



4600 Highway 183 Alternate  
 Hays, Kansas 67601  
 (785) 625-6346  
 FAX (785) 625-2795  
 www.rans.com

## RANS S-12S SUPER AIRAILE SPECIFICATIONS AND PERFORMANCE

| <b>SPECIFICATIONS</b>  | <b>80HP</b>       | <b>100HP</b> |
|------------------------|-------------------|--------------|
| Wing Span.....         | 31.0 ft.....      | 31.0 ft      |
| Area.....              | 152 sq ft.....    | 152 sq ft    |
| Mean Chord.....        | 4 ft 10.5 in..... | 4 ft 10.5 in |
| Aspect .....           | 6.33:1.....       | 6.33:1       |
| Length .....           | 21 ft 8 in.....   | 21 ft 8 in   |
| Height.....            | 88 in.....        | 88 in        |
| Cockpit Width .....    | 41 in.....        | 41 in        |
| Headroom.....          | 39.5 in.....      | 39.5 in      |
| Legroom .....          | 44.5 in.....      | 44.5 in      |
| Number of Seats .....  | 2.....            | 2            |
| Doors.....             | 2.....            | 2            |
| Landing Gear* .....    | F/TR.....         | F/TR         |
| Baggage Volume.....    | 15 cubic ft.....  | 15 cubic ft  |
| Baggage Capacity ..... | 75.....           | 75           |
| Fuel Capacity .....    | 18 gal US.....    | 18 gal US    |

| <b>POWER PLANT</b>       | <b>912</b>          | <b>912S</b>    |
|--------------------------|---------------------|----------------|
| Engine .....             | Rotax 912 .....     | Rotax 912S     |
| Output.....              | 80 hp.....          | 100 hp         |
| Oil Capacity .....       | 3.0 qts.....        | 3.0 qts        |
| Coolant Capacity .....   | 4.4 qts.....        | 4.4 qts        |
| Propeller Diameter ..... | 68 in.....          | 68 in          |
| Propeller Type .....     | Composite.....      | Composite      |
| Gear Reduction .....     | 1:2.27.....         | 1:2.43         |
| Fuel G.P.H.....          | 4.25 gal @ 80%..... | 4.55 gal @ 80% |

### PERFORMANCE

|                       |                |           |
|-----------------------|----------------|-----------|
| Take Off Roll .....   | 275 ft.....    | 265 ft    |
| Rate of Climb.....    | 950 fpm.....   | 1200 fpm  |
| Service Ceiling ..... | 14,500 ft..... | 15,000 ft |
| Cruise** .....        | 95 mph.....    | 100 mph   |
| VNE .....             | 120 mph.....   | 120 mph   |
| Stall Clean .....     | 42 mph.....    | 42 mph    |
| Stall Flaps.....      | 35 mph.....    | 35 mph    |
| Roll Rate.....        | 90° / sec..... | 90° / sec |
| Glide Ratio.....      | 8:1.....       | 8:1       |
| Landing Roll .....    | 200 ft.....    | 200 ft    |
| Endurance .....       | 4.4 hrs.....   | 3.9 hrs   |
| Range.....            | 374 miles..... | 360 miles |

### WEIGHTS AND LOADINGS

|                         |                 |           |
|-------------------------|-----------------|-----------|
| Gross Weight.....       | 1150 lbs.....   | 1150 lbs  |
| Empty Weight.....       | 650 lbs.....    | 650 lbs   |
| Useful Load .....       | 500 lbs.....    | 500 lbs   |
| Wing Loading .....      | 7.56 lbs.....   | 7.56 lbs  |
| Power Loading .....     | 14.375 lbs..... | 11.50 lbs |
| Limit Load Factors..... | +4-2.....       | +4-2      |

\*F/TR=Fixed Trike

\*\*With most fairings and wheel pants

Performance at sealevel and maximum gross weight

### STANDARD EQUIPMENT

- ROTAX Engine Install Kit
- 6-Point Rubber Isolated Engine Mount
- Welded 4130 Cockpit Cage comes Powder Coated
- 5" x .065 6061-T6 Tail Boom with Bonded in Doubler
- 3" and 2" 6061-T6 Wing Spars
- Built up Aluminum Wing Ribs
- Aluminum Airfoil Struts
- Folding Tail and Wings (20 Minutes)
- Dual Rudder Pedals
- Hydraulic Brakes
- 5" Nose and Main Gear Aluminum Wheels
- 5.00 – 5 Aircraft Grade Tires
- Steerable Nose Gear
- Full Enclosure with Gas Lift Strut Doors and Air Vents
- Spring Steel Main Gear
- Gear Leg and Strut to Wing (Fillet) Fairings
- (2) 9 Gallon Fuel Wing Tanks
- Dual Control Sticks
- Dual Throttles
- 4 Position Flaps, Center Level
- Avionics Style Instrument Panel (Pre-Cut)
- Standard Instruments Include:
  - ASI,
  - RPM
  - CHT, Oil Temp, Oil Pressure
  - Hourmeter
- Elevator Trim Tab
- Adjustable Aft Strut
- Composite Prop
- Folding Jury Struts with Fairings
- Fuel Sump Drain
- Deluxe Seat Upholstery, with Map Pockets, Adjust Forward Aft
- Lap and Shoulder Belts
- Dual Elevator Horns Operated by Push-Pull Tube
- Cable and Push-Pull Tube Differential Ailerons
- Ball Bearing Aircraft Control Pulleys
- 2.8 ounce Aircraft Fabric
- All Surface Tapes, Exits Fairings, Glue and Wing Rivet Kit (Eliminates Rib Stitching)

The S-12S is an FAA Approved 51% Kit in standard or Quick Build form. No welding required.

**BUILD TIME: 500 HOURS**  
**WITH QUICK BUILD KIT: 250 HOURS**

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