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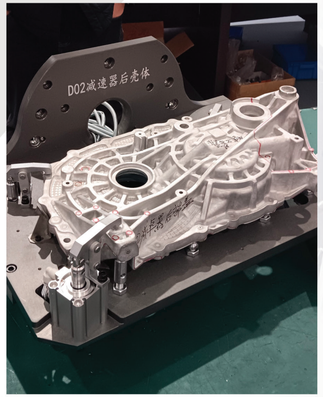
SYNTAX
OVER 30 YEARS OF EXCELLENCE IN MECHANICAL MACHINING

With over thirty years of consolidated experience, our company has established itself as a benchmark partner for the principalItalian industrial entities, offering cutting-edge solutions in the field of design and production of special machine tools and "turnkey" systems.

Backed by a deep knowledge of mechanical machining and the most innovative technologies, our team of experts is now capable of developing customized and high-performance solutions.

From the conceptual phase to final production, we guarantee comprehensive assistance, optimizing processes and managing production costs, often exceeding Client expectations.

Our offering is completed by the study, design, and production of workpiece clamping systems, a crucial element for ensuring the utmost precision and quality in mechanical processes. Our commitment to Clients does not end with the delivery of the system or the provision of a solution. A team of highly specialized technicians, with consolidated experience in special and standard machine tools, ensures complete and timely assistance throughout every stage of the plant's life cycle.





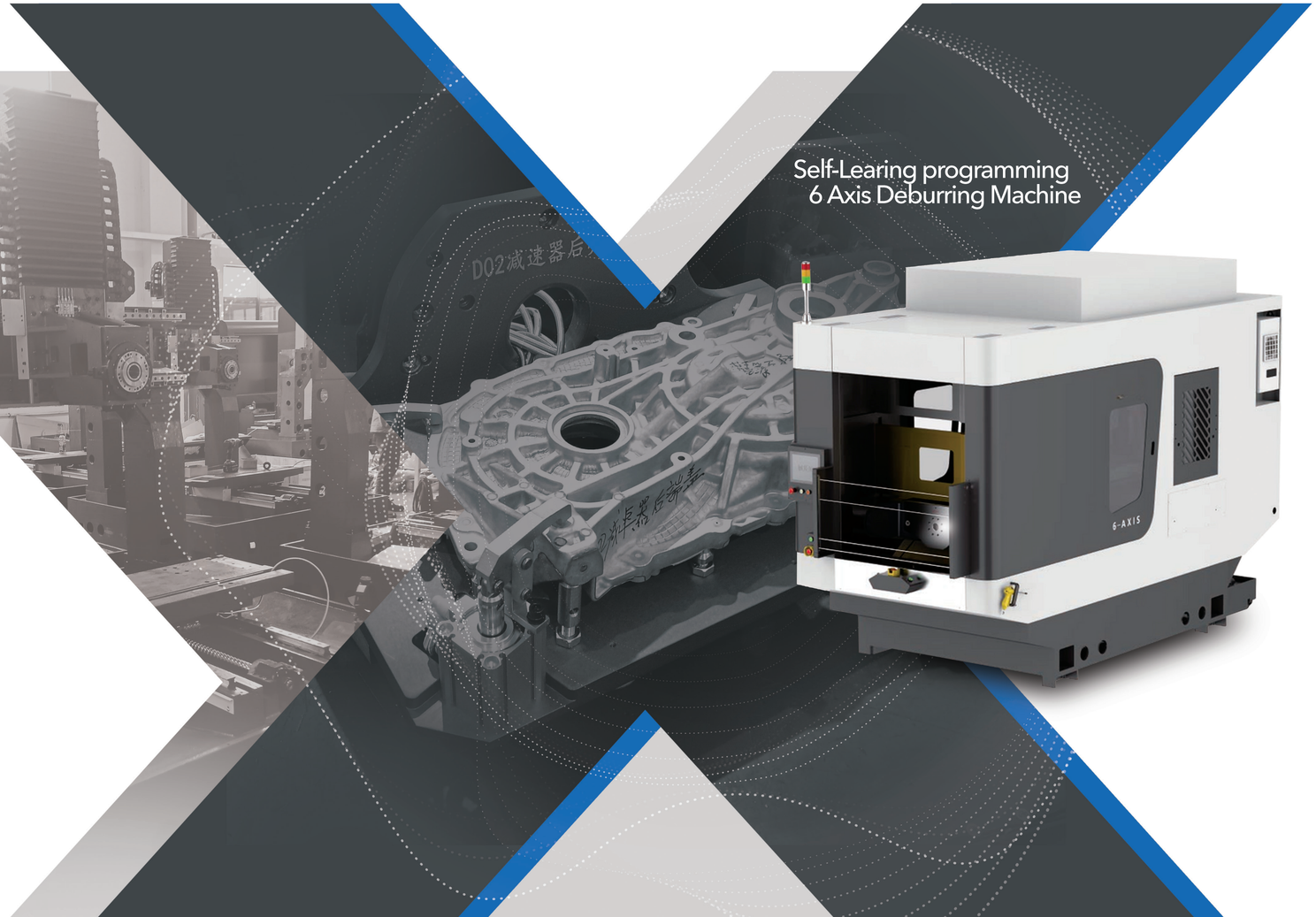
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Self-Learing programming 6 Axis Deburring Machine



