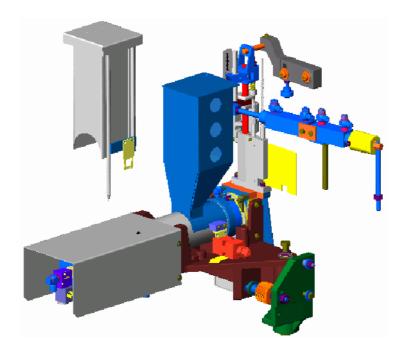
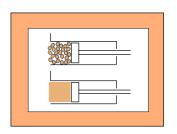


OPERATING INSTRUCTIONS

EDGE BANDING MACHINE

GLUE STATION GRANULATE + CARTRIDGE 1905





Relevance in print

When buying the edge banding machine you decided in favour of a model with an individual composition. This operating instructions also contains additional devices, except special executions, that are offered by HOLZ-HER within the model range.

We ask for your understanding that there are mentioned additional devices which you did not choose.

The high standard of quality and security is guaranteed by a permanent development. Therefore there can possibly appear differences between this operating instructions and your unit. Also errors cannot be excluded totally. Therefore we ask for your understanding that from descriptions, indications and illustrations there cannot be derived legal claims.

Order information

Please supply the following information:

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2.12.2

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Explanation:

Correction bars for modifications with respect to the previous edition are shown in side bars or within tables or graphic frames.

- Void page -

2891522 Ind. AE Technical data



A CAUTION

The unit must only be used in conjunction with an PLC programmable logical controller.

1.1 Characteristic Data

Unit denomination

Glue station for granulate + cartridge Model 1905

Glue in name plate type 131.0801

Schild, Typ 131.0801 einkleben

Manufacturer

1.2 Weight

Model	1905	
Weight	27 kg	

1.3 Operation

The glue station applies hot-melt glue to the longitudinal edges of panel-shaped rectangular workpieces of wood or of materials whose physical and technological properties are similar to those of wood, such as particle board, fibreboard, MDF, etc. as the workpiece passes through the machine.

This glue station can be used on its own or in combination with other units of an edge bander with programmable logical controller (in the following referred to as PLC).

1.4 Scope of application

The workpiece is placed on a continuously driven conveyer chain with precision- guided and coated plastic links; positively pressed onto these by rubber faced pressure rollers or clamped down on these by spring-loaded roller levers held down by an endless compound belt, and fed past the coating nozzle from the glue station.

In a hot/cold process, the workpiece edge is coated with hot-melt glue by means of an electro-pneumatically controlled application nozzle, then the edging is glued to this surface by contact pressure. Only as much hot melt glue is melted as is needed for the present banding process.

The hot-melt unit will accept either cartridges or hot-melt pellet packs. Hot-melt glue is made available by way of a magazine for cartridges or a hopper for granulate.

Re-filling of the hot-melt unit with either glue cartridges or granulate is automatic.



1.5 Intended use

This glue station is intended only for melting hot-melt glue in the form of cartridges or granulate to be applied laterally to panels as part of a run through an edge banding machine, in order to press edging onto these surfaces.

Permissible working dimensions see Item 1.7.

Any other or alternative use shall be considered use outside this scope of application.

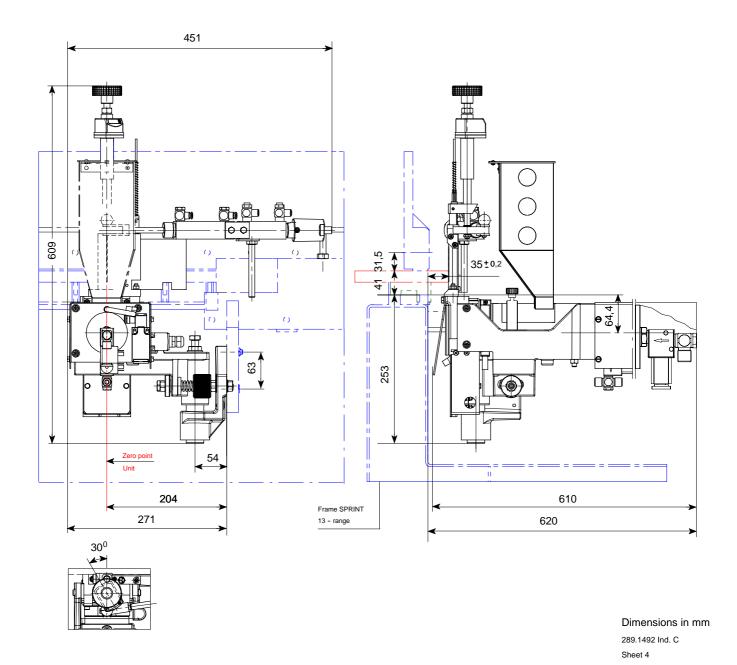
The manufacturer shall not be liable for any resulting damage and any such use is at the sole risk of the user.



1.6 Unit dimensions - Installation on model range SPRINT

1.6.1 Version - Non-tracing nozzle without pressure bridge connection

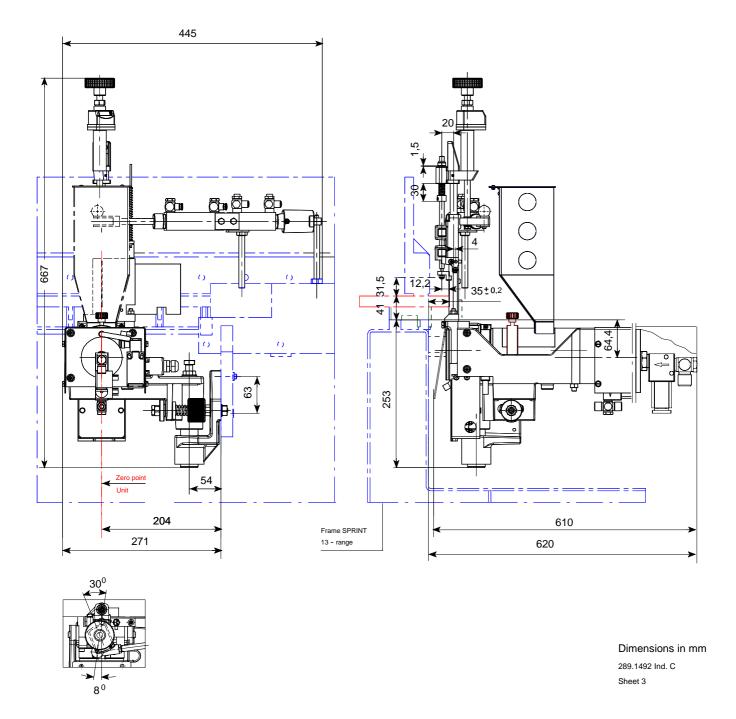
Model	1905	
Width	451 mm	
Height	609 mm	
Depht	610 mm	





1.6.2 Version - Tracing nozzle *without* pressure bridge connection

Model	1905	
Width	445 mm	
Height	667 mm	
Depht	610 mm	

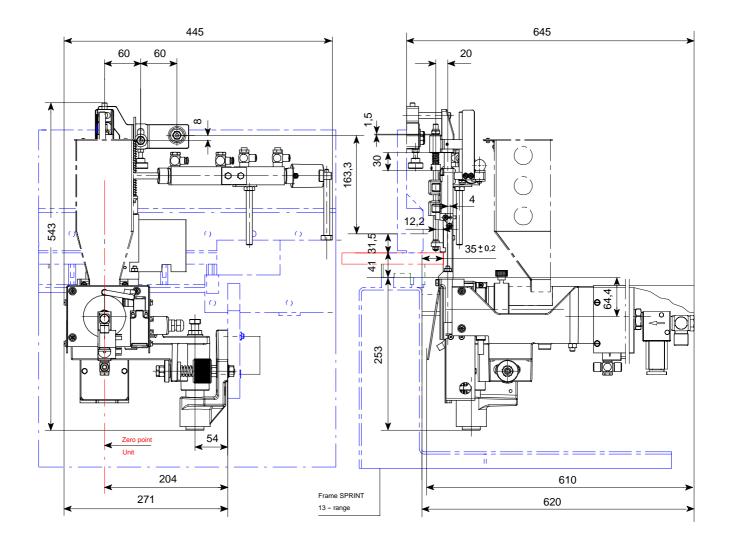


Technical data



1.6.3 Version - Tracing nozzle with pressure bridge connection

Model	1905	
Width	445 mm	
Height	543 mm	
Depht	645 mm	



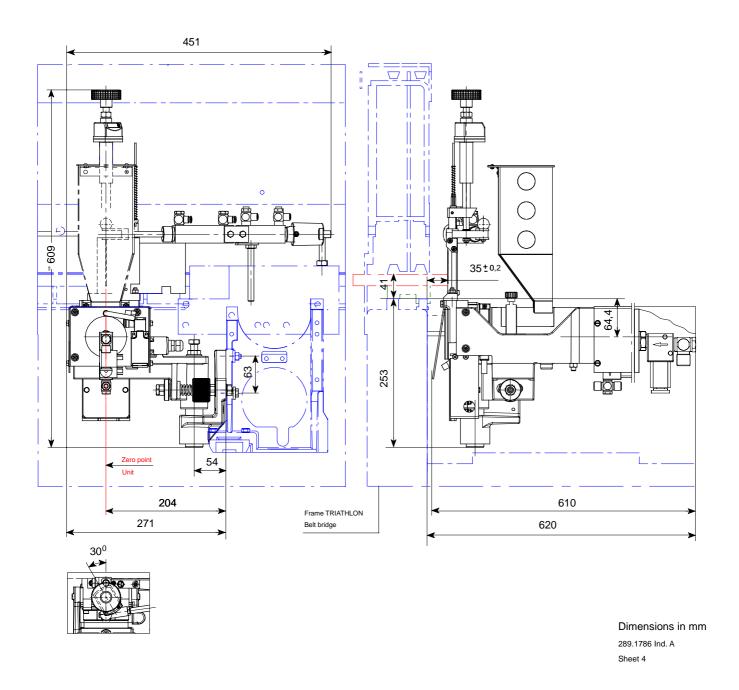
Dimensions in mm 289.1492 Ind. C Sheet 1



