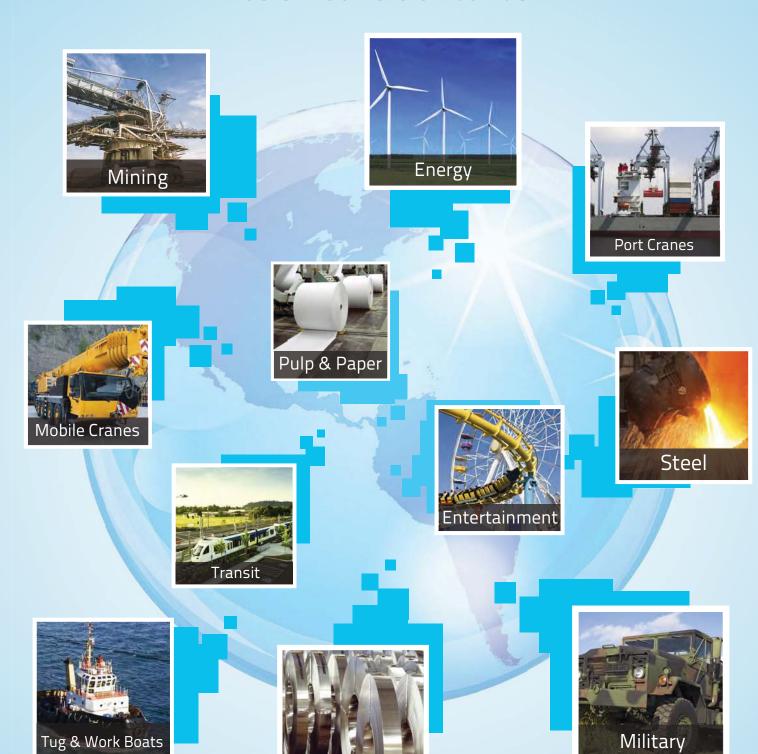


Problem Solvers Since 1732



Metalworking

Tug & Work Boats

Company Profile

Overview

The Rowland Company is a specialty industrial power transmission distributor with the added capabilities of fabrication and component assembly. We take great pride in our reputation for personalized service, geared to the specific needs of our customers. Typically the products we supply/repair are brakes, clutches, couplings, universal joints, gear boxes, friction material, variable speed drives and other miscellaneous items. Over the past several years, we have gone beyond the traditional mechanical power transmission products by adding crane controls and electrification, crane accessories, air starters and a number of other complimentary products. With over 280 years of experience, we offer innovative solutions to problems. Our staff has a wealth of knowledge based on years of successful work that we have provided for a variety of customers and industries.

We routinely go beyond the line card to devise unique solutions to problems, as opposed to simply selling parts. By taking a systems approach to our customers' needs and providing ongoing support for the systems developed, we are able to help our customers achieve higher levels of performance and, in the end, increased profitability and improved safety. As a result, we have established many long-term customer relationships that extend well beyond a single troubleshooting event.



- Rowland's Old Mill in Holmesburg, PA -

We strive to be the maintenance engineer's best friend.

Our Expertise

With our application solutions operating on all seven continents, The Rowland Company has a global presence. We have experience with numerous industries as well as many varying applications. This brochure is a snapshot of our capabilities. Our forte is going to the source of the problem, determining what is causing the problem and engineering a solution that is suitable to the operating environment.

All of these problems cause our customers significant downtime, lost productivity and revenue, costly replacement stock and/or safety concerns. Our solutions brought them increased productivity / revenues, improved safety and decreased downtime.

Please visit our website's **Problems and Solutions** to learn more about our **services and successes**.



Products, Manufacturers & Services

CLUTCHES AND BRAKES

- Bibbigard
- Brunel
- Carlisle
- Coremo
- Desch
- Dings
- Eaton-Airflex
- Fawick
- Formsprag
- Industrial Clutch
- Mach III
- Malmedie
- Marland
- Nexen

- Ogura
- Oil States
- Pintsch Bubenzer
- PT Tech
- Sime-Stromag
- Stearns
- Stieber
- Warner Electric
- Wichita Clutch



FLEXIBLE COUPLINGS

- American Vulkan
- Ameridrives
- Coupling Corporation of America
- Hayes
- Holset
- Lovejoy
- Renold

- Sier-Bath
- TB Woods
- Voith



CRANE CONTROLS & ELECTRIFICATION

- Apex Custom Controls
- Cattron
- Conductix-Wampfler
- Delachaux
- Harrington Hoist
- Johnson

