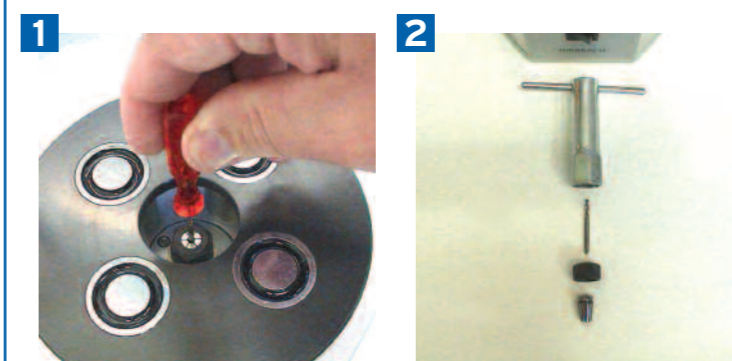


## MOUNTING ALTERNATIVE I | Secondary plate



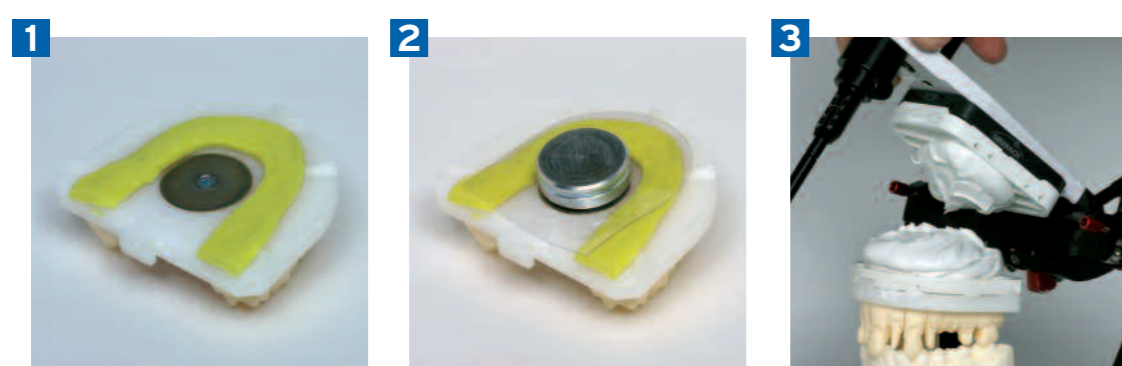
- 1 Put a secondary plate onto the finished Giroform model.
- 2 Apply articulating plaster onto the model and onto the articulator side. Close the articulator without pressure.
- 3 The result: a precise and neatly sawed model in the articulator.

## ADJUSTING THE DRILLING DEPTH



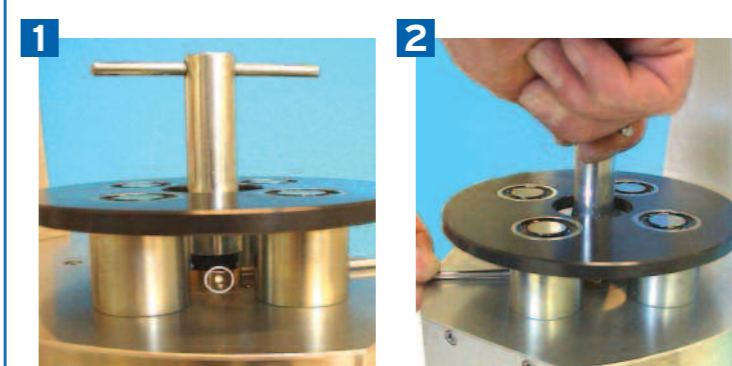
The burr rests on a slotted screw in the center of the axis. Clockwise turns lower the screw = tighter drill hole; counter-clockwise turns raise up the screw = wider drill hole. The wider the drill hole, the farther the pin tip juts out of the plinth plate.

