



Original Instructions

Schick S2 Profi milling unit

We are pleased that you decided to buy a highly developed piece of equipment from SCHICK and would like to wish you every success when working with your new milling unit S2 Profi.

We wrote these instructions to enable you to get accustomed to your new piece of equipment and to provide you with the correct operating and maintenance instructions.

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1.1 Scope of delivery	art.no.:
S2 Profi milling unit complete	2950
consisting of:	
S2 Profi milling unit	2955
S2 Profi milling spindle with cable	9400/06
Light head	2510
Power supply	9415
Chuck key	4115
Counterstay wrench	6223
Dust protection cover S2	2794
Optional:	
Chuck \varnothing 3,0 mm	4117
Stroke for pins \varnothing 3,0 mm	4925
foot switch on/off	6370/2
dynamic foot control	9440

2. Range of applications

The S2 Profi milling unit is designed for the fabrication and handling of dentures in the dental laboratory. The solid design of the milling unit is enabling high-precision milling works in every material.

Conditions of environment:


- Interior 5° - 40°C
- Up to 2.000 meter over sea level


Categorie of overvoltage: II

Grade of pollution: 2

3. General informations / Safety informations

- Ascertain that your mains supply coincides with the data in the rating plate
- The milling units S2 Profi is not suitable for the following applications:
 - in areas where there is a risk of explosion
 - for medical applications
- Ensure that all regulatory requirements are observed during use (always wear protective glasses)
- Under no circumstances should the milling unit be cleaned with compressed air
- To keep the precision and the lifetime of the chuck always insert a rotary instrument or the pin, supplied with the unit - even if the motor stands still.
- accessories like transfer machine, graphite lead holder, paralleling mandrel or similar are not allowed to be used in the milling spindle.
The spindle may be started by mistake!

- Recycling  WEEE-Reg.-Nr. DE 78620387

Attention: 

- Water-cooled turbines are only indicated to use in connection with a SCHICK suction tub to avoid defects at the electronical equipment and corrosion.
- When using rotary instruments, do not exceed the maximum speeds laid down by their manufacturer.
- Repairs and other technical procedures must only be carried out by suitable qualified personnel, authorized by SCHICK.
- SCHICK is not assuming any guarantee for the S2 Profi milling unit should it not have been used in accordance with the instructions.
- For defects occurred by using the S2 Profi milling unit in another way or by inappropriate handling the manufacturer rejects any liability.

These instructions should be readily accessible and are best kept close to the milling unit itself!

4. Commissioning

4.1 Set up of the milling unit

Please set up the S2 Profi milling unit to a flat and solid work bench. You can bring the S2 Profi into a perfect horizontal position by using the adjustable unit base and a water level.



Fig. 1



Fig. 2

4.2 Connections

Connect the spindle and the light head to the sockets at the rear of the milling unit. Insert the mains cable connector into the power socket of the control unit. To switch the milling unit on, the mains switch must be in position "I".

