







### **Trust**

- Large base of 6500 satisfied customers
- Earned reputation of being "Right First Time" with consistent high
- quality
   ROTEX products are trusted for critical applications by customers

### Philosophy of Design

- Reliable performance
- Adhere to high demand application
- Product life cycle managementMinimal "Total Cost of Ownership"

### Research and Development

- Culture of constant innovation
- Adherence to International Design Standards
- Innovative designs to meet customers' demands
- In-house Validation Labs
- Patents and IP Rights Management

### New Product Development

- Innovative new product lines introduced by responding to the voice of the customer
  > 15 % of CAGR is achieved through new
- Patents to help customers gain maximum benefits
- Extensive product testing prior to launch

### Skilled **Manpower**

- Highly skilled, engaged and connected
- Focused "Learning and Development" approach
- Virtual cross functional team

### **Customized Solutions**

- Product introduction through gradual horizontal integration
- End to end solutions
- Quick solution for Customized application

### **Manufacturing**

- State-of-the-art manufacturing plants
- Hi-tech automation using Robots, Process digitization, Poka Yoke,
  Vision Cameras, etc.

  ISO 9001, ISO 14001 and ISO 45001
  for all manufacturing plants

  IATF 16949 for Vadodara unit

- Automated testing facilities

### Quality

- Quality is at the heart of our complete value chain
- Effective quality management systems Partnership with high quality suppliers
- Strong quality improvement cycle

### **Marketing and Service**

- Highly specialized Product Management
- Expertise in providing bespoke solutions
- Customer centric approach

### Certification

- Global Product Certifications
  ATEX, CuTR, DGMS, IECEX, KOSHA, PED, PESO, SIL 3, UL etc.
  Dedicated design, and validation team

Building Blocks of **ROTEX** 

# Quality minus excuses



**Product Certification** 

























System Certification







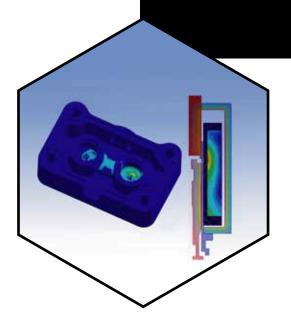


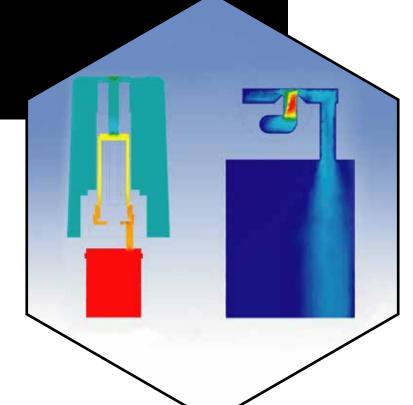
## Design Standard and Accreditation

ROTEX products pass through a strict regimen of quality and performance tests.

ROTEX has an extensive and highly advanced in-house Type Testing facilities like High Pressure Test (up to 200 bar), Mass Spectro-Helium Leak Detection Test (up to 1x10<sup>-12</sup> scc/sec), CV Measurement, Response Time, Life Cycle Monitoring, Environment, Thermal Shock Test, and more.

Specialized Simulation Software are used for Design integrity check, Mold Flow, Electromagnetic Force etc. to ensure proper functioning of the products.



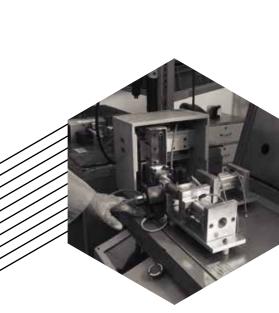


## State-of-the-art Infrastructure

ROTEX rolls out its vast range of productions from two world class manufacturing facilities located in India All plants have the latest and the most advanced manufacturing and testing facilities. These facilities have the latest generation CNC, SPM and GPM machines to manufacture quality components.

ROTEX has developed a strong base of vendors and suppliers for outsourcing of components. Strict inspection and testing procedures ensure that outsourced material meets all the ROTEX quality requirements. Periodic expansion of the manufacturing facilities and infrastructure in response to the market demand and technology innovations, is an ongoing process at ROTEX.

All the important manufacturing processes are executed In-house conforming to International Standards.







State-of-the-art
Solenoid

## State-of-the-art Infrastructure for Solenoid

ROTEX manufactures 100% of its Solenoid requirements In-house. The manufacturing begins with unmanned winding of wire on the bobbin till vacuum epoxy potting.

ROTEX has nearly five decades of experience in design and manufacturing of Solenoids for varied applications.