1.7 Unit dimensions - Installation on model ranges TRIATHLON / ACCORD

1.7.1 Version - Non-tracing nozzle without pressure bridge connection (model ranges TRIATHLON / ACCORD)

Model	1905	
Width	451 mm	
Height	609 mm	
Depht	610 mm	

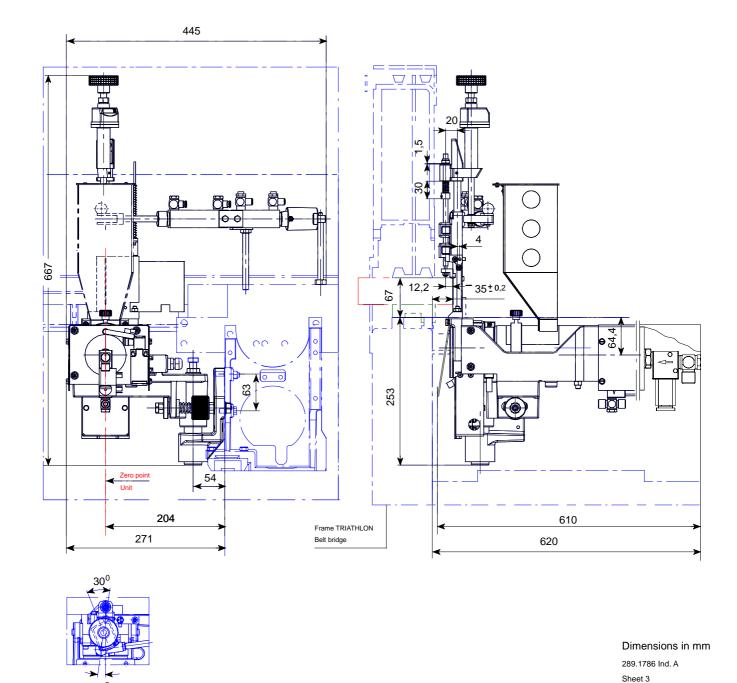




1.7.2 Version - Tracing nozzle *without* pressure bridge connection

(model range TRIATHLON with roller bridge)

Model	1905	
Width	445 mm	
Height	667 mm	
Depht	610 mm	

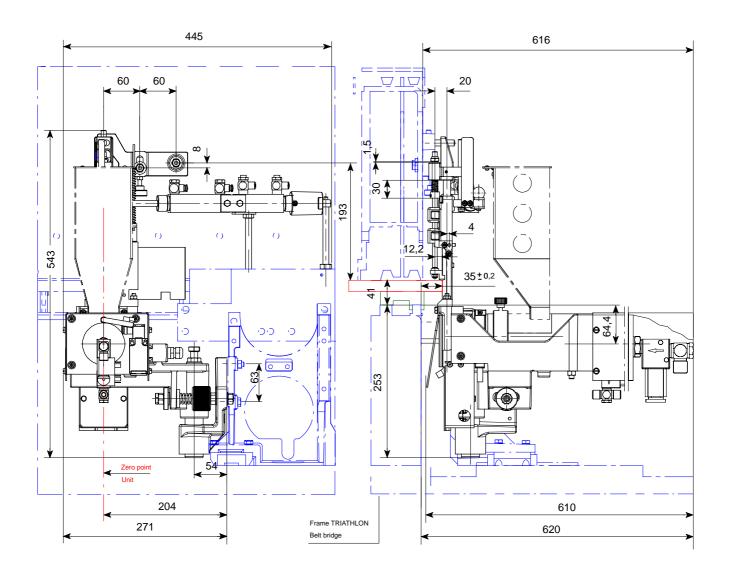




1.7.3 Version - Tracing nozzle with pressure bridge connection

(model ranges TRIATHLON / ACCORD)

Model	1905	
Width	445 mm	
Height	543 mm	
Depht	616 mm	



Dimensions in mm 289.1786 Ind. A Sheet 1



1.8 Working dimensions

Model	1905	
Workpiece thickness	6 - 60 mm depending on feed speed and glue viscosity	
Standard value of feed speed - 15 m/min - 11 m/min - 08 m/min	at 30 mm at 45 mm at 60 mm	
Workpiece lenght min. max.	140 mm For 60 mm workpiece thickness 4000 mm approx. For thinner workpieces correspondingly longer.	

1.9 Glue application

Model	1905	Comment
Glue application	Hot/cold process, glue application left-hand by sword nozzle with electro-pneumatic control.	Sword nozzle: - Wiper 120° for processing of thin edges (serie). - Wiper 90° for processing of solid edges (optional).
Glue type	Hot-melt glue cartridge Ø 63 x 80 mm long	
	Hot-melt glue-granulate	
Filling capacity: - Glue cartridge magazine - Hopper for granulate	4 pieces = approx. 1 kg approx. 1,5 kg	
Heating-up time	≦ 5 min	
Working temperature for EVA glue	160 - 240° C depending on glue type	
Temperature control	by means of PLC control	



1.10 Connected power

Model	1905	
400 V 50 Hz + N	2,3 kW 4,85 A	
230 V 50/60 Hz	2,3 kW 6,65 A	
200 V 50 Hz	2,3 kW 7,45 A	
Control voltage	24 V DC	

■ 1.11 Compressed air

Model	1905	
Compressed air connection	max. 6 bar (6 x 10 ⁵ Pa)	
Air consumption	50 L/min	

2891522 Ind. AE Technical data



1.12 Accessories

1.12.1 Standard accessories

	1905	Application
Hopper for granulate	Article No. 2891387	
		Hopper for hot-melt glue-granulate Container contents: approx. 1,5 kg

1.12.2 Operating tools

	1905	Application
Hexsocket offset screw key	A/F 4 ISO 2936	Removal and re-installation of metering rod strap
Double open ended spanner	A/F 17x19 DIN 895	Setting glue application to lower edge of workpiece
Nozzle scraper	X	Cleaning nozzle of glue remains
Wire brush	X	Cleaning nozzle of glue remains
Nozzle bore broach	X	Cleaning out glue delivery bores at nozzle

1.13 Special accessories (optional)

	1905	Application
Magazine for glue cartridge	Article No. 2891735	
		Magazine for hot-melt glue-cartridge Ø 63 x 80 mm long Container contents: 4 pieces = approx. 1 kg

Continuation





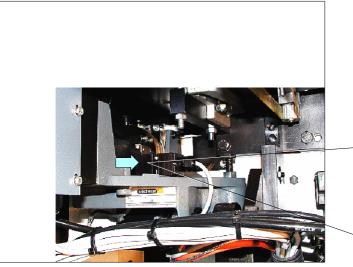
	1905	Application
Extension kit for processing PUR-hot-melt glue	Article No. 1614789	When processing PUR hot- melt glue, an additional pres- sure reducer is needed to re- duce the glue application rate.
Metering rod adjustment power assisted for version <i>non-tracing</i> nozzle and control SPK 18000	Article No. 1320432	Powered setting of glue application height. Data input at PLC-control operating panel.
Extension kit strap for assembly of edge feeder unit 1901	Article No. 2892294	
		Base plate reinforcement for edge feeder.
Selector switch extension kit for	Article No. 2542277	
unit 1901–1905–1906–1907 Model range ACCORD	Article No. 2542211	
		Additional selector switches for glue station and edging feed units for functions: - Change of glue cartridge - Flushing-out glue remains - Strip/coiled edging

See also operating manual for the basic machine, chapter "safety".

2.1 Protective devices

• Pressure relief for pressure cylinder (6)

When the hopper or the magazine (9) is removed over the guide tube, the air supply to the pressure cylinder (6) is interrupted by safety device S4 (56).









Machine shut-down after 6 minutes

- Once the operating temperature has been reached, the timer starts and switches the machine off if no workpiece has been fed in.
- When pausing for longer than the time delay set, the machine will switch off because of the corresponding non-activation of control switch S1 and/or the corresponding PLC line control point.





2.2 Residual risks

• Our machines harbour residual risks that are unavoidable despite the care taken in their design and manufacture, and that are inherent to operation of the machine.

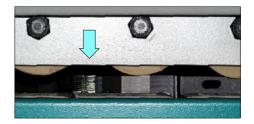
A DANGER

Residual risks are:

 Uncovered area between transport chain and raised pressure bridge at the basic machine. This would allow access to the glue application roller.
 Danger of burns!







Hot-melt glues produce vapours, even at recommended processing temperatures. This may lead to
unpleasant odours being generated and to an irritation of the breathing and sensory organs. Should
the stated processing temperatures be considerably exceeded over a long period of time, dangerous
decomposition products may also develop.

For this reason it is important that the vapours produced should be evacuated by suitable means, such as an extraction unit fit for the purpose.

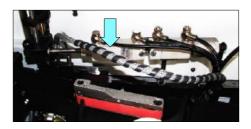
When processing PUR hot-melt glues, even when keeping to the recommended processing temperature, vapours may be produced that may possibly contain minimal quantities of residual isocyanic monomers, for which reason good extraction facilities and proper ventilation are essential.

Read and observe the safety and processing instructions issued by the glue manufacturer.



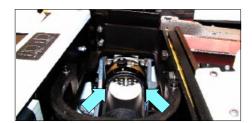


 While first heating of the glue station and reaching of the processing temperature the rinsing cylinder automatically changes for approx. 1 second.
 No processings in this area while machine is switched on.





• There is a burn hazard when working in the area of the hot glue station.





• Exceeding the limiting pressure for pneumatic hoses.





 The manufacturer of this machine shall not be liable for risks arising from the use of other agents (such as lubricants or cleaners) or from hooking up the machine to machines or products made by other manufacturers. - Void page -

3.1 General description

 This machine/unit is based on years of practical experience and incorporates the results of extensive studies in research and development.

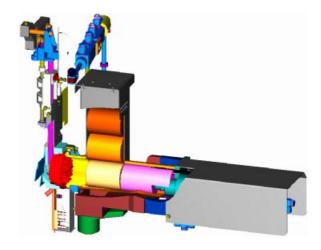
3.2 Mode of operation

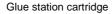
• The workpiece is placed on a continuously driven conveyer chain with precision- guided and coated plastic links; positively pressed onto these by rubber faced pressure rollers or clamped down on these by spring-loaded roller levers held down by an endless compound belt, and fed past the coating nozzle from the glue station.

