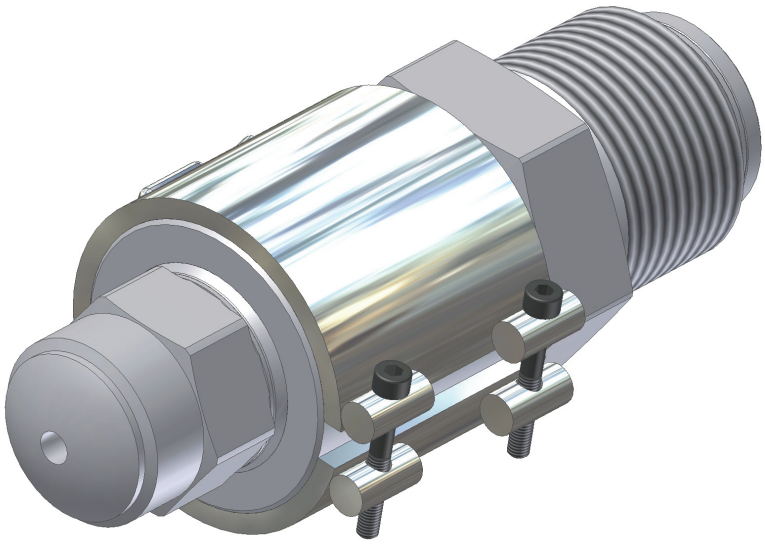
Machine filter nozzle type FN



Applications:
Thermoplastics (not applicable for PVC)

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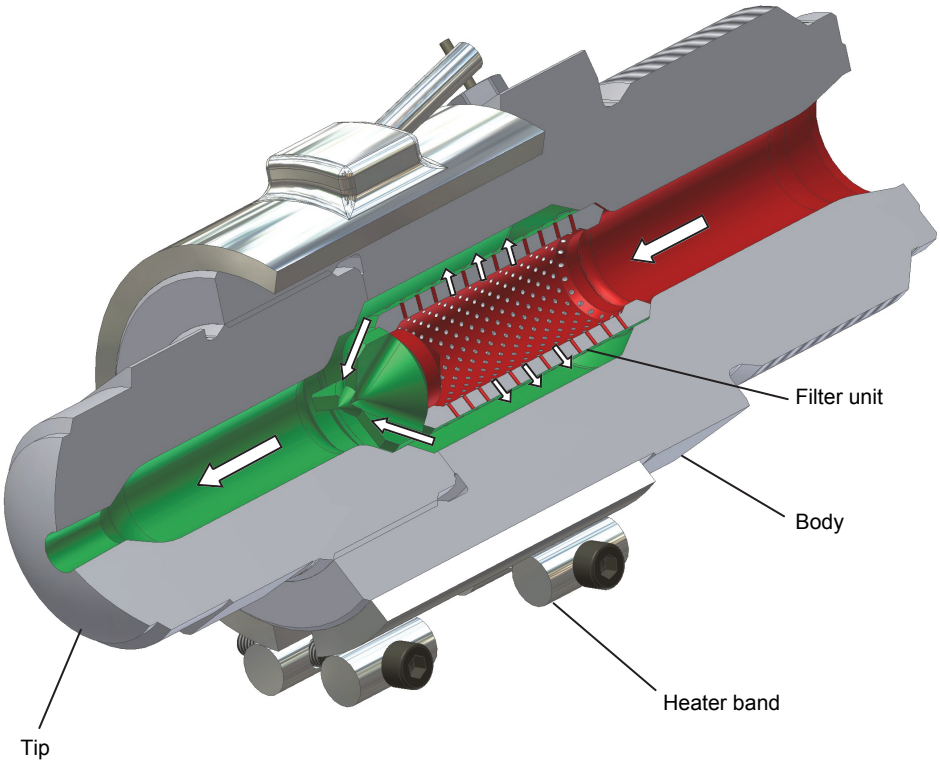
Technical description

Clean melts, free of foreign particles, are absolutely necessary for the trouble-free and economic production of injected parts. To ensure this, filter nozzles are being increasingly used for processing thermoplastics in injection molding machines.
Herzog® has developed a melt filter which is characterised by its compact and simple design. The melt filter can be assembled and prepared for operation in the shortest possible time. The Herzog® melt filter is based on the so-called "screen principle". The geometry prevents foreign particles from slipping through. Additionally, this filter system can be integrated in all of the shut-off nozzle types in our range.

