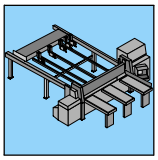
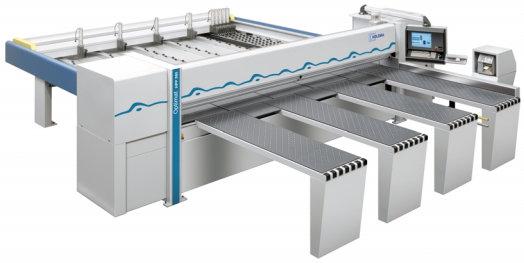


Cuts single panels or books.

Features	Values	
Table height	920	mm
Air pressure requirement	6	bar
Total air requirement	25	l/min
Extraction syst. capacity	4600	m³/h
Air speed	26	m/s
Total connected load for 13.5 kW motor	20	kW
Foundation concrete quality	B25	
Minimum thickness of concrete	200	mm
Evenness of floor: Tolerance	10	mm



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Contents:

1 General information 3

1.1 Delivery and transport 3
1.2 Unloading and transport 4
1.3 Recommended aids....6
1.4 Condition of floor 6

2 Machine frame 7

2.1 Erection....7
2.2 Suspension fixture for transport 7
2.3 Remove transportation locks....9
2.4 Levelling....10
2.5 Electrical connections....13
2.6 Possible options 16
2.7 Pneumatic connections 17

3 Lateral guide 18

3.1 Installation....18
3.2 Levelling....20

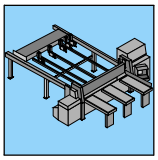
4 Tie bar 22

5 Program fence 23

5.1 Installation....23
5.2 Installation from above 25
5.3 Tooth play 28
5.4 Connections....30
5.5 Wipers....33
5.6 Covering for lateral guide 35

6 Clamps 36

6.1 Adjustment....36



7 Roller rails 38

7.1 Insertion 38
7.2 Levelling 39

8 Grids and safety panels 41

9 Air cushion tables 42

9.1 Assembly 42
9.2 Connections 44

10 Small right-angle fences 45

10.1 Check 45
10.2 Adjustment 46

11 Long right-angle fence 47

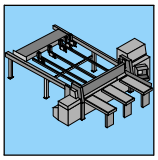
11.1 Assembly 47
11.2 Adjustment 50
11.2.1 Horizontal adjustment 50
11.2.2 Adjust side 1 51
11.2.3 Adjust side 2 53
11.3 Insert in-between panels 53

12 Lateral guide alignment 54

12.1 Adjustment 55

13 Dowel machine 56

13.1 Underpouring machine 57



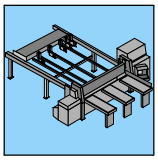
1 General information

1.1 Delivery and transport

Note:
The entire assembly and adjustment of the machine must be completed with the utmost precision and accuracy as this has a direct effect on the quality of the cut and the life of the panel saw.

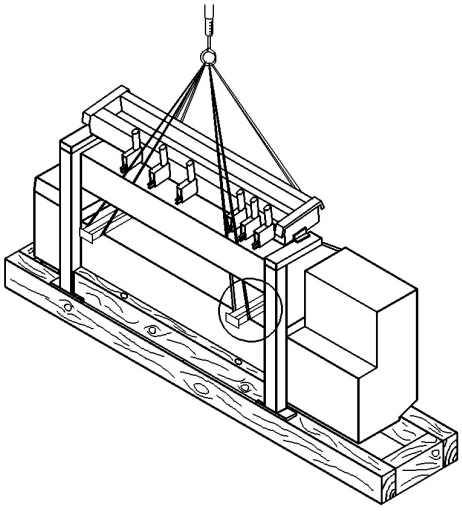
Caution:
It is essential that you read the Operating Instructions before commissioning the machine.

Note:
Remove packaging material and dispose of it according to legal regulations.



1.2 Unloading and transport

On one pallet



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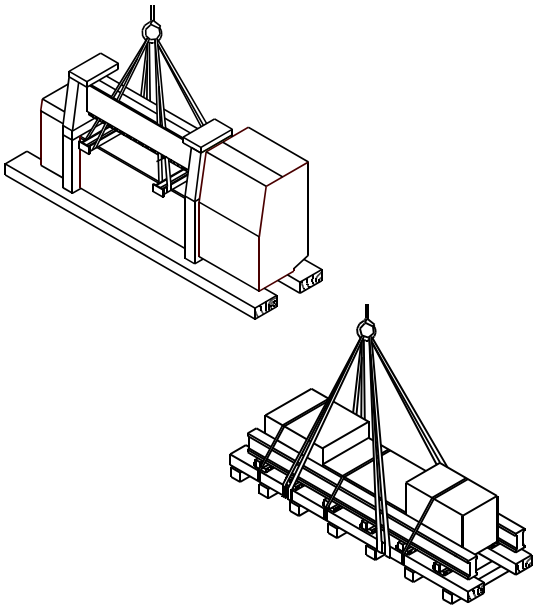
On two pallets



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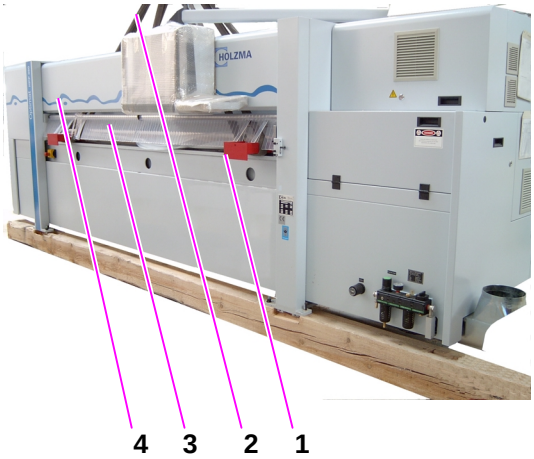
Note:
Ropes are only to be attached to the suspension fixtures **1** provided for the transport of the machine
Run rope **2** up behind safety curtain **3** and pressure beam trim panel **4**



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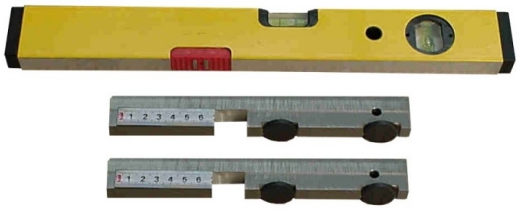
1	Suspension fixture for transport
2	Rope
3	Safety curtain
4	Pressure beam trim panel

1.3 Recommended aids

Note:
To ensure the precise adjustment of the machine we recommend our Set of Adjustment Aids.
HOLZMA part number: **2-001-65-1050**



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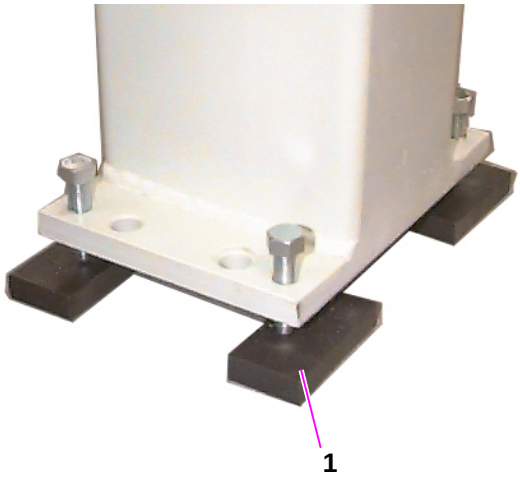
1.4 Condition of floor

- Visual examination of floor for unevenness, or check with spirit level

⇨ Determine thickness of pressure plates **1**



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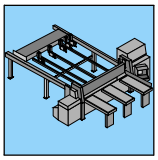
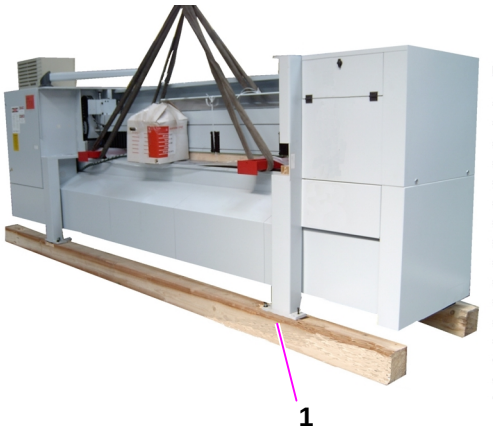
1	Pressure plate



2 Machine frame

2.1 Erection

➢ Take machine off pallet and stand on pressure plates, remove wooden transport supports **1**



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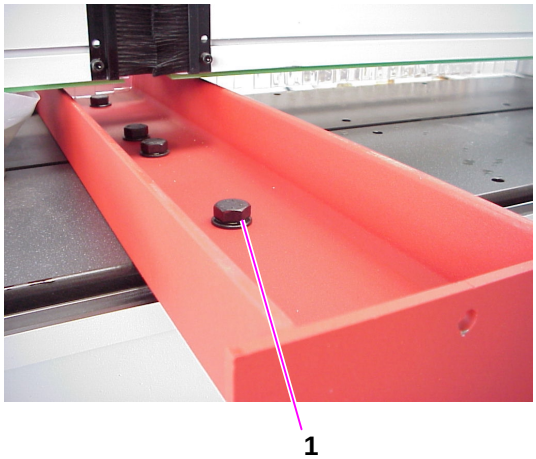
1	Wooden transport supports

2.2 Suspension fixture for transport

Removal

➢ Remove 4 screws **1** from each fixture



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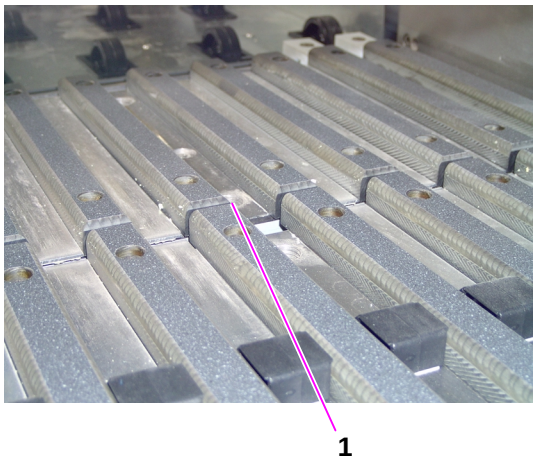
1	Screw

Cover threaded holes

Note:
Do not stick on aluminium strips that narrow the cutting gap until it is no longer necessary to transport the machine.

➢ Stick self-adhesive strips over threaded holes **1**

Note:
Strips to narrow the cutting gap are included with the fittings



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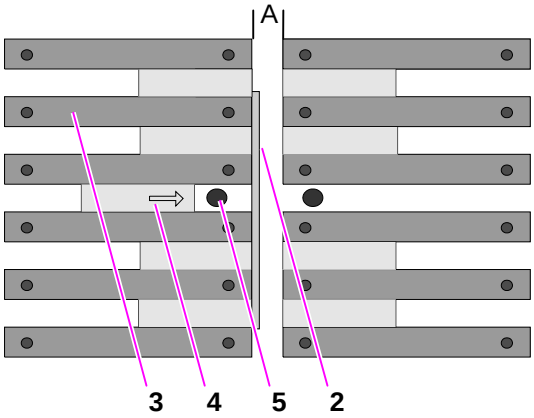
1	Threaded holes

Danger:
Place support under pressure beam to prevent lowering
➔Personal injury

➢ Hold metal plate **2** up against Resopal bar **3**
➢ Stick strips **4** that narrow cutting gap flush with metal plate **2** on top of threaded holes **5**
- **A** 6 mm

Note:
Cutting gap **A** must not be smaller than 6 mm as this can otherwise lead to problems with the central side pressure device.



