

# Birla Precision Technologies Limited



**CNC ROTATING  
TOOL HOLDERS**

**HSS CUTTING TOOLS**

**Birla Precision Technologies Limited** has two main business divisions, equipped with world class manufacturing facilities:

Tooling Division - HSS Cutting Tool & CNC Rotating Tool Holders

Foundry Division - Foundry equipped with Precision Machining & Casting Machining

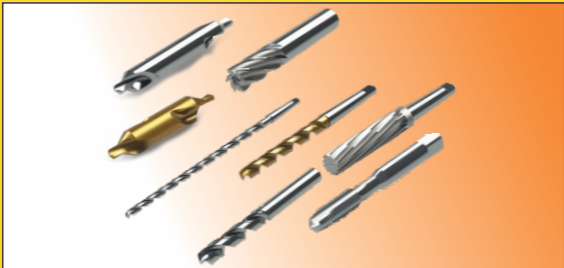
**A TRADITION OF ENGINEERING EXCELLENCE AND TOTAL CUSTOMER DELIGHT  
SINCE 1937**



## CUTTING TOOL DIVISION

Indian Tool Manufacturers (ITM) was established in the year 1937, the manufacturer of High Speed Steel Cutting Tools in India. Intensive research and development work has been an integral part of ITM's total operation on a continuous basis. ITM Products popularly known as "Dagger Brand" made from the finest grade of High Speed Steel and conforming to stringent international standards.

### HSS CUTTING TOOLS



#### HSS JOBBER TWIST DRILLS



#### HSS JOBBER TWIST DRILLS

ITM offers a wide range of High Speed Steel Jobber Twist Drills available in metric, inches, and wire gauge sizes.

Size Range:- 0.5 mm to 35 mm : 3/64" to 1.3/8"

Material: HSS-M2

It can be supplied to Customer needs on request as follows:-

- Intermediate Diameters - Quick spiral or slow spiral Drills, Jobber with Tenon
- In different grades of HSS like M35, M42
- Various surface coating like TiN, TiAlN
- Special geometry to suit various applications

#### HSS TAPER SHANK DRILLS



#### HSS TAPER SHANK DRILLS

HSS Taper Shank drills are manufactured on Special purpose machine capable of producing consistency & repeatability on tool geometry.

Optimum hardness maintained in different grades of HSS like M35 & M42. Surface coating TiN, TiAlN

Size Range:- 3 mm to 106mm 1/8" to 4"



#### HSS CENTRE DRILLS



#### HSS CENTRE DRILLS

Available in Type "A" "B" "R" in metric

Type A- For general applications - A1 x 3.15 to A10 x 25 & BS 1 to BS7

Type B- For index applications - B1.6 x 6.3 to B10 x 31.5

Type R- For heavy duty applications - R2.5 x 6.3 to R10 x 25

Material: HSS-M2

Centre Drills can be supplied as per Customer needs on request as follows:-

- Different grades of HSS like M35 & M42
- Various surface coating like TIN, TiAIN etc.
- Special as per Customer's Drawing

#### HSS PARALLEL SHANK AND TAPER SHANK LONG SERIES AND EXTRA LONG SERIES DRILLS



#### HSS PARALLEL SHANK AND TAPER SHANK LONG SERIES AND EXTRA LONG SERIES DRILLS

Parallel Shank - 3 mm to 50 mm & Taper Shank - 3 mm to 102 mm

Size Range: 3 mm to 50 mm, 1/8" to 2"

Material: HSS-M2

HSS LONG SERIES & EXTRA LONG SERIES DRILL can be supplied with intermediate diameters, different grades M35, M42 surface coating like TIN, TiAIN

#### HSS THREADING TAPS



#### HSS THREADING TAPS

Available in a wide range of sizes, types and combinations.

