Quick installation guide - Needle shut-off nozzle type HP (Standard)

herzog®

For oversized tips, please see: Quick installation guide - Needle shut-off nozzle type HP (Oversize tip version).

Safety instructions and precautions

Please pay attention to the following safety instructions and precautions

Handling
- Installation and servicing to be only carried out by suitable personnel according to instructions.
- Nozzle can become extremely hot. Full face protection and heat resistant gloves must be worn.
- Heavy parts. Use correct lifting equipment.

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**.
- The actuator is designed for temperatures up to **180°C**.
- Nozzle is only to be used for injection molding purposes.

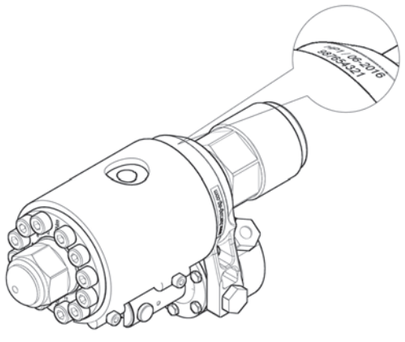
Operational notes
- Maximum injection pressure / temperature: **3000 bar at 400°C**.
- Torques on screws and threaded parts must be adhered to.

Explosion danger

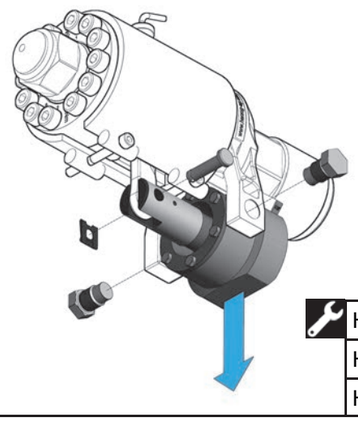
Some plastics produce gases if they stay for a longer time in a heated environment. There is a risk that the gas may escape explosively through the nozzle orifice.

Useful information

Nozzle identification location



For more convenient installation actuator may be removed and re-fitted once nozzle body is installed.



HP0	⬡13
HP1	⬡17
HP2	⬡17

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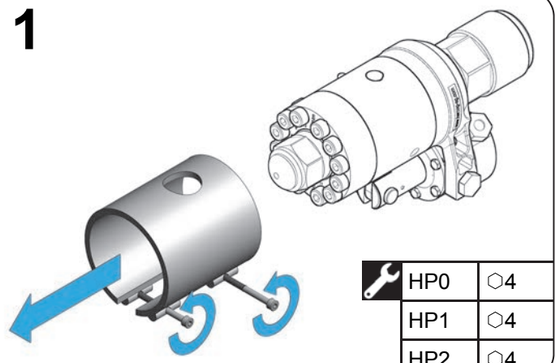
Machine installation instructions

Read safety instructions!
Wear protective clothing at all times!

Legend
- Tool
- Lubricate with high temperature grease
- Manually / Hand tight
- Await temperature equalisation
- Attention

