

**UNITED STATES CUTTING TOOL INSTITUTE**  
**Product Groupings for Standards Activities**

**CUTTING TOOL PRODUCTS**

**1. BORING**

- ISO 5609 - Boring bars for indexable inserts -- Dimensions
- ISO 6261 - Boring bars (tool holders with cylindrical shank) for indexable inserts -- Designation
- JIS B 4128 - Boring bars (tool holders with cylindrical shank) for indexable inserts -- Designation
- JIS B 4129 - Boring bars for indexable inserts -- Dimensions

**2. BROACHES**

- JIS B 4237 - Dimensions of pull and follower ends of broach
- JIS B 4238 - Keyway broaches
- JIS B 4239 - Involute spline broaches

**3. COUNTERSINKS AND COUNTERBORES**

- ISO 3293 - Morse taper shank countersinks for angles 60 degrees, 90 degrees and 120 degrees inclusive
- ISO 3294 - Parallel shank countersinks for angles 60, 90 and 120 degrees inclusive
- ISO 4204 - Countersinks, 90 degrees, with Morse taper shanks and detachable pilots
- ISO 4205 - Countersinks, 90 degrees, with parallel shanks and solid pilots
- ISO 4206 - Counterbores with parallel shanks and solid pilots
- ISO 4207 - Counterbores with Morse taper shanks and detachable pilots
- JIS B 4254 - Milling cutters -- Countersinks, 90 degree SIGN, with Morse taper shanks and detachable pilots
- JIS B 4255 - Milling cutters -- Countersinks, 90 degree SIGN, with parallel shanks and solid pilots
- JIS B 4256 - Milling cutters -- Counterbores with parallel shanks and solid pilots
- JIS B 4257 - Milling cutters -- Counterbores with Morse taper shanks and detachable pilots
- JIS B 4258 - Detachable pilots for use with counterbores and 90 degree SIGN countersinks -- Dimensions

**4. DRILLING PRODUCTS**

- ANSI B94.11M - Twist Drills
- ANSI B94.49 - Spade Drill Blades and Spade Drill Holders
- NAS 907 - Drills, High Speed Steel and Cobalt, 1/16 Inch Thru 1/2 inch
- NAS 937 - Drills, Double Margin Stepped, High Speed and Cobalt, 1/8 inch thru 1/2 inch
- NAS 965 - Drills, High Speed Steel and Cobalt Threaded Shank 1/16 inch thru F
- DIN 6535 - Parallel Shanks for Hardmetal Twist Drill and End Mills - Dimensions
- DIN 6537 - Stepped Parallel Shank Solid Hardmetal Twist Drills – Dimensions
- ISO 235 - Parallel shank jobber and stub series drills and Morse taper shank drills
- ISO 494 - Cylindrical shank twist drills -- Long series
- ISO 866 - Centre drills for centre holes without protecting chamfers -- Type A
- ISO 2306 - Drills for use prior to tapping screw threads
- ISO 2540 - Centre drills for centre holes with protecting chamfer -- Type B
- ISO 2541 - Centre drills for centre holes with radius form -- Type R
- ISO 3291 - Extra-long Morse taper shank twist drills

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**4. DRILLING PRODUCTS [Continued]**

ISO 3292 - Extra-long parallel shank twist drills
ISO 3314 - Shell drills with taper bore (taper bore 1 : 30 (included)) with slot drive
ISO 3438 - Subland twist drills with Morse taper shanks for holes prior to tapping screw threads
ISO 3439 - Subland twist drills with cylindrical shanks for holes prior to tapping screw threads
ISO 5419 - Twist drills -- Terms, definitions and types
ISO 5468 - Rotary and rotary impact masonry drill bits with hardmetal tips -- Dimensions
ISO 7079 - Core drills with parallel shanks and with Morse taper shanks
ISO 9766 - Drills with indexable inserts -- Cylindrical shanks with a parallel flat
ISO 10898 - Spot drills
ISO 10899 - High-speed steel two-flute twist drills -- Technical specifications
JIS B 4117 - Hardmetal parallel shank stub drills
JIS B 4301 - Jobber series parallel shank twist drills
JIS B 4302 - Morse taper shank twist drills
JIS B 4304 - Centre drills for centre holes
JIS B 4305 - Extra-long parallel shank twist drills
JIS B 4306 - Extra-long Morse taper shank twist drills
JIS B 4307 - Stub series parallel shank twist drills
JIS B 4308 - Spot drills
JIS B 4313 - High-speed steel two-flute twist drills -- Technical specifications
JIS B 4314 - Twist drills with milling cutters cylindrical shank -- Dimensions

