

JANUARY 2019



ACE

*Aircraft*

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ONE OF THE FIRST CORBEN SPORT PLANES IN FLIGHT POWERED BY A HENDERSON ENGINE

## FORWARD

Before Piper, Cessna, Kitfox, and Vans, before AOPA, CAP, and EAA, there was Ace. Two decades after the Wright Brothers' first flight, flying had become a rich man's luxury. Mr. Orland G. "Ace" Corben saw the need for an aircraft that was safe, easy to fly, and inexpensive for the average person to build and operate. To recognize this goal, he created the first kitbuilt airplane, the Baby Ace, and a year later the two-seat Junior Ace. These aircraft became the first popular homebuilt aircraft.

In 1955, Mr. Paul Poberezny, founder of the Experimental Aircraft Association, built a modified Baby Ace Model C as a three-part series in *Mechanix Illustrated*. The success of the articles caused an overwhelming interest in the renewed homebuilt aircraft movement which continues to this day.

Today, you can fly an aircraft with an aviation history pedigree almost as old as powered flight itself. You can build your Ace aircraft from a kit now or purchase your Ace Aircraft ready-to-fly shortly, and all Ace aircraft models meet the ASTM standards for the Light-Sport aircraft category. Indeed, Mr. Corben's dream of a well designed, inexpensive, and safe homebuilt aircraft is still being realized today. Fly your piece of aviation history...Today!

It is with pride that we herewith give you the details of these outstanding sport planes of proven design which are offered complete fly-away or semi-factory built kits for home assembly.



For a more detailed history of Ace Aircraft, visit us at <http://www.AceAircraft.org>

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A SALMSON POWERED CORBEN JUNIOR ACE SNAPPED IN ACTION

## **A Fascinating Sport—Economical Transportation**

Flying has proven itself to be economical transportation as well as a very fascinating sport, however, the high prices of the average plane together with the tremendous operating cost and upkeep has been a great disadvantage to the average person who wishes to fly. It was with this thought in mind we developed our sport planes described in this folder. We feel that our efforts have helped to place flying within the reach of all.

Whether you may desire to fly for business or pleasure you will find our sport planes fulfill your requirements for a dependable plane which can be operated cheaply.

Ace aircraft now place within your reach the enjoyment and convenience of air travel, together with the sport of soaring swiftly through the air.

Time and distance can no longer interfere with your enjoyment of those distant attractions which the air route brings so near. Business trips are made in a fraction of the time required by other means of travel. Outing trips to places heretofore inaccessible are made possible by air. Congested highways, traffic worries and speed regulations no longer bother you for you are free to go where you will, safely, economically and comfortably in an Ace aircraft.

There is no person who would not enjoy the thrill of flying, comfortably seated in an Ace ship, you slip through the air with the picturesque country spread out in all its splendor beneath you, and you arrive at your destination without that tired and worn out feeling which accompanies other methods of travel.

If it were possible for you to do just one thing, personally see an Ace Aircraft plane with its graceful appearance, watch it take to the air in a steep climb after a short run, see it soar majestically overhead “hands off” then slowly glide into the field for a gentle three point landing, we feel confident you would agree that no finer sport planes are built.

If you operate a flying school, Ace aircraft will prove a real money maker for you. Our semi-built kits are ideal for maintenance schools.

## **Sport Planes Designed for the Amateur That Experienced Pilots Enjoy Flying**

Every consideration has been given the amateur pilot in designing Ace aircraft. Wide range of vision, slow landing speeds, and uncanny stability—features any pilot will welcome. Sturdy, yet simply constructed, they assure you of lasting service. They are designed to afford the utmost comfort.

## **The Aristocrats of all Sport Planes**

Ace aircraft have always led the field for smartness of design and surpass all other light planes of the same horsepower for performance. Unlike other low priced planes, Ace aircraft have the finished appearance and graceful lines of higher priced airplanes. Many other outstanding features are described, as you read this folder.



