

# EMPOWERING INNOVATION

with Smart Tooling Solution



SYNERGY INDIA is the Leading Importers and Channel Partners for the Complete Range of Cutting Tools, Holding Systems, Production Metrology Solutions, Industrial Magnets, Industrial Lubricants, Tool Storage solutions and Material Handling Equipments since 2006.

#### We are the Experts in

Offering the Complete Tooling Up Projects, Productivity Improvement solutions & Innovative Products to the Industry.

15+ Years of Experience 300+ Satisfied Customers

30+ Trusted Suppliers 25+ Successful Products

Quality Driven

**Customer Focused** 

**Global Sourcing** 







#### **OUR MISSION**

To deliver high-quality industrial products with exceptional service, empowering manufacturing to achieve peak performance.

#### **OUR VISION**

To be the preferred partner in the industrial sector, known for reliability, Innovation and Customer Satisfaction.

#### **QUALITY POLICY**

We Provide Outstanding Products and On time Support together to deliver the Value to our customers.

# OUR TRUSTED SUPPLIERS



























# INDUSTRIES WE SERVE



## **Automotive:**

Automotive components and assemblies are subject to performance evaluations according to industry standards.



### Aerospace:

The materials selection process and safety protocols rank aerospace among the most carefully regulated in the industry today.



### General:

Industrial has enhanced our services to include the latest technology for testing toys and children's products.



## Agriculture:

Routine testing includes data collection for CMTR generation using Mechanical, Chemical and Metallurgical techniques.



## Oil & Gas:

Our scope of work includes testing for structural fabrication, Pressure system and material selection.



### Medical:

Physical, Mechanical testing, Spectrometric and microscopic characterization that benefits our client's product development.



# **Pumps & Valves:**

For many years, Industrial has conducted field studies involving the public for the purposes of product screening.



#### Power:

Testing materials with a desired outward appearance and protection from corrosion, heat abrasion, and chemicals.





















- Extensive product range of machining tool solutions.
- Tools solution for processing materials ranging from high-strength steel to composite materials.
- Experts from research & development, product management, application technology in core markets china, India, USA and EMEA ensure that solutions can be developed and provided quickly.





# Clamping Technology for Precision tools

#### SHRINK CHUCKS



#### **CORONA JET**



#### SHRINK ADAPTOR





#### BENEFITS BEI

Highest process security

Cutter insertion into the cold chuck thus offering a hands free shrink process

Integrated counterbore for centring the tools

All geometric designs available Industrial standard design



#### **BENEFITS**

Targeted and consistent coolant supply

Longer tool life due to the constant cutting temperatures

Better product quality



#### BENEFITS

Very high transmittable torque values, best concentricity and highest stability

Improved surface quality and excellent precision

Maximum retention forces and rigidity Low-wear monoblock qualities





### **TOOL SETTING PROBES:**

The probes are used for and automatic tactile tool setting & tool breakage detection. Under the most adverse conditions, the systems are characterized by extreme durability, precision and economy.

Thanks to state-of-the-art transmission technology, they represent the ideal add-on to BLUM workpiece touch probes.

- Automatic calculation & Correction of the Tool Offset.
- Automatic Breakage Monitoring Between Machining Cycles.
- No Subsequent Damages due to Tool Breakage.
- Reliable also under Coolant.
- I Enable Low Manned Operation.



#### LaserControl DIGILOG

The impressive performance of the LaserControl series has been ensuring maximum precision, reliability and efficiency in countless machining centres for decades now. The latest generation is writing a new chapter in this success story. The trailblazing DIGILOG technology opens up a multitude of previously unreachable applications in production measurement technology.



#### **High-Speed Touch Probes**

Faster, more economic, more precise the advantages of the high-speed touch probe series can be summarized as simply as that. The probes impress through their state-of-the-art measuring mechanism technologies and top measuring speeds. Specially designed for the harsh conditions in machine tools, they provide the right solution for any task.





#### Roughness Measurement and Scanning in the Machining Centre

The DIGILOG technology also enables touch probes to achieve standards previously thought impossible. While roughness gauges are used for precise and automatic inspection of workpiece surfaces, DIGILOG probes quickly and reliably scan complex workpiece contours in milling, turning and grinding machines.

