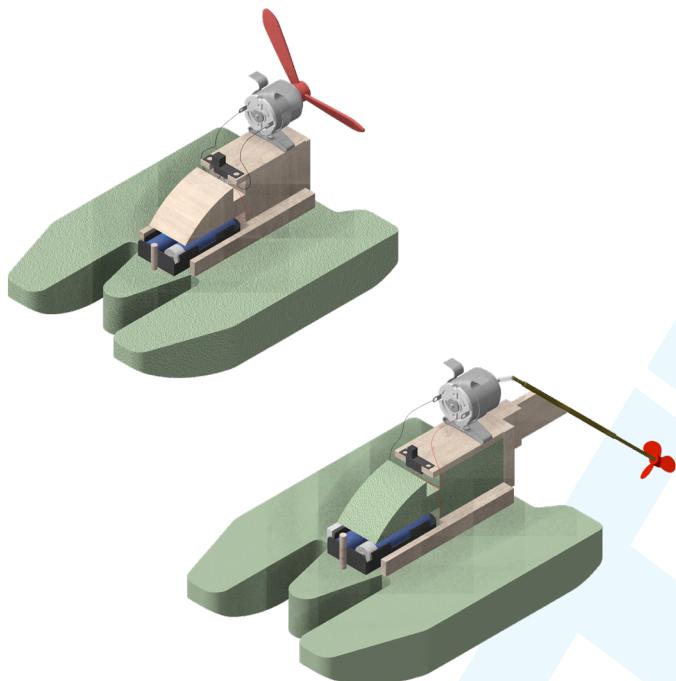
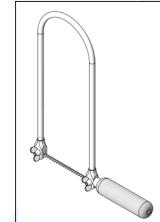


119.099

OPTEC Speedboat



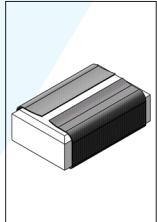
Tools Required:



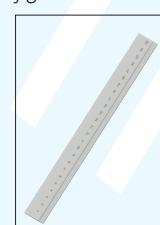
jigsaw



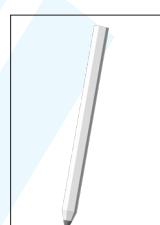
scissors



sandpaper



ruler



Bleistift



soldering iron



wood glue
water resistant



drill



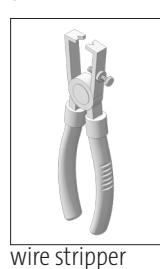
screwdriver

Please Note

The OPTEC range of projects is not intended as toys for young children. They are teaching aids for young people learning the skills of Craft, Design and Technology. These projects should only be undertaken and operated with the guidance of a fully qualified adult. The finished projects are not suitable to give to children under 3 years old. Some parts can be swallowed. Danger of suffocation!



