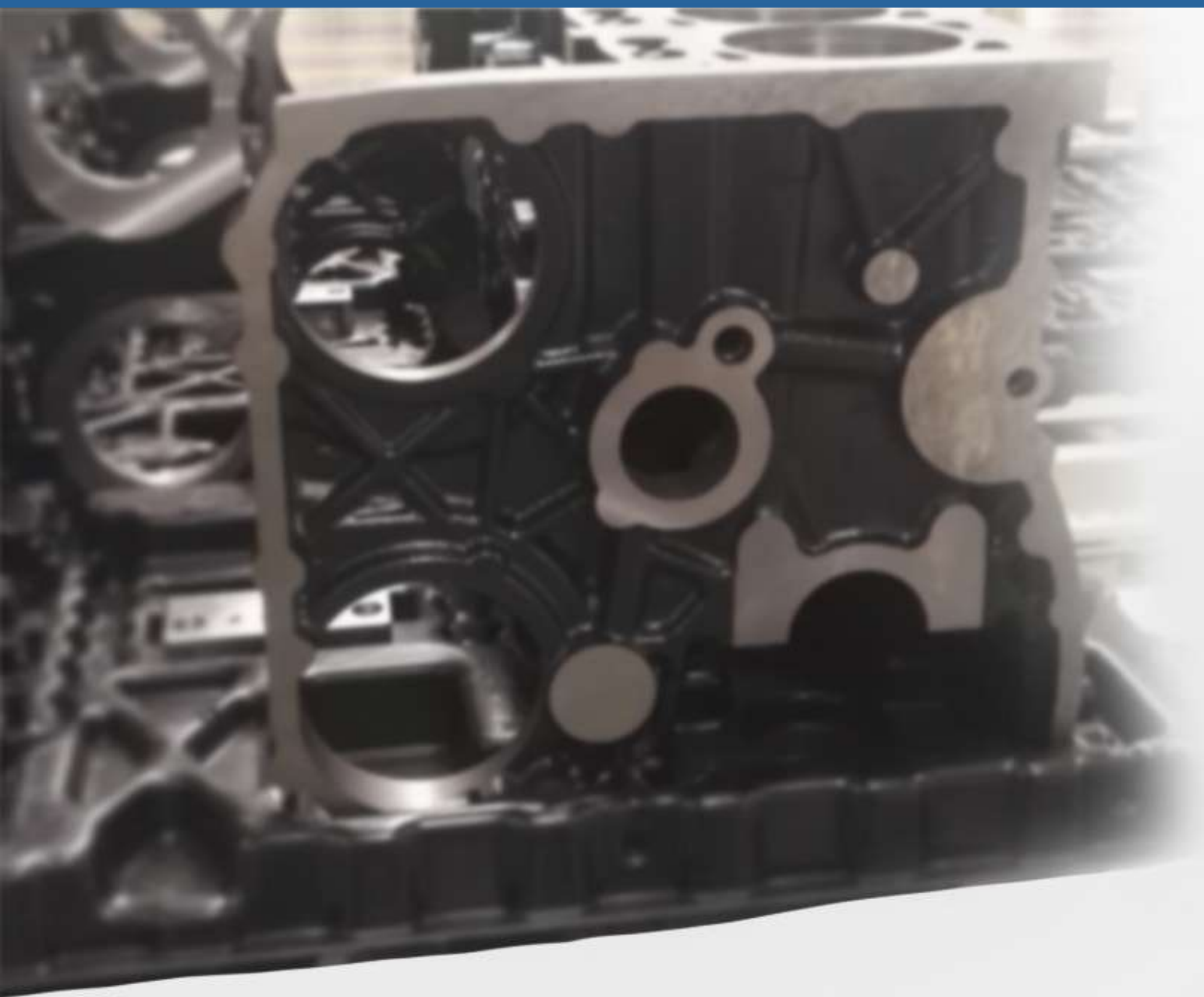


Worldia Milling Product Series

PCBN Indexable Face Milling Cutter For Diesel Engine Machining Applications

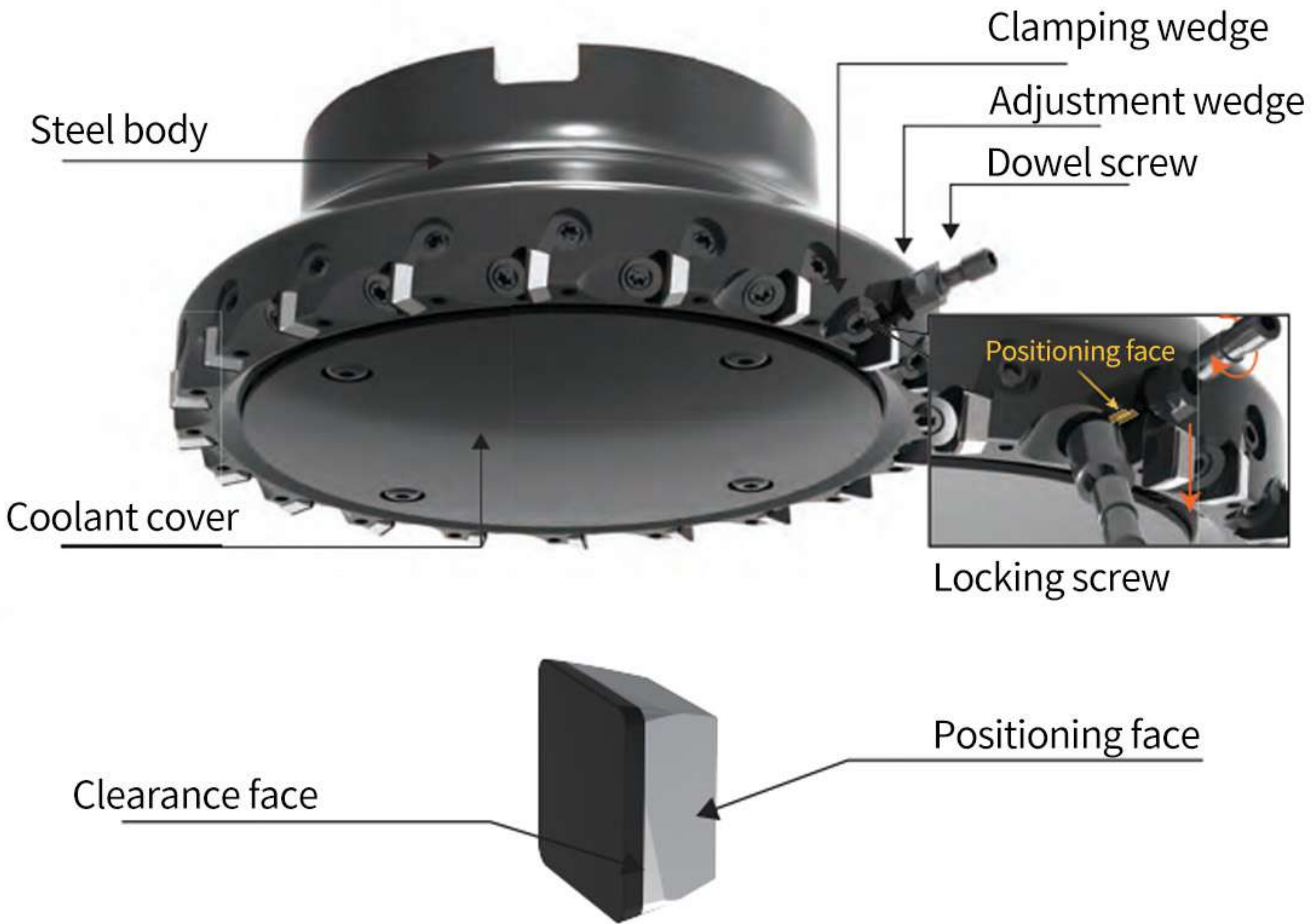
- ✓ Combining high efficiency, long tool life, and high surface quality
- ✓ Cast iron end face precision milling for more economical machining



Application of PCBN Indexable Face Milling Cutter

Worldia's PCBN indexable face milling cutter is suitable for precision machining of cast iron end faces, and can meet the requirements of both high surface roughness and dimensional tolerance.

