



Valve, Instrumentation  
and Pipeline Solutions for:

- > Oil & Gas
- > Power Generation
- > Process
- > Commercial &  
Institutional Facilities
- > General Industry
- > And More

Excellence In Flow Control



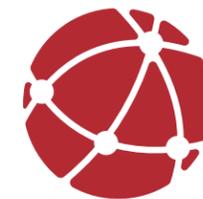
Valve and Pipeline Solutions

## Customer Focused Solutions for the World's Most Demanding Applications

CIRCOR is a market-leading, global provider of integrated flow control solutions specializing in the manufacture of highly engineered valves, fittings, pipeline products and services, and associated products, for critical and severe service applications in the oil and gas, power generation and process industries.

Comprised of best-in-class, historically significant product brands, we consistently satisfy our customers' mission-critical application needs by utilizing advanced technologies that can withstand extreme temperatures and pressures, from land-based to sub-sea and in between.

“Our approach to providing integrated solutions is what separates CIRCOR from all others.”



## Partnering for Success. Globally.

Every day, CIRCOR partners with thousands of the world's most demanding companies to design, manufacture and deploy highly engineered valve, instrumentation, sampling and pipeline product solutions that keep our energy infrastructure in fluid motion.

- › Strategically located facilities and sales offices on four continents
- › High product and service availability
- › Over 400 distributors worldwide that form the CIRCOR Global Sales and Service Network
- › Globally integrated management communications
- › Pro-active decision-making authority at the local level
- › In-depth market knowledge and on-the-ground resources

CIRCOR. Excellence In Flow Control.

# Integrated Solutions for the World's Energy Infrastructure

Highly Engineered. Reliable. From Sub-sea to Land-based.

CIRCOR's approach to providing customized integrated solutions for the world's most demanding energy projects is what separates us from all others.

With deep experience overcoming challenges throughout the energy value chain, we understand the intricate nature of the industries we serve, and consistently deliver the critical and severe environment applications expertise – and proven portfolio of products and services – our customers need to accelerate the growth of the world's infrastructure.

CIRCOR serves an ever increasing range of energy-focused markets on a local, national and global level, including:



## Wellhead to Pipeline to Power Generation

CIRCOR offers our customers, and the markets we serve, solutions for a range of general, critical, and severe applications, including;

- > Well hookups
- > Gas gathering systems
- > Treatment facilities
- > Oil & gas transmission
- > Liquid level control
- > Pressure control
- > Process control
- > Over pressure protection
- > Oil sands
- > Mining (water management)
- > Steam-assisted gravity drainage
- > Thermal applications
- > Mainline pipeline
- > Compressor stations
- > Manifold service
- > Enhanced oil recovery
- > Blow-down
- > Safety shut-in (SSV)
- > In-line testing devices
- > Turbine Bypass
- > Steam Conditioning
- > Steam Vent
- > Soot Blower
- > Desuperheating
- > Feedwater Regulator
- > Feedwater Recirc
- > Instrumentation
- > Automatic Recirculation Control
- > Balance of Plant
- > Sampling Systems
- > District Heating
- > Control Systems
- > Tank Control
- > Cryogenics

We travel to every corner of the world with the capability of providing single source solutions for all of our customers' flow control needs.



# Valve and Instrumentation Solutions



## For the World's Most Demanding Energy Applications

CIRCOR is a leading global manufacturer of valve and instrumentation products and services that satisfy the needs of the world's most demanding energy customers.

From general service to critical and severe service applications, our valve and instrumentation products continue to improve our customers' ability to control the flow of the world's natural resources.

