**NCB100 Binderless PCBN Grade**
- NCB100 Binderless is a CBN sintered body which does not contain any binder and has directly bonded submicron CBN particles.
- Higher hardness and thermal conductivity than the conventional CBN material type, creating high efficiency and long service life in difficult-to-cut materials such as titanium alloys and Co-Cr alloy.
- Excellent abrasion resistance is achieved by extreme hardness and thermal conductivity of nano polycrystalline CBN.
- Reduce the number of tool changes compared to conventional materials, improve work efficiency and reduce total cost.

**NPD10 / DA90 PCD Tool for Carbide and Hard Brittle Material**
- **NPD10** - Adopts Nano-polycrystalline Diamond for the cutting edge, which is binder-less and harder than single crystal diamond.
  - Greatly reduces the number of times that the tool must be indexed, improving work efficiency and reducing total cost.
- **DA90** - Made by sintering rough-grained diamond which contains the highest amount of diamond, has excellent wear resistance for rough machining of carbide and hard brittle materials.
  - Achieves high cost performance as same performance as before through optimal design and development of mass production technology.

**NPDB / NPDBR Binderless Ball-nose Endmill**
- The NPD Binderless series achieves direct mirror finishing of carbides, which is impossible for existing single-crystal or polycrystalline diamonds, by utilizing a harder nano-polycrystalline diamond cutting edge.
- The minute diamond particles that have radii of several dozen nanometers are solidly bonded directly, they are harder than single-crystal diamonds while having no cleavage feature.
- Maintains excellent dimensional accuracy for a long time thanks to the high contour accuracy of the cutting edge and the excellent wear resistance of diamonds.
  - Ideal for finishing of hard, brittle materials including carbide.

**HF PCD Milling Cutter for Aluminum Alloys**
- The HF Type high-efficiency aluminum cutter with air/coolant through system employs a unique insert design to eliminate burrs and to achieve superior surface finishes.
- Achieves high-efficiency milling due to its high density design (3 teeth per inch)
- Reduces tooling costs by drastically increasing the insert regrinding amount (to 0.07 in.)
- Improved chip evacuation with internal coolant (HFFH, HFMH, HF-BBT30 Series).
- Featuring our new Monocrystalline insert, the HF milling cutter can achieve an ultra-fine, mirror-like surface finish.

**BN7500 Series for Powdered Metal**
- New powdered metal finishing grade that provides excellent machined surface finish.
- Five types of edge preparations for machining sintered alloys of any hardness.
- Provides machining stability by reducing the variation in early milling surface roughness with the LE edge treatment, which emphasizes superior surface finish.
- The LS type excels in fracture resistance and cutting edge balance and also supports finishing that includes light interrupted cutting.
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AC5000S Series for Exotic Alloy
- New Absotech® Bronze PVD-Coating Technology provides a heat-resistant ultra multi-layer thin film ALTISiN structure creating excellent crater wear resistance and flank wear resistance.
- Newly developed high adhesive technology improves notch wear resistance.
- A revolutionary new sintering process enables hardness to be maintained while greatly improving rigity, reducing notch wear, and chipping resistance.
- AC5015S: Most recommended for turning of Exotic Alloys.
- AC5025S: For Heavy interrupted cutting.

AC8000P Series for Steel
- New ‘Absotech Platinum’ CVD Coating for general purpose steel cutting.
- New grade yields high adhesion strength, smooth surface treatment and a newly developed high-functional coat with reduced tensile stress that significantly reduces chipping.
- Excellent sharpness of the edge greatly reduces chattering.
- AC8015P: For high speed cutting of steels.
- AC8025P: For general purpose cutting of steels.
- AC8035P: For interrupted cutting of steels.

AC4000K Series for Cast Iron
- Newly developed high adhesion technology, crystal orientation control technology, and residual stress control for longer and stable tool life.
- Works with various cast irons - from grey cast iron to high-strength and ductile cast irons.
- AC4010K: For precision cutting of cast iron.
- AC4015K: For stability in a wide range of applications with long tool life.

AC6000M Series for Stainless Steel
- New Absotech® CVD coating technology leads to longer tool life and excellent stability.
- Improved carbide substrate provides increased fracture resistance and chipping resistance.
- Expanded chipbreaker lineup improves chip control in difficult to machine stainless steels.
- AC6020M for high speed stainless steel applications.
- AC6030M for general purpose stainless steel applications.
- AC6040M for interrupted stainless steel applications.

