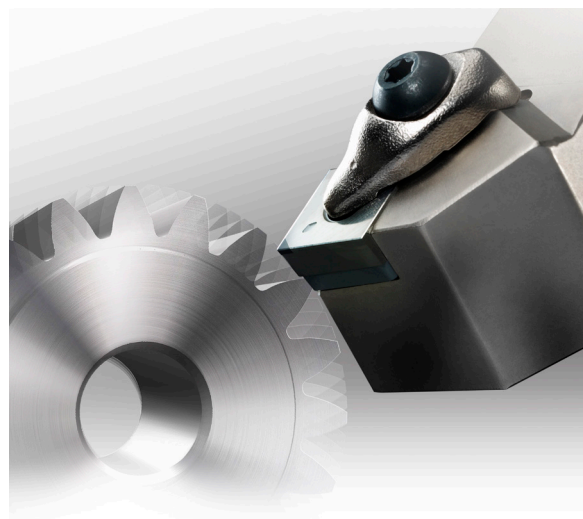


MB4120 CBN INSERT SERIES FOR TURNING SINTERED ALLOYS AND CAST IRON

Mitsubishi Materials' first recommendation for highly efficient turning of sintered alloys and cast irons is the new MB4120 grade. Produced to complement the existing MB4020 and MB730 grades, but featuring the latest advancements in CBN particle technology to deliver the step in performance demanded by customers.

MB4120 is the optimum CBN grade choice for continuous cutting and interrupted machining when turning automotive components. Parts such as valve and oil pump components that are composed of sintered alloy can be effectively machined using this new grade. This optimum choice is made possible by a newly developed special binder and particle activated sintering method that promotes the efficient and strong binding of the fine CBN particles used in MB4120.

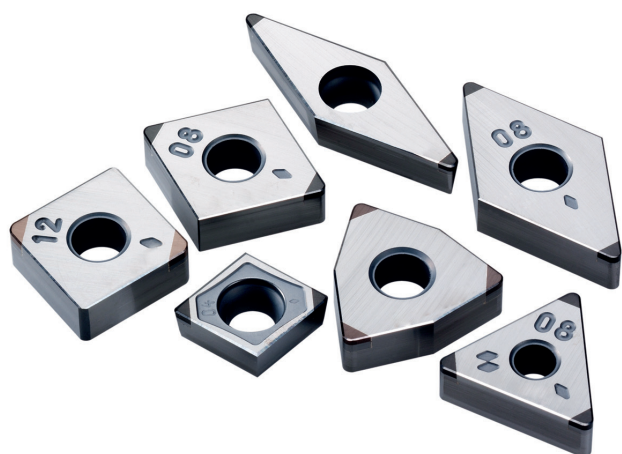
The fine CBN particles used in the manufacturing process provide extra edge toughness and allow a stable performance even during interrupted cutting. Additionally, the newly optimised sintering process strengthens the adhesion between the CBN particles that enables an increase in both fracture and wear resistance. During heavy interrupted face machining of a high strength sintered alloy, the increased fracture resistance properties doubled the tool life of conventional CBN grades.



The higher levels of CBN content when compared to conventional products offers chemical stability that reduces welding of the workpiece to the cutting edge. This gives the benefit of consistent dimensional accuracy of the component and also ensures that surface finishes remain at the required level for longer periods.

A wide range of edge honing types are available to cover the full spectrum of applications. The SF type is the first recommendation due to the sharp edge properties that lead to a reduction in cutting resistance and fewer burrs. There are 4 other types of honing: SE has a rounded edge, whilst the FS, GS and TS have chamfered edges, all with progressively stronger geometries.

The MB4120 series includes both negative and positive ISO geometries with economical multi-corners to cover a wide range of applications and all are available in a wide range of sizes and nose radii.



EDGE HONING TYPES

