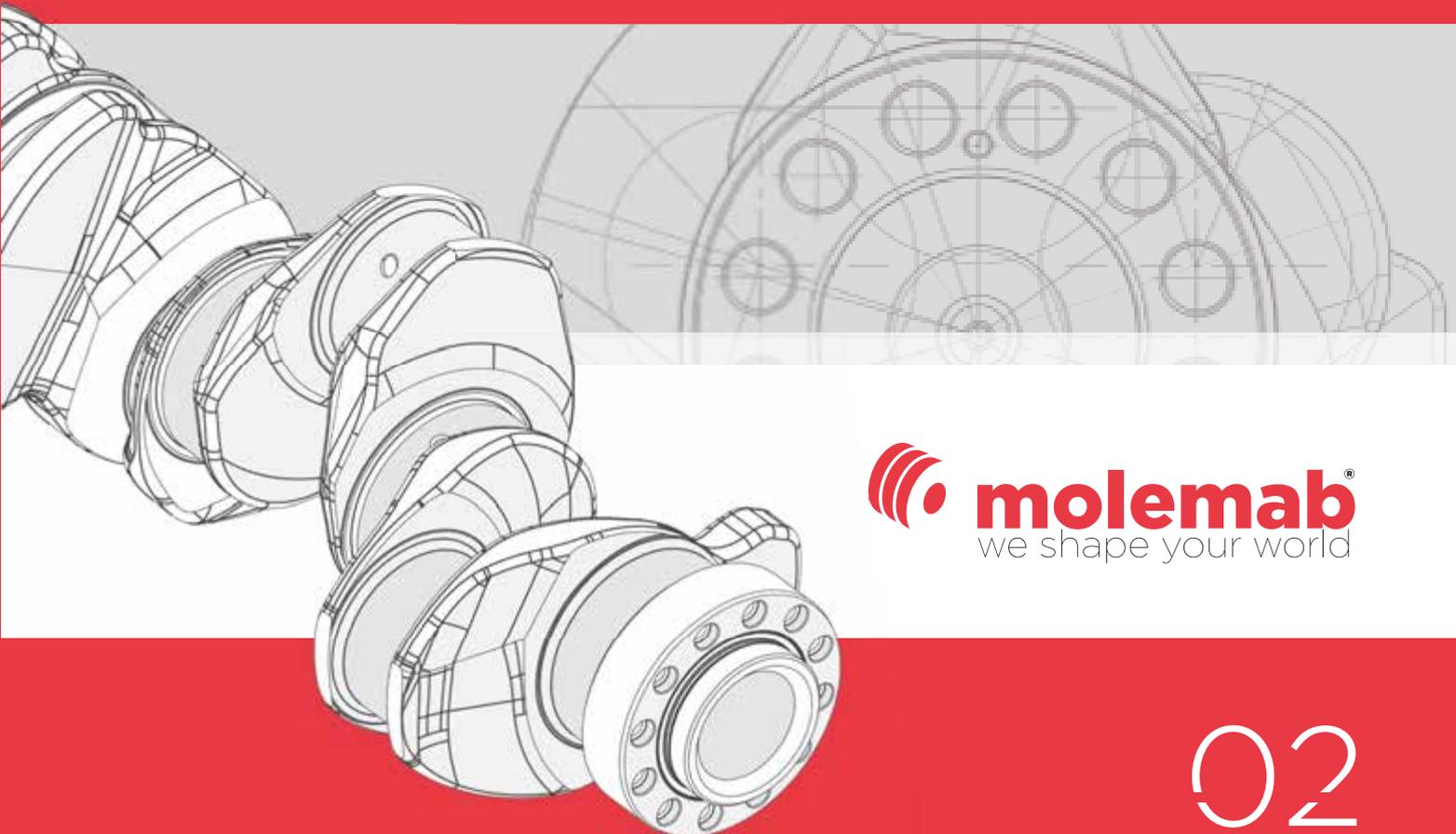


VITRIFIED
SUPERABRASIVE
WHEELS FOR
CRANKSHAFT
GRINDING



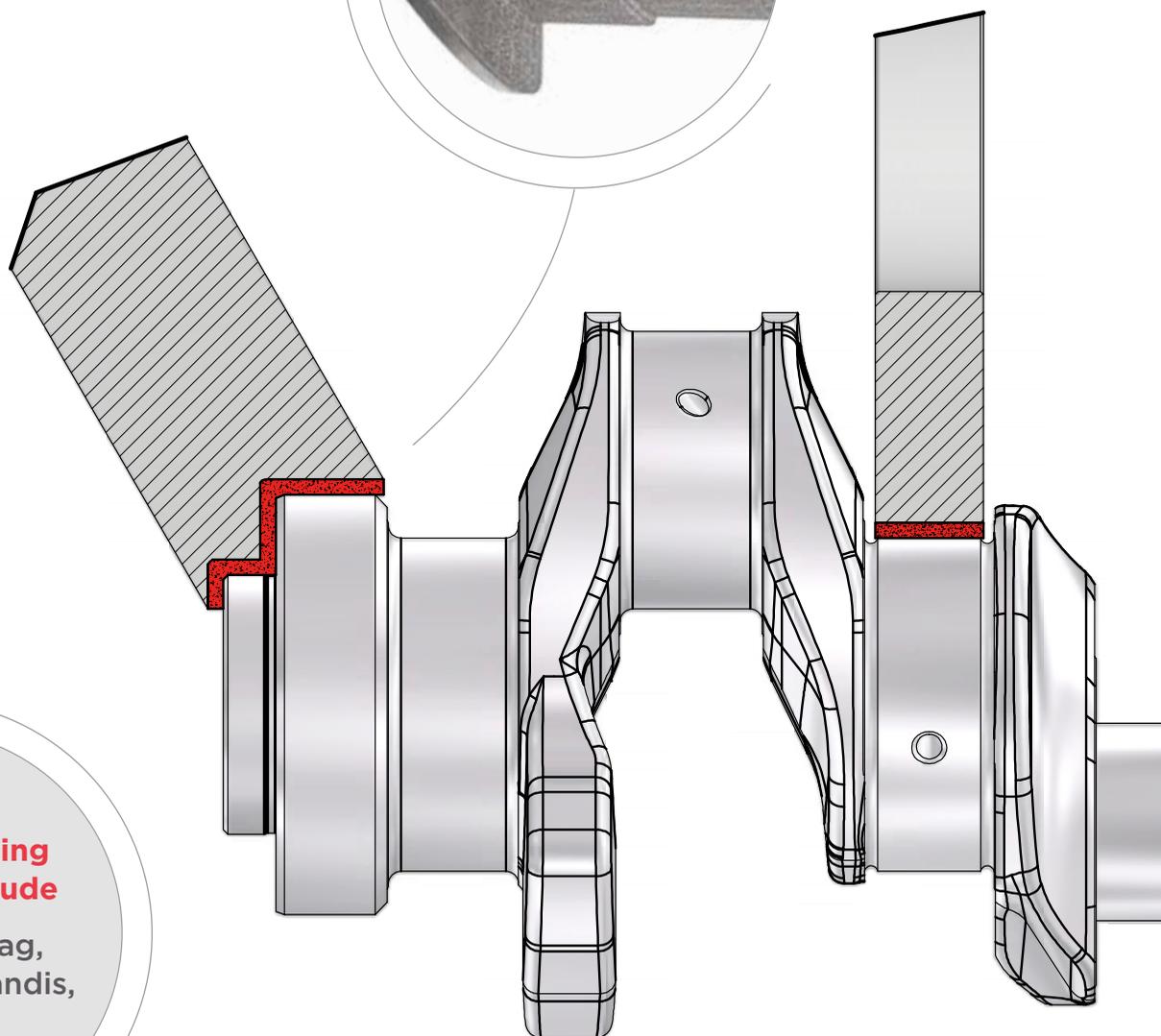
