Government Defense

Control every move

Barksdale
CONTROL PRODUCTS
CRANE
Barksdale, Inc./Barksdale GmbH
A Subsidiary of Crane Co.

Barksdale Control Products

Barksdale Control Products

Established in 1949, Barksdale Control Products supplies a broad range of engineered control products – directional control and air suspension valves, pressure, temperature, level and solid-state switches, transducers, transmitters, flow controls and instrumentation to specific market niches throughout the world. Barksdale is the solution leader within the oil & gas, transportation, industrial machinery, marine and mobile hydraulics markets.

Our Products

Providing the best possible product solution to meet your needs is our goal. As a long term supplier of controls instrumentation to the defense industry, Barksdale understands the need to deliver product solutions that offer quality, long-term reliability and value. Our products and processes are based on ISO9001:2000 standards to ensure the highest quality throughout; from incoming material inspections to closely monitored machining operations to finishing and assembly. Our commitment to operational excellence is evident in all that we do.

Our Focus

With over 50 years of experience as a technology driven, market-focused controls company, we offer the products, abilities and experience needed to develop solutions to protect your most critical assets.

We are proud of the product solutions we have provided to the defense industry. Barksdale products are named in over 1500 (NSN) National Stock Numbers. For over forty years, Barksdale has supplied both standard and customized products to support defense industry applications. Our control products are ideal for use in aircraft support, precision munitions, land systems and marine platforms.

Headquartered in Los Angeles, Barksdale has manufacturing facilities in Los Angeles, California and Reichelsheim, Germany with sales and technology support world-wide.

Crane Co. our Parent Company

Barksdale is proud to be a part of the Crane Co. family, one of the world's largest manufacturers of engineered products. With over $2 billion in sales, Crane's business units in aerospace & electronics, engineered materials, fluid handling, controls and merchandising systems work together to develop synergies to grow our business and benefit our customers. Founded in 1855, Crane Co. remains committed to the business principles of its founder, R.T. Crane, to conduct business with honesty and integrity.

Our Famous Shear-Seal® Technology

The Shear-Seal® name describes the unique design principle – mirrored finished plates slide over one another, "shearing" the fluid. The full-port design assures absolute minimum pressure drop while passing dirt and debris through the ports rather than across the sealing surfaces. These design features not only reduce wear, they create a lapping action between the sealing surfaces, resulting in a valve that "wears in" instead of "out". Our directional control and air suspension valve lines are based on our own Shear-Seal® technology. As a result, Barksdale is an industry leader in directional and height control valves.

Solid-State Pioneers

Barksdale was a pioneer in solid-state switching. In 1980, we combined bonded strain gauge sensors with Triac switching to create the industry's first solid-state switch.

Ground Breaking Temperature Switch Design

Our temperature switches, known for their accuracy and reliability, enjoy a heritage that dates back to the mid-1960's when Barksdale perfected the first effective method for ambient compensation of bulb and capillary type switches.

Need Something Special?

Most of our standard products can be customized to meet your specific application requirements. Our engineers will work with you to develop a solution which exactly meets your needs by modification of one of our standard products or developing a completely new product or technology.

As part of our team, your input ensures that the solution we deliver to you not only meets all of your technical requirements, but also offers excellent quality, high performance, and on-time delivery at a fair price.

Crane Co.

Valves

Shear-Seal® Microtorque(TM) Valve

- 1/4” NPT or SAE Porting
- DO3 Manifold mounting
- Pressures to 10,000 psi (700 bar)
- Multiple flow patterns
- Low handle load
- Zero leakage*
- Spring return

Applications

Hydraulic control circuits, mobile hydraulics, work holding, test stands.

Shear-Seal® Integral Control Valve

- Integrated actuator
- 1/4” to 1” NPT
- 2-Position and 3-Position
- Corrosion resistant materials
- Pressures to 6,000 psi (400 bar)
- Automated valve shifting
- High velocity flow

Applications

Remote operated circuits, offshore system, shipboard controls.

Shear-Seal® Directional Control Valve

- 1/4” to 1 1/2” NPT
- Selector, open center, shut-off manipulator
- Pressures to 6,000 psi (400 bar)
- High velocity flow
- Low pressure drop
- Tolerates contaminates
- Spring return

Applications

High-pressure hydraulic controls.

