

plastification units

The optimal design of the plastification unit is the guarantee for the production of high quality products.

Beside the thermal stress, the plastification components also has to counteract mechanical stress. Also the appearance of corrosion and abrasive through fillings and additives have to be consider.

That is the reason, why the relevant parts need to have the right design. Only with the correct dimension, geometry and the suitable material it is able to get the required injection moulding parameters, the needed lifetime of the unit and the required quality of the plastic parts.

As an option, it is possible to coat

the parts according to the requirements. Through the coatings you get additional benefits, f.e. higher wear resistance, higher resistance against corrosion, less cold shut, ...

Because of our long term experiences in the injection moulding sector and the closed contact to industry, research and development leaders, we are able to deliver high quality plastification components for every needs and applications. The plastification components are deliverable for any common machine type or by a sample / drawing.



3-part non-return-valve



sample for a bushinged barrel

MATERIALS				< Ø 40 mm	> Ø 40 mm	< Ø 60-70 mm	> Ø 60-70 mm	plastic materials
High wear resistance (standard)	barrel		B1					up to 30% filled materials
	screw					D1	N1+S2	
	non return value	screw head		D1	D1+S2			
		rings		D1	D1			
Highest wear resistance	barrel		B3					up to 40% filled materials
	screw					P1/C1	N1+S4/S5	
	non return value	screw head		P1	D1+S4/S5			
		rings		P1/C1	P1/C1			
High-End	barrel		B3					over 40% filled materials
	screw					HM/C1	HM/C1	
	non return value	screw head		D1+S5	D1+S5			
		rings		C1/HM	C1/HM			

N: nitraded steel, B: bimetal, P: powder metal, S: stellite, HM: hard metal, C1: special-hardened



plastification unit
before repair



plastification unit
after repair

REPAIRING OF PLASTIFICATION UNITS

Worn plastification units are not always junk. Even at barrels and screws, the repairing could be a convenient alternative to new parts. Screws are possible to amored on the flights and barrels can be bushed in the compression- and metering zone. Very often, the quality after the repairing is higher than before.

COATINGS FOR PLASTIFICATION UNITS

The coatings for plastification units can give a lot of advantages to realize the production of high-quality plastic parts, a high process stability and a long lifetime. Beside the improved wear resistance against abrasion and corrosion, it is also possible to decrease the adhesion and friction coefficient.

possible coatings are, f.e. TiN, CrN, CrN-multilayer, CrN-modified, metalamorph, special-hardened, ...