



# MILLWRIGHT AND MACHINING SERVICES

Superior Craftsmen. Superior Results.



# UNIVERSAL PLANT SERVICES

At Universal Plant Services (UPS), we specialize in field services for Turbines, Generators, Valves, Field Machining, Compressors, Pumps, Conveyors and many other Balance of the Plant Activities. Our unparalleled emphasis on safety and craft training has made UPS one of the largest providers of millwright and field machining services in the southern United States. Our unwavering commitment to our workforce and customers epitomizes our belief that great companies are built with great employees. UPS will continually strive to provide manpower, tooling, equipment and expertise that reflects the same high standard of quality that you demand within your own organization.

- Gas Turbines
- Steam Turbines
- Generators
- Field Machining
- Compressors
- Valves
- Pumps
- Conveyers
- Balance of the Plant

# OFFICE LOCATIONS

**HOUSTON** (Main Office)  
801 Georgia Avenue  
Deer Park, Texas 77536  
TEL: 281-479-6000  
FAX: 281-479-6273



**LOS ANGELES**  
19240 Van Ness Avenue  
Torrance, California 90501  
TEL: 310-618-1600  
FAX: 310-618-1300



**SAN FRANCISCO**  
115 Mason Circle, Suite F  
Concord, California 94520  
TEL: 925-521-1300  
FAX: 925-521-1301



[www.universalplant.com](http://www.universalplant.com)

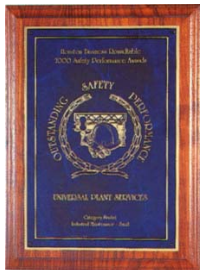
# SAFETY IS OUR TOP PRIORITY

**SAFETY** – UPS takes an active role in ensuring the safety of our workforce to protect the health and well-being of both our employees and our customers.

A broad range of ongoing initiatives including classroom instruction, onsite training and incentive programs ensure that you are provided with the most safety-conscious and qualified craftsmen available. UPS currently has multiple safety coordinators on staff.

## SAFETY RECOGNITION

- Exxon Mobil Baytown – Excellence in Safety Performance: 2006
  - Category Winner 40,000 to 100,000
- Exxon Mobil Baytown – Outstanding Performance Award: 2005
  - 93,000 hrs worked without an OSHA recordable
- Exxon Mobil – Excellence in Safety Performance Award: 1998, 1999, 2000, 2001
- Shell Refining – Six Years Without an OSHA Recordable: 2001
- NPRA Safety Merit Award – 2004, 2005
- Houston Business Roundtable – Safety Excellence Award:
  - Category Winner: 2002
  - Finalist: 2000 & 2001
  - Nominee: 1996, 1997



# MANPOWER AND TRAINING

Providing our customers with the best craftsmen available, UPS utilizes Union Labor for all of our projects across the country. UPS has a full-time workforce of over 175 craftsmen working year round and over 50 full-time supervisors on hand. With these resources, UPS can respond to unscheduled and scheduled projects as required. The Agreements in place with the United Brotherhood of Carpenters and Joiners of America (UBC) allow UPS to travel 50% of their manpower by name, enabling our customers to feel confident in the quality of work performed at their facilities each time UPS shows up for a project.

TRAINING – We emphasize craft training not only because it guarantees the highest quality service with the greatest efficiency, but also because we believe that the more education we can provide our craftsmen, the more we can minimize accidents. As a result, all of our craftsmen participate in a four-year, Department of Labor-certified training program that teaches technical knowledge and expertise on all types of high-speed rotating equipment.

- Westinghouse Turbine Certification
- GE Power Systems
- UBC Training in Las Vegas
- Gas Turbine Familiarization
- Steam Turbine Familiarization
- Generators
- Conveyor Layout
- Mechanical Standards
- Reciprocating Compressors
- Centrifugal Pumps / Compressors
- Vibration Analysis
- Pump Seals
- Alignment
  - Rim and Face Dial Indicator
  - Reverse Dial Indicator
  - Laser Shaft
  - Precision Optical