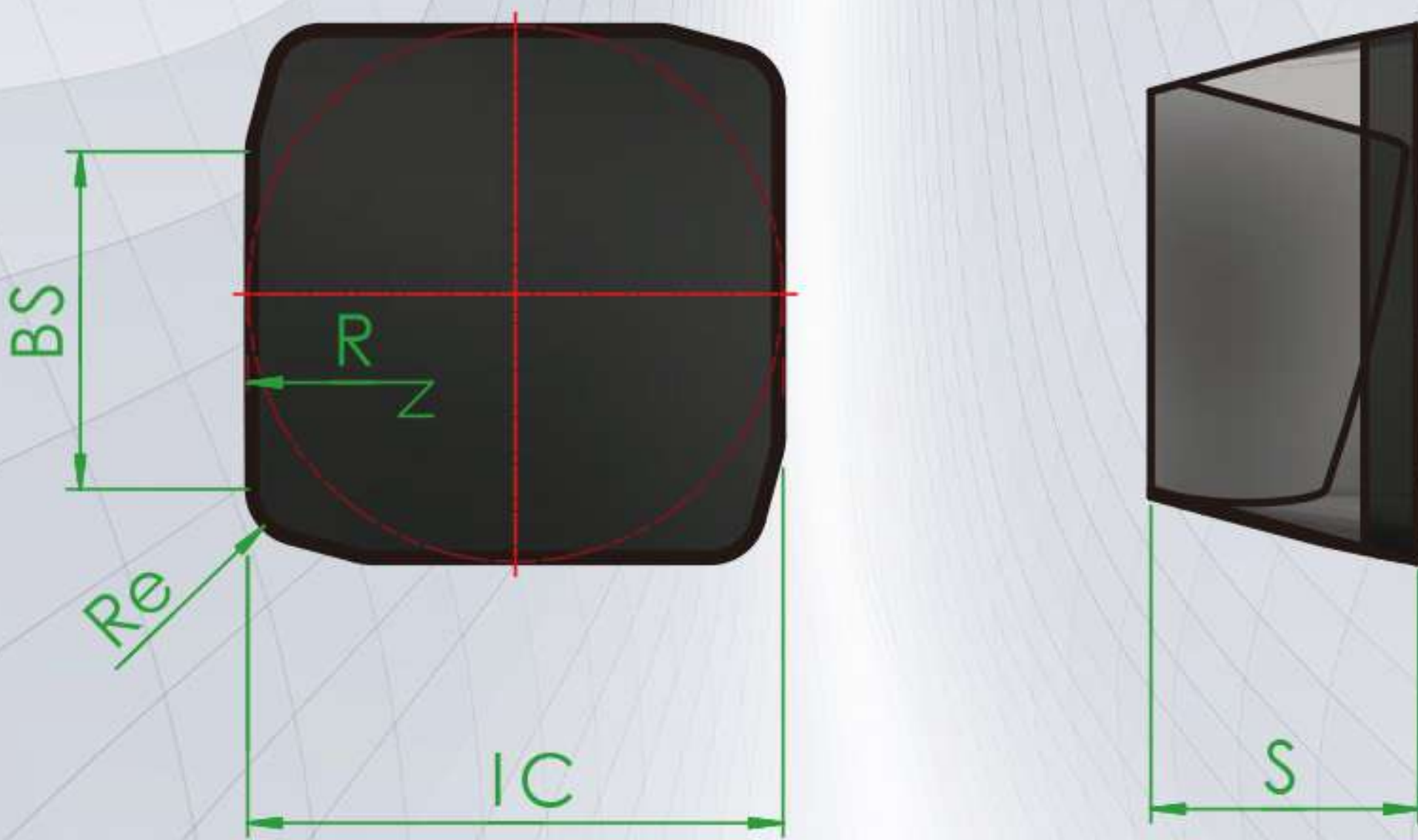
Features



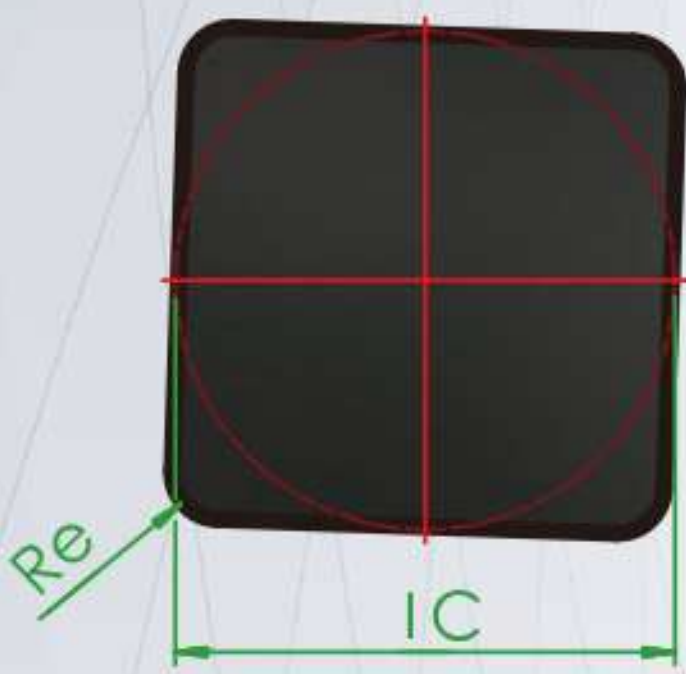
- Cutter body is made of hardened Steel-Alloy, machined by 5-axis hard milling
- High-precision insert pocket seats keeping 0,01 mm axial runout without insert adjustment
- As a standard, each pocket can also be adjusted to 5 μm axial runout within a 0,3 mm range
- Positive rake angles for smooth cutting and chip removal from surface
- Insert wedge clamping system allows easy exchange of inserts and reliable clamping