engineer's file



wire stripper

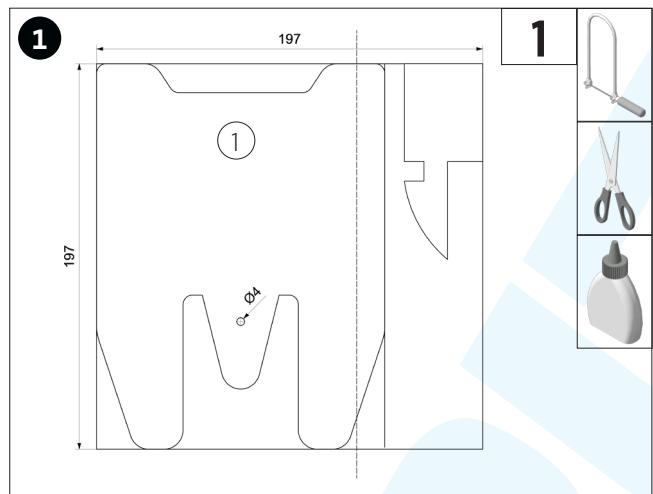


side cutter

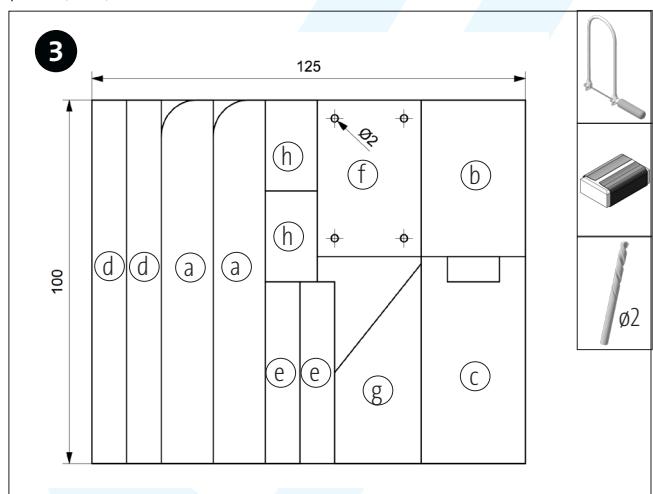
Parts List	Quantity	Size (mm)	Designation	Part No.
styrodur	1	200x200x30	base frame	1
plywood	1	125x100x4	wooden parts	2
spring steel clamp	1	23-27	motor bracket	3
motor RE260	1		motor	4
round rod	1	ø4x50	battery holder	5
brass tube	1	ø3x100	bearing ship's propeller axis	6
brass base rod	1	ø2x245	ship's propeller axis	7
ship's propeller clockwise	1		ship's propeller	8
propeller	1	ø115	propeller	9
battery holder	1		battery holder	10
micro slide switch	1	19x6	switch	11
electrical wire black	1	500	wiring	12

Instruction 119.099
Opitec Speedboat

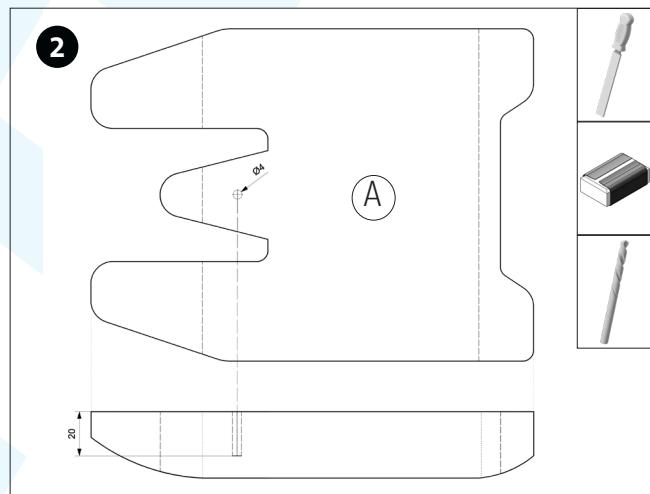
Parts List	Quantity	Size (mm)	Designation	Part No.
Phillips screw	5		bracket	13
washer	5		bracket	14
silicone tube	1	1/3	connection axis/ motor	15



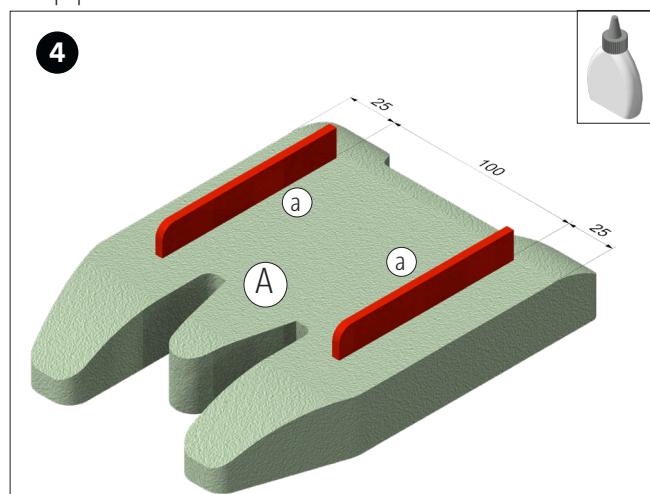
Cut out the template (page 9+11) and glue it together at the dividing line. Transfer the template to the Styrodur (1) and saw out the two parts (A+B) and then clean the saw cuts.



Transfer the template (page 11) to the plywood panel. Cut out all parts (a-f) and clean the saw cuts. Drill the Ø 2 mm holes in part (f).