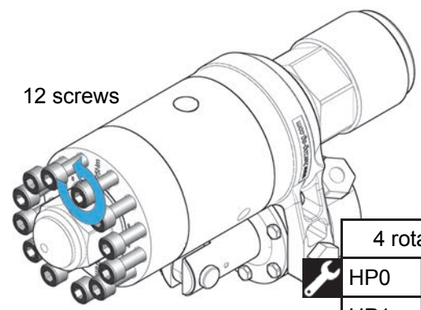
1



HP0	⬡4
HP1	⬡4
HP2	⬡4

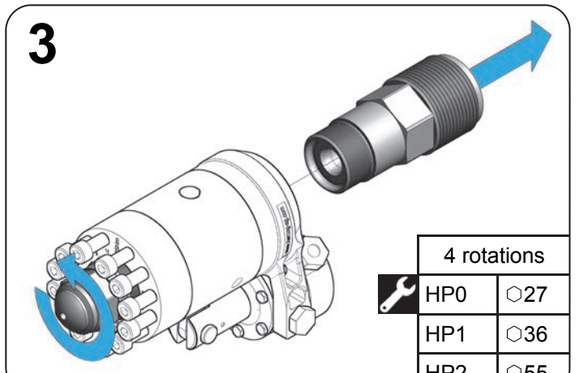
2

12 screws



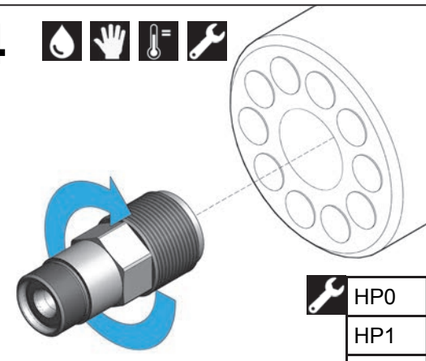
4 rotations	
HP0	⬡5
HP1	⬡6
HP2	⬡10

3



4 rotations	
HP0	⬡27
HP1	⬡36
HP2	⬡55

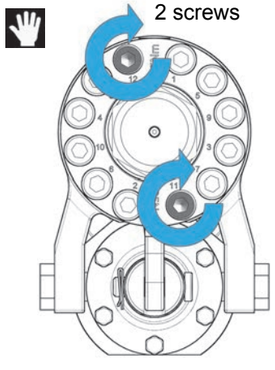
4



HP0	⬡36
HP1	⬡46
HP2	⬡65

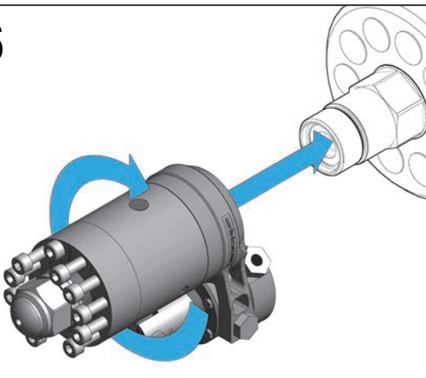
5

2 screws



HP0	⬡5
HP1	⬡6
HP2	⬡10

6



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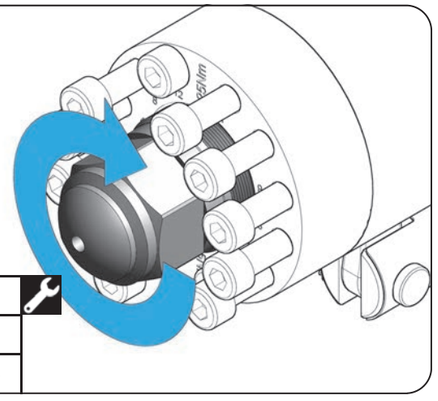
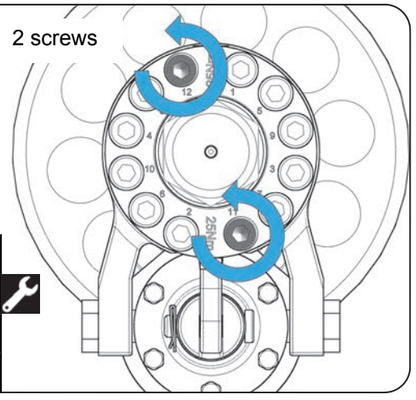