**5. END MILLS**

ANSI B94.19 - Milling Cutters and End Mills
NAS 986 - End Mills, Finishing, High Speed Steel .125 inch thru 3.000 inch Diameter
DIN 6535 - Parallel Shanks for Hardmetal Twist Drill and End Mills - Dimensions
ISO 1641-1 - End mills and slot drills -- Part 1: Milling cutters with cylindrical shanks
ISO 1641-2 - End mills and slot drills -- Part 2: Milling cutters with Morse taper shanks
ISO 1641-3 - End mills and slot drills -- Part 3: Milling cutters with 7/24 taper shanks
ISO 2586 - Shell end mills with plain bore and tenon drive -- Metric series
ISO 6262-1 - End mills with indexable inserts -- Part 1: End mills with flatted parallel shank
ISO 6262-2 - End mills with indexable inserts -- Part 2: End mills with Morse taper shank
ISO 10145-1 - End mills with brazed helical hardmetal tips -- Part 1: Dimensions of end mills with parallel shank
ISO 10145-2 - End mills with brazed helical hardmetal tips -- Part 2: Dimensions of end mills with 7/24 taper shank
ISO 10911 - Solid hardmetal end mills with parallel shank -- Dimensions
ISO 15917 - Solid ball-nosed end mills with cylindrical shanks made of carbide and ceramic materials -- Dimensions
ISO 22037 - Solid end mills with corner radii and cylindrical shanks made of hard cutting materials -- Dimensions
JIS B 4114 - End mills with brazed helical hardmetal tips -- Part 1: Dimensions of end mills with parallel shank
JIS B 4116 - Solid hardmetal end mills with parallel shank -- Dimensions
JIS B 4118 - Solid hardmetal ball-nosed end mills with cylindrical shank -- Dimensions
JIS B 4210 - Tapered end mills
JIS B 4211 - End mills with parallel peripheral cutting edges
JIS B 4213 - Tapered end mills for trapeziform runner with parallel shanks

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**6. FILES AND BURS**

- ISO 7755-1 - Hardmetal burrs -- Part 1: General specifications
- ISO 7755-2 - Hardmetal burrs -- Part 2: Cylindrical burrs (style A)
- ISO 7755-3 - Hardmetal burrs -- Part 3: Cylindrical round- (ball-) nose burrs (style C)
- ISO 7755-4 - Hardmetal burrs -- Part 4: Spherical burrs (style D)
- ISO 7755-5 - Hardmetal burrs -- Part 5: Oval burrs (style E)
- ISO 7755-6 - Hardmetal burrs -- Part 6: Arch round- (ball-) nose burrs (style F)
- ISO 7755-7 - Hardmetal burrs -- Part 7: Arch pointed-nose burrs (style G)
- ISO 7755-8 - Hardmetal burrs -- Part 8: Flame burrs (style H)
- ISO 7755-9 - Hardmetal burrs -- Part 9: 60 degrees and 90 degrees cone burrs (styles J and K)
- ISO 7755-10 - Hardmetal burrs -- Part 10: Conical round- (ball-) nose burrs (style L)
- ISO 7755-11 - Hardmetal burrs -- Part 11: Conical pointed-nose burrs (style M)
- ISO 7755-12 - Hardmetal burrs -- Part 12: Inverted cone burrs (style N)

**7. GEAR CUTTERS AND HOBBS**

- ANSI B94.7 - Hobs
- ANSI B94.21 - Gear Shaper Cutters
- JIS B 4232 - Involute gear milling cutters
- JIS B 4350 - Gear cutter -- Tooth profiles and dimensions
- JIS B 4351 - Straight bevel gear generating cutters (Type G)
- JIS B 4354 - Gear hobs -- Part 1: Dimensions of solid hobs
- JIS B 4355 - Gear hobs -- Part 2: Accuracy requirements
- JIS B 4357 - Rotary gear shaving cutters