## MOUNTING ALTERNATIVE II | Magnet + Socket



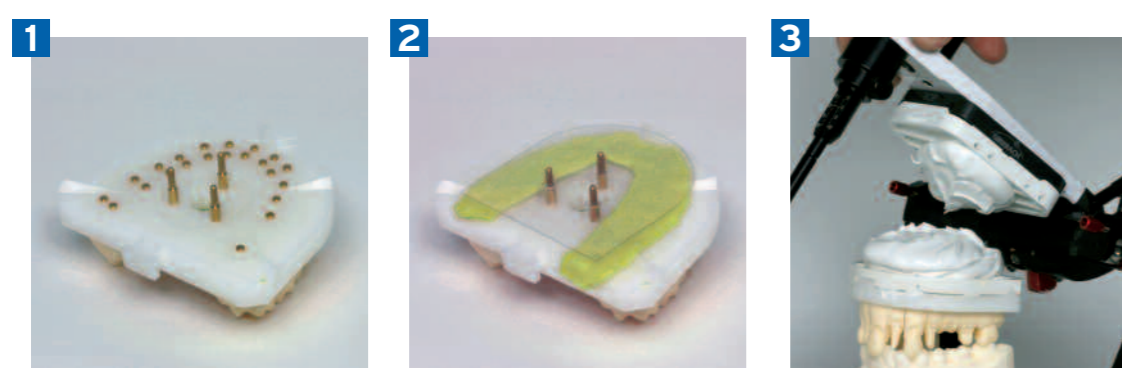
- 1 Block out the pin tips with putty.
- 2 Put a space retainer foil in the center and fix it with magnets.
- 3 Apply plaster onto both sides and close the articulator without pressure.

## REPLACING THE BURR

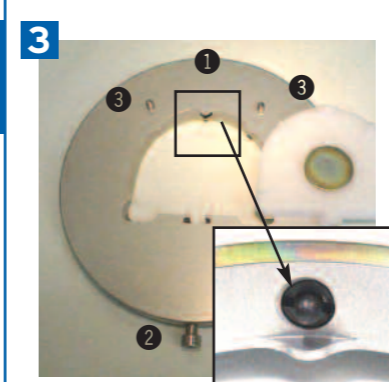


1+2 Unplug the power cable. Insert the fixing pin from the side into one of the holes of the drilling axis. Turn the tubular socket wrench in counter-clockwise direction to unscrew the sleeve nut. Then, remove the defective burr.

