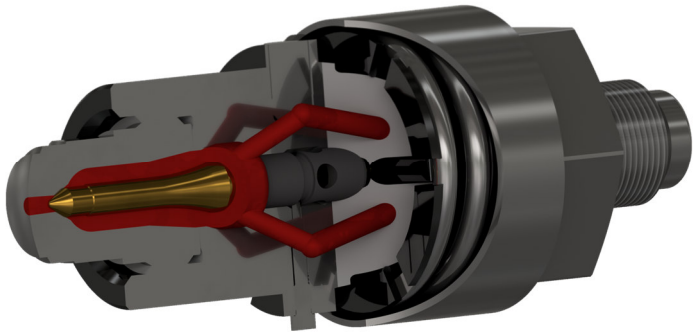
Machine needle shut-off nozzle Type SHP (high performance) spring opera



Applications:
thermoplastics (not applicable for PVC)

Shut-off mechanism:
Operated with one high performance springs

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Safety instructions

This symbol indicates explanations about important matters.
Failure to read these or false handling could result in injury or damage.

Please pay attention to the following safety instructions and precautions

Handling

- Installation and servicing to be only carried out by suitable personnel according to the installation and service instructions.
- Nozzle can become extremely hot. Full face protection and heat resistant gloves must be worn.


Damage precaution

- Do not drop the nozzle or exert it to unnecessary forces.
- Take care that no foreign bodies enter the working parts of the nozzle.
- No adjustment or manipulation when nozzle is in operation.
- Never heat steel parts over **520°C**.
- Nozzle is only to be used for injection molding purposes.

Operational notes

- Maximum injection rate / temperature: **3000 bar at 400°C**.
- Torques on screws and threaded parts must be adhered to.
- Noise emisions from the nozzle do not exceed 70 dB(A).

Explosion danger

- Some plastics produce gases if they stay for a longer time in a heated environment. There is a risk that the gas may escape explosively through the nozzle orifice.

Keep this manual in a convenient place for future reference.

Installation instructions

Read safety instructions!

Legend:

with Hand

smear with high temperature lubricant

tool

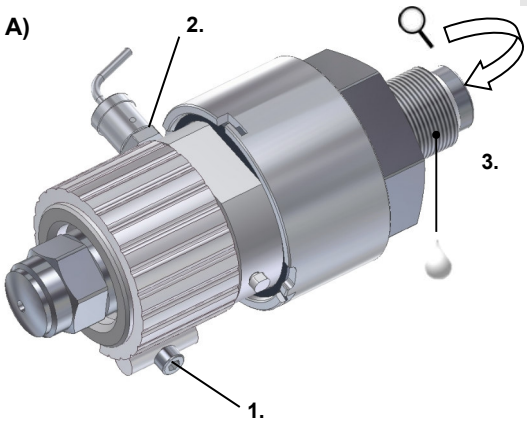
inspection

temperature equalisation

Note:
Nozzle is delivered pre-assembled. The following instructions are for installation on the machine.
Tools required:
Hexagonal wrench, allen key, ring spanner, socket wrench, pliers, punch.
See chapter **Assembly** for tool sizes and torques.

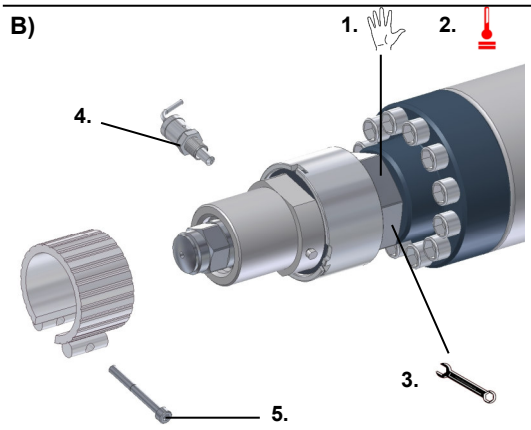
Installation stepsA) - C)

A)