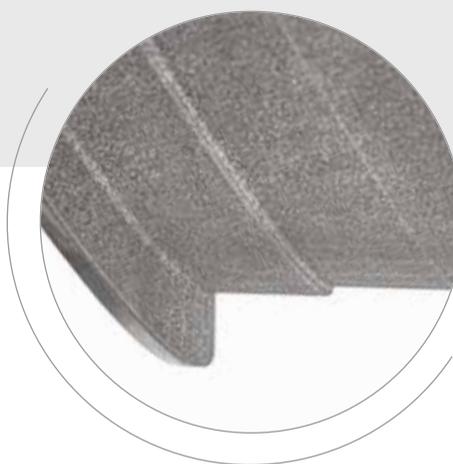
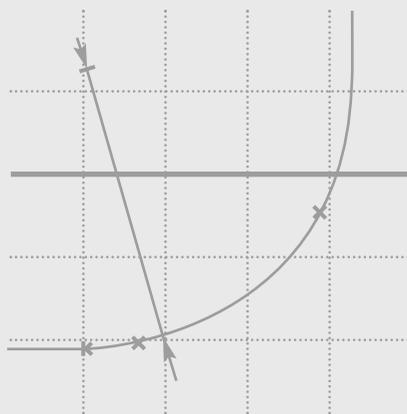
 **molemab**[®]
we shape your world



