



MADEV
ENGINE PARTS



PISTON RINGS BROCHURE

DECADES OF INNOVATION, GENERATIONS OF TRUST

www.madevinternational.com

Welcome to Madev International: Where engineering meets performance!

Welcome to Madev International, born with a legacy dating back to the 1960s, we are a renowned manufacturing company specializing in Piston Rings. Our commitment to excellence is ingrained.

Company Overview

Established over six decades ago, Madev International has solidified its position as a cornerstone in the Engine parts Industry. Our proud heritage is built on the expertise of our founding generation, revered not only for their business acumen but also for their mastery in engineering. This legacy of excellence continues to inspire us today, driving our commitment to advancement and innovation.

Manufacturing Powerhouses & Cutting-Edge Innovation: Our Team, Technology, and Strategy



Our manufacturing capabilities are bolstered by our Esteemed sister concerns, **Shaktimaan Industries**, est'd in 1960, and **Laxmi Auto Industries**, est'd in 1975. Together, we form a formidable force in the production of high-quality engine components.



Our success is attributed to our dedicated team of over 100 skilled professionals. With their expertise and unwavering dedication, we strive to exceed customer expectations and set new benchmarks in the industry.

QUALITY CERTIFICATION

We take pride in upholding the highest standards of quality. Madev International is certified with **ISO 9001:2015**, a testament to our unwavering commitment to delivering products of exceptional quality & reliability.

Diverse Product Range & Applications

Explore our comprehensive range of piston rings tailored to suit various engine types and applications. Whether you're in need of Diesel engines for heavy commercial vehicles, Internal Combustion Engines for Passenger cars; or Tractors for agricultural machinery, **MADEV ENGINE PARTS** has you covered.



Discover The Brands We Cover

Diesel Engines: Cummins, Caterpillar, Perkins, Detroit Diesel, Deutz, Yanmar, Hatz, Petter, Kirloskar

Internal Combustion Engines: Toyota, Honda, Ford, General Motors, Fiat, Renault, Peugeot

Heavy Commercial Vehicles: Mercedes-Buses, Volvo, Scania, MAN, DAF, Isuzu, Iveco, Dongfeng, Mack

Passenger Cars: BMW, Audi, Volkswagen, Mercedes-Benz, Chevrolet

Tractors: Massey Ferguson, New Holland, Case IH, Kubota, Zetor, Belarus, Sonalika International

Two-Wheelers: Yamaha, Suzuki, Kawasaki, Harley-Davidson, Royal Enfield

Heavy Earthmoving Vehicles: Komatsu, JCB, Liebherr, Hitachi

Agriculture Machinery: Lister, Kubota, John Deere, Massey Ferguson, Blackstone, Claas Harvester, Lombardini

Industrial Equipment: Atlas Copco, Ingersoll Rand, Komatsu



Engineered Excellence: Madev Engine Parts

Meticulously engineered for superior performance, our Piston Rings are crafted to the highest standards of quality. Available in a variety of materials including Cast Iron and Ductile Iron [Plain & Chrome Plated] our range also includes Steel Oil Control Rings [Plain & Chrome Plated] with a diameter range spanning from 40.00 MM up to 200.00 MM, our Piston Rings are designed to meet the diverse needs of engines across various industries.

State-of-the-Art Infrastructure



INDUCTION FURNACE

Melts metals to create high quality alloys used in piston ring production, ensuring durability and performance.



PROFILE GRINDING

Shapes Piston Rings to precise specifications, optimizing their fit and function within the engine.



DUPLEX GRINDING

Ensures uniform thickness & smooth surfaces of Piston Rings, enhancing their sealing properties and reducing wear.



KEYSTONE GRINDING

Precision grinding of key features on Piston Rings, ensuring proper compression and oil control in the engine.



O.D. LAPPING MACHINE

Achieves fine surface finishes on the outer diameter of Piston Rings, improving their sealing effectiveness and reducing friction.



OIL RING SLOTTING

Creates precise grooves or channels in Piston Rings to facilitate efficient oil distribution & drainage of excess oil into the engine chamber.