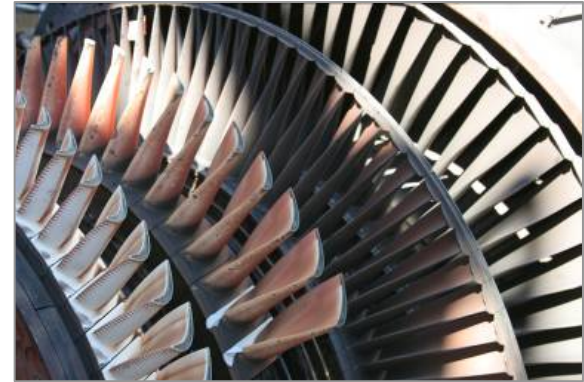
A high-angle, low-key photograph of a worker in a hard hat and safety gear working on a large, complex steel structure. The worker is positioned in the center, looking down at their work. The structure consists of numerous interconnected steel beams and plates, some of which are perforated with small holes. The lighting is dramatic, with strong highlights and deep shadows, creating a sense of scale and industrial complexity. The overall color palette is dark, with the worker's gear providing some contrast.

**FIELD SERVICES**

# MAJOR MAINTENANCE FIELD SERVICES

## Turbines – Gas / Steam / Hydro

- Combustion Inspections
- Hot Gas Path Inspections
- Major Inspections
- Boroscope Inspections
- Starting Packages
- Exhaust Sections
- Inlet Sections



# MAJOR MAINTENANCE FIELD SERVICES

## Compressors

- Centrifugal
- Reciprocating
- Barrel
- Petroleum Pipeline
- Installation / Demolition
- Troubleshooting
- Engine / Motor / Turbine
- Complete Overhauls
- Base Plate Grouting and Modifications





# MAJOR MAINTENANCE FIELD SERVICES

## Pumps

- Horizontal
- Vertical
- Boiler Feed Water
- Lift Stations
- Municipalities
- Base Fabrication and Modification
- Seal Change-Out
- Retrofits
- Overhauls
- Vibration Analysis
- Field Performance Testing
- Pump and System Surveys



# MAJOR MAINTENANCE FIELD SERVICES

## Field Machining

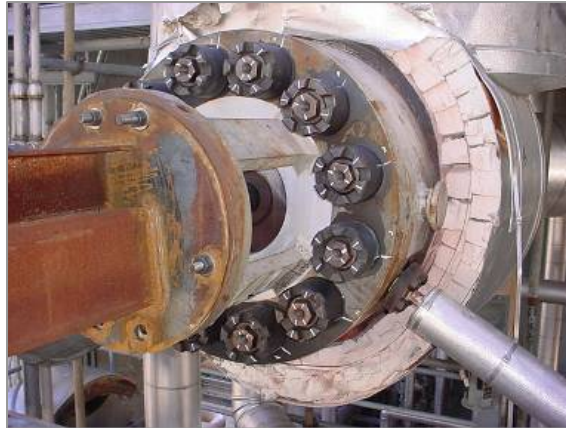
- Milling
- Drilling
- Hook-Fit Repair
- Hole Boring
- Honing
- OD and ID Mount Flange Facing
  - OD – 10" to 120"
  - ID – 280" Max
- RTJ / Raised Face
- Nut Splitting
- Keyway Cutting
- Stud Removal
- Pipe Cutting
- Diaphragm Fits
- Turbine Split Lines
- Inlet Sleeves
- Rotors
- Journal Refurbishment with or without shaft rotation
- Specialty Applications



# MAJOR MAINTENANCE FIELD SERVICES

## Valves

- Stop
- Throttle
- Governor
- Reheat
- Control
- Butterfly
- Gas
- Steam



# MAJOR MAINTENANCE FIELD SERVICES

## BALANCE OF THE PLANT ACTIVITIES

- Alignment – (Tight Wire, Laser, Optical, Reverse)
- Seals
- Bearings
- Torque Converters
- Valve Repair
- Screw Conveyors
- Belt Conveyers
- Industrial Engines
- Grouting
- Sole Plates
- Fin Fans
- Machinery installation
- Equipment Base Fabrication and Modification
- Complete Equipment Overhauls



# MAJOR MAINTENANCE FIELD SERVICES

## CONVEYORS

- Belt
- Screw
- Overheads
- Bucket Elevators
- Gravity Rollers
- Luggage Handling
- Bulk Handling
- Cargo / Package Handling



# MAJOR MAINTENANCE FIELD SERVICES

## EQUIPMENT AND TOOL RENTAL

- OD Mount Flange Facing Machines to 120" Diameter
- ID Mount Flange Facing Machines to 240" Diameter
- Milling Machines
- Boring Bars
- Drills – Hydraulic, Electric, Pneumatic
- Clamshells
- End Prep Machines
- Keyway Cutters
- Hones
- Saws
- Specialty Applications



**UPS** provides our customers with exceptional managers, supervisors, craftsmen, equipment, parts and tooling, creating significant value through **superior results**.