RANGE:

Type: Hand and Short Machine Taps, Long Shank Machine Taps, Nut Taps, Pipe Taps, BSW, BSF, UNC, UNF, NPSF, NPS, NPT, NPTF, NGT and Special Taps

Size Range :- 2mm - 100mm. 1/8"-4"

Material: HSS-M2 Taps can be supplied in Serial or Non-serial form, different types Straight, Spiral Flute, Spiral point & Fluteless (Roll), different grades of HSS M35, M42 and surface coating like TIN, TiAIN, TiCN

#### HSS REAMERS



#### HSS REAMERS

Available in a wide range of diameters and manufactured to suit specific reaming operations to provide perfect accuracy and optimum surface finish

Type: Parallel Hand Reamers, Long Fluted Machine Reamers, Chucking Reamers with Parallel Shank or Taper Shank Bridge Reamers, Taper Pin Reamers, Socket Reamers, Machine Jig Reamers, Centre Reamers, Shell Reamers, Taper Shank Extra Long Machine Reamers

Size Range: 3.00mm - 75mm : 1/8"-3" Material: HSS M2

Reamers can also be supplied with intermediate diameters, different grades of HSS like M35, M42 and surface coating like TIN, TiAIN against specific requirements.

We can manufacture Reamers with tolerance: H7, D10, H10, H12, F4, F5, F6, J7, P7 as per customers requirements



#### HSS ENDMILLS & SLOT DRILLS



#### HSS ENDMILLS & SLOT DRILLS

Available in a wide range of diameters and types suitable for various types of milling operations

Size Range:- 3.00mm - 71 mm : 1/8" - 2 1/2" Material: HSS-M2

Type: Parallel Shank, Taper Shank, Screwed Shank and Tapped end

Endmills can also be supplied with Intermediate diameters, different grades of HSS M35, M42 and surface coating TiN, TiAlN against specific requirements

#### MASONRY DRILLS



#### MASONRY DRILLS

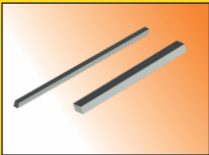
Carbide Tipped Masonry Drills are manufactured from Alloy Steel with ground Flutes Bright Finish and combined with ITM's unique brazing and treatment process results in withstanding shock and outstanding resistance to wear during its use.

**Economy Masonry Drills**

**Deluxe Masonry Drills**

Size Range: 3mm to 13mm : 1/8" to 1/2"

#### HSS SQUARE TOOL BITS



#### HSS SQUARE TOOL BITS

Available in Size Range : Square tools size 5mm - 25mm : 3/16"-1" - HSS M2 & T42 and all square tool bits are supplied with the bevel angle of 15 Degree

#### ENGINEERS FILES



#### ENGINEERS FILES

Dagger Brand Files are made from the finest file steel material on State-of-the-Art Production Line. Files are manufactured on unique hydro pneumatically controlled machines resulting in uniform teeth geometry and consistent desired finish cutting quality with

RANGE:

Type: Machinist Files, Saw Files, Rasps, Special Files & Mill Files

Size: 100mm to 350mm: 4" to 14"

Cuts: Single cut, Double cut, Bastard cut, 2nd cut, Smooth Cut & Rasp Cut

Shapes: Rectangle, Square, Round, Triangle, Half Round

File are available in 10 pcs packing up to 250mm & 5 pcs packing for above 250mm

## CNC ROTATING TOOL HOLDER DIVISION

Birla Precision Technologies (erstwhile Birla Kennametal Ltd) was established in the year 1986, as a Joint Venture with Kennametal Inc, USA to manufactures wide range of BPT brand precision AT3 Class Steep Taper as well as HSK tooling, advanced products like hydro grip and shrink fit CNC tooling's in most modern and well equipped manufacturing facility at Aurangabad, India.

### CNC ROTATING TOOL HOLDERS



## Rotating Tool Holders

Manufactured from high quality Case Carburising Steel and in a temperature controlled Grinding facility.

**Birla Precision AT 3 class** tool holders represent the highest degree of technical excellence and the perfect answer to the needs of high speed and high accuracy machining ensuring a high level of consistency and accuracy.