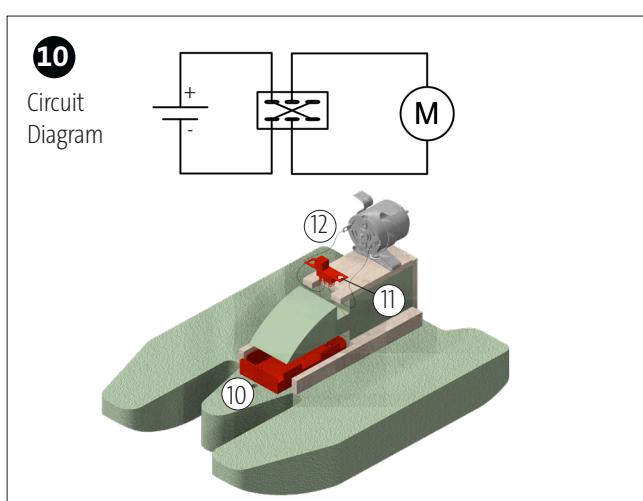
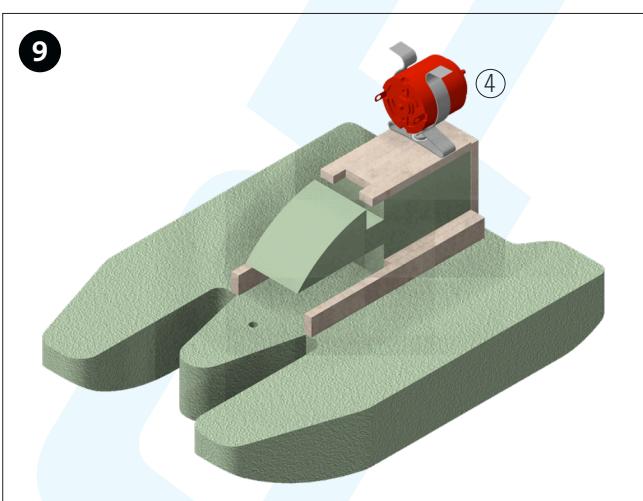
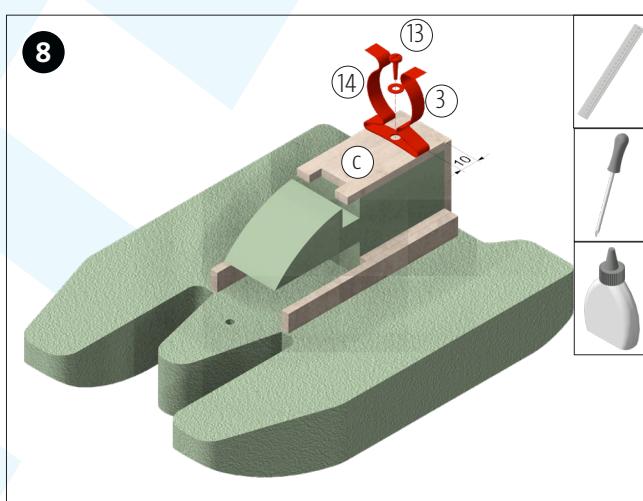
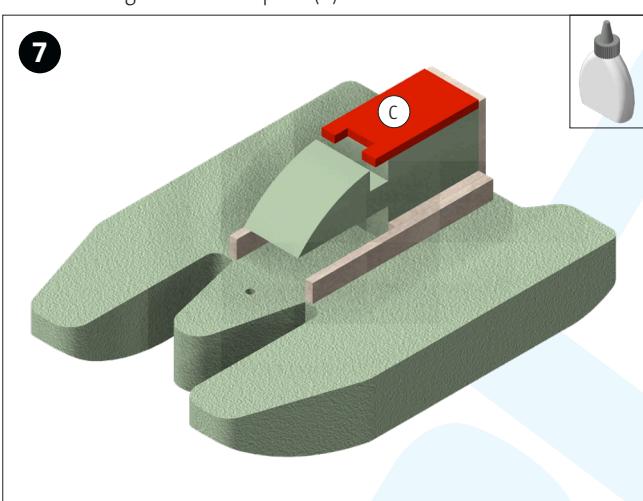
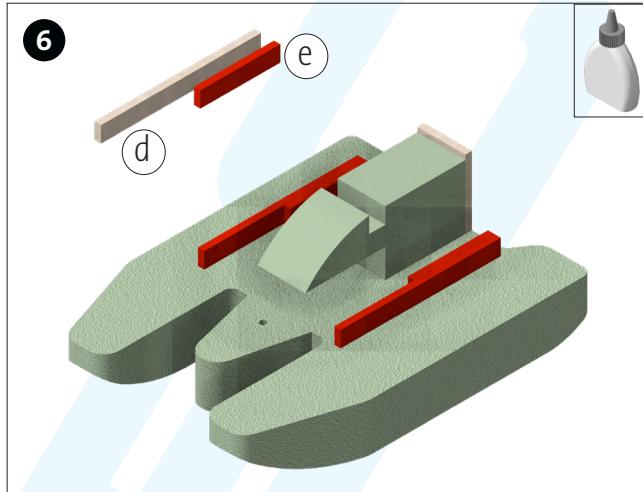
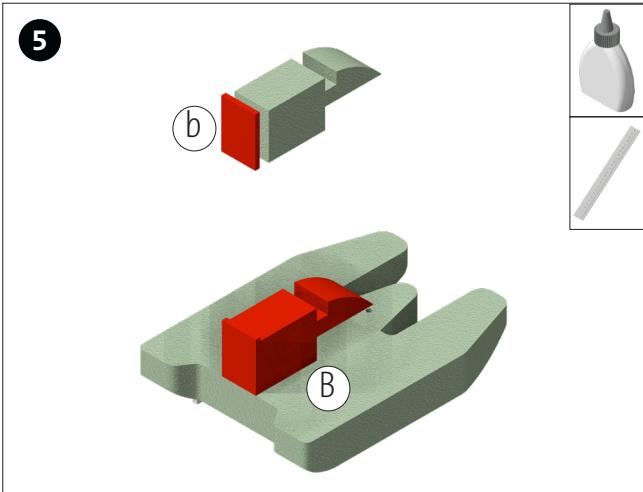


