AXIS
Tools for mICRO mACHINING

NexGen High Precision Tools for Medical Implants

MMP® TECHNOLOGY
Embedded

ISO 9001 Q ISO 13485
ISO 14001 45001

NexGen High Precision Tools for Medical Implants

Precision machining of medical implants entails convergence and culmination of various factors – understanding of material properties, design of appropriate tool geometries, surface and edge preparations, PVD Coatings and ingenious machining processes.

We at AXIS mICRO Tools blend years of experience developing High Precision Tooling Solutions for various industrial segments with expertise and experience of qualified workforce and State-of-the-Art technology infrastructure to offer tools that meet the manufacturing needs of Medical components.

High-Precision and High-Performance Tools are made from superior grade of carbide on high end sophisticated grinders with in-process inspection for assured Quality, Precision and Consistency. The tools are subsequently edge prepped and surface engineered through one o f its kind *MMP Superfinishing Technology*. Finally the tools are PVD Coated suitably, with pre and post coating processes interlaced for enhanced Coating productivity and superior component finish.

The portfolio of tools on offer – Drills, End Mills, Thread Whirlers, Chamfering Tools, Engravers, T-Slot Cutter and Special Tools are all designed and developed for machining high elasticity, low thermal conductivity, non-corrosive, and strain hardening material.

We hope you find the information in the following pages to be of value and benefit !!
Happy Machining !!

