

ROTATING EQUIPMENT SERVICE & REPAIR

BOILERS

PUMPS

COMPOSITES

RENTAL

SYSTEMS

SERVICE

PARTS



R.F. MacDonald Co.

your boiler & pump solutions team

~ since 1956

24 HOUR EMERGENCY SERVICE, 365 DAYS A YEAR

YOUR PREMIER SUPPLIER OF PUMPS, PARTS, SERVICE, TRAINING AND FABRICATED SYSTEMS

R.F. MacDonald Co. offers service and maintenance plans to keep your equipment in top operating condition. Our factory trained and certified technicians are available for field service throughout California and Nevada 24 hours a day, 7 days a week.

We offer specialized services to keep your equipment operating at peak efficiency. These services include inspection and testing, as well as predictive and preventative maintenance programs to help decrease downtimes while increasing equipment longevity.

We Repair and Maintain All Rotating Equipment:

- ▶ Positive Displacement, Centrifugal, Vertical Turbine and Vacuum Pumps
- ▶ Compressors (wet & dry)
- ▶ Mechanical Seals
- ▶ Blowers
- ▶ Steam Turbines
- ▶ Gearboxes
- ▶ Cooling Tower Fans
- ▶ Conveyors
- ▶ Refiners
- ▶ Drives
- ▶ Centrifuges
- ▶ Motors
- ▶ Mixers



IN THE SHOP

R.F. MacDonald Co. reconditions all types of centrifugal and positive displacement pumps. We also repair rotating equipment such as gearboxes, vacuum pumps, fans, motors and blowers.

- ▶ Engineered pump support with field service capabilities such as pickup and delivery
- ▶ Troubleshooting, repair, installation, laser alignment, vibration analysis and vertical turbine rebowling
- ▶ In-house fabrication services, assembling custom pre-wired, pre-piped pump skids
- ▶ The advantage of updated engineering technology and a large inventory of replacement parts



IN THE FIELD

We employ ASME code certified welders and a fleet of fully equipped service trucks which can quickly be dispatched to your job site to perform the following services with our General Engineering Contractor License A-1.

- ▶ Pump Repair
- ▶ Installation/Removal
- ▶ Startup
- ▶ Alignment
- ▶ Vibration Analysis
- ▶ Onsite Training
- ▶ Onsite Overhauls
- ▶ Pipe Fitting
- ▶ Consultation



PUMP INDUSTRY EXPERTS SINCE 1956

SHOP SERVICES

Pump Rebuilds



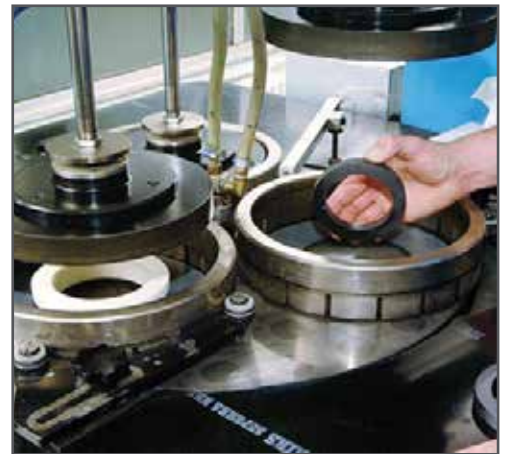
- Disassembly and Inspection of All Rotating Equipment
- Replace All Components to Meet or Exceed Manufacturer's Specification
- Dynamically Balance Impeller to API 610 Standard or Manufacturer's Specification
- Complete Machining Capabilities for All Equipment Requirements

Vertical Turbine Rebowling



- Bring Your Vertical Turbines Back to Original Performance Specifications
- New Custom Discharge Heads Can Be Provided to Address Vibration
- Corrosion, Erosion, Cavitation Analysis
- Rebowling, Pump Only Replacement
- Adapt to all Pump Manufacturers

Mechanical Seals & Couplings



- Rebuild and Replace Seals, Flush and Quench Packages
- Seal Failure Analysis
- We Stock Most John Crane Cartridge Seals; Trade-In Program Available
- Coupling Inspection and Replacement
- Expedited Repair Services

FIELD SERVICES

Installation and Startup



- Equipment Upgrades and Retrofits
- Specially Trained Technicians, Electricians and Code Welders
- State of the Art Equipment, Tooling
- Factory Authorized Startup Per Mfg Parameters
- Determine Operational Baseline: Flow, Pressure, Temp and Vibration

Vibration Analysis



- Troubleshoot Problematic Mechanical, Environmental, Hydraulic, Structural Vibration Frequencies and Operational Failures
- Equipment Monitoring
- State of the Art Calibrated Equipment
- Predictive Equipment Failure Analysis

Laser Alignment



- Coupling Alignment
- Precision Installation in Accordance with Manufacturer Specifications of All Coupled Equipment
- Equipment Installation Evaluation; Eliminate Pipe Strain, Soft Foot and More
- Hot and Cold Alignment Protocols which Meet or Exceed Manufacturer's Specifications

FULL COVERAGE FROM MULTIPLE OFFICES THROUGHOUT CA & NV

Inspection and Analysis



- Complete Disassembly and Inspection with Sandblasting
- Detailed Failure Analysis and Inspection Reports
- Precise Measurements Recorded
- Non-Destructive Testing, Welding and Machining Capabilities
- Equipment Tracked for Maintenance History

