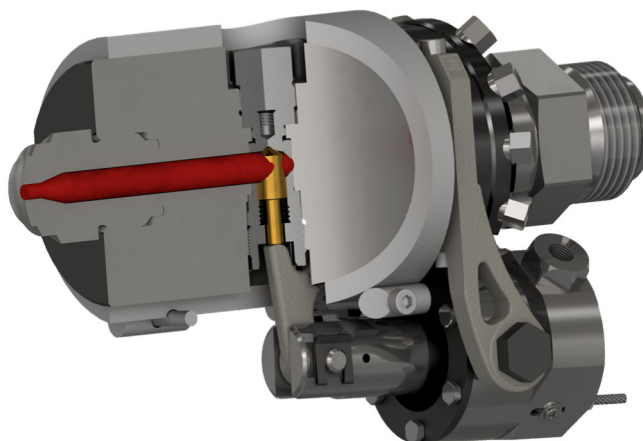


## Machine bolt shut-off nozzle type BHP pneumatically or hydraulically controlled



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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

- Nozzle is only to be used for injection molding purposes.
- Torques on screws and threaded parts must be adhered to.
- Maximum injection rate / temperature: **3000 bar at 400°C**.
- Shut-off operation according to **Melt pressure / time graph**.
- Never heat steel parts over **520°C**.
- The actuator is designed for temperatures up to **180°C**.
- No adjustment or manipulation when nozzle is in operation.
- Take care that no foreign bodies enter the working parts of the nozzle.
- Do not drop the nozzle or exert it to unnecessary forces.
- Noise emissions 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.**

## Initial operation



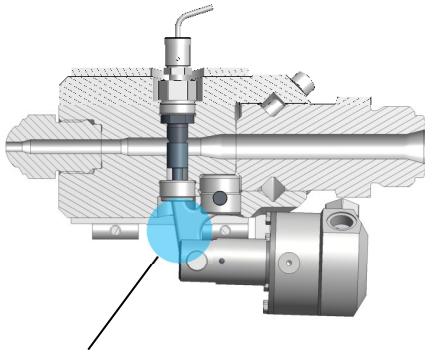
### Read safety instructions!

1. Bring nozzle to operating temperature
2. **Only for first operation:** tighten 8 body screws and heater band screws to maximum recommended torques
3. Make sure that polymer is completely melted
4. Purge heated melt. This follows after extrusion at low speed (time ca. 25 - 30s) or through injecting out at three to five times injection time

**Actuator:** Operational data according to engraving on cylinder.

**Leakage:** Between bolt and guide there is a melt film which prevents the bolt from blocking. The melt film will be continuously renewed and will eventually leak out of the nozzle in the area indicated beside.

This melt release is completely normal, especially when low viscosity material is combined with high back pressure. The material will not affect the function of the nozzle as the actuator piston stroke and lever movement respectively keeps the area clear. If required any gathered residual material can be manually cleaned away. While injecting no leakage should emit in this area and the nozzle is completely sealed.