THE CLASSIC JUNIOR ACE MODEL E

## CLASSIC ACE AIRCRAFT MODELS

The Baby Ace Model B is the original, classic version of the Baby Ace first built by Mr. Corben in 1929, and which appeared numerous times in *Popular Aviation* magazine. Because of aircraft certification changes over the years, a 1929 Baby Ace cannot be built and certified today. So, a few modern enhancements have been made to the Model B while retaining the same classic, antique design.

For example, as most airports in the 1920s were still just grass strips, the Model B originally had a tail skid. You and your airport manager will appreciate the fact that the new Model B now has a steerable tailwheel. Brakes were also an option on the 1929 Baby Ace but are now standard on the new Model B. The engine horsepower in the 1930s was about 40 HP but has been increased to a maximum of 85 HP on the new Model B. This necessitated decreasing the wing size to compensate for the increased horsepower.

In the fall of 1953, Mr. Paul Poberenzy purchased the assets of the Corben Sport Plane Company. Due to the tremendous interest in a kitbuilt version of the Baby Ace, Mr. Poberenzy asked Mr. Stanley Dzik to modify and re-engineer the Baby Ace drawings to meet the current CAA standards. The result was the Baby Ace Model C. Many of the modifications were the inclusion of Piper J-3 Cub parts such as the landing gear, cowling, and fuel tank. In 1955, Mr. Poberenzy built a Baby Ace Model C as a three-part series for the *Mechanix Illustrated* magazine.

In 1956, Mr. Dzik once again helps to modify and re-engineer the Baby Ace Model C to create the Baby Ace Model D. The Model D becomes a more modern design with contemporary tailfeathers. The two-place Junior Ace was first built by Mr. Corben in 1930 and appeared numerous times in *Popular Aviation* magazine. When the Homebuilt Revolution was resurrected in the 1950s, with it came a demand for a two-seat homebuilt aircraft. To satisfy this demand, the cabin of the Baby Ace Model D was widened to create the Junior Ace Model E in 1958.

All Classic Ace models are Experimental-Amateur-built and comply with the FAA 51% rule. You can build your Classic Ace solely from plans or purchase CNC-cut, tack-welded, or fully welded steel components and Quick-build wing kits. Wing fuel tanks and electrical systems are also optional.



Classic Baby Ace Model B



Classic Baby Ace Model C



Classic Baby Ace Model D

# Classic Baby Ace Models, Specifications, and Pricing

## CLASSIC BABY ACE MODELS



**Classic Baby Ace Model B**

Year Designed. . . . . 1929  
 Landing Gear. . . . . Outrigger  
 Horizontal Tail. . . . . Rounded  
 Vertical Tail. . . . . Squared



**Classic Baby Ace Model C**

Year Designed. . . . . 1954  
 Landing Gear. . . . . Conventional  
 Horizontal Tail. . . . . Rounded  
 Vertical Tail. . . . . Rounded



**Classic Baby Ace Model D**

Year Designed. . . . . 1956  
 Landing Gear. . . . . Conventional  
 Horizontal Tail. . . . . Contemporary  
 Vertical Tail. . . . . Contemporary

## GENERAL

Construction Materials. . . . . Steel, Wood, Fabric  
 Landing Gear. . . . . Taildragger  
 Cabin. . . . . Open-cockpit  
 Seats. . . . . 1

## DIMENSIONS

Wing Span. . . . . 26 ft. 5 in.  
 Wing Area. . . . . 118.9 sq. ft.  
 Chord. . . . . 54 in.  
 Wing Loading. . . . . 9.7 lbs./sq. ft.  
 Length. . . . . 17 ft. 9 in.  
 Height. . . . . 6 ft. 8 in.  
 Cabin Width. . . . . 22.5 in.

## FUEL

Fuel Capacity. . . . . 16.8 or 23 US gals.\*  
 Fuel Tank Location. . . . . Fuselage or Wings\*

## ENGINE

Horsepower. . . . . 65 to 85 HP  
 Power Loading (85HP). . . . . 13.5 lbs./HP

## WEIGHTS

Empty Weight. . . . . 575 lbs.  
 Useful Load (85HP). . . . . 575 lbs.  
 Gross Weight (85HP). . . . . 1,150 lbs.