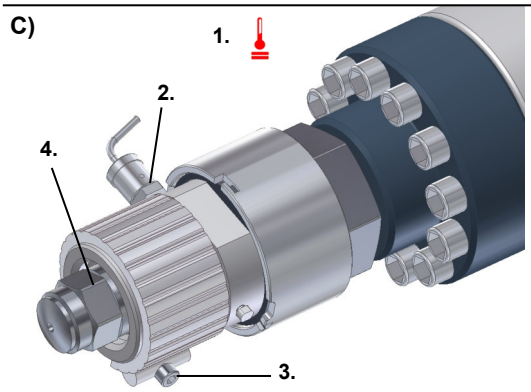
1. Remove heater band
2. Remove temperature sensor
3. Check surfaces and threads of the adapter connection & smear adapter thread with high temperature lubricant

B)



1. Hand tighten
2. Await temperature equalisation
3. Tighten acc. to machine manufacturer's handbook
4. Mount temperature sensor
5. Install the heater band

C)



1. Await temperature equalisation
2. Tighten temperature sensor
3. Tighten heater band
4. Tighten nozzle tip

Initial Operation

Sicherheitshinweise lesen!

Initial operation:
1. Bring nozzle to operating temperature
2. **Only by first initial operation**: tighten screws and heater band screws to the maximum recommended torques
3. Make sure that the Polymer is completely melted
4. Eject the heated material. This follows after extrusion at low speed (time ca. 25 - 30 S) or through injecting out at three to five times the rate of injection

Leakage:
Between needle and guide there is a melt film which prevents the needle from blocking. The melt film will be continuously renewed and will eventually leak out of the nozzle.

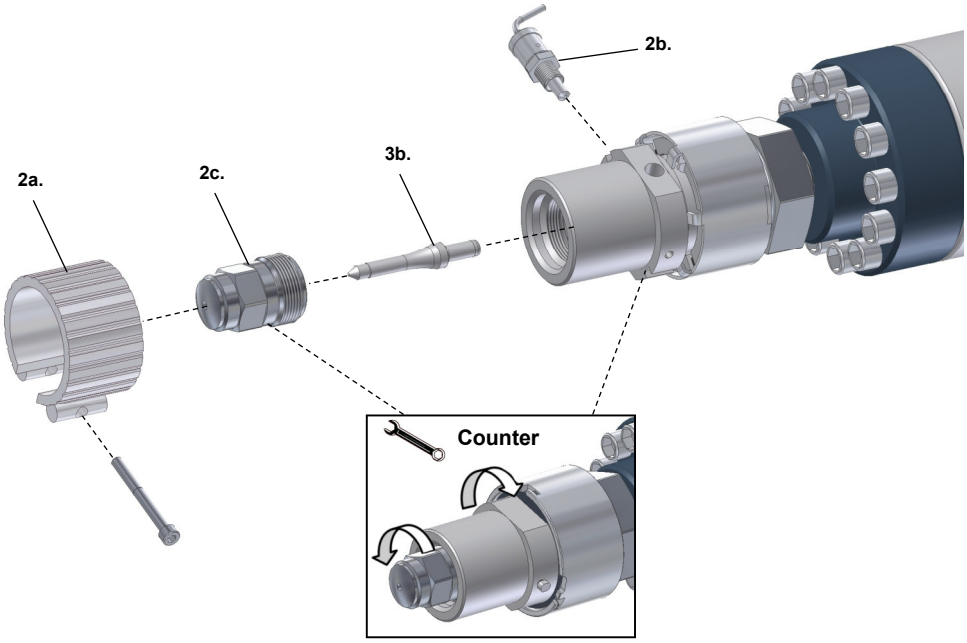
At machine downtimes: nozzle temperature must be lowered.

