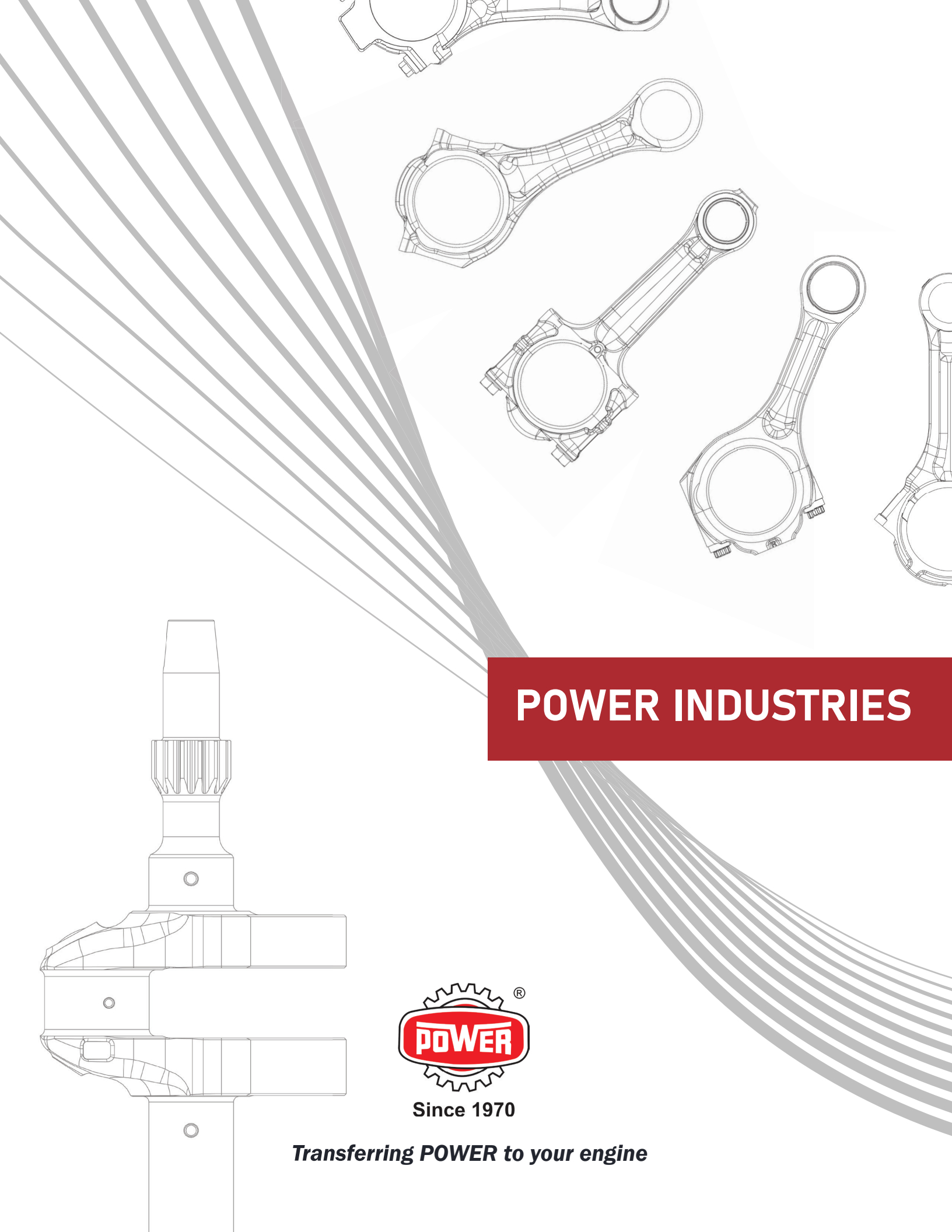




POWER INDUSTRIES

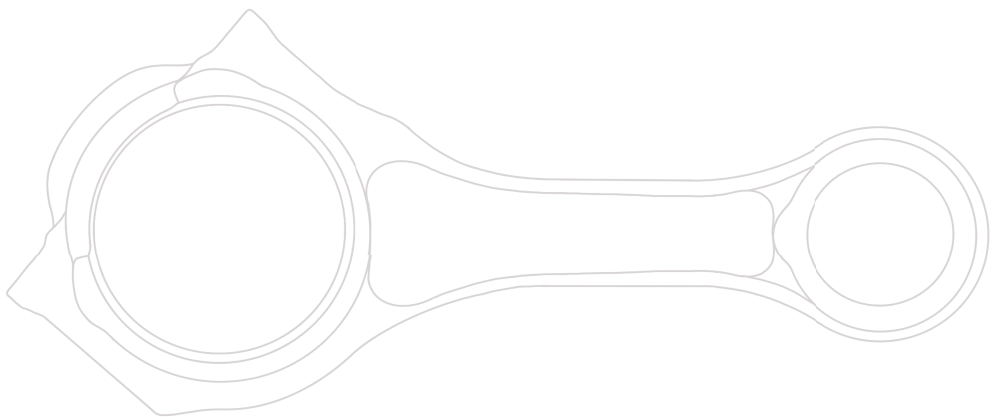


Since 1970

*Transferring **POWER** to your engine*

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About Us

Power Industries is a leading Manufacturer & Exporter of engine products. Our expertise underlies in engine parts like Connecting rods, Dry / Wet / Air-cooled Cylinder liners, Piston, Rings, Valves, Guides and Crankshaft for various applications of Diesel/Petrol Engines, Tractors, Automobiles, Marine, DG sets and Earth Moving Equipment, Pressure Pumps, Compressors since 1970 (ISO 9001-2015 certified company).

Nearly five decades of experience and rigorous market knowledge of engine parts has helped us keep our company customer centric. Our constant commitment towards research & development has contributed to diversifying our portfolio. We take great pride in utilizing our resources to their optimal level and maximizing the quality of our products. Our machining facilities boast a wide range of state of the art equipment - CNCs, VMCs, SPMs for precision machining and CMM, Special Gauges, Hydraulic Collates for accurate measurements.

Our team here at Power Industries is trained to achieve specific customer requirements. Our proficiency in manufacturing critical engine components has been yielding us with great trust and success amongst our clients globally. We are equipped with 150+ manpower strength, 50+ years of experience, and growth strategy focusing on efficient manufacturing. Currently, products manufactured by Power are utilized in several countries such as Germany, Poland, Italy, Russia, Turkey, UK, USA, Australia, UAE, Hong Kong and Brazil. Additionally, we supply to renowned OEMs who are leading automobile manufacturers in India, Middle East, Latin America and Europe.

