



Getting more out of your machining process

**Höganäs' machinability
enhancing solutions**



The challenge

Machinability can be an important factor in achieving the lowest total cost for structural components. Selecting the best powder solution and optimal machining parameters is therefore crucial in maximising productivity and tool life.

The machinability of a component is influenced by several factors, for example material properties and microstructure, machining process and parameters, cutting tools, as well as the type and amount of machining enhancer.

Also customer specific conditions, such as corrosion resistance requirements, need to be considered for selecting the optimal powder solution.



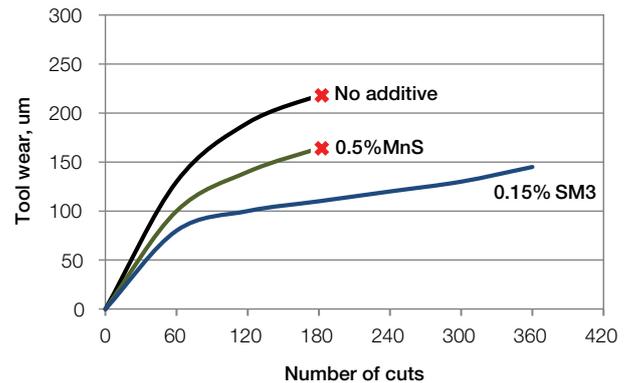
Our offering

The Höganäs machinability expert team can assist you in selecting the optimal powder solution and process conditions for your machining job.

Our service is based on our proven expertise and deep understanding of the machinability aspects of powder metal steels.

To facilitate the best choice, we are able to analyse and simulate customer machining conditions in our PoP Centre machining centres. We strive to develop the most robust and cost effective material solution in close cooperation with our customers.

Customer case



Actual results after adding a machinability enhancing additive to the premix.

We were approached by a customer experiencing low productivity and high costs related to poor machinability of a specific application.

By using the recommended powder solution, which included the advanced machinability enhancing additive SM3, tool life was extended by 100%, cutting tooling costs by 50%. The reduced tool wear had a positive effect on machining quality, while the reduced downtime improved productivity and cut labour costs related to tool change.

Your benefits

The potential for improving the overall performance of your machining operation obviously may be greater than expected. You may also consider engaging our skilled machining experts for troubleshooting services.

Let us conclude the potential benefits:

- optimised machining process
- reduced cycle time and increased productivity
- enhanced tool life and cut machining costs
- improved component surface finish
- powder mix formulations, tailored for individual customer conditions

For more information, please contact
infomachining@hoganas.com

Enquiry Form

for recommendation of machinability solutions

1 Company

2 Component

3 Material and density

4 Sintering conditions

General

- As sintered
 Sinter-hardened
 Heat-treated

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Temperature

- $\leq 1\ 150^{\circ}\text{C}$ ($2\ 100^{\circ}\text{F}$)
 $\geq 1\ 250^{\circ}\text{C}$ ($2\ 300^{\circ}\text{F}$)

Atmosphere

- N₂-based Endo-gas 100% H₂
 DA Vacuum

5. Current machining additive

- No additive MnS Other

6. Current machining operations

Machining type

- Turning Drilling Grooving
 Milling Tapping Other

Tool material

- HSS Carbide Cermet
 cBN Other
 Coated tool Uncoated tool

Machining conditions

- Dry Wet
 Green machining

7. Other requirements