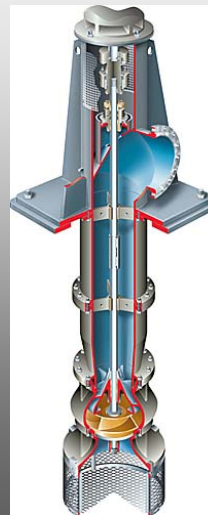
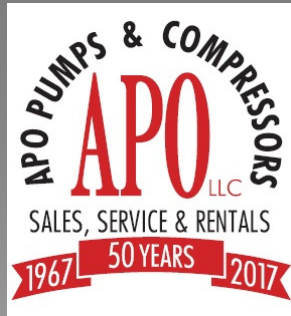


Solutions to Increase Your Pump's Reliability & Efficiency



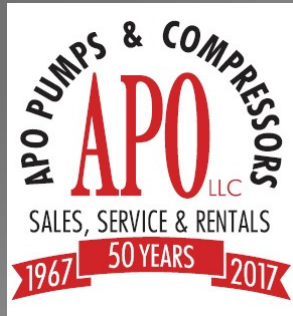


APO Capabilities



Types of Pumps We Repair - All Manufacturers

- Centrifugal End Suction
- Horizontal Split Case
- Horizontal Multi Stage (*Boiler Feed, etc.*)
- Vertical Turbines (*To Include Complete Rebowl*)
- Vertical Sump & Cantilever
- Reciprocating (*De-scale, etc.*)
- Submersible
- Self Priming
- Progressive Cavity
(*Moyno & Roper: Universal Rotors, Stators, Drive Shafts, & Con Rods*)
- Rotary Gear
- Air Operated Diaphragm

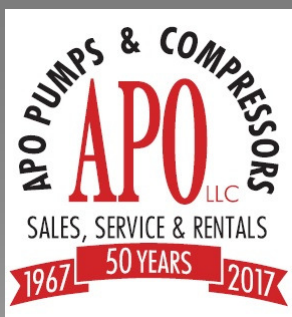


APO Pump Repair Services

Services We Provide

- Failure Analysis
- Machining & Balancing
- Machining of Shafts & Shaft Sleeves
- Weld Restoration & Repair
- Renewal of Critical Tolerance (Example: Case Repairs & Wear Ring Insertion)
- Material Upgrades
- Bearing & Bearing Housing Replacement
- Mechanical Seal Replacement
- Hydro Testing
- Pump Maintenance & Repair Seminars
- Alignments

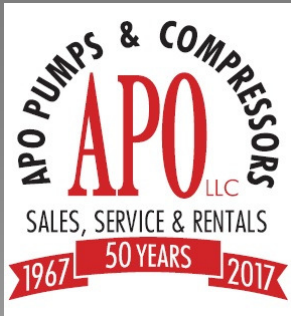




Manufacturers We Service & Not Limited To:

I-R ARO	Paco	Grundfos	Goulds	Flowserve	Ingersoll-Rand	Worthington
KSB	Toyo	Byron-Jackson	Ingersoll Dresser	Summit	Floway	Myers
Durco	Weir	Rotojet	Crane-Deming	Hazelton	Vogelsang	Griswold
National Pump	American Marsh	Gorman-Rupp	Neptune	Pentair	Fairbanks Morse	Aurora
Corken	Aplex	Ruhrpumpen	Innomag	Ansimag	Goulds G&L	Taco
Bell & Gossett	GPM	Warren-Rupp	Vertiflo	Patterson	Chicago Indstrl	Fybroc
Abel	BJM	FMC	Moyno	Tuthill	Gusher	Barnes
Ebara	Viking	Weinman	Stancor	Peerless	Alfa Laval	AMT & OTS



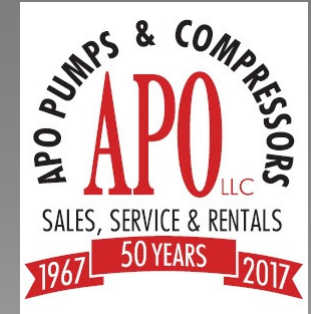


Shop Details



- ➔ Main Shop located in Hudson, OH
- ➔ Hudson Shop 45,000 sq. ft.
- ➔ Multiple work stations for Compressor & Pump Service
- ➔ Central dispatch for 130 Rental Compressors
- ➔ Central location to several major Customers
- ➔ Additional Service Center Located in Columbus – 25,000 sq. ft.