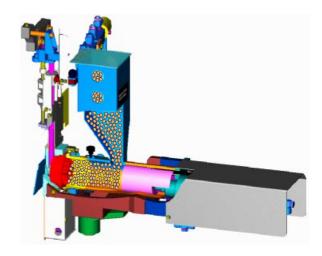
In a hot/cold process, the workpiece edge is coated with hot-melt glue by means of an electropneumatically controlled application nozzle, then the edging is glued to this surface by contact pressure. Only as much hot melt glue is melted as is needed for the present banding process.

The hot-melt unit will accept either cartridges or hot-melt pellet packs. Hot-melt glue is made available by way of a magazine for cartridges or a hopper for granulate.

Re-filling of the hot-melt unit with either glue cartridges or granulate is automatic.







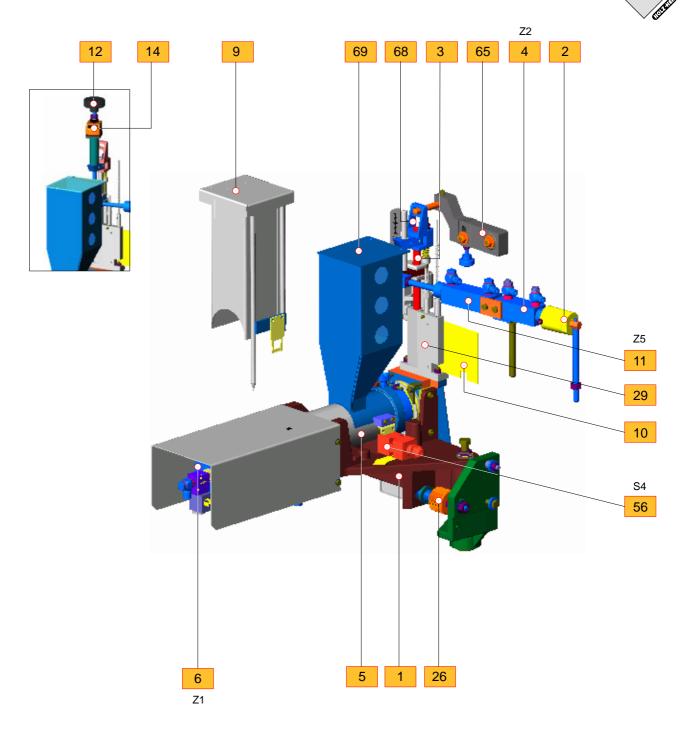
Glue station granulate

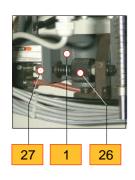
Design and mode of operation



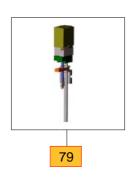
3.3 Design

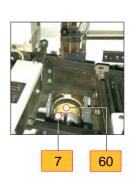
- 1 Console
- 2 Adjusting nut Setting of glue flow
- 3 Metering rod
- Cylinder, glue (Z2) Open/close the boring for glue application at the nozzle
- 5 Guide tube
- 6 Cylinder (Z1) Glue press-on
- 7 Press-on piston of cylinder (Z1)
- 9 Magazine for glue cartridge
- 10 Stopping plate for workpieces
- 11 Cylinder (Z5) Rinsing glue
- Handle to set metering rod to workpiece top edge (version without pressure bridge connection)
- 14 Position indicator
- Knurled nut to adjust nozzle pressure on workpiece
- 27 Knurled nut to set working position Yes/No
- 29 Nozzle for glue application
- Safety device (S4) Interruption of the air supply to the pressure cylinder (Z1) for the glue type
- Glue type
- 61 Tracing nozzle for glue application (optional)
- Pressure bridge connection to set metering rod to workpiece top edge
- 68 Driver for pressure bridge connection
- 69 Hopper for granulate
- Motorical setting of metering rod to workpiece top edge (version non-tracing nozzle with control SPK 18000)

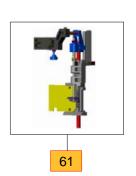














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4.1 Putting the glue station into service

4.1.1 Switching on

= Switching on heaters





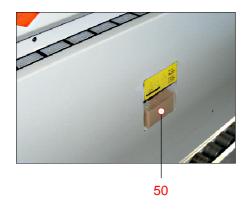
1 = Heating of nozzle insert

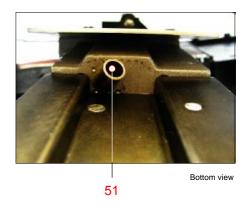
2 = Heating of nozzle

• For program start see operating manual basic machine in the chapter "Control".

4.2 Collecting basin for melted glue

• Place a collecting basin (50) under the glue outlet (51).





▲ DANGER

Danger of burns via hot glue.

During the flushing process, glue from the glue outlet will flow into the collecting basin. Wear heat protection gloves. ◀





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5.1 General instructions

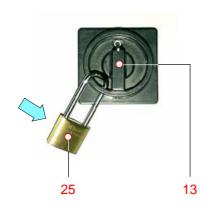
A DANGER

Removal of safety hoods or safety switches is not permissible!

This could cause very serious injuries. Protection hoods and safety switches have been provided for your own safety!

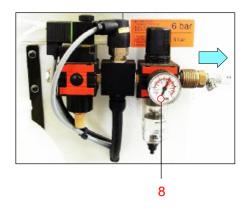
The voltage must be switched off before work is started on the machine. Turn off the main switch (13) - setting «O» - and secure it with a padlock (25).

Depressurise the pneumatic supply system (8)! ◀







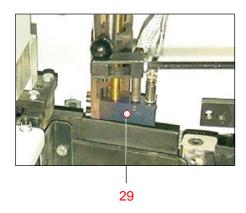


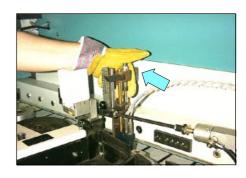
A DANGER



Danger of burns!

Always wear heat protection gloves when working at the hot nozzle (29).

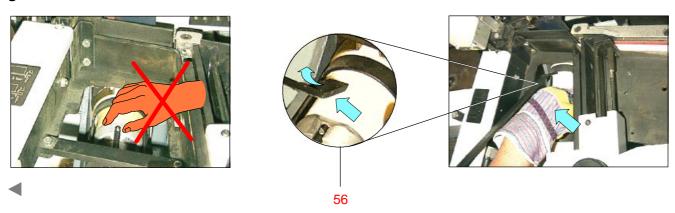






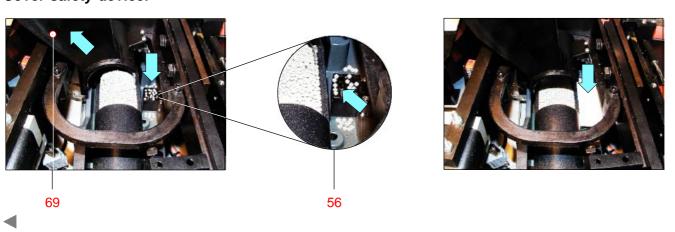


When changing the glue type never put your hands in the glue shaft. Changing of glue cartridge with a tool [e.g. nozzle scraper (63)] and wear heat protection gloves.



A CAUTION

When removing the hopper for granulate (69) care should be taken to prevent granulate from entering the slot of the safety device (56). Cover safety device.



NOTICE

To ensure that the nozzle and the glue channel are kept clean, the flushing cylinder (11) should be changed over for approximately 1 second when the glue station is first heated up and the processing temperature has been reached, so that, by way of the metering rod (3), the glue in the upper area of the metering rod can get to the collecting basin (50) through the glue outlet (51).



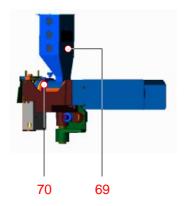
5.2 Filling the hopper with glue granulate

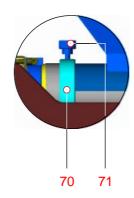
A CAUTION

Always observe manufacturers' processing advice and recommendations!
REICH Special Machines assume no responsibility in respect of the glue supplied with the new machine as regards optimum glueing properties for any specific edging material.
The suitable glue must be determined by sufficient tests by the customer.

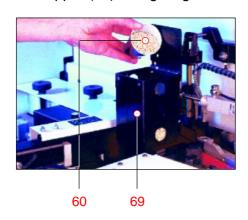


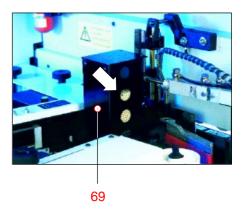
- Select the glue granulate type appropriate to the application.
- Push clamping ring (70) over the tubular section of the hopper (69) and secure with knurled-head screw (71).





• Fill hopper (69) with glue granulate (60). (Capacity = approx. 1,5 kg)





NOTICE

For sticky glue granulate that do not run easily, add talcum powder at the rate of 10 g to 3 kg and mix well.

Setting the glue station

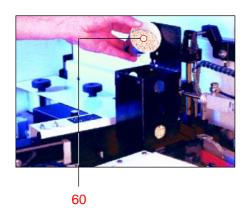


A CAUTION

When filling in glue granulate (60), no residue or dirt particles (A) must be allowed to get into the glue shaft.

Otherwise the bores in the heating area may become blocked.

Ensure absolute cleanliness when filling in granulate.



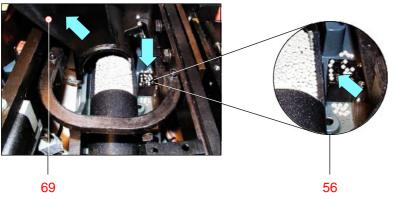


The fully-automated control system permits continuous operation with an exactly metered and aligned glue application. When there is little glue left, a control switch switches over the pressure cylinder, but only when there is no workpiece in the machine. Sufficient glue is available for the workpiece currently in the machine.

