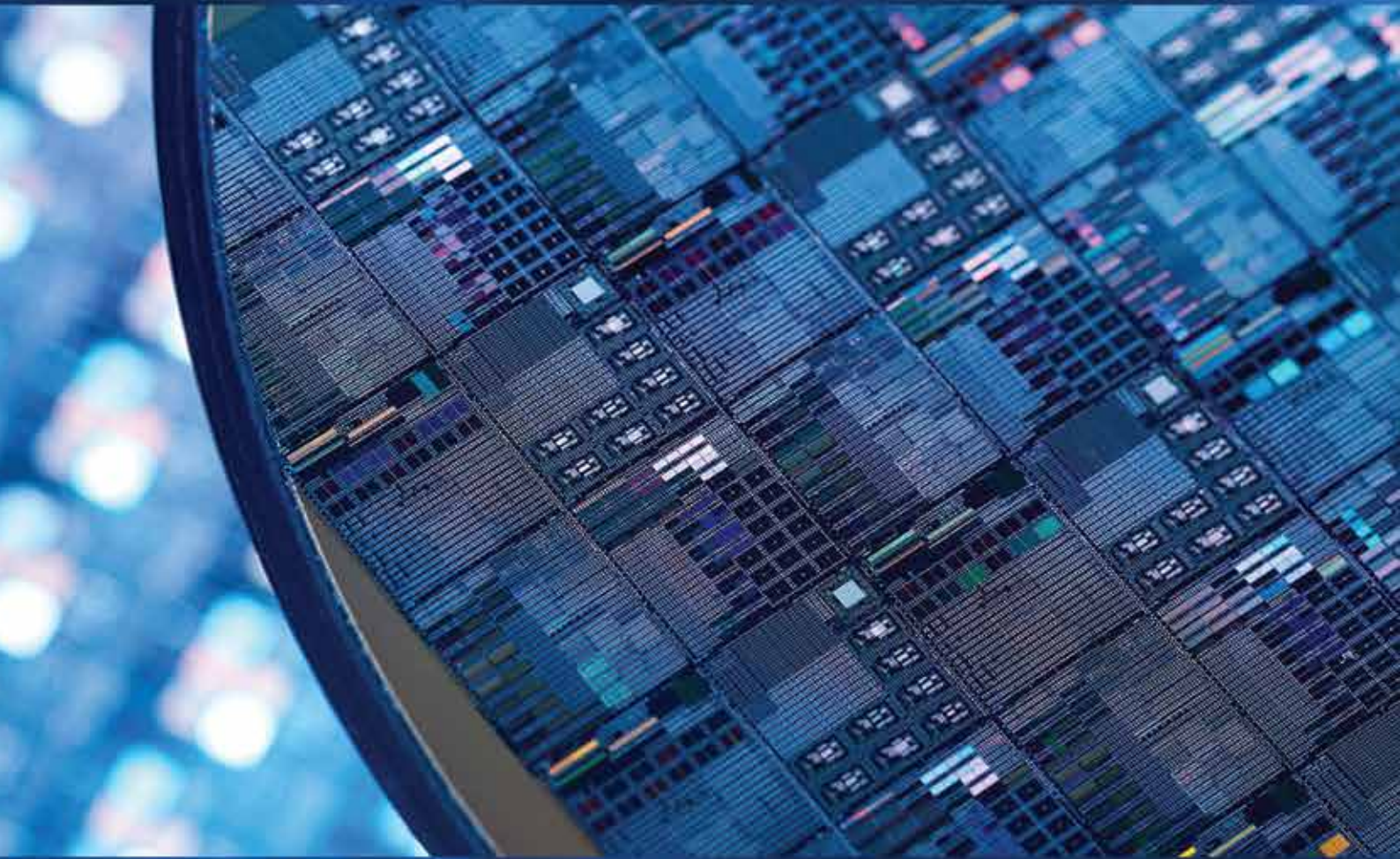




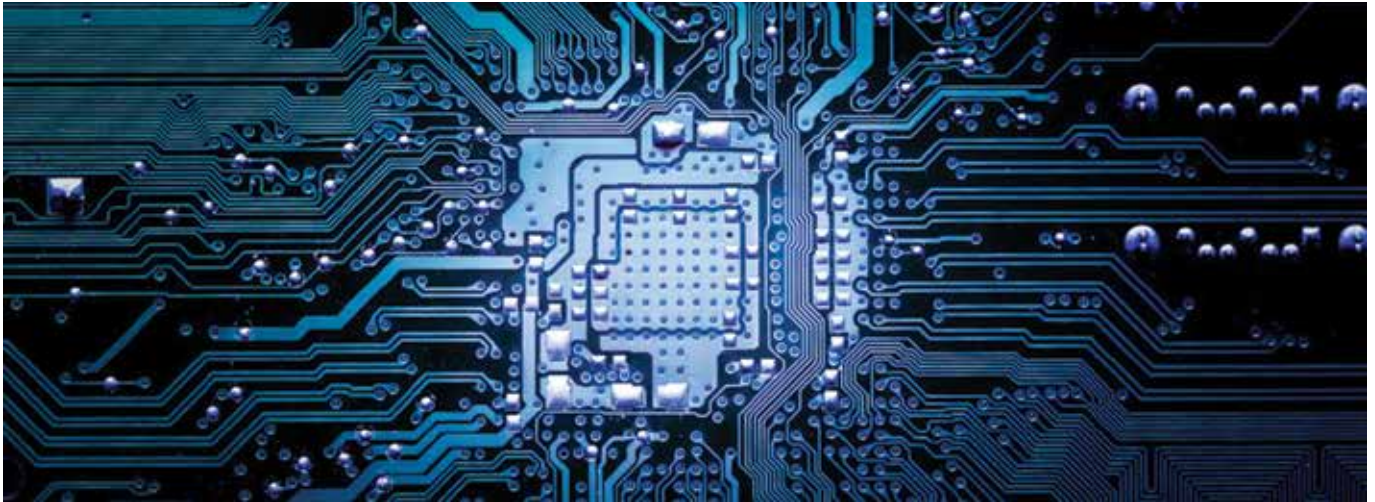
# Semiconductor Backend Tools Catalog



**2022**



# AT A GLANCE



Oricus Semicon Solutions is an innovative Semiconductor Tools manufacturing company who, with almost 100 years of collective expertise, craft high tech bespoke tooling solutions for the global Semiconductor Assembly and Test industry.

From one-off customised products to large scale production, our R&D strength, precision manufacturing experience and problem-solving capabilities are impeccable. With a passion for engineering and customer oriented service, we deliver price competitive precision Semiconductor Tooling solutions to a global market with a local presence.

Oricus is made up of a global network of professionals with strong commitment and passion for our work. The company is managed and operated with