Shop Details



Equipment Listing / Lathes:

- ☐ 22" x 96" Engine Lathe (with digital readout)
- ☐ 20" x 96" Engine Lathe
- ☐ 2A Turret Lathe with Threading heads

Specialty Turning

- ☐ 56" Vertical Boring Mill (VTL)



Shop Details

Equipment Listing / Mills:

- ☐ Small Horizontal Milling Machine
- ☐ 3" Horizontal Boring Mill



Shop Details

Equipment Listing

❑ 48" x 144" Planer



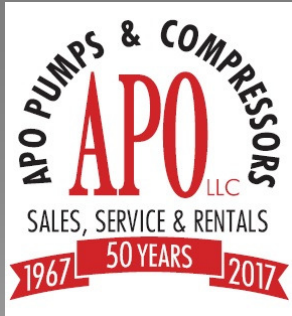
Shop Details



- Equipment Listing :

Complete Welding and Resurfacing Shop

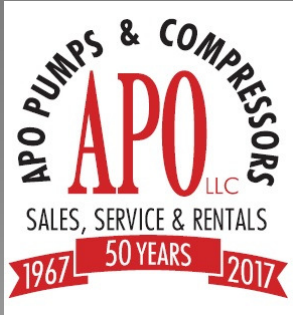




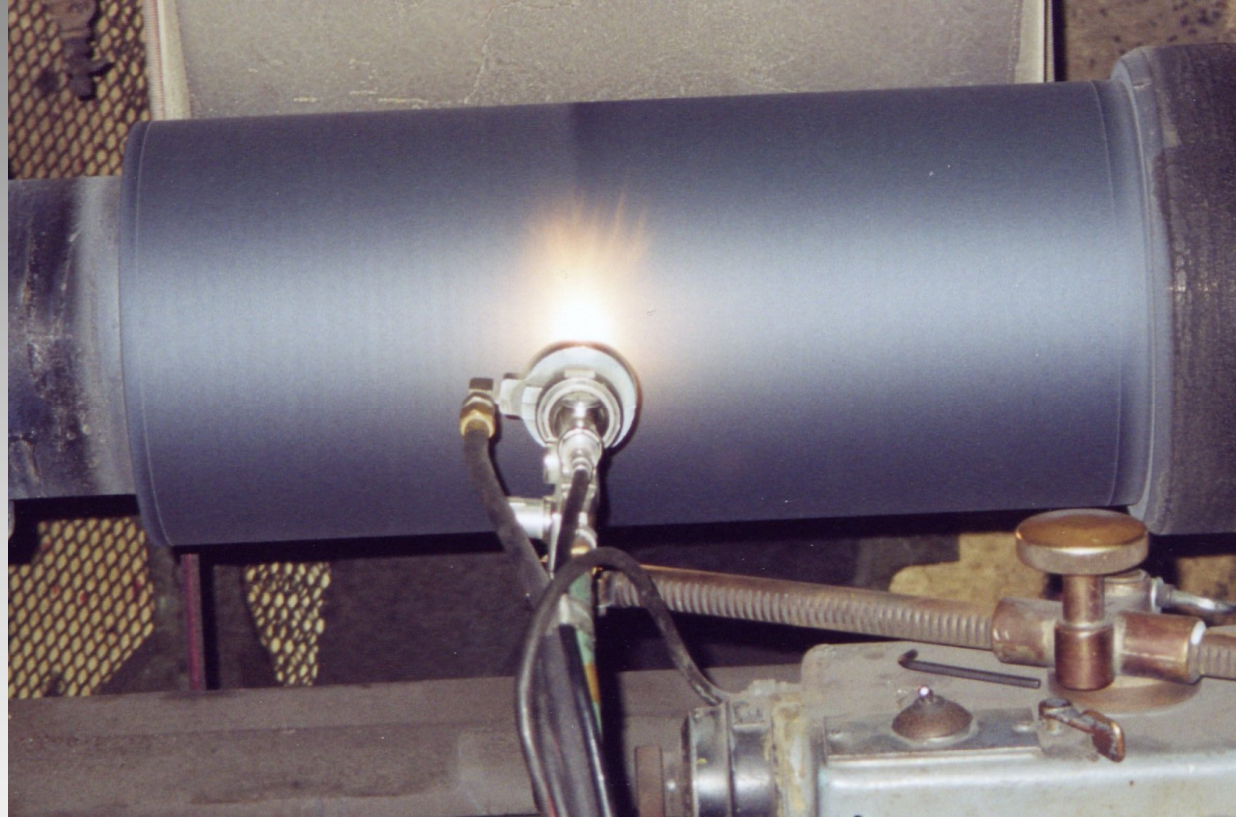
Shows Area Where The Shaft Needs To Be Repaired