5.3 Change of glue type – Granulate to cartridge

A CAUTION

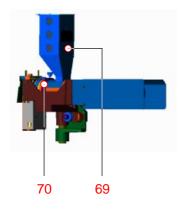
Run granulate hopper empty or empty the glue with rinsing process at the operating panel. When removing the hopper for glue granulate (69), care should be taken that no granulate can enter the slot of the safety device (56). Cover safety device.

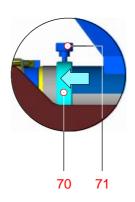




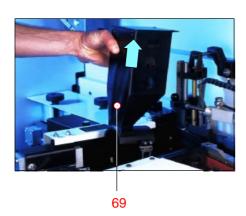
4

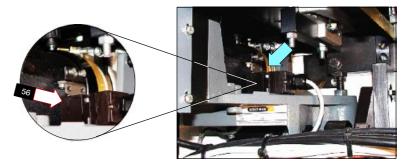
 Loosen the knurled-head screw (71) and push the clamping ring (70) off the tubular section of the hopper (69).





Lift off the hopper (69) for glue granulate.
 The air supply for the pressure cylinder of glue granulate is interrupted through non-activation of the safety device (56).





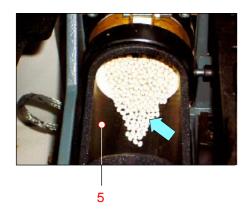
Continuation



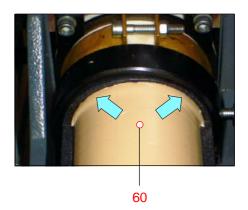
Setting the glue station



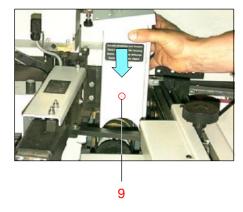
Clean guide tube (5) of granulate remains.
 If this is not done, there is a risk of malfunction, such as missing glue application to the workpiece, because of a jammed glue cartridge (60).







• Inserting magazine (9) for glue cartridges.



5.4 Insertion of glue cartridges into magazine

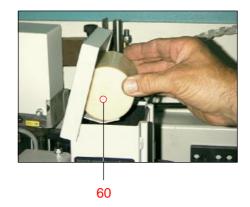
A CAUTION

Always observe manufacturers' processing advice and recommendations! REICH Special Machines assume no responsibility in respect of the glue supplied with the new machine as regards optimum glueing properties for any specific edging material. The suitable glue must be determined by sufficient tests by the customer.



- Select the glue cartridge type appropriate to the application.
- Fill magazine (9) with glue cartridges (60). (Capacity 4 cartridges = approx. 1 kg)





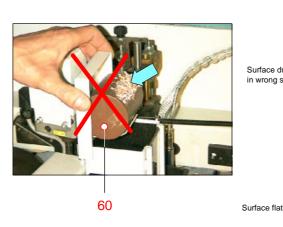


A CAUTION

When re-loading glue cartridges (60), no dirt or off-cut particles must be allowed to fall into the glue stack.

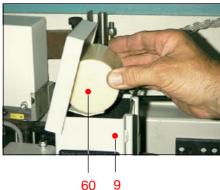
Otherwise the bores in the heating area may become blocked.

Carefully insert clean glue cartridges (60) with the flat surface facing the pressure piston of the pressure cylinder. Keep the magazine (9) filled with glue cartridges, even during operation.









The fully-automated control system permits continuous operation with an exactly metered and aligned glue application. When the glue cartridge has melted off, a control switch changes the pressure cylinder over, but only whilst there is no workpiece in the machine. There is a glue reserve sufficient for the workpiece in the machine at the time.



■ 5.5 Setting of processing temperature

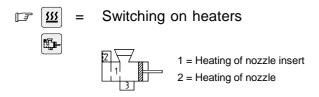
A DANGER

Exceeding processing temperature!

If the indicated glue processing temperature is exceeded over a prolonged period, there is the danger of noxious decomposition products being developed.

Always use the glue at the temperature recommended by the manufacturer!

When processing PUR hot-melt glues, even when keeping to the recommended processing temperature, vapours may be produced that may possibly contain minimal quantities of residual isocyanic monomers, for which reason good extraction facilities and proper ventilation are essential. Take measures to duct away any vapours (extractor). ◀



The nominal values for heating of nozzle insert «1» and heating of nozzle «2» can be changed.

- See operating manual basic machine in the chapter "Control".

Observe the processing temperature by the manufacturer.

NOTICE

For one best possible flow of glue, the nominal temperature for heating of nozzle «2» should be set higher by 5–10 ° C than the nominal value for the heating of nozzle insert «1». ◀

A CAUTION

The modified values remain stored even after using the OFF button at the control panel or the EMERGENCY-OFF device.

If the machine is switched off at the main switch before saving the current programs, the modified values will *not* be stored.

5.6 Setting glue application to workpiece front edge

A CAUTION

In the case of machines without infeed blocking device, the metering rod (3) should only be re-set when the unit is heated up, whether by hand, power-assisted or by bridge connection. Otherwise there is a risk of damage to the glue application system.

Before re-setting the metering rod, wait until the glue has reached its processing temperature.



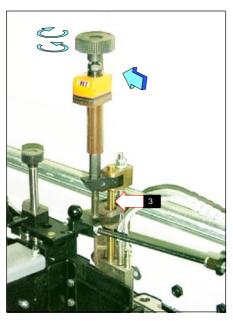


Illustration:
Metering rod (3) with manual adjustment spindle
Setting to workpiece thickness

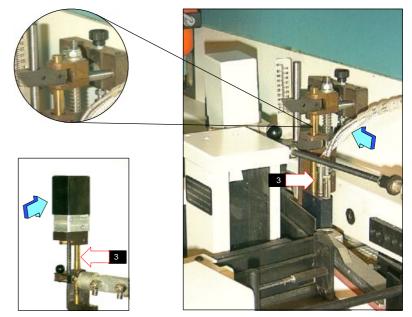
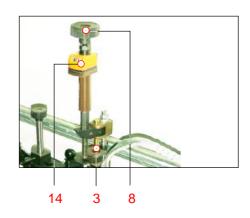


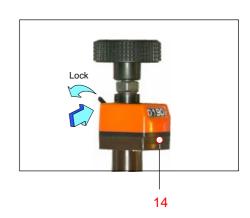
Illustration:
Metering rod (3) with powerassisted adjustment spindle
(optional)

Illustration:
Nozzle metering rod (3) with bridge connection
Adjustment of metering rod by setting bridge
to workpiece thickness.

5.6.1 Metering rod adjustment by hand with spindle to position indicator

Set metering rod (3) with handle (8) to workpiece thickness according to position indicator (14).
 Lock the dimension set by means of rocker lever at position indicator (14).



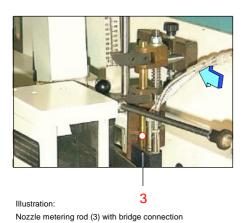


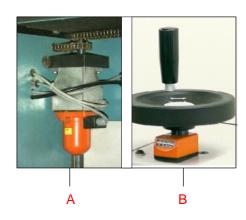
Setting the glue station



5.6.2 Metering rod adjustment with bridge connection

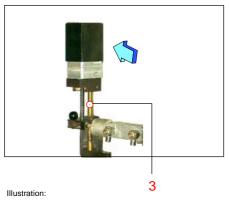
• The metering rod (3) is set to the workpiece thickness at the same time as the bridge is adjusted, either power-assisted (A) or manually (B).





5.6.3 Metering rod adjustment, power-assisted (optional)

• Power-assisted metering rod (3) adjustment is controlled from the display of the operating panel of PLC control.





Metering rod (3) with power-assisted adjustment spindle



Switching on heaters



1 = Heating of nozzle insert

2 = Heating of nozzle

Management of motor-assisted axis data see operating manual basic machine in the chapter "Control".

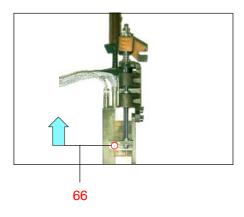
5.6.4 Version «Tracing nozzle» - Processing of glued-on edging

A CAUTION

When processing workpieces with glued-on edging and using the version «Tracing nozzle» the tracer shoe (66) must be raised.

Non-observation implies the risk of damage to the glue application system.

Raising tracer shoe.

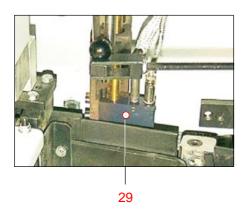


A DANGER



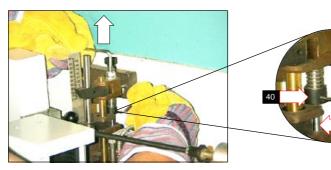
Danger of burns!

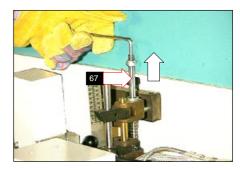
Always wear heat protection gloves when working at the hot nozzle (29).





 Release belleville spring washer (40) on tracer shaft (67) below the pressure spring, raise the tracer shoe and once more tighten the belleville spring washer (40).







5.7 Setting glue application via the line control points to workpiece front- and rear edge

The line control points have been programmed at works.

For reduction of glue application, the line points for processing may be modified or stored in the corresponding program. (See operating manual basic machine in the chapter "Control".)

Line control point	Glue application	
ON	Front edge	
OFF	Rear edge	

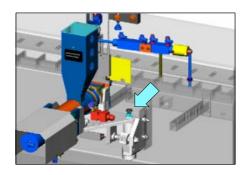
A CAUTION

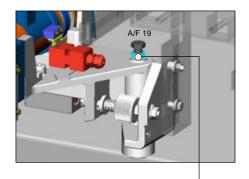
The modified values of line control points remain stored even after using the OFF button at the control panel or the EMERGENCY-OFF device.

If the machine is switched off at the main switch before saving the current programs, the modified values of line control points will *not* be stored.

5.8 Setting of glue application to workpiece bottom edge - readjustment

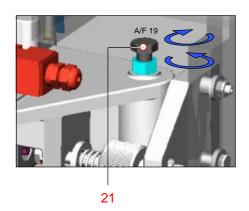
• Loosen hex. nut A/F19 (22).