## PERFORMANCE

Max Speed at Sea Level. . . . . 110 m.p.h.  
 Max Cruising Speed. . . . . 100 to 105 m.p.h.  
 Stalling Speed. . . . . 34 m.p.h.  
 Rate of Climb at Sea Level. . . . . 1,200 f.p.m.  
 Service Ceiling. . . . . 16,000 ft.  
 Takeoff Run. . . . . 250 ft.  
 Landing Run. . . . . 250 ft.

## PRICING

Plans. . . . . \$250  
 CNC-cut Fuselage  
     Model B. . . . . \$3,575  
     Model C&D. . . . . \$2,475  
 Tack-Welded Fuselage  
     Model B. . . . . \$5,445  
     Model C&D. . . . . \$3,245  
 Fully Welded Fuselage  
     Model B. . . . . \$7,370  
     Model C&D. . . . . \$6,270  
 CNC-cut Tailfeathers. . . . . \$2,062  
 Tack-Welded Tailfeathers. . . . . \$2,612  
 Fully Welded Tailfeathers. . . . . \$4,262  
 Quick-Build Wing Kit. . . . . \$10,428  
 Firewall Forward Kit. . . . . \$5,489

## OPTIONS

\*Optional Wing Fuel Tanks, 23 US gals. . . . . \$2,195  
 Electrical System. . . . . \$770

Information is considered reliable but not guaranteed. Subject to change without notice or obligation. Prices are in US Dollars and do not include crating, shipping charges, or taxes, if applicable.

# Classic Junior Ace Specifications and Pricing

## CLASSIC JUNIOR ACE



**Classic Junior Ace Model E**



**Classic Junior Ace Model E  
(Nosewheel Option)**

Year Designed. . . . . 1958  
 Landing Gear. . . . . Conventional  
 Horizontal Tail. . . . . Contemporary  
 Vertical Tail. . . . . Contemporary

### GENERAL

Construction Materials. . . . . Steel, Wood, Fabric  
 Landing Gear. . . . . Taildragger  
 Cabin. . . . . Open-cockpit  
 Seats. . . . . 2, side-by-side

### DIMENSIONS

Wing Span. . . . . 26 ft. 5 in.  
 Wing Area. . . . . 118.9 sq. ft.  
 Chord. . . . . 54 in.  
 Wing Loading. . . . . 9.25 lbs./sq. ft.  
 Length. . . . . 17 ft. 9 in.

Height. . . . . 6 ft. 8 in.  
 Cabin Width. . . . . 32.5 or 35 in.

### FUEL

Fuel Capacity. . . . . 16.8 or 23 US gals.\*  
 Fuel Tank Location. . . . . Fuselage or Wings\*

### ENGINE

Horsepower. . . . . 65 to 120 HP  
 Power Loading (100HP). . . . . 13.2 lbs./HP

### WEIGHTS

Empty Weight. . . . . 780 lbs.  
 Useful Load. . . . . 540 lbs.  
 Gross Weight. . . . . 1,320 lbs.

### PERFORMANCE

Max Speed at Sea Level. . . . . 130 m.p.h.  
 Max Cruising Speed. . . . . 105 m.p.h.  
 Stalling Speed. . . . . 45 m.p.h.  
 Rate of Climb at Sea Level. . . . . 800 f.p.m.  
 Service Ceiling. . . . . 10,000 ft.  
 Takeoff Run. . . . . 600 ft.  
 Landing Run. . . . . 430 ft.

### PRICING

Plans. . . . . \$250  
 CNC-cut Fuselage. . . . . \$3,135  
 Tack-Welded Fuselage. . . . . \$3,905  
 Fully Welded Fuselage. . . . . \$6,930  
 CNC-cut Tailfeathers. . . . . \$2,063  
 Tack-Welded Tailfeathers. . . . . \$2,612  
 Fully Welded Tailfeathers. . . . . \$4,262  
 Quick-Build Wing Kit. . . . . \$10,428  
 Firewall Forward Kit. . . . . \$5,490

### OPTIONS

\*Optional Wing Fuel Tanks, 23 US gals. . . . . \$2,195  
 Electrical System. . . . . \$770  
 Nosewheel Option (Model E Only). . . . . \$748

