

Oil & Gas

Products & Services for Production,
Transport & Refining



ITT

ENGINEERED FOR LIFE

ITT's Capabilities & Technology

From pump systems used to transport and refine petroleum, to watermakers used on offshore rigs, ITT fluid handling technologies are used in all areas of the Oil and Gas Industry.

Expertise

For over 160 years, our engineers have worked closely with major energy producers worldwide to develop innovative products and technologies that optimize the life cycle of equipment required by this demanding industry. ITT is recognized as the premier supplier of pumps, valves, controls and monitoring, offshore RO desalination, and services to the Oil and Gas Industry.

Reliability

ITT is recognized worldwide for our brands such as Goulds Pumps®, Bornemann, PRO Services, Engineered Valves, Blakers, and C'treat®. We have developed engineered products for Oil and Gas applications and offer custom designs for critical services. The latest foundry and manufacturing technologies, combined with demanding quality control processes and procedures, ensure the highest quality products. We provide the greatest value in life cycle cost and performance.

Innovation

ITT is the world leader in technology and engineering expertise, utilizing capabilities such as:

- Computational fluid dynamics
- Materials science
- Manufacturing technology
- Finite element analysis
- Efficiency optimization
- Controls and monitoring
- Rapid prototyping
- Hydraulic design
- Mechanical design

PumpSmart® controls and ProSmart® monitoring systems keep processes reliably on-line by automatically adjusting pump output to meet system needs, detecting and correcting problems before they disrupt the process.

Environment, Safety & Health

ITT is proud to be a leader in protecting our employees, customers and the communities where we operate. The ITT Environment, Safety and Health Management System provides for the systematic control of environmental, safety and health (ESH) risks. Using this system, operational, administrative and cultural ESH processes are standardized and applied to continually improve environmental and occupational safety and health performance.



ITT – API Expert

ITT Commitment

ITT is committed to the Oil and Gas market, which is the largest segment of our business. We have been investing in technology to continuously improve our products to meet increasingly demanding industry requirements.

Proven API Leadership

ITT is a proven leader in API pumps with over 25,000 units installed.

40+ years of API expertise participating member on API 610, API 676 and API 682 committees.

Complete Portfolio of API Pumps

ITT Goulds Pumps and Bornemann have a complete portfolio of proven API pumps:

- Overhung pumps
- Single and two-stage between-bearing pumps
- Multistage between-bearing pumps – axially split
- Barrel Multi-Stage pumps
- Vertical, double casing pumps
- Specialty pumps
- Twin screw pumps
- Multiphase pumps
- Positive displacement pumps

Global Coverage

ITT's family of industrial brands - Goulds Pumps, Bornemann, PRO Services, Engineered Valves, Compact, Turn-Act, and C'treat have the global coverage needed to serve multi-national companies in any region.

Industry Leading Hydraulic Coverage

We offer extensive hydraulic coverage to meet your process needs. Better hydraulic fits can mean improved efficiency, and long-term reliability and parts life.

8000 HP / 6000 kW Testing Capability

Our expanded centrifugal and multiphase pump test facilities can meet any of your test requirements. This allows us to test at rated speeds, which is critical to assess the impact of dynamic conditions including vibration.

API Engineering Expertise

We are experts in packaging engineered pumps that meet your demanding applications – with true conformance to the latest API specifications. ITT is a world leader in technology and engineering, including hydraulics, materials science, mechanical design and fluid dynamics. We have extensive experience in nearly every type of driver, bearing, seal, piping configuration, nozzle configuration, flange and baseplate design to meet your application needs.

ITT is a world leader in technology and engineering, including hydraulics, materials science, mechanical design and fluid dynamics.



Model 3600 (BB3) in a water injection service located in a demanding Western Australia desert.



One of our 8000 HP / 6000 kW testing facilities.

Exploration & Production

Recognized as a premier supplier of products and services for the Oil and Gas Industry, it's only natural that ITT provides the sophisticated, rugged, and reliable products necessary to extract and process oil and gas.

Oil sands, shale oil, and shale gas have become economically and technologically feasible energy sources. Our products serve them all.



Offshore

ITT offers extensive products and services to meet the demanding requirements of:

- Offshore exploration
- Offshore production platforms
- Floating production, storage and off loading vessels (FPSO)

This includes manufacturing in super duplex materials and focusing on reducing the footprint and weight of our equipment.