Over the period, ROTEX has invested in modern Infrastructure to move from manual to highly automated Solenoid manufacturing. ROTEX ensures implementation of latest Design and testing standards in its operation.

ROTEX Solenoids goes through 29 rigorous inspection processes before being shipped out to the customer. ROTEX designs are suitable for the vast range of applications:

- High speed to continuous energization
- Low temperature -60°C
- High temperature 270°C above ambient

ROTEX offers Solenoid valves with power ranging from 0.4 Watt to 140 Watt to meet most of the industry demand.



### Sales Network Implementing a Think Global, Act Local Approach!!!

It is the philosophy of ROTEX to build long-term relationships with its Agents, Channel partners, and Distributors by integrating a transparent and honest policy. Most of the Agents, Channel partners, and Distributors have been associated with ROTEX for decades and some of them for more than a Quarter century.

ROTEX has a far-reaching network of over 20 offices in Asia, Europe, Middle East and South East Asia, along with more than 130 Channel partners and Distributors across the Globe. ROTEX has wide network of sales and service associates, to provide quick and efficient support wherever and whenever needed.

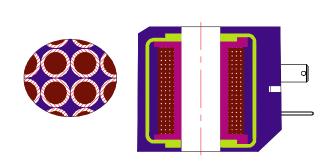
In order to maintain consistency in quality and service, ROTEX undertakes regular training for all its Partners.

### After Sales Support

Standardized processes, learning and improvement are incorporated in the sales support processes. These are indispensable and ROTEX has imbibed them in its after sales strategy since its inception to foster sustainability.





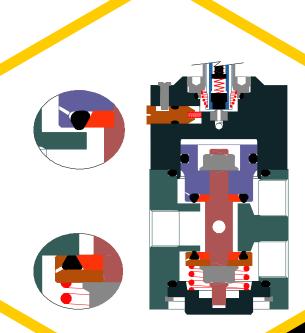


### Design Features of **ROTEX Solenoid**

Efficient Magnetic Linkage - Higher Pulling Force

More winding & Void space between winding, filled with Epoxy

- Lower Temperature Rise & better Insulation



### Design Features of **ROTEX Plunger**

Lower Stroke

- Faster Operations and Large Flow

Positive Sealing

- Longer Life

No Stress on Seat Seal while seating

### Interchangeability of Rotex Solenoid

- Wider Voltage Variation -30% to +20%
- Lower Inrush current for all AC Solenoids
- Epoxy coated Metallic Enclosure
- Ingress Protection up to IP68
- Surge Suppressor in all Ex d, Ex ia, Ex e mb Solenoid

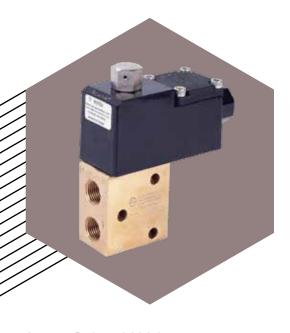


### Fluid Controls

### 2-way Solenoid Valve

- Direct Acting NC / NO / Bi Directional
- Diaphragm Operated NC / NO
  Isolated Piston NC / NO / Bi Directional
- High Pressure upto 400 bar & 100 mm orifice
- Air Operated Valve



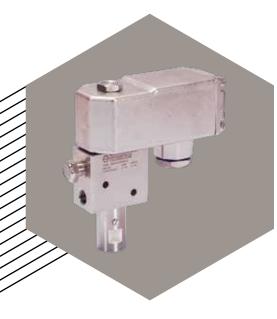


### 3-way Solenoid Valve

- Direct Acting NC / NO / Universal
  Internal / External Pilot Operated
  NC / NO / Universal Valve
- High Pressure / High Orifice Valve
  Air Operated Valve

### 4-way / 5 port Solenoid Valve

- Single / Double Solenoid Valve
- High Pressure Valve
- Centre Off / Pressurized / Exhaust Solenoid Valve
  Air Operated / Air Return Valve





- Redundant Valve 1002, 2002, & 2003
- Manual Reset
- Tamper Proof Manual Reset Valve
- Valve with Latch Solenoid
- Valve with Ultra Low Power (0.4 W) Solenoid



### Fluid Controls

### **Angle Seated Valve**

- Orifice up to 80 mmEnd ConnectionThreaded
- - - Flanged Weld Neck
- Tri clamp typeON/OFF or Proportionate Application





### Pulse Jet Valve

- Orifice upto 80 mmHigh pressure upto 16 bar and to 200°CEnd connections
- - Threaded
  - Tank Mounted
  - Dresser Coupling