**8. INSERTS (BORING, MILLING, THREADING, TURNING, AND CUTOFF)**

- ISO 883 - Indexable hardmetal (carbide) inserts with rounded corners, without fixing hole -- Dimensions
- ISO 1832 - Indexable inserts for cutting tools -- Designation
- ISO 3364 - Indexable hardmetal (carbide) inserts with rounded corners, with cylindrical fixing hole -- Dimensions
- ISO 3365 - Indexable hardmetal (carbide) inserts with wiper edges, without fixing hole -- Dimensions
- ISO 6987 - Indexable hard material inserts with rounded corners, with partly cylindrical fixing hole -- Dimensions
- ISO 9361-1 - Indexable inserts for cutting tools -- Ceramic inserts with rounded corners -- Part 1: Dimensions of inserts without fixing hole
- ISO 9361-2 - Indexable inserts for cutting tools -- Ceramic inserts with rounded corners -- Part 2: Dimensions of inserts with cylindrical fixing hole
- ISO 10910 - Classification and designation of approximate chip control zones for indexable inserts with chipbreakers
- ISO 16462 - Cubic boron nitride inserts, tipped or solid -- Dimensions, types
- ISO 16463 - Polycrystalline diamond inserts, tipped -- Dimensions, types
- JIS B 4120 - Indexable inserts for cutting tools -- Designation
- JIS B 4121 - Indexable hard material inserts

**9. METAL CUTTING SAW BLADES**

- ANSI B 94.51M - Specifications for Band Saw Blades (Metal Cutting)
- ANSI B94.52M - Specifications for Hack Saw Blades
- ANSI B94.54 - Specifications for Hole Saws, Hole Saw Arbors, and Hole Saw Accessories

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**10. MILLING CUTTERS**

ANSI B94.19 - Milling Cutters and End Mills

DIN 1835-1 - Cylindrical Shanks for Milling Cutters – Dimensions

ISO 240 - Milling cutters -- Interchangeability dimensions for cutter arbors or cutter mandrels

ISO 2584 - Cylindrical cutters with plain bore and key drive -- Metric series

ISO 2585 - Slotting cutters with plain bore and key drive -- Metric series

ISO 2587 - Side and face milling cutters with plain bore and key drive -- Metric series

ISO 2780 - Milling cutters with tenon drive -- Interchangeability dimensions for cutter arbors -- Metric series

ISO 2940-1 - Milling cutters mounted on centring arbors having a 7/24 taper -- Fitting dimensions -- Centring arbors

ISO 2940-2 - Milling cutters mounted on centring arbors having a 7/24 taper -- Inserted tooth cutters

ISO 3337 - T-slot cutters with cylindrical shanks and with Morse taper shanks having tapped hole

ISO 3338-1 - Cylindrical shanks for milling cutters -- Part 1: Dimensional characteristics of plain cylindrical shanks

ISO 3338-2 - Cylindrical shanks for milling cutters -- Part 2: Dimensional characteristics of flatted cylindrical shanks

ISO 3338-3 - Cylindrical shanks for milling cutters -- Part 3: Dimensional characteristics of threaded shanks

ISO 3855 - Milling cutters -- Nomenclature

ISO 3859 - Inverse dovetail cutters and dovetail cutters with cylindrical shanks

ISO 3860 - Bore cutters with key drive -- Form milling cutters with constant profile

ISO 3940 - Tapered die-sinking cutters with parallel shanks

ISO 6108 - Double equal angle cutters with plain bore and key drive

ISO 6462 - Face milling cutters with indexable inserts -- Dimensions

ISO 6986 - Side and face milling (slotting) cutters with indexable inserts -- Dimensions

ISO 11529-1 - Milling cutters -- Designation -- Part 1: Shank-type end mills of solid or tipped design

ISO 11529-2 - Milling cutters -- Designation -- Part 2: Shank-type and bore-type milling cutters with indexable inserts

ISO 12197 - Woodruff keaseat cutters -- Dimensions

JIS B 4005 - Milling cutters cylindrical shanks -- Dimensional characteristics

JIS B 4107 - Side milling cutters with brazed hardmetal tips

JIS B 4201 - Milling cutters -- Interchangeability dimensions for cutter arbors or cutter mandrels