VITRIFIED SUPERABRASIVE WHEELS FOR CRANK

The challenge of grinding various fillet radii under restricted grinding conditions with reduced coolant access has been met by dedicated molemab specifications. Pendulum grinding, where the wheel follows the motion of the pin while it rotates around its central axis (pin chasing process), is a standard grinding operation for molemab Vitrified CBN.

Angle plunge grinding of both crankshaft flange and nose using Vitrified CBN is also a very successful application using specifically developed molemab specifications.

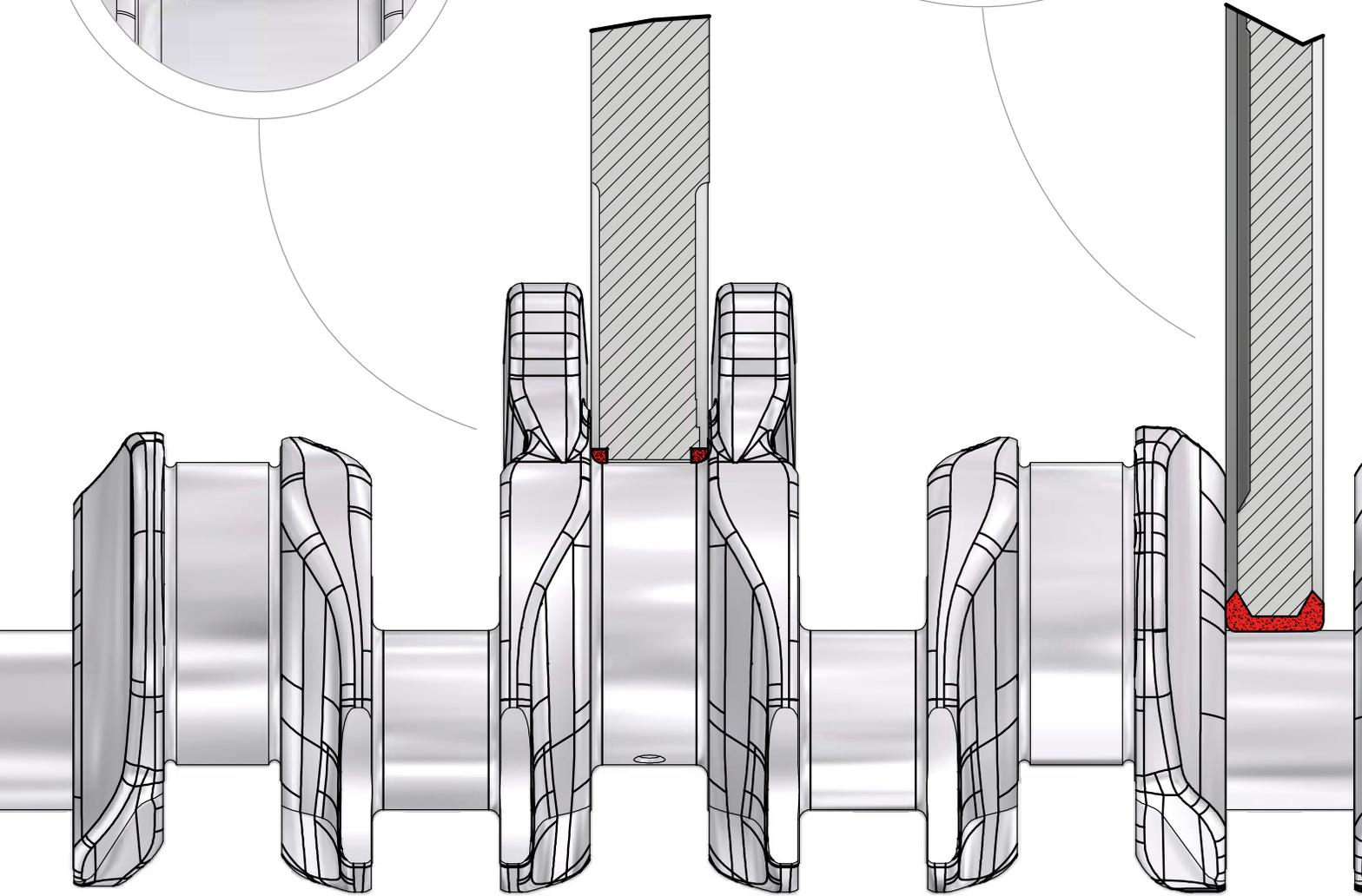
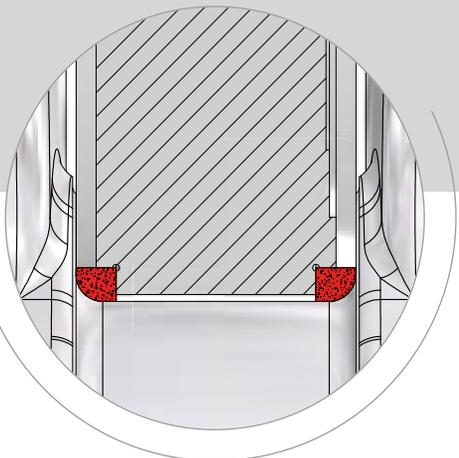


