

# Curtiss P40 "Fatty"



From the Fatty Season:



## building instructions

The model of the Curtiss P40 as a "cartoon variant" is part of the Fatty Season, which is available here in the shop. The models are simple in construction and allow a quick construction progress. The wing for example. consists of only a few components. The selected "KF" profile thus facilitates the construction. The P40 can be started well from the hand. It can also be installed a retractable landing gear.



Technical specifications:

- Span: 800 mm
- Hull length: 680 mm
- Weight: about 800 grams (depending on engine, EZFW and battery selection)
- Motorization: BL: max 900rpm, 55 grams
- Controller: 25A
- Propeller: 11 12 inches
- Battery selection: 3 S 1300 mAh
- RC function: height / side / cross and motor

Note on the instructions: Unfortunately, not all detailed pictures of all stages of construction exist. Nevertheless, the construction is simple, since the structure is self-explanatory. The missing pictures will be added later, some of them will be used by other models.

The Depron components are precisely cut using a CNC machine. Positions of all adjacent components were also marked CNC and labeled. This ensures that all adjacent components can be easily adhered to the exact fit.



The manufacture of all components and the completeness of the kits were carried out by hand and conscientiously. If you notice any inaccuracies or missing parts, please contact me to be able to offer the most satisfactory product to you and the following customers. info@scale-parkflyer.de

#### General:

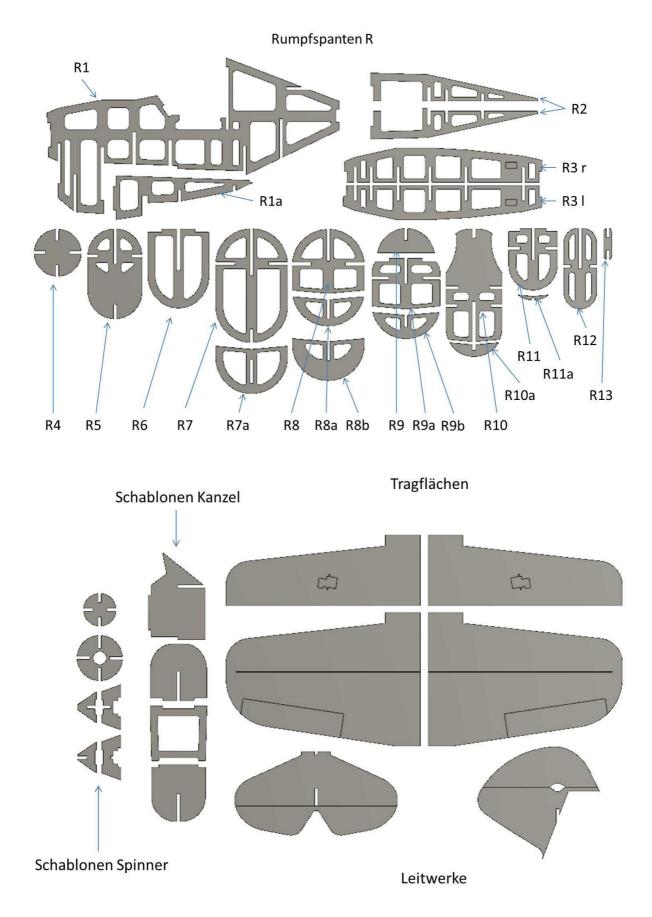
The building material DEPRON is a very light building material that is normally used in house construction. In DIY stores it can be found in wallpaper departments under the name "Wallpaper isolation" as insulation layer under the wallpaper. Due to its low weight (for example 10X10 cm of 6 mm Depron weighs 2 grams) and its stability makes it ideal for the construction of "slow flyers" up to weight classes of well over 3 kg. For example, Depron has achieved a justified place on the model airliner for several years.