- Separation between insert positioning face and cutting edge to protect cutting edge and to simplify the use of relapped inserts
- Inserts with 4 cutting edges and regrinding option for low cutting tool cost
- Inserts are available in a variety of wiper and corner designs for many different applications in semi-finish and finish face milling

Specification

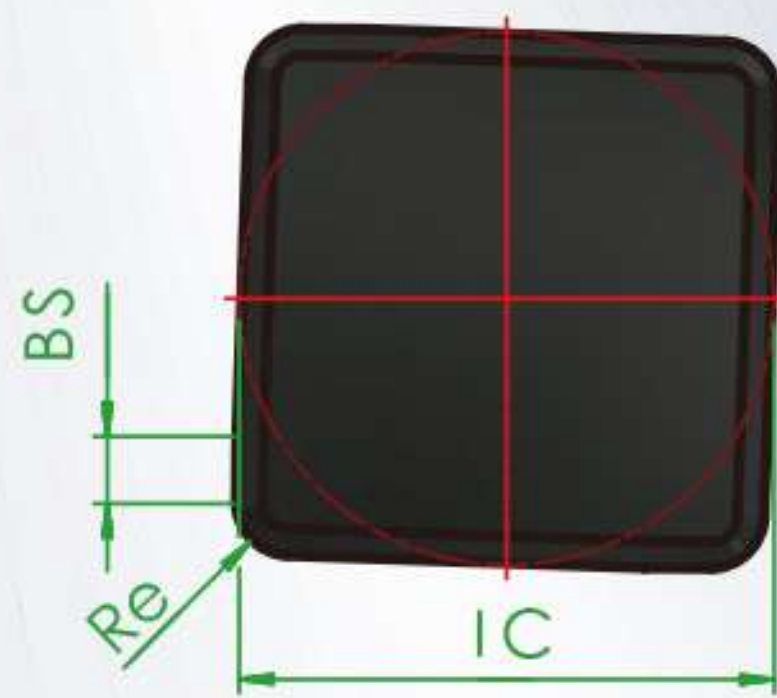
PCBN-tipped milling inserts with various angles, wipers and corner radii for face and shoulder milling applications



