# ABOVE AND BEYOND: THE PINNACLE OF LIGHT SPORT AVIATION

Designed and built in America and offered in both kit and ready to fly form (designated as the S-19LS) the RANS S-19 brings to the light sport aircraft and amateur experimental market what the flying public has been asking for; a docile fun handling plane, with great performance, rugged construction, easy ergonomics, and an economic operational cost.

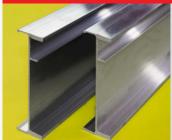
The utility of the S-19 is significant; able to carry up to 500 pounds at a steady 115 knots, for 4 hours plus, take of and land in short grass strips, handle 20 knot cross winds, all in comfort, style, and safety. Just sitting in the cockpit reveals the superb visibility, comfortable seats, and a spacious cabin. Taking a demo flight reveals the excellent low speed handling, exciting performance, and that smooth solid feel that says, "Now this is what an airplane should fly like!"

# READY-TO-FLY, WITH AN EXPERT FIT AND FINISH

Considerable effort has gone into making this a sheet metal plane for the uninitiated; an excellent first time project, and a kit the pro can make into a champion with embarassing ease. This is accomplished not only by using precisely made components finished to a high level, but using pull rivets and providing many of the building fixtures in the kit. As a ready to fly plane, the refinement in the kit pays off in expert fit and finish.

In conjunction with control feel, the stability of the S-19 has been highly praised. It is yet another component of going beyond the standard to create a sport place to set the new standard. A large vertical fin tames adverse yaw, and the ample rudder allows even the novice to handle impressive cross winds. Responsive ailerons feature low breakout force, coordinated turns are natural, and feet are on the floor. Large flaps can reduce approach speeds and shorten rollouts. A deep chord stabilator assures pitch stability, and altitude hold is "auto-pilot" impressive. Electrical trim is standard, working through the the Stabilator anti-servo tab.





Custom extruded wing spars come assembled, and ready to install.





The panel sizing on the S-19 allows a full array of flight, nav, and engine gauges.



Ball-bearing, stainless steel canopy rails provide the silky smooth operation of our sliding canopy.



A large vertical fin helps tame adverse yaw.

## **BUILD TIMES**

- Build time: 1000-1200 hours
- Quick Build time: 650-750 hours

Crating/packing costs are included in pricing. Countries requiring treated wood are subject to additional crating fees. Freight costs not included with base kit price. All associated freight costs require pre-payment prior to the delivery of the kit. Scheduled pick-ups are an option.



#### STANDARD EQUIPMENT

#### **AIRFRAME**

- ROTAX, LYCOMING, and TITAN Engine Install Kits available
- Assembled wing spar and carry thru with solid rivets and ready for installation
- Aircraft grade aluminum construction
- Pull type rivets used throughout entire airframe
- All parts are CNC machined for an exact fit
- Vertical fin, stabilator and rudder fixtures provided
- AN hardware and fasteners
- Molded tips for wing, stabilator, and vertical fin
- Removable inspection plates
- 5" nose and main gear wheels and tires
- 2 piece spring aluminum main gear
- Free swivel nose gear, dual rudder pedals and hydraulic brakes (pilot side std)
- Upholstered seats
- Dual control sticks
- Electric eleveator trim system
- 12 gallon plastic molded wing tank for a 24 gallon fuel system
- Fuel valve and fuel fittings
- Tie down fittings for wings and tail
- Lap and shoulder belts (3 point)
- Stabilator operated via push pull tubes
- Differential Ailerons operated via push pull tubes
- Rudder operated via 1/8" aircraft grade cable on pulleys
- Adjustable stops on all controls
- Baggage floor

## KIT AND OPTIONS INFORMATION

### **EMPENNAGE KIT**

Everything needed to finish horizontal stabilator, vertical fin and rudder (including molded tips), and more.

#### **WING KIT**

Factory assembled wing spars, wing root fairings, all components to complete wing structure, molded fuel tanks, fuel system-wing, molded plastic wing tips, ailerons and actuation, flaps, and more.