Drill the Ø 4 mm hole approx. 20 mm deep. Round off the basic shape on the underside with the engineer's file as shown and clean with sandpaper.



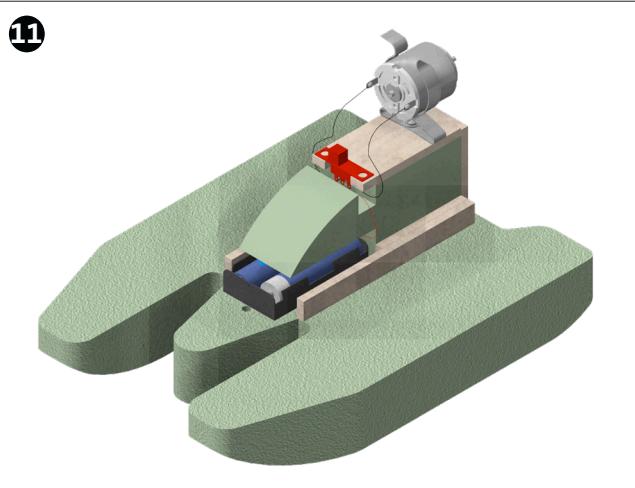
Measure and mark the position of the two strips (a) on the underside according to the dimensions and glue the strips with waterproof wood glue as shown. Let the glue dry well.

Instruction 119.099
Opitec Speedboat

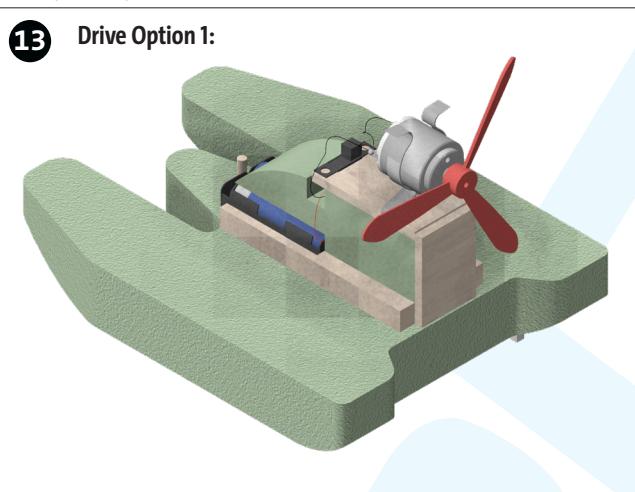


Insert the motor (4) into the spring steel clamp (3). The motor axis points backwards.