a spirit of professionalism based on the foundation of integrity, equality and respect. We are determined, objective with a sense of ownership to deliver on our goals. We value our values, professionalism, passion, perseverance and our relentless pursuit to deliver value for our customers.



**Authenticity**



**Expertise**



**Professionalism**



**Perseverance**



**Passion**



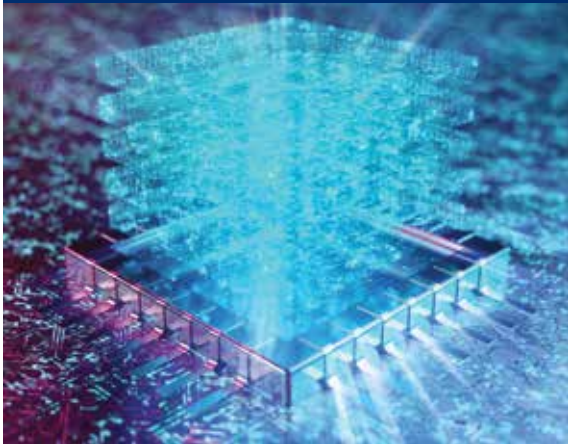
**Community**

## Oriented to Customer's needs



We excel at creating specials – one of a kind pieces, with one of a kind craftsmanship combining with the latest in manufacturing technology to produce micro precision tooling. Oricus can Design and Manufacture either one-offs or high volume orders to your unique specifications, from High Temperature resistant tools for Power Devices to tools with complex geometries for 3D Advanced Packaging.

