Diamond Refractory Services is a single-source Texas-based refractory specialist that provides a comprehensive suite of turnaround services.

We specialize in installing and repairing refractory materials during planned and unplanned outages within extreme process environments, including: fluid catalytic cracking units (FCCUs), sulfur recovery units (SRUs), acid plants, furnaces, and heaters.





### Comprehensive Refractory Services

FCCU AND SRU TURNAROUNDS

**FURNACES AND HEATERS** 

#### REFRACTORY SERVICES

- -Insulating materials/modules
- -Gunite/shotcrete
- -Forming and pouring
- -Pre-cast shapes
- -Vibration casting
- -Back-up board and ceramic fiber
- -Burner throat installation

#### **FIREPROOFING**

-Intumescent and cementitious fireproofing

#### CERTIFIED WELDING

- -Anchor welding
- -RAW stud welding

ACID PROOFING LININGS AND COATINGS

CONCRETE RESTORATION

**DEMOLITION** 

ABRASIVE BLASTING, PAINTING AND SHOP WORK

REPAIR AND MAINTENANCE

IN-HOUSE FURNACE FOR DRY-OUT OF FABRICATED ITEMS

#### **Expertise in Critical Markets**

REFINERY, PETROCHEMICAL, POWER, GAS, FERTILIZER, CHEMICAL, ALUMINUM, PAPER, AND STEEL

### Comprehensive, Single Source Turnaround Solutions

Our team has completed over 120 FCCU and plant wide outages with an impeccable safety record, and we have developed extensive experience working with FCCUs, SRUs, sulfur pits, and heaters. Our turnaround capabilities also extend to power boilers, ranging from complete retrofitting to burner replacements and ash hopper modifications.

Our highly trained professionals include alloy welders, nozzlemen, safety professionals, skilled laborers, and a host of other refractory specialists. We have developed a safety culture that's validated by our multiple industry recognitions and the API 936 Refractory Quality Control Personnel certification held by all of our directors and managers.



# In-House Furnace and Heater Capabilities

We help clients save time and money by performing much of the work associated with furnaces and heaters pre-turnaround. With the ability to fabricate forms, pour tiles, and perform dry outs in house, we not only expedite the turnaround process, but also offer tighter quality control and higher standards of safety. Our team can also provide layout drawings and engineered ceramic fiber systems for refinery furnace facilities, including modules, veneers, and layer/board linings.

### Our comprehensive selection of furnace linings:

- Interruptible foldback and mono block wall repairs
- Ceramic tiles
- Ceramic fiber blanket installation
- Bridge wall repairs
- Intricate brick lining
- Burner tiles installation
- Tube seals
- Brick and castable floors
- Vacuum formed peep sites
- Wet gunning between tubes

## Meeting Industry Demands with Rapid-Arc Stud Welding

Rapid-arc welding emphasizes speed and efficiency and, in certain situations, can cut welding times for refractory anchors by a factor of 12:1. As opposed to traditional methods that utilize multiple steps, stud welding only requires one rapid step—using arc-welding to weld the anchor to the base metal instantaneously.

Diamond has built strategic relationships with the main vendors of stud welding equipment and anchors. Because of these relationships, our level of knowledge in understanding and utilizing their equipment gives us a significant advantage over our competitors.

## Conventional and Rapid-Arc Stud Welding Expertise

Leveraging a team of more than 150 certified welders, our inhouse welding capabilities help us maintain a cost-saving edge while enabling greater control over safety, quality, and project schedules. Our unique approach—where a welder and installer work together simultaneously—allows us to overlap work, meaning less downtime and substantial cost savings for our customers.

#### Our welding services include:

- Rapid-arc welding
- National Board Inspection Code (NBIC) "R" Stamp
- Shielded metal arc welding (SMAW) and stick welding
- Grinding and abrasive blasting surface preparation
- Anchor studs and pins

# WHAT CAN WE DO FOR YOU?







# Precise and Protective Acid Proofing Services

Our certified acid proofing experts are equipped to apply coatings, floorings, and linings to a wide range of steel and concrete structures to help protect them from chemical exposure. We work with polymer coatings, floor toppings, and fiberglass-reinforced lining to simple joint and crack sealing.

#### Our range of acid proofing services includes:

- Expansion joint repair and crack sealing
- Industrial acid proof linings
- Acid brick installation
- Tile installation of vitrified tiles, ceramic tiles
- Concrete restoration
- Equipment grouting
- Decorative flooring

We also offer wide ranges of advanced concrete applications.

# Protecting Critical Infrastructure from Fire Damage

We have the know-how necessary to identify the unique fireproofing needs of industrial environments, understand the complex performance characteristics of the products we apply, and deliver solutions durable enough to endure the day-to-day rigors of the industrial sector.

### Our full suite of fireproofing services and applications includes:

- Gunite/Spray applied
- Sand/cement Pyrocrete241 and Chartek
- Block-outs, structural steel and equipment
- Form/Pour and hand trowel
- Intumescent and cementitious fireproofing