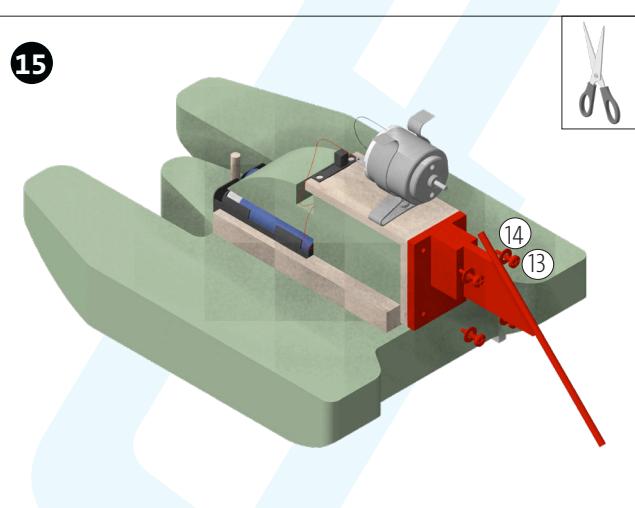
Cut the round rod (5) to 35 mm length. Clean the saw cut and insert it into the hole in the base plate (A) to prevent the battery holder (10) from slipping out.



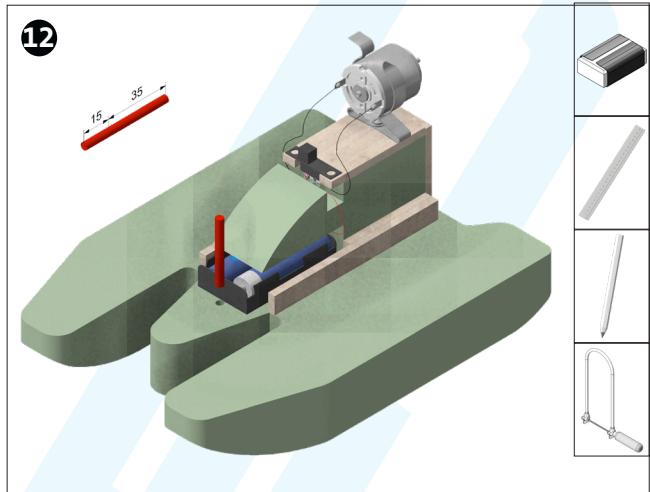
Insert the switch (11) in the recess as shown. Insert batteries and check function. **Note:** The switch should not be glued on to ensure subsequent repairs



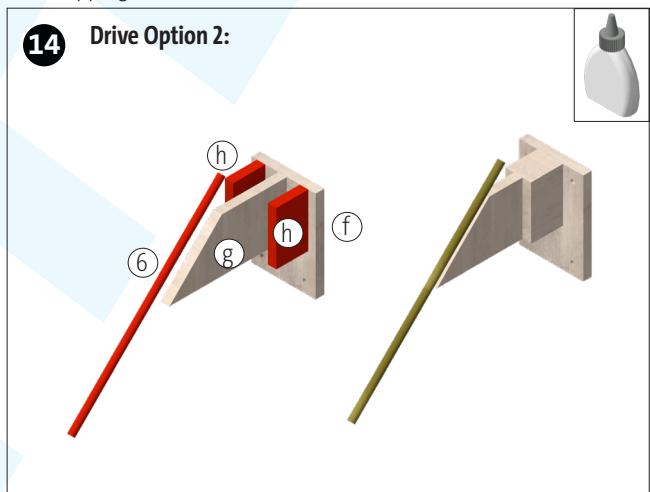
Put the propeller (9) on the motor shaft. Set the pole switch correctly and the journey can begin.



