



Makwana Engineering Works

BUSINESS PROFILE

Custom
Machinery Parts
Manufacturing



Industrial Repair
& Maintenance



Fabrication Works



**Trusted Engineering Expertise
Years of Experience Delivering reliable
Engineering Solutions**

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ABOUT US

Makwana Engineering Works

Makwana Engineering Works is a trusted name in the engineering industry, proudly serving Gujarat since 1980. With more than four decades of hands-on experience, we have built a strong reputation for delivering reliable, high-quality engineering solutions tailored to the evolving needs of industries.

Our core expertise lies in fabrication, custom machinery parts manufacturing, and industrial repair & maintenance services. Over the years, we have successfully catered to a wide range of industries, providing durable, precision-engineered components and efficient repair solutions that help businesses maintain seamless operations.

At Makwana Engineering Works, we combine traditional craftsmanship with modern engineering practices. Our workshop is equipped with advanced tools and machinery, enabling us to handle projects of varying complexity with accuracy and efficiency. Whether it's developing custom parts, restoring worn-out machinery, or fabricating robust industrial structures, our team ensures every project meets the highest standards of quality and performance.

Over the years, Makwana Engineering Works has grown through trust, consistency, and a dedication to excellence. As industries continue to evolve, we remain committed to innovation, continuous improvement, and delivering engineering solutions that drive productivity and success.



Our Mission

Our mission is to deliver high-quality engineering solutions that meet the evolving needs of industrial sectors. We are committed to providing reliable workmanship, precision engineering, and customized fabrication services that ensure durability, efficiency, and customer satisfaction. Through continuous improvement, skilled expertise, and modern workshop practices, we aim to build long-term relationships with our clients by delivering projects on time while maintaining the highest standards of quality and safety.

Our Vision

Our vision is to become a leading and trusted engineering service provider in industrial engineering sector by consistently delivering innovative, dependable, and cost-effective solutions.

We aspire to grow with advancing technology, expand our capabilities, and set benchmarks in engineering excellence while maintaining our legacy of trust, integrity, and craftsmanship established since 1980.

Our Clients



Industrial Repair & Maintenance

We provide professional Industrial repair and maintenance services for a wide range of industrial machines and mechanical components. Our experienced engineering team ensures that your equipment operates efficiently, safely, and with minimal downtime. With advanced tools, precision techniques, and industry expertise, we diagnose issues quickly and restore machines to optimal working condition. Whether it is preventive maintenance or major equipment repair, we deliver reliable and cost-effective solutions.



Our Industrial Repair & Maintenance Services

Industrial Repair

We specialize in repairing various types of industrial equipment and machinery used in manufacturing, fabrication, and engineering industries. Our team carefully inspects each component, identifies faults, and performs accurate repairs to restore performance.

Services include:

- ✓ Shaft repair and reconditioning
- ✓ Gearbox repair
- ✓ Bearing replacement
- ✓ Machine component restoration
- ✓ Alignment and balancing

Preventive Maintenance

Regular maintenance is essential to ensure smooth operation and avoid unexpected machine breakdowns. Our preventive maintenance services help extend equipment life and reduce operational costs.

Maintenance services include:

- ✓ Routine equipment inspection
- ✓ Lubrication and cleaning
- ✓ Component adjustment and calibration
- ✓ Replacement of worn parts
- ✓ Performance testing and safety checks

Industrial Repair & Maintenance

Breakdown Maintenance

When equipment suddenly fails, quick action is critical. Our engineering team provides fast breakdown repair services to minimize downtime and restore production quickly. We identify the root cause of the problem and implement reliable repair solutions to prevent future failures.