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2	Metal plate
3	Resopal bar
4	Cutting gap closer
5	Threaded hole

2.3 Remove transportation locks

- Remove saw carriage transportation lock **1**
- Fit stop buffer **2** in hole in saw carriage

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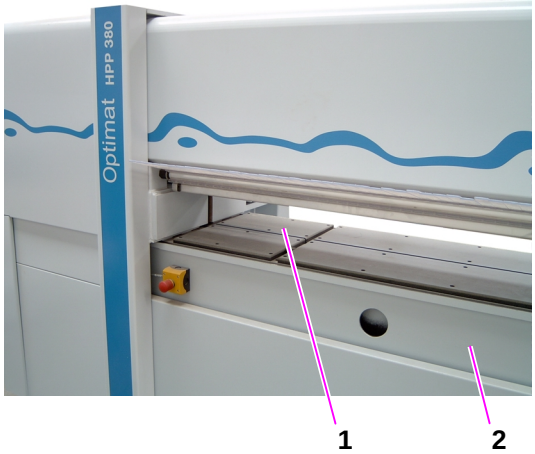
1	Transportation lock
2	Stop buffer

2.4 Levelling

➢ Remove supporting table **1**



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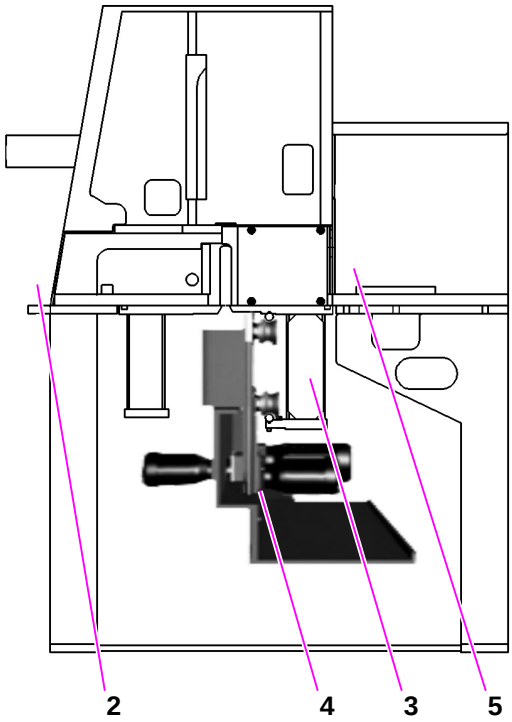
1	Supporting table
2	Air cushion table side

Note:
Always remove supporting table **1** from machine base with guide rod **3** because saw carriage **4** travels along this.



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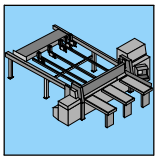
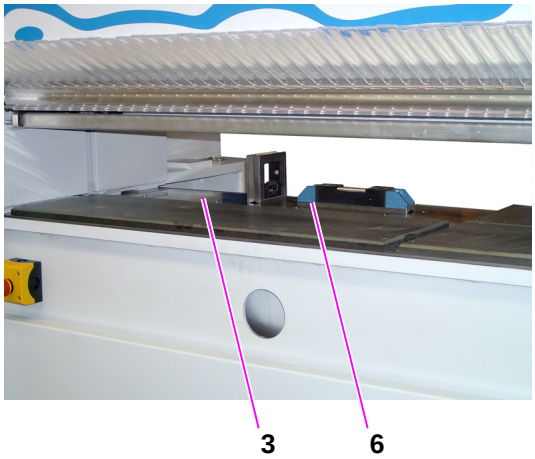
2	Air cushion table side
3	Machine base with guide rod
4	Saw carriage
5	Machine table side



- Place spirit level **6** on machine base **3**
- Level machine frame in both directions by means of adjusting screws

Note:
Tolerance of spirit level:
1 graduation mark = 0.3 mm



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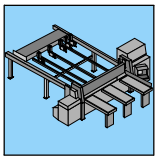
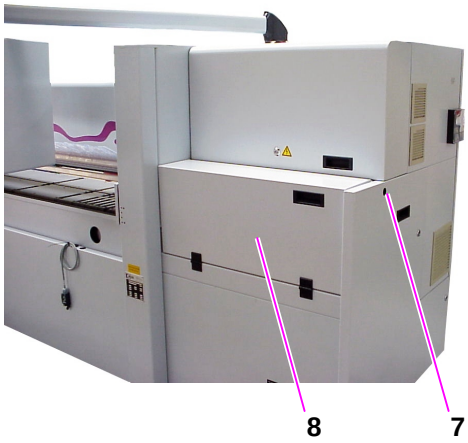
3	Machine frame
6	Spirit level



At opposite end

- Remove plug **7**
- Open flap **8** with key



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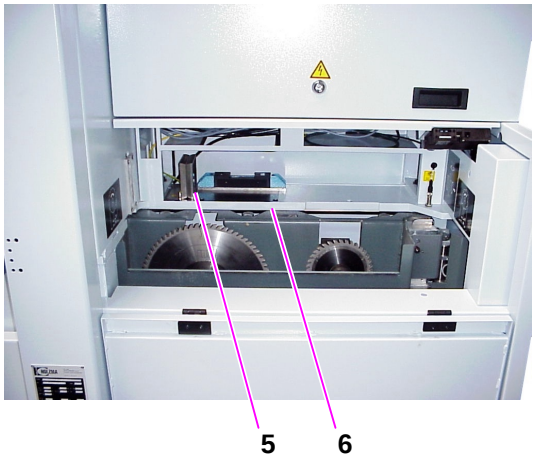
7	Plug
8	Flap

- Position spirit level **5** on machine frame **6** on surfaces that are not painted
- Level machine frame in both directions by means of adjusting screws



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5	Spirit level
6	Machine frame

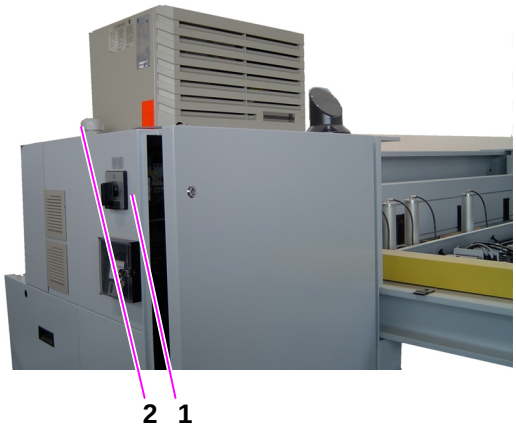
2.5 Electrical connections

Note:
Only qualified electricians are permitted to connect the machine.
Currently operative safety regulations must be observed.

Standard

Note:
Supply voltage 400V / 50 Hz

- Main switch **1** is located on side of wiring cabinet
- ➢ Pass power supply cable in through fitting **2**



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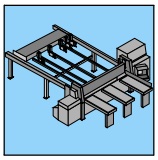
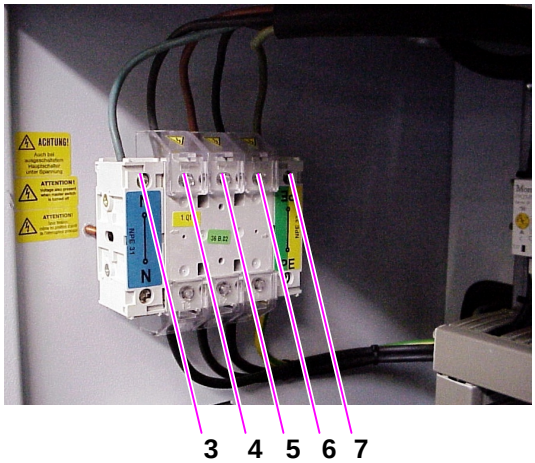
1	Main switch
2	Screw fitting



➢ Connect power supply cable to corresponding terminals



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3	N
4	L3
5	L2
6	L1
7	PE

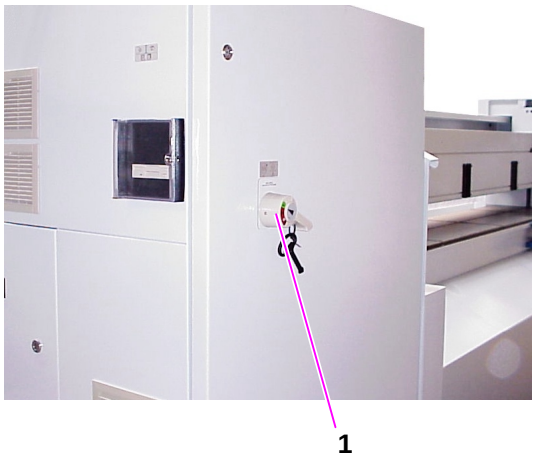
➢ Check rotating field

Note:
Ensure that field rotates clockwise

USA

Note:
Supply voltage 220V / 60 Hz
If this supply voltage is not available
⇨ Install series transformer

- Main switch **1** is located on door of wiring cabinet



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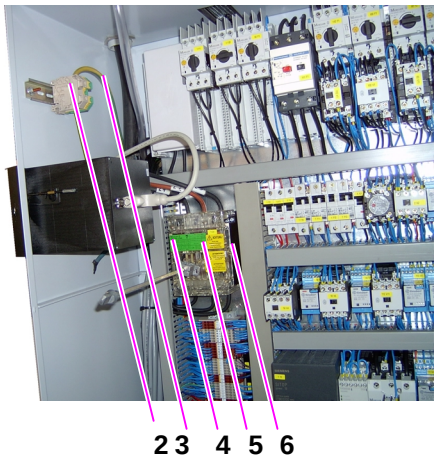
1	Main switch

➢ Pass power supply cable in through screw fitting and connect to corresponding terminals



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2	N
3	PE
4	L1
5	L2
6	L3

➢ Check rotating field

Note:
Ensure that field rotates clockwise

2.6 Possible options

Network

➢ Plug network cable into Ethernet socket **1** in industrial PC **2**

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1	Ethernet socket
2	Industrial personal computer (IPC)

External extraction system

➢ Connect to potential-free connection

Note:
Consult wiring diagram for terminal

Note:
Sub-assembly number = 902

Modem

➢ Connect analogue telephone lead to modem terminal **3**

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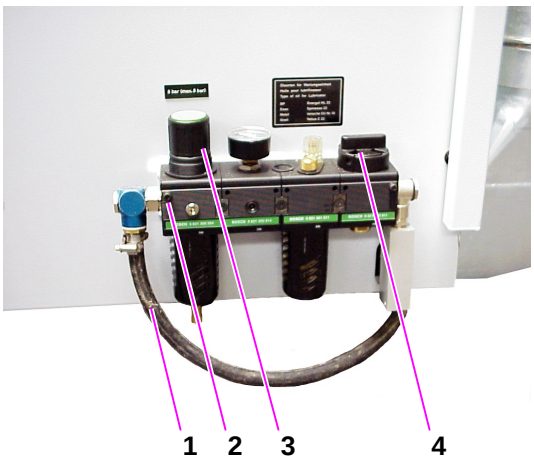
3	Modem terminal

2.7 Pneumatic connections

Danger:
Before supplying air to machine ensure that all packing material has been removed.
➔Damage to machine

- Connect air hose **1** to pneumatic unit **2**
- Set pressure at pressure control valve **3** to 6 bar (factory setting)
- Open stop valve **4**

Caution:
Some sub-assemblies are able to move, e.g. safety curtain can open, pressure beam can go up.



