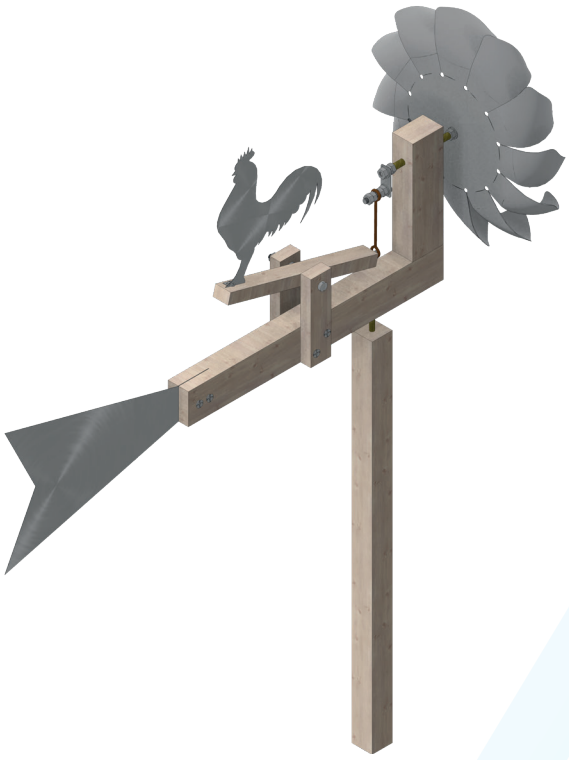
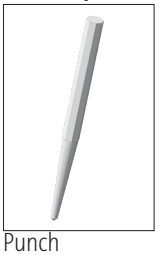
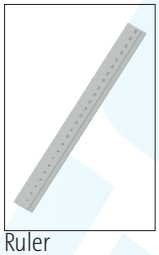
106.061

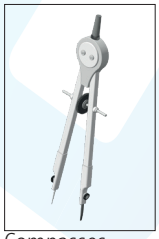
Weather Vane

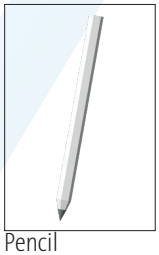


Tools Required:

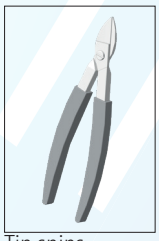

Punch


Ruler

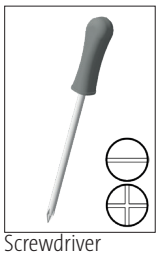

Compasses

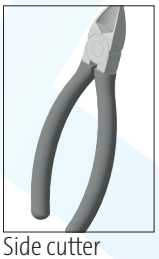

Pencil

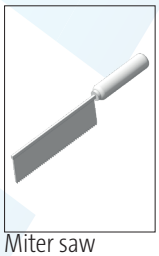

Roundnose Pliers

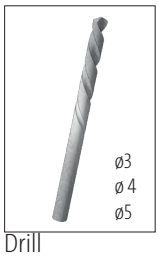

Tin snips


Spanner


Screwdriver


Side cutter


Miter saw



Drill

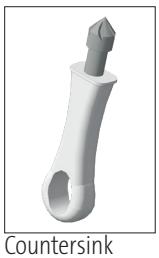

PUK saw

NOTE:

The OPITEC range of projects is not intended as play 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 tested 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! Not suitable for children under 36 months. Choking hazard!