#### Worldwide Service:

Profit from our comprehensive services to ensure maximum efficiency, in-process reliability & availability for your prodution. Our worldwide sales and service network enables us to provide optimum support and very short response times.





# **We Optimize Performance Together.**

Lower Energy Costs

Minimize Environmental Impact

Minimize Rework and Rejects

Reduce Fluid Usage

Increase Productivity
Throughput & Utilization

Extend Equipment & Tool Life

Maximize Safety



Lower Maintenance Labor



# **Complete Process Solutions**



- Forming



- Hydraulics



- Metal Removal



- Forging



- Heat Treatments



- Surface Treatments



- Die-Casting



- Metal Protection



- Cleaners



- Speciality Coatings

### **Products**

- Cleaners
- Corrosion Preventives
- Die Casting Fluids
- Drawing and Formal Fluids
- Fire-Resistant Hydraulic Fluids

- Forging Fluids
- · Industrial Lubes and Greases
- Metal Finishing Fluids
- · Neat Cutting Oils
- · Non-Ferrous Rolling Oils

- Quenchants
- Soluble Metal Removal Fluids
- Speciality Coatings
- Steel Rolling Oils
- Surface Treatment Fluids





High Performance Solid Carbide Tools



Crafted by Passion, Built for Performance

www.nmctools.com

# Wide Range of High Performance Tools





ICE & ICE INOX MILL: Best In Class 4FL Variable Helix & Variable Index Endmills for machining Steels < 45 HRC, Stainless Steels, Cast Irons



**RHINO MILLS**: 4FL Variable Helix Roughers for machining Steels < 45 HRC, Stainless Steels



RAZOR MILLS: 3FL Endmills for Aluminums < 6% Si



NTC MILLS: 5 & 7 Flutes Dynamic Machining Endmills



 $\begin{tabular}{ll} \textbf{SUPERNOX MILLS:} & Premium 4 \& 5 Fluted Endmills for machining exotic alloys \\ \end{tabular}$ 



ROCKSTAR MILLS: 2 & 4 Flute endmills for 45-65 HRC



MICRO DRILLS: 3xd and 5xd Drills from 1.00mm onwards

**DURONTO DRILLS:** 3xd upto 12xd with and without internal coolant drills



www.nmctools.com





# Business areas

**Cutting Tools** 

**Industrial Tools** 

**Rock Tools** 



- Established in 1916 on mining exploration tools, became ar hard metal tools manufacturer in 1952.
- Our Experience enable us to be a complete provider of cutting, industrial and mining tools.
- Industrial company with high technological level, diversification of products and processes. The accuracy of this technological factor is granted with the ISO:9001 and IDI certification.





# CLAMPING MAGNETS

Lifting & Clamping with Safety



Standard Lifters

2. Custom Made Lifters

o3. 🍦 Lifting Magnets

04. Magnetic Tools

5. 💧 Clamping Magnets

o6. SB 200 | SB 500 | SB 950







#### MAGNASLOT 50

50mm square pole rectangular magnetic chuck

#### Features

- · Patented full steel Top surface. . Low height of magnetic flux.
- . High & uniform clamping power throughout the bed.
- · Variable magnetic power possible.
- · Perfect safety in case of power failure.
- · Modular, Rigid and Robust construction.
- · Unobstructed movement of tools during machining as all
- five faces of the job can be machined in the same setting. · Drastically reduces the setup time and machining of the
- work pieces. · Total magnetic surface used for clamping giving better
- machining accuracy as reducing chattering.
- · 100% Leak Proof

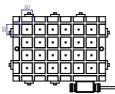
ART No.	W	L	No Of Poles	Н	Controller
13117.01	240	430	18	60	93101.01
13117.02		590	24		
13117.03		750	30		
13117.04		870	36		
13117.05		990	42		
13117.06	300	430	24		
13117.07		590	32		
13117.08		750	40		
13117.09		870	48		
13117.10		990	56		
13117.11	420	430	36		
13117.12		590	48		
13117.13		750	60		
13117.14		870	72		
13117.15		990	84		
13117.16		430	42		
13117.17	480	590	56		
13117.18		750	70		
13117.19		870	84		
13117.20		990	98		93101.02
13117.21		590	72		93101.01
13117.22		750	90		
13117.23	600	870	108		93101.02
13117.24		990	126	]	

- . Due to continuous upgradation in design there could be change in specification
- All dimensions are in mm.