Typical grinding machines include

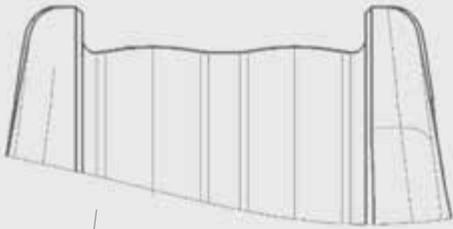
ATR, AZ, Emag,
GST, Junker, Landis,
Toyoda

CRANKSHAFT GRINDING

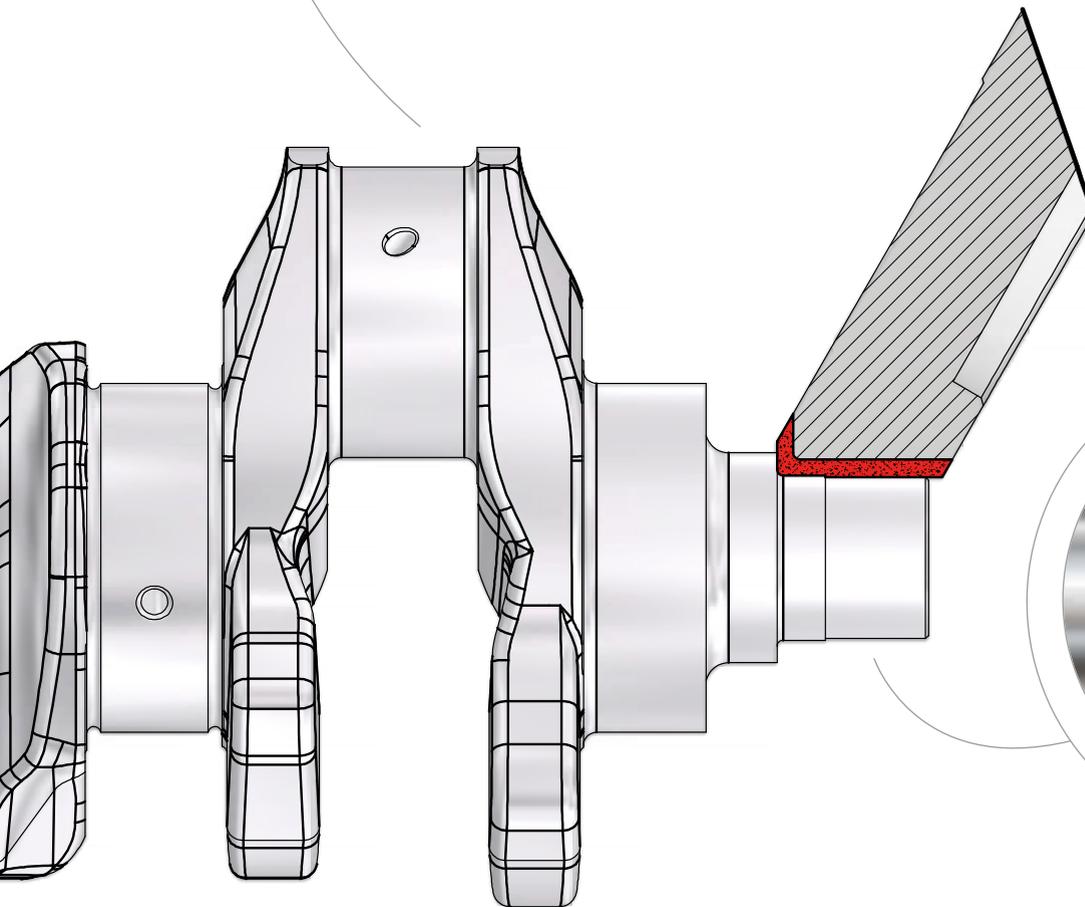
Simultaneous grinding of thrust wall, radii and diameters which may include materials of varying hardness and sometimes requiring calibrated wheels, result in more challenging Crankshaft grinding operations. Using updated specifications, these operations have been successfully resolved by molemab.



Crankshaft journals may also have small additional axial shape requirements in the form of convex (Barrel) or concave variations. These variations can be ground to within a few microns using the latest molemab dedicated specifications.



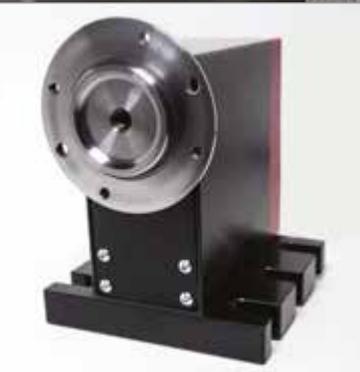
Taking into consideration grinding process requirements, molemab can offer various wheel constructions. With particular emphasis on wheel body material, considering machine conditions and wheel speed, molemab will propose the most suitable core material. As one of the few wheel manufacturers that produce Carbon Fibre Reinforced (CFRP) wheel bodies in-house, molemab have the capability to manufacture CFRP wheel bodies to large diameters of 900mm, suitable for use over 100m/s. Standard wheel bodies include Steel, Aluminium and Ceramic as well as CFPR for crankshaft grinding.





CBN Oversize Specials

From grinding smaller motorcycle crankshafts to the largest ship cranks, molemab have yet to find their size limits. Molemab are proud to have manufactured some of the largest vitrified CBN crank wheels ever produced worldwide, including vitrified CBN wheels over 2000mm in diameter.



Dressing Vitrified CBN

Correct dressing of vitrified CBN wheels dictates the success of the subsequent grinding operation. In addition to the dressing spindle itself, molemab offers a full range of diamond dressing discs, including both positive and reverse plated, sintered, infiltrated and CVD reinforced versions. Please refer to molemab technical staff for advice on the most suitable dressing option.





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