## Firewall Forward Kits For Classic Ace Aircraft

Ace Aircraft now offers firewall forward kits for all classic Ace aircraft that use the Continental O-200-D, Lycoming O-233, Jabiru 2200, or Jabiru 3300 engines. All firewall forward kits include:

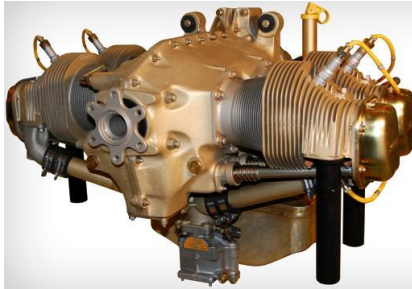
- Cowl System
- Cooling Baffles
- Fuel System
- Battery Box
- Battery Box Cables
- Carb Airbox
- Engine Mount
- Oil Cooler
- Exhaust System
- Engine Controls
- Cabin Heat System
- \$500 Prop Allowance

Firewall Forward Kit. . . . . \$5,490

Information is considered reliable but not guaranteed. Subject to change without notice or obligation. Prices are in US Dollars and do not include crating, shipping charges, or taxes, if applicable.

# Engine Options

Since Mr. Corben first began designing and building airplanes in 1923, Ace aircraft have used a variety of different engines. While this is a great testament to the versatility of the Ace aircraft airframe, Ace Aircraft strongly recommends that builders only use engines which are designed and manufactured exclusively for aircraft.



**Continental O-200-D**

Cylinders. . . . . 4  
 Horsepower. . . . . 100 @ 2,750 r.p.m.  
 Fuel. . . . . AVGAS  
 Fuel Consumption. . . . .6 US gals. @ 75% power  
 Weight (dry). . . . .199 lbs.



**Lycoming O-233**

Cylinders. . . . . 4  
 Horsepower. . . . . 115 @ 2,800 r.p.m.  
 Fuel. . . . . AVGAS or 91 Octane MOGAS  
 Fuel Consumption. . . . .6 US gals. @ 75% power  
 Weight (dry). . . . .213 lbs.



**Jabiru 2200**

Cylinders. . . . . 4  
 Horsepower. . . . . 85 @ 3,300 r.p.m.  
 Fuel. . . . . AVGAS or 91 Octane MOGAS  
 Fuel Consumption. . . . .4 US gals. @ 75% power  
 Weight (dry). . . . .138 lbs.



**Jabiru 3300**

Cylinders. . . . . 6  
 Horsepower. . . . . 120 @ 3,300 r.p.m.  
 Fuel. . . . . AVGAS or 91 Octane MOGAS  
 Fuel Consumption. . . . .6.9 US gals. @ 75% power  
 Weight (dry). . . . .178 lbs.



**Rotax 912 UL/A/F**

Cylinders. . . . . 4  
 Horsepower. . . . . 85 @ 5,800 r.p.m.  
 Fuel. . . . . AVGAS or MOGAS  
 Fuel Consumption. . . . .6 US gals. @ max. power  
 Weight (dry). . . . .121 lbs.



**Rotax 912 ULS/S**

Cylinders. . . . . 4  
 Horsepower. . . . . 100 @ 5,800 r.p.m.  
 Fuel. . . . . AVGAS or MOGAS  
 Fuel Consumption. . . . .7 US gals. @ max. power  
 Weight (dry). . . . .124.5 lbs.

Information is considered reliable but not guaranteed. Subject to change without notice or obligation. Prices are in US Dollars and do not include crating, shipping charges, or taxes, if applicable. Call for latest pricing.

# Wing Fuel Tanks

When Mr. Corben first built his aircraft, the fuel tanks were located in the wings and had a limited fuel capacity—usually less than nine U.S. gallons. During the early 1950s when the Baby Ace and Junior Ace were revived, the redesigned aircraft had the fuel tanks in the fuselage between the instrument panel and engine.