File

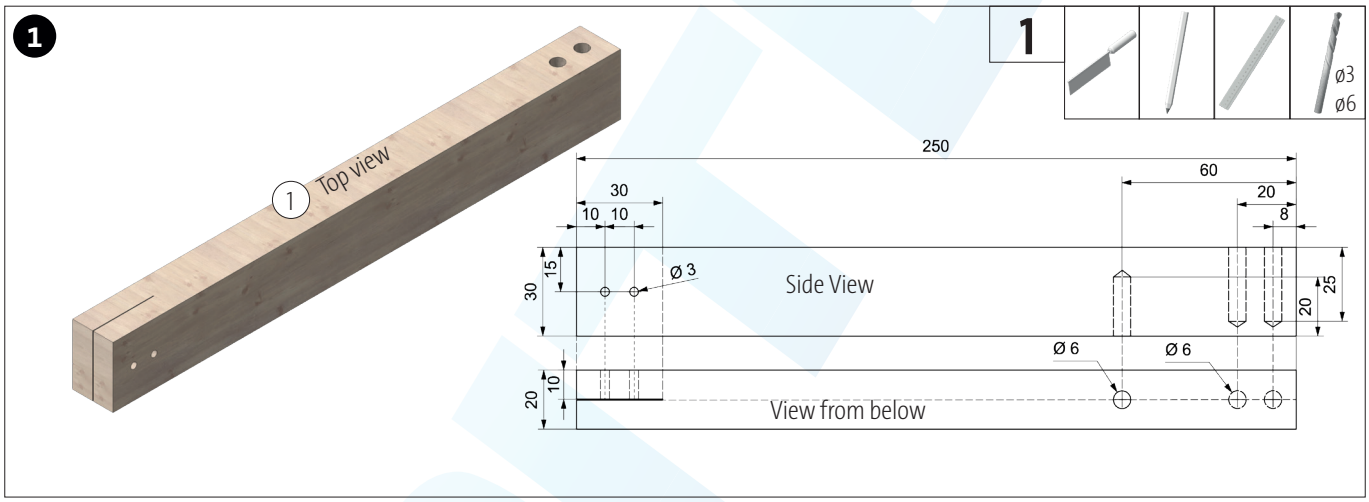

Adhesive tape


Countersink

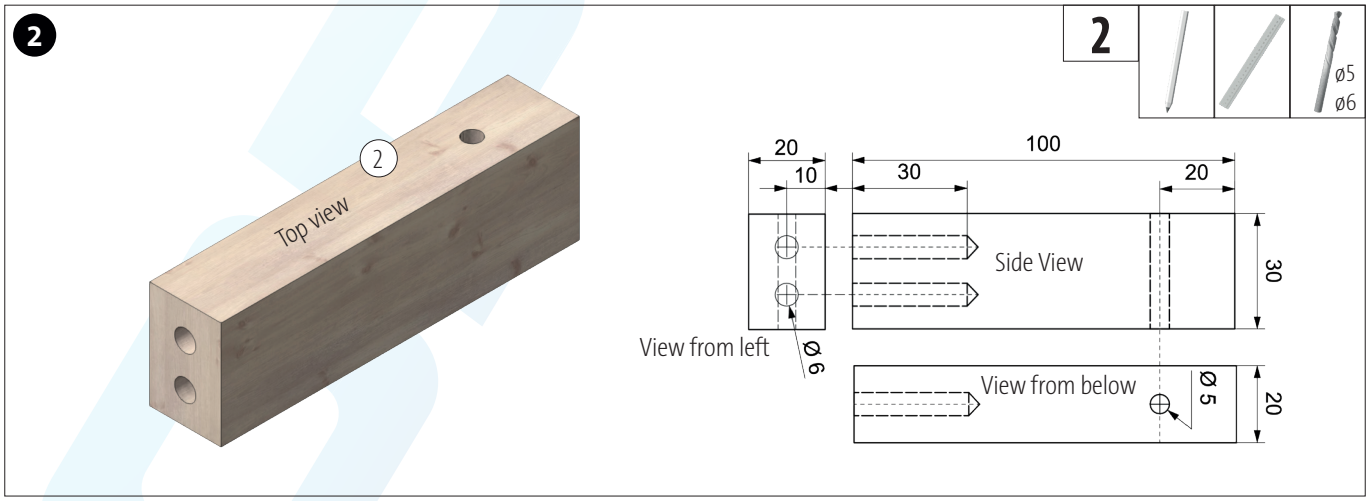
Part List	Quantity	Dimensions (mm)	Description	Part no.
Wooden strip	1	250x30x20	Base frame	1
Wooden strip	1	100x30x20	Base frame	2
Wooden strip	1	150x20x10	Mounting bracket tap	3
Wooden strip	1	150x15x10	Tap holder	4
Aluminium Plate	2	200x200x0.3	Rooster, flag, wheel	5
Round rod	2	ø6x50	Dowel connection	6
Wooden strip	1	350x20x20	Top rod	7
Brass tube	1	ø5x0.5x245	Recording wind turbine	8
Brass base rod	1	ø4x68	Top rod	9
Welding wire	1	ø2x100	Connecting rod	10
Chipboard screws	6	ø3x20	Mounting bracket for tap/flag	11
Phillips-head tapping screw	2	ø2.9x9.5	Fastening tap	12

OPITEC

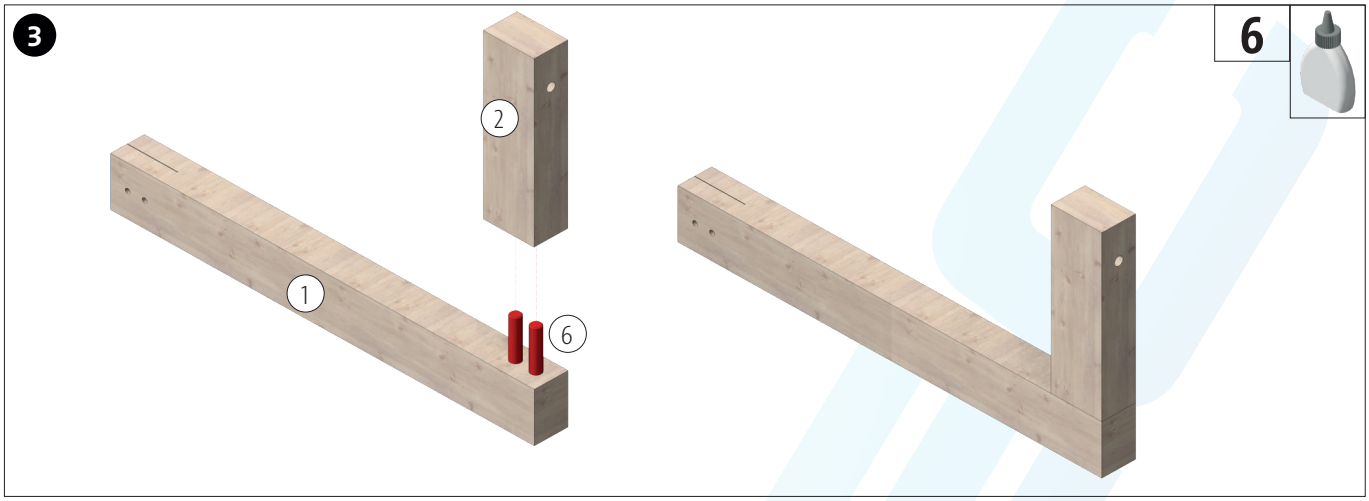
Part List	Quantity	Dimensions (mm)	Description	Part no.
Cylinder head screw	1	ø4x70	Mounting wheel	13
Cylinder head screw	1	ø4x50	Rocker attachment	14
Cylinder head screw	1	ø4x20	Connecting rod attachment	15
Nuts	10	M4	Fastening	16
Washer	10	4,3/9	Fastening	17
Ring Screw	1	12	Connecting rod attachment	18
Brass sleeve	1	ø6x1x20	Mounting of spreader bar	19