## MOUNTING ALTERNATIVE III | Setting pins (Giroform Classic)



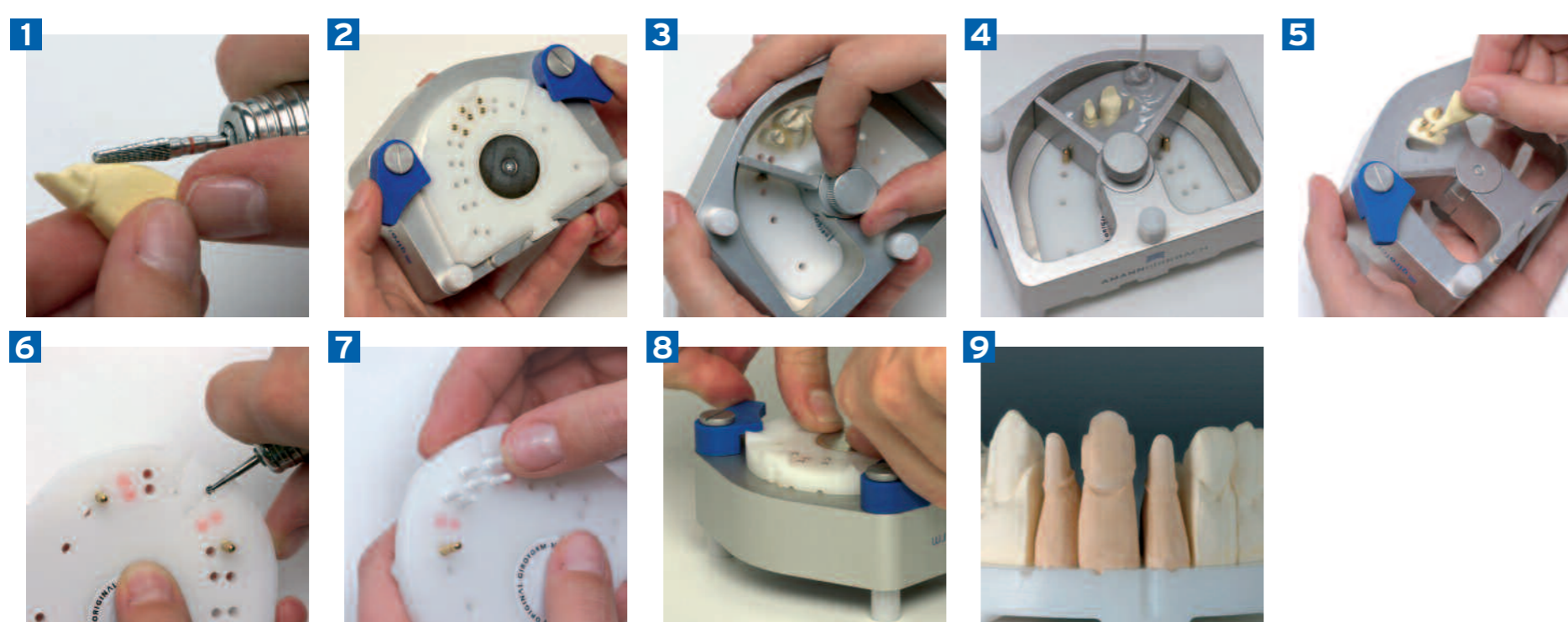
- 1 Set 3 pins into the model plate.
- 2 Block out the pin tips with putty, put a space retainer foil on it.
- 3 Apply plaster onto both sides and close the articulator without pressure.



- 1 allen screw 2.5 mm
- 2 Fixing screw
- 3 metal pin

To adjust the fixing pressure that holds the Giroform plinth plate in its place, the allen screw (2.5 mm) is turned in counter-clockwise direction to reduce the spring pressure; if turned in clockwise direction, the spring pressure increases.

## DUPLICATING IN THE GIROFORM-SYSTEM



- 1 Trim the segments that are to be duplicated to a tapered form; this allows easier later removal from the silicone mould.
- 2 Remove all parts except those dies that are to be duplicated.

**ATTENTION:** Use silicone with low Shore hardness (approx. 20), as this will ensure easier removal of the dies.

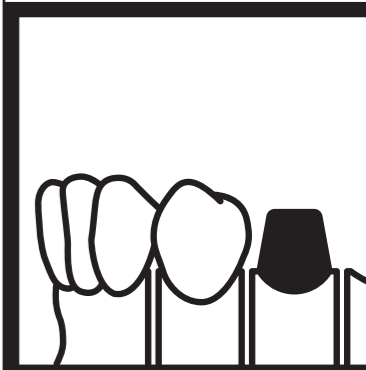
- 3 Adjust the partitioning bar. Place two pins outside the duplicating area (Blockpin - Art. No. 561451), move the partitioning bar into contact with the pin and fasten the locking screw.
- 4 Pour the duplicating silicone into the flask and allow to set according to the manufacturer's instructions.

- 5 Unfasten the base plate; remove the dies from the mould.
- 6 Cut a drainage channel in the Giroform base plate to allow refractory die material to escape.

