Rotex was founded by Late Mr. Jitendra G. Shah in 1967 at a modest manufacturing setup near Mumbai, India that was involved in manufacturing textile machinery. His passion for technology eventually made him observe that all industries rely on power of the fluids like air, gases, water, fuels and oils, etc., to control their processes and operations. It was all about how efficiently you could control and utilize the power of these fluids. This motivated his entrepreneurship to venture into the industry that is involved in efficient control of fluids. He decided to set up a business that was involved in designing and manufacturing solenoid valves. Today, Rotex not just pioneers Solenoid valve technology in India but is also a market leader serving the specialized needs of the Industrial segment, Railways, Aerospace, Defense & Nuclear Power and Automotive sectors. Here we stand today with our motto to offer “Engineering For the Future”

Two world-class manufacturing setups in Gujarat, India (Vadodara and Anand)

More than 10,000 sq meters of floor space

More than 350 people

More than 10% of manpower in research and development

More than 40% revenue from exports

Footprint in more than 30 countries across the globe

More than 40% revenue from Automotive customers

To the automotive world, we offer solutions that help increase efficiency, eliminates waste, reduces pollution and improve safety and comfort. Our product line includes several solutions for Powertrain, After-treatment systems, Tipping, Air suspension, and Thermal management systems in all kinds of vehicles.

Customer needs are centric to everything that we do at Rotex, and our customer benefit from our collaborative approach. Several decades of application engineering knowhow, our spirit of innovation, and our collaborative work with customers for all aspects of development and supply are another reasons that our customer look up to us repeatedly.
Technical Capability

Media Capability: All Automotive fluids (Air, Fuel, Coolant, Adblue, Oil, Water, Exhaust gases)

Ingress Protection: up to IP6K9K
Vibrations: up to 20G
Mechanical Shocks: up to 52G

Operating Pressure: Vacuum to 400 bar

Leak Tightness
Leak rate: < 1 mm³/sec of H₂ @ 10bar

Cleanliness Level: Class A as per ISO 16232

Thermal Range -40 °C to 125 °C

Valve Operation & Control
ON/OFF Type or PWM Control

R&D Set up

Team of 20 qualified engineers for designing and simulation activities

Built to Concept
Built to Specification
Built to Print

Softwares
2D: SolidWorks
3D SolidWorks
CAE: ANSYS
Simulation: CFD, Mechanical, Electromagnetic field

Customized proprietary software for O-ring selection, Spring design and No. of Copper turns in Solenoids

More than 6000 types of valves development and have registered 12 Patents

Extensive set up for quick prototyping and validation lab

Validation Lab

Thermal Cycling
Thermal Shocks
Humidity chambers
Life Cycle Monitoring

Flow testing
Response time checks
Helium Leak testing

Burst test
Ingress Test
Salt spray test
Manufacturing set up

State of the Art Solenoid Winding facility with close loop feedback for No. of Turns and tension of wires

Vertical Moulding of solenoid and optional Epoxy Potting

Clean Room set up complimented with High pressure/Ultrasonic washing and Millipore lab

Semi automated Assembly lines extensively error proofed with use of feedback torque guns, vision sensors, auto rotating and locking fixture ensuring 100% correct process

Fully automated – End-Of Line testing. End to end traceability

Integrated Management System
Emission After treatment System

- Hydrocarbon Dosing Control Modules for Active Regeneration of Diesel Particulate Filter (DPF)
- Air Purging Valve for DPF Fuel line & Adblue line
- Coolant valve of Adblue Thermal Management

Tipping and Transmission

- Grade shifting valve for manual transmission
- AMT Control Valve Units
- PTO-Shifting Solenoid Valve
- Cabin Control for Tipping
Engine and Fuel System

- Auto Drain Valve for Fuel Water Separator
- Exhaust brake control
- Fuel Shut off
- Alternate fuel LPG/CNG System
- Stator Solenoid for Fuel System
- EGR Valves

Thermal Management / HVAC

- Coolant Control for Cooling and heating Circuits
- Refrigerant Control
Suspension / Air management

- Solenoid Valve for Air Suspension
- Lift axle control
- Electronic Control Air Suspension Module
- Manifold / Valve array Air management
- Height Control for Suspension seating systems

ROTEX
Engineering For The Future