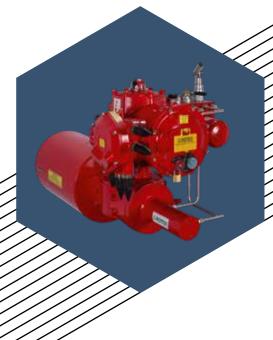
### Electro Hydraulic Actuator

- On OffModulating
- Communication Protocol Modbus / Profibus / HART / FF





- P / P PositionerE / P PositionerSMART Positioner





### HIGH RELIABILITY PRODUCT FOR CLEAN ROOM ENVIRONMENT

Chemical plants have corrosive and aggressive environments. Such plants need products that are not only reliable but also capable to withstand such abuse. ROTEX manufactured valves are specially designed to function smoothly in such an environment and withstand the effects of highly corrosive Chemicals.

- SIL 3 certified product for reliable functionality
- Solenoid valves to work under sticky environmental Conditions
- Corrosive atmosphere Solution with Stainless Steel material of construction.
- Low power (0.4 W, Ex ia) solution to meet Industries Demand.



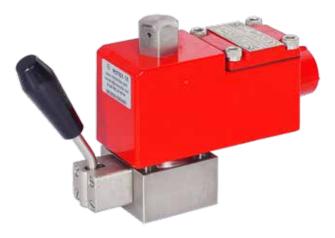




### LOW POWER SOLUTION FOR CRITICAL OPERATION

Valves used in oil refineries, petrochemical plants and natural gas distribution companies are critical and hence there can be no compromise in their operation. ROTEX offers reliable valves that prevent hazards.

- Redundant SIL 3 Certified Solenoid Valve block for critical application
- Solenoid valves for 200 bar
- Redundant Control System for Emergency Shut Down Valve
- Valve for Fire Protection, Rim Seal Protection application







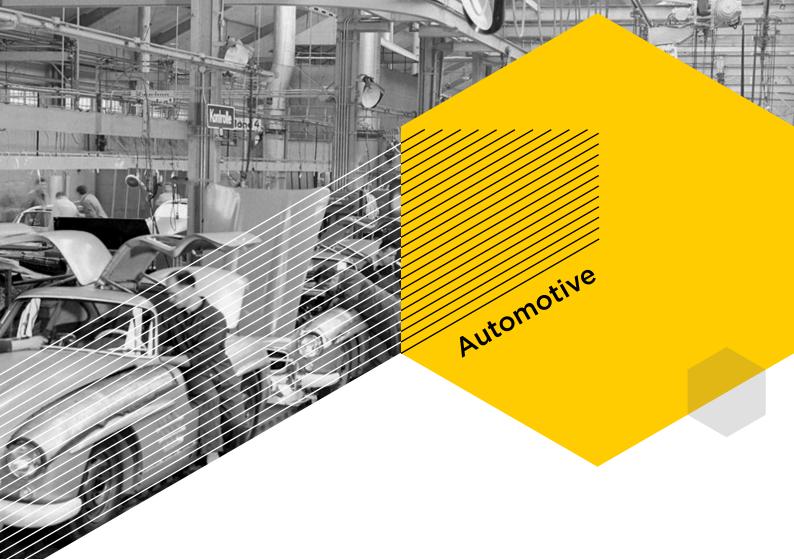
### CONSISTENT PERFORMANCE IN DUSTY ENVIRONMENT

Consistent performance and efficient operations are vital for Cement plants. ROTEX offers specially designed basket of Pneumatic and Solenoid Valves. ROTEX meets the requirement of long life and consistent performance for cement industry.

- Pulse valve with Hytrel Diaphragm for high cyclic Demand
- Quick Opening and Closing, using optimal Air and Power / Pulse for effective Bag filter cleaning
- Three, & Five Port Valve suitable for dusty environment.







### HIGH PERFORMANCE AUTOMOTIVE VALVES FOR OFF ROAD & ON ROAD VEHICLES

ROTEX has successfully designed and manufactured many solutions for the Automotive segment for various applications like DPF regeneration systems, Exhaust brakes, Fuel shut off, Transmission system, Tipping applications, HVAC, Differential locking and many more. ROTEX manufacturing plants are ISO 9001, ISO 14001, ISO 45001, IATF 16949 certified, and qualified for VDA 6.3 QMS.

