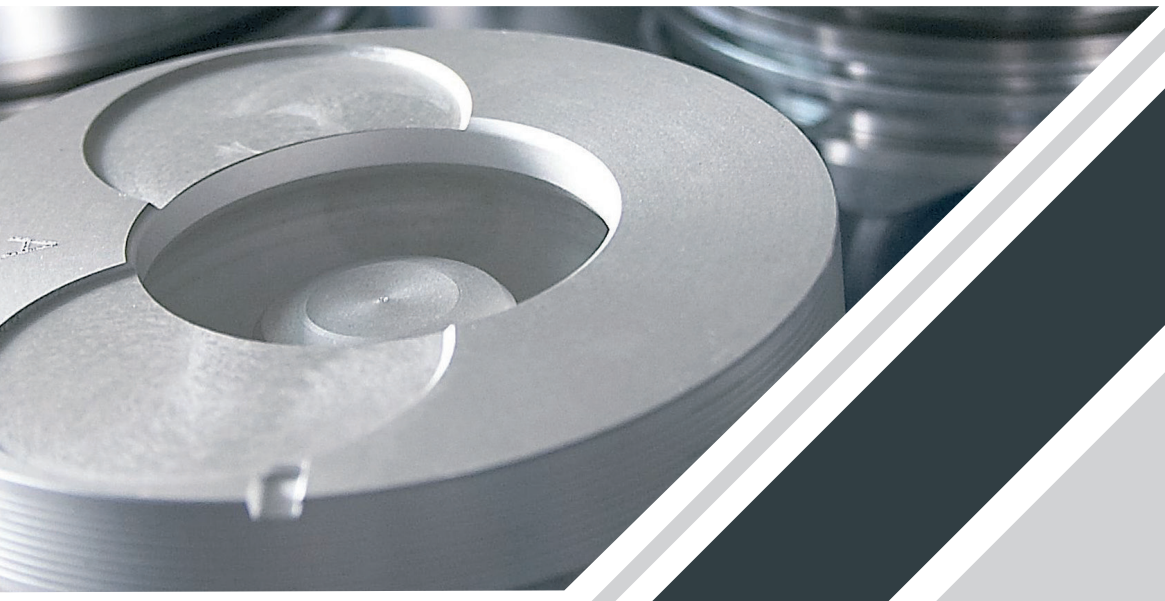
EHWA®



PISTON MANUFACTURING

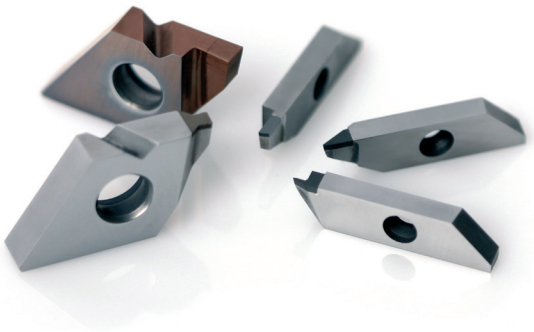
PCD & PCBN Diamond Tools for Piston Manufacturing

PCD

Polycrystalline Diamond (PCD), is a synthetic diamond product that is produced by sintering selected diamond particles with a metal matrix using very sophisticated temperature and high-pressure technology. The PCD is by its nature, high in uniform hardness, and more abrasive and shock resistant in all directions than natural diamonds because of its random-oriented structure of the diamond particles.

PCBN

Polycrystalline Cubic Boron Nitride (PCBN) is an artificially synthesized material, its hardness is exceeded only by the diamond. However, unlike diamond, PCBN is stable under conditions of high temperature (up to 1000°c), normally seen when machining hardened ferrous or super alloy materials. PCBN tools permit metal cutting by feed and speed that are much higher than conventional cutting tools.



PISTON BODY MATERIALS

- AL alloys High Si >13% / Low-medium Si <13%
- Hardened steel cast iron (Ring Carrier)

PROCESSES FOR GASOLINE & DIESEL ENGINES

- Ring Grooving
- Turning / O.D. Turning (Mono Diamond)
- Pin Boring and Chamfering
- Circlip groove
- Combustion Bowl Cutting
- Piston head milling

FEATURES & ADVANTAGES:

- Good surface finish
- Longer tool life
- Increase in parts per tool
- Fast material removal rate
- Reduced cost per part
- Lower inventory levels

EHWA®

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