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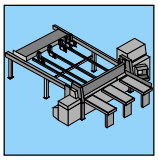
1	Air hose
2	Pneumatic unit
3	Pressure control valve
4	Stop valve

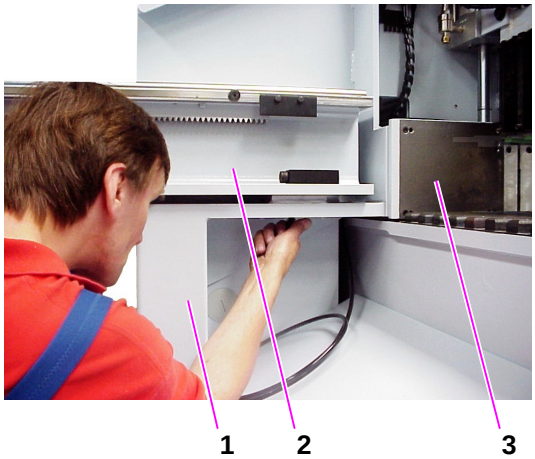


3 Lateral guide

3.1 Installation

➢ Position lateral guide **2** on machine stand **1**

Note:
Lateral V-guide **2** is to be fitted to right-angle fence side **3**



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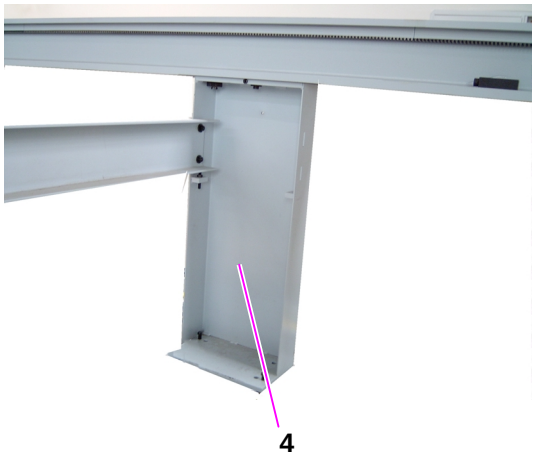
1	Machine foot
2	Lateral V-guide
3	Right-angle fence

➢ Fix stand **4** with screws in front two holes in middle of lateral guide



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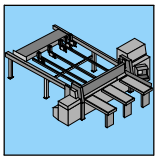
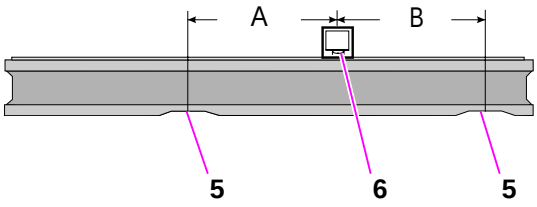
4	Stand



- **A** = **B**

➢ Measure distance between points of support **5**

➢ Place spirit level **6** on guide rod at midpoint



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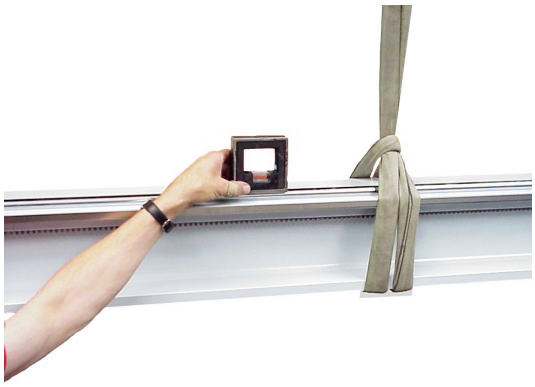
5	Point of support
6	Spirit level



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➢ Place spirit level on machined surface

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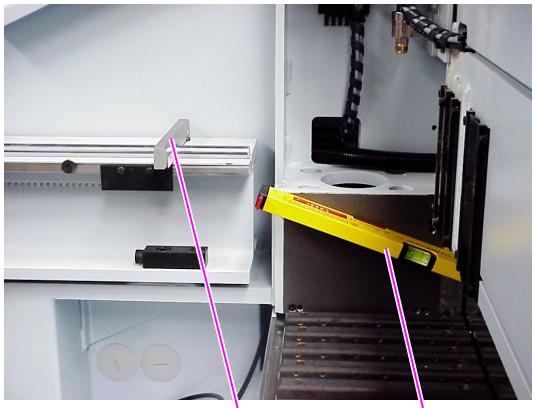
3.2 Levelling

- Place magnetic laser spirit level **1** on right-angle fence
- Place aligning aid **2** on lateral guide



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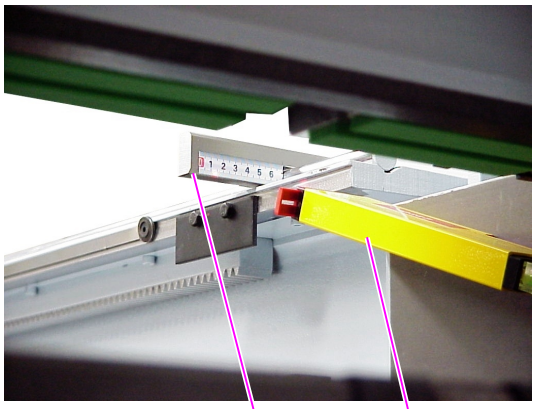
1	Laser spirit level
2	Aligning aid

- Align laser spirit level **1** to aligning aid **2**



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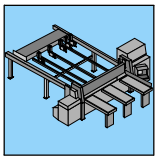
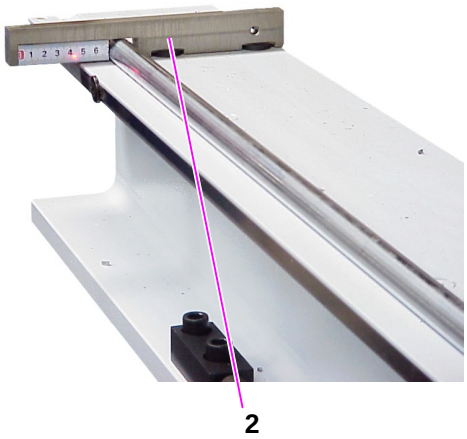
1	Laser spirit level
2	Aligning aid



➢ Place aligning aid **2** at end of lateral guide



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2	Aligning aid

➢ Move the lateral guide until you get the same reading on the aligning aid as at the front

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Note:
Check lateral guide again with spirit level
➔ see **page 19**

➢ Install second lateral guide parallel to first

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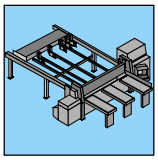
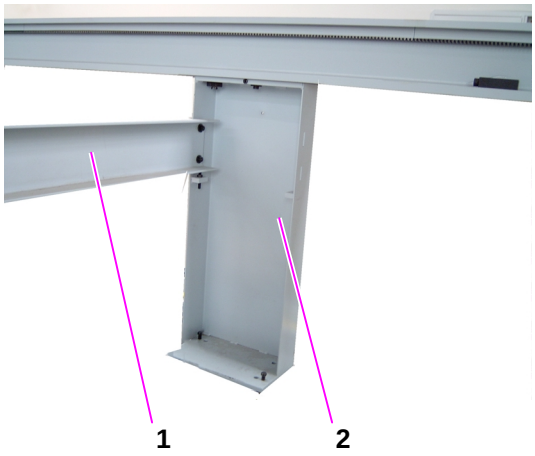


4 Tie bar

- ➢ Fit the tie bar **1** between the two lateral guide stands **2**
- For the moment, just put screws in position
- Height of roller rails will be adjusted later using tie bar **1**



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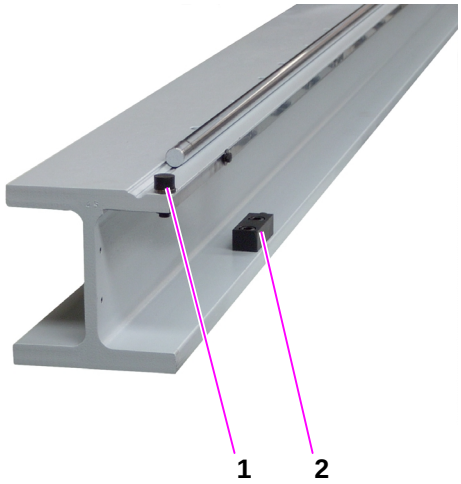
1	Tie bar
2	Lateral guide stand

5 Program fence

5.1 Installation

➢ Remove rubber stopper **1** and limit stop **2**



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1	Rubber stopper
2	Limit stop

➢ Fit program fence (PRF)

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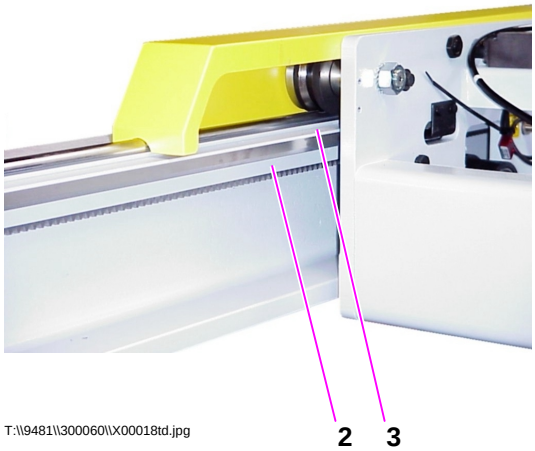
Note:
Prismatic wheel **3** must be placed exactly on guide rod **2**



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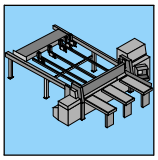
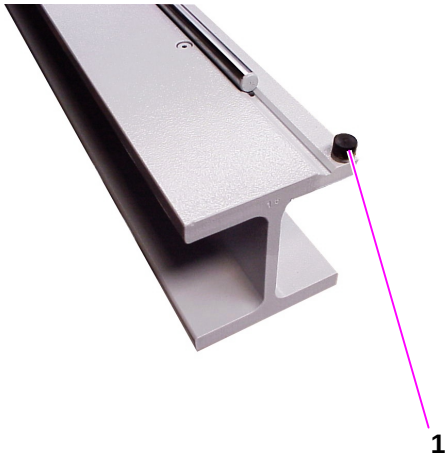
2	Guide rod
3	Prismatic wheel



➢ Fit rubber stopper **1**



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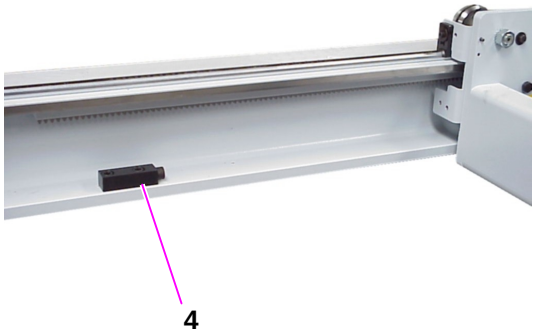
1	Rubber stopper

➢ Fit mechanical limit stops **4** to both lateral guides



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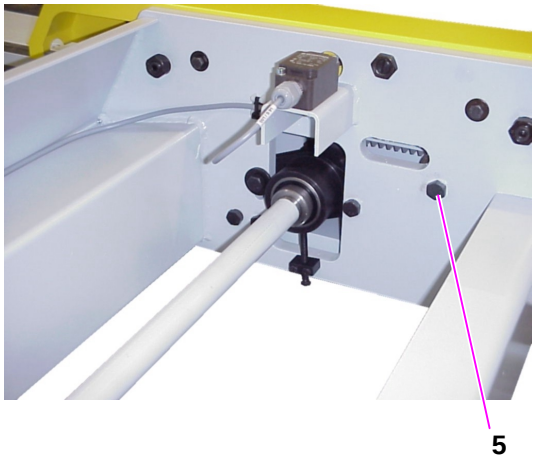
4	Mechanical limit stop

➢ Adjust contact of eccentric running wheels **5** at both ends and tighten

- You must not be able to block running wheel by hand when PRF is moved

➢ Adjust at guide rod end first



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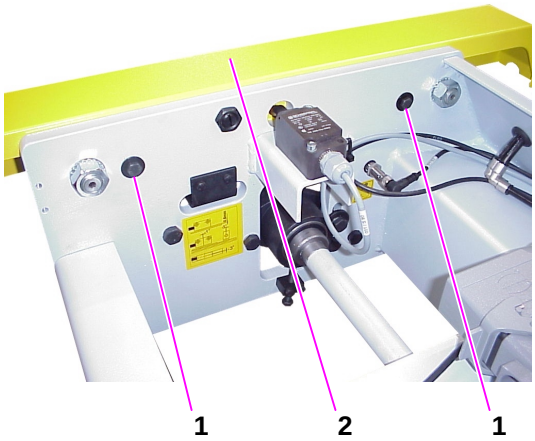
5	Eccentric running wheel

5.2 Installation from above

Note:
If there is not enough space at rear of machine to complete installation the program fence can be fitted from above.