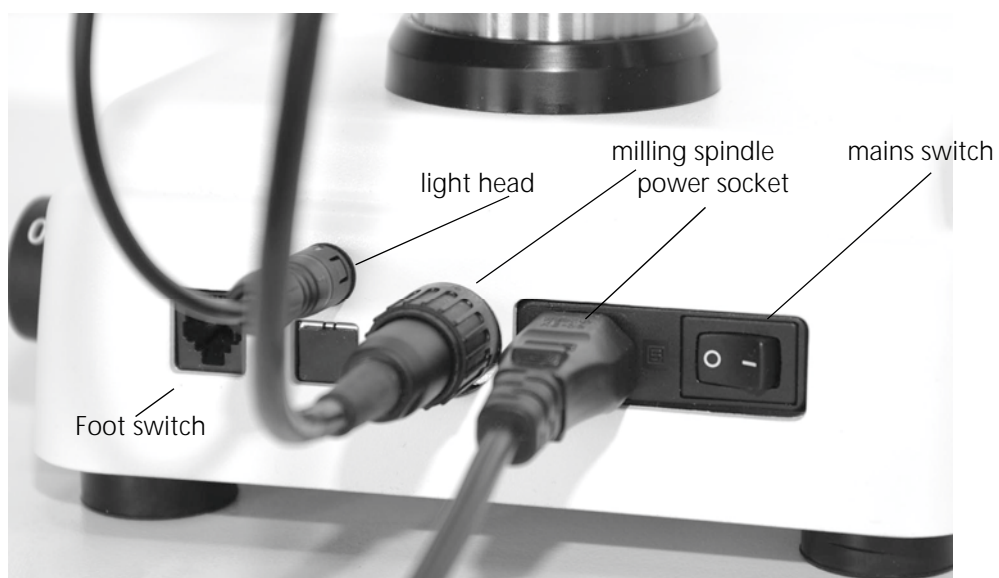


Fig. 3

4.3 Fixation of the milling spindle

Mount the milling spindle in the milling arm. Hereby, the spindle must click into the anti-twist lock. Use the knurled screw to fix the milling spindle without play. Please take care that the running sound of the spindle is not changing significantly while tightening the screw. Push the light head upwards as shown in Fig. 4 and connect it with its corresponding cable. Afterwards fix the light head with the knurled screw (Fig. 4).

