



Flowserve Al-Rushaid Facility in Saudi Arabia

Pump and Seal Products
Manufacture, Test, Repairs and Upgrades
Parts and Services



Experience In Motion

Flowserve Al-Rushaid Joint Venture Facility is the Middle East's largest pump manufacturing, repair, test and training facility in the GCC.



Building Value and Profitability



Flowserve Al-Rushaid Facility

Flowserve Al-Rushaid facility provides expert technical solutions and services to chemical, oil and gas, power, water resources and general industrial customers in the Kingdom of Saudi Arabia and neighboring countries. The facility supports the service requirements of Flowserve and other manufacturers' pumps, including: large horizontal multistage and double-casing barrel pumps through vertical pumps, along with all types of mechanical seals.

Capabilities

Flowserve Al-Rushaid facility capabilities include handling new equipment and service needs of: ISO and ANSI chemical process pumps; API pumps; between bearing single and multistage axially and radially split pumps; end-suction pumps; vertical turbine pumps; and auxiliary service pumps.

Specific Capabilities Include:

- Cradle-to-grave equipment management including LifeCycle Advantage™ programs to reduce the total cost of ownership and improve operating efficiency
- Upfront services such as product selection, installation and commissioning
- Field performance testing and monitoring (including high-energy pumps to ensure system and energy efficiency)
- On-site commissioning and repairs, laser alignments, technical services and training
- Off-site maintenance and repair services; product overhauls, re-rates and upgrades
- Customized stocking programs
- ISO-ANSI-API pump power end exchange programs
- General machine shop services including seal lapping
- Materials selection and upgrades including hardening, welding and overlay services
- Mechanical seal overhauls and hydrotesting
- Complete pump test bed (8000 hp), including: hydro, performance, NPSH testing



Flowserve Al-Rushaid engineers and technicians offer experience and tools to help customers optimize plant uptime and control operating, maintenance and other related costs.



Flowserve Al-Rushaid Facility Testing Capability



A key component of the facility is the region's largest, most capable hydraulics test bed. Certified testing to API and international standards is provided for both horizontal and vertical pumps (including high-pressure applications) up to 6000 kW (8000 hp). The test bed will allow end users to verify equipment performance or diagnose and correct problems.

Test Stand

- Two VFDs: 8000 and 400 hp
- Test motors: 8000 hp, 3000 hp, 1000 hp
- Test pit: One million gallons capacity, 9 m deep and 6 m wide
- Up to 30" open and closed loop testing capability
- Modern data collection system
- State-of-the-art command, control and monitoring center



Equipment Life Cycle Management

Flowserve Al-Rushaid facility works with customers to optimize management and operation of their rotating equipment. This is accomplished by providing:

- Hydraulic re-rates and upgrades
- Mechanical upgrades and retrofits
- Materials upgrades
- Analytical and diagnostic services
- Reliability and energy improvement
- Asset management

Maintenance, Repair and Inspection Services

- Repairs – welding, machining, NDE
- Contract maintenance
- Outage and mechanical services
- Field performance testing
- Field supervision

Parts and Components

- Quick response programs
- Inventory management

Project Services

- Front-end engineering and consultancy
- Project management
- Installation and commissioning services





Parts and Components

Quality parts complying to OEM specifications for the entire range of Flowserve product brands are readily available from our worldwide network of:

- Parts manufacturing centers
- Service centers
- Fast response centers
- Regional parts service offices

As all parts conform to original design and materials specifications, customers are ensured reliable operation and lowest equipment ownership costs.

Flowserve can also re-engineer and produce non-Flowserve components for equipment that is now obsolete or where the original equipment manufacturer cannot be located.

The Flowserve Advantage

Flowserve manufactured parts offer significant benefits to customers. As an OEM, Flowserve engineering and manufacturing operations understand the critical elements involved in designing and producing high quality parts. Whether cast or machined, Flowserve manufactured parts and components result in lower total operating costs and increased personnel safety.