#### Application

- · Most suitable for milling operations on small and think components
- · A minimum of 8 alternate poles contact is
- necessary for optimum clamping.
- . Minimum thickness of job 10 mm.
- . Easily integrated with Pallet changing and FMS Systems
- · AUTOMATIC SHIMMING: Mobile pole extensions allow clamping and uniformly support work pieces even with uneven surfaces, achieving high accuracies of planarity.
- . Clamping force > 350 kg/pole.





. The Magnet can be designed for 220/380/400/480 VAC, 50/60 Hz, · Custom designed solutions also available.

#### MAGNASLOT 75

75mm square pole rectangular magnetic chuck

#### Features

- · Patented full steel Top surface.
- . High & uniform clamping power throughout the bed.
- · Variable magnetic power possible. · Perfect safety in case of power failure.
- · Modular, Rigid and Robust construction.
- · Unobstructed movement of tools during machining as all
- five faces of the job can be machined in the same setting. . Drastically reduces the setup time and machining of the work pieces.
- · Total magnetic surface used for clamping giving better
- machining accuracy as reducing chattering.
- · 100% Leak Proof.

ART No.	W	L	Poles	Н	Controller
13131.01		425	8	60	93101.01
13131.02	239	601	12		
13131.03	239	815	16		
13131.04		1029	20		
13131.05		425	16		
13131.06	327	601	18		
13131.07	327	815	24		
13131.08		1029	30		
13131.09	415	425	16		
13131.10		601	24		
13131.11		815	32		
13131.12		941	36		
13131.13		1029	40		
13131.14		425	20		
13131.15		601	30		
13131.16	503	815	40		
13131.17		941	45		
13131.18		1029	50		93101.02
13131.19		601	36		93101.01
13131.20	591	815	48		93101.02
13131.21	237	941	54		93102.03
13131.22		1029	60		

- . Due to continuous upgradation in design there could be change in specification.



#### Application

- · Most suitable for milling operations on thick and rough components.
- · A minimum of 4 alternate poles contact is necessary for optimum clamping.
- · Minimum thickness of job 15 mm.
- . Easily integrated with Pallet changing and FMS Systems.
- · AUTOMATIC SHIMMING: Mobile pole extensions allow clamping and uniformly support work pieces even with uneven surfaces, achieving high accuracies of planarity.
- Clamping force ≥ 790 kg/pole.





 The Magnet can be designed for 220/380/400/480 VAC, 50/60 Hz. · Custom designed solutions also available







- Committed into Complete Range of Fine Boring system with the accuracy of 2 Microns. Excellent Consistency and accuracy from the Bore Size of Dia 6 mm till 600 mm.
- Combination Boring Bars and Tailor Made Boring Bars also possible for various Applications as per the Drawing.





- Reproducible clamping forces are achieved using a torque wrench.
- Integrated scrapers ensure functional reliability & minimizing cleaning.
- Fixing on the machine table by means of mounting holes in the vice base. Additional holes can be made in the soft middle section of the vice base.
- Optional centre jaw allows two or more workpieces to be clamped.





















Return integrated

Flexible for workers to get, return, and sort the tools. Workers can get the tools according to the orders set in SMARTBEE, even the admin is off duty.

24-hour unattended Tool Pick up /

CNC machine, take tools in 10 seconds today.

One tool cabinet is enough

Multidimensional statistical report

Tracking all the returned tool, say no to tool wasting. Avoid - Many semi-new tools are found in the garbage.

One cabinet manages all the tools Placing neighbor by

 Auto tracking & confirmation of tool usage status

All data is recorded by the system automatically.
Real time generation of multi-dimensional statistical reports, accurate cost analysis, one click to export data.



# **H**YDR⊙-LINE

### **Precision Hydraulic Expansion Toolholding System**







Made in Australia Exported to the world Drills – Taps - Endmills



# OUR ESTEEMED CUSTOMERS































































www.synergy-india.in

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