- Power Electronics
- PT Tech
- TransTech
- Vahle

- Spotter Controls

CRANE ACCESSORIES

- Crosby
- Sennett Control
- Grammer
- TPC Wire & Cable
- Xtek - Maxi Signal

FRICTION AND WEAR MATERIALS

- Bremskerl
- Scan-Pac
- Ferotec
- Thordon
- Gatke
- Tribco
- Hawkhead

UNIVERSAL JOINTS / DRIVESHAFTS

- Apex
- Gewes
- Belden
- Kempf
- Con-Vel
- Lobro
- Dana-Spicer
- Wuxi
- Elbe & Sohn

MOBILE CRANE PARTS

- Delachaux GWB
- Wabco
- GKN
- Knott
 - Wampfler

GEARBOXES

- Boston Gear
- Nuttall-Westinghouse
- Delrovd
- Renold
- Hub City
- SEW-Eurodrive

AIR STARTERS

- Tech Development Inc (TDI)

SPECIALTIES / PROBLEM SOLUTIONS

- Contact Tips
- Counters and Hour Meters
- Forged Shafts and Assemblies
- Keyless Locking Assemblies
- Push-Pull Cables and Controls
- Rotary Unions
- Sheaves

SHOP SERVICES

- Brake and Clutch Rebuilding
- Custom Friction Parts
- Driveshaft Fabrication and Repair
- Friction Relining
- Sandblasting





Clutches & Brakes

Disc

Transmit torques from 329 ft-lbs to 743,750 ft-lbs



Drum

Transmit torques from 32 ft-lbs to 466,667 ft-lbs

Caliper Disc

Transmit torques from 3 ft-lbs to 400,000 ft-lbs



Electric

Transmit torques from 1 ft-lbs to 8,850 ft-lbs

Tension

Transmit torques from 3 ft-lbs to 112,500 ft-lbs





Overrunning

Transmit torques from 40 ft-lbs to 700,000 ft-lbs

Torque Limiting

Transmit torques from 10 ft-lbs to 357,350 ft-lbs



Power Take Off

Transmit torques from 900 ft-lbs to 4,800 ft-lbs

APPLICATIONS

Brakes and clutches are commonly found in the following applications:

- Bucket Elevators
- Can Presses
- Car Shredders
- Conveyors
- Dredges
- Forging Presses
- Grinding Mills
- Hoists
- Marine Propulsion
- Paper Dryers
- Press Brakes
- Pumps
- Rolling Mills
- Shears
- Slitters
- Turbines
- Winches
- Wind/Unwind Stands

- Bibbigard
- Brunel
- Carlisle/Goodrich
- Coremo
- Dellner
- Desch
- Dinas
- Eaton Airflex/Fawick Sime-Stromag
- Formsprag
- Industrial Clutch
- Mach III
- Malmedie
- Marland

- Nexen
- Ogura
- Oil States
- Pintsch Bubenzer
- PT Tech
- Rockwell/Goodyear
- Sepac
- Stearns
- Stieber
- Warner Electric
- Wichita Clutch



Flexible Couplings

Disc

Transmit torques from 175 ft-lbs to 642,000 ft-lbs





Jaw

Transmit torques from 3.5 ft-lbs 247,800 ft-lbs

Gear

Transmit torques from 208 ft-lbs to 393,908 ft-lbs



Grid

Transmit torques from 35 ft-lbs to 225,000 ft-lbs



Transmit torques from 3 ft-lbs to 7,000 ft-lbs



Torsional

Transmit torques from 30 ft-lbs to 590,500 ft-lbs

APPLICATIONS

Flexible couplings are commonly found in the following applications:

- Ball Mills
- Bottling Equipment
- Conveyors
- Converting Machinery
- Crushers
- Dredges
- Dynamometers
- Fans
- Metal Forming Machinery
- Mixers
- Printing Presses
- Pumps
- Shredders
- Textile Machinery

- American Vulkan
- Ameridrives
- Coupling Corporation of America
- Haves
- Holset
- Lovejoy

- Renold
- Sier-Bath
- TB Woods
- Voith

Crane Control & Electrification

Brakes

Drum and Caliper Disc, Braking torques up to 6,000 ft-lbs







Cable Reel

Motorized and Spring Driven

Conductor Bar

Copper and Aluminum systems to 1,500 amps





Controls

Pendant, Radio Remote and Custom Crane Controls



Drives

AC Variable Frequency and DC Digital Control



Festoon

Round and Flat Cable

APPLICATIONS

Typical applications for crane electrification include:

- Agricultural Equipment
- Amusement Park Rides
- Automated People Movers
- Conveyors
- Hoists
- Logging Machinery
- Mass-transit Systems
- Material Handling Applications
- Mobile Equipment
- Monorails
- Overhead Crane Runways
- Trolleys