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ALUMINUM CASTINGS FOR EVERY SECTOR

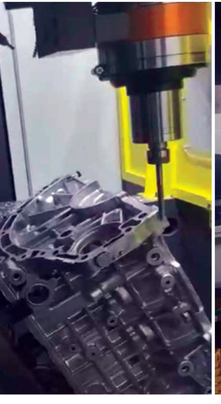
Our innovative, high-technology deburring machines represent the benchmark for precision finishing. We offer a comprehensive range of machines, available in optimized sizes for the deburring of die-cast aluminum elements, regardless of their dimension or geometric complexity. Efficiency is guaranteed by the advanced pneumatic clamping system. This equipment is designed not only to securely fasten the die-cast elements during the process but also to allow the free and total passage of the tool into every single critical zone requiring deburring. This approach ensures an impeccable and uniform finish on components intended for the most demanding sectors, from automotive to aerospace.



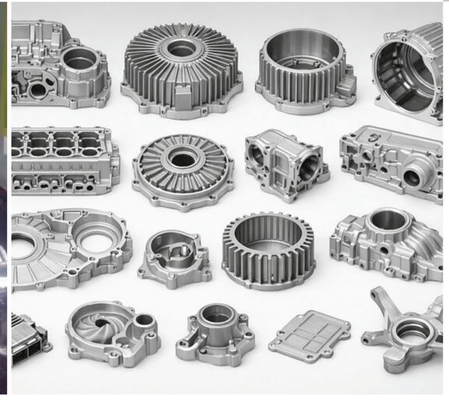


HIGH-PRECISION DEBURRING SOLUTIONS FOR ALLUMINIUM CAST COMPONENTS

Our advanced, high-performance deburring machines set a reference standard for precision finishing in aluminum castings. The range includes multiple machine configurations, engineered to efficiently process all types of aluminum die-cast and gravity-cast components, independent of size, shape, or structural complexity. These systems are specifically designed to remove burrs, runners, gates, flash, and other surface imperfections generated during the casting process. For small or medium-sized parts, dedicated solutions allow multiple components to be processed simultaneously within a single fixture, maximizing productivity and cost efficiency. The robust pneumatic clamping ensures stable part positioning while guaranteeing full tool accessibility to every critical area requiring cleaning.

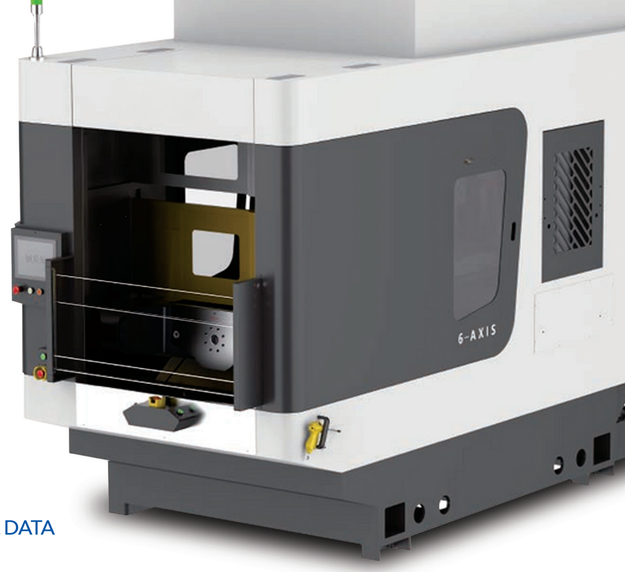






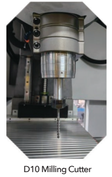
This results in consistent, high-quality surface finishing suitable for demanding industrial applications such as automotive, aerospace, industrial machinery, hydraulics, and energy sectors. In parallel, the tooling is custom-developed for the application. Each tool is not a simple off-the-shelf component but has been specifically studied and manufactured for the deburring process. Thanks to the targeted design, our tools are capable of reaching and treating every area to be prepared, including deep cavities and complex angles, guaranteeing a complete and flawless preparation of the castings. The effectiveness of this combination (spindle + tool) is the key to the high-quality finishing we offer.