Quality Assurance

- ▶ Our team work and efficient management system promises utmost attention to quality, quantity and timely delivery of our products.
- ▶ Implementation of ISO 9001:2015 QMS (Quality Management System) conforming to global norm.
- ▶ Continuous improvement of products is achieved via customer feedback.

Our strong emphasis on uncompromised quality and excellent workmanship guarantees customer satisfaction. Our close monitoring system and fail proof mechanism enables us to reduce margin of error.

We offer vast range of premium quality engine products like connecting rods, crankshafts, Eccentric Shafts, Dry/Wet/Air-cooled Cylinder Liners, Valves, Piston, for various applications listed below:

- 2 & 3 Wheeler engine
- Passenger car
- Light commercial vehicle
- Heavy commercial vehicle
- Tractor & Farm equipment
- Earth movers
- Heavy duty diesel engine
- Marine engine
- Stationary diesel engine

Connecting Rod

Connecting rods are widely utilized in automobiles. It is an essential part of an internal combustion engine because it connects the crankshaft to the pistons. To keep the engine operating properly, we guarantee that the highest quality is generated.

We forge these connecting rods to give them a strong build. We can supply finished products thanks to our advanced technology and knowledge of current manufacturing techniques. Leveraging fracture split technology, we produce the rods in-house. Additionally, this saves energy and drives down the buying price for our consumers. We invest in cutting-edge equipment to preserve product quality and manufacturing precision.