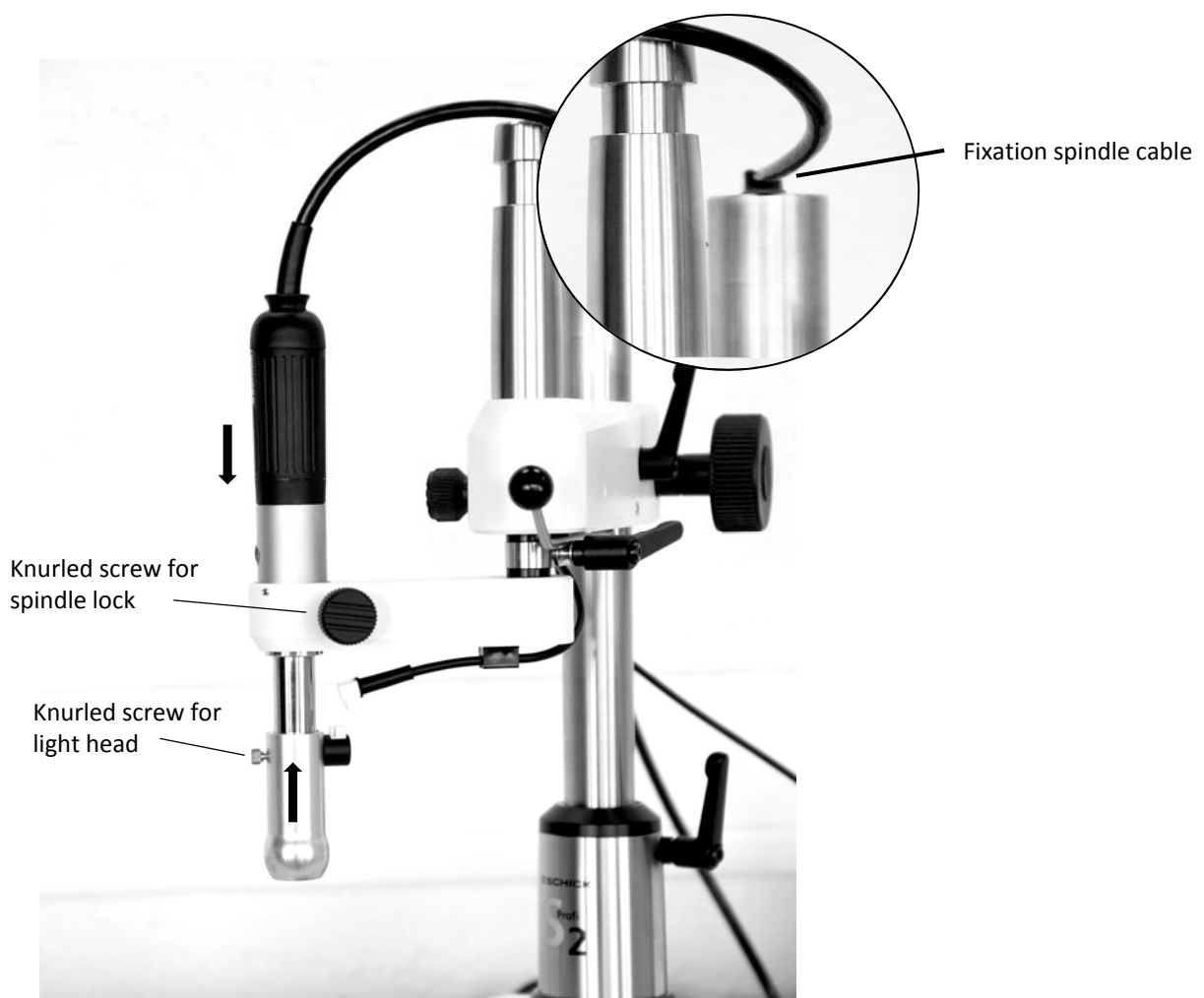


Fig. 4

The S2 milling unit is fitted with a control knob (a), via which the maximum speed of the milling spindle can be adjusted. The corresponding switch (b) must be operated to start / stop the spindle.

If the optional foot switch (c) art. no. 6370/2 is fitted, the required speed is preselected with the control knob before starting the milling unit with the foot switch. If the optional dynamic foot control pedal (d) art. no. 9440 is fitted, it can be used to control the speed steplessly to the maximum value preselected with the control knob.

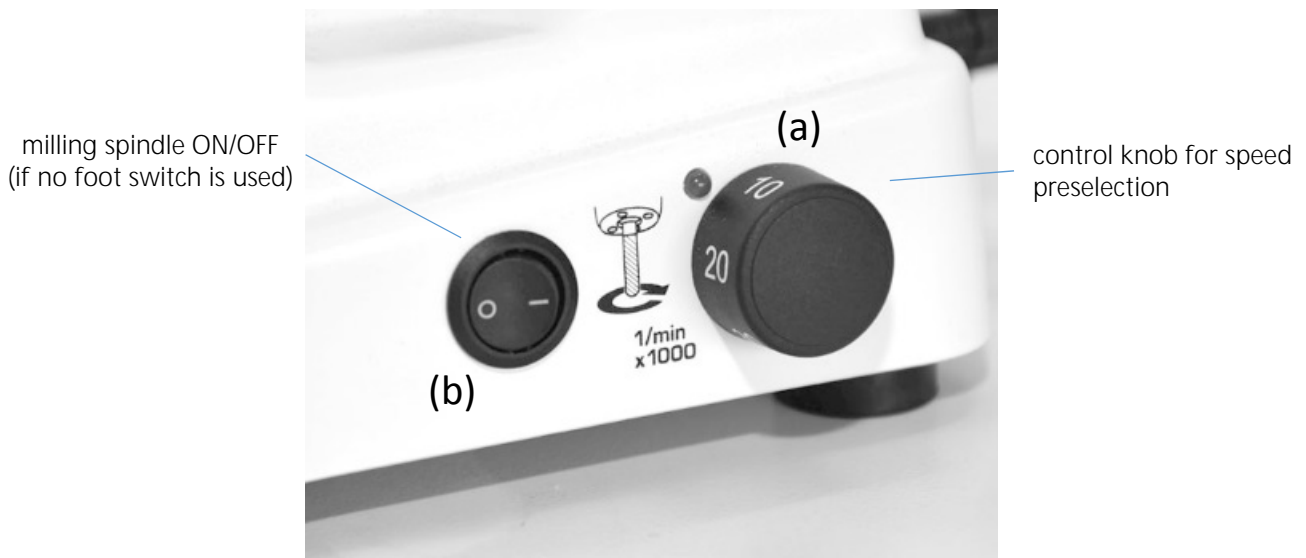


Fig. 5

Optional: foot switch 6370/2 (c) and dynamic foot control 9440 (d)



5. Tool change – Opening and closing the chuck

! Make sure the motor is switched off before changing the tool !

- Turn clamping lever fully to the right ("Open") and insert the tool (Fig. 6)
- Turn clamping lever to the left ("Close") to clamp the tool.