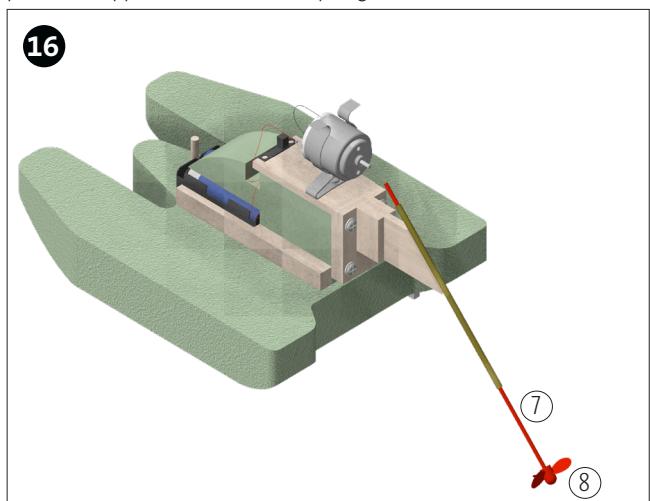
Screw the mounting for the ship's propeller onto part (b) by using 4 screws (13) and 4 washers (14) as shown.



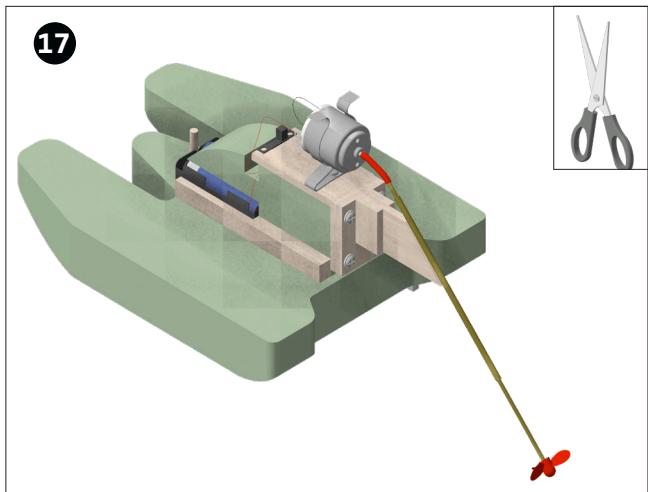
Cut the round rod (5) to 35 mm length. Clean the saw cut and insert it into the hole in the base plate (A) to prevent the battery holder (10) from slipping out.



Glue part (g) centered to part (f) as shown. Glue on one part (h) from each side. Then glue the brass tube to the bevel in such a way that it protrudes approx. 10 mm at the top edge.



Shorten the brass rod (7) to approx. 170 mm and deburr. Attach the ship's propeller (8) to one end and then push it through the brass tube.



Cut approx. 20-25 mm from the silicone hose (15) and push one end onto the motor axis. Place the other end on the brass rod as shown. Set the pole switch correctly and the journey can begin.