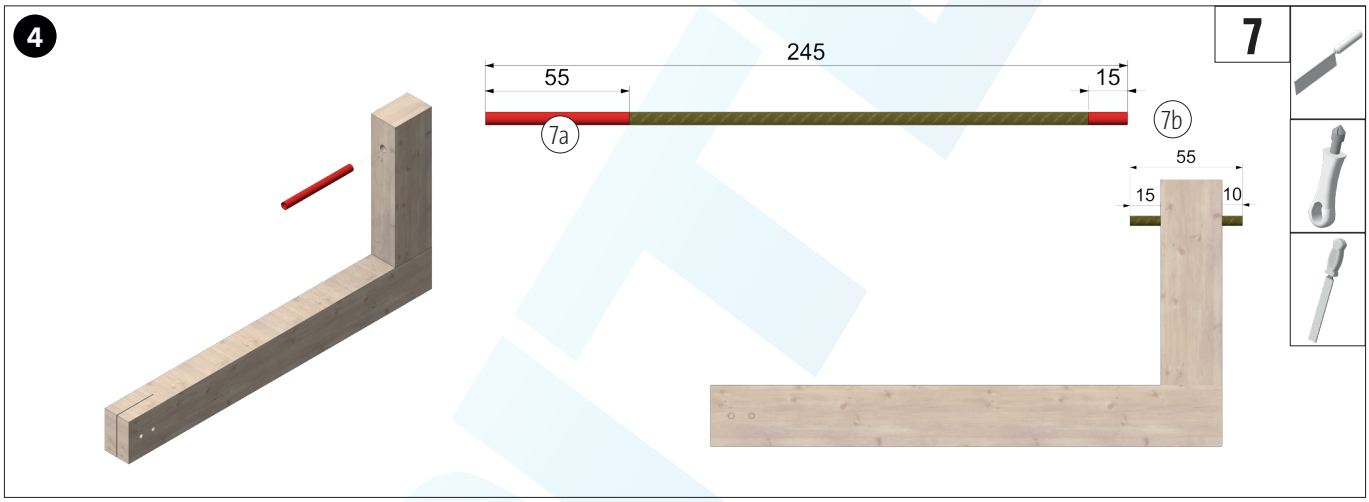
Mark the position of the blind holes (ø3, ø6) on the wooden moulding (1). Drill the ø3mm holes to a depth of approx. 10mm. Drill the two external ø6mm holes at the top edge to a depth of 25mm. Drill the hole for the bearing rod (ø6) to a depth of 20 mm. Then use a fine saw to cut the moulding to a depth of 30 mm on the side with the ø3 mm holes for later attachment of the wind vane.



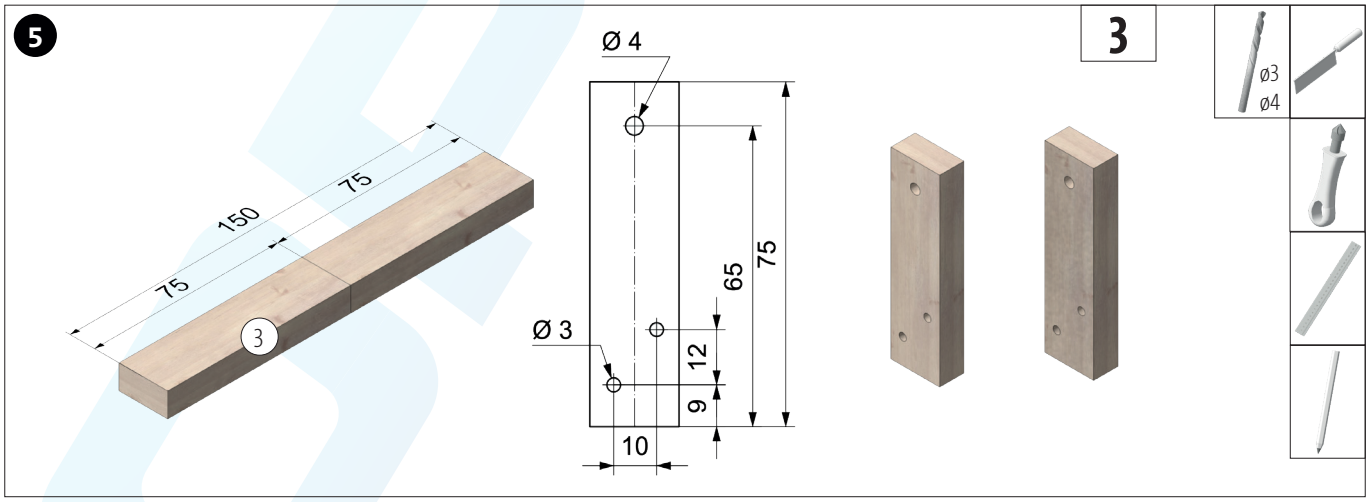
Mark the position of the two blind holes (ø6) and drill to a depth of approx. 30 mm. Mark the ø5mm hole and drill through.



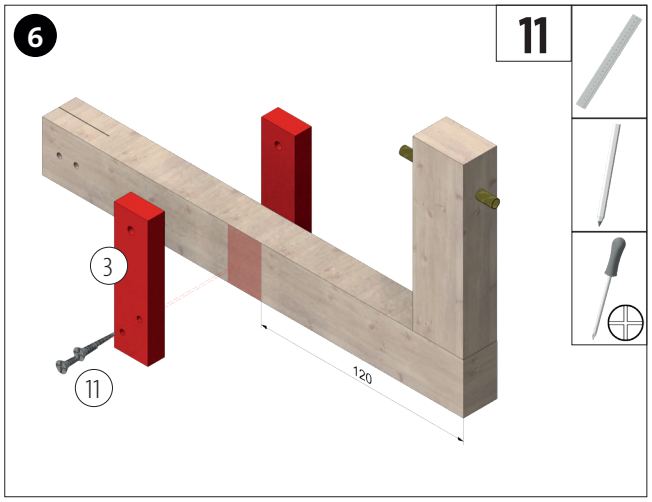
Glue the two dowels (6) into the holes in the moulding (1). Then glue on the moulding (2) as shown.



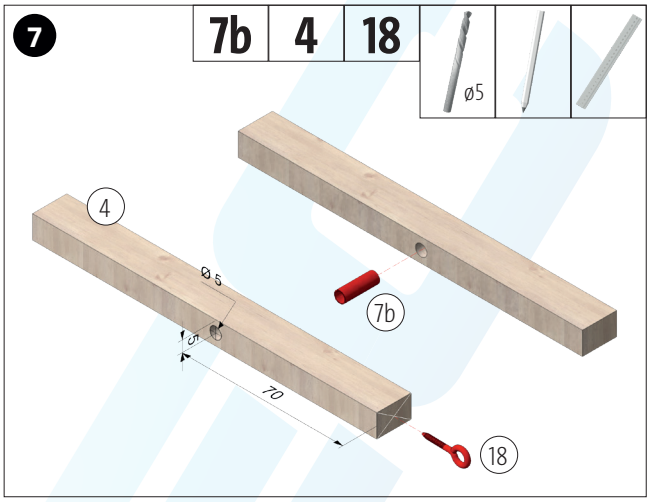
Saw off a 55 mm section (7a) and a 15 mm section (7b) from the brass tube (8). Deburr both pieces cleanly from the inside and outside. Then press the 55 mm sleeve (7a) into the bearing bore of the short bar so that approx. 15 mm protrude at the front. Note: The 15 mm piece (7b) is required in step 7.