- Remove top cover plates
- Loosen 2 screws **1** at each end and remove safety slide **2**



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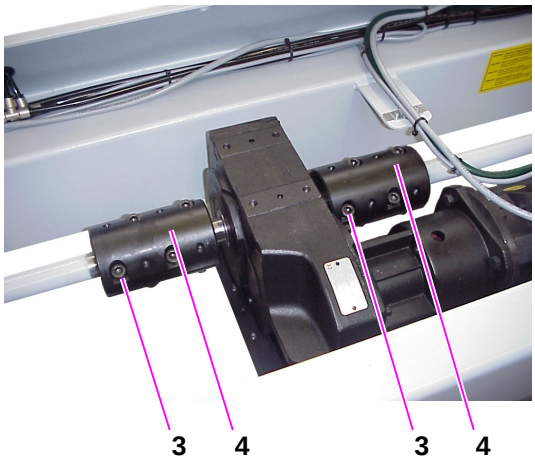
1	Screws
2	Safety slide

- Remove 8 screws **3** on split couplings **4**



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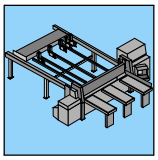
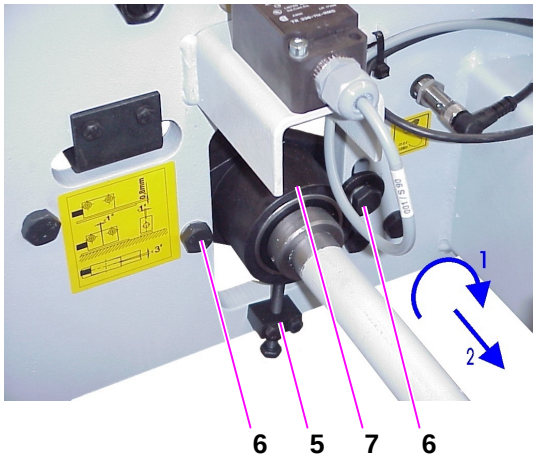
3	Screws
4	Split couplings



- Remove block **5**
- Remove 2 screws **6**
- Turn flange bearing **7**, take out drive shaft



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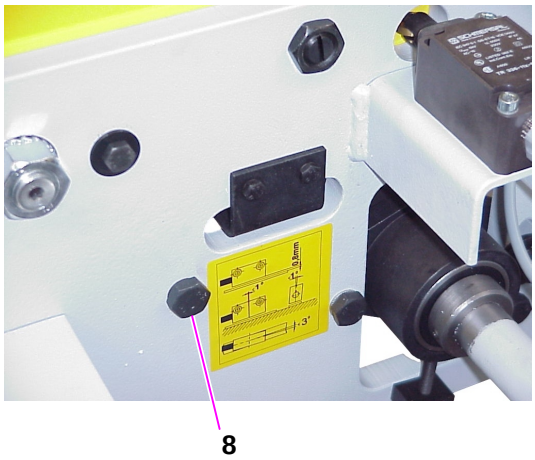
5	Block
6	Screws
7	Flange bearing

- Remove cap **8**

⇨ Remove lower running wheel



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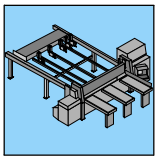
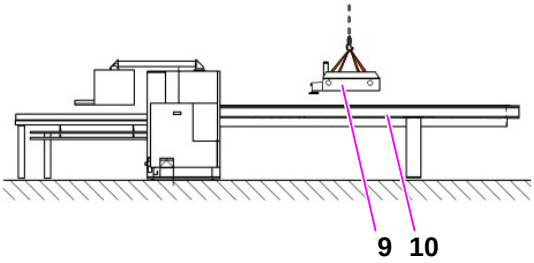
8	Screw



➢ With the help of a crane or large fork lift truck, rest program fence **9** on top of lateral guides **10**



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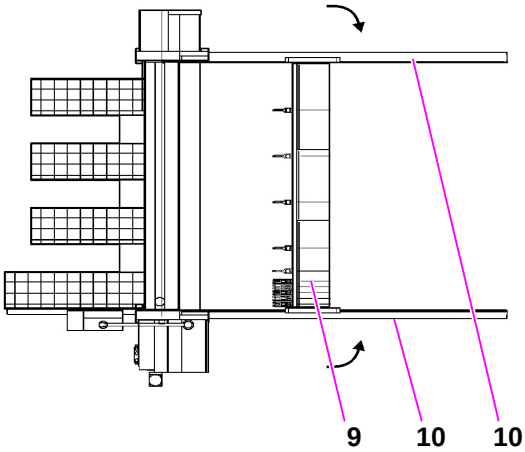
9	Program fence
10	Lateral guide

Caution:
Observe maximum permissible load of equipment.

Note:
If a crane or something similar is not available
⇨ Rest program fence **9** on trestles in correct position and then fit lateral guides **10**



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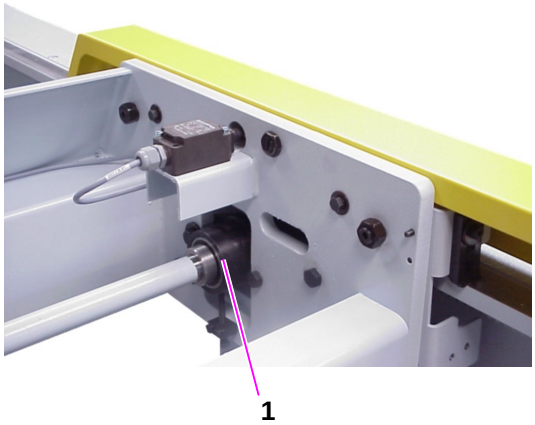
9	Program fence
10	Lateral guides

➢ Fit lower running wheel
➢ Fix flange bearing **7** and block **5** with split couplings
➢ Screw on safety slide **2**

5.3 Tooth play

➢ Ensure snug fit of driving pinion **1**, at both ends



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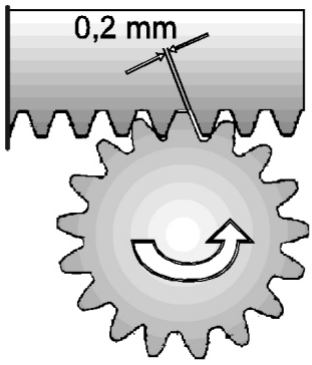
1	Driving pinion

- To ensure minimum wear on rack and pinion as well as accurate measurements <u>play must be 0.2 mm</u>



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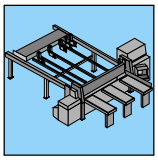
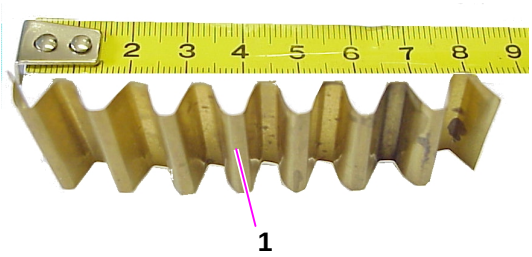


Play adjustment

- Grease metal gauge **1** (with tools) and insert into rack
- Loosen screw **2**
- Turn screws **3** to the left ➔ play is increased
- Push program fence by hand until pinion **4** is in middle of metal gauge **1**
- Turn screw **3** to the right until pinion fits snugly ➔ play should be 0.2 mm
- Tighten screw **2**
- Run program fence back and remove metal gauge **1**
- Repeat procedure at other end



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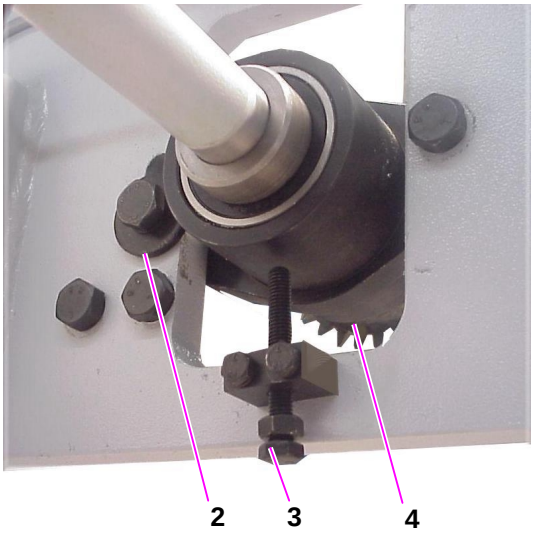
1	Metal gauge



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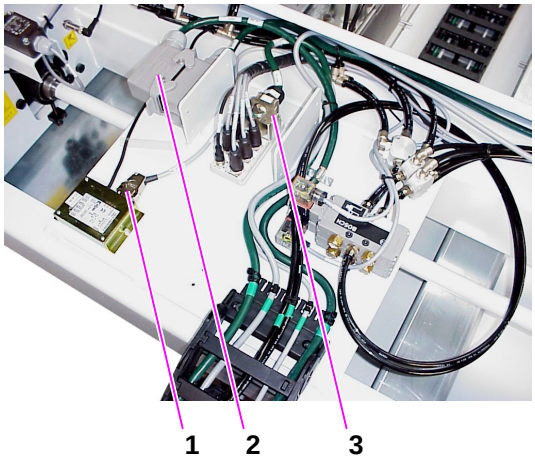
2	Screw
3	Screw
4	Pinion

5.4 Connections

Power chain

- Screw power chain into position with 4 screws
- Plug in measuring system plug **1**, motor plug **2** and distributor plug **3**



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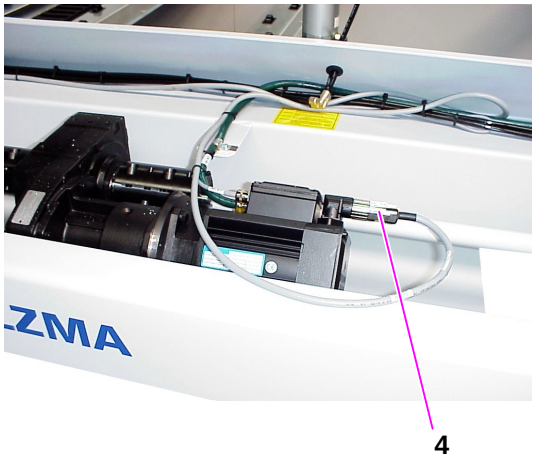
1	Measuring system plug
2	Motor plug
3	Distributor plug