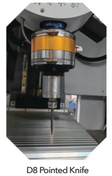


HIGH PRECISION AND ADAPTIVE TOOL CONTROL

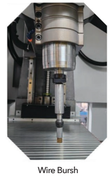
Adopting Taiwan's (new generation) multi axis control dedicated system. Equipped with Taiwan's (new generation) servo control motor, it has fast response speed, smooth running trajectory, and precise position control. The spindle can be at any angle, the tool change is fast, and there are pneumatic polishing tools available Adopting a six axis teaching programming method, multiple specifications of workpieces can be taught, and the program can be stored. The main structure of the equipment is formed by casting, with high rigidity, high precision, no tool vibration during processing, and fast feed rate. Grinding and deburring tools can achieve a reasonable combination of flexible and rigid tools.



D10 Milling Cutter



D8 Pointed Knife



Wire Bursh



D6 File Cutter

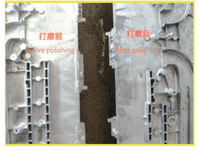


D12 Steel Brush



Floating Grinding Head







SPECIAL SPINDLES AND TOOL

The beating heart of our deburring technology resides in the precision of the specialized spindles. Each spindle has been meticulously studied and manufactured to optimize every phase of the process. To ensure maximum adaptability to the varying geometries of the die-cast parts, the spindles are equipped with a dedicated axial or radial spring compensation system. This feature allows for dynamic compensation, ensuring a constant and uniform pressure of the tool on the part's surface, which is essential for consistent, defect-free results.

MODELS AND TECHNICAL DATA

	LDW-6R-6T-50	LDW-6R-6T-70	LDW-6R-6T-90	LDW-6R-6T-70-2	LDW-6R-6T-90-2
Dimensions	1900*1450*2360mm	2025*1650*2570mm	2250*1800*2800mm	2960*2300*3180mm	3570*1700*2400mm
Equipment Travel	X500 + Y500 + Z400	X700 + Y700 + Z700	X900 + Y700 + Z700	X700 + Y650 + Z650	X900 + Y700 + Z700
Max Processing Size	450*450*350 mm	650*650*650 mm	850*650*650 mm	650*600*600 mm	850*650*650 mm
Idle Speed	35000 mm/min	35000 mm/min	35000 mm/min	35000 mm/min	35000 mm/min
Processing Speed	1000-10000 mm/min	1000-10000 mm/min	1000-10000 mm/min	1000-10000 mm/min	1000-10000 mm/min
Dististance Spindle - Worktable	50-450 mm	50-750 mm	50-750 mm	50-700 mm	50-750 mm
Spindle Cooling Method	Air / Oil	Air / Oil	Air / Oil	Air / Oil	Aria / Olio
Air Pressure Requirement	>0.55MPa	>0.55MPa	>0.55MPa	>0.55MPa	>0.55MPa
Number of Spindle	5	5	5	5	5
Processing Accuracy	±0.02mm/300 mm	±0.02mm/300 mm	±0.02mm/300 mm	±0.02mm/300 mm	±0.02mm/300 mm
Drive Motor	X1.7kW*Y1.7kW*Z3.9kW A1kW*B1kW*C1kW	X1.7kW*Y1.7kW*Z3.9kW A1.5kW*B1kW*C1kW	X1.7kW*Y1.7kW*Z3.9kW A1.5kW*B1kW*C1kW	X3.9kW*Y3.1kW*Z3.9kW A1.5kW*B1kW*C1kW	X3.9kW*Y3.1kW*Z3.9kW A1.7kW*B2kW*C1kW
Total Weight	5.000 Kg	5.000 Kg	5.000 Kg	5.000 Kg	5.000 Kg
Control System Brand	Syntec	Syntec	Syntec	Syntec	Syntec
Number od control Axes	6	6	6	6+2	6+2
Handwheel	Standard	Standard	Standard	Standard	Standard
Lubrication System	Automatic	Automatic	Automatic	Automatic	Automatic
Spindle Power	1.5-5.5 KW	1.5-5.5 KW	1.5-5.5 KW	1.5-5.5 KW	1.5-5.5 KW
Spindle Speed	3000-24000 RPM	3000-24000 RPM	3000-24000 RPM	3000-24000 RPM	3000-24000 RPM
Tool Clamping Ran	Φ3-Φ16	Φ3-Φ16	Φ3-Φ16	Φ3-Φ16	Φ3-Φ16

Note: images, drawings, and technical data are for illustrative purposes only and do not constitute a contractual binding. For tolerances and specific details, please contact the technical department.

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