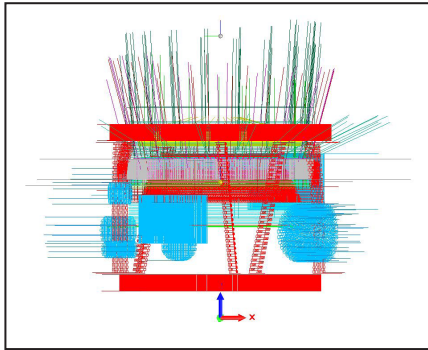


GEARBOX HOUSING OF A POWERSHIFT TRANSMISSION



CAM model



Metal printed part



Partly machined part

INFORMATION ON THE COMPONENT PART

- Application: Gearbox housing of a powershift transmission
- Conventional manufacturing technology: milling or casting, from aluminum to reduce weight
- Problems with procurement by milling:
 - Very high chip volume
 - High utilization of turning and milling centers
 - High costs for wrought material procurement due to large required dimensions
 - Weight-optimized component geometry cannot be produced due to production limits of conventional technology
- Problems with procurement by casting:
 - Economical only in high quantities
 - Subsequent changes can only be realized by manufacturing new moulds
 - Weight-optimized component geometry cannot be produced due to production limits of conventional technology

TECHNICAL DATA

Machine: arc405

Dimension [mm]:

$$D_{a,Flange} = 324$$

$$D_{a,Segments} = 380$$

$$D_{i,Cooling\ Channel} = 161$$

$$D_{i,Tube} = 248$$

$$H = 244$$

Wire: 1.4370 | \varnothing 1.2 mm

Printing mass: 35.0 kg






Printing time: 20.25 h

ALTERNATIVE TO CONVENTIONAL MANUFACTURING TECHNOLOGIES

3DMP®

- Weight-optimized production with steel, enables weight savings with higher strength at the same time
- Near-net-shape production
- Reduction of the required turning/milling time
- Economical from lot size 1
- Subsequent adjustments can be easily implemented

BENEFITS OF 3DMP®

-  Reduction of manufacturing time
-  Cost savings
-  Small units
-  Material savings
-  Fast customization

ANY QUESTIONS?

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