22

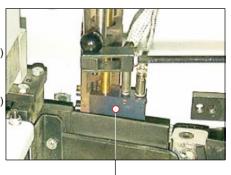
• Adjust via hex. nut with spanner A/F19.



Turning clockwise = moves nozzle (29) upwards

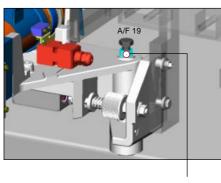
Turning anti-clockwise =

= moves nozzle (29)
downwards



29

• Tighten hex. nut A/F19 (22).

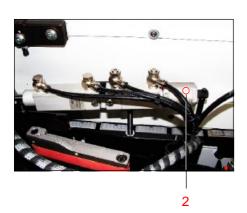


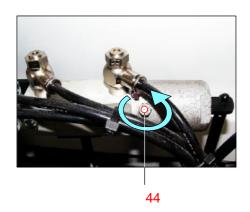
22



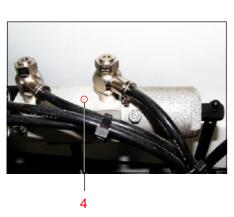
5.9 Setting of glue application

Loosen clamping screw (44) at setting nut (2).





• Turn setting nut (2) at glue cylinder (4). The countersunk hole (A) corresponding to the nozzle bore is more or less covered by setting nut depending on the desired effect.





Turning clockwise = **decreased**glue application

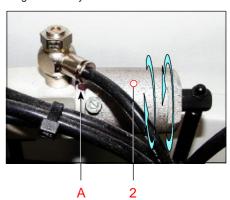
Turning anti-clockwise =

increased glue application

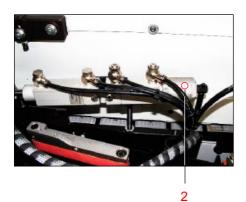


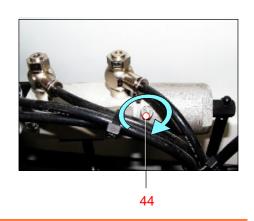
NOTICE

Also the glue quantity depends on glue viscosity.



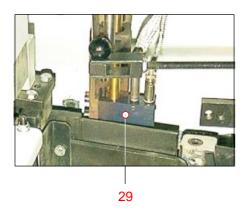
• Tighten clamping screw (44) at setting nut (2) and fix by a hex. nut.

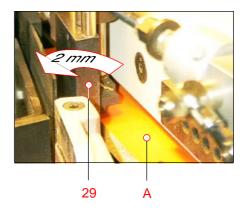




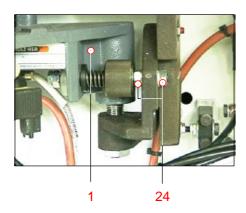
5.10 Setting nozzle (29) to workpiece infeed fence

• The nozzle (29) must spring back by approx. 2 mm as the workpiece is fed through (A).





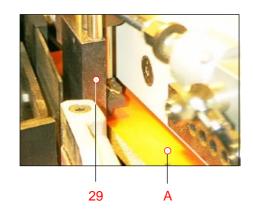
- Adjustment:
 - Loosen hex. nuts (24).
 - Turn console (1) by 2 mm approx.
 - Fixed by hex. nuts (24).



5.11 Nozzle (29) pressure on workpiece

 Pressure on workpiece (A) about 70 N. When processing other glue types, such as thin PUR glues, it is necessary to readjust the pressure

Adjustment: Loosen or tighten the knurled nut (26) on threaded rod.



Knurled nut (26):

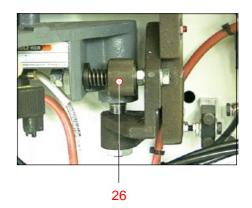
Turning clockwise = pressure force more

less

prestressed spring

Turning anti-clockwise pressure force

released spring



Setting the glue station



5.12 Change of glue granulate

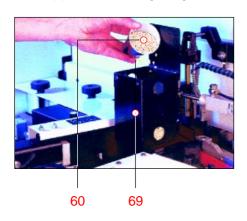
• Select heaters at operating field with the button and heat up to processing temperature of the glue.

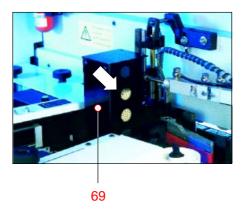


- 1 = Heating of nozzle insert 2 = Heating of nozzle
- Expel remaining glue through the outlet.
 Release rinsing process-see operating manual basic machine in the chapter "Control".
- Replenish with glue granulate when the fault message «REPLENISH HEATING SYSTEM» appears in the basic display, at the latest.

Delete fault message by pressing reset key 🕴 .

• Fill hopper (69) with glue granulate (60). (Filling capacity = appox.1.5 kg)

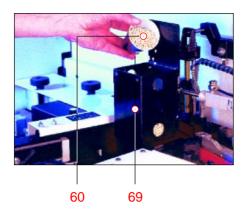


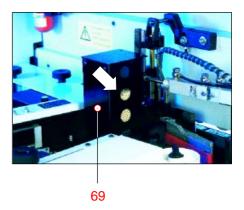


Melt off one glue shaft filling at least, until only new glue leaves the glue outlet.
 Release rinsing process-see operating manual basic machine in the chapter "Control".

5.13 Replenish the glue granulate

Glue granulate (60) can be replenished by way of the hopper (69) at any time, even during processing. (Filling capacity = appox.1.5 kg)





• Replenish with glue granulate when the fault message «REPLENISH HEATING SYSTEM» appears in the basic display, at the latest.

Delete fault message by pressing reset key 🕴 .

When there is little glue left, a control switch switches over the pressure cylinder, but only when there is no workpiece in the machine. Sufficient glue is available for the workpiece currently in the machine.

Red light on:

- Glue supply used up
- Glue pellets not replenished
- Fault message «REPLENISH HEATING SYSTEM»

Setting the glue station



■ 5.14 Change of glue cartridge

Select heaters with key at operating panel.



<u>555</u>

Switching on heaters



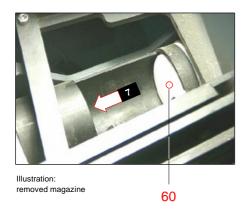


1 = Heating of nozzle insert

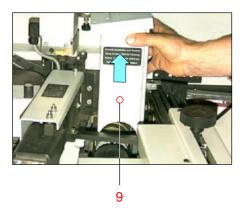
2 = Heating of nozzle

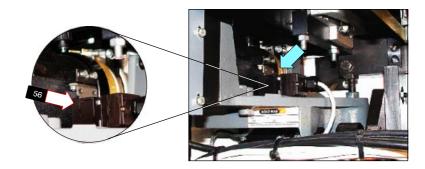
Release change process-see operating manual basic machine in the chapter "Control".

• Pressure piston (7) of glue cartridge pressure cylinder (60) in place.



Remove magazine (9) for glue cartridge.
 Air supply for glue cartridge pressure cylinder interrupted through non-activation of air valve (56).



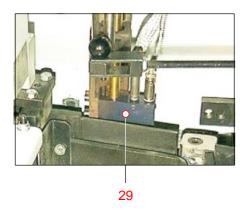


A DANGER



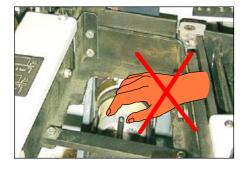
Danger of burns!

Always wear heat protection gloves when working at the hot nozzle (29). ◀



A DANGER

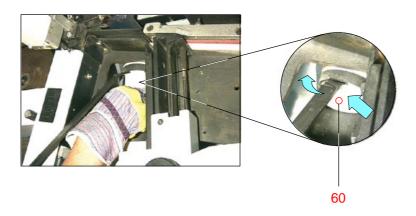
When changing the glue cartridge never put your hands in the glue shaft. Use a tool (e.g. nozzle scraper) and wear heat protection gloves. ◀



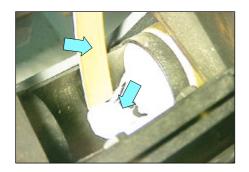
Setting the glue station

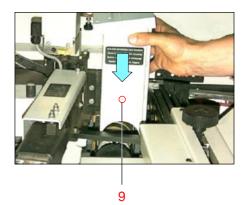


• Remove glue cartridge remainder (60) from guide tube, using a tool (e. g. nozzle scraper).



• Remove glue threads from the guide tube with a suitable tool (such as a piece of edging) and insert glue cartridge magazine (9).





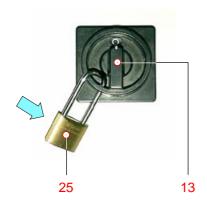
6.1 General instructions

A DANGER

Refer to the chapter "Safety" during maintenance and inspection work.

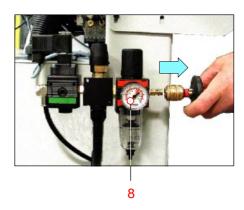
The voltage must be switched off before work is started on the machine. Turn off the main switch (13) - setting «O» - and secure it with a padlock (25).

Depressurise the pneumatic supply system (8)!











Clean the machine/unit daily.
 Remove wood chips with a suitable brush or with a saw dust approved extractor system.
 Remove any wood left inside, particularly in the area of the motor, spindles and guideways.

A DANGER



This will endanger your health!

Because of the fine dust produced, the machine should never be cleaned with compressed air.

Use extraction system released for wood dust. ◀

 Lightly grease all moving parts, such as sliding surfaces, adjusting spindles and guideways, whenever required.



Pollution of the environment.

Waste material of all kinds should be disposed of in an environmentally friendly way and in compliance with local recycling and disposal procedures. ◀

HOLZHER Special Machines



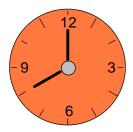


Emergency measures

- If molten glue should come into contact with the skin, rinse affected area immediately under cool running water (not iced water) for 10 to 15 minutes, until the pain subsides.
- Never try to prise glue off the skin.
- Burns should be treated by a medical practitioner as soon as possible.