### Comprehensive Portfolio to Meet Our Customers' Needs

CIRCOR offers a range of highly engineered valve products and services, including:

- > Actuators & Accessories
- > Automatic Recirculation Valves
- > Ball Valves
- > Butterfly Valves
- > Check Valves
- > Condensate Pumps
- > Control Valves
- > Desuperheaters
- > Filters
- > Gate Valves
- > Globe Valves
- > Instrument Valves
- > Liquid Level Controllers
- > Liquid Level Switches
- > Manifolds
- > Needle Valves
- > On/Off Valves
- > Pilot Operated Valves
- > Plugs and Probes
- > Pressure Controllers
- > Pressure Regulators
- > Quick Couplers
- > Safety Relief Valves
- > Sampling Systems
- > Sight Glasses and Gauge Valves
- > Shutoff Valves
- > Steam Water Heaters
- > Steam Traps
- > Strainers
- > Temperature Regulators
- > Tube Fittings

### Extending the Life of Mature Oil Fields through Enhanced Oil Recovery

When Petroleum Development Oman (PDO) needed over 5,000 highly engineered valves for its major new oil and gas processing station and gas-injection facilities near Harweel, in south Oman, it partnered with CIRCOR.

One of the largest field-development projects ever undertaken by PDO, the premier hydrocarbon exploration and production company in the Sultanate of Oman, the Harweel project launched PDO's first full-scale enhanced oil recovery (EOR) program. Critical for PDO is CIRCOR's ability to provide valve equipment that is constructed of special corrosion-resistant alloys, as the new EOR program will be processing corrosive fluids with up to 25% sour content.

Enhanced oil recovery opens development opportunities for new fields and extends the life of more mature oil fields. This is a long-term growth area for PDO as well as CIRCOR, which is positioning itself as a long-term partner.



# Pipeline Solutions



## Ensuring the Continued Flow of Our Natural Resources

CIRCOR is leading the way in the design, testing and manufacture of pipeline pigging, hydrocarbon measurement and flow assurance equipment, as well as pipeline cleaning services and project management in the oil, gas, process and renewables industries.

We provide **precision solutions for customers' unique requirements**, with a strong reputation built upon:

- Highly engineered, innovative and cost-effective products and services
- Best-in-class applications knowledge of design, systems layout and regulatory compliance
- High availability approach to partnering with customers
- Turnkey field support for engineering construction, installation, and commissioning of a range of systems
- Over 50 years leading the Pipeline Solutions Industry

## Engineered to Satisfy Critical Pipeline Needs

CIRCOR offers a range of highly engineered pipeline products and services, including:

- Engineering Services
- Enhanced Cleaning
- Feasibility Studies
- Flange Weld Testers
- Header Piping
- Internal Joint Testers
- Pig Launchers & Receivers
- Pig Signalers
- Pigging Equipment Design
- Pigging Tools
- Pipeline Cleaning Services
- Quick Opening Closures
- Stuck Pig Location Acoustek™
- Unpiggable Solutions



## New Technology Supports Pipeline Cleaning and Inspection

Pipeline Engineering, a CIRCOR brand, completed pre-inspection cleaning and debris assessment of a Crude Oil Export Pipeline between platforms in the UK North Sea.

The pipeline was susceptible to wax fall out during normal production flow, and as a result, it was believed that large quantities of wax had been deposited on the internal pipe wall, making inline inspection ineffective.

Full services were provided, including; engineering studies, pipeline cleanliness assessment with our PECAT™ tool, pipeline pigging tools design & build, and cleaning of the pipeline by one of our specialist service teams.

As detected, large amounts of wax deposits were removed from the pipeline using an enhanced cleaning program and tools. This allowed an effective inspection program to be implemented.



# Oil and Gas

Upstream | Midstream | Downstream



CIRCOR has decades of experience providing valve, instrumentation, sampling, and pipeline product and service solutions for Oil & Gas systems and applications, including:

- > Blowdown
- > Compressor Stations
- > Gas Gathering Systems
- > Liquid Level Control
- > Mainline Pipeline Systems
- > Offshore Platforms
- > Oil & Gas Transmission
- > Oil Sands
- > Over Pressure Protection
- > Pressure Control
- > Process Control
- > Pumping Stations
- > Treatment Facilities
- > Well Hook Ups

