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The partner of your industry

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EBS provides products, services and support to the onshore, offshore and energy industry. Products range from simple tube fitting to the advanced nitrogen generator. Regardless of function or complexity, you can rely on EBS to provide the highest-quality solution, based on extensive knowledge backed by world-class products quality.

Our distribution center houses a huge selection of products from hundreds of manufacturers of the industry's most popular brands.

# Fittings & Quick Couplings



## INSTRUMENTATION FITTINGS

- Industry standard design for all instrumentation grade tubing
- Silver coated threads to reduce galling
- Back ferrule is treated with Supar case™ technology to provide a strong mechanical grip on the tube
- Industry double ferrule design for system specifications



## HYDRAULIC FITTINGS

- Universal 37° flared fittings for hydraulic systems and ships
- Single 37° fitting body will accept both inch and metric tube sizes by simply changing the sleeve
- Straight bodies are made from either cold drawn bar stock or cold formed construction
- Sleeves are cold formed and heat treated for an optimum combination of strength and ductility
- Cold forming increases material strength and its fatigue properties, imparting high strength and longer service life to the nuts
- Shapes are of one piece forged construction eliminating potential leak paths
- Easily produced flare at the tube end to seal and hold fluid under high pressure.



## PNEUMATIC FITTINGS

- Instant fittings used to connect pneumatic devices in many industrial applications: assembly machines, factory automation, automotive process industry, vacuum networks...
- Designed to meet international standards (Latest standard ISO 14743, for push-in-connectors used in conjunction with thermoplastic tubes)
- A wide variety of body designs and numerous configurations from 3 to 14 mm with different types of thread (BSPP, BSPT..)
- Fittings offer time saving and simplicity of installation (instant connection and disconnection without the use of tools),



## UNIVERSAL COMPRESSION FITTINGS

- Connection of different materials and diameters of tubing, offering a maximum number of connection possibilities with direct assembly
- Space-saving, allowing different connection configurations with the same fitting
- Absence of seal, guaranteeing maintenance simplification, an increase in the installation's lifespan and lower risk of leakage authorizing the transportation of some fluids
- Available in Brass and Stainless Steel materials



## QUICK COUPLINGS / INSTANT FITTINGS

- Non-Spill designs virtually eliminate fluid loss upon disconnection and drastically minimize air inclusion during connection
- Available in four types of threads: NPT, BSP parallel (BSPP), BSP taper (BSPT) and metric
- Various body and seal materials available for transfer and sealing off media in corrosive or high purity applications: Stainless Steel, Brass and Polymer

# Tubing



## STAINLESS STEEL TUBING

- Available in imperial as well as in metric sizes
- Offer good resistance to localised and uniform corrosion
- Tested in accordance with international standards for material quality
- Tubing meets the cleanliness requirement



## PNEUMATIC TUBING

- Available in Smoothbore, Heat Shrink, Convoluted, Corrugated or Paratubing design
- Materials include PU, High Purity PFA, APE, FEP and PTFE
- For use in temperatures up to 500°F (260°C) and/or corrosive chemical applications or where high purity is needed

# Tube Fabrication Equipments



## TUBE FABRICATION EQUIPMENTS

- High quality hand benders, tube cutters, deburr tools and preset tools
- Tube benders from 1/8" to 1" size
- Tube cutter rated for 316 stainless steel tubing
- Par-LokR wrenches with 360° snap-action for flexibility
- Preset installation kits for assembling tube fittings in close spaces

# Valves & Manifolds



## BALL VALVES

- Suitable for the most demanding applications in the oil, gas and process control industries

- Complies with ANSI/ASME B16.34 requirements where applicable

## 20K BALL VALVES

- Designed for cold working pressure applications of up to 20,000 psi (1,379bar)

- Two piece barstock design reduces body leakage paths

- Integral compression ends available, eliminating taper threads and thread sealants

- Tru-Loc® anti-vibration locking system on gland adjuster for 100% security



## NEEDLE VALVES

- Globe style barstock for operation with any fluid up to 10,000 Psi (690 bar)

- Compact single and multi port gauge valves

- Soft tipped optional seating available for gaseous applications

## 20K NEEDLE VALVES

- Designed for cold working pressure applications of up to 20,000 psi

- Non-rotating spindle for bubble tight shut off

- Externally adjustable gland

- Fine threaded stem raiser gives increased stem sensitivity and accuracy

- Tru-Loc® anti-vibration locking system on gland adjuster for 100% security



## NON RETURN & CHECK VALVES

- Two-piece metal seated body design ensures minimal leakage paths

- Integral compression ends available, eliminating taper threads and thread sealants

- Self-centering Seal and low noise

- Designed to meet pressure and temperature requirements of ANSI/ASME B.16.34.