## Industry Leading Solutions



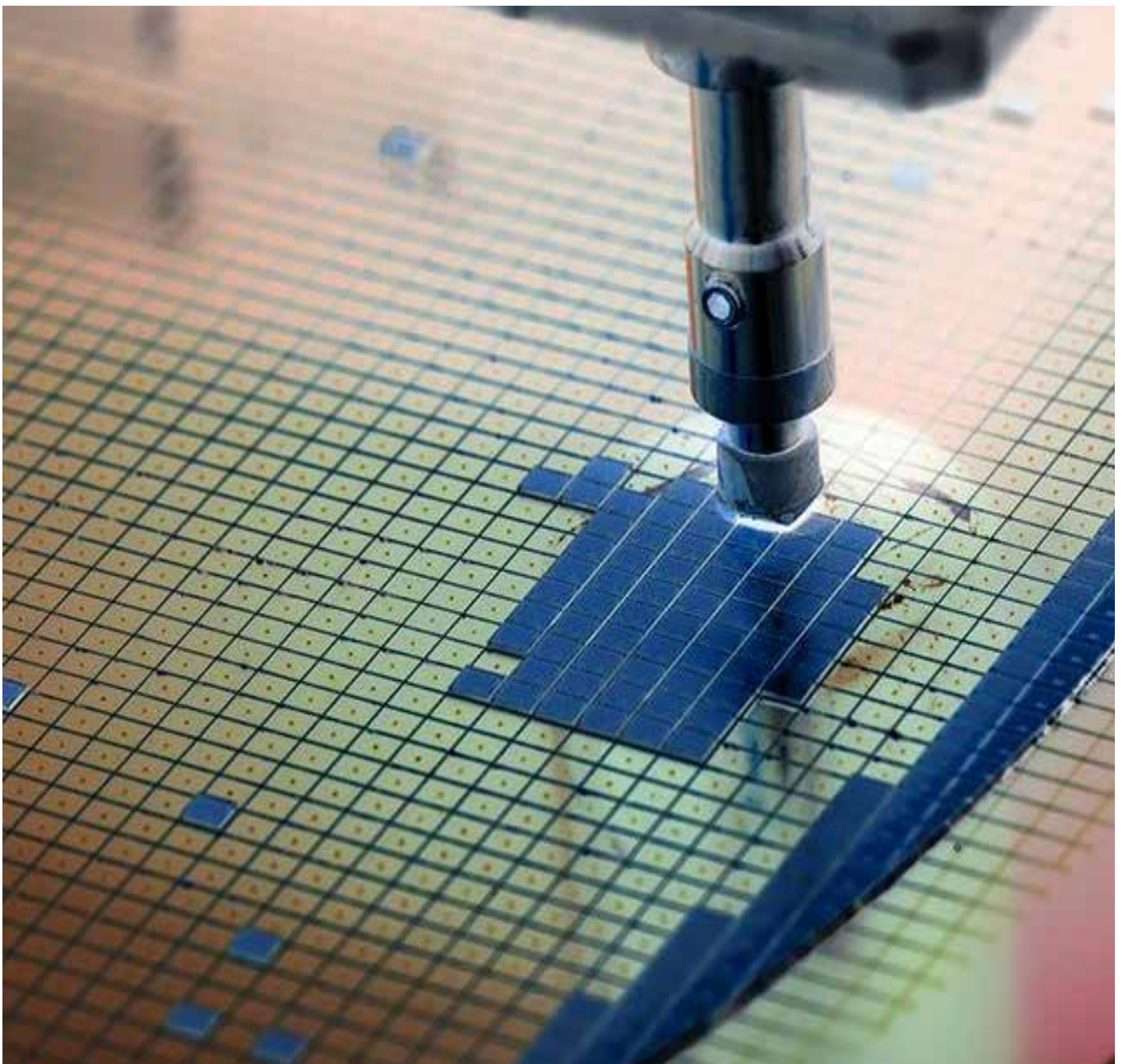
Our Technical Sales Consultants and R&D teams of seasoned Semiconductor Assembly and Test industry professionals will study your chip and package requirements and offer effective and competitive tooling solutions that will work right out of the box. Oricus has the solution to your tooling requirements. Leave it to us and you can focus on your key processes.

## Research and Development



R&D is the cornerstone of our commitment to deliver market leading tooling solutions. Our Material Science know-how, coupled with our Manufacturing Expertise and knowledge on the latest demands of Integrated Circuits Packaging allow us to offer tools that maximizes productivity and minimizes downtime.