- Apex Custom Controls
- Cattron
- Clark
- Conductix-Wampfler
- Cutler Hammer
- Delachaux
- EC & M
- General Electric
- Harrington Hoist
- Insul-8
- Johnson
- Pintsch Bubenzer

- Power Electronics Inc
- PT Tech
- Sennett Control
- Sepac
- Sime-Stromag
- Spotter Controls
- Square D
- TransTech
- Vahle
- Wagner/Patriot
- Westinghouse



Crane Accessories

Seats



Wheel Assemblies



Signals & Lighting

MANUFACTURERS

- Crosby Cable Block
- Grammer Seats
- Maxi-Signal Signals and Lighting
- Sennett Control Seats
- TPC Wire and Cable Cable
- Xtek Wheel Assemblies



Cable Blocks

Friction and Wear Materials

Rigid Linings

Available in sheets or blocks with coefficients of friction from 0.20 to 0.61. Thickness 0.125 to 2.50 in, Widths up to 20 in



Flexible Linings

Available in sheets or rolls with coefficients of friction from 0.27 to 0.55. Thickness 0.125 to

1.25 in, Width 0.75 to 13 in

Wear Materials

- Phenolic and elastomeric polymer materials
- Replace metallic bushings, bearings and wear plates
- Made to customer specifications

- Bremskerl
- Ferotec (Raymark)
- Gatke
- Hawkhead
- Scan-Pac
- Thordon
- Tribco





Universal Joints / Driveshafts

Cardan

Transmit torques from 4 ft-lbs to 11,071,745 ft-lbs



APPLICATIONS

PAPER

- Pulpers and Pumps Bucket Elevators
- Turning Rolls
- Unwinder/Winders Filling Machines

PRINTING

- Driving Rolls
- Line Shafts
- STEEL
- Pinch Rolls
- Rolling Mills

MATERIAL HANDLING

- Conveyors

MARINE

- Main Propulsion
- Pumps
- Thrusters

- Continuous Casters OFF-ROAD
 - Farm Equipment
 - Haul Trucks
 - Railway Vehicles

MANUFACTURERS

- Apex
- Belden
- ConVel
- Dana/Spicer
- Elbe & Sohn
- Gewes

- Kempf
- Lobro
- Watson/Parish
- Wuxi

Mobile Crane Parts



CRANE MANUFACTURERS

- Demag
- Grove
- Krupp
- Liebherr
- Tadano

Brakes

Drums, Shoes, Linings, Springs, Expanders

- Knott
- Wabco

Cable Reels, Driveshafts, Torque Rods

- Delachaux
- GKN
- GWB
- Wampfler







Gearboxes

Types of Gearboxes

- Planetary
- Worm
- Helical
- Gearmotors
- Shaft Mounted
- Right Angle



MANUFACTURERS

- Boston Gear
- Delroyd
- Hub City
- Nuttall/Westinghouse
- Renold
- SEW-Eurodrive



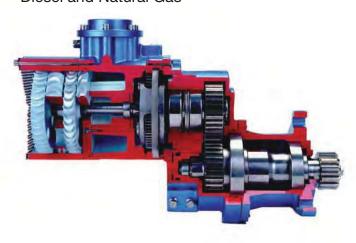


Air Starters

Turbine Air Starters

Start engines up to 300 L

• Diesel and Natural Gas



APPLICATIONS

Air Starters are used for the following engine applications:

- Arrow
- GE
- Caterpillar
- General Motors
- Cooper Ajax
- John Deere
- Cooper Superior
- MAN
- Cummins
- MTU
- Detroit Diesel
- Scania
- Deutz
- Waukesha
- Ford

MANUFACTURERS

- Tech Development Inc (TDI)



Specialties / Problem Solvers

Specialties

- Contact Tips
- Counters & Hour Meters
- Forged Shafts & Assemblies
- Keyless Locking Assemblies
- Push-Pull Control Cables
- Rotary Unions
- Sheaves





Steel and Aluminum

- Helping a rolling mill to **reduce roll change time** by designing a system with a quick release device
- Using special friction material to **reduce brake wear** in a slitter/rewind operation

Marine

- Eliminating overheating and smoking problem with installation of correct coupling
- Keeping a fleet of ferries running year round with an annual maintenance program to remove, rebuild and reinstall the propulsion clutches helping the customer to keep within their budget