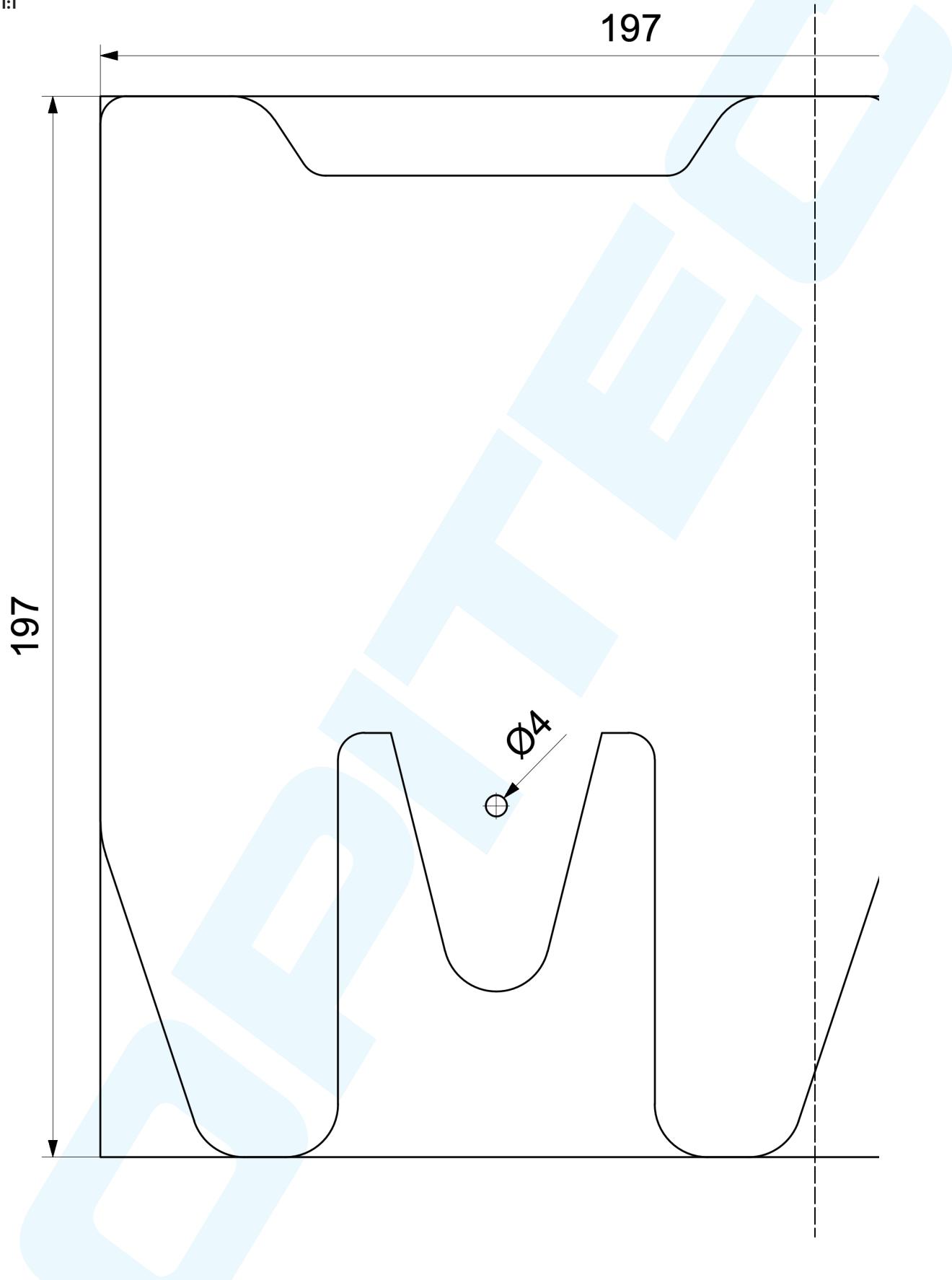
OPITEC

Instruction 119.099

Opitec Speedboat

Template Styrodur

S 1:1



OPITEC



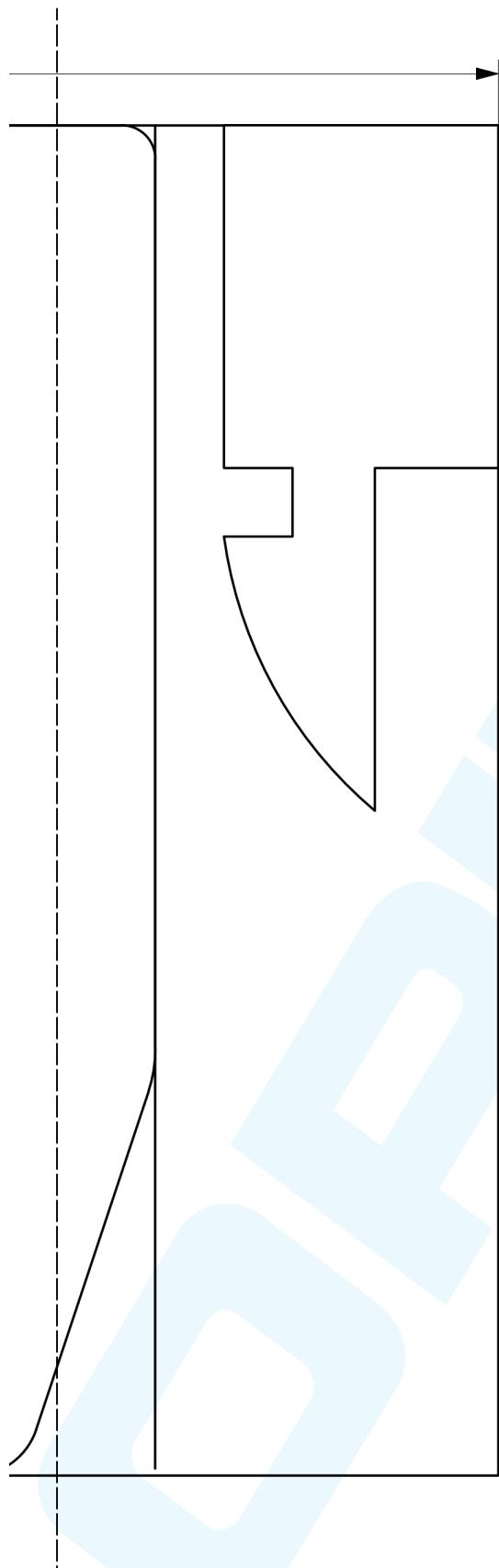