- Explosive decompression/extrusion resistance O-rings for high pressure applications up to 10,000 Psi



## BLEED VALVES

- Recommended for use in bleeding hydraulic systems

- Multi-valve manifolds or gauge/root valves

- Valve vents line pressure to atmosphere or to containment

- Assist in the calibration of control devices



## PRESSURE RELIEF VALVES

- Automatic protection mechanism for process instrumentation system

- Pressure settings are externally adjustable

- From six to eight different spring ranges provide greater system sensitivity and enhanced performance

- CE marked and certified to the highest Category-IV level of the Pressure Equipment Directive (PED)

- Seat design additionally operates over an extremely wide pressure range (150 to 6000 psi, 10.3 to 414 bar)

# Valves & Manifolds



## SOLENOID VALVES

- Recommended for wide variety of applications that require zero pressure differential and medium to high pressures and flow
- Can be mounted in any position and in various coil housings to suit various protection requirements
- Electrical parts are designed for continuous duty and permanent switch-on (100% ED)
- Available in Normally Closed and Normally Open constructions with interchangeable AC/DC coils
- Delivered with a wide range of distributors for actuation
- Bodies and housings are available in a variety of elastomers as well as, brass and stainless materials



## MONOFLANGES

- Compact double block and bleed valves, featuring needle valves
- Reducing installations cost while improving safety through a reduction in leak paths
- Configurable options include single block, double block and double block and bleed
- Available in a range of materials including carbon steel, stainless steel, duplex, alloy 625



## 2,3 & 5 VALVES MANIFOLDS

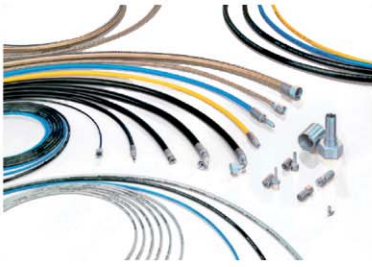
- A comprehensive range of 2, 3 and 5 valve manifolds for pressure and flow measurement applications
- Available with integral PTFreeR connections, reducing leakpaths and installation cost.
- Available in stainless steel and many exotic alloys, including Hastelloy®, 6Mo, Monel®, and Alloy 625
- Direct or remote mounting options



## DOUBLE BLOCK & BLEED VALVES

- A complete range of ball valves 10mm ball and needle valve manifolds
- Including block and bleed, and double block and bleed manifold options
- Working pressures up to 10,000 psi (690 bar)
- Available with integral A-LOK® or CPI™ connections, reducing leak paths and installation costs

# Hoses



## THERMOPLASTIC HOSES

- Suitable for industrial gases , hydraulic and pneumatic applications
- Lightweight by design – more than 50% weight reduction compared to conventional hydraulic hoses possible
- Wide temperature range from -73°C up to 232°C
- Easy cutting and processing, especially with textile fibre reinforced hose types
- For very high working pressures up to 400 MPa
- Small bend radii to compact design to save installation space



## HYDRAULIC HOSES

- Full range of hoses with pure nitrile/rubber inner tubes, from 1 and 2 wire braided through to 6-layer multi-spiral hoses
- A wide variety of hoses and assemblies which meets SAE, DIN, ISO and MSHA standards
- Includes such features as constant working pressures, low expansion, low temperature and high temperature applications
- Provides a variety of abrasion resistant cover choices with maximum flexibility



## STAINLESS STEEL METAL HOSES

- For extreme conditions where other hoses fail
- For temperatures up to 1,500°F (816°C)
- available with no braid, one braid, or two braids
- Provides the lowest permeation rate of any hose available
- Frequently used for the conveyance of liquid nitrogen providing a wide range of chemical resistances



## FLUOROPOLYMER HOSES

- For temperatures up to 500°F (260°C) and/or corrosive chemical applications or where high purity is needed
- Available with a smoothbore or convoluted seamless inner core
- Inner core materials include PFA, High Purity PFA, and PTFE; braiding materials include Stainless Steel, PVDF, Polypropylene, and Nomex