HP0	⬡27
HP1	⬡36
HP2	⬡55

8

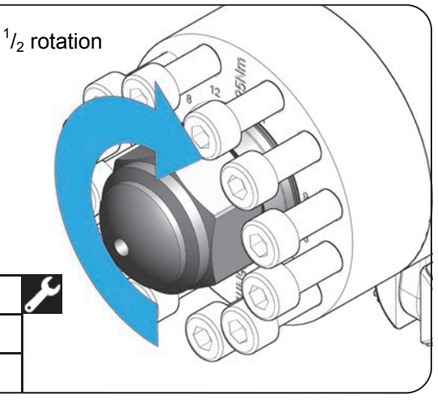
2 screws



4 rotations	
HP0	⬡5
HP1	⬡6
HP2	⬡10

9

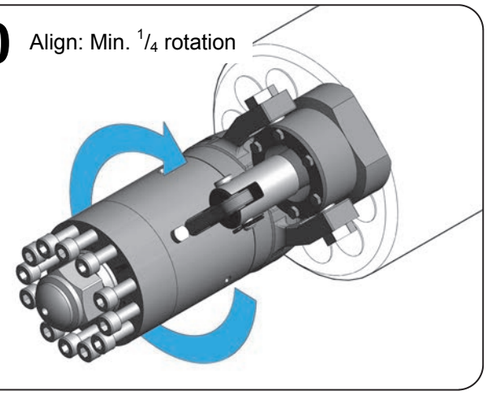
1/2 rotation



HP0	⬡27
HP1	⬡36
HP2	⬡55

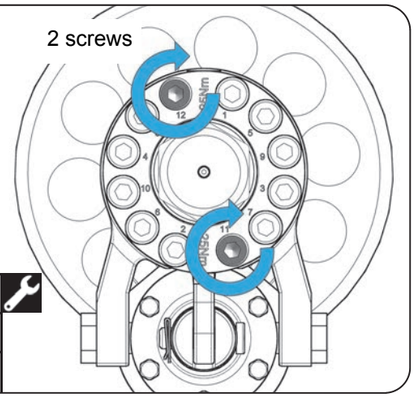
10

Align: Min. 1/4 rotation



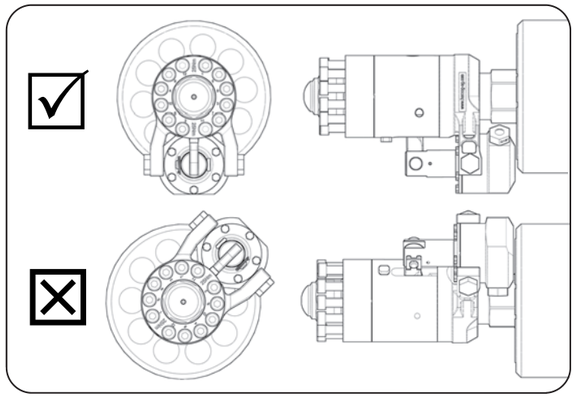
11

2 screws



HP0	⬡5
HP1	⬡6
HP2	⬡10

12

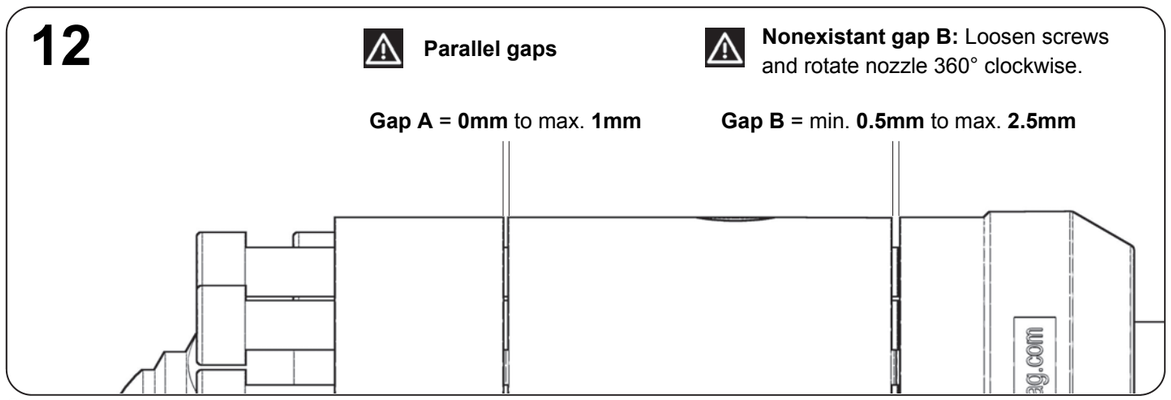


Parallel gaps

Nonexistant gap B: Loosen screws and rotate nozzle 360° clockwise.