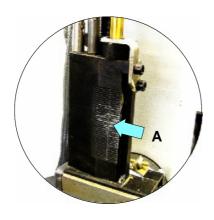


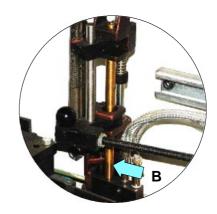
6.2 Maintenance chart



In single-shift operation the operating hours correspond to a certain lubrication rhythm:

2000	hrs	Every year
1000	hrs	Every six months
160	hrs	Every month
40	hrs	Every week
8	hrs	Every day





Item	Maintenance point	Interval	Maintenance work	Remarks
A	Glue application area	8 hrs.	Visual inspection. Remove residual glue incrustations and dirt with nozzle scraper (63) and wire brush (64).	Proceed as indicated in chapter 6.3
			63	
			64	



Item	Maintenance point	Interval	Maintenance work	Remarks
В	3 Oiling metering rod. 8 hrs.	8 hrs.	Thinly apply a coat of light engine oil, such as SAE 10 W 30, to metering rod (3).	
			3	Set metering rod to approximately 40 to 50 mm glue application height, either manually, motorassisted or through the bridge, depending on model. See chapter 5.5. Caution! Wait for the glue to reach processing temperature before changing the metering rod setting.
			9 (69)	Remove the magazine (9)/hopper (69) for glue. Caution! When removing the hopper for glue granulate care should be taken to prevent granulate from entering the slot of the safety device. See chapter 5.1.
				Caution! Do not contaminate the glue application area with engine oil. Otherwise there may be a risk of danger from the edging stop. Only apply a thin film of engine oil to the metering stick.

6.3 Cleaning of glue application area

A DANGER



Danger of burns!

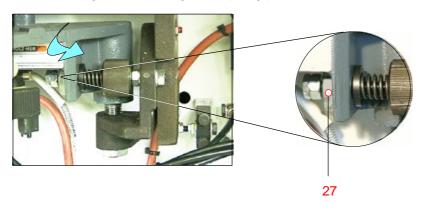
Be very careful when working with melted glue.

Even solidified glue can still be very hot.

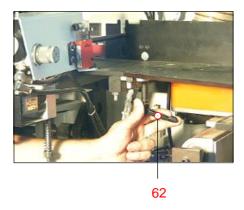
Always wear protective clothing covering all body parts at risk.

6.3.1 Removing glue residues

• Press back glue station against spring pressure and set knurled nut (27) against support wall.



More free space becomes available if the edging feed unit is retracted.
 Loosen clamping lever (62).



- Select heaters at operating field with the button and heat up to processing temperature of the glue.
- Temperature reached; green light on ☼.



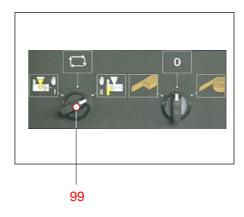
Expel remaining glue through the outlet.
 Release rinsing process-see operating manual basic machine in the chapter "Control".

In the case of ACCORD range machines, the flushing process can also be carried out by means of the selector switch (99) at the back of the operating cabinet.

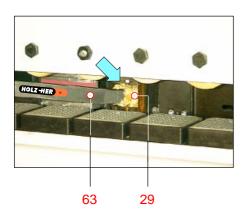
Selector switch in «position II» = expel glue remains through nozzle bores

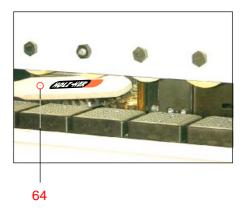






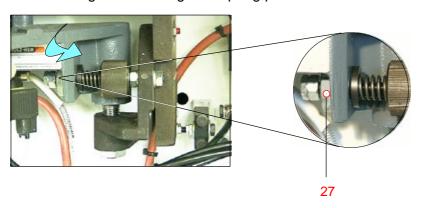
Clean glue remains from nozzle (29) with nozzle scraper (63) and wire brush (64).
 (Supplied as accessories)



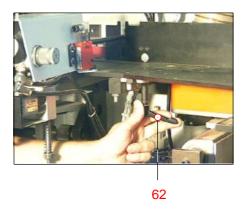


6.3.2 Cleaning of bores for glue delivery and metering rod

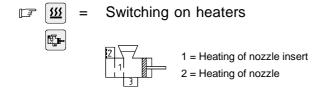
• Press back glue station against spring pressure and set knurled nut (27) against support wall.



More free space becomes available if the edging feed unit is retracted.
 Loosen clamping lever (62).



• Select heaters at operating field with the button and heat up to processing temperature of the glue.

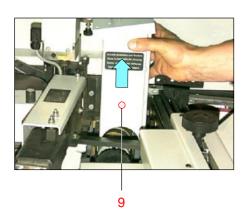


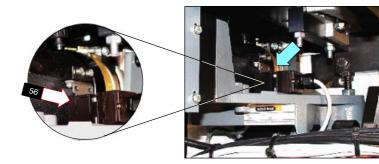
Temperature reached; green light on ☆.



Machines with magazine for glue cartridge

• Remove magazine (9) for glue cartridge. Air supply for glue cartridge pressure cylinder interrupted through non-activation of air valve (56).



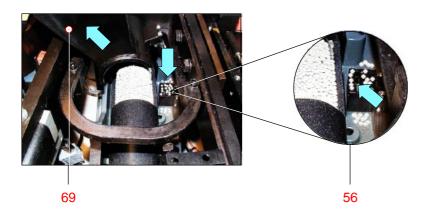


Machines with hopper for glue granulate

A CAUTION

Run granulate hopper empty or empty glue by pressing the flushing key (F4) at the operating

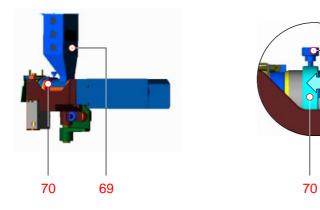
When removing the hopper for glue granulate (69), care should be taken that no granulate can enter the slot of the safety device (56). Cover safety device.



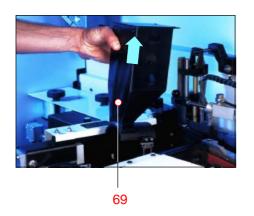


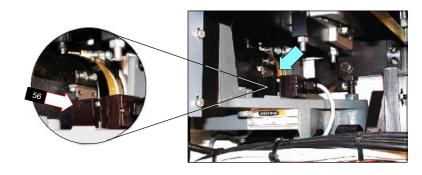
2892170 • 09/2004 • ENGLISH

 Loosen the knurled-head screw (71) and push the clamping ring (70) off the tubular section of the hopper (69).



Lift off the hopper (69) for glue granulate.
 The air supply for the pressure cylinder of glue granulate is interrupted through non-activation of the safety device (56).



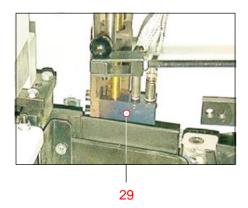


A DANGER



Danger of burns!

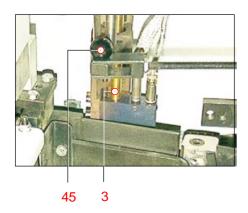
Always wear heat protection gloves when working at the hot nozzle (29). ◀

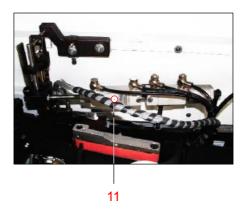




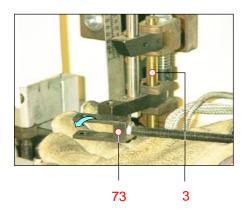
6.3.2.1 Cleaning of bores for glue delivery

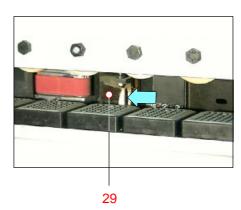
• Separate metering rod (3) from cylinder (11) by means of ball head knob (45).



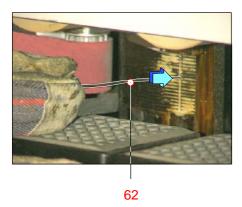


 Move fork joint (73) out of the way and turn metering rod (3) by hand until the bores for glue delivery at the nozzle (29) are open.

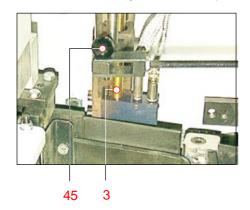


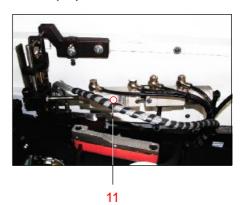


• Carefully clean out the glue delivery bores by means of broach (62), as supplied with the accessories.

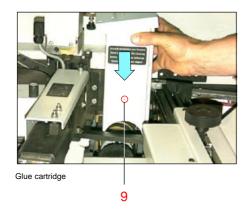


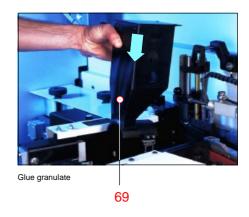
• Connect metering rod (3) to cylinder (11) by means of ball head knob (45).





• Loading magazine (9) or hopper (69) for glue.





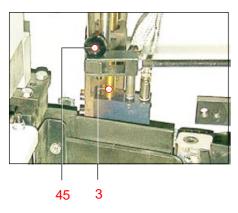


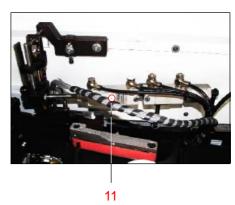
6.3.2.2 Cleaning of metering rod - Version non-tracing nozzle with position indicator

Version non-tracing nozzle with position indicator

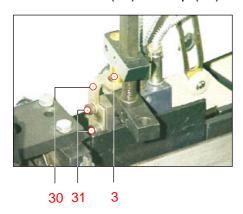


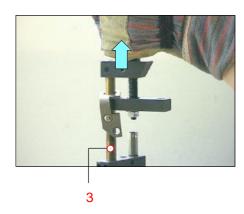
• Separate metering rod (3) from cylinder (11) by means of ball head knob (45).





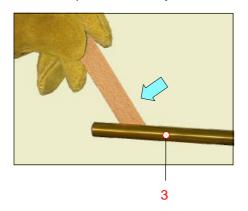
• Unscrew bolts (31) at strap (30) and pull metering rod (3) out of the nozzle.