Technical Specification

Product Range (in mm)

- Big End Bore Diameter: 30 to 125
- Small End Bore Diameter: 15 to 80
- Centre Distance: 75 to 350
- Weight (In Kg): 0.5 to 15.00

Material

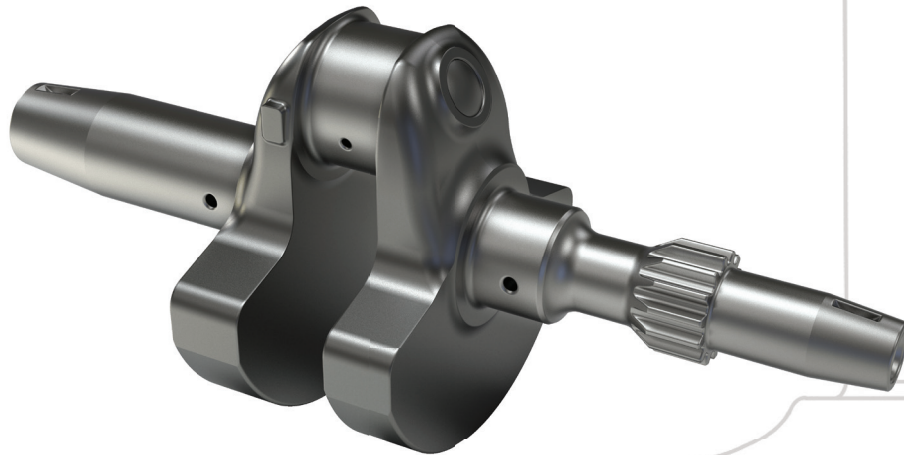
- EN8D
- 42CrMo4
- EN19
- EN9
- C70

So far, we have created over 300 different types of connecting rods for numerous engine applications. Our cherished customers have tried it out, evaluated it, and trusted it.

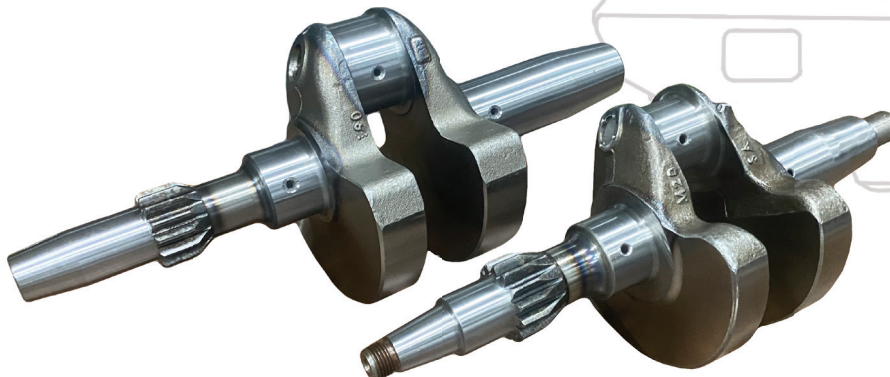
Crankshaft

A piston's linear motion is transformed into a rotational motion via the crankshaft. We use the latest machinery and highly trained personnel to create crankshafts that meet OE specifications.

Crankshafts can be produced through steel forging or casting. We recommend forged crankshafts for durability and better performance. Forged crankshafts allow high power transmission and deliver high RPM compared to casted crankshafts that tolerate less power. Due to its performance features, forged crankshafts are more costly compared to the casted ones.



We fabricate crankshafts with up to three cylinders on-site. While we work with a trusted partner with over three decades of expertise to make multi-cylinder engines (more than 3 cycles).



Currently, we produce crankshafts for use in diesel, marine, earthmoving, truck, and vehicle engines.

Cylinder Liners

The cylinder liners are sleeves in which the pistons of an engine interact. We bring wet/dry cylinder liners and air-cooled blocks in over 3000 variations. Our liners are utilized in industrial, marine, truck, tractor, earthmoving, generator and heavy-duty commercial vehicle applications.

