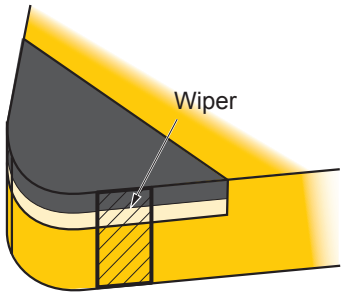
WIPER INSERT

●Improving Surface Finish
Under the same machining conditions as conventional breakers, but with the feed rate increased, the surface finish of the workpiece can be improved.

●Improving Efficiency
High feed rates not only shorten machining times but also make it possible to combine roughing and finishing operations.

●Increased Tool Life
When using to high feed conditions, the time required to cut one component is decreased, thus more parts can be machined with each insert. In addition, the high feed rate prevents rubbing, therefore, delaying the progression of wear and increasing the tool life of the insert.

●Improving Chip Control
Under high feed conditions, the chips generated become thicker and are more easily broken, thus, chip control is improved.



Insert example

Conventional wiper insert

NP-CNGA120408GW

Wiper Symbol

Wiper insert for low rigidity workpieces

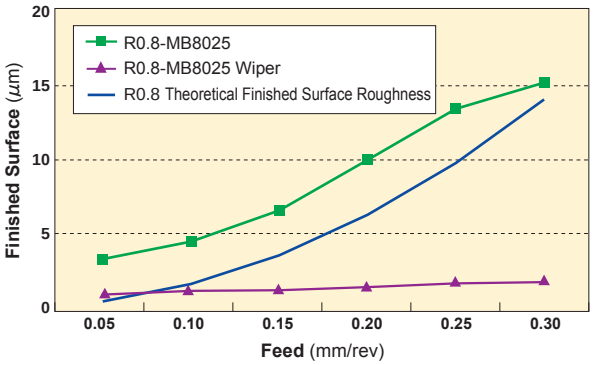
NP-CNGA120408GAWS2

WC : Stable Cutting
WS : General Cutting

CBN wiper inserts for low rigidity workpieces are now available in MBC010, MBC020 and MB8025 grade, making it suitable for use in application areas where conventional inserts cannot be used due to vibrations.

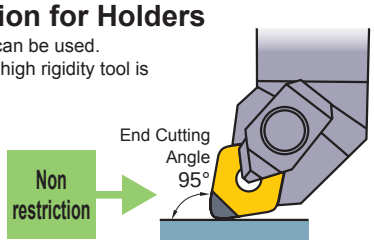
CUTTING PERFORMANCE

<Cutting Conditions>
Workpiece : Hardened Material (HRC60)
Insert : NP-CNGA120408
Cutting Speed : 120m/min
Depth of Cut : 0.1mm
Dry Cutting

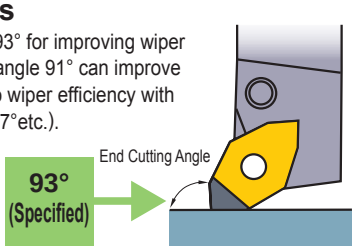


NOTES FOR USE

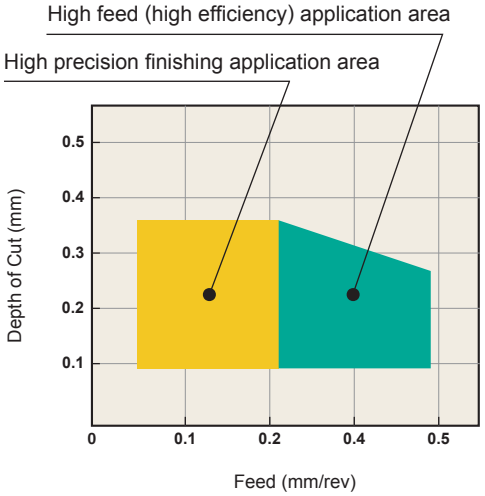
No Restriction for Holders
A standard holder can be used.
(*A double clamp, high rigidity tool is recommended.)



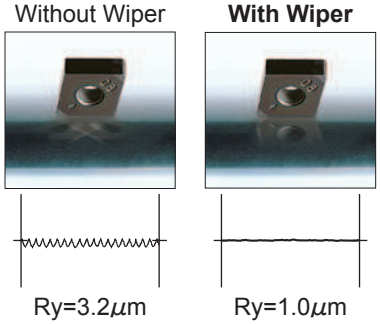
Restriction for Holders
Use a holder with end cutting angle 93° for improving wiper efficiency. A holder with end cutting angle 91° can improve wiper efficiency, however, there is no wiper efficiency with other end cutting angles (60°, 90°,107°etc.).



RECOMMENDED CUTTING CONDITIONS AND PERFORMANCE



High precision finishing
Cutting Speed: 100m/min
Depth of Cut: 0.1mm
Feed: 0.1mm/rev
Dry Cutting



High feed, high efficiency machining
Cutting Speed: 100m/min
Depth of Cut: 0.1mm
Feed: 0.3mm/rev
Dry Cutting