Depron can be cold-formed over a table edge with the palm of your hand. The grinding of corners and protruding edges works well with fine smeared paper. When cutting Depron you should use a sharp knife with a narrow blade. When bonding Depron-Depron is very good UHU-Por, unless it is under tension during bonding, or in conjunction with other materials, or the bonding is a higher load. Since you take the proven epoxy resin. To fill gaps and unevenness is excellent "modeling putty" of "Moldofil" from the hardware store. The toothpaste-like paste can be very well trowel into the Depron gap and after curing hardly harder than Depron.

necessary building materials:

<u>In Depronteilesatz all necessary Depron components are to be</u> <u>found. All additional necessary building materials such as</u> <u>stiffening materials (CFRP, wood ect) or adhesives or RC</u> <u>components are not included!</u>

### The parts list:



### **Building instructions:**

### 1. Structure of the wing:





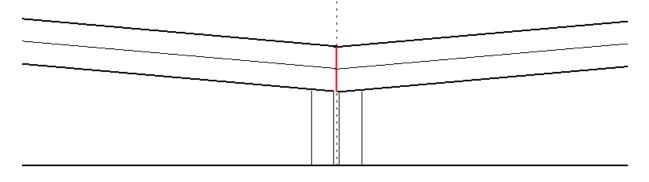
Example picture P38:

**1.** Affix the Depron Heling S2 to the bottom of the lower half of the wing using double-sided tape.

2. Also attach the Depron Heling S1 to the outer end of the lower wing, flush with the end of the aileron.

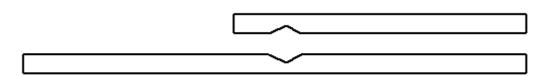
3. Thus, both lower wing halves with the corresponding "V" shape on the "Heling"

4. Sand the joint so that both halves fit together neatly.



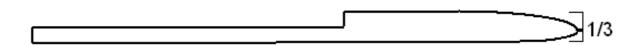
1. Cut the slot at the mark on the wing for the CFRP reinforcement (6x1 or better 8X1 mm CFRP)

2. Before installing the upper wing halves, fit the aileron servos and lay the wiring between the lower and upper wing panels.



8. Glue the upper wing segments together.
9. The Heling can be removed.

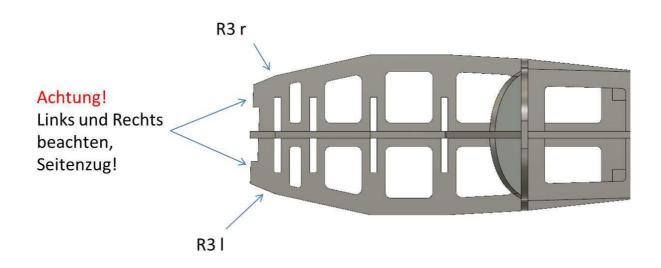
**10.** Sand the canopy as follows:



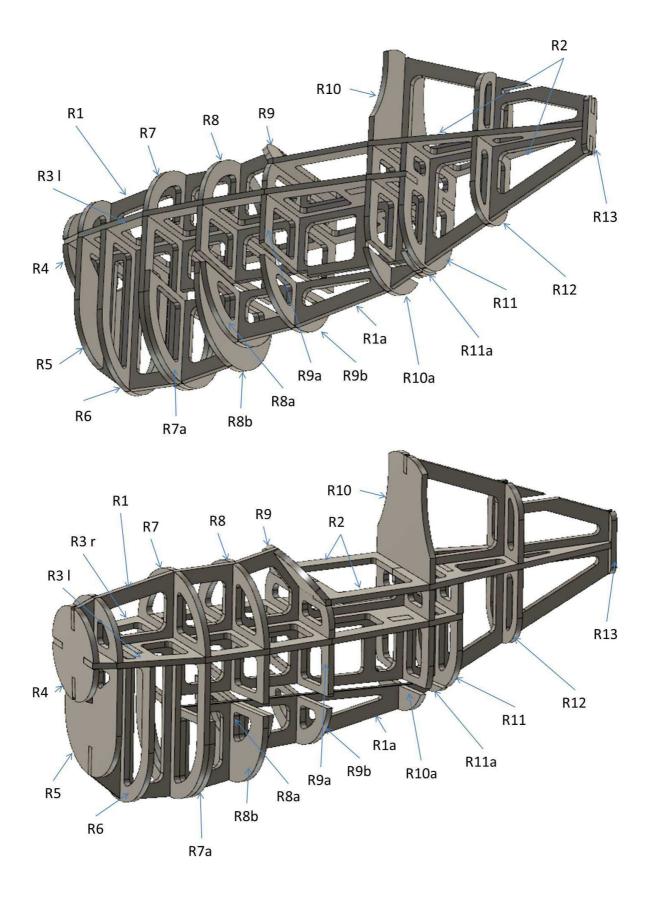
**11.** fuselage assembly:

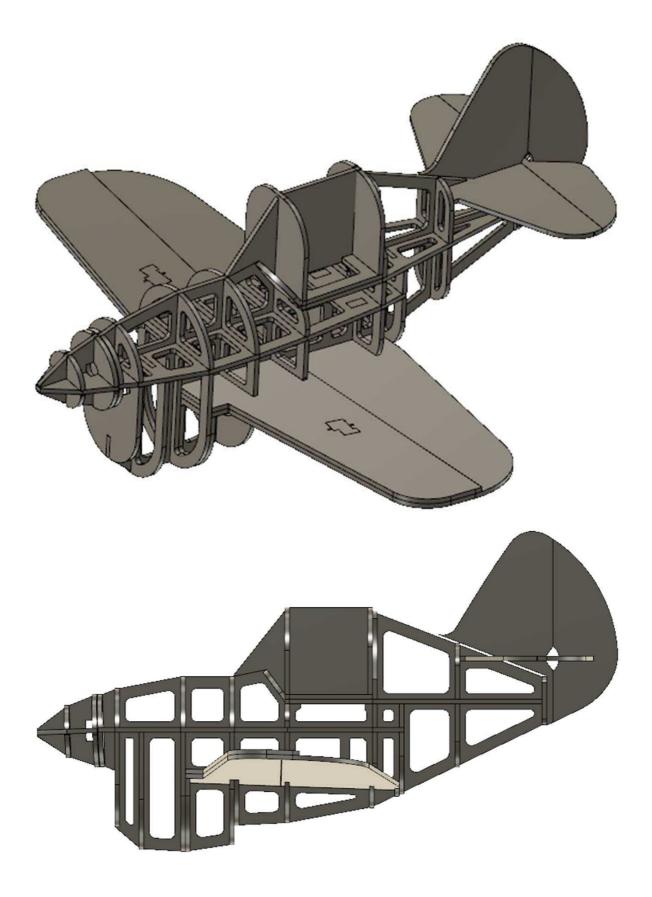
### **12.** For the side arm of the engine please position the trunk stringer parts R3 from the top as appropriate:

Rumpf vorne, Ansicht von oben



### **13.** Push all frames into the stringers. Prepare the fuselages below the wing later (R7a to R10a)





14. After bonding all components to each other sand the plank edges.





**15.** Insert side / elevator servo below the cabin opening, prepare Bowden cables. For the course of the Bowden cables, provisionally install the tail and push the Bowden cables through the frames.

### 16. Planking of the fuselage:

It recommends planking from frame to frame. It is important that the Depron be pre-bent with the "more labile" bending side of the bending contour. The best way to do this is to use the palm of your hand to carefully deform the Depron over a table edge.

Of course, larger hull areas, up to the complete fuselage side can be planked on a train, depending on planking knowledge.

Example image:





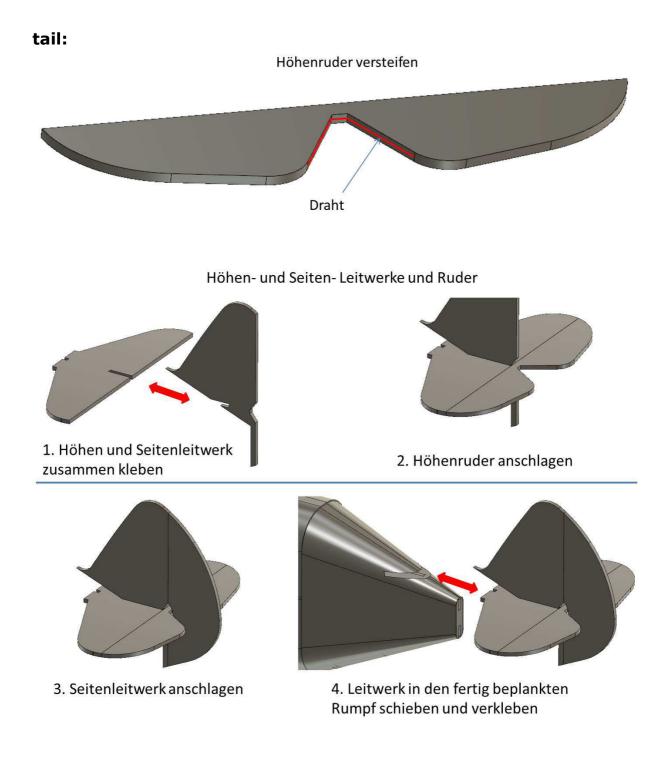




17. Insert the engine into the fuselage stringers using the engine mount. This can be installed with plywood, fiberglass or CFK stiffeners.

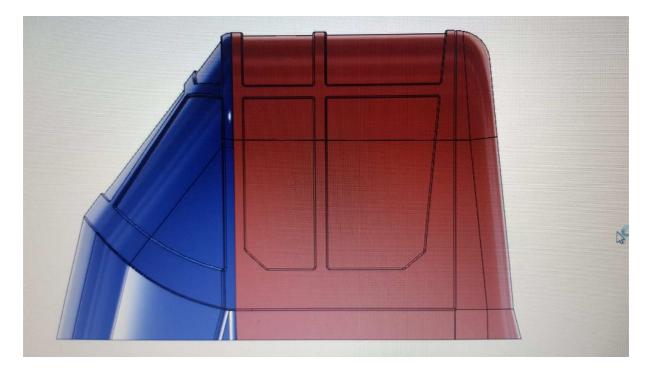
Since the "fatties" like to go landing on the nose, the stiffener may like to be stably built into the hull, so that it does not loosen up later.





### **19. Adjust and glue the wing to the fuselage. 20. Insert fuselage frames R7a to R10a and also plank.**

21st canopy: You can use the Depron template to plank it, or you can use the thermoforming hood from the shop (option)



Now the model can be completely sanded. For adhesive gaps "Modelier" "Moltofill", a kind of paste for repairing gypsum, can be optimally used to fill the gap. After curing, the material is hardly harder than Depron and you have a clean shell in your hands.





For ecample

1. <u>RC system:</u>

2. Rudder rashes: height 12mm, side 15mm, ailerons 15mm.

<u>3. Center of gravity: The center of gravity is 55mm from the front edge of the wing.</u>

4. For the finish, I recommend "Hobbyline" water-based paints. Depron, slightly sanded, can roll very well with a soft paint roller without contours. Who wants to achieve a little more stability, should apply parquet lacquer of "Aqua Clou" (water-based) and with intermittent strokes several times. This makes Depron gripier and more stable.



4.

Building inquiries, advice, feedback or suggestions:

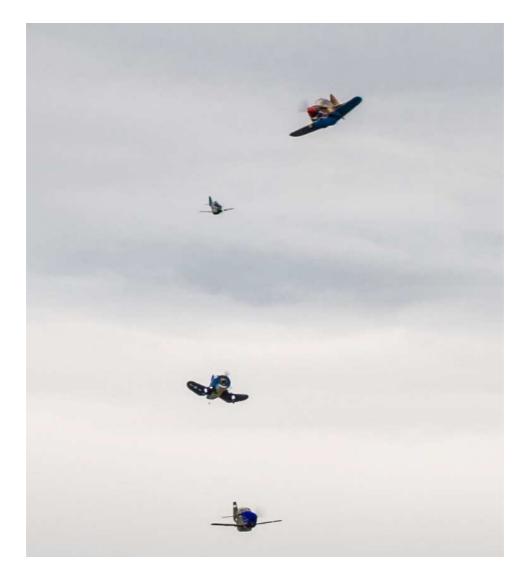
I would be glad, if I would receive a feedback of them by email over construction, impressions or photos for the customer gallery to be seen in the shop.

Of course I help by telephone or by email with building problems. I like to call back with an email request.

