

Injectors



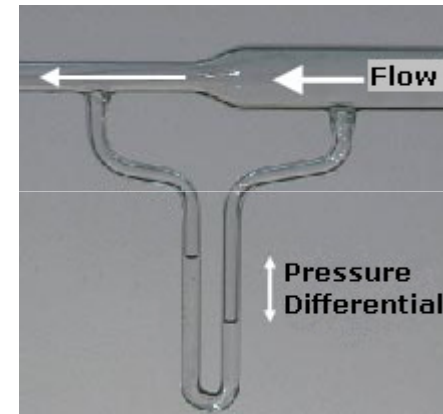
Gema

Your global partner for high quality powder coating

Injector Function principle

Injectors are based on the Venturi principle and are sometimes referred to **Venturi**

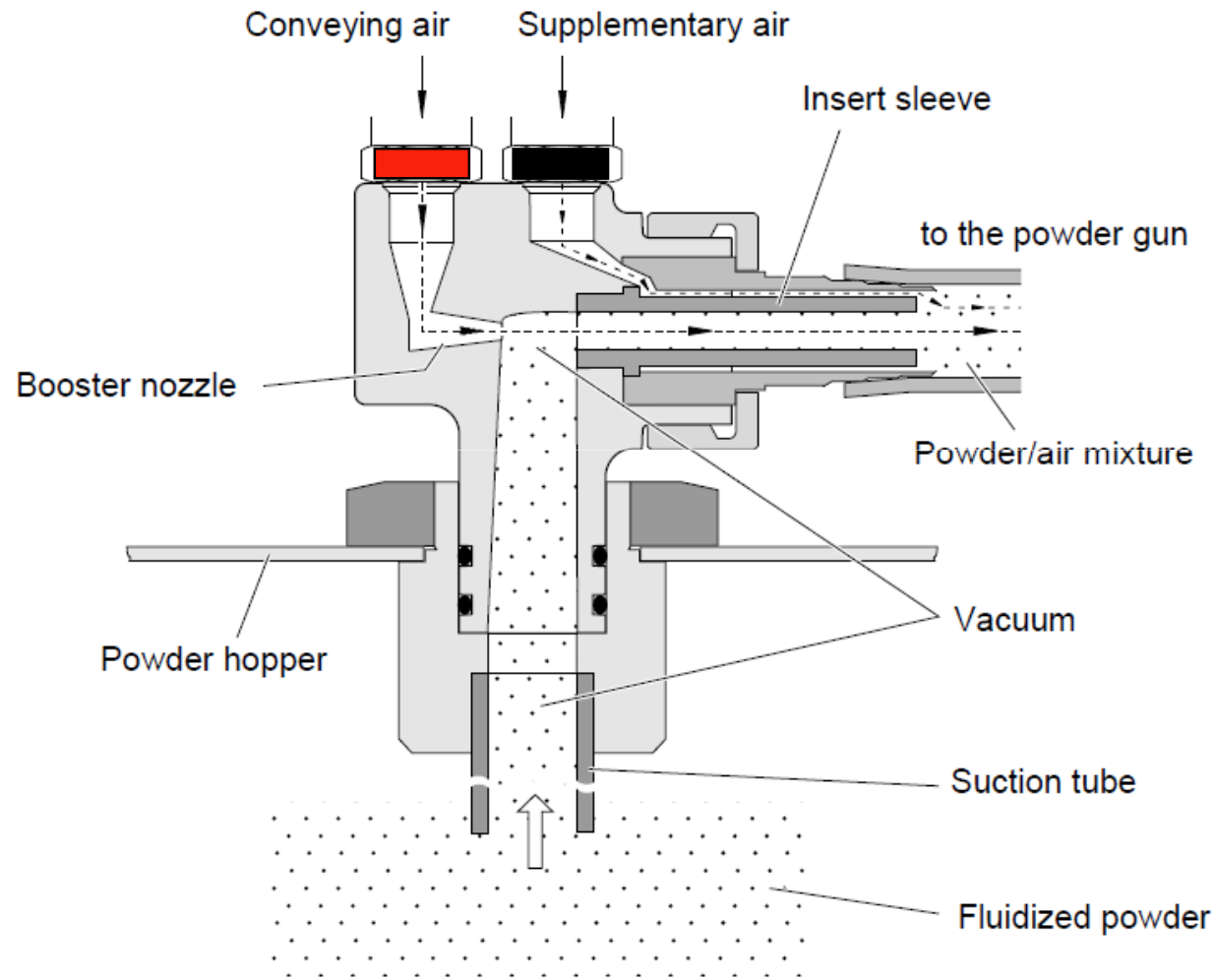
(Giovanni Battista Venturi, *1746, +1822)