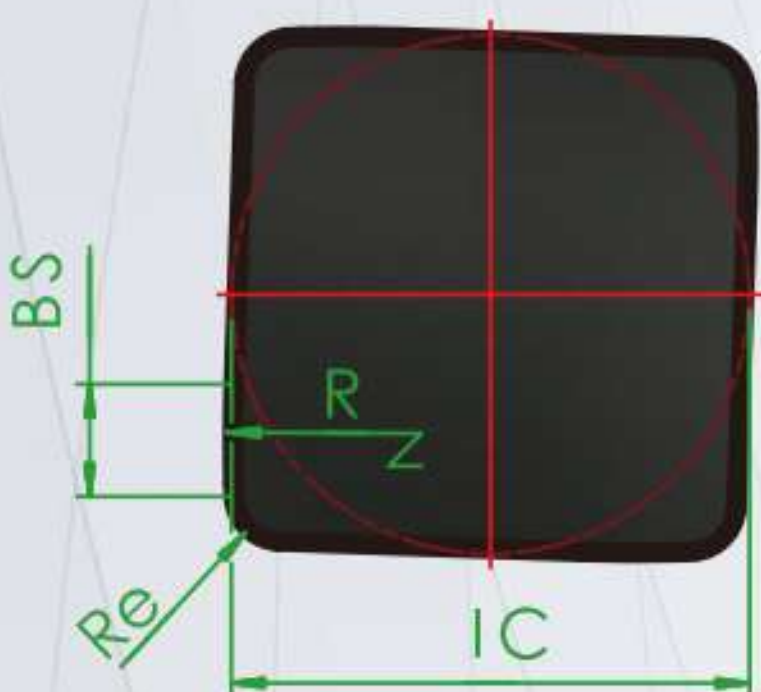
Stock-keeping standard insert
Customization on special request