## KIT AND OPTIONS INFORMATION

(continued)

#### **FUSELAGE KIT**

- Includes all fuselage structure components hardware
- main gear legs and hardware
- nose gear mount
- nose gear and pylon
- control system components fuselage
- fuel lines and selector valve
- baggage floor and close out
- instrument panel
- roll bar
- molded tail stinger
- 5" Wheel & Brake assembly w/ tires and tubes (MATCO E Series)

#### **SEAT KIT**

Seats and standard upholstery, includes restraint system, optional headrests.

### **CANOPY KIT**

Plexi-glass windshield and canopy, welded canopy frame, slide rails, Station-3 Closeout, and all other canopy components.

#### **ROTAX 912 ULS ENGINE INSTALL KIT**

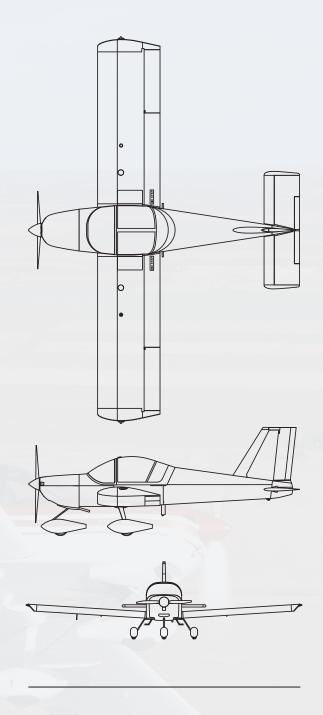
- Includes most components to install 912 ULS engine, less engine and prop.
- Stainless steel exhaust system
- Engine mount
- Isolators
- Cooling system
- Oil lines, fuel fittings, hardware
- Cabin heat, carburetor heat, spinner, cowling
- Pre-fabricated battery and starter cables

## **ENGINE**

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

## **OPTIONS**

- 2-Blade ground adj. Sensenich prop
- Hardware to install (includes spacer)
- Dual Brakes (Pitot side standard)
- Interior Kit
- Headrests
- Canopy Cover
- Tow Bar/Bag
- Nose Gear Tabs (for tow bar if wheel pants not installed)
- Windshield Strip
- Dynon Pitot/Static Mount- Wing





## **SPECS AND PERFORMANCE**

## **SPECIFICATIONS**

Į	Wing Span	28 ft.
	Wing Area	126 sq. ft.
	MAC	4 ft. 7 in.
	Aspect	6.18:1
	Length	19.9 ft.
	Height	95.5 in.
	Cockpit Width	43.5 in.
	Headroom	40 in.
	Legroom	45 in.
	Number of Seats	2
	Entry	Canopy
	Landing Gear*	F/TR
	Baggage Volume	13 cu. ft.
	Baggage Capacity	70 lbs.
	Fuel Capacity	24 gal. us.

# **POWER PLANT**

Output	100hp
Oil Capacity	3 qts.
Coolant Capacity	4.4 qts.
Propeller Diameter	70 in.
Propeller Type	2 blade GA
Gear Reduction	1:2.43
Fuel G.P.H @ 75%	5

## **WEIGHTS & LOADINGS**

Gross Weight**	1320 lbs.
Empty Weight	820 lbs.
Useful Load	500 lbs.
Wing Loading	10.4 lbs./ft²
Power Loading	13.2 lbs./hp
Limit Loading	+4.4 / -2

#### **PERFORMANCE**

Take Off Roll	325 ft.
Rate of Climb	900 fpm
Service Ceiling	14,500 ft.
Vc	136 mph
Vne	150 mph
Stall Clean	50 mph
Stall Flaps	45 mph
Roll Rate	100°/sec.
Glide Ratio	12:1
Landing Roll	325 ft.
Endurance	4.4 hrs.
Range	598 miles

<sup>\*</sup> F/TR = Fixed Trike

 $<sup>^{**}</sup>$  Airframe rated for 1500 lbs. (680 kgs.)