Dynamic Balancing



- In-House Precision Balancing. Onsite Dynamic Balancing Standard Service for All Pump Repairs
- ISO Balancing Based on API 610 Standard or Manufacturer's Specification
- Analyze Mechanical, Hydraulic or Peripheral Cause
- Preventative Maintenance Programs Available

Specialty Coatings



- Epoxy Resins, Coal Tar, Powder Coat Fused for Long Life
- Passivation and Electropolishing, Electroless Nickel
- Hard Coating for Corrosive Chemical, De-Ionized Water, Chlorinated Water and Abrasive Applications
- History of Success with Extending Pump Life

i-Alert2® Pump Monitoring



- Operational Diagnostics, Early Detection of Machine Failures
- Vibration, Temperature, Run-Time Monitoring with Advanced Vibration Analysis Tools
- Industrial Rated for Hazard or Submersible Environments, Bluetooth Capable
- Data Logging and Trend Analysis, Raw Data Sheet Analysis Service

Instrumentation and Control



- Controls, Monitoring and Accessories for Pumps and Systems
- Fully Compatible with Your Management System
- Continuous Measurement and Control Capabilities
- Understand Pump Performance Using Advanced Analytics

Pickup and Delivery



- Fully Equipped Fleet of Flatbed Trucks with Hydro and Auto-Cranes for Convenient Pickups
- Tough, Safe and Reliable Transportation, Handling, Rigging and Lifting Protocols
- All Weights and Equipment Accommodated
- Trained Safety Conscious Transportation Staff

FACTORY AUTHORIZED SERVICE CENTER FOR MAJOR MANUFACTURERS INCLUDING:

- ITT Goulds
- Seepex
- Boerger
- Weir
- Blackmer
- Grundfos
- Fybroc
- Xylem
- Viking
- Netzsch

VALUE-ADDED SERVICES

Pump Training



- Site-Specific and Equipment-Specific Training at Customer Site
- Lecture and Hands-On Classes at RFM Locations throughout CA and NV
- Instruction by Our Pump Expert with 38 Years of Pump Experience
- CWEA and AFE Certified Classes

Parts and Accessories



- 24-Hour Access to Parts
- 24/7 Parts Response
- \$5 Million in Stock
- Replacement Parts and Reverse Engineering Capabilities
- Rapid-Pattern Manufacturing

Gearbox Repair



- Motor-Mounted Gearboxes
- Right Angle Gearboxes
- Semi-Automatic and Automatic Gearboxes
- Helical Gearboxes
- High Speed Gearboxes

Vacuum Pump Repair



- Disassembly, Inspection and Cleaning
- Replace Vanes, Seals, Gaskets, Springs, O-Rings and Valves
- Multi-Step Decontamination and Cleaning Process
- Hydro Tested
- Assembly Report and Test Report Supplied

ASME Code Welding



- NBIC R Certificate: Repairs and Alterations to Pressure Retaining Items
- ASME S Certificate: Manufacturing of Power Boilers and Power Piping
- ASME U Certificate: Manufacturing of Unfired Pressure Vessels
- Industrial, Institutional, Commercial and Public Building Services

Energy Savings & Process Improvements



- Variable Speed Pumping Solutions
- Programming of VFDs
- Pump Curve Flexibility
- Equipment Monitoring Technology
- Engineer-Designed Systems and Upgrades
- Eliminate Energy-Consuming Control Valves

YOUR SINGLE SOURCE PARTNER

CORPORATE

25920 Eden Landing Road
Hayward, CA 94545
510.784.0110

BAKERSFIELD

3001 Antonino Avenue
Bakersfield, CA 93308
661.325.5057

FRESNO

4912 West Jacquelyn Avenue
Fresno, CA 93722
559.498.6949

LAS VEGAS

3111 S. Valley View Blvd., Suite E-120
Las Vegas, NV 89102
702.220.6680

LOS ANGELES

10261 Matern Place
Santa Fe Springs, CA 90670
714.257.0900

MODESTO

1549 Cummins Drive
Modesto, CA 95358
209.576.0726

RENO

8565 White Fir Street, Unit B2
Reno, NV 89523
775.356.0300

SACRAMENTO

1016 N. Market Blvd., Suite 10
Sacramento, CA 95834
916.696.6758

SAN DIEGO

7320 Convoy Court
San Diego, CA 92111
858.538.5877

SONOMA/NAPA

642 Martin Avenue, Suite B
Rohnert Park, CA 94928
707.586.9234

CONTRACTOR LICENSE

CA: #220117
NV: #0042816

rfmacdonald.com



PUMPS AND SYSTEMS

- High pressure condensate return systems
- Complete range of process pumps
- Water reduction via alternative seal flush plans and coolers
- i-ALERT[®] 2 Performance Monitoring



PUMP MAINTENANCE PROGRAMS

- Factory trained technicians
- Warranty services
- Large parts inventory
- Authorized service center for major manufacturers



SERVICES AND INSTALLATION

- Rental equipment and mobile boiler rooms
- Full aftermarket service and parts support
- Instrumentation and controls



PUMP AND BOILER TRAINING

- AFE Certified
- CWEA Certified
- Visit rfmacdonald.com/training



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