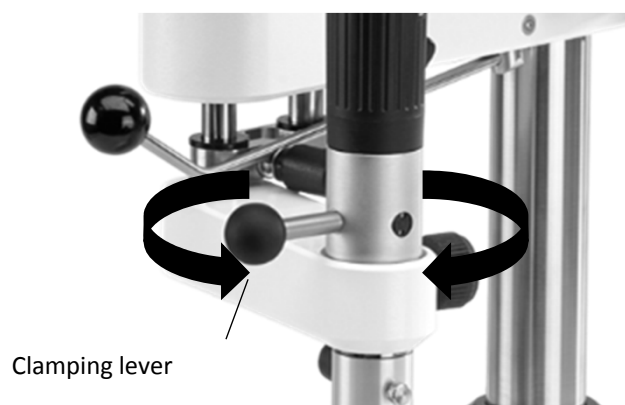


Fig. 6

6.1. Operation – Fixation of the model table

The S2 Profi milling unit is fitted with a magnetic platform to fix the model table or the milling tray (optional).

You have to flip the switch (Fig. 7) to enable the magnetic fixation. You will find the switch on the left-hand side of the S2 Profi.

Please take care that there are no impurities on the base. This will ensure a proper fixation of the model table

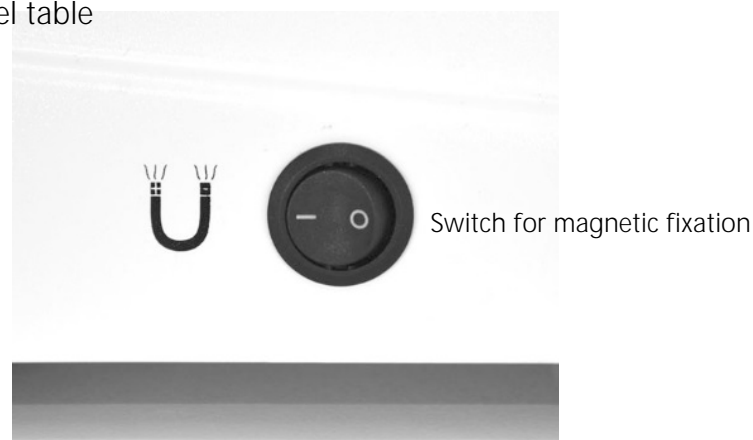


Fig. 7

6.2. Operation – Height adjustment of milling arm

In order to adjust the height of the milling arm on the S2 Profi, the locking lever on the arm must be released. Afterwards you can adjust the height with the handwheel as shown in Fig. 8. Please lock the locking lever afterwards to ensure maximum stability during the milling process.



Fig.8

6.3 . Using the milling arm / freehand milling / measuring

The milling arm of the S1 Basic is designed so that it can move freely in all directions, enabling every milling, undercutting or measurement task to be carried out. In addition, the possibility of locking the individual pivots permits the arm to be partially or completely fixed in any position. When tightening/releasing individual pivots, care must be taken that they are only tightened sufficiently to prevent pivot movement. On no account may they be overtightened.



Fig.9



Fig.10

To permit free movement of the milling arm, the column pivot (Fig. 9) as well as the arm pivot (Fig. 10) must be loosened by opening the locking lever.

6.4. Operation - Drilling

The S2 Profi is also able to perform precise drilling operations as well as milling interlocks. Drilling work is assisted by means of the adjustable depth stop.