JIS B 4204 - Milling cutters -- Cylindrical milling cutters

JIS B 4214 - Milling cutters -- Shell end mills with plain bore and tenon drive

JIS B 4217 - Milling cutters -- T-slot cutters

JIS B 4219 - Milling cutters -- Metal slitting saws

JIS B 4220 - Screw slotting cutters

JIS B 4221 - Milling cutters -- Angle milling cutters

JIS B 4226 - Milling cutters -- Form milling cutters with constant profile

JIS B 4230 - Milling cutters -- Woodruff keyseat cutters

JIS B 4231-1 - Milling cutters -- Parallel shank countersinks

JIS B 4231-2 - Milling cutters -- Morse taper shank countersinks

JIS B 4236 - Milling cutters -- Counterbores for hexagon socket head bolts

**11. PORTING TOOLS**

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<b>12. REAMERS</b>
ANSI B94.2 - Reamers
NAS 897 - Reamers, Chucking 0.0469 Inch Thru 1.5000 Inches Rev. 1)
ISO 236-1 - Hand reamers
ISO 236-2 - Long fluted machine reamers, Morse taper shanks
ISO 521 - Machine chucking reamers with parallel shanks or Morse taper shanks
ISO 522 - Special tolerances for reamers
ISO 2238 - Machine bridge reamers
ISO 2250 - Finishing reamers for Morse and metric tapers, with cylindrical shanks and Morse taper shanks
ISO 2402 - Shell reamers with taper bore (taper bore 1 : 30 (included)) with slot drive and arbors for shell reamers
ISO 3465 - Hand taper pin reamers
ISO 3466 - Machine taper pin reamers with parallel shanks
ISO 3467 - Machine taper pin reamers with Morse taper shanks
ISO 5420 - Reamers -- Terms, definitions and types
JIS B 4401 - Reamers -- Reamers for morse and metric tapers, with parallel shanks and morse taper shanks
JIS B 4402 - Reamers -- Machine chucking reamers with parallel shanks or Morse taper shanks
JIS B 4405 - Reamers -- Hand reamers
JIS B 4406 - Reamers -- Shell reamers
JIS B 4409 - Reamers -- Machine bridge reamers
JIS B 4410 - Reamers -- Taper pin reamers
JIS B 4413 - Reamers -- Machine reamers
JIS B 4414 - Reamers -- Special tolerances for reamers
<b>13. THREADING TOOLS</b>
ANSI B1.1 - Unified Inch Screw Threads, UN and UNR Thread Form
ANSI B1.2 - Gages and Gaging for Unified Inch Screw Threads
ANSI B1.3 - Screw Thread Gaging Systems for Acceptability: Inch and Metric Screw Threads (UN, UNR, UNJ, M, and MJ)
ANSI B1.7 - Screw Threads: Nomenclature, Definitions, and Letter Symbols
ANSI B1.8 - Stub Acme Screw Threads
ANSI B1.10M - Unified Miniature Screw Threads
ANSI B1.13M - Metric Screw Threads: M Profile
ANSI B1.16M - Gages and Gaging for Metric M Screw Threads
ANSI B1.20.1 - Pipe Threads, General Purpose, Inch
ANSI B1.20.2M - Pipe Threads 60 deg. General Purpose (Metric)
ANSI B1.20.3 - Dryseal Pipe Threads, Inch
ANSI B1.22M - Gages and Gaging for MJ Metric Screw Threads
ANSI B94.9 - Taps-Ground and Cut Threads
ISO 68-1 - ISO general purpose screw threads -- Basic profile -- Part 1: Metric screw threads
ISO 68-2 - ISO general-purpose screw threads -- Basic profile -- Part 2: Inch screw threads
ISO 261 - ISO general purpose metric screw threads -- General plan
ISO 262 - ISO general purpose metric screw threads -- Selected sizes for screws, bolts and nuts
ISO 263 - ISO inch screw threads -- General plan and selection for screws, bolts and nuts -- Diameter range 0.06 to 6 in
ISO 529 - Short machine taps and hand taps
ISO 724 - ISO general-purpose metric screw threads -- Basic dimensions

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**13. THREADING TOOLS [Continued]**