Machine Overhauling

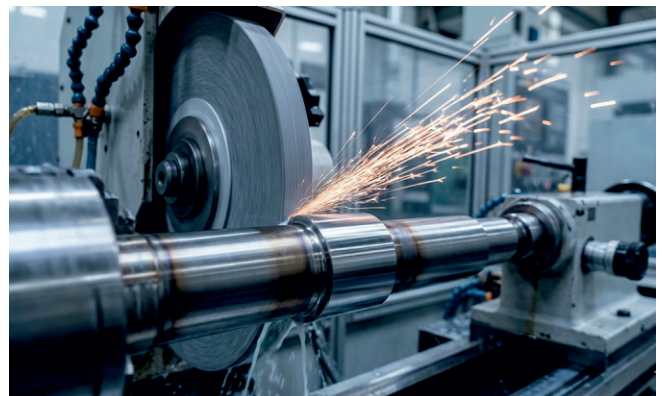
We also provide complete machine overhauling services, where machines are fully dismantled, inspected, repaired, and reassembled to restore them to near-new condition.

Overhauling services include:

- ✓ Complete machine inspection
- ✓ Precision reassembly
- ✓ Replacement of damaged components
- ✓ Performance testing

Industries We Serve

- ✓ Engineering & Manufacturing
- ✓ Heavy Machinery
- ✓ Construction Equipment
- ✓ Automotive
- ✓ Industrial Processing
- ✓ Fabrication Workshops



Custom Machinery Parts Manufacturing

In modern industries, machines require high-precision components to ensure efficiency, durability, and reliable performance. Our Custom Machinery Parts Manufacturing service provides expertly engineered components tailored to your exact technical requirements. We specialize in manufacturing precision machined parts for a wide range of industries including engineering, automotive, manufacturing, construction, and industrial equipment. Using advanced machining techniques and strict quality control, we deliver components that meet high standards of accuracy, strength, and performance. Whether you need a single prototype or large-scale production, our team ensures every part is manufactured with precision and consistency.



Components We Manufacture

Shafts

We manufacture precision shafts used in various industrial applications including motors, gearboxes, pumps, conveyors, and rotating equipment.

Our shafts are produced with high dimensional accuracy and smooth surface finish to ensure optimal performance and long service life.

Types of Shafts We Manufacture

- ✓ Transmission Shafts
- ✓ Motor Shafts
- ✓ Stepped Shafts
- ✓ Splined Shafts
- ✓ Threaded Shafts
- ✓ Custom Design Shafts

Materials Used

- ✓ Mild Steel
- ✓ Alloy Steel
- ✓ Stainless Steel
- ✓ EN Series Steel
- ✓ Special Materials as per Requirement

Custom Machinery Parts Manufacturing

Bushes

We manufacture high-quality bushes and sleeves designed to reduce friction between moving parts and extend machinery life.

Our bushes are widely used in automotive, construction machinery, agricultural equipment, and industrial machines.

Types of Bushes We Manufacture

- ✓ Plain Bushes
- ✓ Flanged Bushes
- ✓ Bronze Bushes
- ✓ Gunmetal Bushes
- ✓ Taper Bushes
- ✓ Custom Bushes

Features

- ✓ Excellent wear resistance
- ✓ Accurate inner and outer Diameters
- ✓ High load-bearing capacity
- ✓ Long operational life
- ✓ Special Materials as per Requirement

Flanges

We manufacture precision flanges used for connecting pipes, valves, pumps, and machinery components.

Our flanges are manufactured according to client drawings, industry standards, and custom specifications.

Types of Flanges We Manufacture

- ✓ Slip-On Flanges
- ✓ Weld Neck Flanges
- ✓ Threaded Flanges
- ✓ Blind Flanges
- ✓ Taper Bushes
- ✓ Custom Industrial Flanges

Features

- ✓ Machinery assembly
- ✓ Piping systems
- ✓ Industrial equipment
- ✓ Structural connections