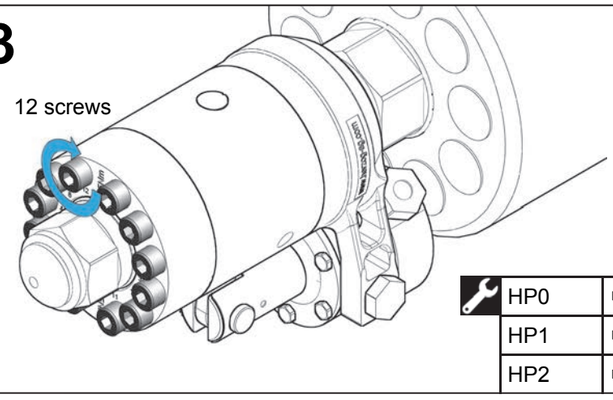
Gap A = **0mm** to max. **1mm**

Gap B = min. **0.5mm** to max. **2.5mm**

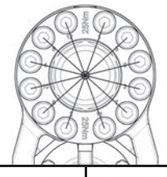


13

12 screws



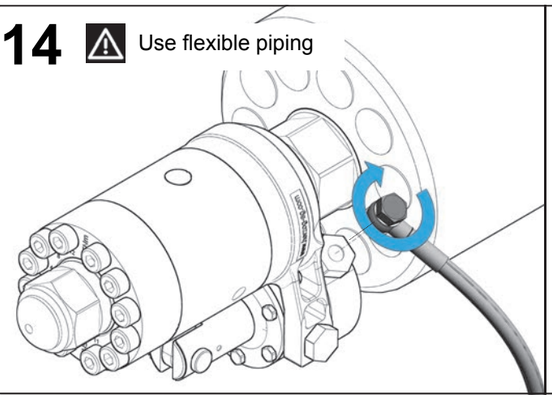
Crosswise



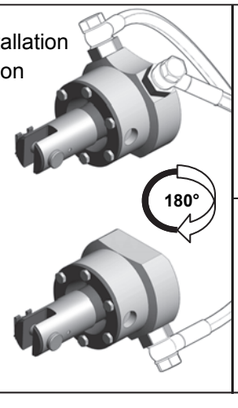
		Pass 1	Pass 2	Pass 3	Pass 4
HP0	⬡5		7Nm	10Nm	12Nm
HP1	⬡6		15Nm	22Nm	25Nm
HP2	⬡10		12Nm	25Nm	50Nm

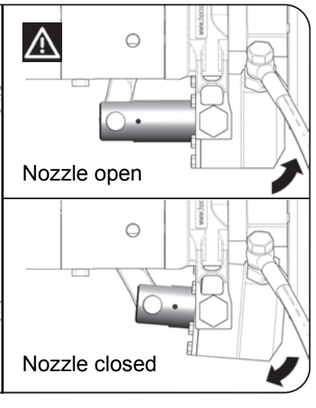
14

Use flexible piping



Installation option





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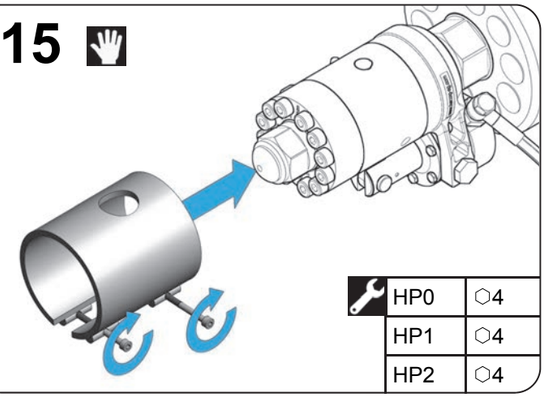
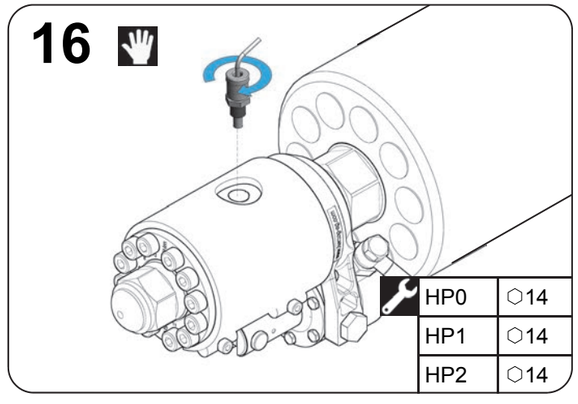


