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THE FAN REPAIR AND REBUILD EXPERTS

ROBINSON
INDUSTRIES, INC.

AMCA MEMBER

ROBINSON INDUSTRIES – YOUR AIR-MOVING EXPERTS

Robinson Industries Inc. is the leading manufacturer of custom-engineered and custom-built industrial fans in North America with sales extending worldwide. For more than 100 years, our engineers and technicians have designed, repaired, rebuilt and maintained industrial air-moving equipment for our customers – keeping quality, service and uninterrupted operation at the forefront of our business.

We fabricate and service air-moving equipment at state-of-the-art manufacturing facilities. Designs undergo numerous quality tests in our Air Movement and Control Association (AMCA) accredited testing laboratory, including finite element stress analysis, computational fluid dynamics and resonant frequency testing, to ensure that our equipment stands up to the most demanding tasks. Robinson's innovative designs serve industries like mining, pulp and paper, cement, chemical process, steel, power and pollution control.

DON'T REPLACE; REPAIR AND REBUILD INSTEAD

Before you order brand-new air-moving equipment to replace your worn, corroded, unbalanced equipment, consider the potential benefits of repairing or rebuilding that equipment:

- Prolonged life
- Improved efficiency
- Reduced downtime
- Overall cost savings

Robinson repairs and rebuilds all types, models and designs of air-moving equipment, regardless of the original manufacturer. What may appear to be a fan damaged beyond repair may be rebuilt to look and function better than new, last longer and use less energy – all at significant cost savings ranging from 20 percent to 80 percent when compared to a total replacement cost. We can save you money and time by salvaging usable original fan components.

Plant downtime due to fan failure means lost production revenue, so we move repair/rebuilding jobs quickly through our service plants. We are available 24 hours a day to respond to your calls and will send trained professionals to analyze your equipment and determine the best course of action.

Chromium carbide blade liners or web plate liners are a cost-effective means of reducing wear and extending wheel life.

REPAIR/REBUILDS WORK BETTER THAN NEW

Your original equipment tells a detailed story about its operating environment, giving Robinson engineers historical reasons for damage and failure. From damaged parts and debris buildup to temperature variances and imbalanced operation, we can identify factors contributing to these problems and correct them for prolonged and improved performance.

Structural or mechanical modifications may be performed to prevent the same type of problems that caused the original fan to fail. There are three main causes of failure: erosion, corrosion and temperature.

Erosion – Repair engineers analyze how the existing fan performed – or failed to perform – in its specific application to determine which variables – materials, design or other factors – are responsible for wear or erosion. Then, we fine-tune the design to either reduce the number of particulates that come into contact with internal components or redistribute particulates to avoid concentration in one area. Even fans with blades worn all the way through can be rebuilt.

Corrosion – Robinson may start with an air-stream analysis to identify variables related to corrosion. A corrosive air-stream composition prompts engineers to use more durable materials like new stainless steels and exotic alloys in the repair/rebuild process. These materials withstand potentially corrosive situations for longer fan life.

Temperature – If materials used in the original design were not appropriate for a high-temperature application, Robinson will recommend alternatives, such as high-tech steels and alloys, designed to operate in high-temperature environments (up to 2,000° F). We'll also make adjustments to lower bearing temperatures to help them achieve their calculated life.

In all cases involving equipment or design modifications, Robinson works within the parameters of the existing system, considering weight, motor limitations and performance.

SOME FAN REPAIR MODIFICATIONS/ OPTIONS

- Alloy construction
- Anti-surge vanes
- Anti-thrust vanes
- Bearing redesign
- Ceramic liners
- Cheek liners
- Cone liners
- Deflector plates
- Detipping
- Fatigue life analysis
- Finite element analysis
- Foundation analysis
- Full blade liners
- Gas-tight construction
- Hub liners
- Impact testing
- Leading edge bars
- Partial blade liners
- Resonance control
- Rotor balancing
- Scalloping
- Scroll liners
- Shaft design
- Shaft seals
- Shaft sleeves
- Silencers
- Speed change
- Spray nozzles
- System change
- Tip-out
- Thermal analysis

DYNAMIC BALANCING

Dynamic balancing is essential to proper fan operation and prolonged life. It is a rigorous process that requires multiple starts and stops to make precise fan adjustments. To save this costly wear and tear on your motors, Robinson performs dynamic balancing at its three manufacturing plants. In addition, off-site balancing on calibrated equipment ensures accuracy and limits the need for further adjustments at your facility.

Equipment size is not an issue. Our Florida plant features the largest dynamic balancing equipment of its type in the United States to accommodate many types of rotating equipment up to 212" in diameter and 100,000 pounds in weight.

METALS AND ALLOYS UTILIZED IN FAN REPAIR

- A514 all grades
- Alloy 31 (VDM)
- Alloy 59 (VDM)
- Aluminum
- AR360 steel through AR500
- Brass
- Carpenter 20
- Chromium carbide overlays
- Corten (ASTM A242 and A588)
- Hastelloy B
- Hastelloy C
- Hastelloy C-22
- Hastelloy C-276
- Hastelloy G
- Hastelloy X
- Haynes overlays
- Haynes 230
- Inco 600
- Inco 617
- Inco 625
- Inco 800H
- Inco 825
- Jessop 700
- Jessop 777
- Mild steel (A-36)
- Nitronic (A412)
- Stoody overlays
- Titanium
- Tungsten carbide
- Ultimet
- Unitemp L605
- 304 stainless
- 304L stainless
- 309 stainless
- 316 stainless
- 316L stainless
- 317 stainless
- 330 stainless
- 333 stainless
- 347 stainless
- 410 stainless
- 430 stainless
- 2205 duplex alloy
- Many other special materials

CONVENIENT LOCATIONS FOR FAST SERVICE

Robinson Industries maintains extensive repair and rebuild facilities at its headquarters plant in Zelienople, Pa., as well as at plants in Lakeland, Fla., and Salt Lake City, Utah. All three plants are dedicated to minimizing downtime by expediting fan repair and providing fast turnaround to meet your needs.

ROUND-THE-CLOCK 24-HOUR HOTLINE

In addition to offering first-class repair and rebuild services, Robinson operates an on-site service facility located in Trussville, Ala. This wholly owned subsidiary, Robinson Fans Service and Equipment Co. Inc., provides technician availability 24 hours a day to respond to your service needs. No matter what kind of air-moving equipment you operate, Robinson Fans Service can analyze it, service it, and keep it running at peak efficiency. Technicians can complete most diagnostic and repair operations at your facility … and in many cases, a turnkey repair job takes only a matter of days.

Represented by:

TIME TO CALL ROBINSON

When your air-moving equipment shows signs of wear, corrosion, abrasion or unbalance, call Robinson. Repair/rebuild engineers will visit your plant to analyze the equipment, forecast potential problems and recommend proper maintenance steps to achieve optimal performance. Catching a problem before it becomes critical and arranging fan equipment repairs during scheduled shutdowns will keep your operations up and running and save you time and money.

We also offer a variety of scheduled maintenance programs designed to proactively protect your air-moving equipment investment and plant operations. Engineers provide thorough reports of your plant's systems and analyze your spare parts inventory. Detailed diagnostics, scheduled maintenance, and readily available parts can save you considerable repair time in general and emergency maintenance situations and greatly reduce facility downtime. Ask about our Preventive Service, Field Service and Site Service programs to minimize potential breakdowns and extend the operating life of your equipment.

Please call (724) 452-6121 for more details.

Our Mission is to Exceed Our Customers' Expectations for Superior Quality Air-Moving Equipment and Service.

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