Ace Aircraft has once again created wing fuel tanks for the Baby Ace and Junior Ace with each tank having a capacity of about 11.5 U.S. gallons each (about 23 U.S. gallons total). Wing fuel tanks are standard equipment on the Junior Ace Super Sport models and are optional on all other Ace aircraft we sell.

Additionally, these wing tanks can be retrofitted to any previously built Ace aircraft whose wings were built according to the 1958 series of wing plans—mainly the Baby Ace Model D and the Junior Ace Model E. Contact Ace Aircraft for details.



## CNC Precision Manufacturing



While the history of Ace aircraft dates back to the 1920s, the manufacturing techniques used to build Ace aircraft are modern and very high tech. Items such as fuselages, wings, and fuel tanks are manufactured using CNC processes which cut steel, aluminum, and wood to incredibly high tolerances. As a result, welding is simplified, building time is reduced, and quality is improved dramatically regardless of whether you purchase a pre-cut fuselage and tailfeathers to weld yourself or choose a tack-welded or factory-welded fuselage and tailfeathers. CNC cut wing ribs also allow you to decrease your building time while giving you a lighter, stronger overall wing.

## A Proven Track Record of Quality and Safety

There are numerous companies with aircraft kits on the market today selling untested and unproven designs using parts that were not designed or intended for aircraft use. Do your research. Don't be fooled by lower priced aircraft kits that sacrifice on quality and safety. Our aircraft are real airplanes built using steel, wood, and aircraft fabric not aluminum and ultralight sails like many cheaper aircraft kits. Our aircraft are designed to use aircraft engines and not engines converted for aircraft use.

When built and flown properly, the safety and quality of Ace aircraft cannot be matched. Ace aircraft have a proven track record for safety and quality going back to 1929. And, of all the aircraft kits on the market today, only the Junior Ace can claim to have been previously certified by the United States government when it was issued a type certificate in 1935. No other aircraft on the market can make this claim.

## Ace Aircraft, Inc. is the Only Manufacturer of Genuine Ace Aircraft

Don't be fooled by others calling their aircraft an Ace aircraft. Ace Aircraft, Inc. is the direct successor of the original Corben Sport Plane Company and the only company that manufactures genuine Baby Ace and Junior Ace aircraft.



# The Most Popular Homebuilt Aircraft In Aviation History

Because of Ace aircraft's historical significance, numerous Ace aircraft can be found in museums and other locations throughout the world.

## United States

- ❖ **Dane County Regional Airport Terminal, Madison, Wis.**  
[www.msnaairport.com](http://www.msnaairport.com)
  - Replica of Corben Super Ace
- ❖ **EAA AirVenture Museum, Oshkosh, Wis.**  
[museum.eaa.org](http://museum.eaa.org)
  - *Mechanix Illustrated* Baby Ace Model C
  - Baby Ace Model D
- ❖ **National Museum of the US Air Force, Wright-Patterson AFB, Dayton, Ohio**  
[www.nationalmuseum.af.mil](http://www.nationalmuseum.af.mil)
  - Corben Super Ace (in storage)
- ❖ **New England Air Museum, Windsor Locks, Conn.**  
[www.neam.org](http://www.neam.org)
  - Baby Ace
- ❖ **Poplar Grove Aviation Education Association, Poplar Grove, Ill.**  
[www.thevintagemuseum.com](http://www.thevintagemuseum.com)
  - 1934 Corben Baby Ace, sn# 134
  - Junior Ace Model E
- ❖ **Port Townsend Aero Museum, Chimacum, Wash.**  
[www.ptaeromuseum.com](http://www.ptaeromuseum.com)
  - Baby Ace
- ❖ **Western North Carolina Air Museum, Hendersonville, N.C.**  
[wncairmuseum.com](http://wncairmuseum.com)
  - Junior Ace Model E

## Canada

- ❖ **Reynolds-Alberta Museum, Wetaskiwin, Alberta**  
[www.machinemuseum.net](http://www.machinemuseum.net)
  - Baby Ace

## Australia

- ❖ **Narromine Aviation Museum, Narromine, New South Wales**  
[www.narromineaviationmuseum.org.au](http://www.narromineaviationmuseum.org.au)
  - 1938 Super Ace