ISO 725 - ISO inch screw threads -- Basic dimensions
ISO 965-1 - ISO general-purpose metric screw threads -- Tolerances -- Part 1: Principles and basic data
ISO 965-2 - ISO general purpose metric screw threads -- Tolerances -- Part 2: Limits of sizes for general purpose external and internal screw threads -- Medium quality
ISO 965-3 - ISO general purpose metric screw threads -- Tolerances -- Part 3: Deviations for constructional screw threads
ISO 965-4 - ISO general purpose metric screw threads -- Tolerances -- Part 4: Limits of sizes for hot-dip galvanized external screw threads to mate with internal screw threads tapped with tolerance position H or G after galvanizing
ISO 965-5 - ISO general purpose metric screw threads -- Tolerances -- Part 5: Limits of sizes for internal screw threads to mate with hot-dip galvanized external screw threads with maximum size of tolerance position h before galvanizing
ISO 1501 - ISO miniature screw threads
ISO 1502 - ISO general-purpose metric screw threads -- Gauges and gauging
ISO 2283 - Long shank taps with nominal diameters from M3 to M24 and 1/8 in to 1 in -- Reduced shank taps
ISO 2284 - Hand taps for parallel and taper pipe threads -- General dimensions and marking
ISO 2568 - Hand- and machine-operated circular screwing dies and hand-operated die stocks
ISO 2857 - Ground thread taps for ISO metric threads of tolerances 4H to 8H and 4G to 6G coarse and fine pitches -- Manufacturing tolerances on the threaded portion
ISO 2901 - ISO metric trapezoidal screw threads -- Basic profile and maximum material profiles
ISO 2902 - ISO metric trapezoidal screw threads -- General plan
ISO 2903 - ISO metric trapezoidal screw threads -- Tolerances
ISO 2904 - ISO metric trapezoidal screw threads -- Basic dimensions
ISO 4230 - Hand- and machine-operated circular screwing dies for taper pipe threads -- R series
ISO 4231 - Hand- and machine-operated circular screwing dies for parallel pipe threads - G series
ISO 5408 - Cylindrical screw threads -- Vocabulary
ISO 5408 - Screw threads -- Vocabulary
ISO 5864 - ISO inch screw threads -- Allowances and tolerances
ISO 5967 - Taps and thread cutting -- Nomenclature of the main types and terminology
ISO 5968 - Circular screwing dies -- Terminology
ISO 5969 - Ground thread taps for pipe threads G series and Rp series -- Tolerances on the threaded portion
ISO 7226 - Hexagonal die nuts
ISO 8051 - Long shank taps with nominal diameters from M3 to M10 -- Full-diameter shank taps with recess
ISO 8830 - High-speed steel machine taps with ground threads -- Technical specifications
JIS B 4430 - Short machine taps and hand taps for metric threads
JIS B 4432 - Short machine taps and hand taps for unified threads
JIS B 4433 - Nut taps
JIS B 4445 - Hand taps for parallel pipe threads
JIS B 4446 - Hand taps for taper pipe threads
JIS B 4451 - Hand-and machine-operated circular screwing dies
JIS B 4455 - Hand-and machine-operated circular screwing dies for parallel pipe threads
JIS B 4456 - Hand-and machine-operated circular screwing dies for taper pipe threads
JIS B 4501 - Thread rolling cylindrical dies