We produce cylinder liners and sleeves using centrifugal casting, a modern technique. We use gray cast iron to make our products. We apply a shell molding method for air and water cooled blocks, which increases product longevity and offers wear resistance owing to close grain casting.

Types

1. Wet Liner
2. Dry Liner
3. Air cooled Block

Range & Specification Detail

- Production capacity: 100000 pieces per month

Product Range (in mm)

- Bore Diameter: 45 to 250
- Outer Diameter: 50 to 275
- Length: 125 to 350

Finishes

- Semi finished and full finished

In order to achieve tight tolerance and precision, our manufacturing facilities include CNC machines (horizontal and vertical), special purpose CNC boring, plateau honing, center less grinders, and customized lathe machines.

Chemical Composition

Name	Minimum	Maximum
Chromium	0.25	0.50
Carbon	3.00	3.50
Silicon	2.00	2.50
Manganese	0.50	0.80
Phosphorus	0.3	0.50
Sulphur	-	Max. 0.05
* Custom	-	-



***Note:** In addition to the materials mentioned above, we can also cast material compositions utilising Chrome, Molybdenum, Nickel, Copper, Boron, and other materials per customer specifications while making sure we adhere to international standards.

Micro Structure

- Graphite type: "A" & "B" ("D" & "E" Random)
- Flake Size: 4-6 Microns
- Pearlite (Max 2% Ferrite)
- Dispersed network of steadite
- Carbides Max. 1%

Hardness (BHN)