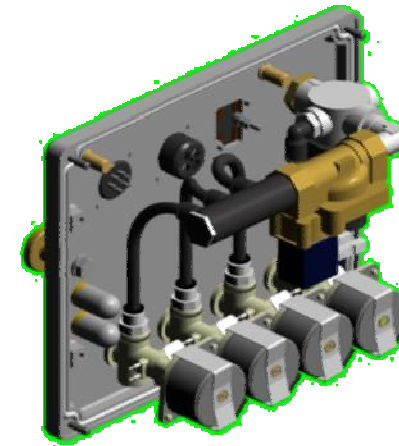
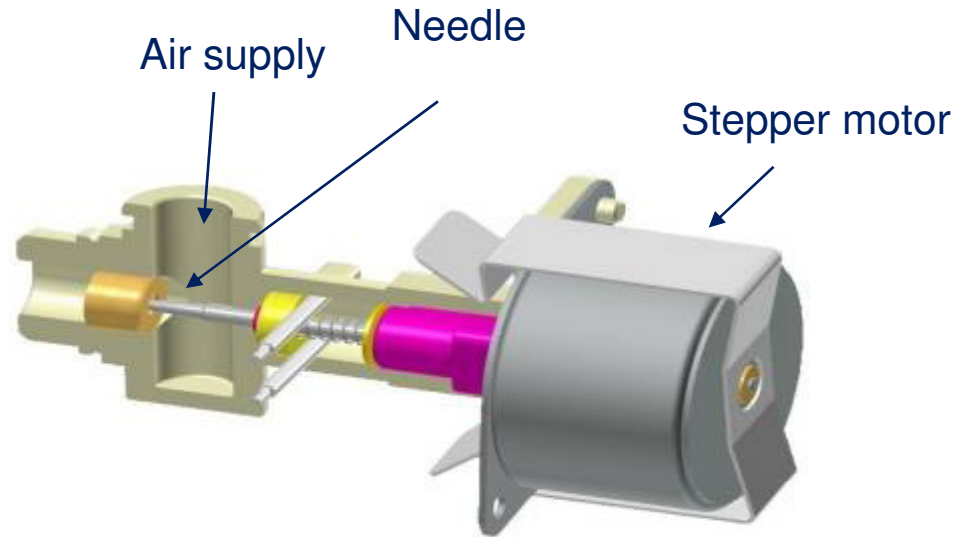
The higher the flow rate, the lower the static pressure in a pipe in the environment.

<https://www.youtube.com/watch?v=Na9ORhYjvJU>

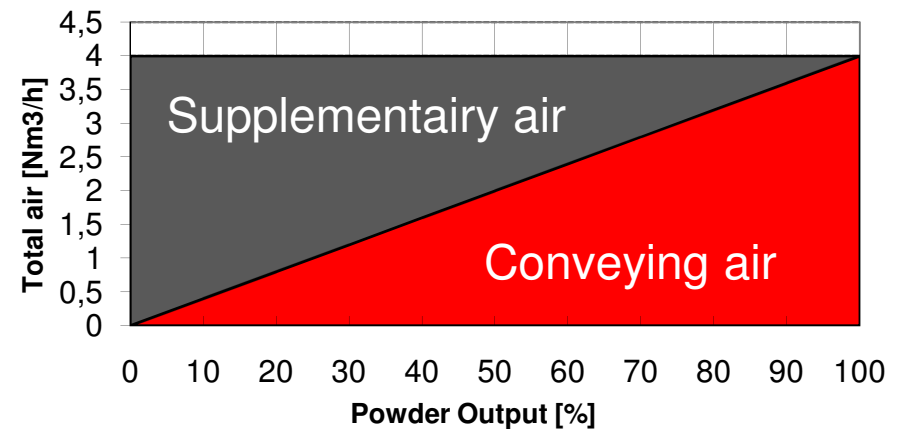
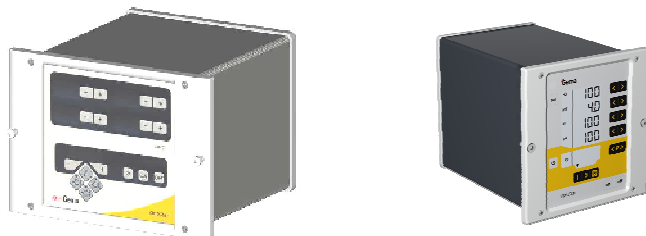
Injector function principle



Digital Valve Control DVC



The DVC valves
are used in all OptiStar Units



Injector OptiFlow IG06

Keep it smart and simple!