Serviceanleitung

Read safety and cleaning instructions!
Installation note: grease all threads with high temperature paste

Disassembly A) - B)

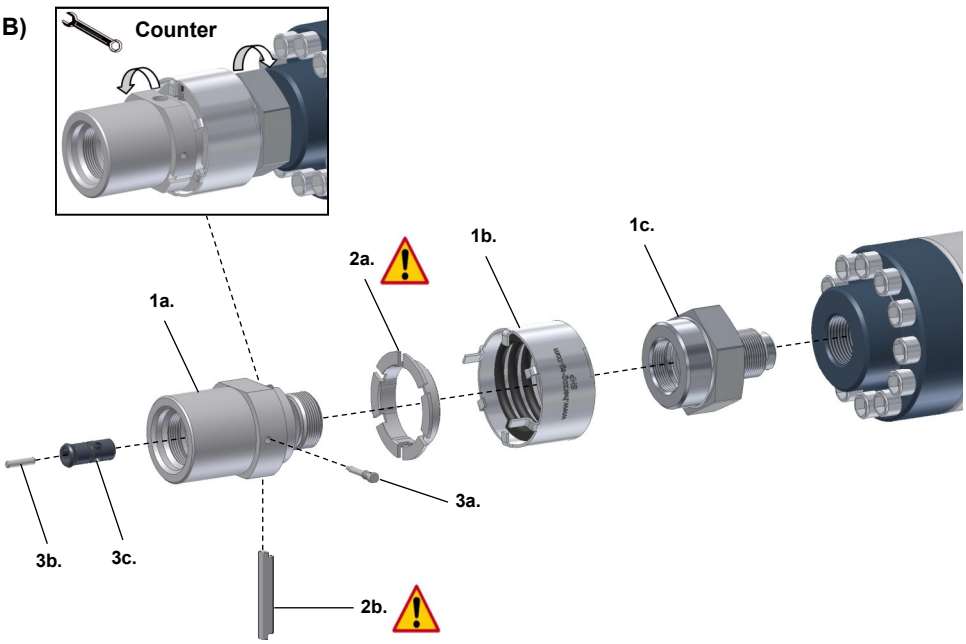
A) **1.**



Removing the nozzle from the machine:

1. Heat nozzle to operating temperature
2. Remove heater band (**2a.**), sensor (**2b.**) and tip (**2c.**)
3. Remove needle (**3b.**)

B)



1. Remove body (**1a.**), spring package (**1b.**), and adapter (**1c.**)
2. Remove pressure ring (**2a.**) and slide out beam (**2b.**)
3. Screw out positioning bolt (**3a.**), pressure bolt (**3b.**) and remove needle bushing (**3c.**)

Cleaning instructions

While the nozzle is still installed, clean as far as possible in a heated state and finally disassemble completely and clean individual parts.

Plastics such as; LCP or PPS burn away when the nozzle is heated in an oven for tow hours at 500°C.

Never heat steel parts above 520°C!
Avoid kinking the heater band and sensor cables!