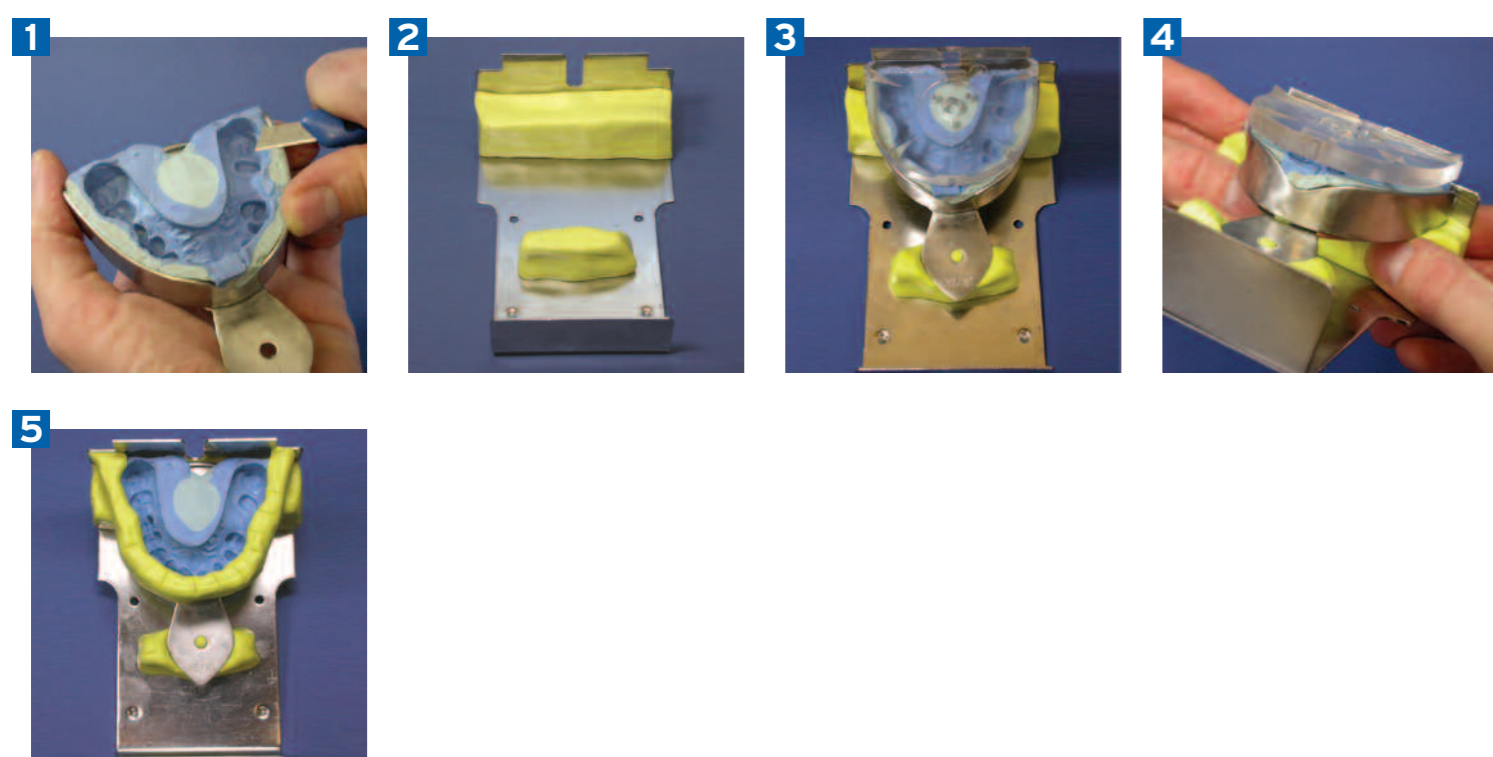
- 7 Place refractory pins (576480) or tapered double-ended pins (576490) in the base plate. Fill the duplicating flask with the refractory die material.
- 8 Fit the base plate, close the fasteners, and allow to set according to the manufacturer's instructions.

- 9 Further processing and preparation of the refractory dies should be made in accordance with the porcelain manufacturer's instructions.

Fill the empty pinholes with wax.



### STEP 1 | Placement of the Impression



**1** Trim all unnecessary parts of the impression (reflection, palatal roof) in order to obtain a dental arch which is as low as possible but still stable enough.

**NOTE:** Heating of the blade facilitates trimming of extremely viscous polyether materials (Impregum, Permadyne, etc.).

**2** Position the impression tray in the dorsal area on a transversal rim and in the area of the tray handle on a cube sized 2 x 2 cm, both out of Giroform Putty (576461).