- Connect feedback cable **4** to motor



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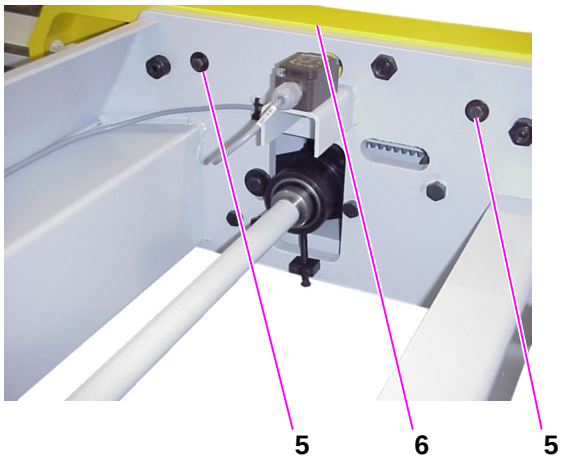
4	Feedback cable

Adjust measuring head

- Loosen 2 screws **5**
- Remove emergency stop slide **6**



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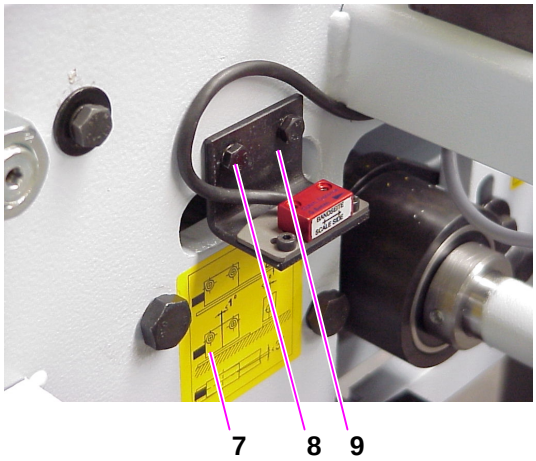
5	Screw
6	Emergency stop slide

State at time of supply

- Remove 2 screws **8**
- Turn bracket **9** 180°
- Fasten with 2 screws **8**
- Check measuring head adjustment

➔ See label **7** on inner side of program fence



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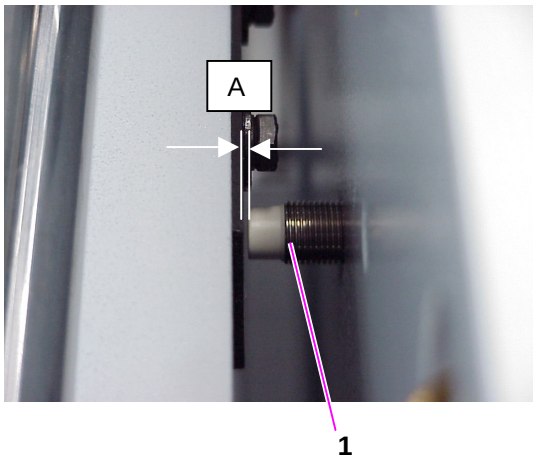
7	Label
8	Screw
9	Bracket

Adjust inductive proximity switch

- ➢ Push program fence to front stopper
- ➢ Adjust proximity switch **1** on control cam
- **A** 1 mm

- ➢ Tighten proximity switch, pay attention to tightening moment



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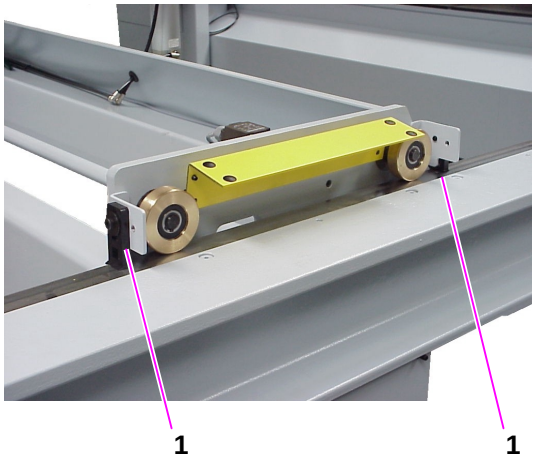
1	Proximity switch

5.5 Wipers

Fitting

➢ Fit wiper **1**, at each end



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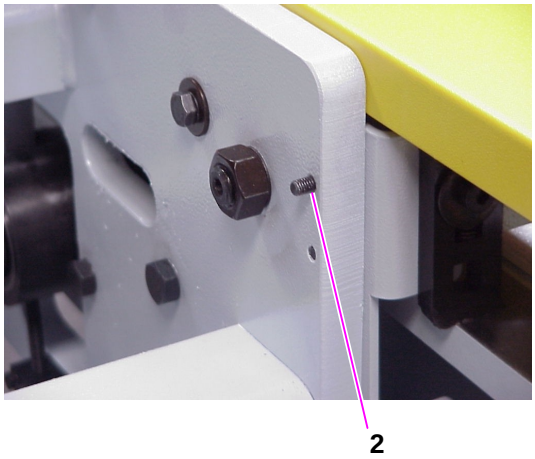
1	Wiper

Note:
Top screw **2** of wiper must be longer. It serves as mounting for PRF cover plates.



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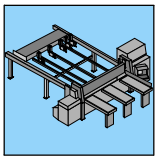
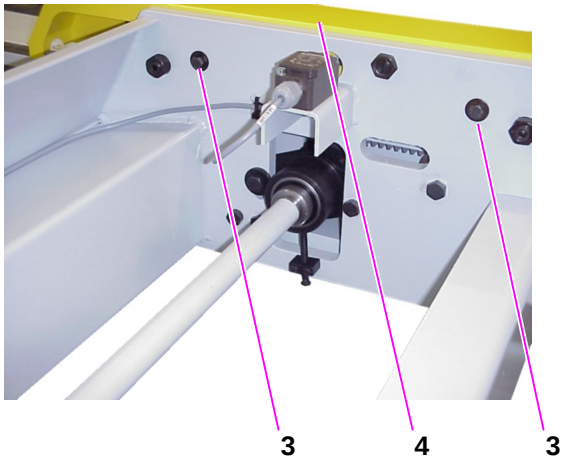
2	Screw



- Fit emergency stop slide **4**
- Tighten screws **3**

Note:
Adjust slide **4** so that it can be moved by hand.



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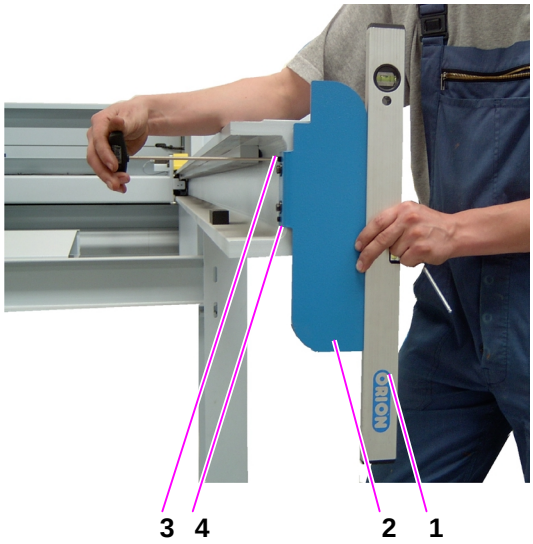
3	Screws
4	Emergency stop slide

5.6 Covering for lateral guide

- Place spirit level **1** on cover plate **2**
- Align cover plate **2** by means of 2 setscrews **3**
- Tighten 2 screws **4**



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1	Spirit level
2	Cover plate
3	Setscrew
4	Screw

- Hang covering **5** over lateral guide **6**

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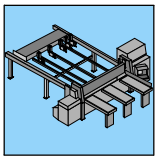
5	Covering
6	Lateral guide



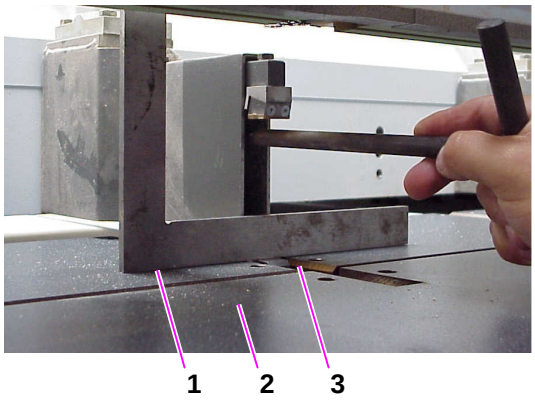
6 Clamps

6.1 Adjustment

Height

- Setting:
  Clamp finger **3** = **0.1 mm** above table level **2**

Note:
Check with help of try-square **1**!



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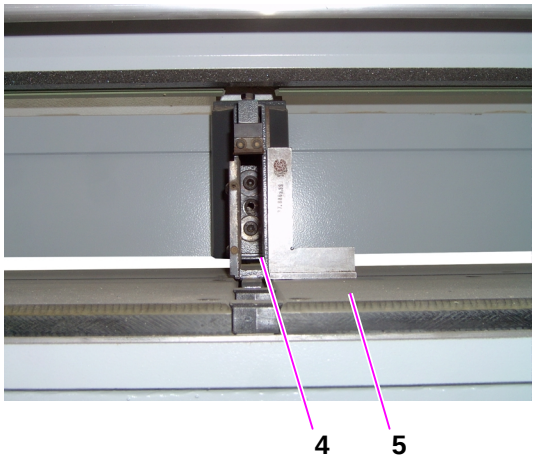
1	Try-square
2	Table height
3	Clamp finger

➢ Clamp **4** at 90° angle to machine table **5**



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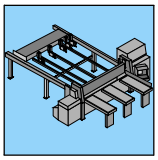
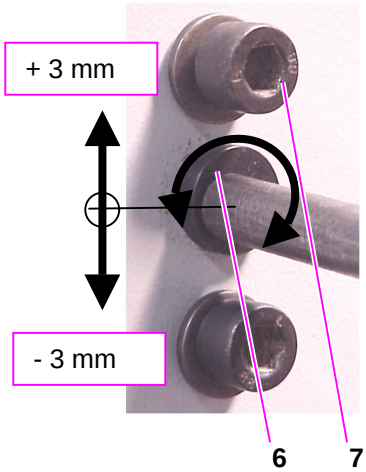
4	Clamp
5	Machine table



- ➢ Push PRF up to cutting line
- ➢ Loosen screws **7**
- • From front:
  Adjust height with eccentric bolt **6**
- • Eccentric range: ± 3 mm
- ➢ Fix clamp with screws **7**



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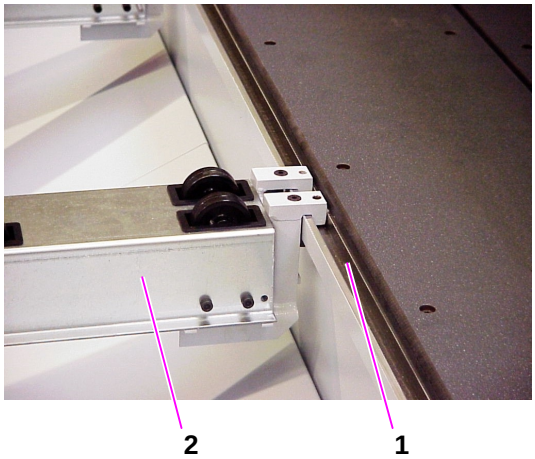
6	Eccentric bolt
7	Screw

7 Roller rails

7.1 Insertion

Note:
Slots are provided in machine support **1**. Hang roller rails **2** in these slots.