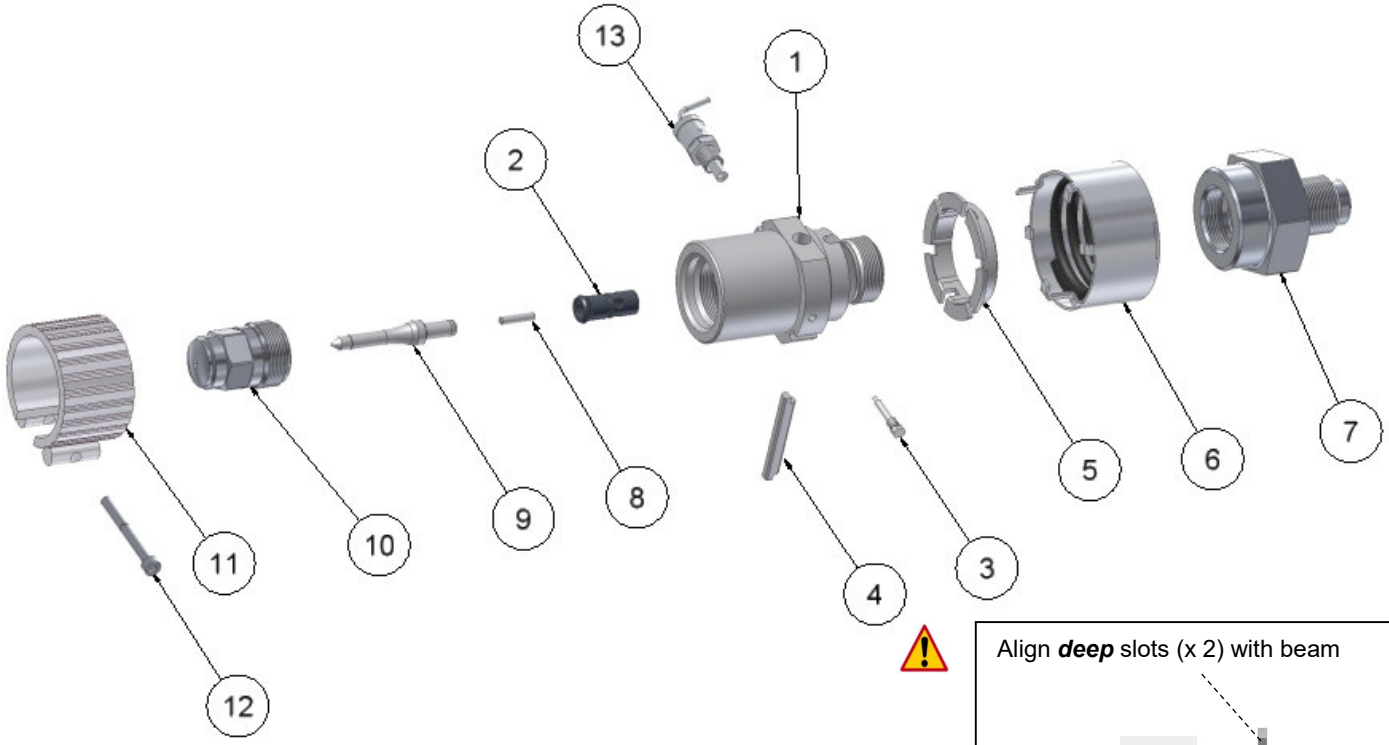
Help tools for cleaning:

- Sand fluidized bed
- Glass bead blasting
- Cleaning oven
- Gas burner
- Wire brush
- Steel wool

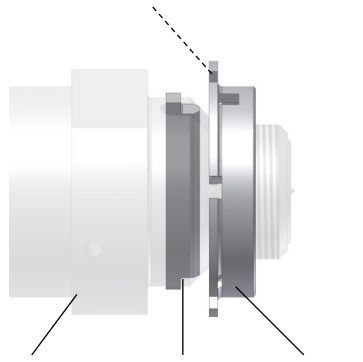
Before reassembly: check all parts for damage or wear.

Profit from our cleaning service. The nozzle is disassembled, checked and repaired if necessary after customer approval.

Zusammenbau



Align ***deep*** slots (x 2) with beam



Assemble according to the numerical order.

Pos.	Qty.	Description	Tool size *(torque)*
			SHP0
1	1	Body	SW50 *(170Nm)*
2	1	Needle bushing	-
3	1	Positioning bolt	SW5 *(3Nm)*
4	1	Beam	-
5	1	Pressure ring	-
6	1	Spring package	-
7	1	Adapter *(torque acc. to machine manufacturer's handbool)*	SW55
8	1	Pressure bolt	-
9	1	Needle	-
10	1	Tip	SW27 *(220Nm)*
11	1	Heater band	-
12	1	Heater band screw	SW 4 *(von Hand)*
13	1	Temperature sensor	-

Parts subject to wear / ordering spare parts

Your contact information:

Company	
Street	
City / Zip	
Contact	
Tel. / Fax	
E-Mail	

Lasered nozzle identity no.: please insert here

Quantity	**Part** (for part name, see chapter **Assembly**)

Send to:

herzog systems ag
CH-9230 Flawil / Switzerland

Tel. +41 (0) 71 394 19 69 / Fax +41 (0) 71 394 19 60
www.herzog-ag.com / info@herzog-ag.com