AC1030U Grade for High Precision Machining
- New Absotech® Bronze PVD-Coating Technology provides a heat-resistant ultra multi-layer thin film ALTISiN structure creating excellent crater wear resistance and flank wear resistance.
- Newly developed high adhesive technology creating boundary defect resistance.
- A revolutionary new sintering process enables hardness to be maintained while greatly improving rigity, reducing notch wear and improving chipping resistance.
**Millling**

**DFC 90° Milling Cutter Series**
- High toughness insert design enables stable cutting and high efficiency machining with high feed rate.
- Optimized machining accuracy by separating the insert contact areas and the cutting edges.
- Wide lineup for DFC available from 1” through 8” in standard, fine pitch and extra-fine pitch styles.
- New general purpose (GS) and light cutting (LS) chipbreakers optimized for shoulder milling now released.
- Light (L), General Purpose (G) and Heavy Cutting (H) chipbreakers available with 6 cutting edges to reduce machining costs.
- ACP (Steel), ACK (Cast Iron) and ACM (Stainless Steel) grades for a wide range of applications.

**TSX 90° Tangential Shoulder Milling Cutter Series**
- Newly developed fine carbide press/sintering technology and accurate grinding technics, the periphery ground inserts generate incredible accuracy and excellent surface finish.
- Tangentially mounted 4 cornered insert achieves excellent edge sharpness and chip breaking optimization.
- TSX is available in two series offering a max DOC of 8mm (.315”) and 12mm (.473”) with a variety of body diameter choices.
- TSX provides the strength required for increased depths of cut ranging from a small job to a heavy duty roughing application.

**DGC 45° Face Mill Series**
- 45° cutter series employs cost efficiency by significantly reduces the initial investment by having 16 cutting edges available at 3mm depths of cut.
- An excellent lineup of inserts with optimized chamfers improves surface finish and prevent burring.
- Cutter body pockets hold both the ONMT (≤3mm D.O.C.) & SNMT (≤6mm D.O.C.).
- Durable coolant through steel bodies ranging from 2” - 10”.
- The patented ZX coating strengthens square and octagon DGC inserts to extend tool life while increasing wear resistance.

**Sumitomo Electric Carbide Manufacturing, Inc. - Custom Tooling**
- Sumitomo offers specialized tooling systems designed specifically to meet demands unique to various markets and industries.

**GND Holder Series**
- Highly rigid toolholder for internal & external grooving, turning, profiling and facing.
- Newly developed 2-hole coolant through design optimizes cooling of the insert and improves chip removal, extending tool life and allowing for improved speeds and feeds in production.
- New CF cut-off chipbreaker excels in chip processing performance by the asymmetry breaker design even difficult chip control with read corner has a chip.
**MDM Coated Carbide Drill Series**
- New Bean Jet Cooling with a unique oil hole bean shape ensures the cutting edge positions are cooled effectively.
- New flute design and wide chip pocket allow for excellent chip management and evacuation.
- Expanded offering available with shanks suitable for shrink fit holders.
- Excellent for drilling in super alloys and stainless steels.
- New cutting edge design and special DEX coating™ provide long tool life in a wide variety of materials.

**SMDT Replaceable Carbide Tip Drill**
- Regrindable carbide tips are extremely tough and wear resistant due to the new DEX coating™.
- Available in 3X, 5X, 8X & now 1.5X & 12X diameter coolant through hardened steel bodies that can accept multiple diameters.
- 4 different styles of drill tips to maximize performance in steel, stainless steel, super alloy and cast iron applications.
- New SMDT-MFS 180° flat edge tip now available.
- Ground serrations on back of drill tip allow for precise assembly and superior repeatability.

**WDX Indexable Drill**
- Highly rigid drill body (2XD, 3XD, 4XD and 5XD) exhibits exceptional chip evacuation and overall tool reliability.
- The unique notch design of the chipbreaker provides excellent chip control during drilling, turning and boring applications.
- Balanced insert location and cutting edge offer great hole accuracy in steel, stainless steel and cast iron applications.
- WDX-L lathe ready tool available for operators who use coolant through the side port.

**MDF Flat Bottom Drill**
- Solid carbide drill that can be used for various purposes including high-efficiency spot facing and drilling on inclined surfaces and curved surfaces.
- Applicable to various types of drilling due to a point angle of 180°.
- Achieves high rigidity by employing RS THINNING design, which ensures a thick web at the bottom.
- Excellent chip evacuation thanks to the wide chip pocket and its high-quality rake face shape.
- Achieves excellent cutting edge strength through optimized cutting edge design.

**SR Reamer**
- High performance reaming at the highest feed rates. Achieves efficiency through high speed, high feeding ability (vc=160~1600 SFM, f=0.016~0.047 IPR).
- Compatibility with a wide range of cutting conditions allows less strict cutting conditions and coolant control.
- Minimal cutting edge length design eliminates biting and tearing for improved hole quality and reliability.
- Flexible tool overhang lengths possible by combining the modular extension/ arbor and holder with correction mechanism.