

# **TOTAL PERFORMANCE**

# **VAN'S AIRCRAFT**

Specification & Description

## **Vans RV-12**

Exhibit "A"

October 2013



*The production S-LSA RV-12 builds on the experience of three hundred kit-built RV-12s. This example is equipped with the optional wheel fairings and canopy shade.*

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## **INTRODUCTION**

This Specification and Description is published for the purpose of providing general information about the design, performance, and equipment of the S-LSA RV-12.

Also included are the warranties applicable to the RV-12 aircraft, the Rotax 912 ULS engine, Sensenich propeller and the installed avionics. In the event of any conflict or discrepancy between this document and the terms and conditions of the purchase agreement to which it is incorporated, the terms and conditions of the purchase agreement govern.

Due to the time span between the date of this Specification and Description and the scheduled delivery date of the aircraft, Vans reserves the right to revise the "Specification" whenever occasioned by product improvements, government regulations or other good cause.

For additional information contact:

**Van's Aircraft**  
**14404 Keil Road NE**  
**Aurora, OR 97002**  
**503-678-6545**

## **GENERAL DESCRIPTION**

The Van's RV-12 S-LSA is an all-metal, single engine piston, low-wing monoplane with a two-person seating capacity including the pilot. Suitable allowance for luggage is provided aft of the seats. The RV-12 is equipped per FAR 91.205 to meet both Day and Night VFR flight requirements.

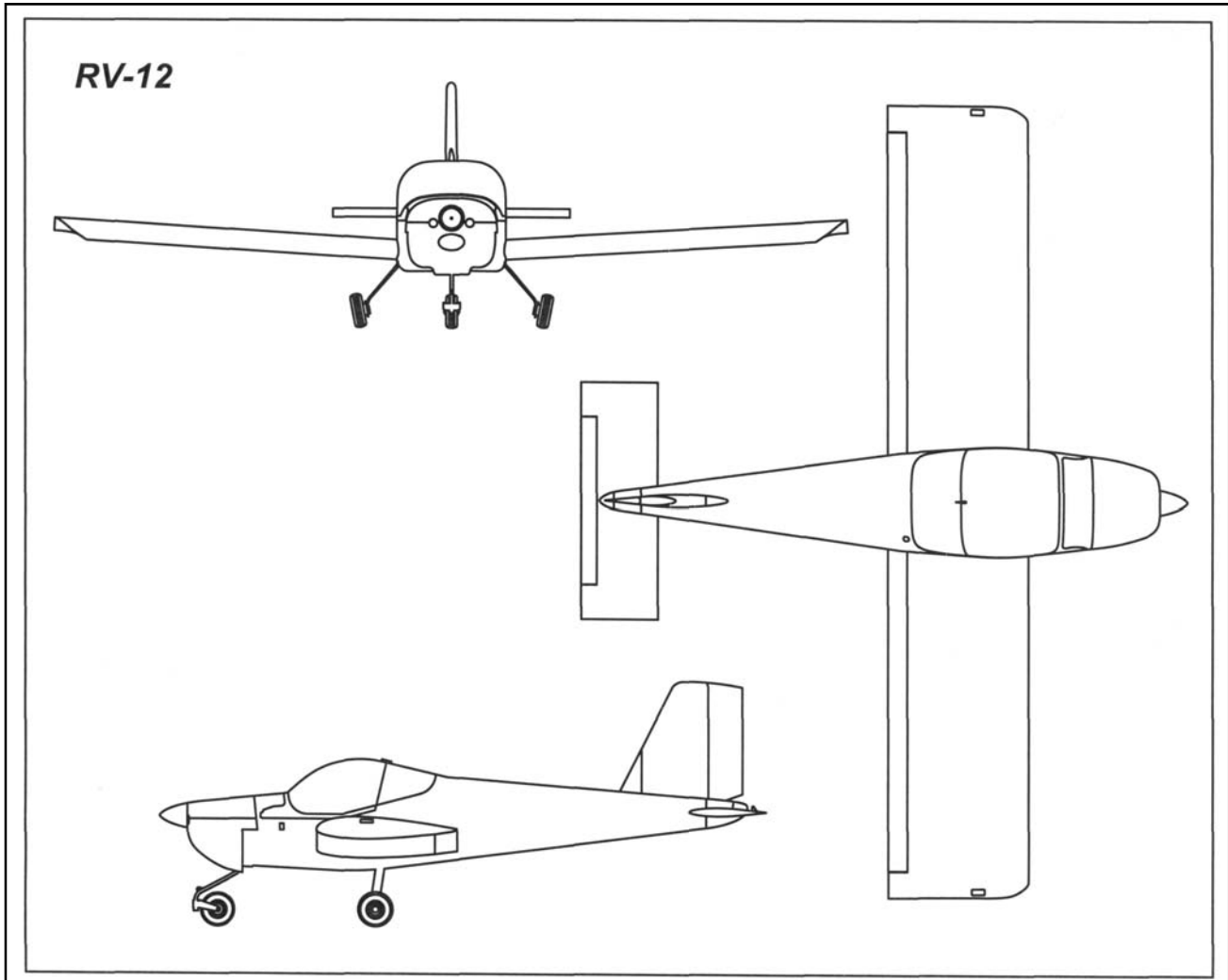


***A ready to fly RV-12 in standard plumage. The buyer may opt for one of several colors, wheel fairings, ADSB and a two-axis autopilot.***