Custom Machinery Parts Manufacturing

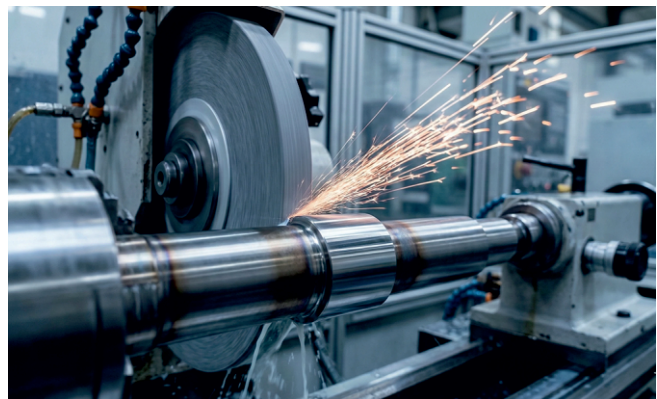
Machine Components

We produce a wide range of precision machine components required for mechanical assemblies and industrial equipment.

Our components are manufactured using modern machining technology and inspected for strict quality standards.

Examples of Components

- ✓ Couplings
- ✓ Pins
- ✓ Rollers
- ✓ Spacers
- ✓ Brackets
- ✓ Housings
- ✓ Collars



Equipment Parts

We manufacture custom equipment parts used in heavy machinery, manufacturing plants, and industrial equipment.

Our team can produce parts based on drawings, reverse engineering, or physical samples.

Industries We Serve

- ✓ Engineering Industries
- ✓ Manufacturing Plants
- ✓ Construction Equipment
- ✓ Pump & Motor Manufacturers
- ✓ Textile Machinery
- ✓ Industrial Automation

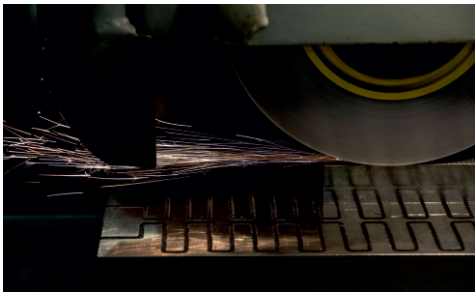


Precision Grinding

Precision Grinding is a highly accurate machining process used to achieve very fine finishes and tight tolerances on metal and other materials. It involves the use of a rotating abrasive wheel that removes microscopic layers from a workpiece to create smooth, precise surfaces.

This process is widely used in industries like automotive, aerospace, and manufacturing where exact dimensions and superior surface quality are critical. Precision grinding can produce parts with tolerances as tight as a few microns, making it ideal for components like shafts, gears, tools, and machine parts.

In short, precision grinding ensures accuracy, smooth finish, and high performance in engineered components.



Our Precision Grinding Services

Surface Grinding

We provide high-quality surface grinding services to produce perfectly flat and smooth surfaces. Ideal for plates, dies, and precision components where surface finish and accuracy are critical.

Cylindrical Grinding

Our cylindrical grinding ensures precise shaping of round components such as shafts, rods, and rollers. We achieve tight tolerances and excellent concentricity for optimal performance.

Centerless Grinding

Perfect for high-volume production, centerless grinding allows continuous processing of cylindrical parts without the need for centers. This method ensures consistency, speed, and cost efficiency.

Our Precision Grinding Services

Internal Grinding

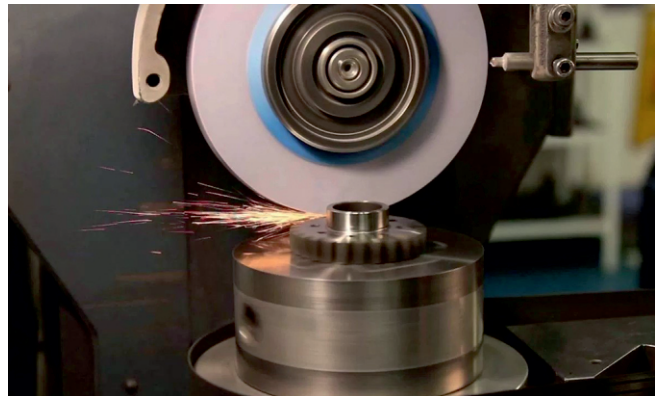
We specialize in internal grinding for accurate finishing of inner diameters, bores, and holes. This process is ideal for bearings, bushings, and precision mechanical parts.