**Leakage release area**  
approx. 1cm<sup>3</sup> per day

## Machine downtime



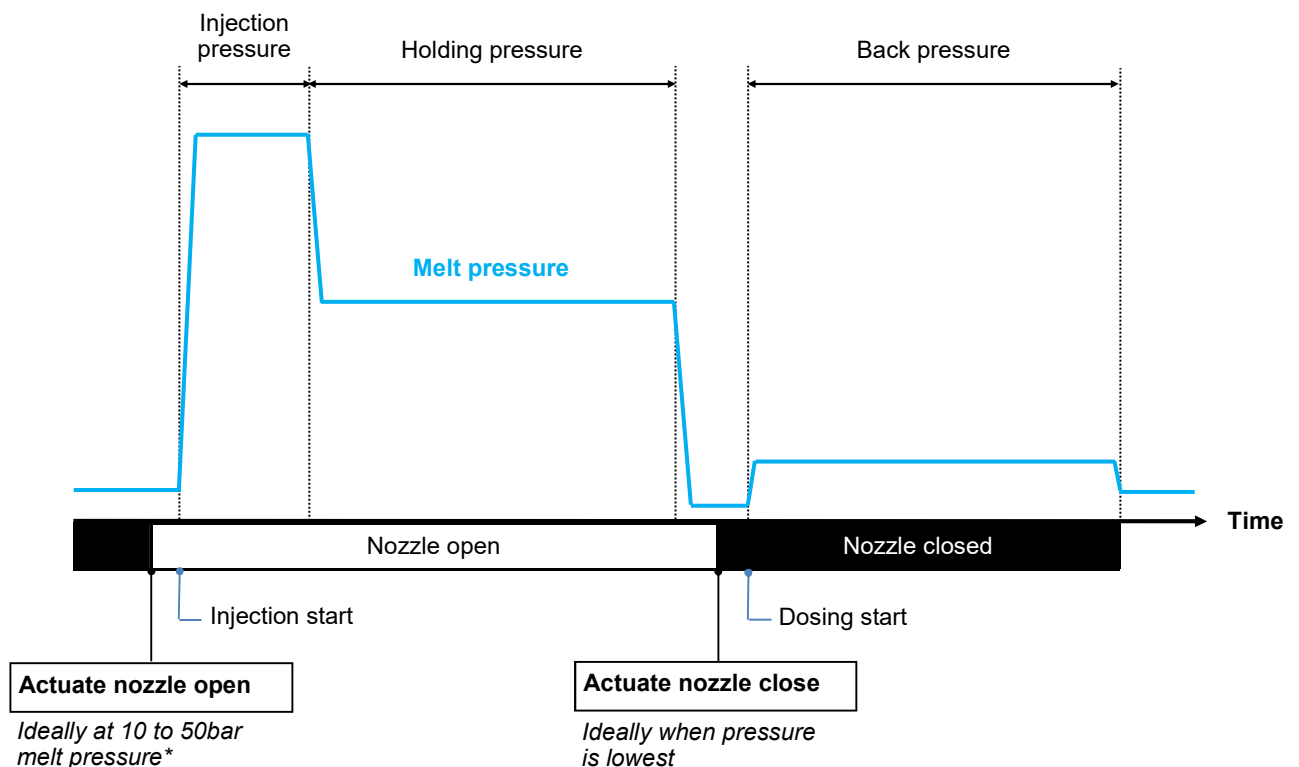
When machine is powered off or idle for a long period:

- Purge processed material from nozzle
- Open nozzle
- Reduce nozzle temperature

## Nozzle actuation stages

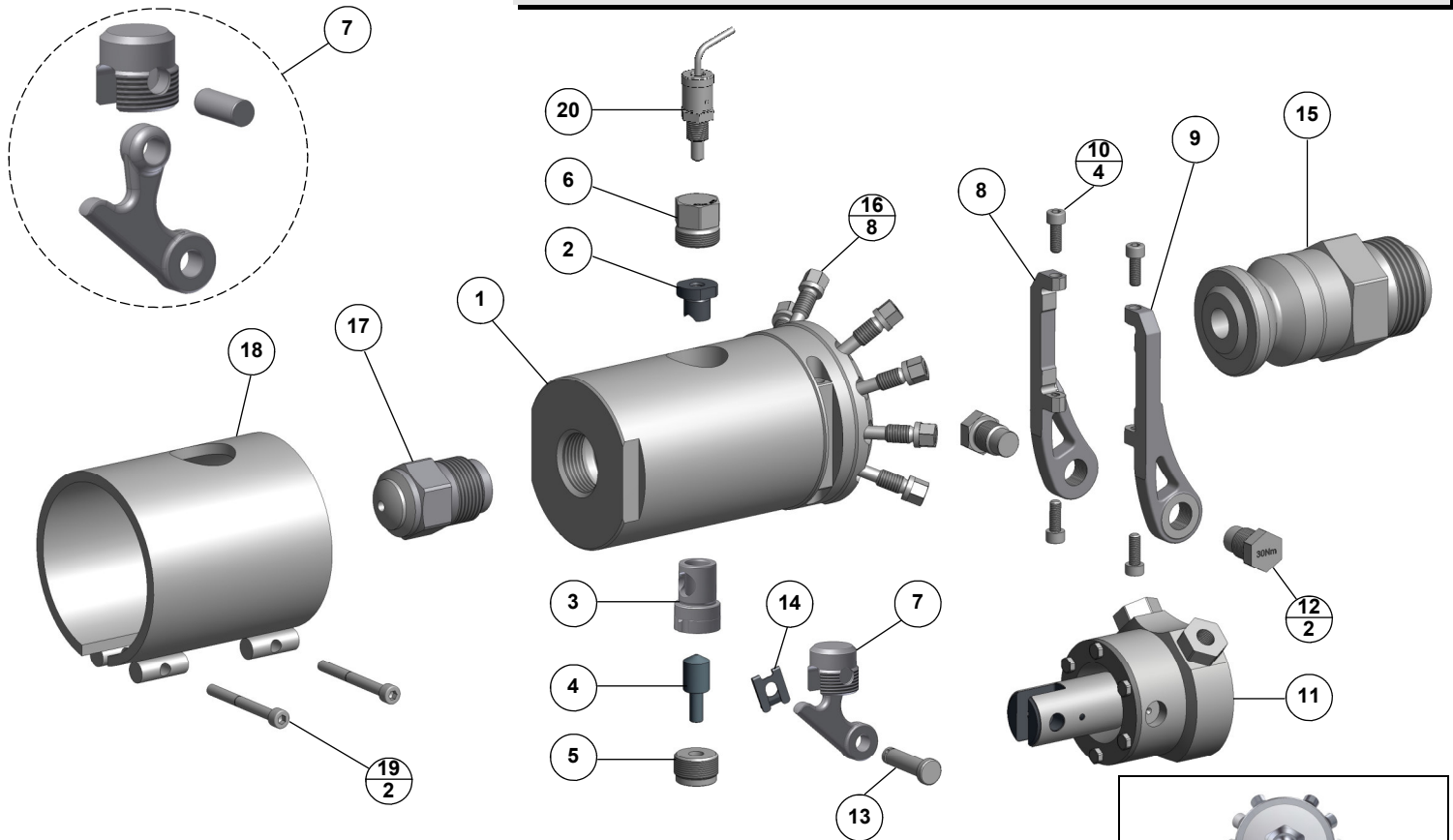
Actuating nozzle at stages indicated in the graph helps increase longevity of wear parts.