## Valve Solutions

- > Actuators & Accessories
- > Automatic Recirculation Valves
- > Ball Valves
- > Butterfly Valves
- > Check Valves
- > Coke Drum Unheading Valves
- > Control Valves
- > FCCU Valves
- > Gate Valves
- > Globe Valves
- > Liquid Level Controllers
- > Needle Valves
- > Pilot Operated Relief Valves
- > Pressure Controllers
- > Pressure Regulators
- > Safety Relief Valves
- > Sight Glasses & Guage Valves

## Instrumentation & Sampling Solutions

- > Instrument Valves
- > Tube Fittings
- > Pressure Regulators
- > Quick Couplers
- > Manifolds
- > Actuators
- > Filters
- > Fully Integrated Sampling Systems

## Pipeline Products and Services:

- > Automatic Multiple Pig Launching System
- > Flange Weld Testers
- > Internal Joint Testers
- > Laydown Heads
- > Pigging Tools
- > Pig Handling Equipment
- > Pig Launchers & Receivers
- > Pig Signallers
- > Pipeline Cleaning Tools & Services
- > Polyurethane Products
- > Quick Opening Closures
- > Sphere Release Fingers / Mechanisms



Welded Body Ball Valves



Control Valves



Refinery Valves



Engineered Ball Valves



Trunnion Mounted Ball Valves



Floating Ball Valves



Sampling Systems



Instrumentation



Quick Opening Closures



Pipeline Pigs



# Power Generation

Cogeneration | Combined Cycle  
Coal Gasification | Super-Critical  
Ultra-Super-Critical | Nuclear | Renewable



CIRCOR has decades of experience providing valves to electric utilities and industrial power producers for demanding Power Generation applications including:

- > Anti-Icing
- > Atmospheric Vent
- > Aux. Steam to Deaerator
- > Auxiliary Boiler
- > Boiler Blowdown
- > Boiler Feedpump Recirculation
- > Boiler Level Control
- > Circulating Water Control
- > Condensate Blowdown
- > Condensate Pumps
- > Condensate Recirculation
- > Deaerator Level Control
- > Deaerator Pegging Steam
- > Desuperheating
- > Fuel Oil or Gas Control
- > Heater Drain
- > High Level Dump
- > Lube Oil
- > Main Feedwater Regulator
- > Process Steam
- > Soot Blower
- > Spraywater Isolation
- > Start-up Boiler Level Control
- > Start-up Feedwater Regulator
- > Start-Up Vent
- > Steam & Turbine Drains
- > Steam Conditioning (PRDS)
- > Steam Evacuation
- > Superheater/Reheater Attemperator Spray
- > Turbine Bypass
- > Turbine Bypass Attemperation
- > Turbine Seal Pressure
- > Water Treatment



Severe Service Control Valves



Ball Valves



On / Off Valves



Desuperheaters



General Service Control Valves



Automatic Recirculation Valves

## Products:

- > Automatic Recirculation Valves
- > Ball Valves
- > Control Valves
- > Condensate Pumps
- > Desuperheaters
- > On/Off & Shut Off Valves
- > Regulators
- > Safety & Relief Valves
- > Steam Conditioning Systems
- > Turbine Bypass Valves



# Process Industry



CIRCOR has decades of experience providing valves, instrumentation, sampling systems, and flow control solutions to the various Process Industries, including; chemical processing, oil refining, coal liquefaction, gas to liquids, petrochemicals (plastics, synthetic fibers and synthetic rubber produced from petroleum), industrial gas, cryogenics, desalination, among others.