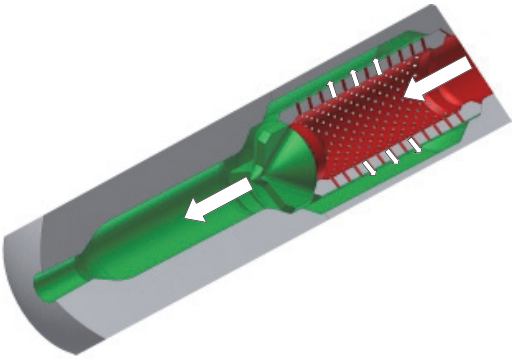
Function
The melt transported from the plasticizing unit to the filter nozzle is kept fluidic by the nozzle heater; fundamentally, we recommend control of the nozzle temperature.
The melt is fed to the filter gaps and flows through them. Foreign particles which are larger than the gap diameter are held back in the guide duct. The filtered melt flows on via outlet ducts to the injection mould.



Advantages of the filter nozzle type FN

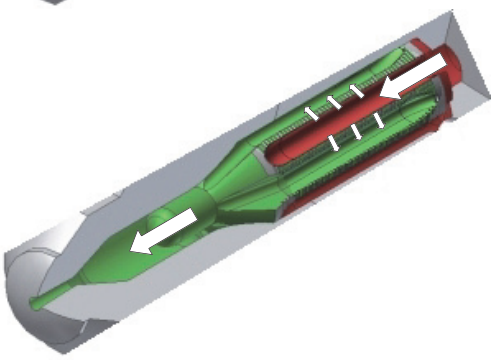
- Trouble free injection molding
- No blockage due to foreign bodies in the mold
- Process safety during molding
- Added homogenization benefit
- Simple cleaning on the machine
- Good self-cleaning effects
- No material deposits in "dead corners".

Filter options



There are two filter types available:

Standard (screen filter)
The standard Herzog® melt filter is based on the perforated screen principle. The melt flows through a single channel and is fed through the holes in the screen filter. Any particles which are smaller than the diameter of the filter are retained in the filter chamber. This filter type has very little pressure drop.



Optional (gap filter)
The optional gap filter is ideally suited for preventing very thin or long particles from passing through. The melt flows through feed ducts, is fed through the filter gaps and onwards through outlet ducts. Larger particles are retained in the feed ducts. This filter type has a higher rate of pressure drop compared to the screen filter type.

Area of application

With Herzog® melt filter nozzles, practically all thermoplastics (for example: PE, PP, PS, ABS, PA) can be processed. This nozzle type is not quite suitable for processing shear sensitive materials.

By redirecting the melt flow this nozzle has an additional advantage of a mixing effect (homogenisation).