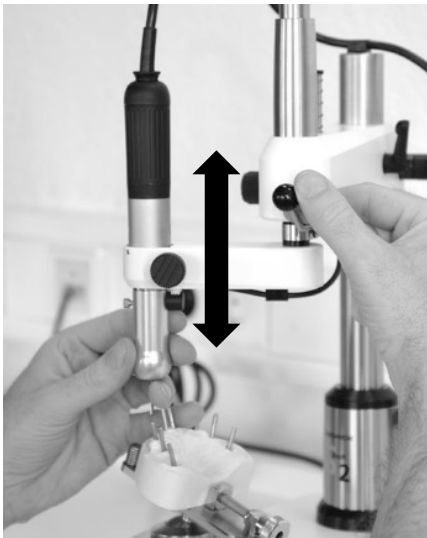


Fig.11

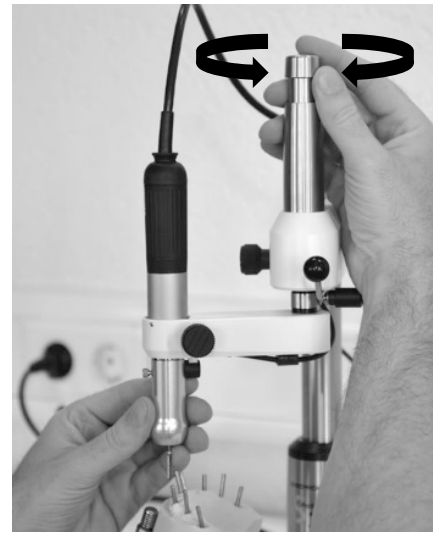


Fig.12

When the column and arm pivots have been fixed in the required position (Fig. 9 and 10), the milling arm can only be moved vertically, as shown in Fig. 11. To limit the drilling depth, the knurled nut of the depth stop is turned to the required position, as shown in Fig. 12.

Please note:

If the milling arm pivot (Fig. 10) is tightened while the spindle is being pulled downwards, the movement range is limited to the corresponding height or position.

6.5. Operation – Mounting attachments



Fig.13

Thanks to the additional fixing screw on the milling arm, it is possible to arrest the arm in any extension position. This permits attachments to be mounted without problems.

To do this, fix the milling arm in the required position (Fig. 9, 10). Pull the measuring spindle down to the required position, as shown in Fig. 13. By tightening the fixing screw, the milling arm is now fixed in the required position, from where the retracting spring automatically pulls it back to the original position as soon as the fixing screw is released again.

Caution:

Accessories such as the parallel holder for attachments, transfer unit, etc. may only be used in the measuring spindle art. no. 2052/1.

7. Maintenance – Removing the chuck

If necessary, the chuck of the Schick milling spindle can be removed. For this, unscrew the cap, remove the cable and connector from the spindle, and place the locking tool art. no. 6223 on the motor shaft. Insert the chuck key art. no. 4115 into the open chuck, and loosen the chuck with a jerking counter-clockwise twist.

Please note: There is an end stop in the chuck for short shafts. If necessary, the end stop can be removed or replaced.



Clean the chuck, lightly grease it on the outside, and reinsert it in the shaft. Use the locking tool and the chuck key as described above to lightly tighten the chuck on the shaft. Replace the cable connector and secure it with the screw cap. Reinsert the milling spindle into the spindle holder.

8. Technical data

Mains voltage range:	100 – 240 V
Nominal frequency:	50/60 Hz
Motor torque:	7 Ncm
Power:	80 Watt
Speed range:	1.000 – 40.000 !/min
Concentricity error:	< 0,015 mm
Chuck:	2,35 mm standard, incl. end stop for short tools - 3,00 mm on request

Dimensions	milling unit
Width:	240 mm
Height:	507 mm
Depth:	345 mm
Weight:	13 kg

9. Declaration of Conformity

We, SCHICK GmbH
Lehenkreuzweg 12
D-88433 Schemmerhofen

declare herewith, that the product

S2 Profi milling unit complete art.no. 2950

is in conformity with the following provisions of Directive:

2006/42/EG	(machinery directive)
2014/30/EU	(EMC directive)
2011/65/EU	(RoHS)

Name and address of
person in charge:

Wolfgang Schick
Lehenkreuzweg 12
88433 Schemmerhofen

Schemmerhofen, March 2017



W. Schick
Manager

10. Optional accessories – Ceramic milling set

Ceramic milling set for S2 Profi
Art.no. 2650/05

Scope of delivery:
suction tub, separator, turbine T100,
model table stainless steel, diamond tool set
for turbine 1.6 mm
(8 pcs.), polishing set 2.35 mm (3 pcs.),
adapter for turbine



Individual parts:

 <p>Collection tub without nozzle Art. No. 2498</p>	 <p>Suction tub with nozzle Art. No. 2470/5</p>	 <p>Separator Art. No. 2655</p>
 <p>Turbine T100 Art. No. 2640/1</p>	 <p>Model table stainless steel Art. No. 2407/9</p>	 <p>Light head for turbine Art. No. 2510/1</p>
 <p>Adapter for turbine T100 (adapter for other turbines upon request) Art. No. 2481</p>	 <p>Diamond tool set for turbine 1.6 mm (8 pcs.) Art. No. 2660</p>	 <p>Polishing set 2.35 mm (3 pcs.) Art. No. 2665</p>

Subject to technical modification without prior notice

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