Pulp & Paper

- Installing a needle bearing universal joint to accept a high degree of misalignment and absorb higher shock loads in a printing embosser operation
- Using ultra high molecular weight (UHMW) polyethylenes to greatly extend the life of foil blades in a paper machine

Power Generation

- Due to long lead times, a new unit was not an option for a customer. To keep this power company running, we rebuilt one of their holdback clutches. This resulted in acceptable downtime and considerable savings
- With the installation of an over-running clutch in a power plant, we eliminated fans reversing while idle due to airflow in the plant which was causing significant wear on keyways and shafts when fans were actually started

Mining

- Developing a special assembly design around a high misalignment coupling to eliminate significant downtime in a crusher due to frequent pin shear causing lost productivity
- Upgrading an old hydraulic brake with an air actuated brake on a roll stand while maintaining the required tension control and thermal capacity providing better quality and safety and less maintenance time



Shop Services

The Rowland Company repairs or rebuilds many types of **clutches**, **brakes**, **couplings and driveshafts** regardless of size or manufacturer. We disassemble, clean, inspect and provide a detailed quote of the work necessary to restore the unit to working order. Once we receive the customer's approval, we reassemble / repair the unit to factory standards. Upon completion of the job, we test all air, water and hydraulic systems.

BRAKE SHOP

- Authorized Rebuilder for Wichita Clutch & Eaton Airlflex
- Reline brake pads, shoes, rings and bands up to 10 ft. in diameter
- Reline clutch plates up to 60 in. diameter
- Stock a wide variety of friction material
- Provide bonding and/or riveting of linings
- Custom machining of friction segments, facings and pucks
- Fabrication of metal components for obsolete or damaged clutches and brakes
- Equipment includes burn off oven, sand blaster, wheelabrator, milling machine, band saw and bonding oven





DRIVELINE SHOP

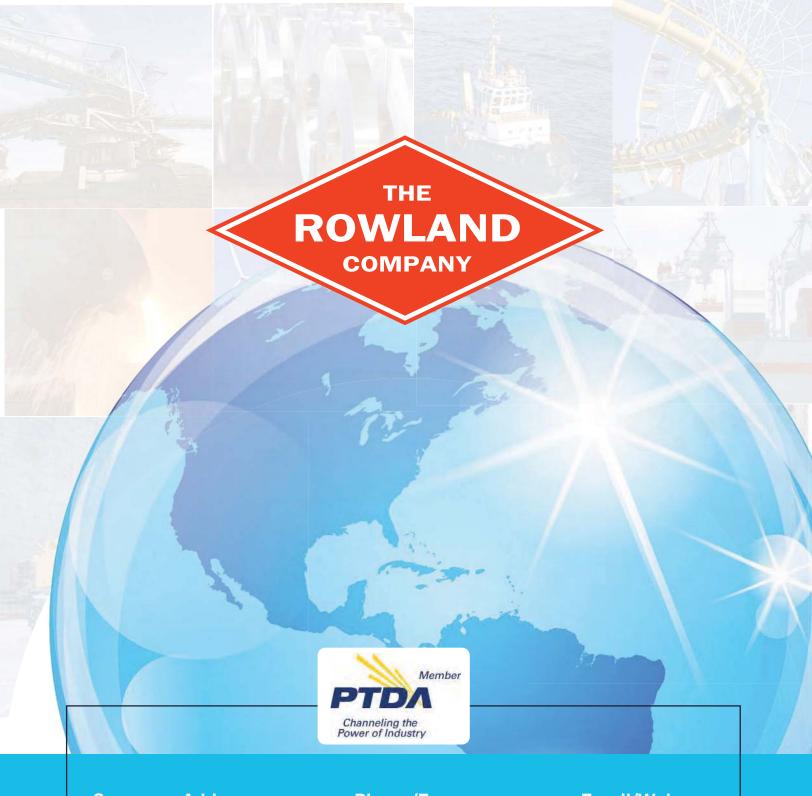
- Fabricate and repair drive shafts up to 10 feet long and 12 inches in diameter
- Shafts assembled to customer specifications
- Repair couplings with an outer diameter of up to 16 inches in diameter
- Services include assembly, welding, balancing and boring
- Application of special protective coatings as requested by our customers
- Equipment includes balancers, welders, lathes



MISCELLANEOUS SERVICES

- Fabrication / assembly of Push-Pull Cables for Transit, Emergency, Construction and Waste Management vehicles made to customer specification
- Wide variety of inventory in-stock

Our shop services support a range of industries such as Marine, Paper, Steel, Mining, Mobile/Off Highway, Transit, Packaging and various industrial manufacturing plants.



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Outside Continental USA: 215-455-4900

Fax: 215-455-8888

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