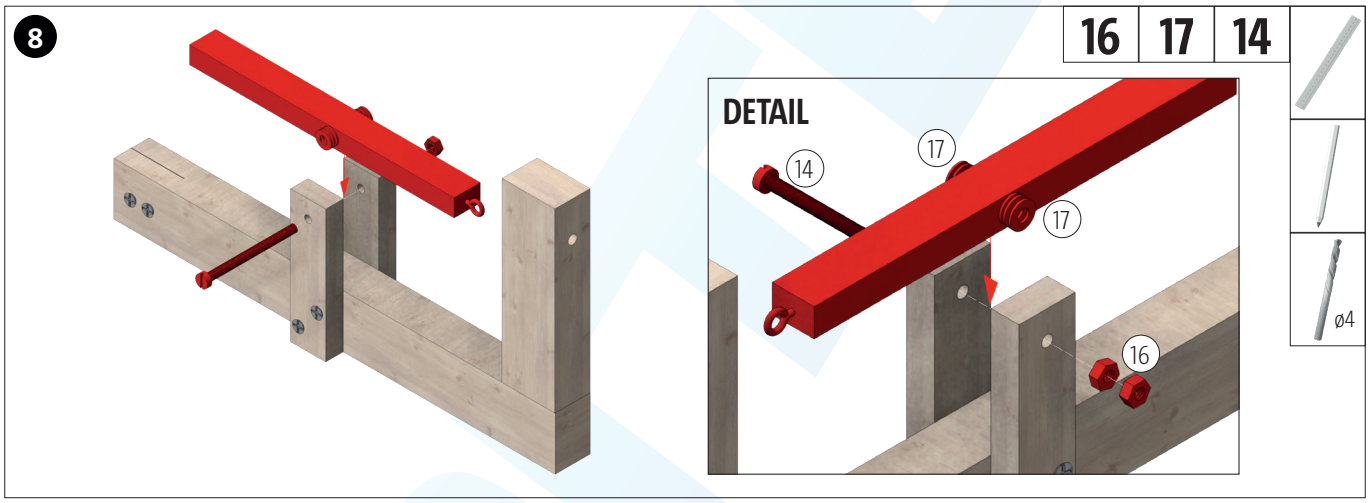
Cut the wooden moulding (3) in half. Mark and drill the holes on both 75 mm mouldings according to the dimensions.



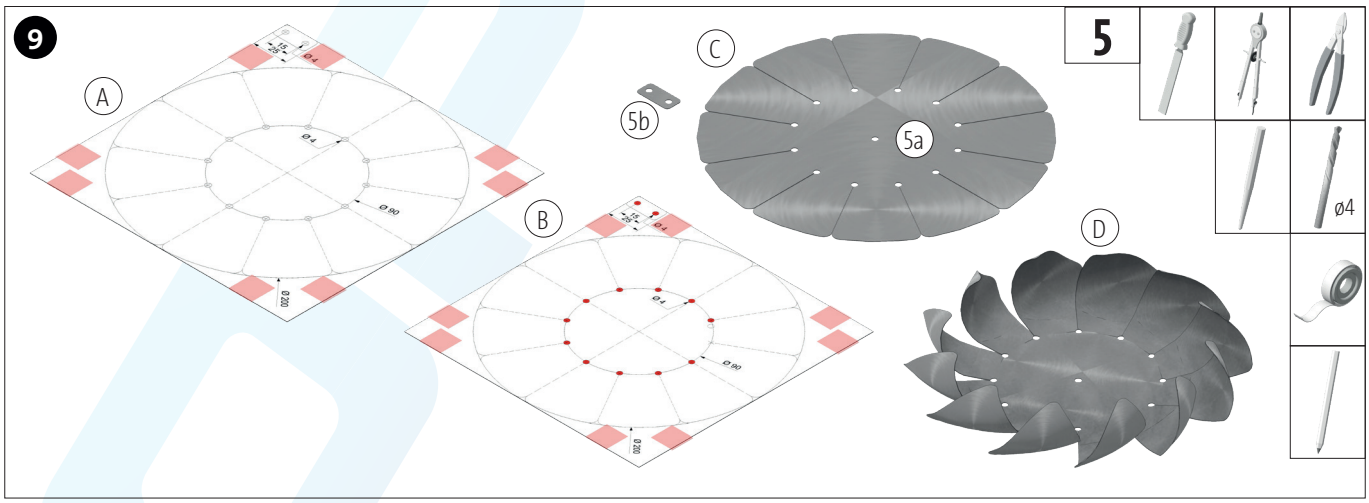
Measure the position for the wooden battens (3) and fasten them on both sides with the screws (11).



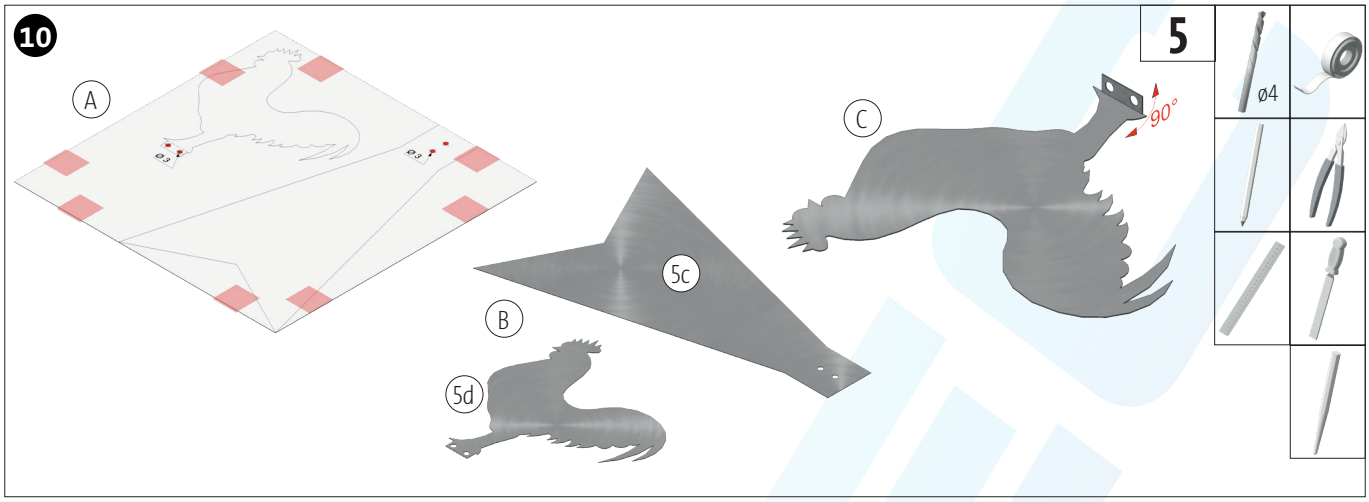
Measure 70 mm on the wooden moulding (4) and drill a ø5 mm hole in the centre as shown. Draw a diagonal line on the end face to determine the centre point and screw in the eyebolt (18). Then insert the 15 mm brass sleeve (7b) into the hole.