Sub Sea

ITT provide engineered pumps and connectors for sub sea applications. ITT Bornemann is the market leader in the application of surface multiphase pumping and is moving towards subsea applications.

Onshore

ITT products are engineered for use in harsh environments, including the desert and the Arctic in applications such as water injection, crude shipping, and firewater.

Oil Sands

ITT is active in the Oil Sands production segment, including mining and Steam Assisted Gravity Drain (SAGD) technologies.

Shale Gas

As part of the hydrofracking process, ITT supplies pumps and valves for slurry handling as well as water treatment.



Tank Farms & Pipelines

Whether you are talking short distances between storage tank and truck, or long barren stretches between pumping stations, ITT has the right solution.

Transporting crude or refined product demands absolute care. ITT has dependable, efficient products that are crucial to managing your pipelines and transport requirements.

ITT's offerings include:

- Booster pumps
- Mainline pumps
- Pumps for terminals and tank farms
- Twin screw pumps for loading and unloading of ships, tank wagons, tanker trucks as well as storage tanks and pipeline
- Hydraulic rerates of existing pumps
- Remote monitoring



We are experts in packaging engineered pumps that meet your demanding applications – with true conformance to the latest API specifications.

Liquid Natural Gas (LNG)

Liquefaction

ITT supplies pumps for LNG liquefaction plants, including acid gas removal, Natural Gas Liquids (NGL) and utilities such as cooling water and steam generation.

Regasification

ITT manufactures large horizontal and vertical water pumps used to convert the LNG back into a gas as well as other pumps for balance-of-plant requirements.



Refining / Petrochemical

An oil refinery requires high temperatures and pressures as well as reliable equipment to convert crude into usable products. ITT offers a wide range of safe, reliable products and services designed for these demanding requirements.

We make highly engineered pumps that range from charge pumps, HF acid pumps and reflux pumps to simple cooling water and sump pumps. For temperatures up to 800°F (426°C) and pressures up to 4,000 PSI (275 bar), we cover it all.

Our global support services ensure around-the-clock operation of your facility.

For petrochemical plants using refinery feedstock, we offer a full range of API, ANSI and ISO pump models, including exotic metallurgies to handle corrosive applications.

Our twin screw pumps are used to transfer within terminals where both low and high viscosity products have to be moved or metered.



Nearly 80 Bornemann pumps in operation



Model 3620 (BB2) boiler feedwater service located in a refinery in Asia.

Products



- 3700 (OH2)**
Single-Stage, Overhung
- Capacity: 8,500 GPM (1930 m³/h)
 - Head: 1,200 feet (360 m)
 - Temperature: 800°F (425°C)
 - Pressure: 870 PSIG (60 Bar)



- 3610 (BB1)**
Axial Split Case, Double Suction
- Capacity: 50,000 GPM (11355 m³/h)
 - Head: 700 feet (215 m)
 - Temperature: 300°F (149°C)
 - Center Line Mount Option: 400°F (200°C)
 - Pressure: 300 PSIG (21 bar)



- 3620 (BB2)**
Single-Stage Between Bearing, Radially Split Pumps
- Capacity: 20,000 GPM (4540 m³/h)
 - Head: 1,500 feet (455 m)
 - Temperature: 850°F (455°C)
 - Pressure: 1,000 PSIG (70 bar)



- 3640 (BB2)**
Two-Stage Between Bearings, Radially Split Pumps
- Capacity: 7,500 GPM (1700 m³/h)
 - Head: 2,500 feet (760 m)
 - Temperature: 850°F (455°C)
 - Pressure: 1,130 PSIG (75 bar)



- 3600 (BB3)**
Heavy-Duty Multi-Stage Axially Split Pumps
- Capacity: 8,500 GPM (1930 m³/h)
 - Head: 9,000 feet (2740 m)
 - Temperature: 400°F (205°C)
 - Pressure: 4,000 PSIG (275 bar)



- 7200CB (BB5)**
Barrel Multistage Pumps
- Capacity: 4,000 GPM (910 m³/h)
 - Head: 9,000 feet (2740 m)
 - Temperature: 800°F (425°C)
 - Pressure: 4,000 PSIG (275 bar)