The UPS philosophy is to build long-term, mutually beneficial relationships with our customers, by focusing on delivering solutions on time, to exact specifications and within budget.

*“Top-notch field machining is only possible with people who have the right skills and equipment. UPS shows up for the job with the best of both.”*

EDDIE ROBELLO Tesoro Refining – Hawaii

# TURBINE TOOLING

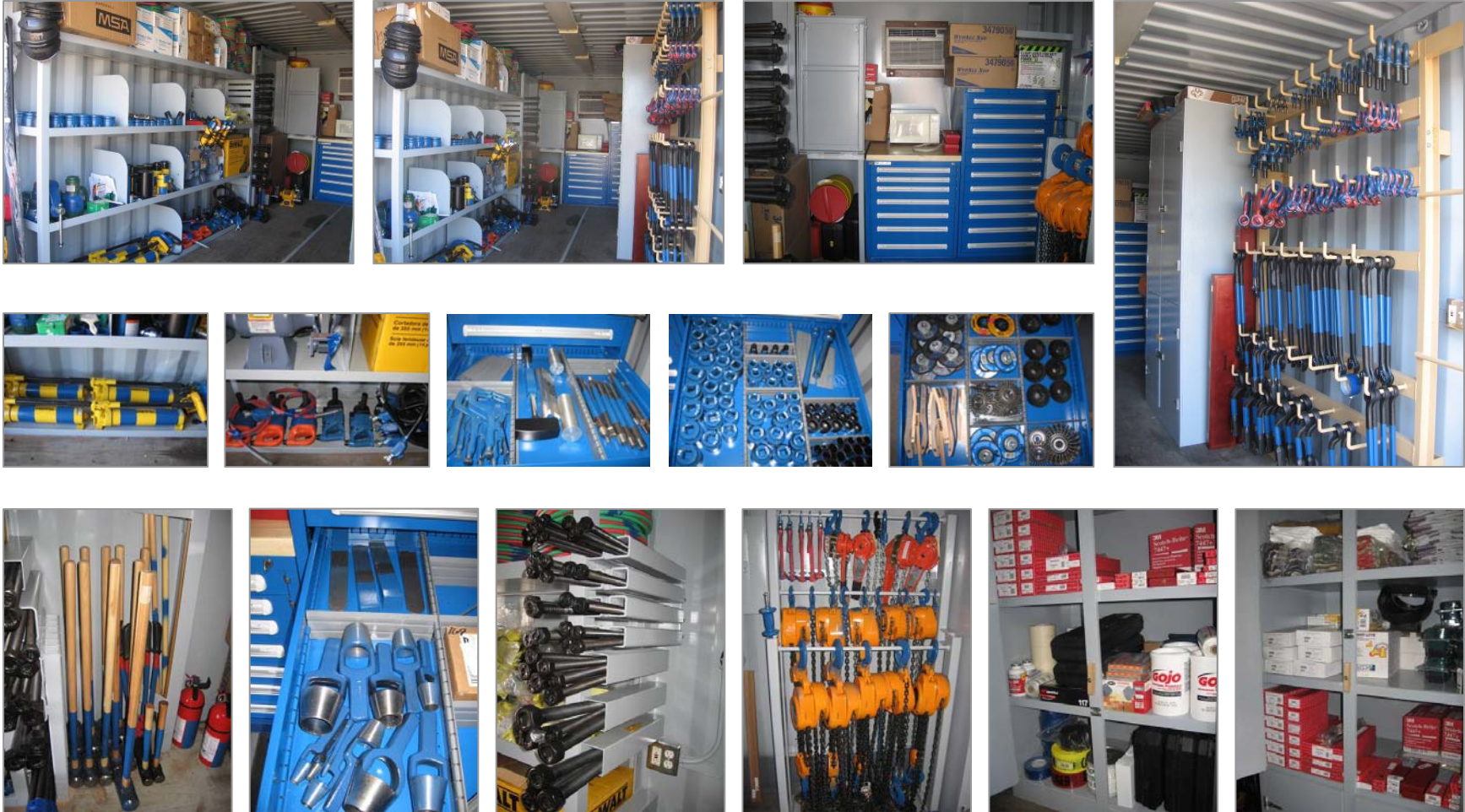




# COMBUSTION INSPECTION KIT



# HOT GAS PATH KITS



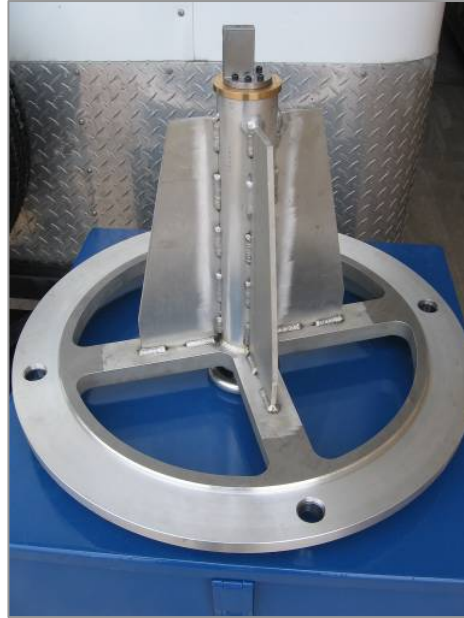


# QUICK RESPONSE TRAILER

UPS has quick response trailers to enable us to respond to emergency calls within minutes to your job site. Our trailers have tooling for full boroscoping inspections, Hook-fit Repair, Spring and Button modifications, removing pilots, top hats, baskets and any other type inspection and small job needs within your facility.



# TURBINE SPECIALTY TOOLING



A high-angle, low-key photograph of a worker in a hard hat and safety gear working on a large, complex metal structure, likely a wellhead or BOP. The worker is positioned in the center, surrounded by a dense network of steel beams and bolts. The lighting is dramatic, highlighting the worker and the intricate details of the machinery against a dark background. The text "PETROCHEMICAL AND BOP TOOLING" is overlaid in a bold, yellow font across the middle of the image.