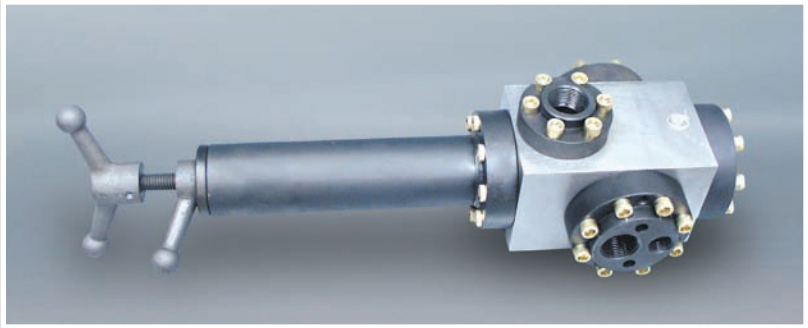
*Less than 4 cc per minute.

Shear-Seal® OEM Valve

- Shear-Seal® technology
- 1/4” to 1” NPT or SAE
- Selector, bypass, open center, manipulator
- Pressure to 3,000 psi (200 bar)
- High velocity flow
- Tolerates contaminates
- Spring return

Applications

High-pressure hydraulic controls, light industrial applications



Pressure Regulator

- Shear-Seal® technology
- 1/2” and 3/4” full flow
- Self adjusting
- High flow capacity
- Tolerates contaminates
- Fail-safe control
- High velocity flow

Applications

Pressure sensitive circuits, offshore systems, shipboard controls.

Hydraulic Relief Valve

- Original Shear-Seal® technology
- Settable pressures up to 7,000 psi
- 3/4” ports
- High flow capacity
- Corrosion resistant materials

Applications

Pressure protection applications.

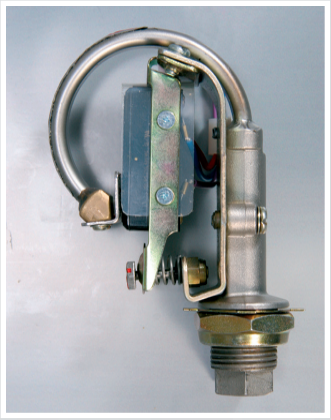
Mechanical Pressure Switches

Metal Diaphragm-Pressure and Differential Pressure Switches

- Adjustable Ranges: 30 Hg vac - 150 psi (-1... 12.5 bar)
- 1, 2 or 3 setpoints
- UL/CSA Listed
- Hazardous models: Class I, Div 1&2; Class II, Div 1&2
- All welded stainless steel pressure capsule

Applications

Nuclear power stations, autoclave systems, filter monitoring, cooling systems.



Bourdon Tube Pressure Switches

- Adjustable Ranges: 50 - 18,000 psi (up to 1250 bar)
- Proof Pressure up to 24,000 psi (1654 bar)
- UL/CSA Listed
- Hazardous models: Class I, Div 1&2; Class II, Div 1&2
- Stainless steel sensor

Applications

HPI, power stations, hydraulic systems.

Dia-Seal and Piston Pressure and Differential Pressure Switches

- Largest industrial product breadth
- Adjustable ranges: Dia-Seal 1 - 1500 psi (-1...110 bar)
- Piston 50 - 12,000 psi (up to 900 bar)
- UL/CSA Listed
- Hazardous models: Class I, Div 1&2; Class II, Div 1&2

Applications

Commercial to heavy industrial systems, mobile equipment, machine tools, water treatment systems, power plants

Compact Pressure Switches

- Adjustable Ranges: 1 - 8,700 psi (up to 600 bar)
- High proof pressure 15,000 psi (up to 1035 bar)
- Adjustable or fixed set points
- Nema 1, 4, 4X, 7, 9
- Hazardous models: Class I, Div 1&2; Class II, Div 1&2

Applications

Machine tools, mobile hydraulics, high pressure compressors, hydraulics, accumulators.