### COLLET CHUCKS



#### PRODUCTS

##### COLLET CHUCKS

- Birla Precision offers the largest variety and highest quality standard Collet Chucks.
- ER, TG AND DA Collet Chucks on BT/DV/CAT & HSK tapers in Metric & Inch version available. Straight shank extensions are available as well.
- ER Collet Chucks guarantee run out accuracy of 0.005 mm or 0.0002" w.r.t. Taper.
- TG & DA Collet Chucks guarantee run out accuracy of 0.008 mm or 0.0003" w.r.t. Taper.
- Pre-balanced Collet Chucks are supplied in balancing grades G6.3 or G2.5 on request.

### END MILL HOLDERS



##### END MILL HOLDERS

- Birla Precision offers the largest variety and highest quality End Mill Holders on BT/DV/CAT/HSK shanks.
- Short/Long gauge lengths in Metric & Inch Version available.
- Size Range: 6-50 mm in metric & 1/8 to 2" in inch version.
- The bores are controlled in H6 class & R/O is within 0.005 mm/ 0.0002" w.r.t. Taper.
- Pre-balanced End Mill Holders are supplied in balancing grades G6.3 or G2.5 on request.

### SHELL MILL HOLDERS



##### SHELL MILL HOLDERS

- Birla Precision offers the largest variety and highest quality Shell Mill Holders on BT/DV/CAT/HSK shanks.
- Size Range: 16-60 mm in metric & 1/2" to 2" in inch version.
- The run out of pilot dia is within 0.008 mm or 0.0003" w.r.t. Taper.

### DRILL CHUCK & MT HOLDERS



##### DRILL CHUCK & MT HOLDERS

- Birla Precision offers a wide variety of Drill Chucks & Morse Taper Holders for drilling application.
- The Drill Chuck capacity ranges from 1 mm to 13 mm and are supplied integral with various tapers.



### ADVANCED PRODUCTS

#### ADVANTAGES OF HYDRAULIC CHUCKS

- TIR within 5 microns at 4 times the cutting tool diameter
- Improved vibration dampening by using a patented silicon compound as the pressuring medium.
- Repeatability of 3 microns TIR.
- The integral clamping sleeve is hardened & tempered to reduce chuck wear & give a longer service life
- Always supplied in pre-balanced condition at G2.5, at 20,000 RPM

#### ADVANTAGES OF SHRINK FIT HOLDERS

- TIR with 3 microns at nose.
- Clamping force is greater than Hydraulic Chuck or Collet Chuck.
- Best suitable for high speed machining because of symmetry and no other assembly parts.
- Supplied in pre-balanced condition at G2.5, 20,000 RPM for 40 taper and 15,000 RPM for 50 Taper

### COLLETS & PULL STUDS



#### COLLETS & PULL STUDS

- Birla Precision offers all varieties of ER/TG/DA collets in metric & inch sizes. Collets in sets are also supplied as per DIN 6499.
- Pull Studs / Retention Studs manufactured from low carbon alloy steel and special care taken in H/T avoid cracking to ensure reliability.
- Pull Studs for coolant through application are also supplied.

### WORK HOLDING PRODUCTS



#### WORK HOLDING PRODUCTS

- Birla Precision offers a wide range of special work holding equipment for I.D.&O.D holding applications.
- Standard expanding mandrels like between centre application / face plate mounted with draw bar operation are available for grinding and turning applications.
- Special tailor-made work holding solutions based on application can also be provided.
- An engineering team with experience works extensively right from the design stage till the proving of the product to total satisfaction of the end user.

### BORING BAR BLANKS



#### BORING BAR BLANKS

- Birla Precision offers Boring Bar Blanks on various tapers in different diameter and in standard gauge lengths.
- The front end is provided with the hardness in the range of 25 to 30 HRC which provides ease of converting it to Spl Tools.



# Birla Precision Technologies Limited



DAGGER BRAND<sup>®</sup>



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