- Flowserve casting quality is superior. Surface finishes, tolerances and material compositions are maintained within defined specifications. The result is higher hydraulic efficiency, lower power consumption, higher durability and lower operating costs
- Flowserve parts incorporate the latest design changes that are routinely implemented to improve operating efficiency and extend equipment life
- Customers benefit from ongoing research and development efforts to develop new materials, overlay techniques and mechanically improved components

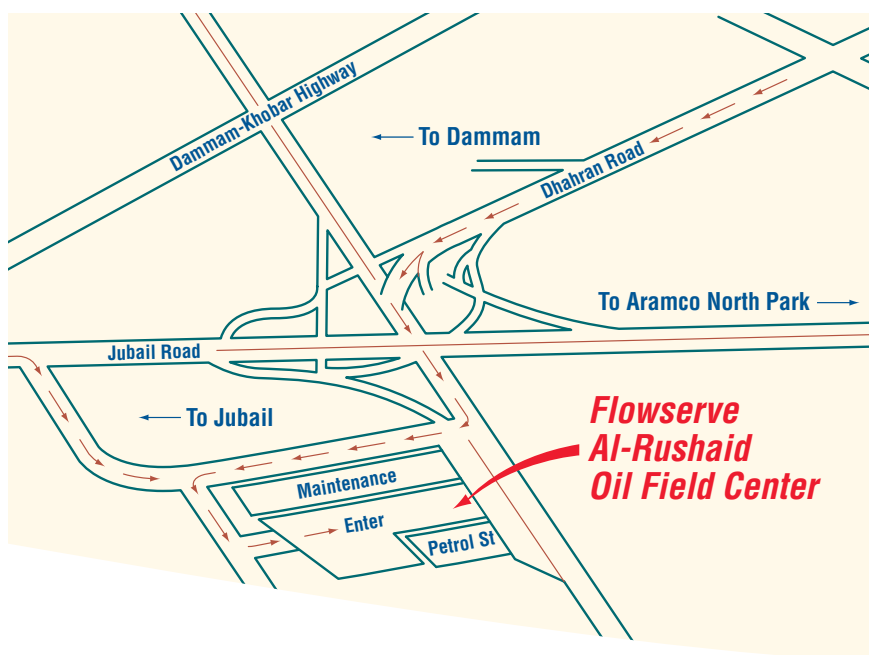


Flowserve Al-Rushaid Educational Services and the Learning Resource Center

Complete with static and dynamic labs and classrooms, the 1,500 m² Flowserve Al-Rushaid Training Center offers numerous educational services.

- Experiment, test and verify what-if scenarios
- Sharpen repair and installation skills
- Analyze equipment failures and determine causes
- Practice maintenance on complete pumping systems
- Gain a better understanding of why equipment fails
- Learn to prevent pumps, seals and control valves from failing
- Create pump curves, troubleshoot cavitation problems, perform “dead head” tests and other diagnostics
- Establish an ongoing dialogue about training
- Develop an awareness of customers’ training needs and offer solutions





Flowserve Al-Rushaid Facility Center

The Flowserve Al-Rushaid pump facility is comprised of two units: a 11 500 m² (123 000 sq ft) pump manufacturing, repair and test facility and a 1500 m² (16 000 sq ft) hydraulics training center.

The facility is also designed to support major customers within Saudi Arabia and the surrounding Arabian Gulf Countries. The facility can address the service and repair needs of all pump products regardless of original manufacturer. Its capabilities include: manufacturing, packaging, quick turnaround, a full range of pump improvement engineering and engineered services. Field service along with installation and commissioning will also be provided.

For more information:

Contact your local Flowserve Pump or Flowserve Mechanical Seal representative for additional details on how Flowserve can help you with your specific requirement.