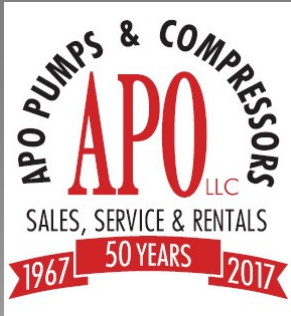
- **APO Will Metalize & Machine Sleeve to Original Factory Tolerance**
- **Materials Used: Stainless – Bronze – Tungsten Carbide - Ceramic**



Shaft being Metal Sprayed



■ **Materials Used: Stainless – Bronze – Tungsten Carbide - Ceramic**



Shows Destroyed Shaft Sleeve & Damaged Shaft

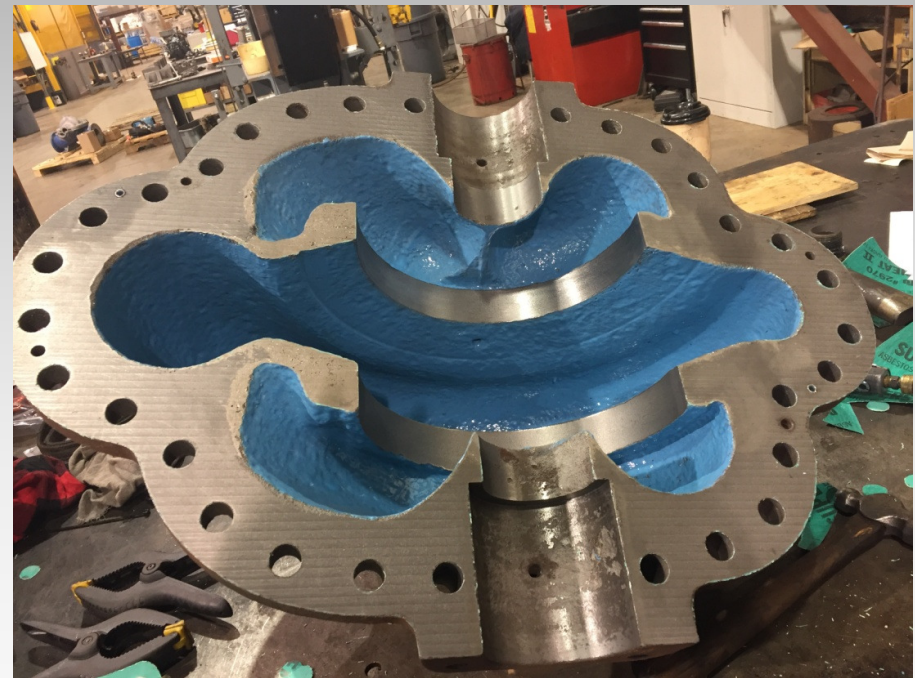


- APO Can Repair or Manufacture New Shaft
- APO Can Manufacture New Shaft Sleeves

What separates **APO** from the competition?