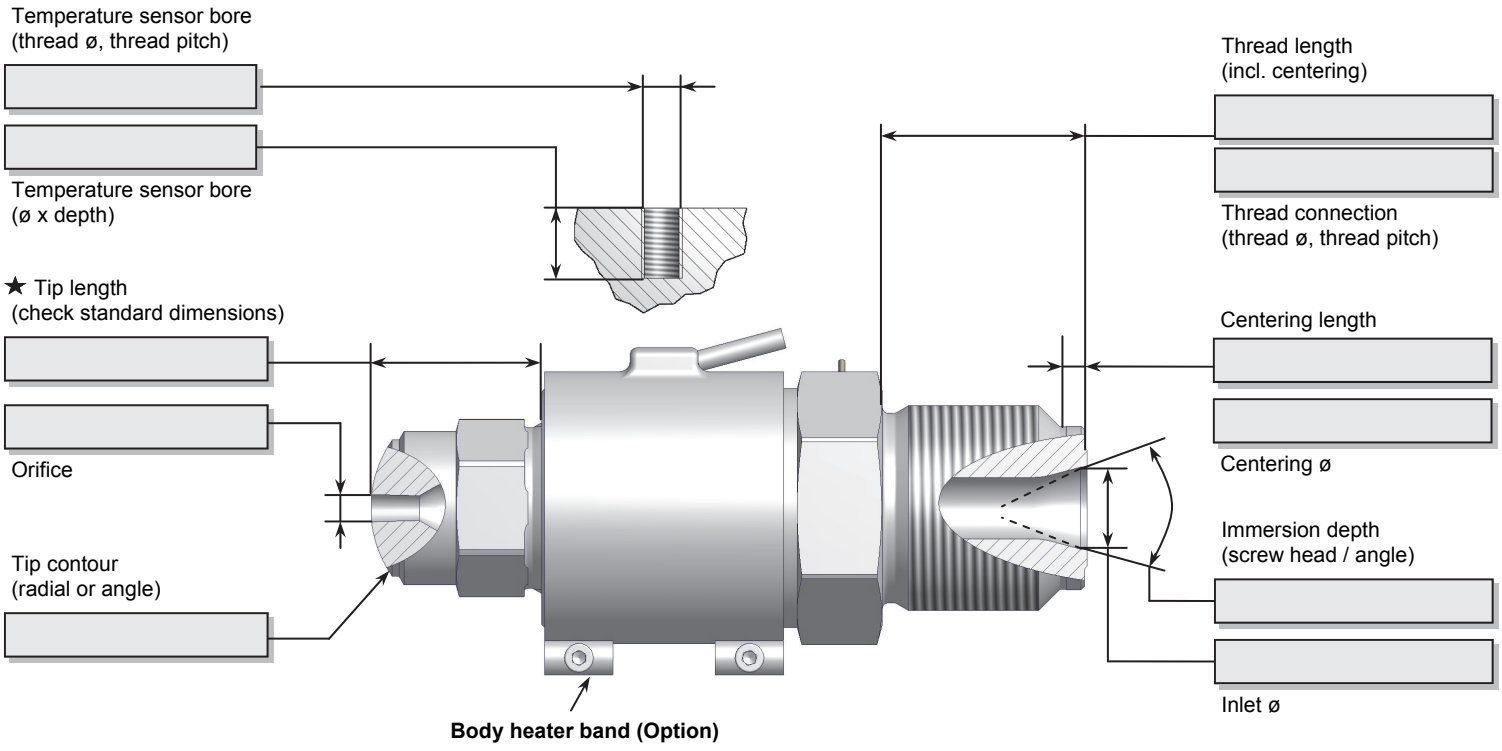
herzog®

Dimension sheet for enquiry		or order		Machine filter nozzle type FN

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

Operating data and standard dimensions		FN1		FN2	
max. injection rate cm^3 / s based on Polystyrene (PS)	Volume (cm^3) in the nozzle	500	50	1600	130
approx. screw diameter in mm		25 – 50		50 – 100	
max. injection pressure at temperature		2500 bar at 400°C			
standard tip length (other dimensions on request)		20 mm		50 mm	
Filter hole (screen filter)		0,6 mm		0,9 mm	
body length; without **thread and tip length**		60 mm		110 mm	
heater band dimensions (inside ø * max. length)		ø45 x 40 / 260 W		ø70 x 70 / 730 W	

★ Standard dimensions, Measurements in mm.



Nozzle size: ☐ **FN1** ☐ **FN2** **Machine type** (when known):

Options

Temperature sensor - type K (NiCrNi)	**Yes** ☐
Body heater band	**Yes** ☐

Note:
- Technical modifications reserved.
- We need additional information for requirements, which vary from our standard range e.g. drawing sample. Our customer services will be pleased to help you.