# Die Attach



# Rubber Holders



## Common Holders

Our most versatile range of holders that comes with precise geometries that fits Flat Tips, Vacuum Relief Tips, Groove Tips and Contact Tips.



## Tri-Lock Holders

Features our 3-point contact technology for secure fitment. Special profile to keep vacuum forces enclosed within the tool for optimal suction strength.



## Magnetic Holders

Tip manufactured with an encapsulated magnet that allows for speedy, fuss-free installation while maintaining superior fitment and alignment.



## Compression Holders

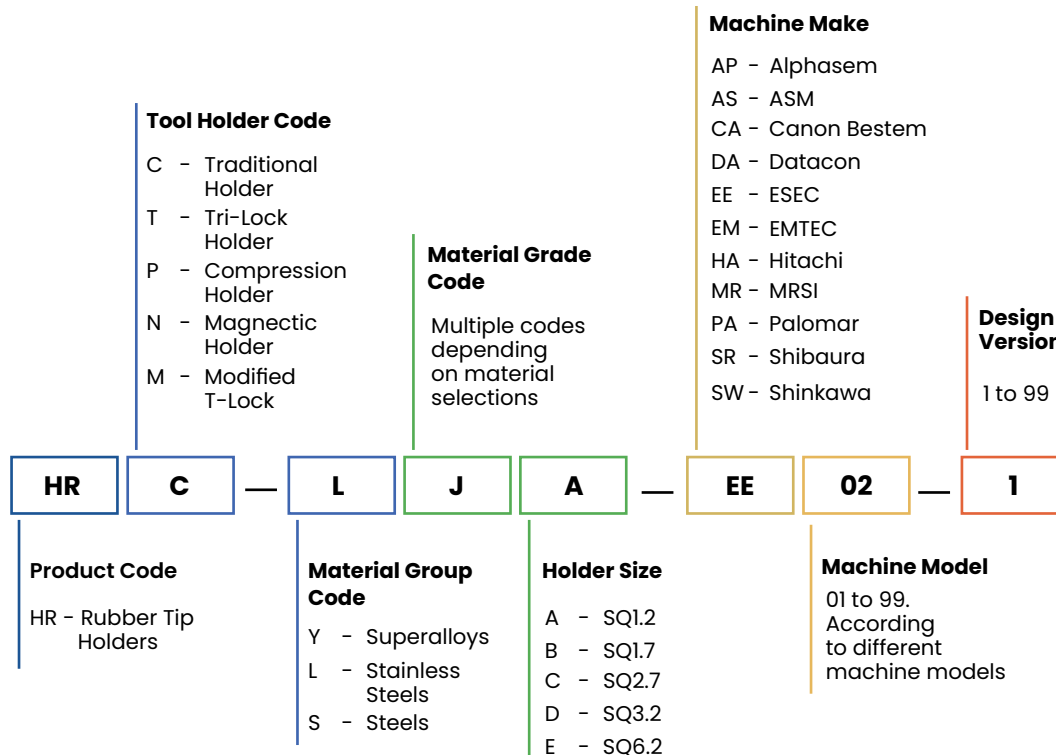
4 precision controlled sidewalls to secure the outer perimeter of the tip. Reduces overall assembled tool footprint without the need for holder-tip assembly.



## Spring-Loaded Holders

Our Spring-loaded holders feature our unique Spring Holding mechanism to ensure that the holders comply strictly with the spring force requirements of your application, even after continuous use.

