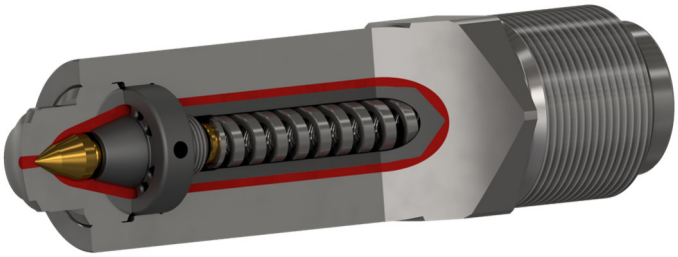
Machine shut-off nozzle type A(S)

spring operated



Applications:
Thermoplastics (not applicable for PVC)

Shut-off mechanism:
Operated with one axial high performance spring

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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 **500°C**.
- Nozzle is only to be used for injection molding purposes.

Operational notes

- Maximum injection rate / temperature: **2000 bar at 350°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:

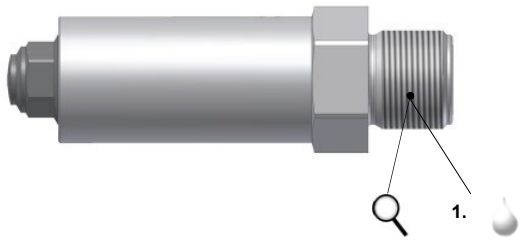
With hand
Grease with high temperature paste
Tool
Inspection
Await temperature equalization

Note:
Nozzle is delivered pre-assembled (without optional heater band and temperature sensor). The following instructions are for installation on the machine.

Tools required:
Hexagonal wrench, Allen key, ring spanner.
Tighten all screws to correct torque. See chapter **Assembly** for tool sizes and torques.

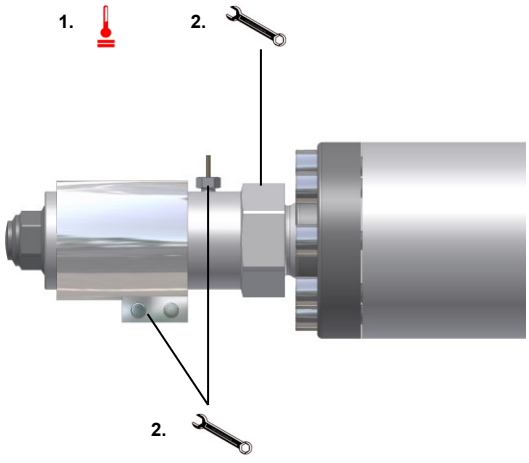
Installation steps A) - B)

A)



1. Check surfaces and grease threads with high temperature paste.
2. Pre-install heater band and sensor.

B)



1. Await temperature equalization.
2. Tighten (See chapter **Assembly** for tool sizes and torques).

Initial operation

Read safety instructions!

Initial operation:
1. Bring nozzle up to operating temperature
2. **For first installation or after assembly:** Retighten screws, tip and heater band with maximum torque.
3. Make sure that material is completely melted.
4. Firstly discharge heated material by 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; reduce the nozzle temperature.

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.

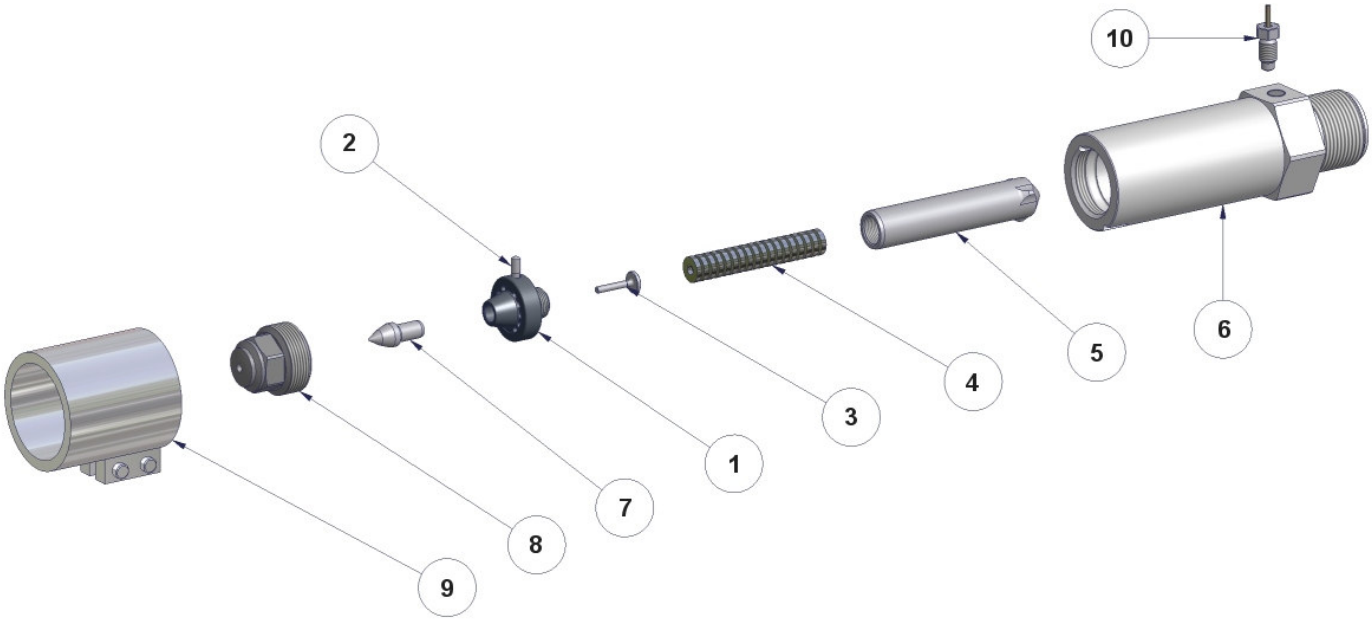
Never heat steel parts above 500°C!
Avoid kinking the heater band and sensor cables!

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.

Assembly



Pos.	Description	Tool / Size			Torque		
		A0	A1.0 / A1.1	A2	A0	A1.0 / A1.1	A2
1	Needle guide	-	-	-	-	-	-
2	Positioning pin	-	-	-	-	-	-
3	Pressure pin	-	-	-	-	-	-
4	Spring	-	-	-	-	-	-
5	Spring chamber (standard)	SW11	SW18 / 19	SW25	20Nm	40 / 40Nm	50Nm
	Spring chamber (filter)	SW11	SW17 / 19	SW24	20Nm	40 / 40Nm	50Nm
6	Body	-	-	-	Torque according to machine handbook		
7	Needle	-	-	-	-	-	-
8	Tip	SW19	SW24 / 24	SW41	60Nm	200 / 200Nm	520Nm
9	Heater band	SW4	SW4 / 4	SW4	von Hand		
10	Temperature sensor	SW10	SW10 / 10	SW10	von Hand		

Procedure

1. Clamp the hexagonal part in a vice. Unscrew the tip
2. Remove shut-off parts using a punch
3. Insert the shut-off part reversed back into the body and reinsert positioning pin
4. Use a ring spanner on the three stabilisation extrusions to screw off spring chamber

Spare part order form

Your full contact information please:

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

Engraved identity Nr. Please enter here

Quantity	Part name / no.

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