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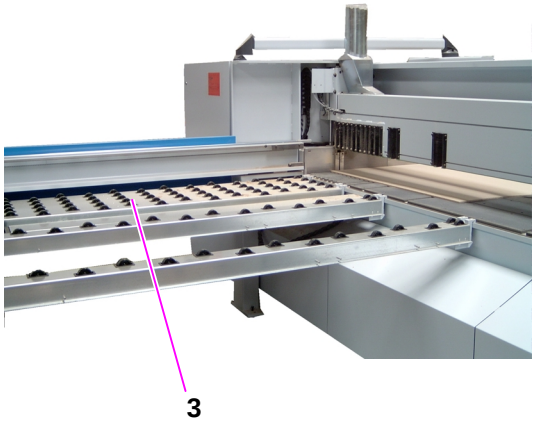
1	Machine frame
2	Roller rail

- Wide roller rail **3** is to be fitted at right-angle fence side



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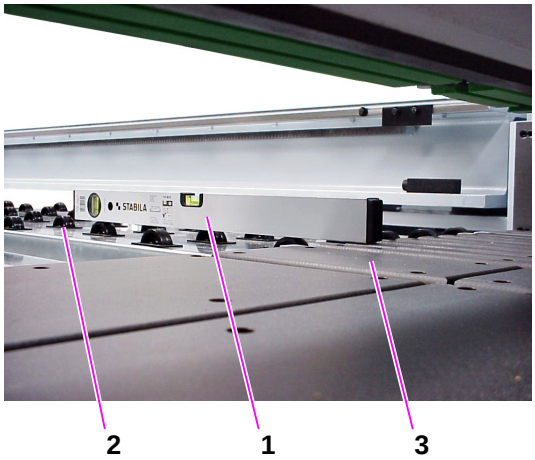
3	Wide roller rail

Note:
For verification of roller rail positions refer to layout plan.

7.2 Levelling

At machine table

- Spirit level **1** must slide smoothly from roller rail **2** onto machine table **3** without jolting



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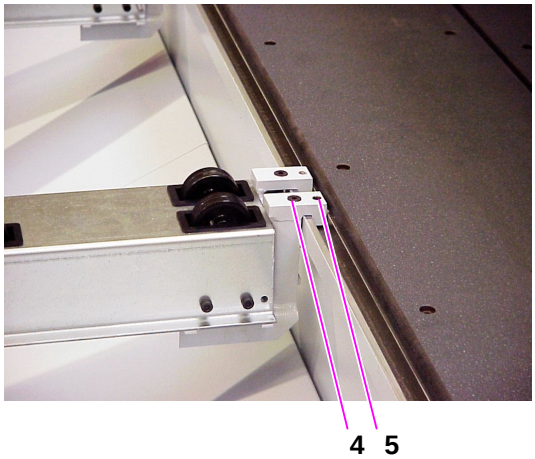
1	Spirit level
2	Roller rail
3	Machine table

➢ Loosen screw **4** and adjust height with screw **5**
➢ Tighten screw **4**



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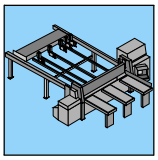
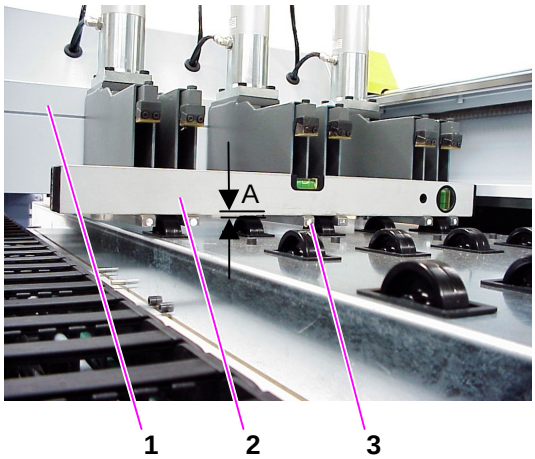
4	Screw
5	Screw



At tie bar

- ➢ Pull program fence **1** back over tie bar
- ➢ Place spirit level **2** on clamp finger **3**
- • **A** 0.2...0.3 mm

Note:
If clamps are further apart use a ruler or straightedge. Length approx. 2 m



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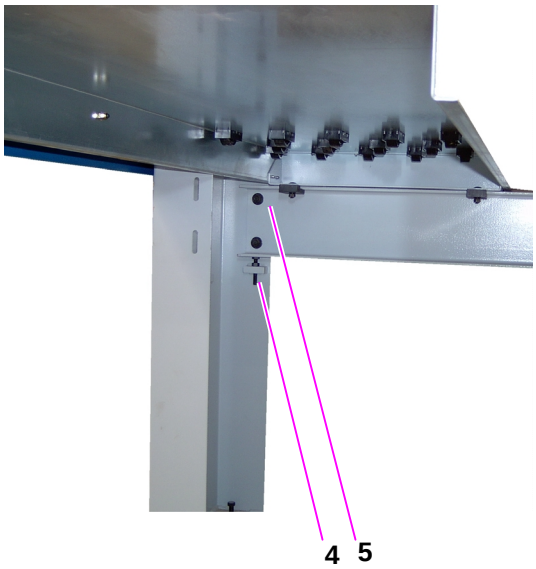
1	Program fence
2	Spirit level
3	Clamp finger

- ➢ Loosen 2 screws **5**
- ➢ Loosen counternut on screw **4**
- ➢ Adjust height of tie bar with screw **4**

Note:
Adjust at both ends.



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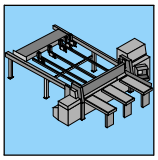
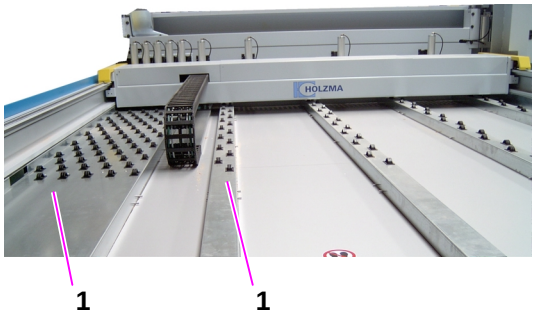
4	Screw
5	Screws



8 Grids and safety panels

➢ Insert between roller rails **1**



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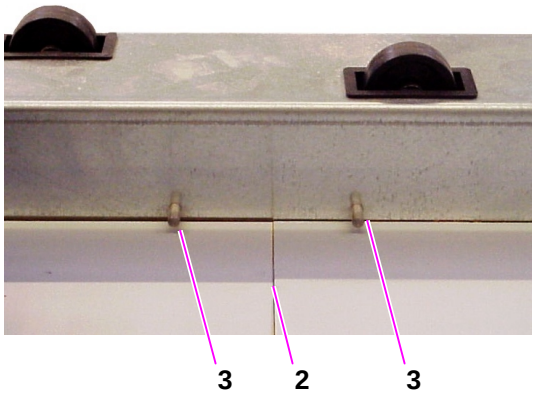
1	Roller rail

- Panel joint **2** must be at mid-point between pins **3**



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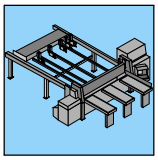
2	Panel joint
3	Pin

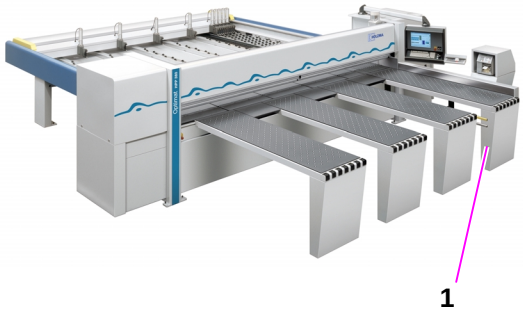
Danger:
It must be impossible for grids and panels to be raised from below
➔**Personal injury**



9 Air cushion tables

9.1 Assembly

- First assemble air cushion table **1** and right-angle fence as described in section **11.1**



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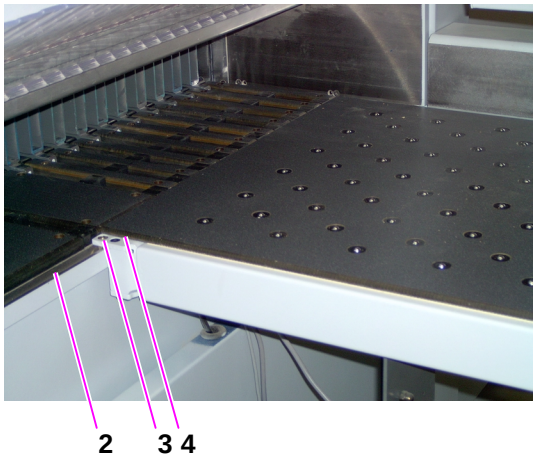
1	Air cushion table

- Hang in groove **2** on machine support
- Loosen screw **3** and adjust height with screw **4**



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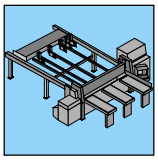
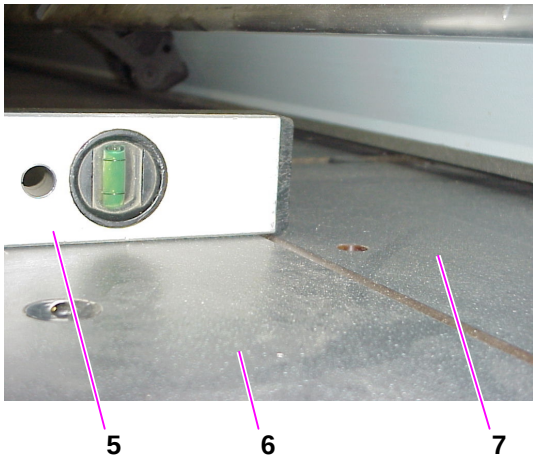
2	Groove
3	Screw
4	Screw



- Spirit level **5** must slide smoothly from air cushion table **6** onto machine table **7** and vice versa



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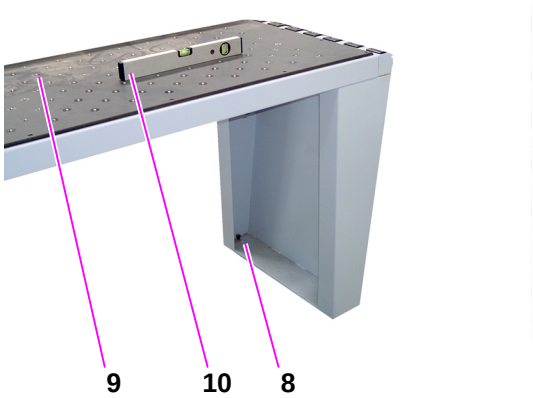
5	Spirit level
6	Air cushion table
7	Machine table

➢ Turn adjusting screw **8**
➢ Level air cushion table **9** with spirit level **10**