## Part Numbers And Ordering



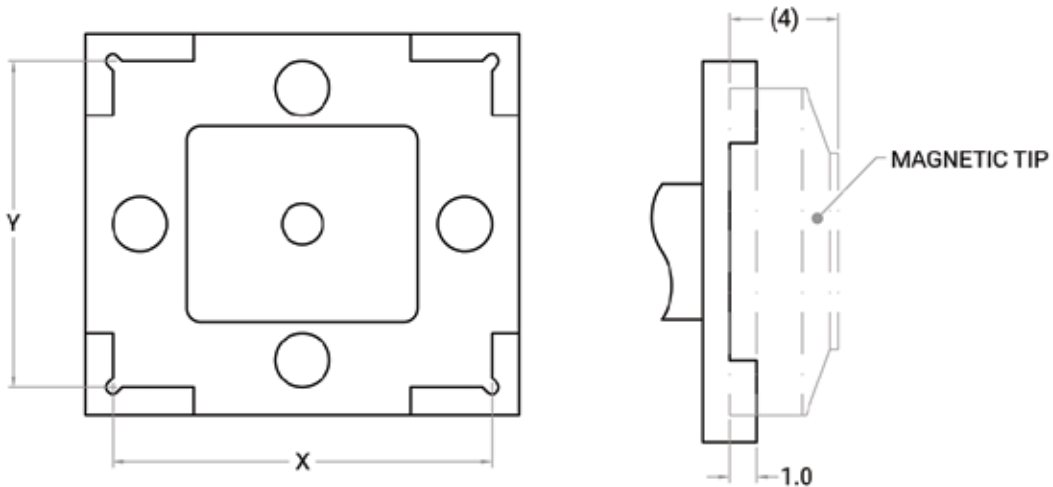
# Magnetic Holders



Magnetic Rubber Tip holders are a new design concept that uses magnetic forces instead of mechanical forces to secure the Rubber Tip to the holders. This design alleviates the Automatic Tip Change constraints and limitations faced with our other holder designs.

A magnet is encapsulated within the Rubber Tip during the tip manufacturing process. The magnetic Rubber Tip can be easily installed to the magnetic holder in a matter of seconds while maintaining a securely fitted and aligned tool.

Oricus manufactures a wide range of holders to fit various machines from OEMs such as Datacon, ESEC, ASM, Canon Bestem, Hitachi/Fasford, MRSI, and more. If you require a holder for your machine shank that is not in our standard holder list, get in touch with us and we can customize one for you.



## Features

- Suitable for use in Die Bonders and Flip-Chip machines
- Available in various Stainless Steel grades that are suitable for use in Cleanroom environments
- Magnetic holders and tips are designed to be automatically aligned with no manual adjustments required
- Works best for automated machines and plants with plans to implement Industry 4.0

## Benefits

- A single holder will fit a wide range of Rubber Tips catered for different die sizes
- When the Magnetic Holder is used in combination with our Matrix Rubber Tips, it will offer the uniform bonding and flatness performance required for the most stringent die bonding applications
- The replacement of the Rubber Tips can be performed by industrial robots or human input

Part Number	X (mm)	Y (mm)
HRN-LJA-HA03-01	14.00	12.00
HRN-LJB-HA03-01	17.00	10.00




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**ESD Properties**

Conductive <math>10^5 \Omega</math>

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**Holder Material**

Aluminium  
Steel  
Stainless Steel

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**Rubber Tip Compatibility**

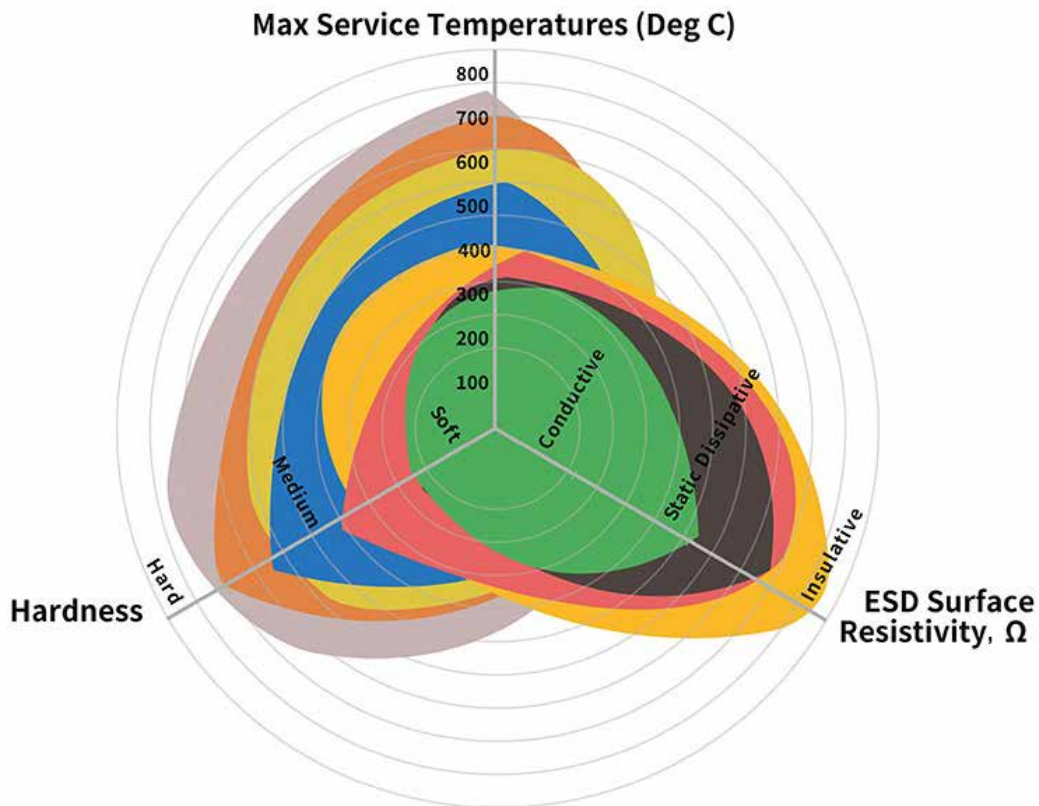
Flat Tips  
Vacuum Relief Tips  
Groove Tips  
Matrix Tips  
Side Contact Tips