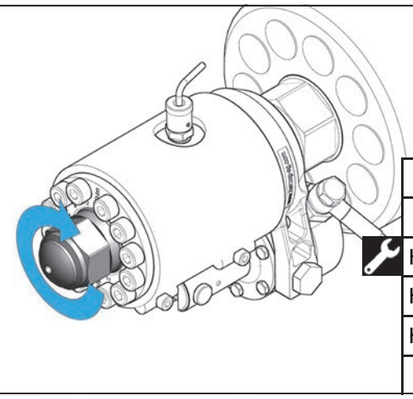
HP0	⬡4
HP1	⬡4
HP2	⬡4

16



HP0	⬡14
HP1	⬡14
HP2	⬡14

17



One-piece tip		
HP0	⬡27	220Nm
HP1	⬡36	500Nm
HP2	⬡55	1200Nm
Herzog standard tip values		

	Two-piece tip			
	Tip base		Tip cap	
HP0	⬡36	220Nm	⬡27	120Nm
HP1	⬡41	500Nm	⬡32	200Nm
HP2	⬡65	1200Nm	⬡41	600Nm
Herzog standard tip values				

Initial operation

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.

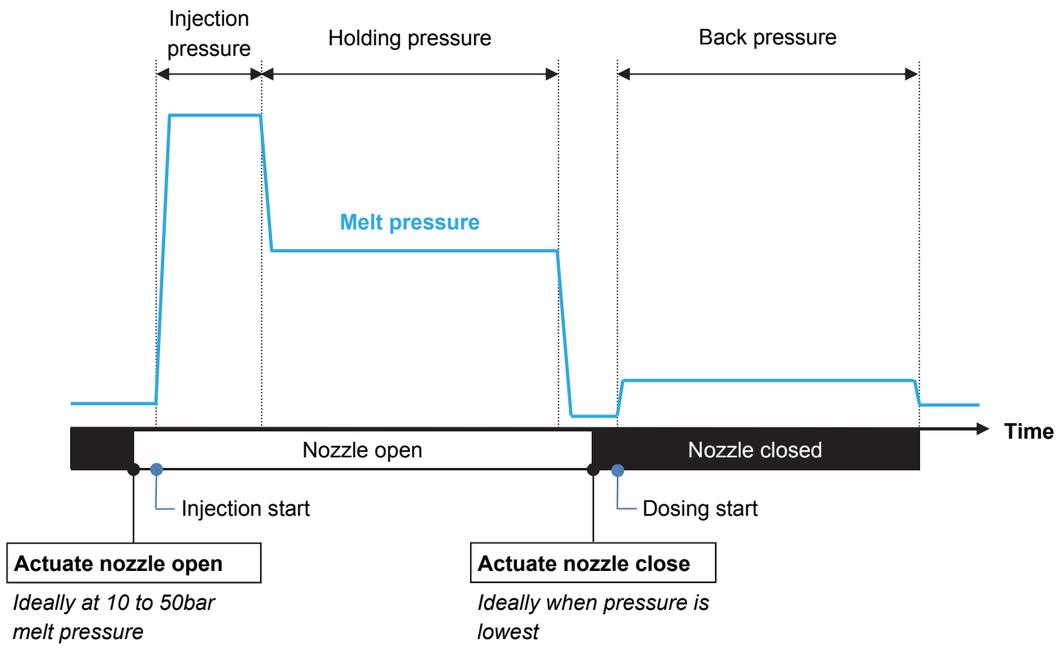
Actuator: Operational data according to engraving on cylinder.

Leakage: Between needle and guide a melt film will form. During processing this film will be continuously renewed and will eventually leak out in the lever area (approx. 1cm^3 per day).

Nozzle actuation stages

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

Example melt pressure / time graph:



Machine downtime

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

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

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