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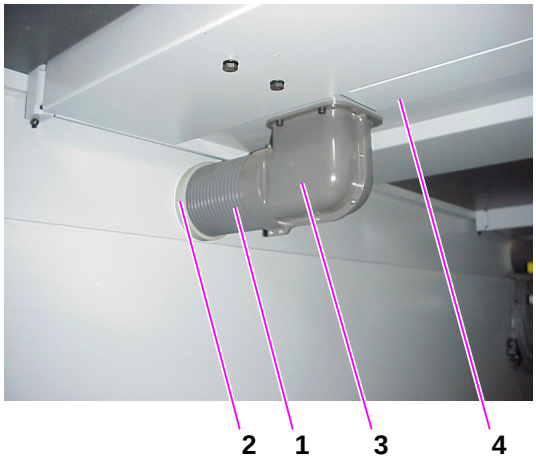
8	Adjusting screw
9	Air cushion table
10	Spirit level

9.2 Connections

- Screw pipe **1** into elbow union **3**
- Fit elbow union **3** to air cushion table **4**
- Screw pipe **1** out of elbow union **3** and brace against gasket **2**



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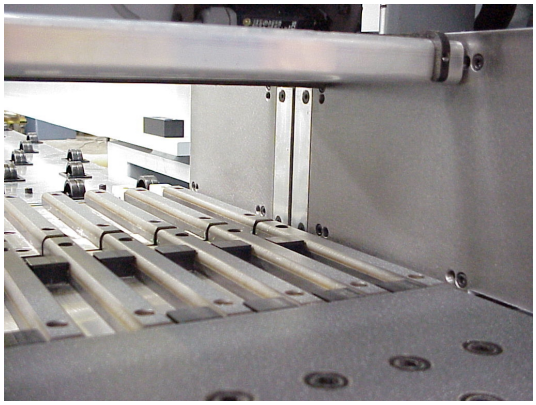
1	Pipe
2	Gasket
3	Elbow union
4	Air cushion table

10 Small right-angle fences

10.1 Check

➢ Check that both small right-angle fences are at right-angles to cutting line



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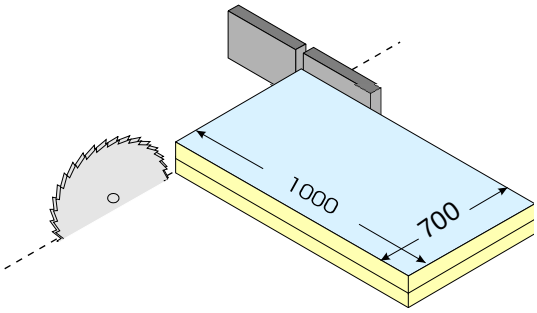
➢ Position 2 panels on top of each other up against right-angle fence
➢ Complete trim cut



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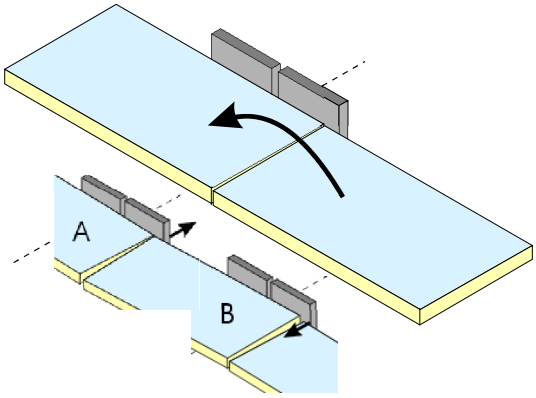
➢ Open up top panel

- Gap **A** or **B** indicates direction for adjustment of right-angle fence



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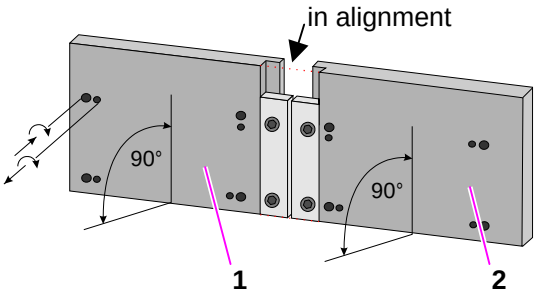
Note:
Run this check on both small right-angle fences.

10.2 Adjustment

Note:
The two right-angle fences must be in alignment.
Repeat section **10.1 Check** until right-angle fences are in alignment and at right angle to cutting line.

- Never loosen all the screws at once
- Always retain a reference point

➢ Set right-angle fence **1** at right angle to machine table
➢ Check alignment of right-angle fences
➔ See **10.1 Check**
➢ Adjust alignment of right-angle fence **2** to right-angle fence **1**
➢ Set right-angle fence **2** at right angle to machine table
➢ Check alignment again



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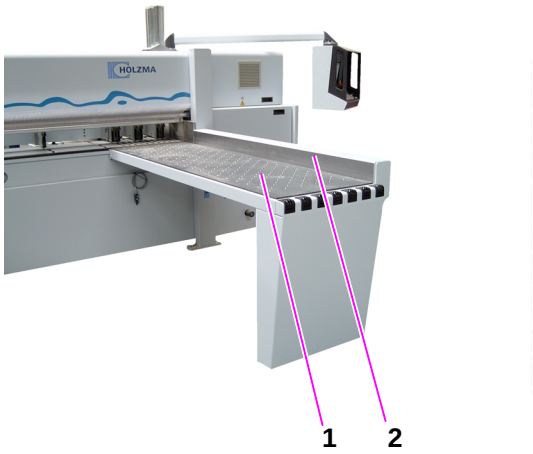
1	Right-angle fence
2	Right-angle fence

11 Long right-angle fence

11.1 Assembly

➢ Assemble right-angle fence **2** with air cushion table **1**



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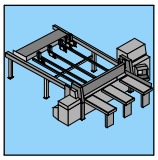
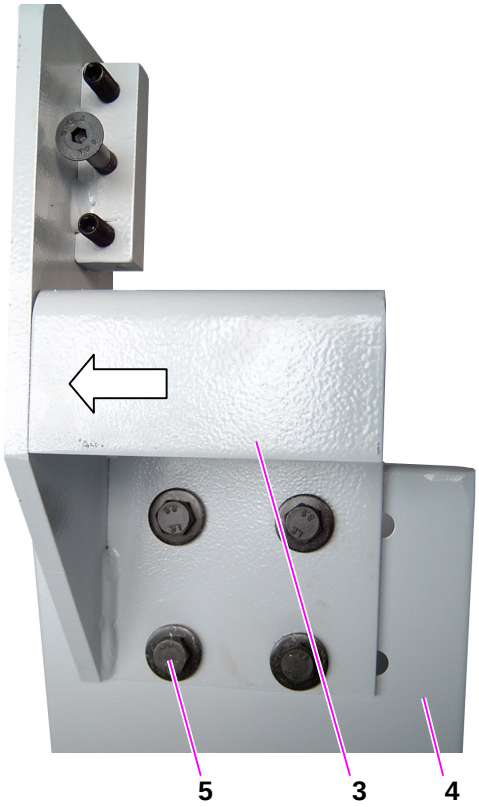
1	Air cushion table
2	Right-angle fence



- ➢ Fit support **3** to stand **4** with 4 screws **5**
- • Just put screws **5** in position
- ➢ Push support **3** in direction of arrow to outermost position



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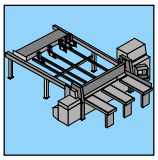
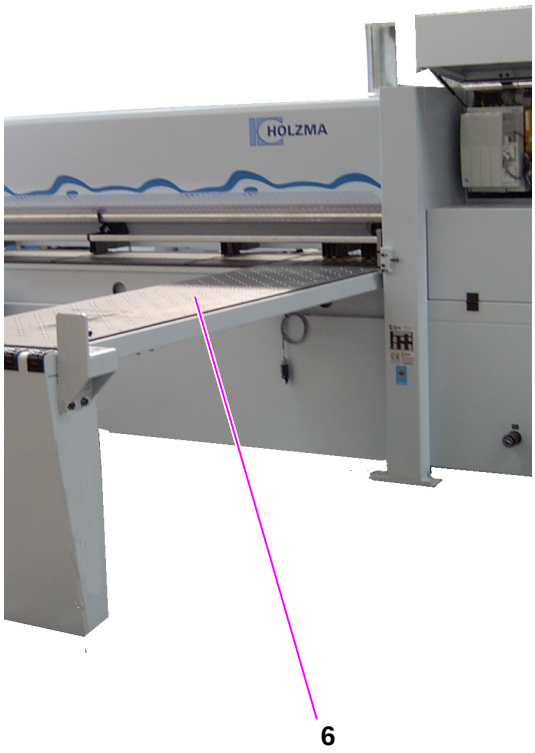
3	Support
4	Stand
5	Screw



- Assemble air cushion table **6**

➔ See **9.1 Assembly**



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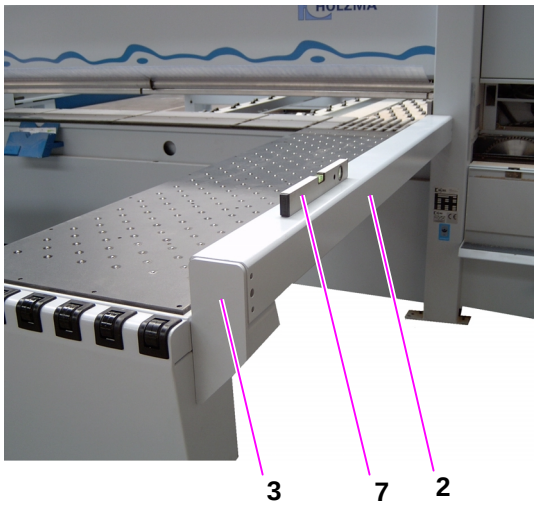
6	Air cushion table

- Fit right-angle fence **2**
- Push support **3** up to right-angle fence **2** until flush
- Place spirit level **7** on top



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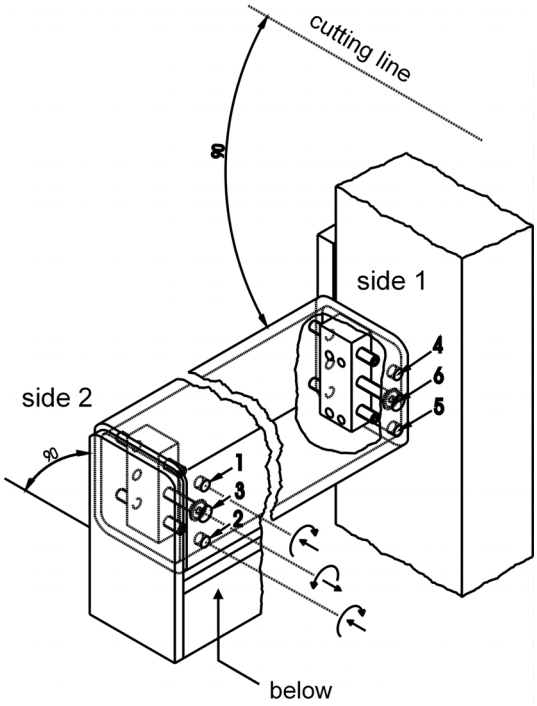
2	Right-angle fence
3	Support
7	Spirit level

11.2 Adjustment

Note:
Only adjust one side at a time so that the basic setting is always retained.