# MATERIALS

Oricus's extensive line of engineered materials specially developed and selected to offer optimal tooling performance for your specific Semiconductor Backend process. Our in-house materials are closely developed in partnership with Original Equipment Manufacturers with input from our customers. For externally procured materials, each material goes through a rigorous Quality Assurance and Performance Assessment programme before making it into our material list.

Oricus' in depth understanding and experience of materials allows us to formulate tooling solutions that work for you. As part of our value proposition, we study the conditions of your application and suggest the most appropriate material that meets your needs.



 Tungsten Carbide *WC Line*

 Superalloy *SA Line*

 Stainless Steel *SS Line*

 Tool Steel *TS Line*

 Non Ferrous Metals *NF Line*

 Performance Engineering Plastics *SP Line*

 Engineering Plastics *EP Line*

 Rubber *R Line*

<p><b>WC</b> LINE</p> <p><b>Tungsten Carbide</b></p> <p>High Wear &amp; High Temp Resistance</p> <p>Carbide, K15 Carbide, K30 Carbide, M30 Carbide K40 Carbide, MG30</p>	<p><b>SA</b> LINE</p> <p><b>Superalloy</b></p> <p>All-Round Superior Performance</p> <p>Haynes 25 (L605) Inconel Alloy 625 Inconel Alloy 718 Incoloy Alloy 925 Nitronic 50 Nitronic 60 Titanium Grade 2 Stellite 6 Stellite 31</p>	<p><b>SS</b> LINE</p> <p><b>Stainless Steel</b></p> <p>Balanced Properties</p> <p>15-5 PH 17-4PH SUS 430F SUS 420 SUS 440C SUS 316 SUS 301 SUS 304 SUS 303</p>	<p><b>TS</b> LINE</p> <p><b>Tool Steel</b></p> <p>High Strength</p> <p>CPM-10V SKD 11 SKH 51 Mirrax 40 ASP 23 Stavax XW 10 XW 42 Assab 718 - HH  HSS DF2 DF3 Ramax HH Rochling 2315</p>
<p><b>NF</b> LINE</p> <p><b>Non Ferrous Metals</b></p> <p>Special Applications</p> <p>Aluminium 7075 Aluminium 6061 Copper Brass Hovadur K350</p>	<p><b>SP</b> LINE</p> <p><b>Performance Engineering Plastics</b></p> <p>Advantageous Performance &amp; Value</p> <p>Torlon 4432 (PAI) Torlon 4301 (PAI) Torlon 5030 (PAI) Toriion 7130 (PAI) Vespel SCP5050 (P) Vespel SP 21 (PD) Vespel SP1 (PI) ESD Semitron 520 ESD Semitron 420 ESD Semitron 410C ESD Semitron 225</p>	<p><b>EP</b> LINE</p> <p><b>Engineering Plastics</b></p> <p>Economical And Versatile</p> <p>Acrylic/ Polycarbonate TECAFORM SD Delrin ESD Delrin White Delrin Black POM PEEK PEEK HT PEEK GF 30% PEEK CF 30%</p>	<p><b>R</b> LINE</p> <p><b>Rubber</b></p> <p>Geometric Flexibility ESD Protection</p> <p>NBR NBR (Soft) NBR (Hard) NBR (Coated) HPR HPR (Soft) HPR (Hard) UPR CR (ESD) CR</p>