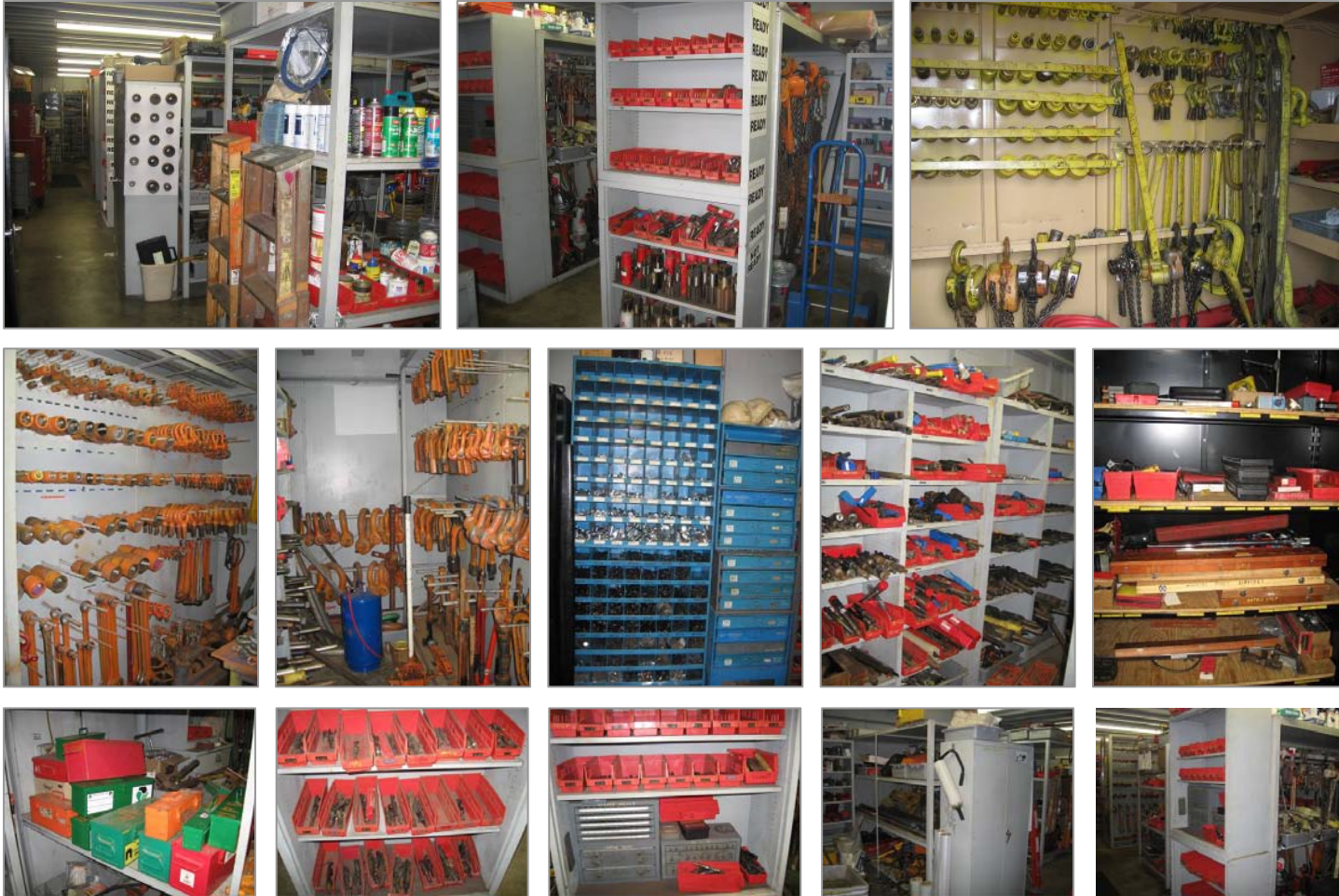
**PETROCHEMICAL AND BOP TOOLING**

# PETROCHEMICAL AND BOP TOOLING

- 100 trucks in the field with tooling available.
- 175 gang boxes loaded with all types of tooling to best fit your project needs.



# SHOP TOOL ROOMS





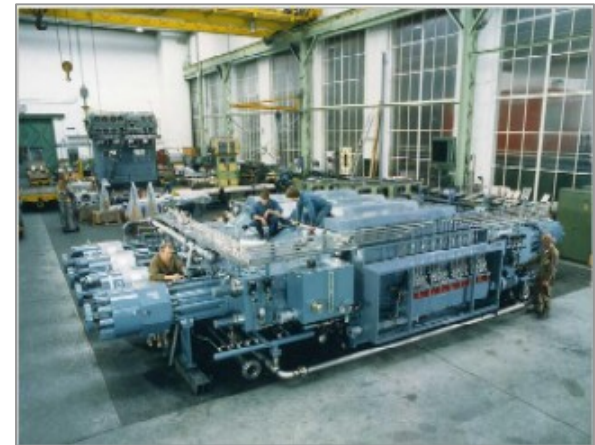
# SHOP AND FIELD MACHINING EQUIPMENT

UPS has a variety of shop and field tooling available for all your outage needs.



# UPS / BURCKHARDT COMPRESSION ALLIANCE AGREEMENT

- UPS is an authorized field service provider and repair center for Burckhardt Compression AG (formerly Sulzer-Burckhardt Compression)
- Turnkey overhauls
- Commissioning / Supervision
- On-site assembly and installations
- Erection
- Valve repair and replacement
- Spare parts
- Technical direction / Project Management
- Over 40 complete overhauls performed under agreement.



UPS has formed alliances with several leading companies to bring our customers a one-stop shop for turbine repair services. Together, UPS and our alliance partners are able to provide a turn key solution for any of your outage needs.



# TURBINE PARTS REPAIR

Our highly qualified vendors and alliance partners provide repairs for turbine blades/buckets, vanes/nozzles, transitions, baskets/liners, fuel nozzles, claim shells, blade rings, diaphragms and more for all of your F-Class machinery and more mature frames.



# TURBINE PARTS REPAIR MACHINERY



# COMPONENT TESTING AND MOMENT WEIGHT CAPABILITIES

- Metallurgical Analysis
- Boroscope
- Dimensional Gage
- Eddy Current
- Flow Test
- Penetrant
- Ultrasonic
  - In-house P.E. Metallurgist
  - In-house Lab
  - Blade Rejuvenation
  - Bucket Rejuvenation
  - Life Extension Analysis
  - Inspection & Reporting



# TURBINE COMPONENT COATINGS

Our alliance partners also provide coatings for turbine blades, transitions, baskets/liners and vanes. Through a proprietary state-of-the-art coating technique, UPS can ensure quicker turn around time on your turbine components.