**3** Insert the dove tail of the clear adjustment plate - with split retention looking upwards - into the groove of the carrier and guide it downwards.

Press the impression tray onto the putty. Make sure that the split retention looks upwards when positioning the adjustment plate. Insert the dove tail of the clear adjustment plate into the groove of the carrier and guide it downwards while aligning the impression with the center line, with the occlusal plane, and with the vestibular dimension of the later dental arch in relation to the plate size.

**4** By manipulating the putty rim and/or cube, the impression is aligned with the dorsal part of the impression carrier.

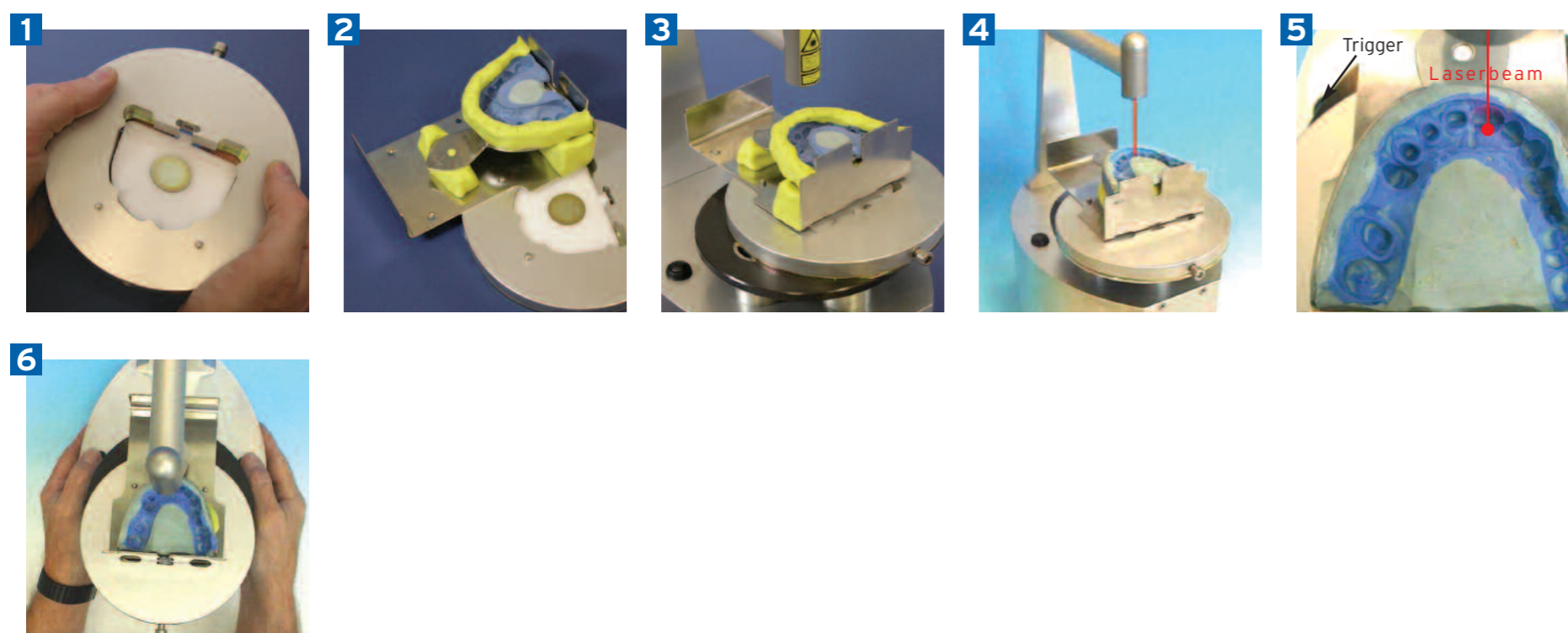
**TIP:** Place the clear adjustment plate with inserted pin on the aligned impression to check the height of the dental arch. The retention tip of the pin

should not touch the impression (distance: approx. 3 mm).