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## APPROXIMATE SPECIFICATIONS

Engine .....	Rotax 912ULS
Horsepower .....	100 hp at 5800 RPM
Propeller .....	2-Blade Sensenich Composite Fixed Pitch
Service Ceiling` .....	13,800 ft
Maximum Gross Weight .....	1320 lbs
Standard Empty Weight .....	750 lbs
Maximum Useful Load .....	570 lbs
Fuel Capacity (Usable) .....	19.8 gal
Overall Height.....	8 ft 4 in
Overall Length .....	19 ft 11 in
Wing Span .....	26 ft 9 in
Horizontal Tail Span .....	8 ft
Cabin Width at Shoulders.....	44 in



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## PERFORMANCE DATA

All performance data is based on the standard aircraft configuration, operating in International Standard Atmosphere (ISA) conditions with zero wind. Takeoff and landing field lengths are based on a level, hard surface, dry runway. Actual performance will vary with individual airplanes and other factors such as environmental conditions, aircraft configuration, and operational procedures.

Takeoff Distance S.L. (Ground Roll) . . . . .	700 ft
Takeoff Distance S.L. (To Clear 50 ft Obstacle) . . . . .	1397 ft
Max Climb Rate S.L. . . . .	.900 fpm
Max Speed S.L. . . . .	118 kts
Max Range and Endurance at 7,500 ft . . . . .	481 nm / 4.8 hrs
Cruise Speed (5500rpm. at 7,500 ft) . . . . .	118 kts
Cruise Range and Endurance (5500 rpm at 7,500 ft) . . . . .	423 nm / 3.5 hrs
Landing Distance (Ground Roll) . . . . .	.525 ft
Landing Distance (To Clear 50 ft Obstacle) . . . . .	1550 ft

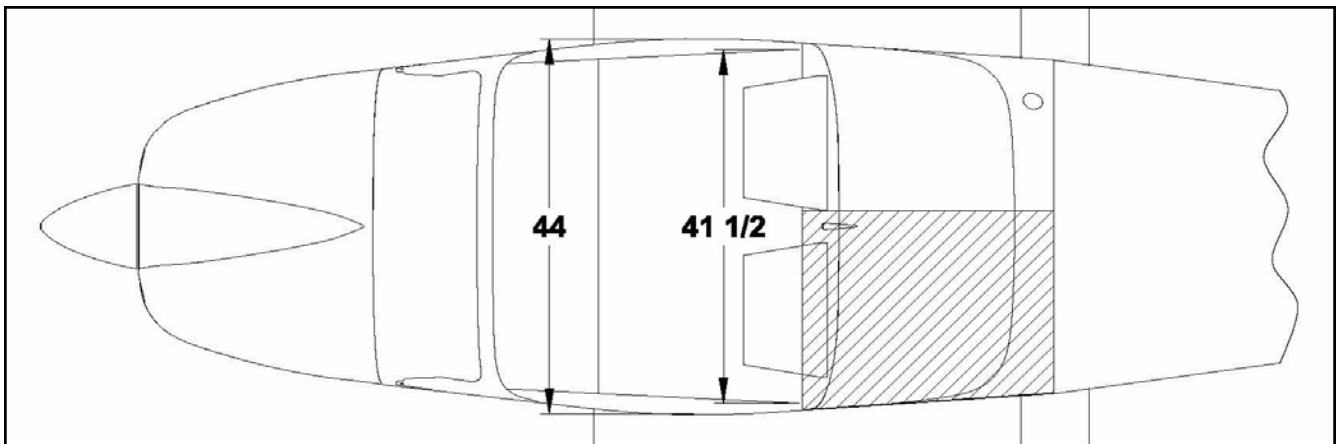
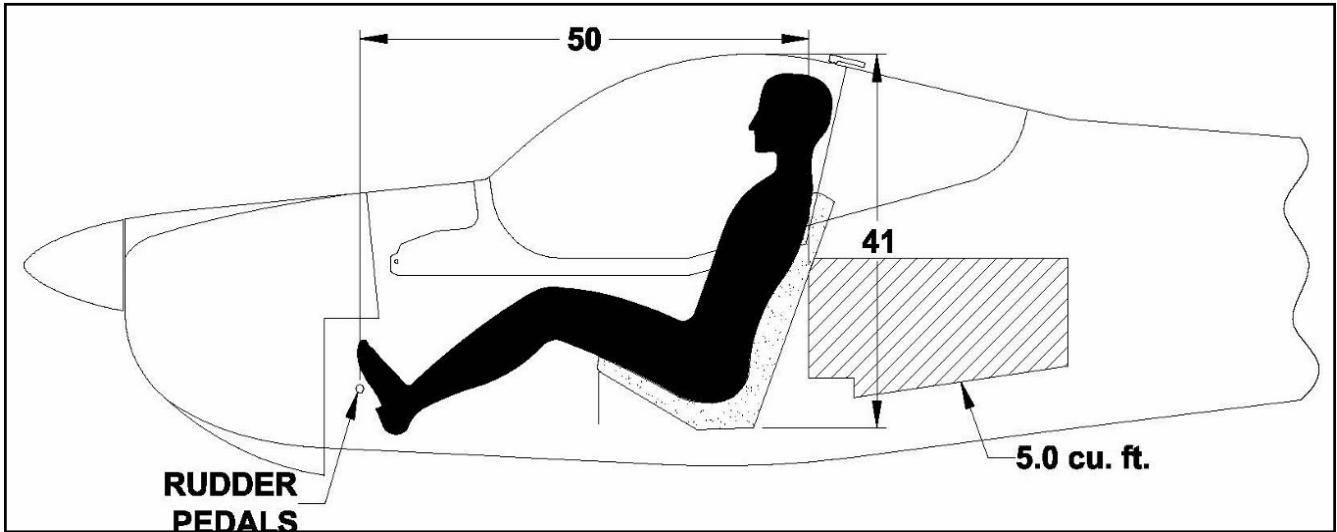
*(Performance shown with 30 minutes of fuel reserve)*