### Melt pressure / time graph:



\* Ensures bolt is in its open sealed position before injection. If this setting is not possible or a loud noise is heard from bolt area on injection, a retractable bolt option is available. See technical documentation for more information.

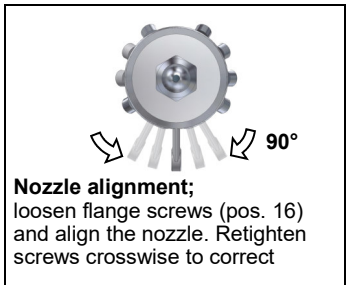
## Assembly



**⚠ Read safety and cleaning instructions! Grease all threads with high temperature lubricant!**

### Assembly / Disassembly Notes:

Assemble according to the numerical order. Disassemble in the opposite direction.  
 Lever unit (pos. 7) should not be disassembled in normal circumstances.  
 Pull out pos. 2 from above using a screw. If required, use bolt (pos. 4) and soft punch to carefully tap out from below.  
 For nozzles with retractable bolt, see also **BHPR - Shut-off mechanism assembly guide**.



Order	Qty.	Description	Tool size (torque)		
			BHP0	BHP1	BHP2
1	1	Body	Counter SW50	Counter SW70	Counter SW90
2	1	Insert	-	-	-
3	1	Bolt guide sleeve	-	-	-
4	1	Shut-off bolt	-	-	-
5	1	Stop screw	SW10 (30 Nm)	SW12 (80 Nm)	SW19 (340 Nm)
6	1	Locking screw	SW14 (30 Nm)	SW19 (80 Nm)	SW24 (340 Nm)
7	1	Lever unit	Manually	Manually	Manually
8	1	Bracket - right	-	-	-
9	1	Bracket - left	-	-	-
10	4	Screw	SW4 (5 Nm)	SW4 (5 Nm)	SW6 (35 Nm)
11	1	Actuator	Actuator service; see separate detailed manual at <a href="http://www.herzog-ag.com">www.herzog-ag.com</a>		
12	2	Bolt screw	SW13 (12 Nm)	SW17 (30 Nm)	SW22 (80 Nm)
13	1	Bolt	-	-	-
14	1	Spring clip	-	-	-
15	1	Adapter	SW36 (Machine handbook)	SW50/60 (Machine handbook)	SW65 (Machine handbook)
16	8	Flange screw	SW8 (15 Nm)	SW10 (40 Nm)	SW13 (80 Nm)
17	1	Tip	SW32 (150 Nm) = M30*2 Ø8	SW32 (150 Nm) = M30*2 Ø8	SW46 (400 Nm) = M45*3 Ø19
18	1	Heater band	-	-	-
19	2	Heater band screw	SW4 (Hand-tight)	SW4 (Hand-tight)	SW4 (Hand-tight)
20	1	Temperature sensor	SW14 (Hand-tight)	SW14 (Hand-tight)	SW14 (Hand-tight)

## 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!  
Clean pneumatic or hydraulic actuator separately with max. 150°C!  
Avoid kinking the heater band and sensor cables!

Help tools for cleaning include: sand fluidized bed, glass bead blasting, cleaning oven, gas burner, wire brush, steel wool

Before reassembly check all parts for damage or wear.

**We offer a cleaning and revision service. The nozzle is disassembled, checked and repaired if necessary after customer approval.**

## 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 <b>Assembly</b> )

Send to:

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