**5** Mark the saw cuts and drill holes for the pins on the impression material. Each removable segment has to be furnished with 2 pins (rotation!). Tip: In case of ill spatial conditions, set only 1 pin and mill a guidance groove into the plate.

**IMPORTANT:** Plan all adjacent teeth as single segments since the expansion of a long row of adjacent teeth limits the approximal area.

### STEP 2 | Drilling



**1** Insert the plinth plate into the plate support from the bottom. First, press the frontal groove of the plinth plate against the spring bolt; then have the dovetail engage at the opposite side. Tighten the fixing screw by hand.

**2** Position the carrier with the impression on the plate support.

**3** Both metal nozzles on top of the plate support clutch the two drill holes of the impression carrier.

**4** Place the plate support with impression carrier onto the magnetic table.

**5** Turn the unit on at the main switch at the unit's front (a green control is lit). Activate the laser by pressing either

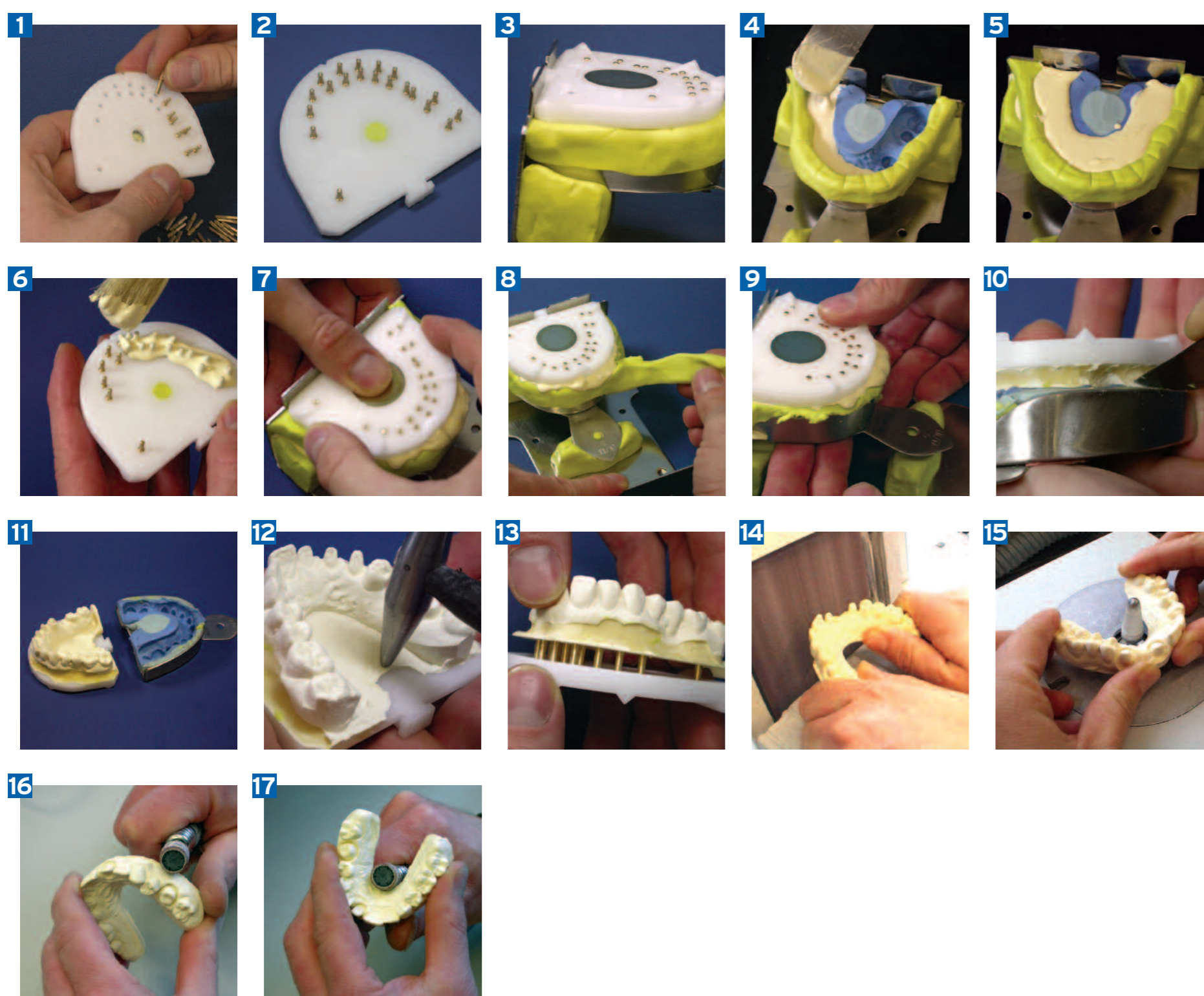
one of the triggers. Align/determine the drilling position by means of the laser beam.