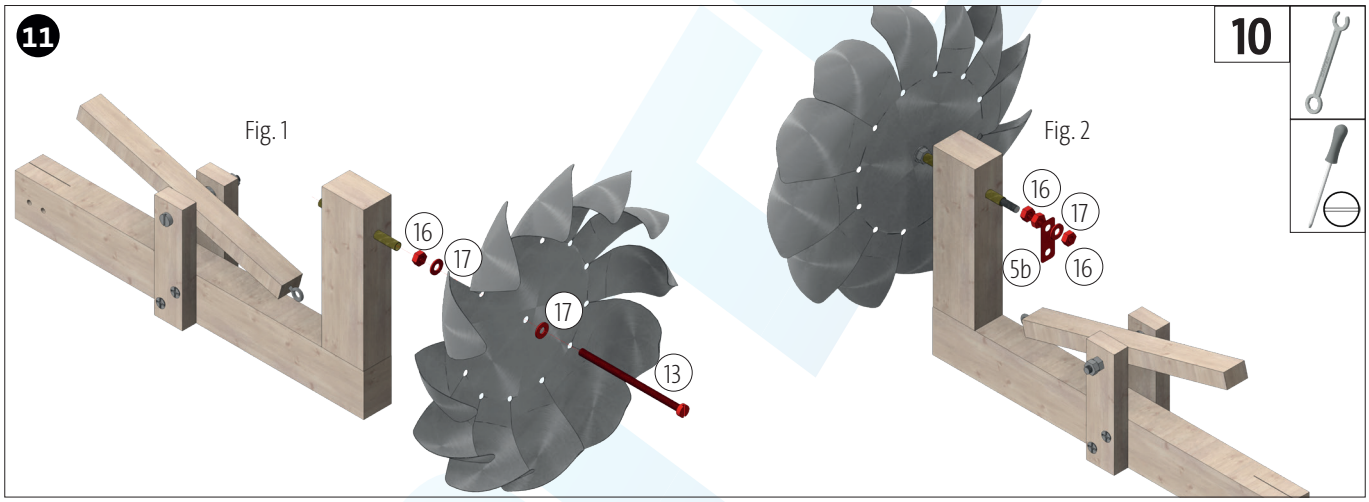
Place the finished rocker between the bracket with 3 washers on each side and secure with the cylinder head screw (14) and two nuts (16).



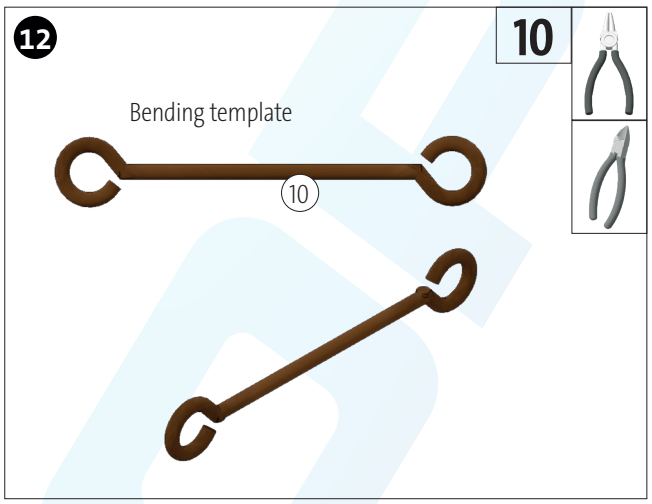
Cut out the template B for the pinwheel (p.11-13) and fix it to the aluminium sheet with adhesive tape or transfer it with a compass and pencil. Then centre punch all drill points and drill through ø4 mm. Cut out the parts with tin snips and deburr. Cut the sash up to the drill holes and round off the corners. Deburr parts! Turn the blades by approx. 25°-30°. NOTE: ATTENTION! Risk of injury at the cut edges.



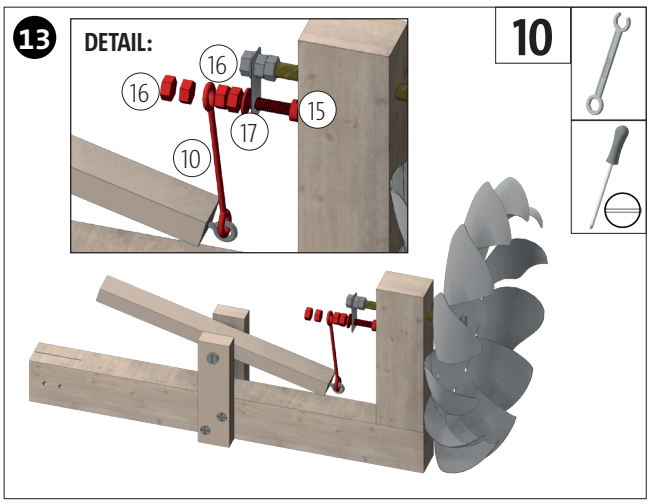
Cut out template A for the cockerel (p. 7-9) and the flag and attach to the second aluminium sheet with adhesive tape or transfer with a ruler and pencil. Then centre punch all drilling centres and drill through ø 3 mm. Now cut out the parts with tin snips and deburr them. Angle the screw fastening on the feet of the tap by 90° on the dotted line.