Tool & Cutter Grinding

We offer tool and cutter grinding services for sharpening, reshaping, and maintaining industrial cutting tools. This helps improve tool life and ensures precise cutting performance.

Industries We Serve

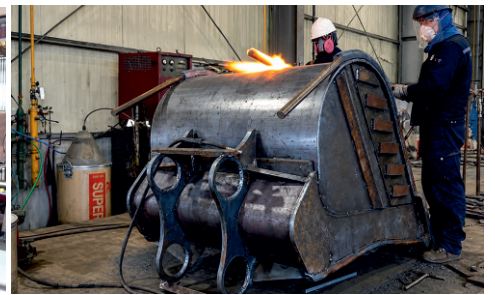
- ✓ Automotive & Transportation
- ✓ Manufacturing & Fabrication
- ✓ Heavy Equipment & Construction
- ✓ Textile & Industrial Machinery
- ✓ Mining, Agriculture & Marine



Fabrication

Makwana Engineering Works specializes in high-quality fabrication solutions including tanks, safety machine guards, conveyors, screws, buckets, and plate bending. We are committed to delivering durable, precision-engineered products that enhance safety and efficiency across industries.

With advanced fabrication equipment, experienced engineers, and strict quality control processes, we manufacture structural components that ensure strength, stability, and long-term performance.



Our Fabrication Services

Tanks Fabrication

We manufacture robust and durable storage tanks for various applications, ensuring high strength, leak-proof construction, and long service life.

Safety Machine Guards

Safety is our priority. We design and fabricate machine guards that comply with industrial safety standards, protecting both operators and equipment.

Plate Bending Works

Our advanced plate bending services ensure accurate shaping and forming of metal plates for various structural and industrial uses.

Our Fabrication Services

Conveyor Systems

We provide customized conveyor fabrication solutions to streamline material handling processes, improving productivity and operational flow.

Screw Fabrication

High-precision screw fabrication for industrial use, engineered for efficiency, durability, and consistent performance.

Bucket Fabrication

We fabricate heavy-duty buckets suitable for industrial machinery and material handling applications, built to withstand tough working conditions.

Industries We Serve

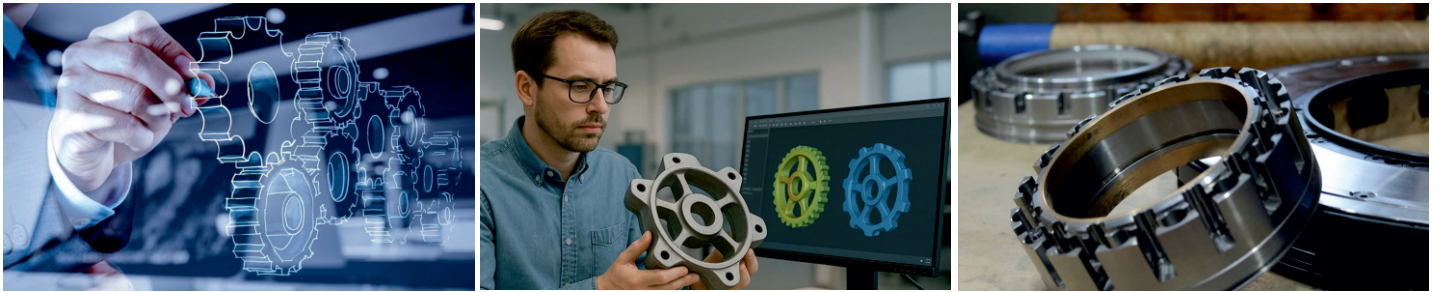
- ✓ Manufacturing & Engineering
- ✓ Agriculture & Agro Processing
- ✓ Oil and gas industries
- ✓ Chemical & Process Industries
- ✓ Mining & Minerals
- ✓ Engineering and construction companies



What is Reverse Engineering?