OPITEC

Instruction 119099

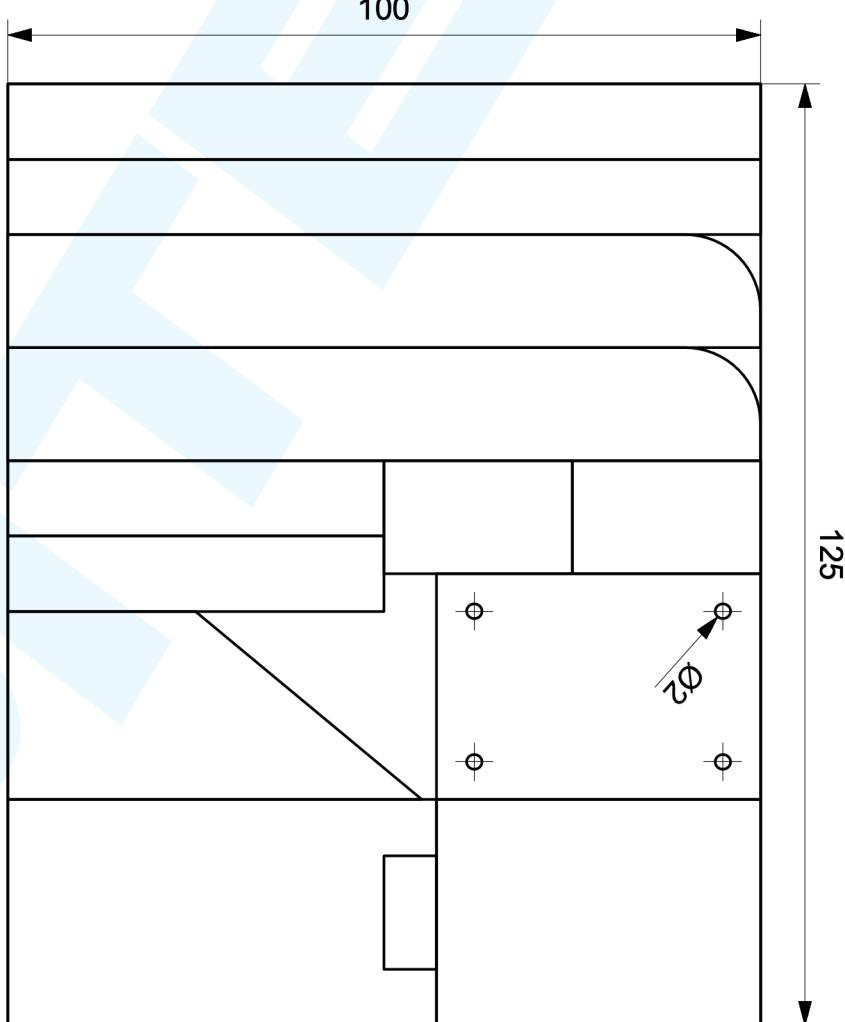
Opitec Speedboat

Template Styrodur

S 1:1



Template Plywood
S 1:1



OPITEC