- 210 to 270

Tensile

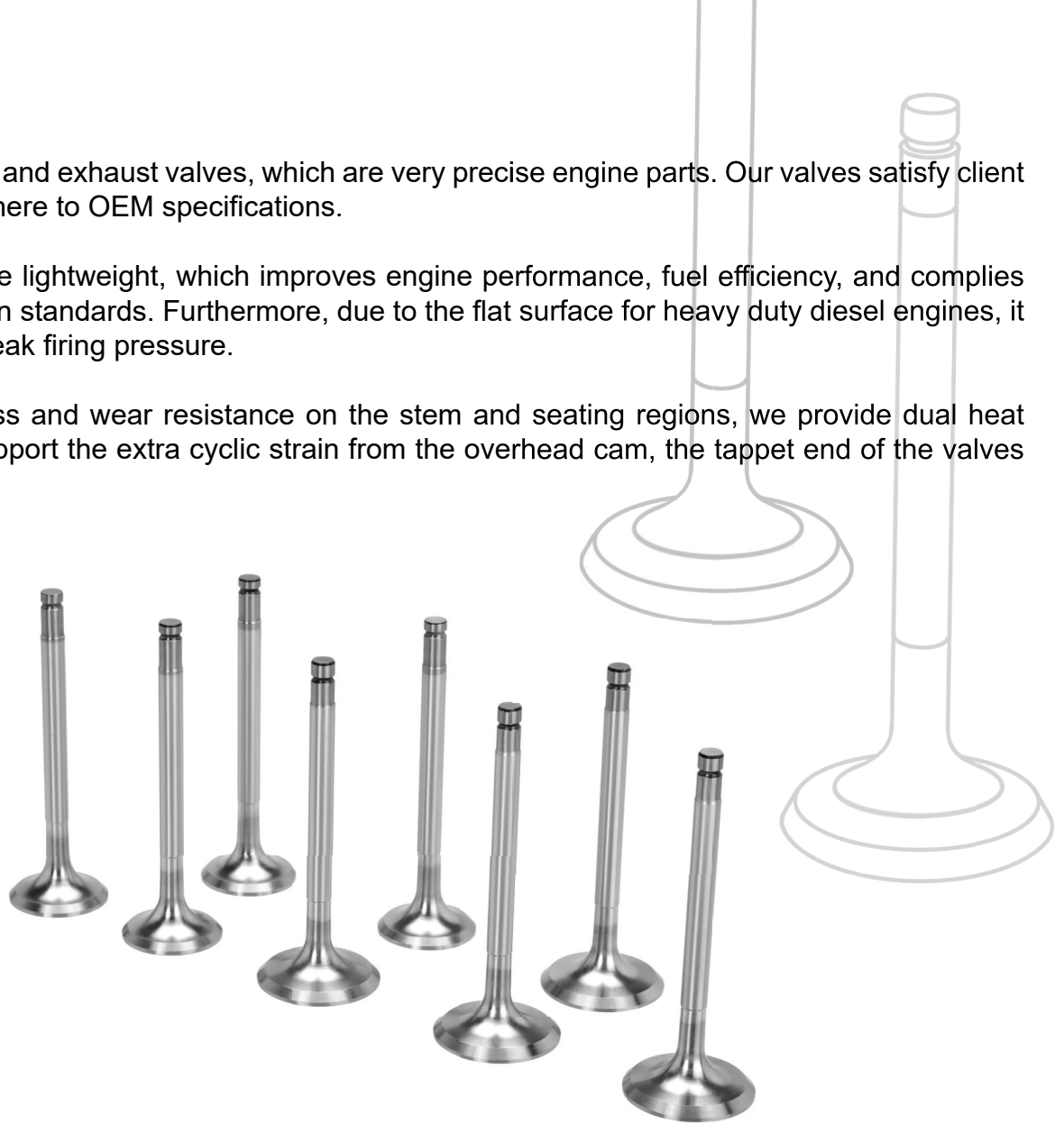
- 210 to 275 n/mm2

Engine Valve

We manufacture inlet and exhaust valves, which are very precise engine parts. Our valves satisfy client requirements and adhere to OEM specifications.

Our engine valves are lightweight, which improves engine performance, fuel efficiency, and complies with evolving emission standards. Furthermore, due to the flat surface for heavy duty diesel engines, it can withstand high peak firing pressure.

To increase toughness and wear resistance on the stem and seating regions, we provide dual heat treated valves. To support the extra cyclic strain from the overhead cam, the tappet end of the valves has been reinforced.



Technical Specification

Material

- EN18D
- EN24,
- EN52,
- Bi-Metal,
- 21-4N(EN59)

Product Range (in mm)

- Valve Stem Diameter: 4.00 to 25.00
- Valve Head Diameter: 15.00 to 90.00
- Valve Length: 35.00 to 300.00

Types

- Mono-Metal Valves
- Bi-Metal Valves
- Seat Stellite
- Tip & Seat Induction Hardening
- Stainless Steels with or without Tufftriding
- Hard Chrome/Nitrided Stem
- Profile & Through Hardened Grooves
- Chrome Plated
- With Scraper
- Shrouded
- Reduced Stem

Valve Seat

A valve seat seals off the combustion chamber of the cylinder head. Since the advent of aluminum cylinder heads, the significance of valve seat inserts has substantially increased.

Valve seat manufacturers must choose the right material based on the application in order to withstand high temperatures, stress, and corrosive gasses and compounds. We provide premium valve seats with compact web geometry and a unique blend of materials with outstanding heat conductivity and wear resistance.

Valve Guides & Tappets

Valve guide is a circular part of metal that protects the valve stem from transverse stresses. A part of the heat from the valve head is transferred through the valve stem and into the cylinder head via the valve guide, which also centers the valve on the valve seat insert.

For the engine to operate at peak efficiency, there must be a vacuum between the inner diameter of the valve guide and the outer diameter of the valve stem. If the balance is off, the valve might not seat correctly, which might result in additional oil consumption and eventual deformation.

<i>Material</i>	<i>Product Range (in mm)</i>
• Grey Cast Iron • Bronze alloy (CuZnAl)	• Outer Diameter: 10.00 to 30.00 • Inner Diameter: 04.00 to 28.00 • Length: 5.00 to 200.00

We produced valve lifters and valve tappets out of cold-forged cast iron. The tappets are expertly crafted and carefully tuned for maximum performance.