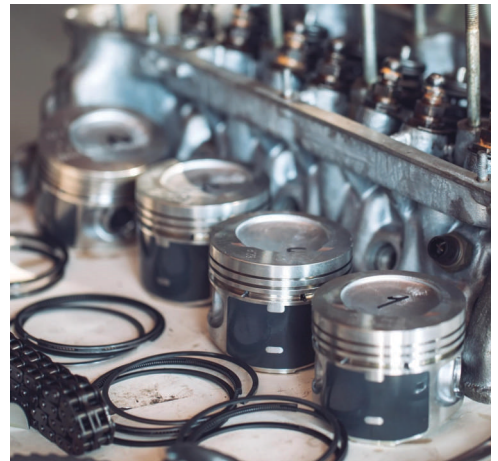
CNCS / BMCS

Automates machining processes ensuring consistency and accuracy in their production. Performs turning, drilling, boring, and milling operations on Piston Rings to achieve precise dimensions and surface finishes.



SPECIFICATIONS IN ACCORDANCE WITH DIN 70909 & ISO 6621-3

Abbrev.	Designation	Class as in ISO 6621-3	Mean Young's modulus (N/mm ²)	Bending strength (N/mm ²)	Hardness
STD	Cast Iron, non refined	12	100 000	350	95 HRB
G1	Cast Iron, refined	22	115 000	450	106 HRB
G2	Cast Iron, refined	23	115 000	450	400 HV5
G3	Cast Iron, refined	24	115 000	500	108 HRB
G6	Cast Iron w/ Spheroidal Graphite, refined	53	160 000	1300	95 HRB
G7	Cast Iron w/ Spheroidal Graphite, non refined	55	160 000	1300	95 HRB
St (X1)A	Steel X 90 CrMo V 18	61	200 000	–	33-44 HRC



Explore Our In-House Casting Foundry

At Madev International, our state-of-the-art in-house casting foundry adheres to the highest metallurgical standards. We meticulously control the incorporation of heavy metals like Tin, Manganese, Chromium, Nickel, Copper, and Silicon alongside Lead. This ensures optimal diffusion processes within the mixed crystalline series structure, particularly in high-speed internal combustion engines operating under lower thermal stress conditions with ring temperatures below approximately 200°C.

The MADEV ENGINE PARTS Packaging!

Our packaging isn't just a box; it's a promise. Each **MADEV ENGINE PARTS** package is carefully crafted to protect our genuine engine parts from the factory to your doorstep. With strong materials & secure seals, our packaging ensures that your purchase arrives in perfect condition, ready to deliver top-notch performance in your vehicle. Trust MADEV for quality you can see, touch & rely on.



State-of-the-Art Inspection Tools and Facilities

At Madev International, our commitment to quality is evident in our adherence to rigorous inspection standards, such as those outlined in ISO 6621-2. We prioritize precision and excellence in every aspect by following these comprehensive inspection protocols, we guarantee the reliability, performance, & durability.



Structural and Specifications Testing

Includes dimensional measuring tools for Ring thickness and Microscopic Structural scan to test out the raw material.



Modulus of Elasticity

The stiffness or rigidity measure of piston rings.



Tensile / Diametral Force

Force exerted by rings against the cylinder wall, vital for sealing and reducing friction.



Hardness Testing

Evaluates rings' resistance to deformation, ensuring durability under harsh conditions.



Tangile /Bending Strength

Rings' ability to resist fracture when subjected to bending loads during operation.



Thermal Testing

Evaluates rings' response to temperature changes to ensure they withstand high combustion temperatures.



Coating Characterization & Hardness

Analyzing surface coatings for thickness, adhesion, wear, and corrosion resistance.



Functionality Tests

This includes tests for Compression, Leakage, End Gap Measurement, Oil consumption and others.

Brands That We Cover



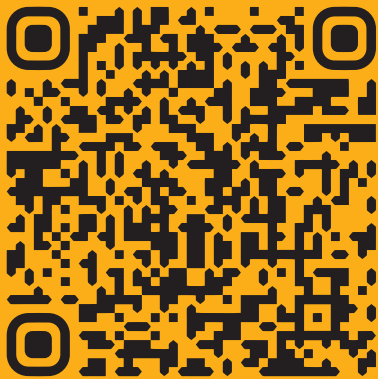
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Vision & Mission

Committed to our mission, we aim to positively influence the automotive industry. Specializing in Piston Rings, our focus is on delivering innovative solutions that elevate performance, sustainability, and customer satisfaction. Through continuous improvement and exceeding expectations, we endeavor to contribute meaningfully to the industry.



Countries We Export To



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Découvrez notre catalogue dès maintenant!



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ENGINE PARTS



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