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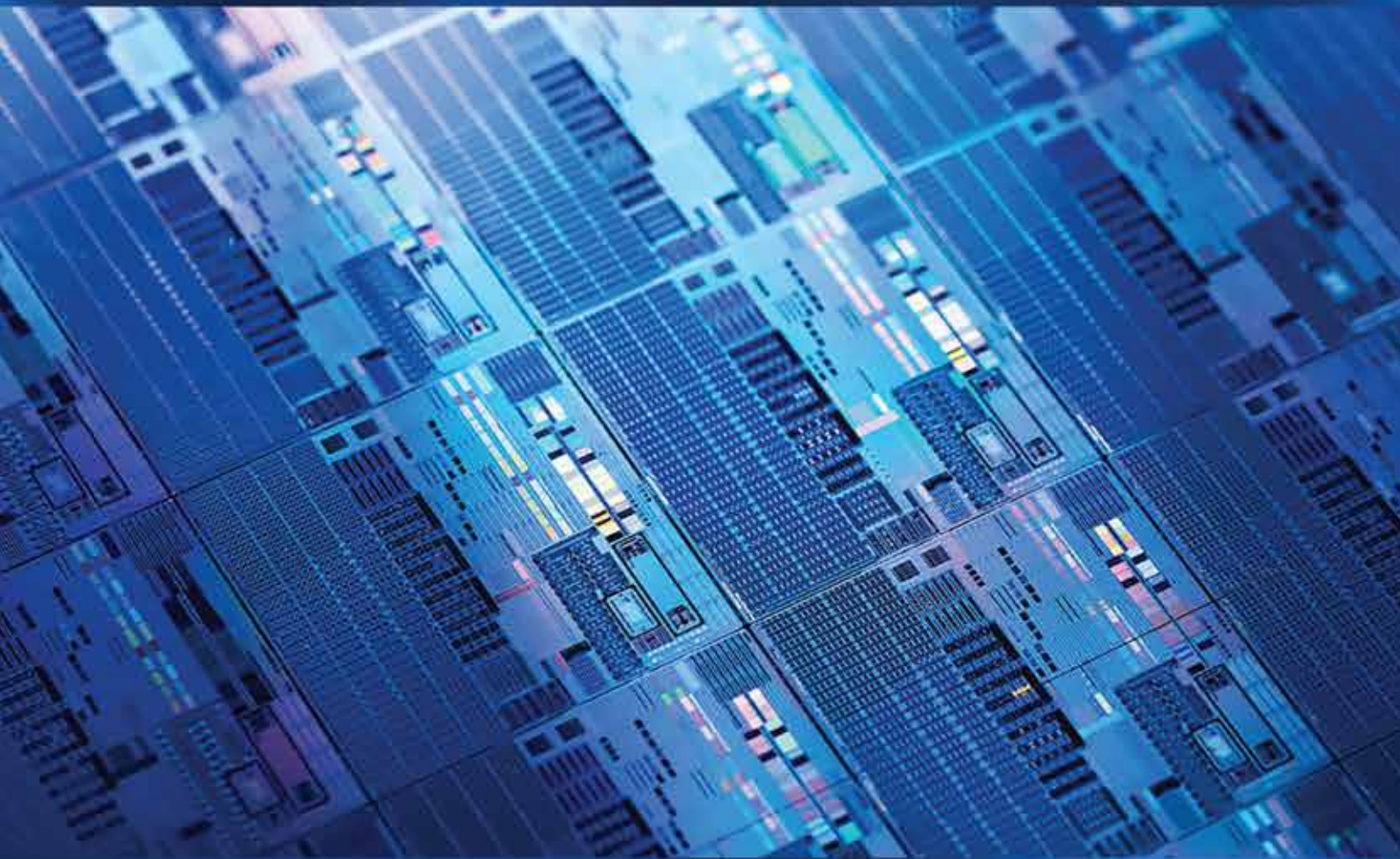
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