*The RV-12's "cab-forward" design gives unrivaled visibility in all directions.*



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**INSIDE THE CABIN:** A modern glass panel, featuring the Dynon Skyview 1000 and a Garmin GTR 200 comm radio with internal intercom.

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## DESIGN FEATURES

The RV-12 is designed and built to comply with the American Society for Testing and Materials International (ASTM) standards for Light Sport Aircraft and it meets the limitation and Special Certificate of Airworthiness requirements for a Light Sport category aircraft as defined by the FAA in CFR Part 1.1 and CFR Part 21.190.

The Purchaser is responsible for obtaining aircraft operating approval from the relevant civil aviation authority, prior to aircraft delivery.

**FUSELAGE:** The fuselage will be constructed primarily of aluminum alloy materials. The semi-monocoque structure will consist of frames and stringers covered by sheet aluminum skin. A forward opening canopy used to allow access for the pilot and passenger. A removable fuel tank is installed aft of the seats.

**WING:** The wing will be constructed primarily of aluminum alloy materials and incorporates a NACA 23000 airfoil. The wing structure uses a two spar design. Flaperons are used to further lower the stall speed.

**EMPENNAGE:** The empennage will be constructed primarily of aluminum alloy materials. The horizontal tail will be a stabilator with moveable anti-servo tab. Pitch trim will be provided by the anti servo tab. The vertical tail will be a conventional fixed stabilizer and rudder.

**LANDING GEAR:** The main landing gear will use heat treated aluminum leaf gear. Each main wheel will be equipped with toe actuated disc brakes. The rudder and differential braking will be used for nose wheel steering. Toe brakes will be provided at both cockpit seats. Wheel fairings are an option.

**POWERPLANT:** The Rotax 912 ULS is an air/liquid cooled, horizontally opposed, four cylinder, naturally aspirated, spark ignited, four stroke, geared drive engine incorporating a dry sump, twin carburetors, and exhaust system w/ EGT sensors and muffler. The engine is designed to operate on 100LL aviation fuel or Premium Auto gas, and has a maximum continuous rating of 92 hp at 5500 RPM. The time between overhaul is 2000 hours or 12 years, whichever occurs first.

**SYSTEMS:** The flight controls will consist of dual control sticks, which provide movement to the stabilator and flaperons. Rudder pedals, with differential toe brakes, will provide control to the rudder and brakes. A mechanical flap lever will be located between the two occupants to provide actuation of the flaperons. Electric pitch trim will be used. A single buss 14 Volt electrical system will be used, with power generated by the engine driven alternator. LED Position, anticollision and landing lights are standard.

**AVIONICS AND INSTRUMENTATION:** A 10" Dynon Skyview display will provide primary flight and engine information in a split screen format. A Garmin GTR 200 Com radio with internal Intercom, Dynon 261 Mode S transponder, and an ACK 406Mhz ELT are standard equipment. Optional ADS-B weather/traffic and a 2 axis Dynon autopilot available.

**INTERIOR:** Two seats with vinyl upholstery and booster cushions, overhead panel lighting, floor carpet panels, gray painted interior, carbon fiber panel overlay, cabin armrests

**EXTERIOR:** All interior aluminum and steel parts will be primed for corrosion protection. Exterior paint will be 2 color design using 2 stage polyurethane/clearcoat.

**FLIGHT TRAINING:** Two hours of professional flight training in the purchased airplane are included in the purchase price. This training is available in Aurora, Oregon and requires prior arrangement. It can be arranged as part of aircraft delivery. Transfer of aircraft ownership must be complete before flight training is available. Customers must provide aircraft insurance. No credit is available for those who choose not to take training.