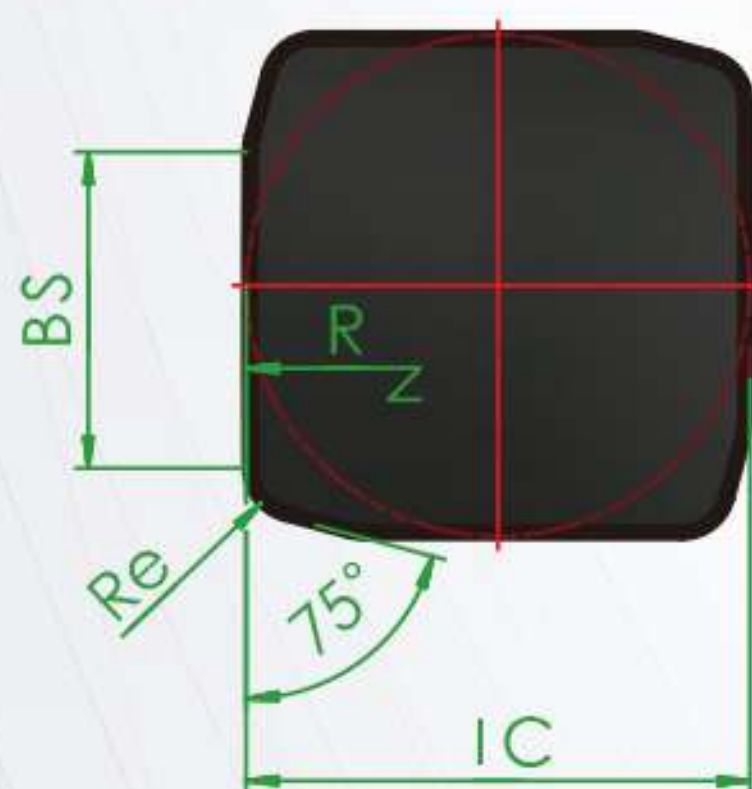
Drift angle



Standard

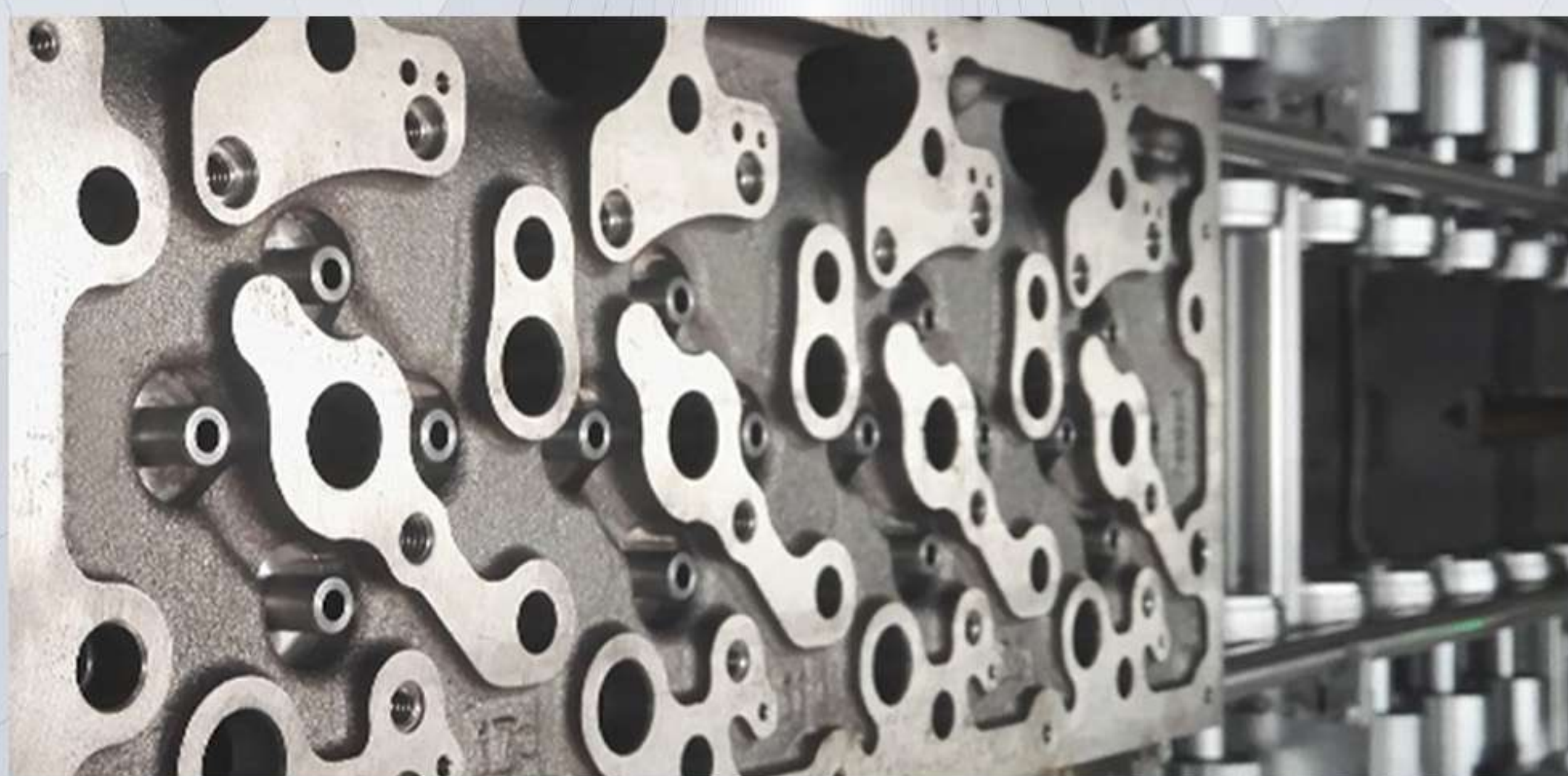


Universal



Wiper

For Diesel Engine Machining-1



Cylinder Head Milling

Workpiece: Cylinder head

Material: HT280

Processing part: End face, whole one-cut machining

Cutter: FMP250SC60-SD07-30

Insert: SDHN07T3PPSR4-UW SDHN07T3DPSR4-WG

Parameters: Cutting speed(n): 1500r/min

Feed rate(f): 2500mm/min

Cutting depth(ap): 0.3mm

Tool life: 450pcs

Result: A significant improvement in both processing efficiency and tool life.

For Diesel Engine Machining-2



Cylinder Block Milling

Workpiece: Cylinder Block

Processing part: End face

Material:HT280

Cutter:FMP160SC40-SD07-20

Insert:SDHN07T3PPSR4-UW SDHN07T3DPSR4-WG

Parameters: Cutting speed(n):1500 r/min

Feed rate(f):2000mm/min

Cutting depth(ap):0.5mm

Tool life: 450pcs

Result: Both in terms of processing efficiency and tool life,Worldia PCBN milling cutter has been a significant improvement, and it meets the customer's requirements for surface quality.

For Diesel Engine Machining-3



Hydraulic Milling

Workpiece: Hydraulic Components

Processing part: End face

Roughness:HT350

Material: RZ10

Cutter:FMP063SA22-SD07-08

Insert:SDHN07T3PPSR4

Parameters: Cutting speed(n): 4000r/min

Feed rate(f): 2000mm/min

Cutting depth(ap): 0.3mm

Tool life:90pcs

Result: Both in terms of processing efficiency and tool life,Worldia PCBN milling cutter has been a significant improvement, and it meets the customer's requirements for roughness.