



Original Instructions Schick S1 Basic milling unit / S1 Basic Parallelometer

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 machine S1 Basic.

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 S1 Basic milling unit	art. no.:
Scope of delivery	
S1 Basic milling unit complete	2800
S1 Basic unit	2805
S1 Basic milling spindle with cable	9400/05
Q Basic control unit	9418
model table	2407
mains cable	9415
chuck key	4115
counterstay wrench	6223
dust protection cover S1	2402
optional:	
chuck \varnothing 3,0 mm	4117
light head	2510
power supply light head	2480/1
1.2 S1 Basic Parallelometer	art. no.:
Scope of delivery	
S1 Basic Parallelometer	2810
S1 Basic unit	2805
measuring spindle	2052/1
dust protection cover S1	2402
lead holder	2268

2. Range of applications

The S1 Basic milling unit is designed for use in dental laboratories when trimming crowns and bridges, respectively acrylic and chrome cobalt dentures.

Highest quality and precision, minor maintenance are the merits of the S1 Basic which has been developed of our experts in milling technics.

Conditions of environment:

- interior 5° - 40°
- 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 machines S1 Basic 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 machine 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 unit, 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

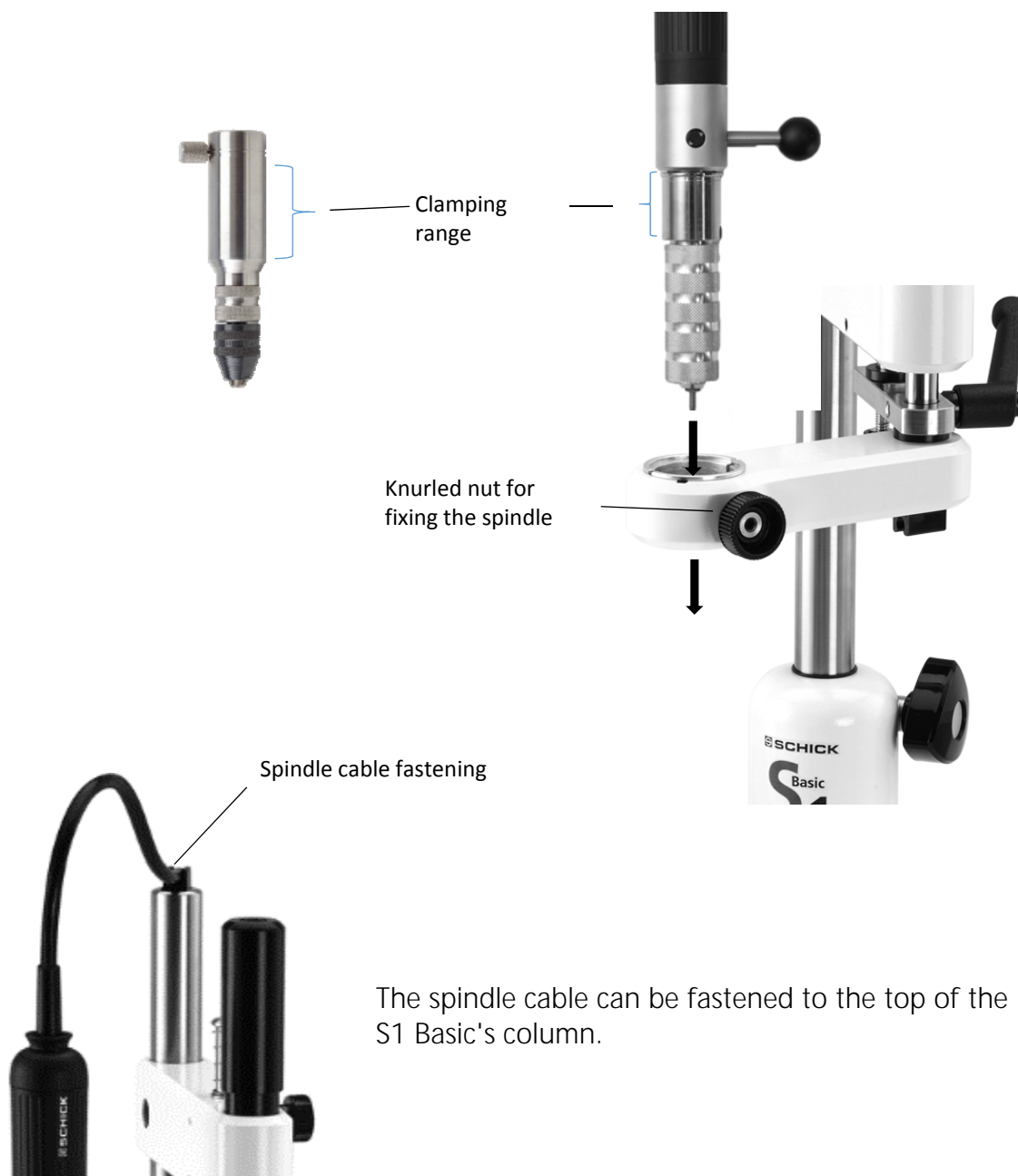
Attention: 