- 3910 (OH3)**
Vertical In-Line
- Capacity: 6,000 GPM (1360 m³/h)
 - Head: 750 feet (230 m)
 - Temperature: 650°F (340°C)
 - Pressure: 600 PSIG (42 bar)



- 3171 API (VS4)**
Vertical Sump
- Capacity: 3,180 GPM (722 m³/h)
 - Head: 525 feet (160 m)
 - Temperature: 450°F (232°C)
 - Pit depth: 20 feet (6 m)



- VIT (VSI)**
Vertical Turbine
- Flows to 70,000 GPM (15900 m³/h)
 - Head: 3,500 feet (1067 m)
 - Pressure: 2,500 psi (176 bar)
 - Bowl sizes from (6" to 55")
 - Temperature: 500°F (260°C)



- VIC (VS6)**
Vertical Can-Type
- Flows to 70,000 GPM (4760 m³/h)
 - Head: 3,500 feet (1067 m)
 - Pressure: 2,500 psi (176 bar)
 - Bowl sizes from (6" to 55")
 - Temperature: 500°F (260°C)



- W/V Universal**
Twin Screw Pumps
- Capacity: 12,300 GPM (2800 m³/h)
 - Temperature: 660°F (350°C)
 - Pressure to 900 PSIG (60 bar)



- MW Classic**
Multiphase Pumps
- Capacity: 1,206,000 BPD (8000 m³/h)
 - Temperature: 320°F (160°C)
 - Pressure: 725 PSIG (50 bar)



- SLM Single Line**
Multiphase Pumps
- Capacity: 20,000 BPD (130 m³/h)
 - Temperature: 210°F (100°C)
 - Pressure: 230 PSIG (16 bar)



- EH Universal**
Progressive Cavity Pumps
- Capacity: 1,100 GPM (250 m³/h)
 - Temperature: 270°F (130°C)
 - Pressure: 360 PSIG (24 bar)



XHD

Severe Duty Slurry

- Capacity: 13,000 GPM (2950 m³/h)
- Head: 280 feet (85 m)
- Temperature: 250°F (121 °C)
- Pressure to 250 PSIG (17 bar)



**3196 i-FRAME™ / IC (OH1)
Process Pumps (ANSI / ISO)**

- Capacity: 7,000 GPM (1364 m³/h)
- Head: 730 feet (223 m)
- Temperature: 700°F (371 °C)
- Pressure: 375 PSIG (26 bar)



ProSmart®

The ProSmart® System is a continuous machinery monitoring system designed for multi-plant predictive maintenance programs. Automatic notification of machinery issues with advanced diagnostic tools and ITT-hosted solution enables to minimize process downtime and significantly reduce equipment life cycle costs.



PumpSmart®

PumpSmart® control systems provide real-time control and protection of your pumps, eliminating unplanned repair activities and reducing energy consumption. PumpSmart has the ability to control your Medium Voltage applications with their award winning and patented logic control.



PRESSURE SETS & UV SYSTEMS

Pressure Sets, UV Sterilization Systems, and other water handling equipment can be designed and built for offshore application.



Watermakers

C'treat builds a complete range of Reverse Osmosis (RO) watermakers to meet the wide variety of demands of the offshore drilling and production industry. Each packaged system is designed and built for simple operation and ease of maintenance. Many special system components have been developed and optimized for use in the offshore environment.



Cam-Tite®

Tefzel Lined Trunnion Ball Valve

- Size: 1/2"-6"
- Pressure: ANSI Class 150-300-600 Flanges
- Temperature: Up to 550°F (290 °C) (Pressure dependent)
- Shutoff Performance: ___Bubble tight per MSS-SP-72 and ANSI B16.34



HD150 & HD300

Heavy Duty Knife Gate Valve

- Sizes: 6"-60" (DN150-DN1,500)
- Pressure: ANSI Class 150 / 300
- Temperature: ANSI Class 150 / 300
- Shutoff Performance: Class IV or better; For initial start-up they have bidirectional bubble tight shut off.