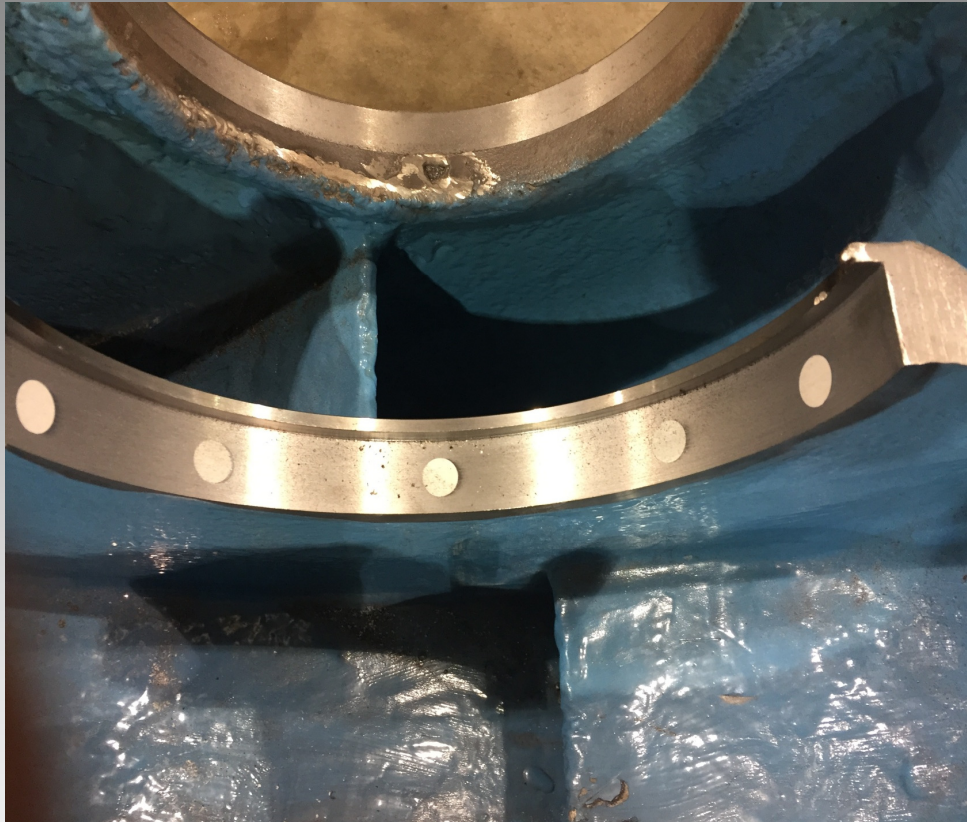


- ➔ We make repairs focused on the pumps lifecycle.
- ➔ Picture on Left Shows Our Surface Spraying Capabilities
- ➔ Picture on Right Shows The Finished Machining After Metal Spray Repair and Epoxy Coating





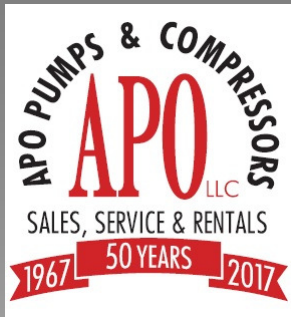
Pre Repair Picture:
Shows extensive wear and erosion in a split case pump



Post Repair Picture

Includes:

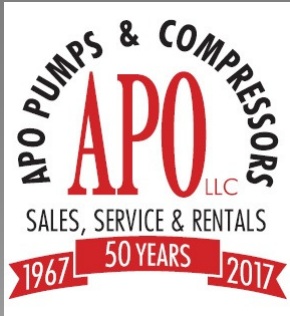
- ☐ **Weld Repair**
- ☐ **New Case Rings Install**
- ☐ **Machining**
- ☐ **Epoxy Coating**



➔ **Shows Excessive Clearance Between Impeller Wear Ring & Casing Rings**



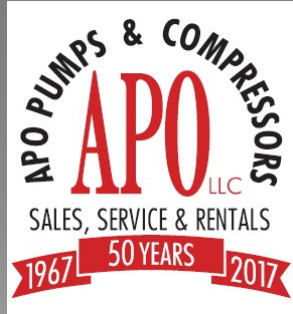
➔ **APO Can Provide New Impeller Wear Rings & Case Rings for all Makes & Models**



Mechanical Seal Replacements & Repairs



- ➔ **Single Inside Metal Bellows Mechanical Seal**
- ➔ **Single Inside Elastomer Bellows Seal**
- ➔ **Flexible Stator Cartridge Pusher Seal**
- ➔ **Dual In Line (Pressurized) Cartridge Seal**
- ➔ **Dual In Line (Pressurized) Metal Bellows Seal**
- ➔ **Dual Pressurized Mechanical Seal**
- ➔ **Dual Face to Face Cartridge Metal Bellows Seal**



APO Provides:

- ➡ Detailed Teardown, Inspection & Failure Analysis**
- ➡ Quality Workmanship & Parts**
- ➡ Competitive Pricing on Parts & Labor**

Thank You for Working With APO Pumps & Compressors, Inc.