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Product Brands of Distinction

ACEC™ Centrifugal Pumps

Aldrich™ Pumps

Byron Jackson® Pumps

Calder™ Energy Recovery Devices

Cameron™ Pumps

Durco® Process Pumps

Flowserve® Pumps

IDP® Pumps

Lawrence Pumps®

Niigata Worthington™ Pumps

Pacific® Pumps

Pleuger® Pumps

Scienco™ Pumps

Sier-Bath® Rotary Pumps

TKL™ Pumps

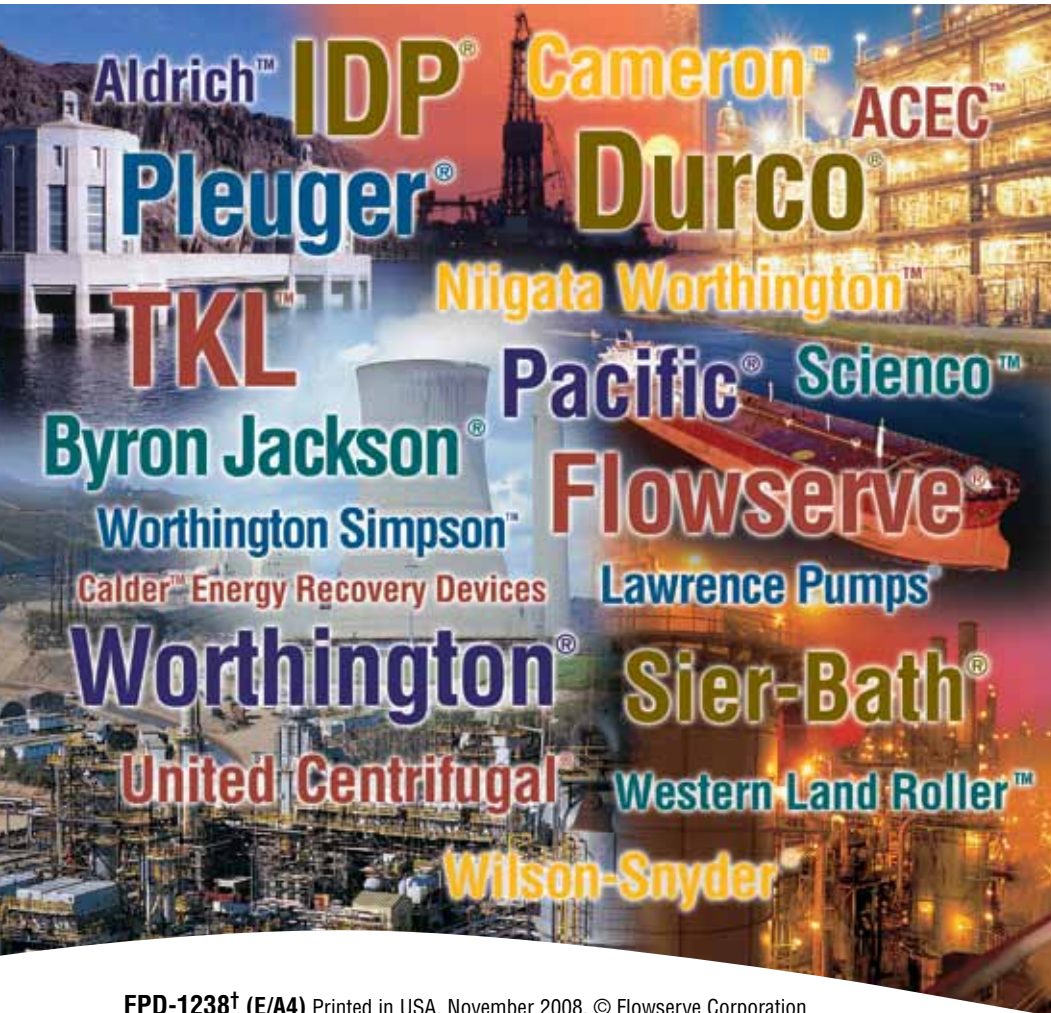
United Centrifugal® Pumps

Western Land Roller™ Irrigation Pumps

Wilson-Snyder® Pumps

Worthington® Pumps

Worthington Simpson™ Pumps



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