Compact Automation Products Sub-Sea Linear Actuators

- Hydraulic service to 5,000 psi
- Electro Polish 316 Stainless steel constructed with optional materials available, Super Duplex, Duplex, Nitronic 50, Nitronic 60, 17-4 SS, Inconel, Elgiloy, NAB, Hard Anodized Aluminum
- Bore sizes to 2.5" - 24", Rod sizes 0.62"- 3.5" diameter
- Internal spring packages available
- Unlimited customization options



Turn-Act Sub-Sea Rotary Actuators

- Highest rotary torque output in the smallest package available
- Hydraulic service pressures to 500 psi
- 3,500 in.-lbs. torque at 500 psi. hydraulic input for size 3
- Rotational ranges of 45, 90, 180 and 270 degrees, Zero backlash
- Available in Hard-Coat Anodized Aluminum and 316 Stainless Steel construction. Special materials available upon request



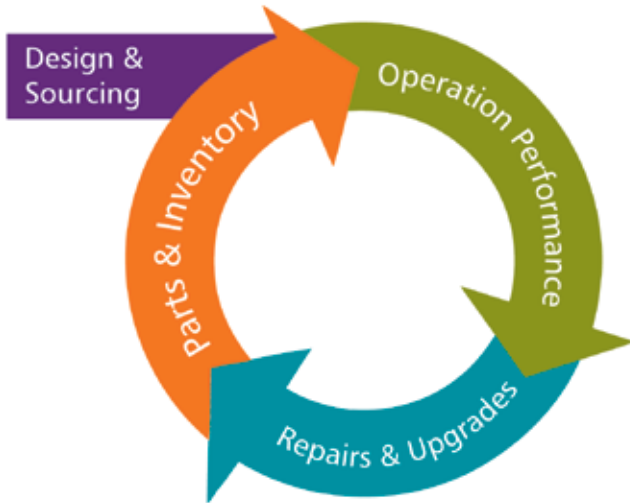
BIW Feedthru Systems for Packers and Pods

- Voltage: 5000 VAC
- Current: 140 Amperes
- Pressure: 5000 PSIG
- Temperature: Up to 550°F (290 °C)



BIW Electrical Feedthru Systems for Electric Submersible Pumps

- Voltage: 5000 VAC
- Current: 215 Amperes
- Pressure: 5000 PSIG
- Temperature: Up to 302°F (150 °C)



Reliability has no quitting time.

PRO Services provides an array of services focused on reducing equipment total cost of ownership (TCO) and increasing plant output, including predictive monitoring, maintenance contracts, field service, engineered upgrades, inventory management, and overhauls for pumps and other rotating equipment.



PRO Services provides OEM parts for Goulds Pumps, Bornemann Pumps, AC, Morris, Goynes, CB, HVC, UXN and ROV in a timely manner to meet end user requirements. Significant levels of inventory and quick response capability provides the necessary programs to meet all repair needs.

PRO Services provides programs of reliability services, energy assessments, asset management and training. These can be deployed as stand-alone or integrated solutions, tailored to the needs of your company.

PRO Services provides an array of repairs and upgrades services to extend equipment life. PRO Services helps customers develop effective maintenance and asset management programs to lower maintenance costs, improve uptime, reduce inventory costs and extend equipment life.

ITT's Vision & Values

ITT is a diversified leading manufacturer of highly engineered critical components and customized technology solutions for the energy, transportation and industrial markets. Built on a strong heritage and imaginative spirit, ITT solves our customers' most complex, mission-critical needs for key industries that underpin our modern way of life.

The ITT Way

Our people are at the center of all we do, and our values of Respect, Responsibility and Integrity are central to who we are as a company. They are the standards to which we hold ourselves and they guide our words and actions every day. Our values are also the foundation of The ITT Way which is how we differentiate ourselves, operate to grow and create value. It is our model for how we create enduring impact for all of our stakeholders.

Environment, Safety & Health

ITT is proud to be a leader in protecting our employees, customers and the communities where we operate. The ITT Environment, Safety and Health Management System provides for the systematic control of environmental, safety and health (ESH) risks. Using this system, operational, administrative and cultural ESH processes are standardized and applied to continually improve environmental and occupational safety and health performance.

Eco-Footprint

ITT is acting to preserve and enhance our environment. We are striving to shrink our eco-footprint by further reducing the use of natural resources and hazardous materials in production, lowering emissions and energy use in operations, and by improving product design.

Through our involvement in the API 610, API 676 and API 682 committees, we actively address and participate in the drive for increased safety, reliability and emissions containment in the oil and gas industry.



Visit our website at
www.ittoilgas.com

Wherever you are, we're there too.



ITT's family of industrial brands:



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