## ULTRA HIGH PRESSURE HOSES

- Series of multi-spiral wire reinforced hoses specifically designed for oilfield applications
- For temperature up to 158 ° F (70 °C), short term 125 °C and Working pressure from 5,000 psi (345 bar) up to 15,000 psi (1035 bar)
- Eliminates the joining and potential for leak age therefore avoiding spills and environmental damage
- External thermoplastic sheath is up to 15 times more resistant to environmental impacts and working conditions than rubber materials, reducing maintenance cost and frequent hose replacements.
- Polyamide (PA I I) core tube and Fluoropolymer technology for cleanliness

# Filtration & Gas generation

## COMPRESSED AIR & GAS FILTERS AND DRYERS



- High quality Compressed Air and Gas Treatment products, supporting a wide range of industries and applications :

- Coalescing Compressed Air Filters
- \* Instrumentation and Gas Sampling Filters
- \* Vacuum Pump Inlet and Exhaust Filters
- \* High Pressure Natural Gas Filters
- \* High Efficiency Liquid Filters
- \* Bulk Liquid separator
- \* Refrigeration Air Dryers
- \* Inline Desiccant Dryer
- \* Regenerative Desiccant Dryers
- \* Heatless Desiccant Air Dryers

- Pressure losses start low and stay low to save energy, money and the environment

- Low lifetime costs

- Tested in accordance with international standard ISO for compressed air quality (ISO 8573-1:2001)

## HYDRAULIC FILTERS



- A range of quality products created for specific application use including:

- \* Single high-flow filters
- \* Duplex change over filters
- \* Automatic back flushing filters
- \* Oil Separators

- Various technologies are available for fluid contamination monitoring:

- \* Low Pressure (in-line) Filters
- \* High Pressure (in-line) Filters
- \* Medium Pressure (in-line) Filters
- \* Duplex (in-line) Filters

## NITROGEN GENERATORS



- Two different technologies are available for high quality nitrogen generation:

\* Membrane Technology :  
Uses bundles of hollow fibers which selectively separate compressed air by diffusing oxygen and other waste gases to the atmosphere while retaining nitrogen and allowing it to pass through the center of these fibers to the application

\* Pressure Swing Adsorption:  
Uses columns of carbon molecular sieve which adsorb selectively under pressure oxygen and other waste gases and allow nitrogen to pass through to the application

- Provides nitrogen gas with a maximum remaining oxygen content range from 0.5% to 5%

- Simple to install, requires minimal maintenance and eliminates safety hazards associated with traditional gas supplies

- Compact design which demand less floor space

- Can operate as low as 4 bar, thus reduces energy and operating costs



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# Hydraulic Pumps, Cylinders & Control Valves

## HYDRAULIC PUMPS



- Broad line of energy efficient hydraulic pumps includes:

- \* Fixed or variable displacement models
- \* Piston pumps
- \* Vane pumps
- \* Gear pumps
- \* Gerotor pumps

- Available for open or closed loop systems

- Available with a full complement of electronic and computer controls

- High efficiency and low maintenance under the toughest operating conditions

- Manufactured with the finest materials under strict quality control

## CYLINDERS



- Cylinders come in a wide range of construction types, ranging from compact light duty aluminum air cylinders, motorized electric cylinders, to heavy duty hydraulic designs:

- \* Industrial hydraulic cylinders
- \* Pneumatic cylinders
- \* Mobile hydraulic cylinders
- \* Electric linear and rotary cylinders
- \* Electrohydraulic actuator packages
- \* Feedback cylinders (mechanical, digital)

- Cylinders are available in single rod, double rod or rodless designs

- Cylinders are designed to meet numerous industry and government specifications and standards, such as NFPA, JIC, NASA, FAA, EASA, JAA, ISO, and DIN

- Available in a wide range of pressure ratings, sizes, configurations and materials including: steel, stainless steel, brass and aluminum

## DIRECTIONAL CONTROL VALVES



- A wide range of valves with different constructions styles for various applications including:

\* Hydraulic DCVs  
Are one of the most fundamental parts in hydraulic machinery which allow fluid flow into different paths from one or more sources. Valves are designed with different number of ports (entries or exists connected to valves), number of positions, actuating methods (manually, hydraulically, mechanically and solenoid operated methods) and types of spools (Sliding and rotary spools)

\* Air Valves

Cover the broadest range of industrial market applications. They offer control and performance, incorporating air valve technology such as wear compensated spool design, modular valves, manual and mechanical air valves, field bus compatible air valves and air valves with collective wiring for specialized machinery