6

Clean the glue channel of metering rod (3) whilst the glue is still warm.
 For example, the slot by means of a piece of veneer edging and the bore with a screw driver.

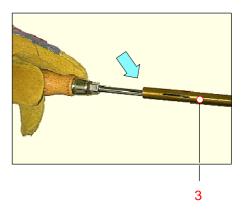




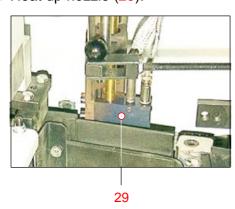


Danger of burns!

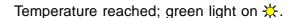
Always wear heat protection gloves when working at the metering rod.



• Heat up nozzle (29).

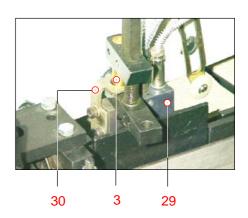


☐ [<u>ss</u>] = Switching on heaters

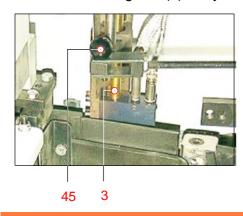


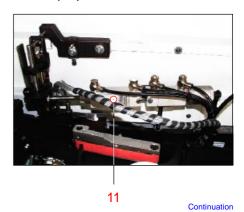
• Insert metering rod (3) into nozzle (29) and attach strap (30).





• Connect metering rod (3) to cylinder (11) by means of ball head knob (45).

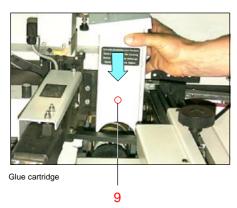


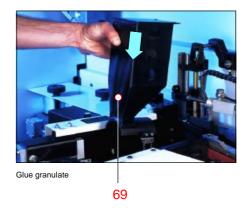


905

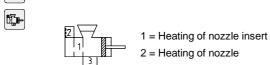


• Loading magazine (9) or hopper (69) for glue.

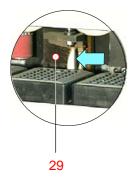




- Select heaters at operating field with the button and heat up to 160° C.
- □ 🖭 = Switching on heaters



- Temperature reached; green light on ☼.
- Check that glue is delivered through all bores of nozzle (29).
 Release flushing process-see operating manual basic machine in the chapter "Control".

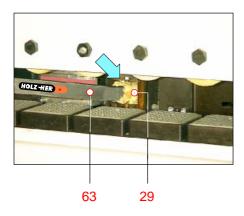


6.3.2.3 Cleaning of metering rod - Version tracing nozzle with position indicator

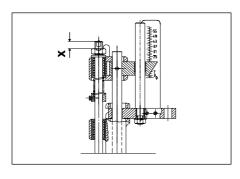
• Version *tracing* nozzle with position indicator.

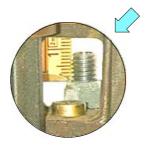


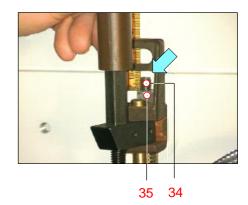
• Scrape off glue remains at nozzle (29) with nozzle scraper (63), supplied with accessories.



• Measure and make a note of dimension X between the end of tracer shaft (34) and nut (35). (For re-assembly reset dimension X again to this value)



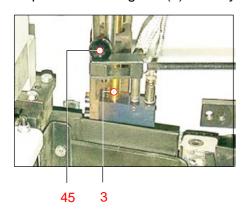


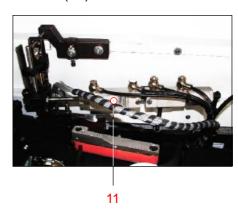


Continuation

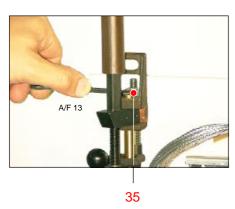


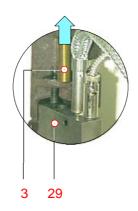
• Separate metering rod (3) from cylinder (11) by means of ball head knob (45).

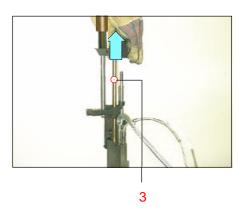




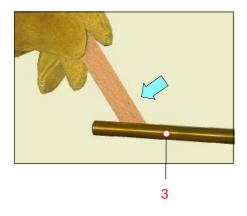
• Loosen nuts (35+36) and pull metering rod (3), with height adjustment (positional indicator), out of the nozzle.







Clean the glue channel of metering rod (3) whilst the glue is still warm.
 For example, the slot by means of a piece of veneer edging and the bore with a screw driver.

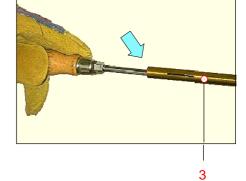






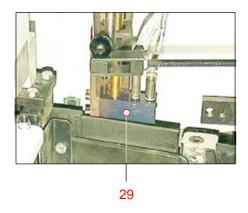
Danger of burns!

Always wear heat protection gloves when working at the metering rod.



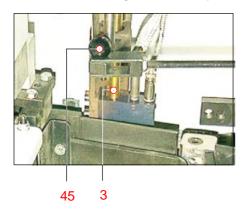
6 - 16

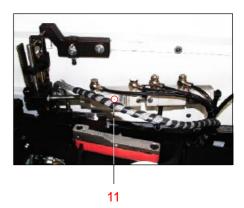
• Heat up nozzle (29).



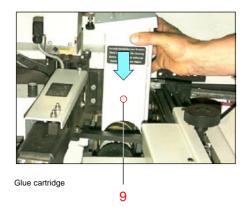
- \square Switching on heaters

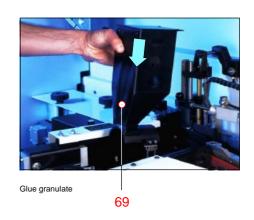
- Re-assembly in reverse order.
- Connect metering rod (3) to cylinder (11) by means of ball head knob (45).





• Loading magazine (9) or hopper (69) for glue.





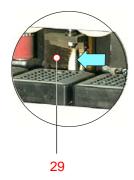


Select heaters at operating field with the button and heat up to 160° C.



1 = Heating of nozzle insert 2 = Heating of nozzle

- Temperature reached; green light on ☼.
- Check that glue is delivered through all bores of nozzle (29).
 Release rinsing process-see operating manual basic machine in the chapter "Control".

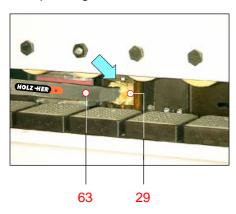


6.3.2.4 Cleaning of metering rod - Version tracing nozzle with bridge connection

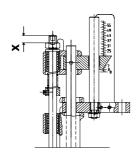
• Version *tracing* nozzle with bridge connection.

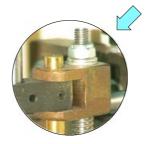


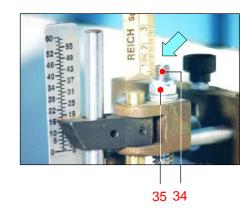
• Scrape off glue remains at nozzle (29) with nozzle scraper (63), supplied with accessories.



Measure and make a note of dimension X between the end of tracer shaft (34) and nut (35).
 (For re-assembly reset dimension X again to this value)





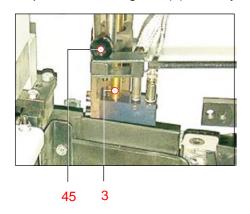


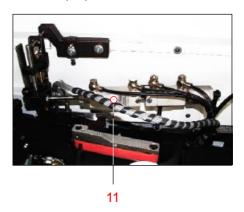
Continuation



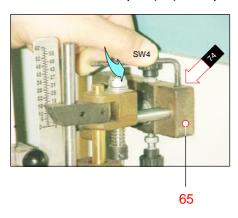


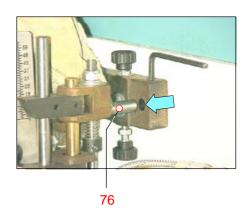
• Separate metering rod (3) from cylinder (11) by means of ball head knob (45).



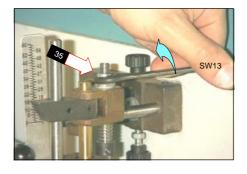


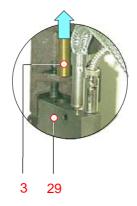
Disconnecting bridge connection (75):
 Loosen threaded pin (74) and pull out cylindrical pin (76).

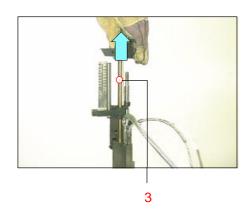




• Loosen nut (35) and pull metering rod (3) out of nozzle.



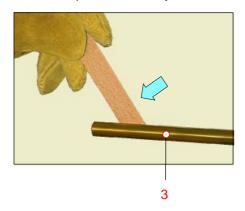




6 - 20

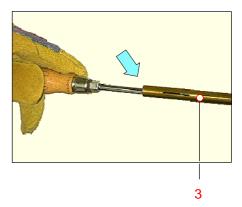


Clean the glue channel of metering rod (3) whilst the glue is still warm.
 For example, the slot by means of a piece of veneer edging and the bore with a screw driver.

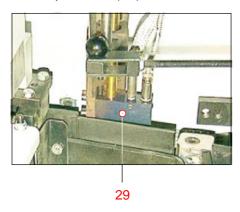




Danger of burns!
Always wear heat protection gloves when working at the metering rod.

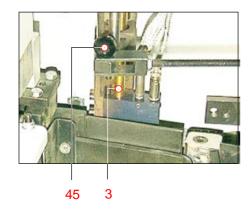


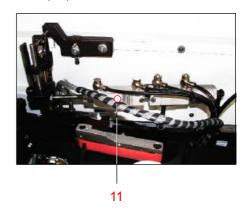
• Heat up nozzle (29).



Switching on heaters

- Re-assembly in reverse order.
- Connect metering rod (3) to cylinder (11) by means of ball head knob (45).