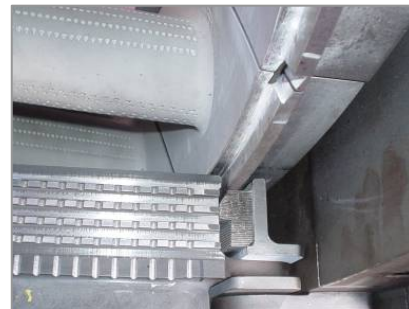
## IGT Coatings

- HVOF
  - MCrAlY
  - NiCoCrAlY
  - CoNiCrAlY
- Air Plasma
  - TBC
  - Abradable
  - MCrAlY



# TURBINE REPLACEMENT PARTS

UPS is an authorized representative for Power Systems Manufacturing, Inc. (PSM). UPS can offer your plant new parts designed and manufactured by PSM for the SW501F, GE6B and GE7E/EA Gas Turbines. These parts have been proven to run better, longer, and be more cost effective than most OEM parts. UPS works directly with PSM engineers to bring our customers the best parts for their machines. PSM parts come with a full manufacturer warranty, and UPS stands behind the installation of all turbine parts. UPS is also a preferred PSM parts installer.





# MISCELLANEOUS TURBINE PARTS

## HARDWARE

- Nuts
- Screws
- Seals
- Bolts (Standard and High Temperature)
- Bushings Coupling Bolts and Nuts
- Gaskets
- Rotor Hardware Kits
- Washers

## OUTAGE COMPONENTS

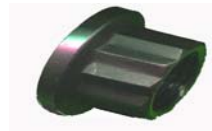
- Lockplates
- Fuel Nozzle Details
- Transition Piece Kits
- Cross Fire Tubes
- Bullhorn Brackets
- Floating Seals
- Cross Fire Tube Retainers
- Check Valves
- Bucket Hardware Kits
- Cross Fire Tube Collars
- Shroud Block Jewelry Kits
- IGV Gears and Racks
- Bearings
- Oil and Air Deflectors
- Accessory Bearing Box

## ELECTRICAL COMPONENTS

- Exhaust Thermocouples
- Spark Plug Assemblies
- "Speedtronic" Cards
- UV Flame Detector
- Vibration Sensors
- Spark Plug Leads
- Bearing Thermocouples
- AC and DC Motors
- Spark Plug Wire
- Pressure Switches
- Temperature Switches
- Pressure and Temperature Gauges

# MISCELLANEOUS HARDWARE

Through our alliance partner UPS offers customers consumable turbine hardware for the GE-Frame 3, GE-Frame 5, GE-Frame 6, GE-7EA and F frame turbines as well as the SW 501F. Special and custom part kits are available during scheduled turbine outages.



# DAILY MAINTENANCE – PETROLEUM REFINING

UPS is one of the largest providers of daily machinery maintenance for rotating components to the petroleum refining industry in the United States.

- Valero Refining – Texas City, Texas
- ExxonMobil – Baytown, Texas
- Shell – Deer Park, Texas
- BP – Texas City, Texas
- ExxonMobil – Torrance, California
- BP – Carson, California
- Tesoro Petroleum – Concord, California

# QUALIFIED PERSONNEL

- **Universal Plant Services** can provide you with highly skilled and highly motivated maintenance personnel assigned to your plant and directed by your supervision.
- **Universal Plant Services** has a large resource data base of over 50,000 millwrights throughout North America and a training and qualification program to insure the availability of qualified personnel.
- **Universal Plant Services** can tailor your personnel to meet your staffing requirements and reduce additional payroll and human resource loads.
- Millwrights – Mechanics – Welders – Machinists - Pipe fitters
  - Routine and Preventive Maintenance
  - Pump and Compressor Maintenance and Repair
  - Troubleshooting and Investigation
  - Fabrication and Modification
  - Valves , Piping and Tubing
  - Steam Turbine/ Combustion Turbine and Generators
  - Motors, Fans, Conveyors
  - Platforms and Structural



**SUPERIOR CRAFTSMEN. SUPERIOR RESULTS.**



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PLANT  
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