- IP6K9K solenoid to withstand 100 bar water pressure jet and high velocity sand abrasion
- Component designed to withstand extreme vibrations up to 56g
- Leak rates as low as 1 mm<sup>3</sup>/sec of H<sub>2</sub> at 10 bar for mass production run
- Less than 50 PPM quality performance





### CORROSION RESISTANT SOLENOID VALVES

Fertilizer industry requires the toughest and the most technologically advanced products as wear and corrosion is very high. ROTEX manufactures products using a combination of alloys and elastomers that can handle severe wear and corrosion.

- Wear resistant solenoids valves for severe application
- Redundant Control System with 1002, 2002, 2003
- SIL 3 certified product for critical application
- Solenoid valves for Ammonia Environment







### VALVES FOR DUSTY AND HIGH TEMPERATURE ENVIRONMENT

Thermal Power plants require valves that can sustain high levels of extreme Temperature and Pressures. At ROTEX, valves are designed and engineered with the objective of sustaining the most adverse conditions.

- Rugged Poppet Solenoid Valve
- Solenoid isolated for Voltage and Thermal shocks
- Solenoid Valves for Boiler Applications.
- Solenoid Valves for Turbine Trip Application
- Valves for Ash and Coal Handling, Dust Suppression, and Water Treatment







### SOLENOID VALVES FOR HIGH TEMPERATURE APPLICATION

In Mines & Metal industry maximum system availability & safety is of utmost importance. ROTEX valves are manufactured from high quality materials, which have been tried and tested to withstand the extreme environmental challenges posed by Mines & Metal Industry.

- Special Valve Block for Operating Cylinder Crest Cracking of Molten Aluminum
- High Orifice valve for Operating Air Motor of Copper Smelter
- Valves for Blast Furnace
- Pulse Jet Valves for Steel Plants







### NEXT GEN VALVE FOR ULTRA CRITICAL AND MISSION SAFE APPLICATION

The biggest apprehension for any Nuclear Power Industry is safety. At ROTEX, we understand the criticality and manufacture high quality and reliable safety solenoid valves. Our products are designed to work even under extraordinary conditions, high temperatures and radiation protected environment.

- Direct acting solenoid valve 80 NB, for Helium at 0-120 bar, response OFF < 100 mS
- 4/2 solenoid valve for water at 100 bar
- Solenoid with special epoxy potting for withstanding GAMMA radiation
- Specially designed products to meet Seismic qualification & service of life of 30 years







### HIGH RESPONSIVE VALVES WITH HIGH RELIABILITY

Medical industry requires reliable and highly responsive Pneumatic components, with extremely low leak rate meeting statutory requirement of USFDA, and other Governing bodies. ROTEX offer solenoid valves which can be used to control the flow, direction, and pressure of gases or fluid in a medical devices.

### Challenges met by ROTEX

Valves for

- Portable gas delivery system
- Dialysis Machine
- Dental Chairs

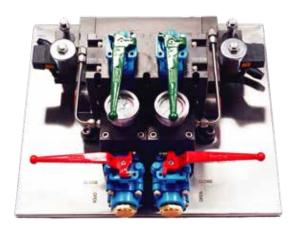




### VALVES DESIGNED TO WITHSTAND HIGH VIBRATION AND VOLTAGE VARIATION

Rail transport industry calls for product which are extremely reliable, even under the most demanding environmental conditions. Extreme weather phenomena, high level of vibration, the presence of dust and aggressive contamination, and huge voltage variation are common factors under which product needs to perform.

- Valves for Braking application
- Pneumatic Wiper Motor assembly
- Valves for Warning Horn.
- Fire Fighting Valves for Rolling Stock.







### FLAPCON TURKEY DISTRIBUTOR

#### **SALES HO**

### ROTEX AUTOMATION LIMITED

B/703/704, Western Edge-II, Off Western Express Highway, Borivali (East), Mumbai-400066 Ph: +91 22 4211 1444

#### **WORKS**

#### Middle East & North Africa

#### Rotex Automation FZ LLC B03-126, Business Center 02 RAKEZ Business Zones located in Al Nakheel Area, RAK

United Arab Emirates

Phone: +971 54312 6161 Email:mena@rotexautomation.com

#### **TURKEY SALES**

#### FLAPCON VANA VE OTOMASYON SIS. LTD. ŞTİ.

Mimar Sinan Mh. Sevde Sk. No: 37/A 34935 Istanbul Turkey

Phone: +90 216 660 10 26 Email: info@flapcon.com

#### Europe

#### **Rotex Automation Europe**

Bierstraat 117 3011 XA Rotterdam The Netherlands

Phone: +31 10 210 5331

Email: europe@rotexautomation.com