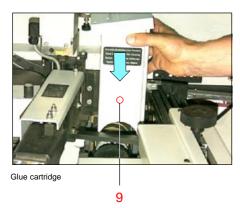


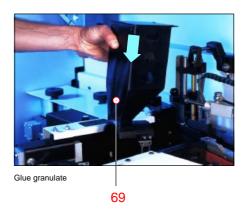


Continuation

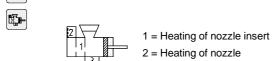


• Loading magazine (9) or hopper (69) for glue.

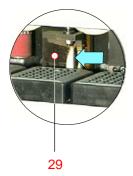




- Select heaters at operating field with the button and heat up to 160° C.



- Temperature reached; green light on ☼.
- Check that glue is delivered through all bores of nozzle (29).
 Release rinsing process-see operating manual basic machine in the chapter "Control".

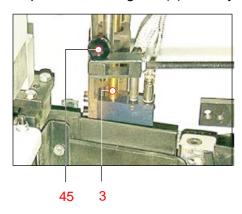


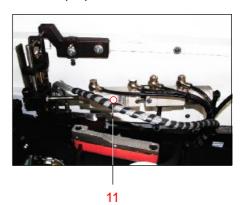
6.3.2.5 Cleaning of metering rod - Version *non-tracing* nozzle with power-assisted metering rod adjustment (optional)

• Version non-tracing nozzle with power-assisted metering rod adjustment.

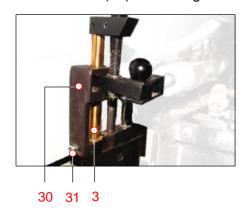


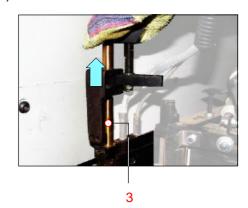
• Separate metering rod (3) from cylinder (11) by means of ball head knob (45).





• Loosen bolts (31) at bearing block (30) and pull metering rod (3) out of nozzle.



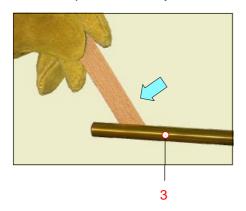


Continuation





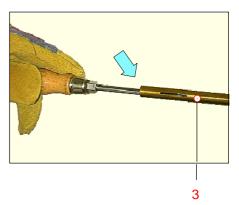
Clean the glue channel of metering rod (3) whilst the glue is still warm.
 For example, the slot by means of a piece of veneer edging and the bore with a screw driver.



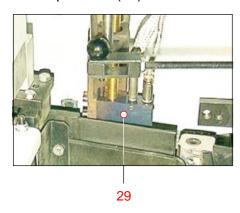




Danger of burns!
Always wear heat protection gloves when working at the metering rod.



• Heat up nozzle (29).

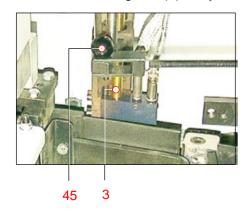


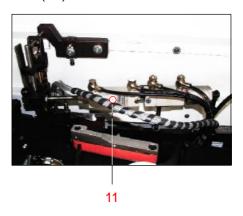
SSS

Switching on heaters



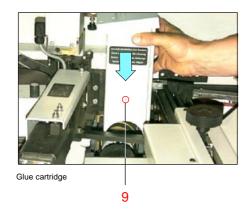
- Re-assembly in reverse order.
- Connect metering rod (3) to cylinder (11) by means of ball head knob (45).

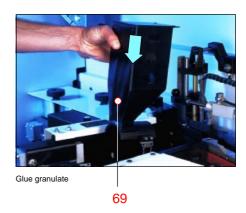




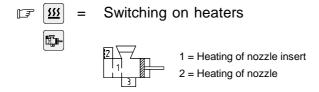
Care and maintenance

• Loading magazine (9) or hopper (69) for glue.





• Select heaters at operating field with the button and heat up to 160° C.



- Temperature reached; green light on ☆.
- Check that glue is delivered through all bores of nozzle (29).
 Release rinsing process-see operating manual basic machine in the chapter "Control".

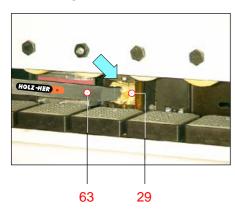


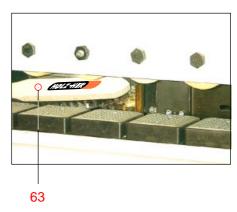


6.4 Resetting to new workpiece thicknesses - idle time

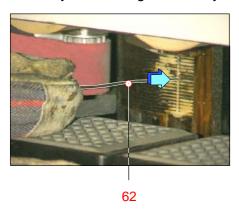
• If, after some time, settings are changed to a greater workpiece thickness, it may become necessary to clean the nozzle wiper (29) as well as the bores for glue delivery.

Remove glue remains from nozzle with nozzle scraper (63) and wire brush (64). (--> 6.3)





Carefully clean the glue delivery bores with broach (62). (--> 6.3)



Version Tracing nozzle with or without pressure bridge connection

In the case of models of these variants, before any change-over from high to low workpiece thickness, the pressure bridge must first be moved completely to the top and/or the nozzle opened to the maximum workpiece thickness before the cleaning process. This ensures that there will be no glue in the sword nozzle when once again changing from a thin workpiece to a thick one. Cleaning process as aforesaid.

NOTICE

Idle times should be avoided.

When the machine is idle for more than 6 minutes, the nozzle bores may become clogged. (Machine shut-down after 6 minutes)

After finishing work, switch off machine immediately.

(Short heating-up time) ◀

6.5 Cleaning of the glue application system after processing PUR hot-melt glue

- To clean the glue application system when alternately processing reactive PUR hot-melt glue and/or other non-reactive hot-melt glue types (such as EVA-based glue), the corresponding glue manufacturer can provide cleaning cartridges and granulate.
- Use of these cleaning products prevents both blockages and reactive contamination of the glue application system, and ensures that the nozzle bores remain open.

NOTICE

Cleaning of the glue application system after long periods of disuse.

The glue application system must be completely cleaned out, and the glue application bores of the nozzle rinsed clean, after processing PUR glue and then changing to other glue types, as well as after long periods of disuse, such as overnight and over the weekend.

Use cleaning cartridges or granulate available from the glue manufacturer, and observe the corresponding usage and safety advice.

(-->6.3)





- Void page -



A DANGER

Repairs to electrical equipment must not be performed except by an electrician, or by trained personnel under the direction and supervision of an electrician, in accordance with electrical engineering rules. \blacktriangleleft

• This table is intended for rectification of simple problems.

No.	Fault	Possible cause	Remedy
1	Nozzle does not heat up	Basic machine	
		a) Main switch not switched on.	a) Switch on main switch - Position "I"
		b) Emergency-Off button (28) pressed.	b) Pull out pushbutton (28) to disengage it.
		28	
		c) No compressed air or pressure too low.	 c) Set working pressure from 6 bars to gauge reading on servicing unit (8).
		G bay	8
		d) Heaters at operating panel not selected on.	 d) Select the heaters at opera- ting panel. LED indicator flas- hing.
		Q annual Control	





No.	Fault	Possible cause	Remedy
2	Nozzle does not reach processing temperature	Nominal value of the heaters incorrectly set.	Set nominal value of the heaters to the processing temperature recommended by the manufacturer. (see chapter 5.5)
3	No glue applied or only in part	Glue cartridge a) Glue cartridge used up.	Glue cartridge a) Refill glue cartridge. (see chapter 5.3+5.4)
		Glue granulate b) Glue granulate used up.	Glue granulate b) Refill glue granulate. (see chapter 5.2)
		c) Manual adjustment from metering rod Workpiece thickness incorrectly set	c) Manual adjustment from metering rod Set workpiece thickness to position indicator. (see chapter 5.6.1)

No.	Fault	Possible cause	Remedy
1	No glue applied or only in part	d) Bores of nozzle clogged.	d) Carefully clean nozzle bores with broach. (see chapter 6.3.2.1)
		e) Top of metering stick glue incrusted.	e) Clean. (see chapter 6.3.2.2/6.3.2.3/6.3.2.4/6.3.2.5)
		f) When glue unit was changed from granulate to cartridge, granulate remains were still in the guide tube and the cartridge jammed.	f) Remove glue cartridge and clean guide tube of granulate remains. (see chapter 5.3.)





No.	Fault	Possible cause	Remedy
4	Uneven glue application	a) Workpiece not at right angles.	a) Check that workpiece is at right angles.
		b) Nozzle not in contact with workpiece.	b) Nozzle must spring back by approx. 2 mm as the work-piece runs through. (see chapter 5.10)
			2 mm
		c) Parallelism divergence (x) between nozzle wiper surface (29) and the right-angled workpiece edge.	c) Loosen hex. nut 13 A/F and set eccentric adjuster with 3 A/F angle spanner until parallelism (x) is reached. Then set glue application to workpiece lower edge – re-adjust (s. chapter 5.8)
		29 O Top view	Z9 O Top view
		d) Nozzle (29) not at right angle to feed chain.	d) Loosen fixing screw and move glue station at the glue cylinder up or down.
		29	

No.	Fault	Possible cause	Remedy
5	Glue joint too heavy	Processing temperature of the glue too low.	Set selectors to recommended processing temperature. (see chapter 5.5)
			2 0
6	Edging does not stick	a) Dust on edging and/or work- pieces.	a) Use workpieces and edg- ing free of dust.
		b) Too thin glue application.	b) Check glue application setting. (see chapter 5.8)
		c) Workpieces and/or workshop too cold.	c) Bring workpieces and workshop to 18-20°C at least.
		d) Workpieces and/or edging too moist.	d) Material moisture<10%
		e) Unsuitable glue.	e) Use a glue type suited to the edging processed. Observe manufacturer's recommendations.
		f) Teak edging stored for a long time.	f) Apply edging immediately after cutting.
		g) Glue-on pressure too low.	g) Check pressure roller setting at pressure unit.
7	Other faults		i Manual
			Error Messages SERVICE PLC



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Idea Review Correction



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