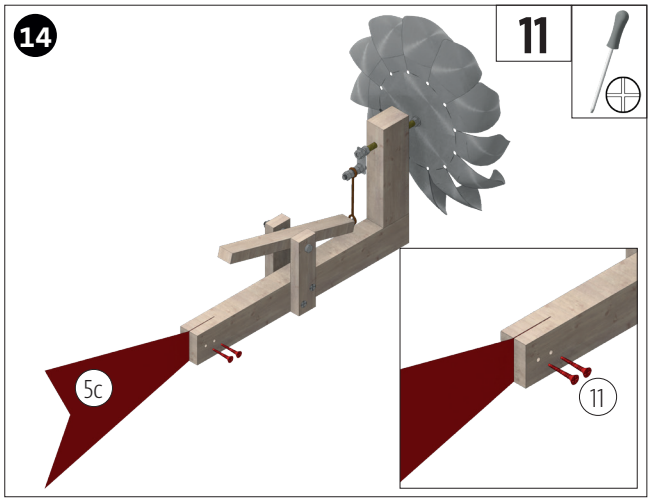
Insert the screw (13) with a washer (17) from the front through the wind wheel. Fasten at the rear with a washer (17) and a nut (16) (Fig. 1). Insert through the bearing bush on the frame, screw on 2 nuts (16), attach the connecting piece (5b) and fasten with a washer (17) and a nut (16). Fig. 2



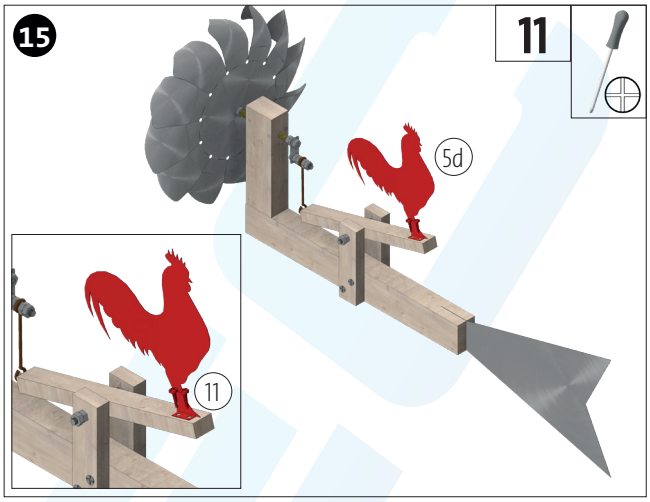
Bend the connecting rod (welding rod) according to Schabone using round nose pliers. Cut off the excess wire with a side cutter.



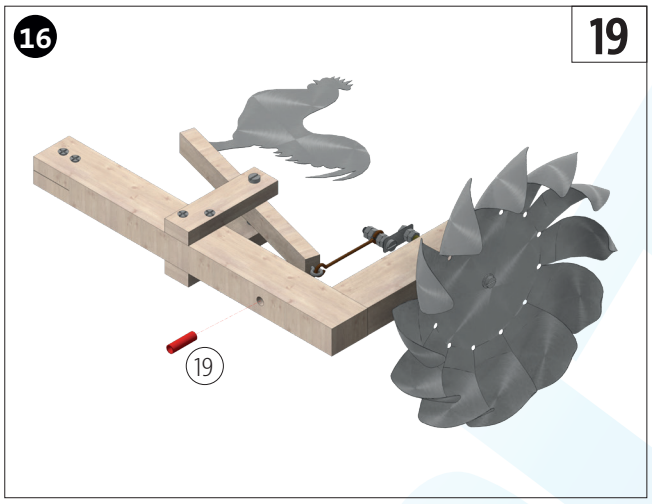
Insert the bolt (15) through the free hole in the connecting piece (5b), screw on a washer (17) and 2 nuts (16), fit the connecting rod and fit and lock 2 further nuts.



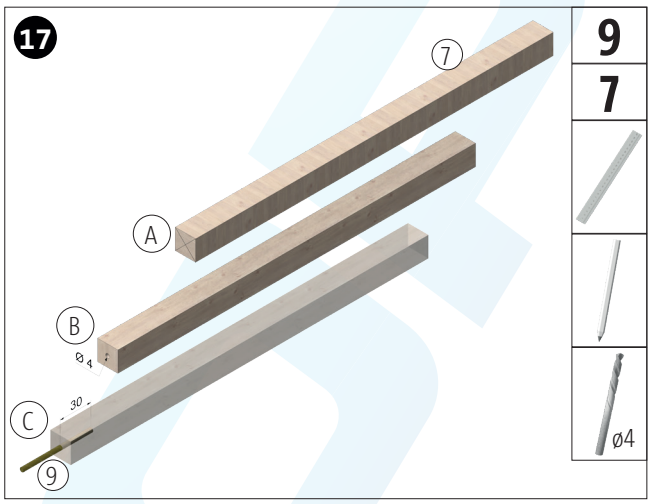
Insert the flag (5c) in the notch and fasten with 2 screws (11).



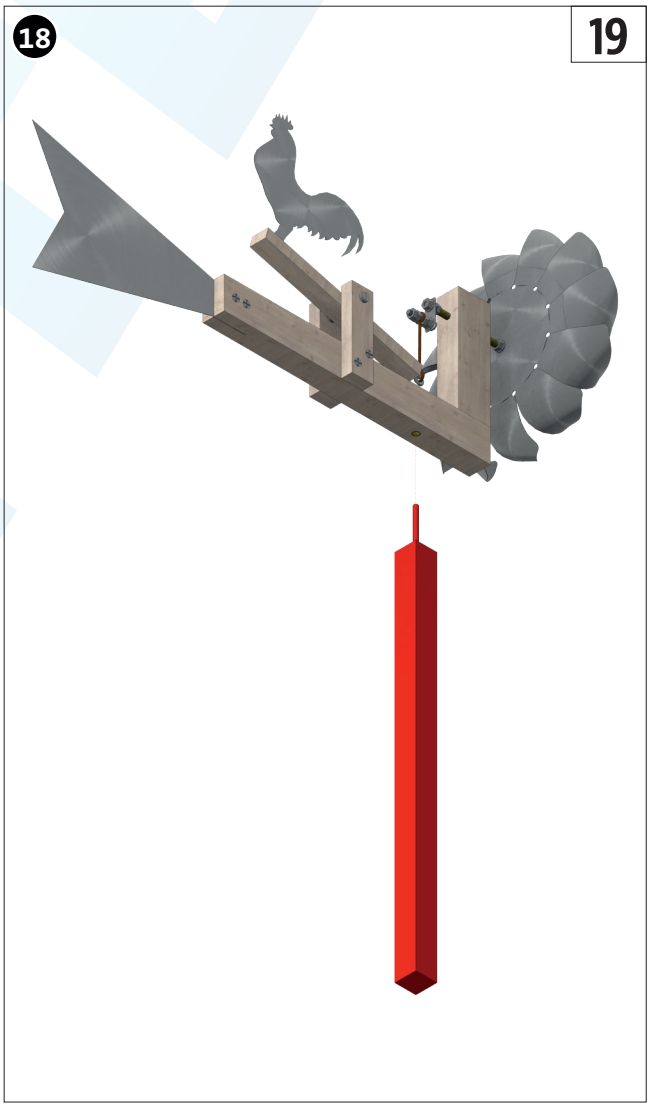
Fit the tap (5d) as shown and secure with 2 screws (11).