- Water-cooled turbines are only indicated to use in connection with a SCHICK suction tub to avoid defects at the electrical 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 do not guarantee the S1 Basic milling unit should it not have been used in accordance with the instructions
- For defects occurred by using the S1 Basic milling machine in another way or by inappropriate handling the manufacturer rejects any liability.

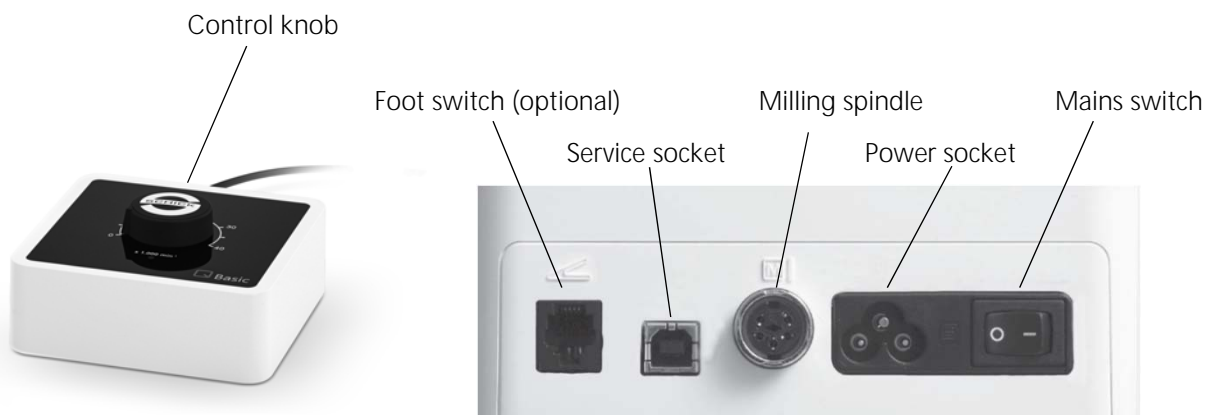
These instructions should be readily accessible and are best kept close to the milling machine itself !

4. Commissioning

Mount the milling spindle or the measuring spindle in the milling arm. Hereby, the spindle must click into the anti-twist lock. Use the knurled nut to fix the milling or measuring spindle so that it has no play. While tightening the nut, the running sound of the spindle must not change significantly.



Connect the spindle to socket "M" of the Q Basic control 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".
 If the control knob is not in position "0" when the control unit is switched on, it must first be turned back to position "0" to start the milling unit.



The control unit is fitted with a control knob via which the connected motor handpiece can be adjusted continuously up to the maximum speed of 40,000 rpm. If the optional foot switch (a) 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 speed control pedal (b) art. no. 9440 is fitted, it can be used to control the speed up to the maximum value preselected with the control knob.



5. Tool change – Opening and closing the chuck

Clamping the motor spindle/tool change

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

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

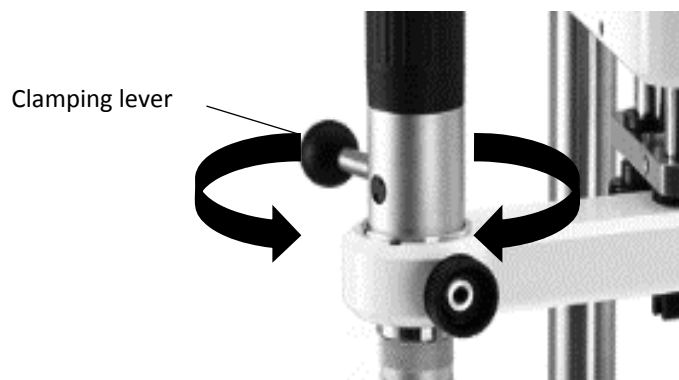


Fig. 2

6.1. Operation – Fixing the model table

The S1 Basic is fitted with an effective fixing method for the model table or the optional milling tray.

