

PLASTICS

voestalpine INSERTS FOR SYRINGES designed for pure performance

Inserts for syringes are used in plastic injection molding, where they provide an efficient cooling system in order to improve part quality and reduce cycle times.

YOUR ADDED VALUE

Our inserts for syringes are produced using additive manufacturing and **premium materials by BÖHLER / Uddeholm**. The syringe inserts have optimized conformal cooling structures, which enables our customers to run a stable and highly efficient production process resulting in a cost reduction per produced part.

Our ready to use solution offers a refined production process, reducing the overall cycle time by up to 15% compared to sprinkler cooling. Improved part tolerances are also achieved through homogeneous and conformal cooling design that lead to a reduced scrap rate. The polishability requirements (similar to 1.2083) are achieved for 100% of the produced inserts.

Many syringe producers have tested our AM solutions and confirmed the increased profitability by using our wear and corrosion resistant inserts for syringes.

INDUSTRIAL PERFORMANCE COMPARISON

- » **Less polishing effort**
- » **Improved part tolerance**
- » **Reduced cycle time**

Main Properties

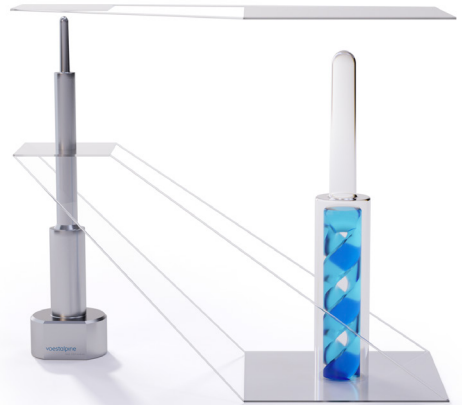
High corrosion resistance

High wear resistance typically 49-53 HRC

High ductility (safety against cracks)

Advanced polishability

Good machinability



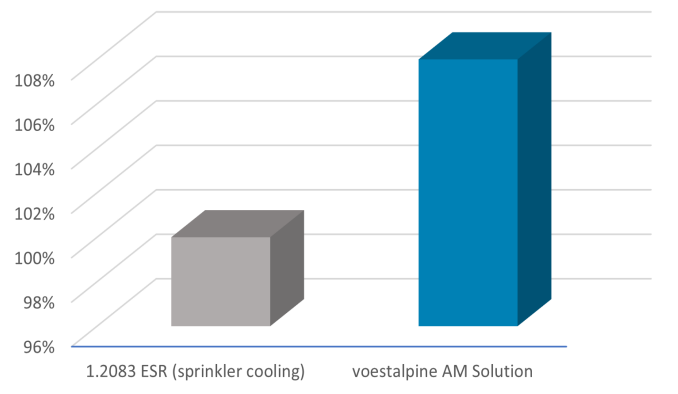
OUR MATERIALS

C	Si	Mn	Cr	Ni	Mo	Al
0.03	0.30	0.30	12.00	9.20	1.40	1.60

C	Cr	Ni	Mo	Al	Ti
< 0.02	12.20	10.00	1.00	0.60	1.00

INDUSTRIAL PERFORMANCE COMPARISON

Cycle Time Reduction



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voestalpine

ONE STEP AHEAD.