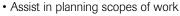
# FIELD SERVICES

ur Field Services Division provides on-site services to keep your operation running smoothly and efficiently with a minimum of downtime. Our skilled technicians will work with your staff or handle maintenance and repair projects on a turnkey basis.

## Support offered by Field Services:

- Alignment of crankshafts and frames
- Preventive maintenance
- Clean-burn upgrades
- Plant scheduled shut-down repairs and overhauls
- Assist customer personnel with maintenance and overhaul work



• Quotations for all types of work

#### Major Overhauls–We perform

major and partial overhauls on large engines, compressors, generating units, and other industrial equipment.

Emergency On-Site Repairs—We will reduce your downtime with specialized on-site repair services that take hours or days instead of weeks.

**Clean-Burn Upgrades**–Our technicians handle scheduling, disassembly, parts replacement, and reassembly.

Compressor Cylinders-Bore existing cylinders or remove and replace liners.

**Crankshafts**–Undersize and polish journals, and straightening.

**Power Cylinder Head**—Rebuild power cylinder heads.

Flywheel-To-Shaft Fit-Machine crankshaft/flywheel in place and reinstall.

Line Bore-Crankcase, saddle, and crankshaft alignment, mill cap landings.

Liner-To-Block Seat-Repair seal and seat fit.

**Block Repair**—Repair cracks using "Lock n Stitch" crack repair.

## Wire-line

**Alignment**–Measure alignment of crankshaft and camshaft bearing bores.

**Optics**–Measure alignment of engine and compressor frames



Mechanical/Hydraulic Presses-Major/minor rebuilding of cylinders and pistons. Repair or replace worn parts. Extensive component restoration capabilities.

#### FOUNDATION SERVICES

xline, Inc. can provide you with comprehensive foundation services through the Field Services Division in Odessa, TX.

- Foundation repair or complete replacement
- Inspection and evaluation
- Anchor bolt repair
- High speed skid grouting
- Piping pier modifications
- Bottle support repair
- Precision machine alignment
- On-site mechanical and machining service
- Pump base arouting

#### Save with Single-Source Supply and

**Responsibility**–Get a complete package of services from a single source.

#### New Foundations to Demolition and Rebuilding-

Whether you are planning a new field skid installation, a complete regrout, or have to demolish a severely cracked foundation, we can evaluate your site, offer advice, and get the job done right. Sometimes simple anchor bolt repairs or chock replacements are all that is required to fix what might appear to be a major problem.



# **Inspection and Project**

Coordination-We will be glad to inspect your foundation and estimate your repair. With new foundation or replacement projects we coordinate all material orders and concrete

services to speed completion and minimize downtime. All material selections and procedures are solidly based on expert engineering and best practices

**On-site Workforce**–We can assist your location to supplement the workforce by providing a qualified technician(s) for the time frame you need support.



## **EXLINE PROTECTIVE DEVICES. AIR START DISTRIBUTORS, IGNITION SYSTEMS, CONTROLS**

xline Protective Devices help keep many types of production machinery. stationary engines. compressors, and other industrial equipment running safely with reduced risk of major damage. They can be installed on stationary or moving parts to prevent catastrophic failure.



materials that melt at precise temperatures to actuate a pressure drop in the control system and shut-down the unit.

# **Electrical Temperature**

**Sensors**–Devices with thermocouples can be used for constant temperature monitoring and unit shut-down.

Wear-Sensitive Devices-These devices signal excessive wear or motion on reciprocating or rotating parts.

#### Air Start Distributors

Exline-manufactured distributors eliminate dead spots and are ideal for remote or unmanned installations where positive starts are required. The Exline original pneumatic air start system has been popular and economical for over 30 years.

**SaveAir**<sup>®</sup>—the Exline Altronic SaveAir air start system provides state-of-the-art air savings. Reduces starting air consumption up to 70%. Overcomes "dead spot" issues. Reliable local and remote starting.

Ignition Systems, Controls, and Automation Exline provides complete systems, including controls, control panels, flywheel drilling, and turnkey installation.

# **EXLINE EXPRESS IS AVAILABLE TO PICK UP AND DELIVER COMPONENTS DIRECTLY TO YOUR FACILITY**



# **SAVE TIME AND MONEY WITH YOUR SINGLE SOURCE FOR REPAIR. REBUILDING AND MANUFACTURING**

our brochures listed below.

- Field Services

- Turbocharger Repair

# **Call the Exline Information Hotline for Expert Consultation and Repairs**

E-mail us: salesandservice@exline-inc.com 3256 East Country Club Road, P.O. Box 1487 Salina, Kansas 67402-1487 Fax 785-826-4425 785-825-4683



"Experience the Excellence"







The repair services and components described in this brochure are only a sample of what we can do to keep your operation running smoothly and efficiently. For more information on our capabilities.

access our website at www.exline-inc.com to download specific information or call today for

## • Reciprocating Equipment Repairs

 Special Services On-Site and In-Shop Repairs • Foundation and Grout Services • ThermAlloy<sup>®</sup> and Thermex<sup>®</sup> Spray Coatings Industrial Repair, Redesign, and Manufacturing Protective Devices/Damage Control Ignition Systems/Starting Systems

#### Call 800-255-0111 www.exline-inc.com

# **Experience the Excellence**

**Make Exline Your Single Source** for **Repair** AND **Manufacturing** SERVICES

#### Specializing in...

- Reciprocating Engines and Compressors
- Machine Shop Manufacturing and Repair
- Field Services, Turnkey Overhauls, On-Site Machining
- Foundation and Grout Services
- Ignition Systems/Starting Systems
- Protective Devices/Damage Control
- ThermAlloy<sup>®</sup> and Thermex<sup>®</sup> Spray Coatings
- Turbocharger Repair



FOUNDED 1872

The Engine and Compressor Specialists



# **REPAIR AND MANUFACTURING SERVICES**

ur 125,000 sq. ft. facility offers complete machine shop capabilities. We can accommodate almost any size piece that can be transported. Equipped with large-scale turning, milling, and grinding machines, as well as the latest CNC turning and machining centers, we can handle virtually any repair project.