For this, the two locating pins must be placed in the rear holes, and the clamping lever inserted in the front hole. Now the model table or the milling tray can be inserted and then clamped by moving the lever sideways.



Fig. 1

6.2. Operation – Height adjustment of milling arm

In order to adjust the height of the milling arm on the S1 Basic, the locking screw on the arm must be released. Hereby, make sure to support the milling arm with one hand to prevent it falling down as well as securing it against tilting.

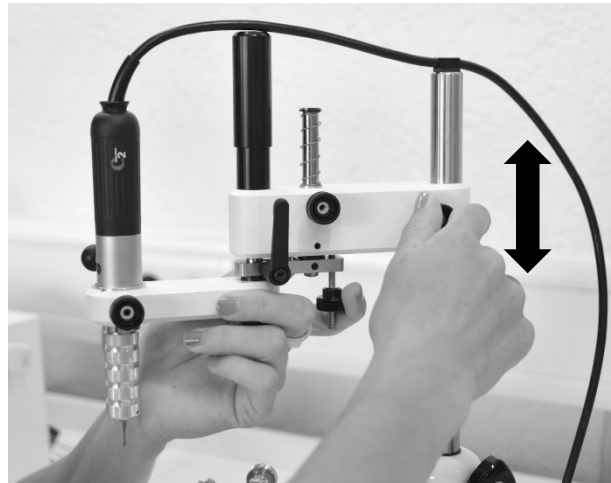


Fig. 3

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.

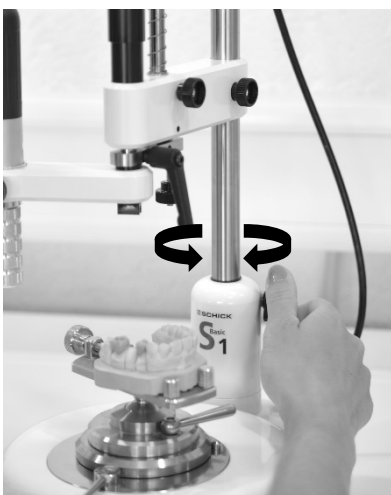


Fig. 4



Fig. 5

To permit free movement of the milling arm, the column pivot (Fig. 4) as well as the arm pivot (Fig. 5) must be loosened.

6.4. Operation – Drilling

The S1 Basic is also able to perform precise drilling operations as well as milling interlocks. Drilling work is assisted by means of the adjustable depth stop.

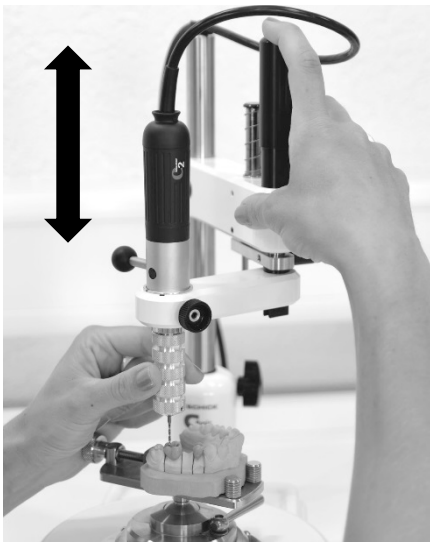


Fig. 6



Fig. 7

When the column and arm pivots have been fixed in the required position, the milling arm can only be moved vertically, as shown in Fig. 6.

To limit the drilling depth, the knurled nut of the depth stop is turned to the required position, as shown in Fig. 7.

Please note:

If the milling arm pivot (Fig. 5) 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

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.



Fig. 8



Fig. 9

To do this, fix the milling arm in the required position. Pull the measuring spindle down to the required position together with the guide rod, as shown in Fig. 8. By tightening the locking screw, the milling arm is now fixed in the required position, from where the retracting spring automatically pulls it back to the home position as soon as the locking 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. Mounting the optional light head

Instead of the grip sleeve supplied with the S1 Basic, the optional light head art. No. 2510 can be fitted in combination with the power supply unit art. no. 2480/1 (Fig. 10).