**NOTE:** The laser automatically shuts off 2.5 min after the unit was used last.

**6** Pressing of both triggers at the same time automatically fixes the plate reception and initiates the drilling process.

**ATTENTION:** The laser beam must be within the dimensions of the Giroform plinth plate. If the laser beam (= drilling position) is aligned outside the dental arch, i.e. in the area of the plate holder or of the retention disc, the burr might break.

### STEP 3 | Casting and working



**1** Place the Giroform plinth plate, with split retention looking downwards, in your hand. Hold the pins at the retention tip, and push the tapered part into the drill hole.

**TIP:** Friction depends on the forces applied when inserting the pin. (Push it in with your thumb; "pricking" indicates that both playless friction and removable reposition of the pin are ensured.)

**2** Cover the MB thread hole in the center with Giroform putty to protect it against plaster mush.

**3** Put the Giroform plinth plate furnished with pins on the impression to check if the plate flatly rests on the putty.

Spray a separating agent on the impression, then rinse it. Mix super stone in the appropriate mixing ration and under vacuum.

**4+5** Pour the plaster mush into the impression preventing bubbles (the use of a vibrator is highly recommended). When all teeth and the preparation area are completely covered, take the impression carrier from the vibrator and fill the impression above the brim with plaster.

**6+7** Apply plaster on the pins' retention tips and on the rest surface of the plinth plate in the area where the dental arch will be located. Position the plate in the dove-tail guidance and lower it into the plaster mush until the plate rests planely on the putty.

**IMPORTANT: Do not apply plaster to the plate while the vibrator is on since the pins will become loose.**

**8+9** Detach after 20 or max. 35 min by removing the vestibular putty sleeve. Then, lift off the impression from the impression carrier.

**10+11** Divesting: Put the blade tip of a plaster knife between the impression and the plaster. The model is lifted out of the impression by turning the blade. Therefore, the back of the blade rests on the tray rim, and the tip of the plate levers the model out of the impression.

**IMPORTANT: Do not exceed the maximal divesting time of 35 min since otherwise irreparable dimensional deviations occur due to the plaster expansion, thus resulting in a high risk of breaking the dental arch.**

**12+13** Place the model flat in your hand with the split retention looking downward, hit it with a hammer on the dorsal area of the plate until the dental arch comes off.

**14+15** Then, dry trim the dental arch in the vestibular and palatal area with the Multitrim unit (115800).

**16+17** As an alternative to dry trimming and for finishing purposes, a handpiece may be used furnished with mandrel (815300) and arbor band - grit 120 (815330).

### STEP 4 | Sawing of the Modell



**1** Reposition the trimmed dental arch on the plinth plate without applying pressure. Between the dental arch and the plinth plate a gap of approx. 2 mm is visible resulting from the plaster expansion. The advantage is that you see the pins when sawing.

**2+3** Fix the plinth plate in the model table of the Diacut model saw (171800). Align the model table in accordance with the cutting direction. The saw cuts as defined.

**4** The linear expansion stress

resolves; the segment drops onto the plate and rests tightly.

**TIP:** Cut the dental arch in halves first and remove one half so you can effect the saw cuts with less hindrance. Thus, the opposing side of the dental arch is protected from getting harmed.

**5** Clean all segments and reposition them tightly on the cleaned plinth plate.