- robust Design
- Simple Maintenance
- Powder output until 250 g/min
- No powder depositons
- Coded quick release couplings
- 2 conductive O-Rings
- Easy exchangeable Injector nozzle



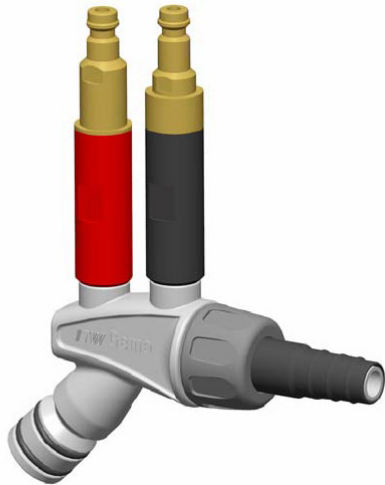
Injector OptiFlow IG06 Versions

IG06 (Standard)

Part Nr. 1007 780

Used for:

Manual units OptiFlex series
PH / HF - hoppers

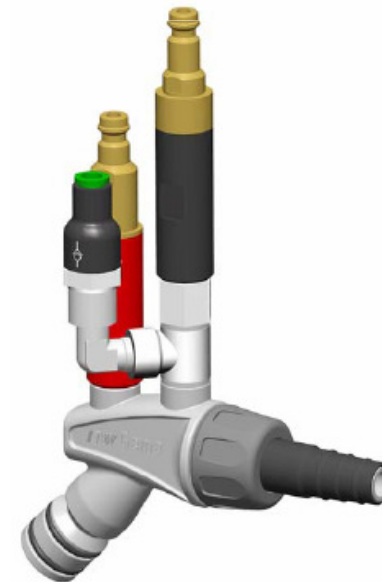


IG06-P

Part Nr. 1007 779

Used for:

OptiCenter OC01, **OC02**, **OC04**

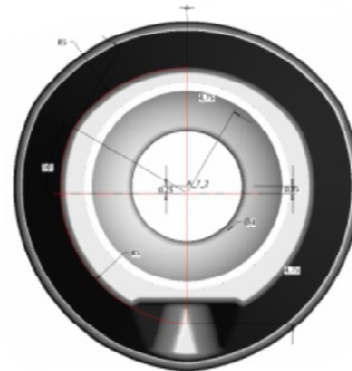
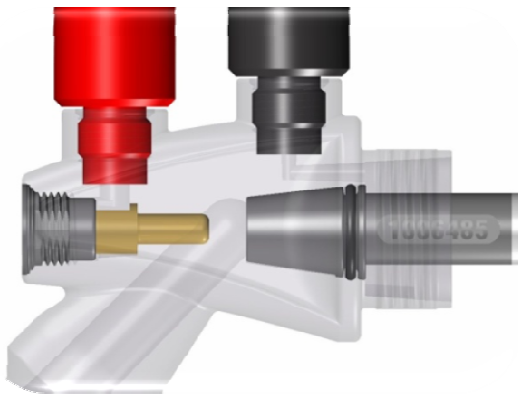