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**14. TOOL HOLDERS**

DIN 69880-1 - Tool Holders with Parallel Shank
ISO 238 - Reduction sleeves and extension sockets for tools with Morse taper shanks
ISO 839-1 - Milling machine arbors with 7/24 tapers -- Part 1: Dimensions and designation
ISO 839-2 - Milling machine arbors with 7/24 tapers -- Part 2: Accessories
ISO 3936 - Reduction sleeves with tenon drive with external and internal 7/24 taper -- Dimensions
ISO 3937-1 - Cutter arbors with tenon drive -- Part 1: Dimensions of Morse taper
ISO 3937-2 - Cutter arbors with tenon drive -- Part 2: Dimensions of 7/24 taper
ISO 3937-3 - Cutter arbors with tenon drive -- Part 3: Dimensions of hollow taper interface with flange contact surface
ISO 4202 - Reduction sleeves with external 7/24 taper for tools with Morse taper shanks
ISO 4203 - Parallel shank tools -- Driving tenons and sockets -- Dimensions
ISO 4208 - Detachable pilots for use with counterbores and 90 degrees countersinks -- Dimensions
ISO 4247 - Jig bushes and accessories for drilling purposes -- Dimensions
ISO 4248 - Jig bushes -- Definitions and nomenclature
ISO 5413 - Machine tools -- Positive drive of Morse tapers
ISO 5414-1 - Tool chucks (end mill holders) with clamp screws for flatted cylindrical shank tools -- Part 1: Dimensions of the driving system of tool shanks
ISO 5414-2 - Tool chucks (end mill holders) with clamp screws for flatted cylindrical shank tools -- Part 2: Connecting dimensions of chucks and designation
ISO 5415 - Reduction sleeves with 7/24 external and Morse internal taper and incorporated screw
ISO 5608 - Turning and copying tool holders and cartridges for indexable inserts -- Designation
ISO 5610 - Single-point tool holders for turning and copying, for indexable inserts -- Dimensions
ISO/DIS 5610-1 - Tool holders with rectangular shank for indexable inserts -- Part 1: General survey, correlation and determination of dimensions
ISO/DIS 5610-2 - Tool holders with rectangular shank for indexable inserts -- Part 2: Style A
ISO/DIS 5610-3 - Tool holders with rectangular shank for indexable inserts -- Part 3: Style B
ISO/DIS 5610-4 - Tool holders with rectangular shank for indexable inserts -- Part 4: Style D
ISO/DIS 5610-5 - Tool holders with rectangular shank for indexable inserts -- Part 5: Style F
ISO/DIS 5610-6 - Tool holders with rectangular shank for indexable inserts -- Part 6: Style G
ISO/DIS 5610-7 - Tool holders with rectangular shank for indexable inserts -- Part 7: Style J
ISO/DIS 5610-8 - Tool holders with rectangular shank for indexable inserts -- Part 8: Style K
ISO/DIS 5610-9 - Tool holders with rectangular shank for indexable inserts -- Part 9: Style L
ISO/DIS 5610-10 - Tool holders with rectangular shank for indexable inserts -- Part 10: Style N
ISO/DIS 5610-11 - Tool holders with rectangular shank for indexable inserts -- Part 11: Style R
ISO/DIS 5610-12 - Tool holders with rectangular shank for indexable inserts -- Part 12: Style S
ISO/DIS 5610-13 - Tool holders with rectangular shank for indexable inserts -- Part 13: Style T
ISO/DIS 5610-14 - Tool holders with rectangular shank for indexable inserts -- Part 14: Style H
ISO/DIS 5610-15 - Tool holders with rectangular shank for indexable inserts -- Part 15: Style V
ISO 5611 - Cartridges, type A, for indexable inserts -- Dimensions
ISO/CD 10649-1 - Cutter arbors with parallel key and tenon drive - Part 1: General dimensions
ISO/CD 10649-2 - Cutter arbors with parallel key and tenon drive - Part 2: Dimensions of tool holders with hollow taper inter
ISO/CD 10649-3 - Cutter arbors with parallel key and tenon drive - Part 3: Dimensions of tool holders with 7/24 taper for automatic tool changers
ISO/CD 10649 -4 - Cutter arbors with parallel key and tenon drive - Part 4: Dimensions of tool holders with 7/24 taper for manuel tool changers

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<b>14. TOOL HOLDERS [Continued]</b>
JIS B 4125 - Tool holders and cartridges for indexable inserts -- Designation
JIS B 4126 - Single-point tool holders for turning and copying, for indexable inserts -- Dimensions
JIS B 4127 - Cartridges, type A, for indexable inserts – Dimensions
JIS B 4216 - Cutter arbors -- Dimensions
JIS B 4407 - Arbors for shell reamers
<b>MATERIALS</b>
<b>15. CARBIDE</b>
<b>16. HIGH SPEED STEEL</b>
<b>17. PCD</b>
JIS B 4130 - Diamond/CBN products -- Grain sizes of diamond or cubic boron nitride
<b>18. PCBN</b>
JIS B 4130 - Diamond/CBN products -- Grain sizes of diamond or cubic boron nitride
<b>19. CERAMICS</b>
<b>20. CERMETS</b>
<b>SURFACE COATINGS</b>
<b>21. CVD</b>
<b>22. PVD</b>