Systems and Applications include:

- > Control Systems
- > Isolation
- > Sampling
- > Fuel System Control
- > Desuperheating
- > Steam Conditioning
- > Pressure Control
- > Pump Recirculation
- > Spraywater
- > Level Control



General Service Control Valves



Cryogenic Valves



Ball Valves

## Products:

- > Automatic Recirculation Valves
- > Ball Valves
- > Butterfly Valves
- > Check Valves
- > Control Valves
- > Condensate Pumps
- > Cryogenic Valves
- > Desuperheaters
- > Gate Valves
- > Globe Valves
- > Instrumentation
- > Liquid Level Controllers
- > Liquid Level Switches
- > Needle Valve
- > On/Off & Shut Off Valves
- > Pressure Controllers
- > Pressure Regulators
- > Regulators
- > Safety & Relief Valves
- > Sampling Systems
- > Shutoff Valves
- > Sight Glasses & Gauge Valves
- > Steam Conditioning Systems
- > Steam Traps
- > Steam Water Heaters
- > Temperature Regulators
- > Turbine Bypass Valves



# Commercial and Institutional Facilities



# General Industry



CIRCOR is an innovator in the design and manufacture of quality, energy efficient, steam specialty and fluid control products and system solutions for commercial & institutional facilities.

Commercial & Institutional Facilities include District Heating and the building of business and commercial facilities such as:

- > Medical Buildings and Hospitals
- > Universities
- > Correctional Facilities
- > Industrial Facilities
- > Manufacturing Facilities
- > Professional Office Buildings
- > Government Office Buildings
- > Municipal Buildings
- > Hotels
- > Restaurants
- > And More



Regulators



Instantaneous Steam Water Heaters

## Products:

- > Ball Valves
- > Condensate Pumps
- > Control Valves
- > Desuperheaters
- > Instantaneous Steam Water Heaters
- > Pilots
- > Pressure Regulators
- > Relief Valves
- > Safety Valves
- > Steam Traps
- > Temperature Regulators

CIRCOR has a broad portfolio of products to help control the flow of steam, water, gas, slurry, and other media for the General Industry markets, including;

- > Textiles
- > Steel
- > Automotive
- > Refrigeration
- > Machinery Manufacture
- > Food Processing
- > Breweries
- > Water & Sewage Treatment
- > Pulp & Paper
- > Pharmaceuticals
- > Containers & Packaging
- > Mining
- > Steel Foundry
- > Metal Fabrication
- > Cement & Ceramics
- > Painting & Coatings



Control Valves

## Products:

- > Ball Valves
- > Condensate Pumps
- > Control Valves
- > Desuperheaters
- > Instantaneous Steam Water Heaters
- > On/Off Valves
- > Pressure Regulators
- > Relief Valves
- > Safety Valves
- > Steam Traps
- > Temperature Regulators

**CIRCOR'S BEST-IN-CLASS, PRODUCT BRANDS:**

- KF Valves
- Mallard Control
- Contromatics
- Hydroseal
- Pibiviesse
- Leslie Controls
- RTK
- Schroedahl
- Spence Engineering
- Nicholson
- R.G. Laurence
- Rockwood Swendeman
- CPC-Cryolab
- HOKE® GYROLOK
- GO Regulator
- Texas Sampling
- Circle Seal Controls
- CIRCOR Tech
- DOPAK
- Pipeline Engineering
- Delta Valve
- TapcoEnpro



# Aftermarket Services

For over 60 years, CIRCOR, and its historically significant product brands, have been delivering customer-focused, highly engineered solutions for the world's most demanding energy applications.

Our sales and services network consists of manufacturing sites, sales offices, and over 400 distributors/representatives worldwide. CIRCOR is committed to helping our customers increase efficiencies, decrease downtime, and minimize ownership costs by providing a broad range of aftermarket services.

Service Offerings:	
Spare Parts and Replacement Components	Calibration, Testing & Diagnostics
Valve Automations and Modifications	Field Services
Repair and Recertification	Technical Services and Training

## CIRCOR Facilities

- ★ CIRCOR Headquarters
- Manufacturing Facilities
- Sales Offices





CIRCOR is a market-leading, global provider of integrated flow control solutions, specializing in the manufacture of highly engineered valves, instrumentation, pipeline products and services, and associated products, for critical and severe service applications in the oil and gas, power generation, process, aerospace, and defense industries.

## Excellence In Flow Control

Asia | Europe | Middle East | North America | South America



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