Insert Sleeve / IG06



Copy Protection

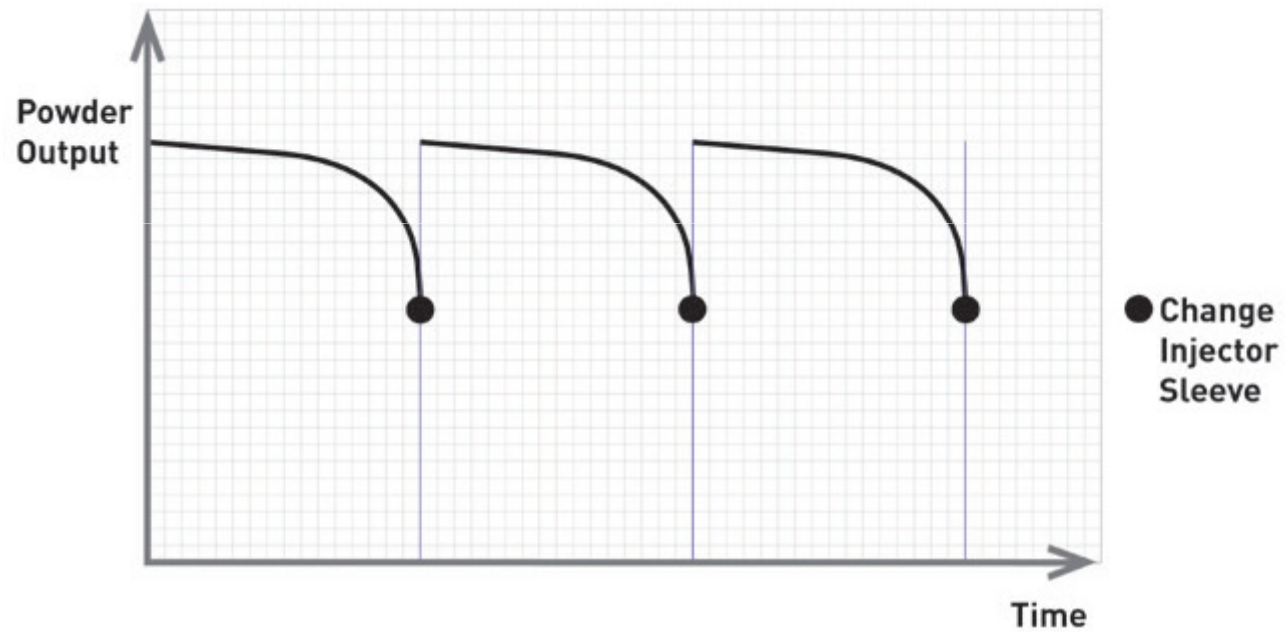
- Insert sleeve with keyed alignment (triangular cone with an axis offset compensation)



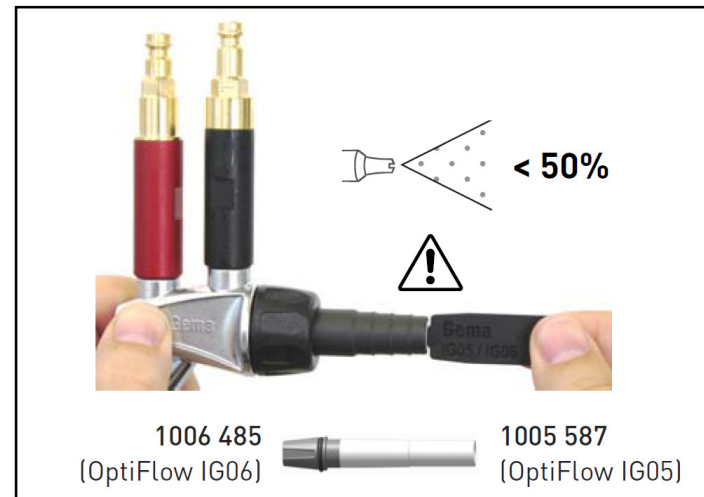
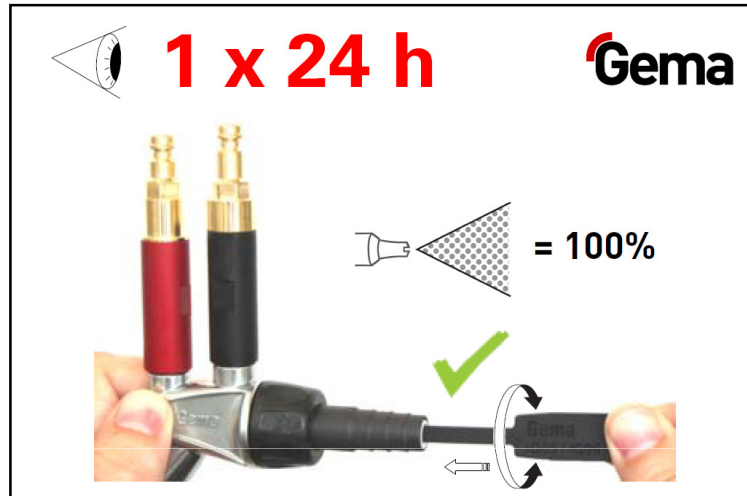
Caution:

The use of a copied insert sleeve can lead to the wear of the injector body (compact fusion)

Stability of an injector over time

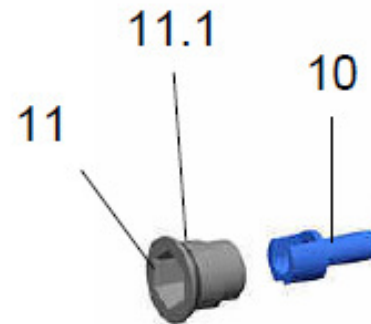


Plug gauge IG06



Item10 - Nozzle

Part Nr.1006 488

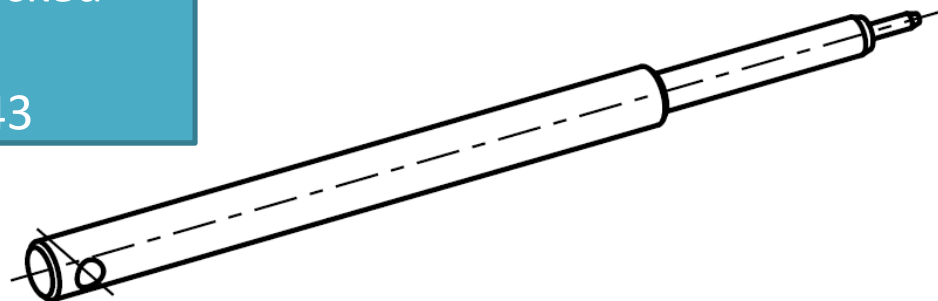


Material has been changed from *brass* to *stainless steel* material

Item 11 - Nozzle fixation - complete Part Nr.1006491 **Color changed to red**

(01/2015)

Tool to remove stuck
nozzles
Part Nr. 1012743



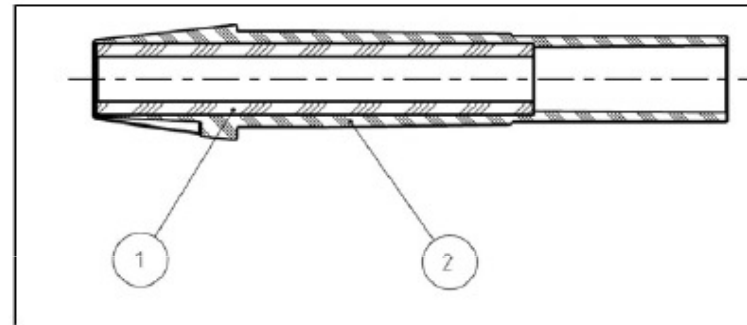
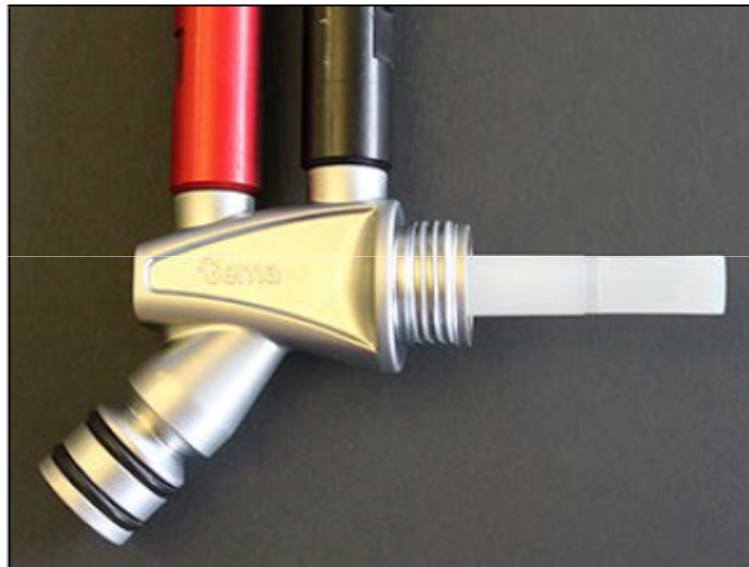
Injector IG06 NEWS

New Injector sleeve

Part-No.