Fig. 10

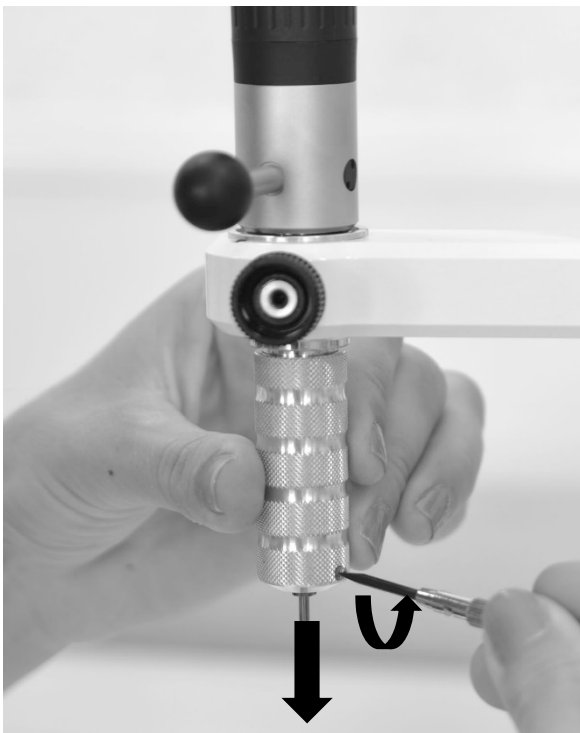


Fig. 11

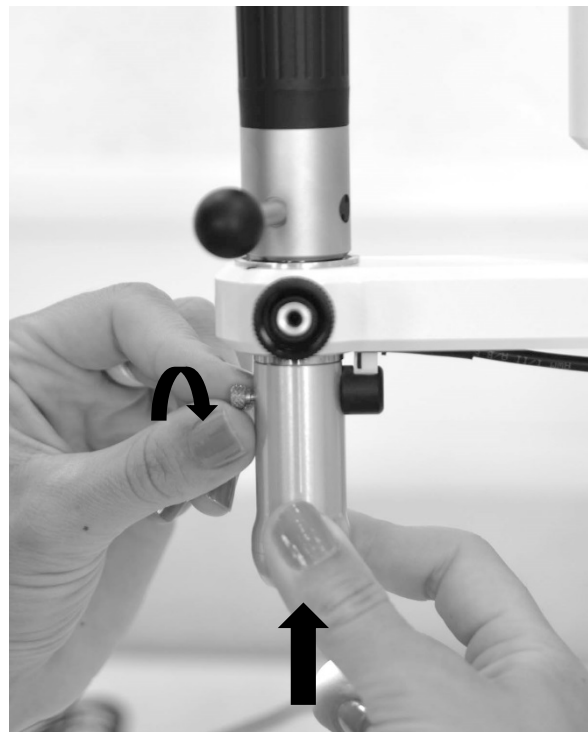


Fig. 12

Remove the slotted screw at the end of the grip sleeve and pull off the sleeve downwards (Fig. 11). Then connect the light head with the power supply unit and push it onto the spindle so that the connector plug slides into the cutout of the milling arm. Subsequently, secure the light head with the knurled nut (Fig. 12). The lighting head's connecting cable can be secured in the clip below the milling arm. Finally, insert the power supply unit into an outlet socket, and switch the light on with the rocker switch.

8. 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 chuck.

9. Technical data

Mains voltage range:	100 - 240 V
Nominal frequency:	50/60 Hz
Motor torque:	6.7 Ncm
Speed range:	1,000 – 40,000 rpm
Concentricity error:	< 0.015 mm
Chuck:	2.35 mm standard, incl. end stop for short tools – 3.00 mm on request

Dimensions	Milling unit	Control unit
Width:	220 mm	155 mm
Height:	400 mm	75 mm
Depth:	270 mm	155 mm
Weight:	7.2 kg	670 g

10. Declaration of Conformity

We, SCHICK GmbH
Lehenkreuzweg 12
D-88433 Schemmerhofen

declare herewith, that the product

milling machine S1 Basic 2800 und 2810

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











11. Optional accessories - Ceramic milling set

Ceramic milling set for S1 Basic
art.no. 2650/15

Scope of delivery:
suction tub, separator, turbine T100,
model table stainless steel, light head for
turbine, power supply for light head,
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 Art. No. 2470/5</p>	 <p>Separator Art. No. 2655</p>	 <p>Adapter for turbine T100 (Adapter for other turbines are available on request) Art. No. 2481</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>Power supply light head Art.-No. 2480/1</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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