Solid State Pressure

Electronic Indicating Pressure Switches

Analog and Binary Output

- Ranges:1.5 - 14,503 psi (0...100 mbar up to 1000 bar)
- 1, 2 or 4 switch points (adjustable)
- Multi- function digital display
- Records and store peak pressure
- Keypad with easy response pushbuttons
- Easily programmable
- Self diagnostics
- Option: Analog output 4 - 20 mA / 0 - 10 VDC
- EEx - i versions
- GL, UL, CSA, approvals

Applications

Automotive industry, machine tools and systems, hydraulic and pneumatic, test bench, steel industry, filter monitoring.

Mechanical Temperature

Mechanical Temperature Switches

- Ranges: -50°F (-45°C...+316°C)
- Design for fluid and gases
- Ambient temperature compensation
- Up to 22 A switch load
- Hazardous models: Class I, Div 1&2; Class II, Div 1&2

Applications

Shipbuilding, power stations, heat exchangers, trace heating systems.

Solid State Temperature

Electronic Temperature Sensor and Switches with and without display

- Ranges: -22°F- +302°F (-30°C...+150°C)
- With integrated PT100 or external sensor
- 1,2 and 4 set points, free adjustable
- Peak value memory
- Option: analog output 4 - 20 mA / 0-10V

Applications

Energy and environmental systems, air conditioning, machine tools, hydraulic systems, analyzers.

Pressure Transducer

Electronic Pressure Sensor and Switches

- Ranges: 1.5-72,520 psi (0...100 mbar up to 5000 bar)
- Analog output: 4 - 20 mA / 0 - 10 VDC
- Compact, accurate, long life
- EExi versions high temperature
- GL approvals

Applications

Construction machines, machine tools and systems, hydraulics and pneumatics, mobile hydraulics.

Level & Mechanical Solid State

Single & Multiple Point Switches

- Up to 6 levels SPST or SPST reed contacts
- Metal and non-metal versions
  - Single Point: Vertical or Horizontal Mounting
  - Single Point: Protection Class IP54/IP68
  - Multiple Point: Protection Class IP64

Ultrasonic Level Switch

- 2 set points and analog output
- 7-segment LED display
- All parameters are configured by keypad
- Tamper-proof, keypad lock
- Rugged construction, vibration and shock-proof
- Long term stability

Applications

Continued minimum - maximum control in fluids in storage tanks, for fluid and high viscous media.

Electronic Level Probes

- Continuous level measurement
- Measuring range from 0...0,6 up to 0...200 m WC
- Signal output 4...20 mA or 0...10V
- EExi- and shipbuilding approvals
- Different materials and mounting alternatives

Applications

Ground water level measurement, level indication in wells and open tanks, even with low filling levels, waste-water purification, industry, ballast tank

Bypass Level Indicator

- Continuous level indication, purely mechanical, no power needed
- Temperatures up to 662˚F (350˚C)
- Pressure up to 928 psi (64 bar)
- All metal
- Mounting tankside, bypass or tanktop
- Optional transmitter 4...20 mA
- EExi and shipboard approvals
- Interface Optional

Applications

Replaces siteglasses, lever monitoring where legibility up to 40m is needed, offshore.

Flow & Mechanical & Electronic

Flow Switches and Monitors

- Pipe sizes 0.25” to 1.5” BSN/NPT
- Stainless steel 1.4571 or nickel plated brass
- Displacer-in-tube design
- Calibrated scale with optional viscosity compensation up to 600cSt available
- Optional visual indication
- NO/NC, SPST or SPDT output SPDT also in EEx-d version

Applications

Flow control in liquids and gases, lubrication and cooling system protection.

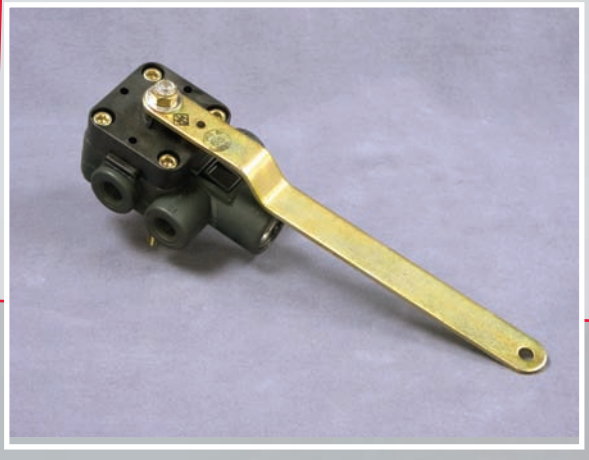
Electronic Flow Switches with Ultrasonic Sensor