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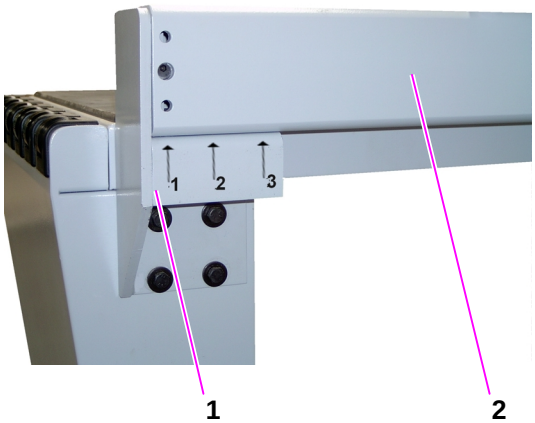
11.2.1 Horizontal adjustment

Note:
Between support **1** and right-angle fence **2** there must a gap of 2...3 mm so that adjustments can be made

- ➢ Place spirit level on top of right-angle fence **2**
- ➢ Level right-angle fence **2** from below with the 3 screws
- ➢ Turn screws 1 and 3 clockwise
- ⇨ Right-angle fence **2** is lowered
- ➢ Make contact with screw 2 to secure and fix by a locknut



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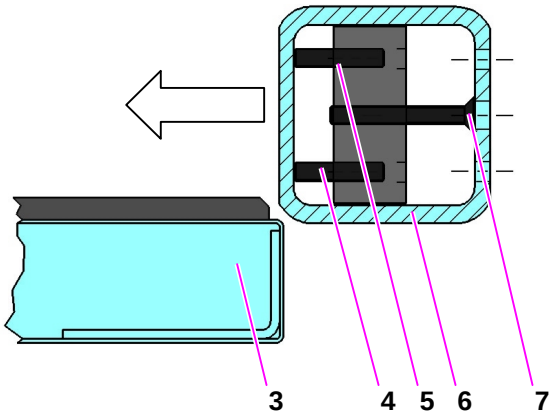
1	Support
2	Right-angle fence

11.2.2 Adjust side 1

Push right-angle fence to the left

- ➢ Turn screw **7** to the right
- ➢ Turn setscrews **4** and **5** uniformly to the right until right-angle fence **6** is in line with small right-angle fences at cutting line
- ➢ Turn screw **7** to the left to counterbrace
- • Adjust alternately at both ends



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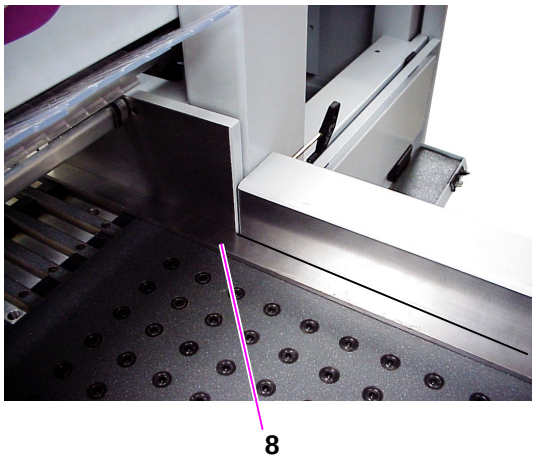
3	Air cushion table
4	Setscrew
5	Setscrew
6	Right-angle fence
7	Screw

Note:
You can use a rule, straight-edge or squared board as an adjustment aid.

- ➢ Place rule **8** up against right-angle fences
- ➢ Adjust right-angle fence



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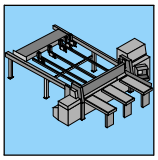
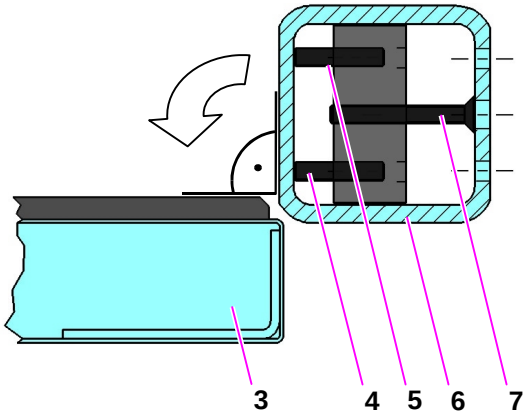
8	Rule



Tilt right-angle fence

- Turn setscrews **4** to the left
- Turn setscrews **5** to the right until right-angle fence **6** is at an angle of 90° to air cushion table
- Turn setscrews **4** to the right to counter-brace



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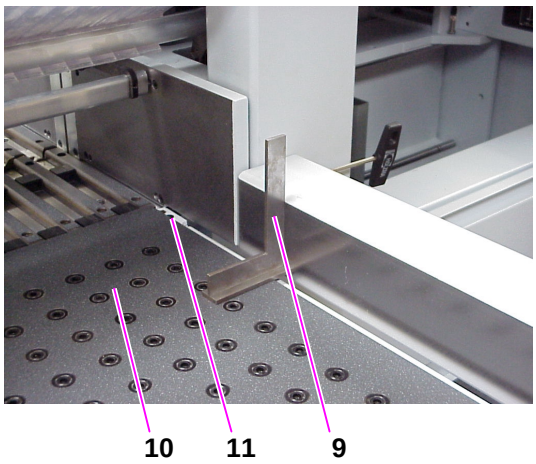
3	Air cushion table
4	Setscrew
5	Setscrew
6	Right-angle fence
7	Screw

- Use try-square **9** to set right-angle

Position air cushion table **10** so that screws **11** can still be reached



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9	Try-square
10	Air cushion table
11	Screws

11.2.3 Adjust side 2

➔ **See section 11.2.2 Adjust side 1**

11.3 Insert in-between panels

➢ Insert in-between panels **1** between air cushion tables

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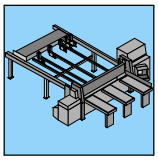
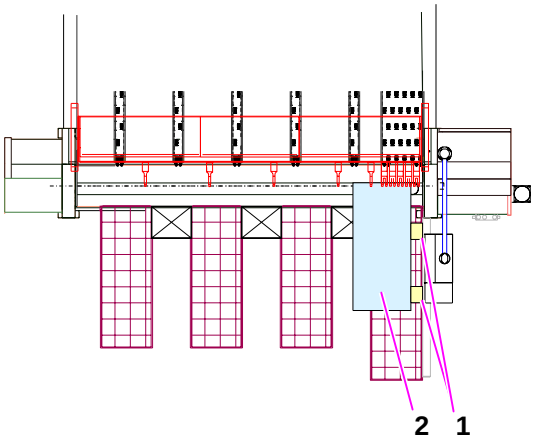
1	In-between panel



12 Lateral guide alignment

- Place 2 spacer blocks **1** (20 x 50 mm) up against right-angle fence
- Position 2 panels **2** (1000 x 700 mm) on top of each other up against spacer blocks **1** and clamps
- Close clamps
- Remove 2 spacer blocks **1**



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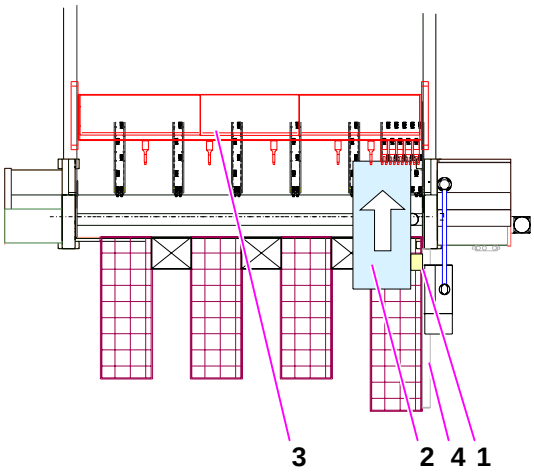
1	Spacer blocks
2	Panels

- Run program fence **3** back two thirds the length of the panels **2**
- Measure distance of panels **2** to right-angle fence **4** with the aid of the spacer blocks **1**



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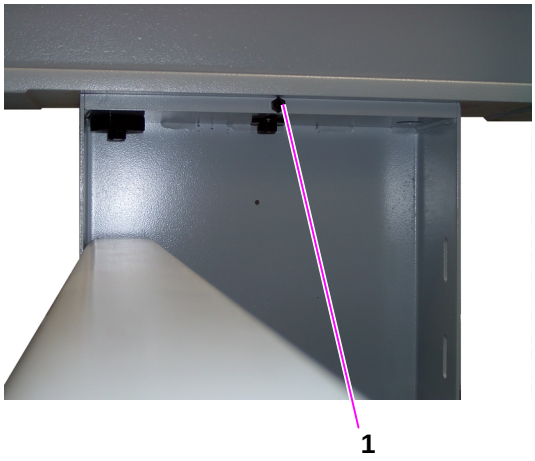
1	Spacer blocks
2	Panels
3	Program fence
4	Right-angle fence

Note:
If distance is OK go to section
13 Dowel machine
If distance is <u>not</u> OK go to section
12.1 Adjustment

12.1 Adjustment

- Loosen 3 screws on lateral guide
- Adjust lateral guide using setscrews **1**
- Repeat section **12 Lateral guide alignment**
- Second lateral guide must always be parallel to first
- To check this push program fence to front limit stop and measure distance from carriage plate to rack
- Do the same at rear limit stop



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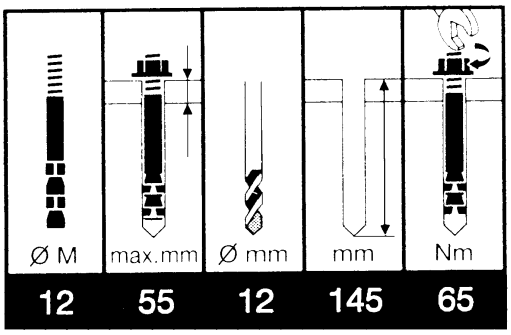
1	Setscrews

Note:
If anything is adjusted you must run a complete re-check on the lateral guides.
➔See **page 20** and **section 3.2 Lateral guide adjustment**

Note:
Repeat sections **12 Lateral guide alignment** and **12.1 Adjustment** until exactly aligned.

13 Dowel machine

➢ Drill anchoring holes



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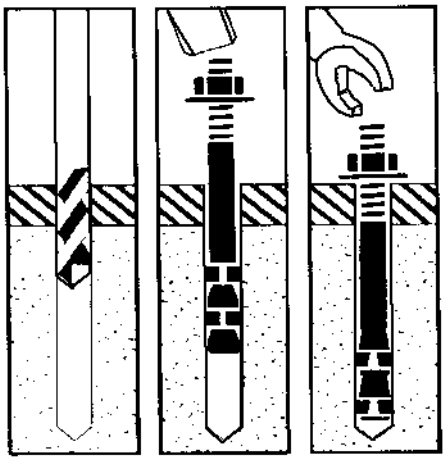
➢ Set expansion anchors

Note:
When tightening expansion anchors ensure that settings for the entire machine are not distorted.
If this does happen correct by screwing in opposite direction.



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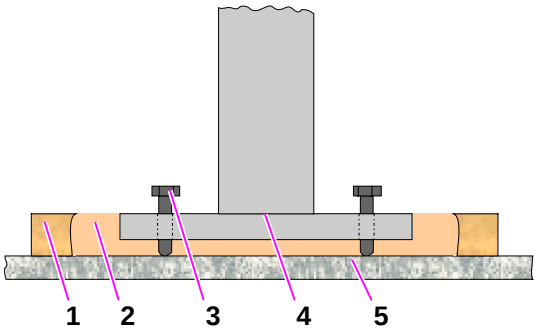
13.1 Underpouring machine

Note:
Client is responsible for underpouring machine stands.

- Use non-shrink material **2**
- Pack solidly, also under base plates **4**
- Allow sufficient time for hardening (depends on material)
- Do not use the machine during this period

➢ Fill with non-shrink compound **2** up to top edge of base plate



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1	Form
2	Non-shrink compound
3	Locking screw
4	Base plate
5	Shop floor