Surface Cleaning/Preparation-Steam. hot-dip caustic cleaning, as well as glass bead and grit blast surface preparation.

**Machining**–Large-shop capabilities–from turning and milling to large and small CNC work centers, in addition to manufacturing support and prototypes.

Grinding and Finishing-Large cylindrical grinding with diamond grinding and super finishing, and large bore internal grinding.

Thermal Treating-Stress-Relieve all sizes of components up to 10 ft. x 10 ft. x 14 ft. and 40,000 lbs. in our industrial furnace.

Balance Rotating Components-Impellers, shafts, rotors, large fans, and other rotating elements.

Equipment Redesign and Modification-Ranging from wear-, heat-, and corrosion-resistant coatings to resizing and conversion of two and three piece compressor pistons.

**Production Salvage**–Mismachined parts corrected with Thermex<sup>®</sup>, thermal spray coatings, machined or ground.

Straightening-Shafts, rods, and spindles.



# **THERMEX® COATINGS**

hermex<sup>®</sup> coatings extend the service life of old and new components and reduce your maintenance and downtime. Exline coated components often outlast the originals by a wide margin at a fraction of normal replacement costs. In



addition, we have the machine shop and finishing capabilities to handle related work. You can specify the modifications to meet your exact parameters.

Thermex<sup>®</sup>–Thermal Spraying–We select from hundreds of metallic and nonmetallic coating options and five thermal spray

processes to achieve the surface characteristics vou require, such as abrasion resistance, lubricant retention. and corrosion protection. Thermex<sup>®</sup> coatings offer the advantage of high bond and internal strength together with low-temperature application.

#### ThermAlloy<sup>®</sup> Power Cylinders-

Restore the I.D. of large bore power cylinders with ThermAlloy<sup>®</sup> and the O.D. seal/fit areas with Thermex<sup>®</sup>



coatings.

Eighteen month warrantv.

## LARGE ENGINE AND **COMPRESSOR REPAIR**

xline offers you over a century of experience - rebuilding major equipment for industry worldwide. Field-proven Exline repairs can reduce maintenance and increase operating life.

Transportation of engine and compressor components in need of repairs can be provided to our shop and returned

during the same overhaul or turnaround.

# **Power and Compressor Cylinders**–Restore bores with

Thermex<sup>®</sup> or ThermAlloy<sup>®</sup> spray coatings, resize,

line bore, resleeve, hone, or grind. Repair cracks, seal areas, and valve seats.

#### **Power and Compressor**

**Pistons**–Restore rings and rider band on compressor pistons, grooves. and provide scuff-resistant coatings for skirts for power pistons.

#### Compressor Rods-Rebuild or

manufacture new, with the option of repairing with thermal spray coatings.

Connecting Rods-Restore crank and pin eyes on articulated rods and master rods. Rod straightening.

Flywheel/Crankshaft-Restore the crankshaft to flvwheel fit area.

Bedplate and Mainframe–Complete inspection and checking of all components, machine decks, and liner fit areas.

**Line Boring**—Wire alignment, bearing cap/landing milling, thermal spray coatings to restore jaw fits and saddle borina.

**Block**–Repair cracked, pitted, or scored areas; restore liner fit and seal areas; repair damaged stud bolt holes.

#### **Welding**—Our technicians provide an exceptionally broad range of welding

services for repair or

fabrication-including

oxygen/acetylene torch.

and stick welding.

MIG, TIG,

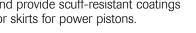


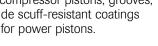
for future use.

- Individual component repairs Turbine blade rebuilding and replacement Nozzle ring repairs Case damage rebuild Shaft repair or manufacture
- Full service machine shop
- than the OFM
- MIL-STD 6866
- condition"
- New and remanufactured parts
- **Experience**, quality,



thermal spray







# **TURBOCHARGER REPAIR**

he moment a Turbocharger is received, a documented quality assurance procedure begins. Inspections occur and a complete written record of measurements and findings plus photo records are compiled through each phase of the process. When the overhaul is completed, a written pictorial is sent and shared with the customer

- On-site removal and assembly of turbochargers
- State-of-the-art computer balancer with tighter tolerance

 Liquid penetrant testing with inspectors trained and certified as Type 1, method A, Level II, per

• Repair turbocharger and components to a "like new

• Thermex Wear Resistant Coating and repairs • Exline Express Transportation Service



# **INDUSTRIAL REPAIRS** AND COMPONENT FABRICATION

xline's repairs and modifications give you betterthan-new durability and performance on a wide range of production machinery. Thermex<sup>®</sup> thermal spray coatings can help you reduce inefficiencies and guality control problems that worn parts create. We manufacture replacement parts to cut your downtime. Limited-run manufacturing is also available to help with production scheduling.

**Shafts and Spindles**–Inspect, straighten, Thermex<sup>®</sup>, thermal spray coatings, and finish to specifications.

Pump Pistons, Impellers, and Housings-Inspect, repair, restore size with Thermex<sup>®</sup> spray and precision balance impellers.

Mechanical/Hydraulic Presses-Complete rebuilding capability. Repair or replace worn parts as well as manufacture new components.

**Replacement Part Fabrication**–Build to gualified specifications with the added option of Thermex<sup>®</sup> thermal spray coatings recommended for your application.

**Production Manufacturing**—For large or small quantity production runs.