- Valves are offered with or without on-board control electronics

- Valves are characterized by their compact design with good corrosion resistance for easy operation, and rugged construction for heavy duty applications

- DCVs present high best fluid power technology to equipments – from the simplest control functions to the most exotic automation environments

- In addition to Directional control valves, sandwich valves (Valves mounted between DCVs and their mounting Surface) are available to meet numerous mounting designs and panel mounting versions. These devices are characterized by their Steel bodies and internal hardened steel components for strength and durability

# Analytical Systems



## EASYSHIP DIGI FIELD KIT

- Oil analysis kit used for on-site measuring and monitoring of water content in oil, TBN, insolubles, viscosity and TAN
- For extensively oil types such as fuel, hydraulic and lube oil

- Provides state of the art, digital analysis and gives fast, accurate results for in-depth monitoring of trends



## HEATED VISCOMETER

- An accurate range, providing laboratory grade oil condition results in minutes
- Gives an early warning for a range of common problems
- Test greater range of oils, by changing the viscosity index or density

- Estimate the combustion performance (CCAI) of fuel oil

- Heavy duty, portable robust equipment

- ideal for long term use with rapid results

- Equipped with membrane type keypad and tactile buttons for easy use.



## ANALEXfdMplus

- A highly accurate instrument designed to measure the contamination of an oil sample with ferrous wear metal particles
- results are shown in a tabular display and in graphical format to enable trending by machine or equipment number

- Data from each test is stored in the internal memory, which may then be transferred to a host PC via a RS232 interface

- Ferrous debris is measured directly from the oil or grease in the sample container, providing a quick, simple and clean method of analysis



## MHC BEARING CHECKER

- Monitoring high frequency Acoustic Emissions (AE) signals naturally generated by deterioration in rotating machinery
- Easy to Use and Interpret parameters for quick analysis, simple One-Handed operation

- Both dB Level (Indication of the overall noise of the bearing) and Distress® values (instant indication of the state of the bearing's health) are displayed

- Last measurement recall

# Control & Measurement Instruments



## PRESSURE GAUGES

- Measurement of pressure can be displayed with mechanical or electronic solution
- A wide range of instruments with capsule elements, Bourdon springs and diaphragm
- Absolute and differential pressure measuring equipment for pressures from 25 mbar to 1000 bar
- Manufactured in accordance with the safety requirements laid down in the applicable international regulations
- Provide various mounting configurations and process connections

- Suitable for use under the tough conditions and in the demanding environments found in the oil and gas or petrochemical industries thanks to their robust stainless steel housing
- Conformity to ATEX and Protection Degree according to EN 60529
- Cases and housings are available in Stainless Steel as well as brass material
- Provide normalized graduations for single or double range (Other measurement units on request)

## THERMOMETERS

- Measurement of temperature can be displayed with mechanical or electronic solution
- A wide Range of thermometers for temperature from -50°C to 600 °C including:
  - \* Expansion thermometers
  - \* Bimetal thermometers
  - \* Glass thermometers
- Suitable for use under the tough conditions and in the demanding environments found in the oil and gas or petrochemical industries thanks to their robust stainless steel finish

- Provide various mounting configurations and process connections
- Bimetallic thermometers are available with transducers (Stem) which can be positioned vertically, horizontally or at any other angle
- Expansion thermometers are suitable for direct mounting or may be used with capillaries up to 15 m long
- Provide normalized graduations for single or double range (Other measurement units on request)



## THERMOWELLS

- Suitable for all types of thermometers
- Provide various mounting configurations and process connections:
  - \* Threaded thermowells
  - \* Flanged thermowells

- Suitable for use under the tough conditions and in the demanding environments found in the oil and gas or petrochemical industries thanks to their robust stainless steel construction



## TRANSMITTERS

- Various types used in industry process are available including:
  - \* Pressure transmitters (Absolute, Gauge, Differential, Electronic, Pneumatic, Digital & Wireless transmitters)
  - \* Temperature transmitters (Thermocouple ,RTD & Rail and field mounted transmitters)
  - \* Level transmitters (Point, Continuous, ultrasonic, conductive, pneumatic & hydrostatic transmitted)
  - \* Flow transmitters

- A high quality range of transmitters which provides accurate and consistent measurement and can meet a wide spectrum of measurement needs.
- Utilizing many advanced technologies (Smart) transmitters are cost- and energy-efficient, flexible and accurate even in the most demanding circumstances and harsh environments



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