Insert the brass sleeve (19) into the ø6mm hole on the underside.



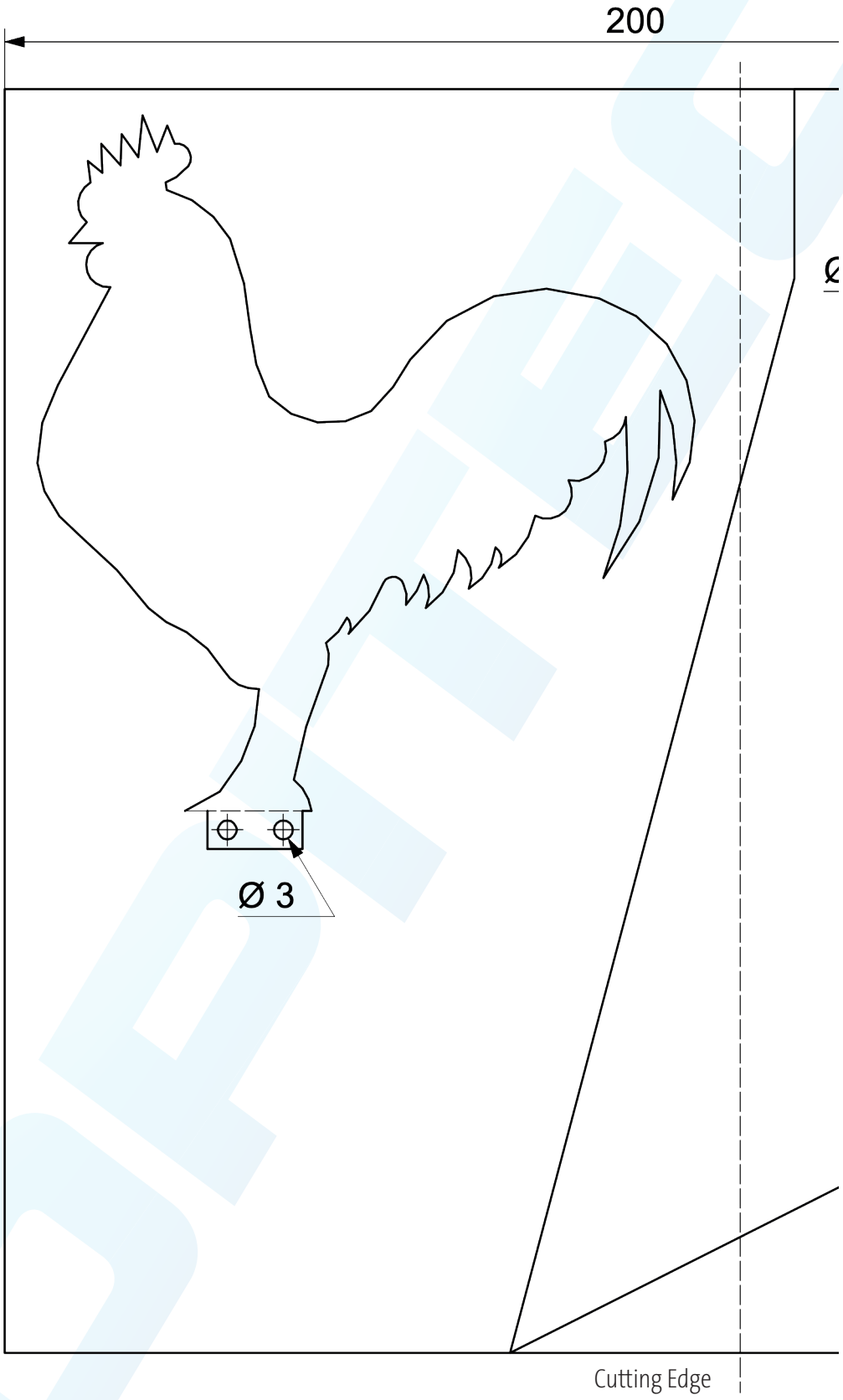
Take the wooden stick (7) and draw a diagonal on the front side to determine the centre point. Drill a ø4mm hole approx. 30mm deep. Then insert the brass base rod.