Piston

In India, Power Industries is a well-known producer and exporter of pistons. We are experts in customizing Pistons to meet our customer requirements. All of our pistons are manufactured strictly in accordance with international standards and may be used as OEM replacements in a variety of vehicles.

We produce pistons from premium aluminum alloy that meet OE specifications and are renowned for their top performance, low friction, and non-expansion in the engines.



Chemical Composition

Name	Minimum	Maximum
Copper (Cu)	1.00	1.50
Magnesium (Mg)	1.00	1.50
Silicon (Si)	12.00	14.00
Manganese (Mn)	-	Max. 0.20
Aluminium (Al)	Rem.	

**Note: In addition to the materials mentioned above, we can offer material compositions using Iron, Nickel, Zink, Lead, Tin, Titanium and other materials as per customer specifications while making sure we adhere to international standards.*

Technical Specification

Material

- Aluminum LM-13
- LM-15 (made by virgin billet)

Coating

- Anodizing
- Graphite Coating
- Tin Coating
- Phosphating

Types

- Flat Dome Type
- Hollow Dome Type
- Reverse Dome Type
- Strut Type
- Alfin Type
- Oil Cooler Type

Product Range (in mm)

- Standard Diameter: 25.00 to 225.00

Piston Pin

We manufacture piston pins from premium alloy steel (17Cr3, 16MnCr5, SCM415, SAE8620, etc.). Using cutting-edge technology to obtain best quality and precision. To warrant best quality, we make sure that each pin is hardened and tempered. Additionally, we assure that our pins are both lightweight and sturdy enough to withstand significant mechanical shears and bending.

Piston Ring

The primary function of the piston ring is to seal off the combustion chamber and the crankcase from one another. The primary objectives of our piston rings is to achieve minimum oil consumption, supply the necessary lubrication to moving parts, and minimize gas entrance.

Individual casting of piston rings under strict material control guarantees high tensile strength, resistance to wear and friction, and failure at operating temperature. For smoother operation and less fuel consumption, each ring is double turned, barrel honed, and ground to the highest precision.

Technical Specification

Material:

- Gray Cast Iron (Individual Casting)
- Alloy Cast Iron
- Spheroidal Graphite Iron (Ductile Rings)
- High Strength Steel

Coating:

- Perkerisation
- Chrome Plating
- Tin Coating
- Copper Flash

Types

- Plain Compression Rings
- Scraper/Napier Rings
- Slotted Oil Rings
- Hard Chrome Plated Compression & Oil Rings
- Taper Faced (Periphery) Rings
- Full/Half Keystone Rings
- Step Cut Rings,
- Slant Cut Rings
- Lock Type Rings
- Spring loaded Oil Rings

Product range (In mm):

- Diameter: 23.00 to 400.00



Engine Bearings

Our continual dedication to creating effective methods and systems enables us to provide the best engine bearings. We value customer input because it helps us develop better products.

We create bi- and tri-metallic engine bearings through the use of processes such as centrifugal casting, sintering or cladding. Performance can also be enhanced by overlay plating on bearings.

Depending on the need, different compositions will be used to create engine bearings.

For solid: bronze & aluminum

For bi/tri-metal (Steel Back): bronze, aluminum/tin, white metal (babbitt), and aluminum/tin/silicon



We provide the varying bearings listed below for cars, trucks, tractors, earth movers, heavy duty pumps, generators, compressors, etc.

- Main bearing
- Connecting Rod bearing
- Tri-metal bearing
- Bush
- Connecting Rod bush
- Camshaft bush
- Thrust washer



Global Reach

For more than 45 years, we have provided our high-quality engine components to a large client base worldwide.

Over time, we have evolved into a top producer and dependable source of engine components for domestic and international OEMs and OESs. We offer extensive technology for developing products from concept to completion.

We are capable of matching the worldwide footprint by exporting to more than 40 nations on six continents thanks to our cutting-edge infrastructure, which covers 57000 square feet and includes all the newest machinery (North & South America, Europe, Asia, Africa & Australia).



Transferring **POWVER** to your Engine



Since 1970



Since 1970

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