

# FOCUS PARTS

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23 August 2021

# Main Benefits of AM in PIM

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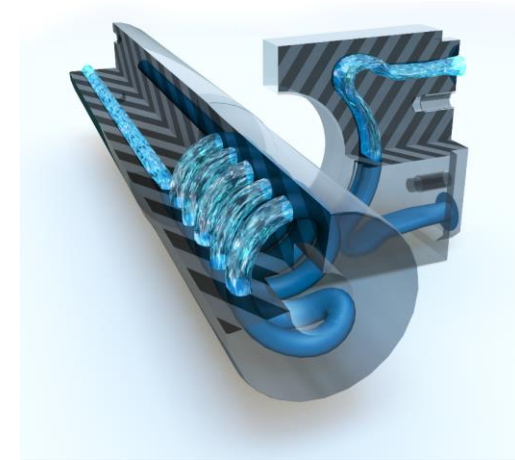
- » Conformal cooling
- » Reduced cycle time and improved quality on the end product
- » Where it is difficult or impossible to have cooling in a plastic injection moulds there is the possibility of additive manufacturing helping you out. You can have cooling in thin and long cores or particular hot spot which would cause a problem in conventional tooling.
- » The optimized and conformal cooling has a positive affect on your product quality or/and reduce the cycle time.
- » Due to the corrosion resistance of Uddeholm AM Corrax your cooling last even longer than conventional grades.
- » The lifetime costs for the tool will be affected in a positive way because the maintenance and the downtime will be less.



# CYLINDRICAL CONTAINER

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- » Material: PP
- » Industry: Packaging / Medical
- » E.g. Magnesium tablets, drug container, etc.
- » AM material:
  - » UDDEHOLM Corrax for AM
- » Benefit: -26 % cycle time compared to drilled channels

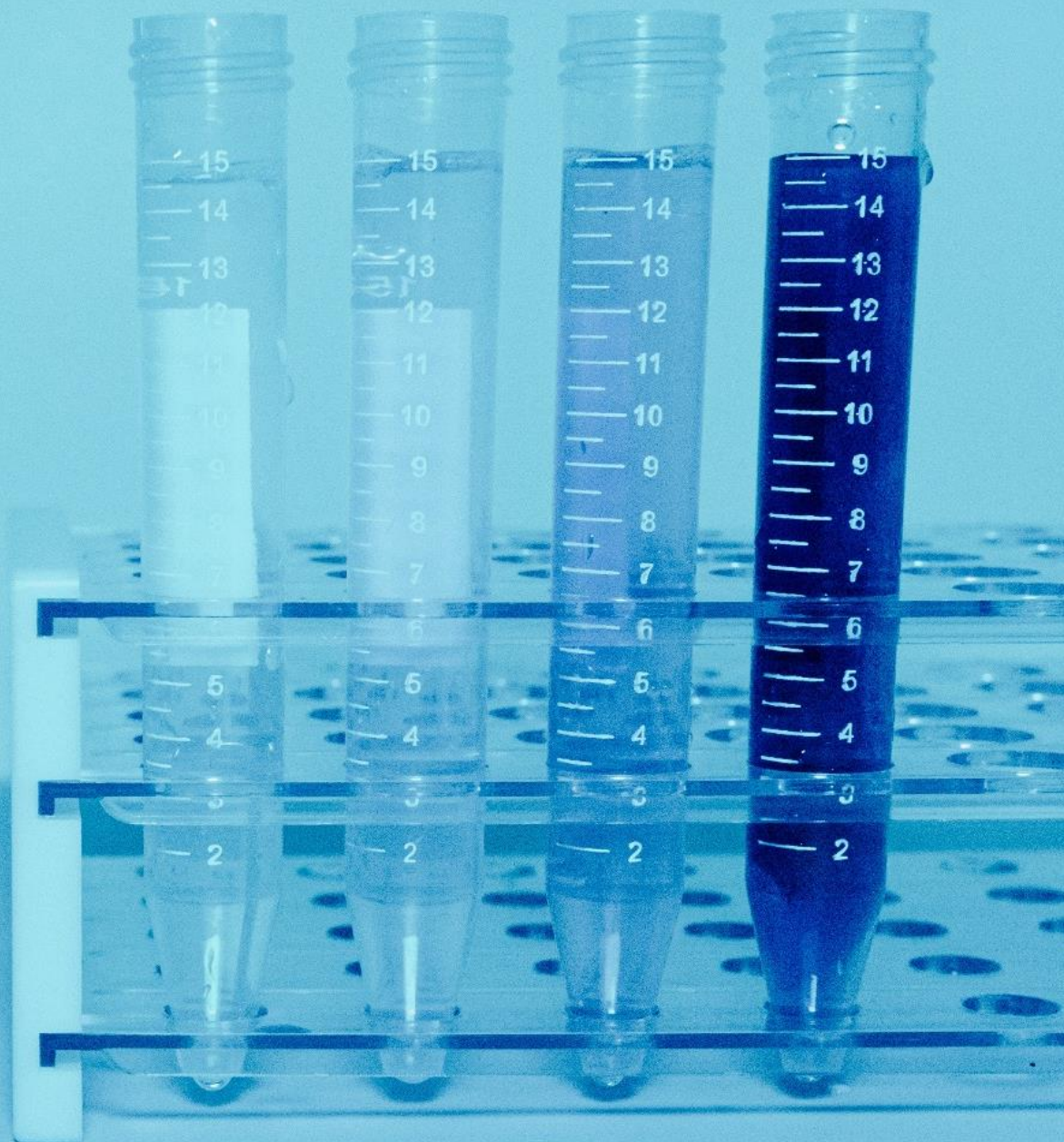


Source: voestalpine

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ONE STEP AHEAD.

This information is for general interest, not intend for special application or claim for other purposes.



# TEST TUBES

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- » Plastic material: PVC
- » Industry: medical
- » AM material:
  - » UDDEHOLM Corrax for AM
- » Benefit compared to conventional sprinkler cooling:
  - » cycle time -30 %
  - » Part tolerance improvement
- » Benefit compared to AM 1.2709 with nickel coating in cooling channels:
  - » 1.2709 + nickel coating: failed after 400.000 through cracking from corrosion in channels (see picture)
  - » Corrax failed after 800.000 shots due to wear – further improvement with coating possible

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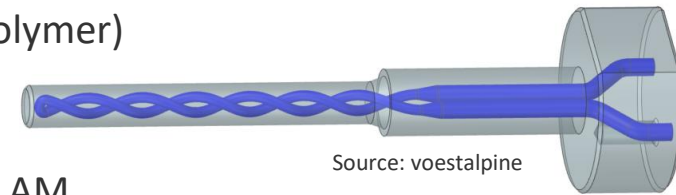
ONE STEP AHEAD.



# SYRINGES

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- » Plastic material:
  - » COP (Cyclic Olefin Polymer)
  - » COC (Cyclic Olefin Copolymer)
- » Industry: medical
- » AM material:
  - » UDDEHOLM Corrax for AM
- » Conventional material: 1.2083 ESR
- » Benefit:
  - » cycle time -8% compared to sprinkler cooling
  - » Part tolerance improvement
  - » Polishability comparable to 1.2083 ESR



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