Applications


Bone Plate


Hip Implant


Knee Implant


Intraocular Lense


Locking Screw


Heart Valve


Bone Screw


Spinal and Trauma Implant


Digital Dentistry

Tooling Solutions for Key Medical Implants

Bone Screws

Operation : Milling and Drilling

Work Material : Titanium / Stainless Steel

NC Pointing Drills

T580-SN / T581-SN

Counter Sink Drills

T579-SN

Torx End Mills

E900-SN

High Precision Drills

T611-SC
T612-SC
T613-SC

Knee Implants

Operation : Profile Milling and Pocket Milling

Work Material : CoCr Alloys / Titanium Alloys

High Performance End Mills

E305-SN

4 Flute Roughing End Mills

E367-SN

4 Flute Ballnose End Mills

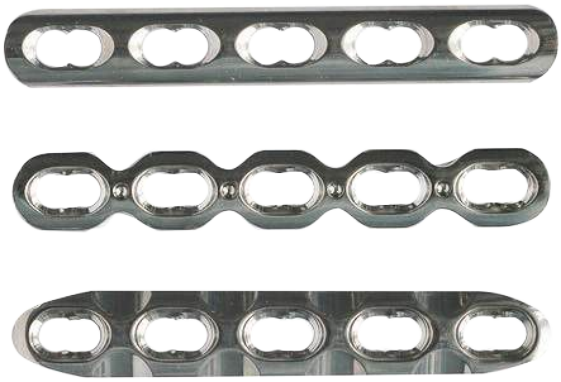
B942-SN

2 Flute Taper End Mills

E950-SN

Tooling Solutions for Key Medical Implants

Bone Plates



Operation : Drilling and Chamfering

Work Material : Titanium Alloys / Stainless Steel

INDRILL+

T311-SN
T312-SN
T313-SN

INDMILL
2 Flute End Mills

E966-SN

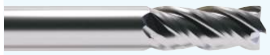
Taper
Thread Whirlers

F505-SN

Lollypop
Cutters

B990-SN

Variable Helix
End Mills



E305-SN
E307-SN

Hip Implants

Operation : Milling

Work Material : CoCr Alloys / Titanium Alloys

INDRILL+

T311-SN
T312-SN
T313-SN

Variable Helix
End Mills

E305-SN
E307-SN

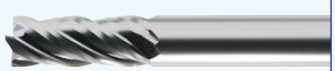
2 Flute
Ballnose End Mills

B970-SN

mICRO
Ballnose End Mills

B972-SN

Portfolio at a Glance

Article	Tool Drawing and Range	Series	Features	Operations
T580-SN T581-SN	 ø 0.050 - 6.00	NC Pointing Drills	Stub length with thinner web for better positional accuracy	Guide hole for subsequent precise drilling
T579-SN	 ø0.20 - 6.00	Countersink Drills	Customised dimensions with required tolerances Precise tolerance on countersink angle	For drilling and chamfering in same operation
T301-SN T302-SN T303-SN	 ø0.015 - 3.00	INDrill	A versatile drill crafted with good centering and keen cutting abilities for use across different materials and applications Differentiated web taper for faster chip evacuation	To make precise micro holes
T311-SN T312-SN T313-SN	 ø0.30 - 3.00	INDrill+ High Performance Drills	Special point geometry for increased penetration and centering abilities Web thinned geometry for better centering, chip formation and evacuation Differentiated web taper for faster chip evacuation	To make precise micro holes
T305-SC / T310-SC T315-SC / T320-SC T325-SC /T330-SC	 ø0.80 - 6.00	INDrill Cool High Performance Through Coolant Drills	Four margin geometry to ensure balanced and precise drilling of deep holes Wavy cutting edges and specially designed flute geometry for controlled chip formation and evacuation	For accurate deep hole drilling
E900-SN	 ø0.15 - 2.00	Torx End Mills	Specially designed for Torx milling Smooth radius transitions for more stability Sharp cutting edges for better surface finish	Milling of hexalobe shape in screw heads
E966-SN E967-SN	 ø0.050 - 6.00	INDmill 2 / 4 Flute	Centre cutting geometry with advanced features for extended tool life, reduced chatter and improved part quality	Rough and finish milling
E305-SN E307-SN	 ø1.00 - 6.00	Variable Helix End Mills	Precisely controlled tool features for high precision machining requirements Variable helix and indexing ensure vibration free machining and smooth surface at higher feed	Rough and finish milling at higher feed
B972-SN	 ø 0.10 - 6.00	Ballnose End Mills 4 Flute	Centre cutting geometry with advanced features for extended tool life, reduced chatter and improved part quality	Contour milling

Portfolio at a Glance

Article	Tool Drawing and Range	Series	Features	Operations
F500-SN	 M0.6 - M1.6	Thread Whirlers	Precisely controlled dimensions for accurate thread forming	Internal and external thread forming
F502-SN	 M1.8 - M6	Thread Whirlers	Precisely controlled dimensions for accurate thread forming Designed for threading at higher feed	Internal and external threading
F505-SN	 M0.6 - M1.6	Taper Thread Whirlers	Single tool for multiple thread dia with same pitch Precise thread with excellent surface quality	Internal and external taper thread forming
G847-SN	 ø0.05-0.20	Engravers	Precisely controlled tip angles and tip diameters for high precision machining requirements Sharp cutting edges to ensure burr free engraving	Burr free and precise engraving
C676-SN	 ø 3.00 - 6.00	Chamfering Cutters	Precisely crafted tool for chamfering, deburring and counter - sinking application on variety of material	Chamfering, deburring and countersinking
F401-SN	 ø 4.00 - 6.00	T-Slot Cutters	Available with concave, convex and straight internal and external grooves Both sides relieved for better clearance Precisely controlled dimensions for better clearance	Internal and external slotting
E950-SN	 ø 0.20 - 6.00	Taper End Mills 2 Flute	Precisely controlled angles to achieve accurate taper angle on job	Side milling, contouring and machining angled slots
Bxxx-SN	 ø 0.30 - 4.00	End Mills for Digital Dentistry	Milling tools for Digital Dentistry Application specific geometries	Dental CAD / CAM milling
E964-SN	 ø 0.15 - 0.50	End Mills 2 Flute	Sharp cutting edges and optimised geometries	Milling of Intraocular lenses

* Also available upto ø12.00mm

Key Differentiators

High Quality
Raw Material

Super Precision
Surface finishing

QUALITY

PRECISION

CONSISTENCY

PEOPLE

High Precision
Grinders

NexGen Coatings
- CVD
- PVD
- HiPIMS

High end Inspection
and Quality Systems

NexGen High Precision Tools for Medical Implants

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ISO 9001 ISO 13485 ISO 14001 45001

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QUALITY • PRECISION • CONSISTENCY PEOPLE

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