Injector sleeve IG06 with glass insert

1010 424



Material 1) Glass = Robust against abrasion

Material 2) ETFE = Resistant to most chemical solvents!

(11/2014)

Gema

Benefits of the injector sleeve:

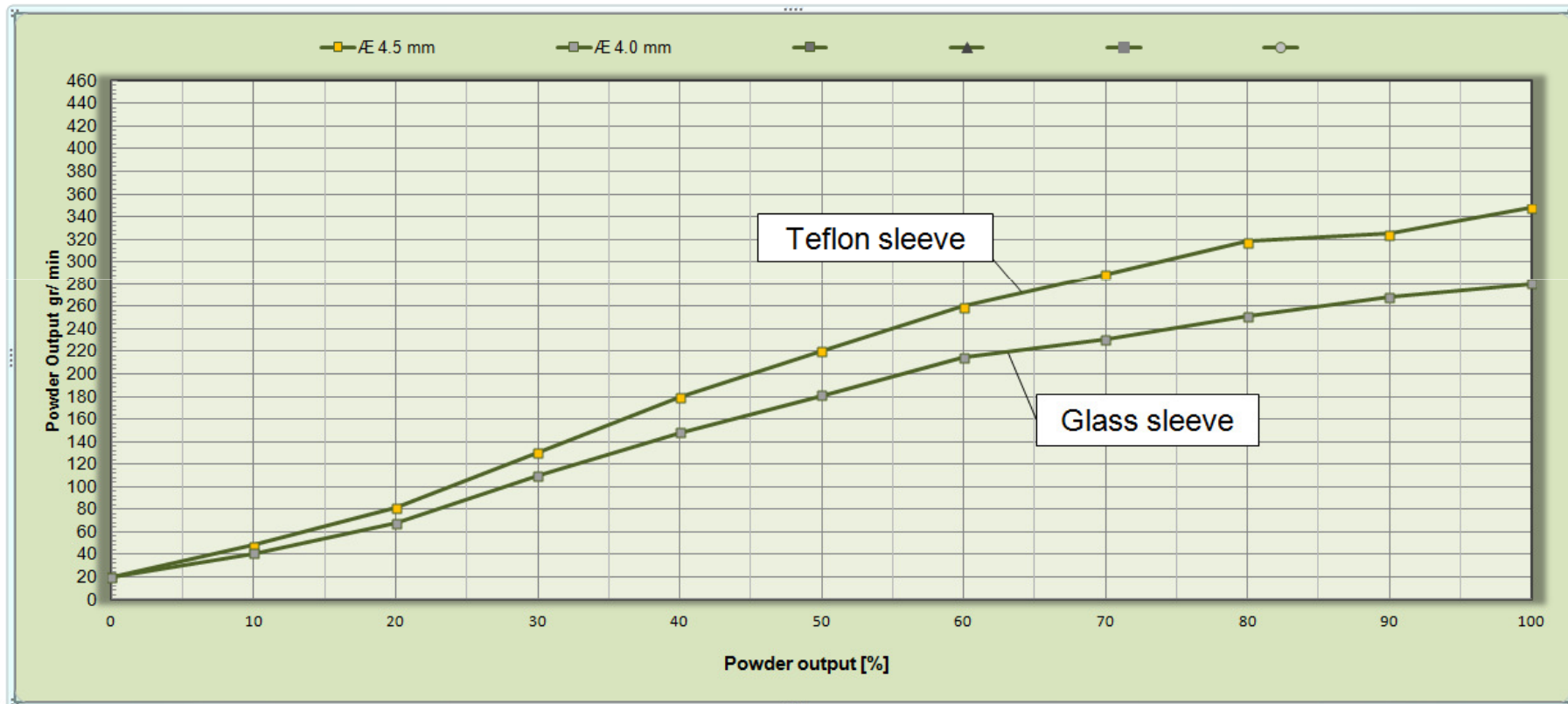
The glass insert is very robust against abrasion
The injector sleeve provides a uniform powder output during the life time of the glass part

Remarks:

Glass as a friction material in combination with powder can cause impact fusion. Therefore a periodically check and cleansing of the injector nozzle is essential! For the cleansing of the injector sleeve, solvents can be applied!

Injector IG06

Comparison Teflon versus Glass sleeve



Examples of bad maintenance

Defective O -Rings



Compact fusion on injector body / nozzle



Worn
nozzles