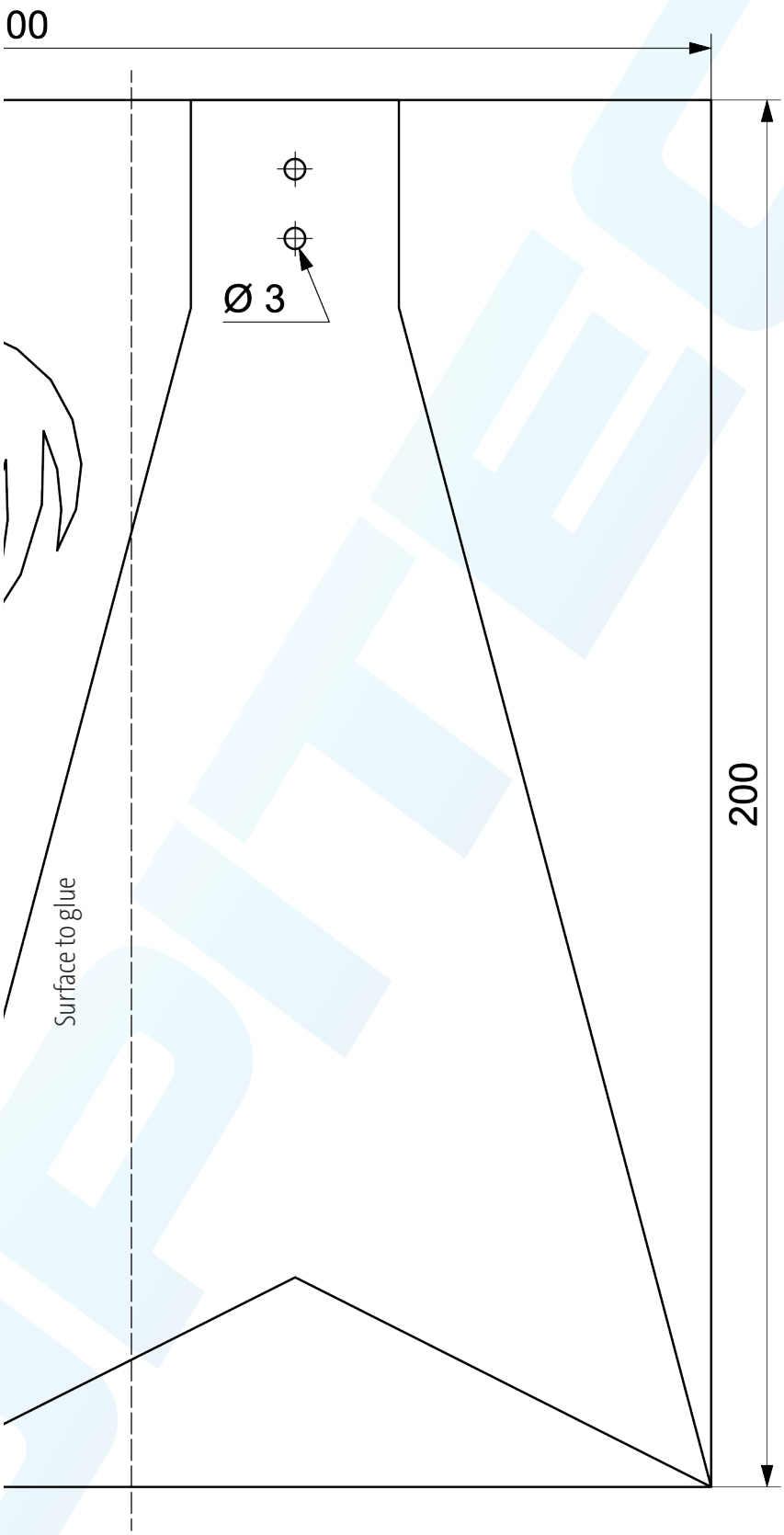
Insert the wooden stick into the brass sleeve from below and place it in a windy spot. Done!

OPITEC

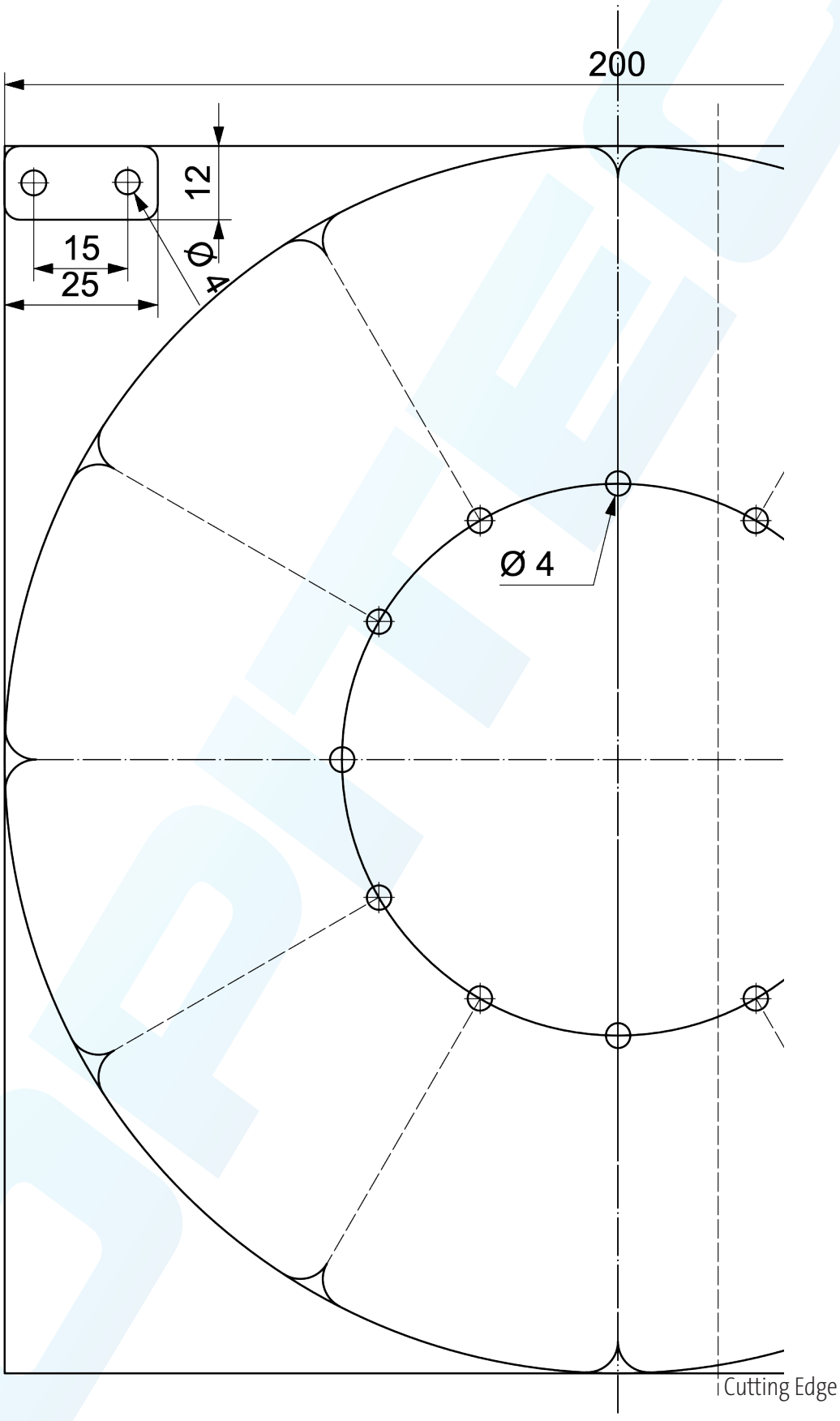
Template A
SCALE 1:1



Template A
SCALE 1:1



Template B
SCALE 1:1



Template B
SCALE 1:1