Always good flight with her new model.

**Frank Seuffert** 

### info@scale-parkflyer.de



#### Warning!!

Before you fl y the R/C model it is essential to read the operating and building instructions in full. This sheet is part of the operating instructions. Please keep it in a safe place for further reference. If you ever sell the model make sure to pass on this sheet to the new owner together with the model. A remote controlled model aircraft (model plane ) is not a toy. It is not suitable for children under 14 years of age unless they fly under strict supervision of a knowledgeable adult. Since the manufacturer and his agents have no control over the proper assembly, operation and maintenance of their products, no responsibility or liability can be assumed for their use. Correct assembly, safe operation and proper maintanance are the responsibility of the builder and the flyer.

Attention: Any rotating components on model aircrafts (propeller, main and tail rotor blades) are an ever present danger of injury to operators and spectators. This radio-controlled model aircraft is a technically complex device, which must be built exactly in accordance to the building instructions and operated and maintained with care by a responsible person. Failure to do so may result in a model incapable of safe flight operation. All fasteners and attachments must be secured for safe operation. Do not make any alterations.

General Safety Rules for flying an R/C model aircraft

NEVER ignore the local and national regulations for operating model airplanes. Contact local authorities, hobby shops, R/C clubs or

the Academy of Model Aeronautics.

NEVER fly without appropriate liability insurance.

**NEVER** get near the model airplane with the propeller or main rotor spinning. Keep a safe distance of at least 10 ft. Ask spectators to clear the scene and stay away at least 35 ft. Be aware that rotating propellers and rotor blades are very dangerous and can cause serious injury.

NEVER fly your R/C model near or over crowds, playgrounds, streets, rail roads, airports, power lines or hospitals/radiology practices.

NEVER start and fly with unsafe and questionable equipment.

NEVER fly if you don't feel confident with your equipment, your location or your capabilities.

ALWAYS fly at approved flying fields and obey field regulations.

ALWAYS follow frequency control procedures. Interference can be dangerous to all. Prior to turning on your R/C equipment at the flying site make absolutely sure that the frequency you are going to use is not being occupied by someone else. In such case make appropriate arrangements with the others flyer(s). ALWAYS perform each time before your first flight a range check of your radio equipment. With the transmitter switched on and its antenna collapsed, the receiver need to receive full signal at least over a distance of 30 vards.

ALWAYS familiarize yourself with your radio equipment. Check all transmitter functions before each flight. Do not only make sure that the servos move, but that their movements are correctly coordinated and are moving in the proper direction as well.

ALWAYS keep a safe distance from the propeller or rotor while starting the motor.

ALWAYS stay behind your model airplane when the engine is running.

ALWAYS keep in mind: Safety First! Loosing your model airplane will cost you some money for replacement parts, but your and others health is not replaceable.

ALWAYS ask an experienced R/C pilot for assistance in trimming the model and in receiving flight training under his supervision.

ALWAYS follow all recommended maintenance procedures for model, radio and motor.

ALWAYS check your R/C model for any worn, broken, damaged or loose parts. You are ultimately responsible for the maintenance of your R/C model and its accessories.

ALWAYS follow carefully the instructions, which have been supplied with your batteries, in particular, when you are using Lithium-Ion or Lithium Polymer batteries.

ALWAYS use the motor/engine recommended for the aircraft and do not exceed the revolutions per minute (rpm) it is designed for. Otherwise the propeller or the main and tail rotor blades may exceed their maximum permissible rpm and may get torn apart. Fragments of the propeller/rotor may get ripped off, flying away at high speed.

ALWAYS make sure that your batteries have been fully charged, otherwise proper function of your equipment will not be guaranteed.

ALWAYS avoid abrupt movement of the control stick while the model is in flight

ALWAYS use only the specified number of battery cells. Otherwise the motor and/or speed controller may be overloaded, may get damaged and/or causes radio interference or fire hazard.

ALWAYS have an eye on the wind and weather conditions and changes.

ALWAYS look for a wide and open flying area, especially if you are a beginner. You will need the space.

ALWAYS keep an eye on your co-flyers.

ALWAYS be considerate of the environment you are guest in.