- Ranges: 0...10 l/min up to 0...1...l/min
- 2 set points and analog output
- 7-segment LED display
- Microprocessor-controlled, self monitoring with error display
- All parameters are configured by keypad
- Tamper-proof, keypad lock
- Rugged construction, vibration and shock-proof
- Long term stability

Applications

OEM-applications, automotive, automobile industry, cooling.

ASV



Air Suspension Valve

- Long life Shear-Seal® technology
- Superior performance in difficult applications
- Precise deadband for accurate suspension height
- Multiple flow characteristics available
- Customized mounting and handle configurations available
- Ports are available with NPT or push-to-connect fittings
- Available with integral dump feature to eliminate extra valves

Applications

Truck primary air suspensions, trailer suspensions, cab suspensions.

Some of the major defense programs which use Crane products include:

Aircraft

F-22 Raptor
F-35 Joint Strike Fighter
B-2 Stealth Bomber
V-22 Osprey
F/A-18 Hornet
E-2C Hawkeye
Typhoon (Eurofighter)
Nimrod 2000
RC-135 Rivet Joint
AWACS
F-16 Falcon
U-2
B-52 Stratofortress
B-1B Lancer
AH-64 Apache
RQ-4A Global Hawk
Watchkeeper UAV (UK)
X-45
X-47 (UAV)

Precision Munitions

AMRAAM
Patriot / PAC-3
Tomahawk
Evolved Sea Sparrow Missile (ESSM)
Harpoon
Joint Air-to-Surface Standoff Missile (JASSM)
Dual Mode Guided Bomb (DMGB)
Small Diameter Bomb (SDB)
Wind Corrected Munition Dispenser (WCMD)
Standard Missile II
SeaRam
Longbow
AGM-88 HARM

C4ISR

AEGIS (radar)
Firefinder/Sentinel
JTIDS/MIDS
MILSTAR
JSTAR

Radar/Electronic Warfare

APG-63
APG 81
Airborne Self-Protection Integrated Suites (ASPIS)
Directional Infrared Counter Measure (DIRCM)
SLQ-32
AN/AAR-57 Common Missile Warning System (CMWS)

Land Systems

M1A1 Abrams
Challenger
Leopard
Multiple Launch Rocket System (MLRS)
Bradley Infantry Fighting Vehicle (IFV)
M-109 Howitzer
M-113 Armored Personnel Carriers
Armored Security Vehicles (ASV)

Naval Platforms

CVN-68 (Nimitz Class)
DDG-51 (Arleigh Burke Class)
Trident Class Fleet Ballistic Missile Submarine
SSN-774 Virginia-Class New Attack Submarine (NSSN)
LHD & LHA Amphibious Assault Ship (Wasp and Tarawa Class)
DD(X)

Army Petroleum and Water Systems

Load Handling Modular Fuel Farm (LMFF)
Forward System Supply Point (FSSP)
US-37 Bulk Transfer Pump

Global Presence

Global Presence

Barksdale, Inc
3211 Fruitland Ave.
Los Angeles, CA, USA
90058-0843
Phone: (323) 589-6181
Toll Free: 1(800) 835-1060
Fax:(323) 589-3463
E-mail: defense@barksdale.com
www.barksdale.com

Barksdale GmbH
Dorn-Assenheimer Strasse 27
61203 Reichelsheim, Germany
Phone: (49) 6035-949-0 (main office)
(49) 6035-949-204 (sales)
Fax: (49) 6035-949-111/113
E-mail: infor@barksdale.com
www.barksdale.de

Barksdale
CONTROL PRODUCTS
CRANE Barksdale, Inc./Barksdale GmbH
A Subsidiary of Crane Co.

Barksdale, Inc. • Los Angeles, CA 90058 • Specifications are subject to modification at any time • Bulletin #M0020-A 07/06 • ©2006 • Printed in the U.S.A