
- Aircraft fabric, tapes (no glue) close outs
- Exit fairings for control rods and cables
- Placards, decals; cleco pliers and starter clecos

ENGINE INSTALL KIT EQUIPMENT

- Low drag fiberglass cowling, oil check door, cowling removes quickly with ¼ turn fasteners
- 12" Spinner
- 4-Point rubber isolated engine mount
- Stainless steel exhaust System
- Cooling system
- Hardware, wiring, key start switch, mag switches, pre-assembled oil lines with fire sleeves, fuel lines and fittings
- ACS ignition switch
- Pre-fabricated battery, starter and ground cables

The S-6S is an FAA approved 51% kit In Standard or Quick Build Form-No Welding Requirement

OPTIONS

MANUALS on CD
Paper Copy

BASE PRICES LESS FIREWALL FORWARD

Airframe Kit including all standard features.
Available as trike or taildragger

ENGINE INSTALL KITS

12" spinner, low drag fiberglass cowling, oil check door, stainless steel exhaust system (912UL/912ULS), engine mount, isolators, ACS Ignition switch, cooling system, pre-assembled fire sleeved oil lines, fuel lines, and hardware. Pre-fabricated battery, starter, and ground cables. (Does not include: engine, propeller, or propeller installation hardware)

ENGINES

Rotax 912 UL (80 hp) and 912 ULS (100 hp) available factory new. Due to currency fluctuation, prices are updated frequently. Please call for current pricing. Engines can also be purchased from any authorized Rotax service center. Allow 12-14 weeks for deliver if ordered through RANS.

PROP CHOICES

2-blade Sensenich ground adjustable composite (912ULS)*
Spacer and hardware to install
*If used on a trike it requires upsized tires for clearance.

2-blade Warp Drive ground adjustable w/ HP-L hub (912 UL)
Spacer and hardware to install
with nickel leading edges
with tapered blades

3-blade Warp Drive ground adjustable w/ HP-L hub (912 ULS)
Spacer and hardware to install
with nickel leading edge
with tapered blades

BRAKE / TIRE OPTIONS

The S-6S comes standard with 6" aircraft grade tires and single hydraulic toe brakes. The following upgrades are available.

Tundra Tires (Taildragger Only)
Bush Option 8.00 x 6 Mains with bush tailwheel
Trike gear up sized mains and nose wheel
(Includes and requires slightly larger fork)
Both sides hydraulic brakes

INTERIOR OPTIONS

Map box (not an after market option)
Heater muffler style for 912 UL
Heater radiant style
Aft baggage compartment

UPHOLSTERY OPTIONS

Stock upholstery is gray fabric, w/ black piping
Headrests

OTHER OPTIONS

Gascolator
Wheel pants with mount kit.....(Taildragger)
.....(Trike)
Nose gear disconnect with shimmy dampener
(required with nose wheel pant)
Yaw stability kit (recommended for floats)
Radio mount trays, specify single, double, or triple
Antenna mount bracket
Windshield cover

PRE-BUILT OPTION

Pre-built Tailcone: Built and attached to cockpit cage.
Trike
Taildragger

QUICK BUILD OPTIONS

The S-6S quick build option includes:

- Wings assembled covered, fuel system installed with fuel lines plumbed and ready to integrate into fuselage.
- Fuselage assembled covered, floorboard, wear plate, rudder pedal location drilled, and nut plates installed.
- Com antenna mount installed in fuselage belly.
- Optional aft baggage assembled, door fitted.
- Gear legs aligned and drilled.
- Flaps, aileron and tail group assembled and covered.

Quick Build (Add to kit price.)

2-color paint on quick build
(Add to quick build cost.)

3-color paint on quick build
(Add to quick build cost.)

*** Crating/packing costs are **included in pricing**; Countries requiring treated wood subject to \$500 crating fee.

****All orders are shipped freight collect unless prior arrangements have been made to pre-pay shipping. Customer pick-ups welcome. See "Shipping Information" page

COYOTE II SPORT WING

The Coyote II features the new Sport Wing offering the best of STOL and cruise speed. The sport wing was developed in order to consolidate wing choices from the previous standard 34.5' span or the 29.5' tapered I16 wing. The new Sport Wing (since 2006) provides the speed, and roll rate of the I16, with the STOL of the standard. The Sport Wing construction is innovative; using CNC machined, stamped aluminum ribs and a pre-sewn envelope. The wing tapers 2" to allow the skin a super smooth and tight fit, see "root rib" below. The skin is blind riveted to the ribs, to provide a very airworthy, lasting set of wings. The highly proven Sport Wing exhibits outstanding stall, and spin recovery, with delightfully light and balanced ailerons and effective easy to deploy flaps.

*Nine gallon fuel tanks install at the root of each wing. Sight gauges are provided for fuel quantity monitoring.

*Sport wing construction

*Root rib tension systems provide smooth tight skins for ailerons, flaps and the entire wings.