Reverse engineering is the process of analyzing an existing component to understand its design, structure, and functionality. Using advanced tools and skilled craftsmanship, we recreate detailed technical drawings and manufacture identical or improved parts with precision.

At Makwana Engineering Works, our Reverse Engineering services are designed to help industries recreate, improve, and optimize components when original designs, drawings, or specifications are unavailable. With over four decades of engineering expertise, we transform physical parts into accurate digital models and high-performance replacements.



Our Reverse Engineering Capabilities

Component Analysis

We carefully examine worn-out, broken, or outdated components to understand material composition, dimensions, and functional requirements.

Precision Measurement

Using advanced measuring instruments, we capture exact dimensions and tolerances to ensure accurate replication.

CAD Modeling & Drafting

Our team develops detailed 2D drawings and 3D CAD models, enabling precise manufacturing and future scalability.

Our Reverse Engineering Capabilities

Material Identification

We identify suitable materials to match or enhance the performance, durability, and efficiency of the original part.

Prototype Development

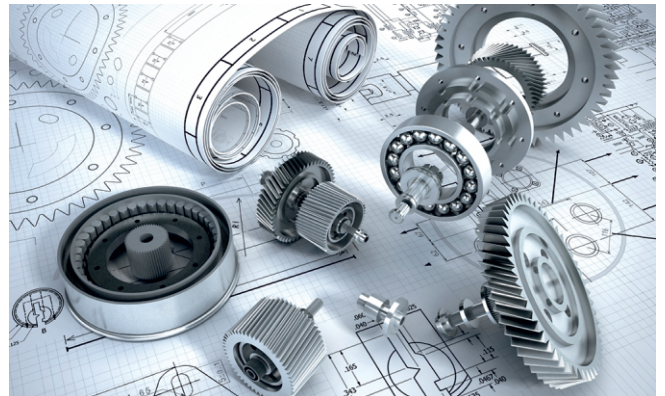
Before final production, we create prototypes to test fit, function, and performance.

Final Manufacturing

Using our in-house fabrication and machining capabilities, we produce high-quality components ready for industrial use.

Industries We Serve

- ✓ Automotive & Auto Components
- ✓ Textile Machinery
- ✓ Pump & Valve Manufacturing
- ✓ Heavy Engineering
- ✓ Agricultural Equipment
- ✓ Industrial Machinery Maintenance



Infrastructure / Workshop

Makwana Engineering Works operates from a fully equipped engineering workshop designed to handle diverse marine and industrial engineering requirements. With advanced machinery, skilled technicians, and structured manufacturing processes, our workshop ensures precision, durability, and high-quality fabrication for every project. Our infrastructure allows us to undertake both standard and customized engineering works efficiently while maintaining strict quality standards.

Machinery Details

Our workshop is equipped with a wide range of modern engineering machinery that enables us to carry out precision machining, heavy-duty fabrication, and custom manufacturing. From cutting and shaping to assembly and finishing, our machines ensure accuracy, efficiency, and reliability in every stage of production.

Fabrication Capabilities

Makwana Engineering Works specializes in high-quality fabrication services. Our team is capable of handling structural fabrication, marine components, machinery parts, and customized metal works according to specific client requirements. With skilled craftsmen and modern tools, we deliver strong, durable, and precise fabrication solutions.

Manufacturing Process

Our manufacturing process follows a systematic approach from design and material selection to fabrication, machining, and final assembly. Every project is carefully planned and executed to ensure accuracy, efficiency, and timely completion while maintaining the highest engineering standards.

Quality Control Standards

Quality is a core priority at Makwana Engineering Works. Every product and fabrication undergoes strict inspection and testing to ensure it meets required specifications and durability standards. Our commitment to quality guarantees reliable engineering solutions for marine and industrial applications.

Infrastructure & Workshop



Infrastructure & Workshop



Thank you!



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