



# R.I.S.E

**RELIABLE INDUSTRIAL  
SOLUTIONS  
ENGINEERING Pvt Ltd**

# R.I.S.E COMPANY

R.I.S.E – Reliable Industrial Solutions Engineering (Pvt.) Ltd. is an ISO 9001 & ISO 45001 certified engineering services company specializing in integrated field services, rotating equipment solutions, maintenance support, and plant reliability services for the Oil & Gas, Power Generation, Energy, and Industrial sectors.

Backed by over four decades of combined industry experience, R.I.S.E provides complete lifecycle support for critical equipment and production facilities including installation, commissioning, overhauling, troubleshooting, plant maintenance, retrofits, performance optimization, and shutdown execution.

Our core strength lies in delivering technically sound, safe, and cost-effective solutions that improve equipment reliability, reduce operational downtime, and enhance plant performance.



ISO 9001

QUALITY  
MANAGEMENT



ISO 14001

ENVIRONMENTAL  
MANAGEMENT



ISO 45001

HEALTH  
& SAFETY  
MANAGEMENT



# R.I.S.E COMPANY

We support clients nationwide with specialized services for:

- ❖ Gas Engine Compressor Packages
- ❖ Reciprocating Compressors
- ❖ Heat Exchangers & Process Equipment
- ❖ Plant Maintenance & Shutdowns
- ❖ Rotating Equipment Reliability
- ❖ Mechanical, Piping & E&I Works
- ❖ Control System Upgrades
- ❖ Field Operations & Technical Manpower



At R.I.S.E, we combine:

- ☐ Engineering expertise
- ☐ Field execution capability, and customer-focused service

to become a long-term reliability partner for our clients.



# FOUNDERS' MESSAGE

The industrial sector continues to evolve with rapidly advancing technologies, demanding higher reliability, improved efficiency, and safer operations. R.I.S.E was established to bridge the gap between operational challenges and practical engineering solutions.

Our objective is simple — to provide dependable industrial services with technical excellence, fast response, and uncompromising commitment to safety and quality. We understand the critical importance of production continuity and operational reliability in the Oil & Gas and Energy sectors. Therefore, we work closely with our clients to develop customized maintenance and engineering solutions that minimize downtime, improve equipment performance, and maximize operational efficiency.



As a long-term engineering partner, our focus remains on:

- Delivering measurable operational value
- Building trusted client relationships
- Ensuring safe and quality execution
- Providing responsive technical support
- Continuously improving through innovation and experience

Our people, technical competence, and field execution capability remain the foundation of our success.



# HOW WE ADD VALUE:

## ❑ Customized Engineering Solutions:

Tailored maintenance and operational strategies designed according to client-specific process requirements and operational objectives.

## ❑ Rapid Field Response:

Dedicated technical support with responsive mobilization capability to minimize operational downtime.

## ❑ Single-Source Project Execution”

Complete project ownership including mechanical, piping, electrical, instrumentation, commissioning, and technical support services.

## ❑ Reliability-Focused Approach:

Solutions developed to improve equipment reliability, operational stability, safety, and long-term plant performance.



# HOW WE ADD VALUE:

## ❑ Cost-Effective Execution

Efficient planning and optimized resource utilization ensuring high-quality services within controlled project costs.

## ❑ Commitment to Safety & Quality

Execution aligned with industry standards, OEM recommendations, HSE compliance, and quality assurance procedures.

## ❑ Skilled Technical Workforce

OEM-trained and experienced technical personnel with extensive field exposure across critical industrial applications.

## ❑ Long-Term Client Partnership:

Strong focus on customer satisfaction, transparency, technical integrity, and continuous support.



## OUR VISION

Our objective is to deliver unrivalled, high quality service, tailored to customer specific requirement; to meet their desired goals. We further our mission by leveraging innovation, process & technology in all aspects of work for our customers. We're committed to the highest standards in service, reliability, safety & cost-containment in our industry.

Our eyes are set at horizon of success and summit of excellence, encompassing Single and only hub of all industrial solutions, and OEM to national industrial needs & requirements; aggressively driven through comprehensive research & development unit.

## OUR MISSION

R.I.S.E takes pride in its values and we derive our business ethics from our name;

**Resilience** -Strong footed, challenging, durable

**Innovation** - Out of box and beyond wall approach

**Support** - Team work and fulfillment by each other

**Equality** - Value for all, customers and employees

With above fundamentals; we strive & thrive to accomplish finest results achieving 100% customer satisfaction with the highest level of innovation, skill and competence in our Field.

# MAJOR CLIENTS

With **40 years** of combined leadership experience Reliable Industrial Solutions Engineering was established in 2022 & the head office is situated in KARACHI.

R.I.S.E proudly provides engineering and maintenance services to leading Oil & Gas and industrial organizations across Pakistan and the Middle East.

- **Oil & Gas Development Limited**

**(OGDCL), Pakistan**

- **United Energy Pakistan**

- **Pakistan Petroleum Limited**

- **Deewan Petroleum**

- **Mari Petroleum Pakistan**

- **MOL Pakistan Oil & Gas CO B.V**

- **Fatima Fertilizer Company Limited**

- **NEOM Saudi Arabia**

- **PRIME Pakistan limited**



# AFFILIATIONS

We take pride in having OEM certified personnel on board, serving excellenceto our customers, moreover we are also representing some of the International OEMs as their Authorized Representative & Sales/Services partner in Pakistan.

## Strategic Partners:

- ❑ Cooper Machinery Services Houston USA.

World Renowned OEM of Gas Engines & Compressors



- ❑ Beijing Valves General Factory CO.LTD

(OEM of API-6D Pipeline Valves), Beijing CHINA.



- ❑ GIFLON Intelligent Equipment

Manufacturing Group (OEM of Specialized Valves),  
Beijing China



- ❑ MRA Solutions – Canada:



- ❑ ANG Consultants – Canada:



- ❑ Winters Instruments – Canada:



- ❑ STB Engineering:



- ❑ Natgas Global Resources Inc:



# EQUIPMENT SPECIALIZATION

R.I.S.E provides specialized services for a wide range of critical rotating and process equipment including:

## Gas Engines

- Cooper Superior Engines
- Waukesha Gas Engines
- Caterpillar Gas Engines
- Jenbacher Gas Engines
- AJAX Integral Engines

## Compressors

- Ariel Reciprocating Compressors
- Superior Compressors
- AJAX Integral Compressors
- High-Speed Reciprocating Compressors

## Process & Utility Equipment

- Heat Exchangers
- Fin Fan Coolers
- Air Compressors
- Centrifugal Pumps
- Process Vessels
- Cooling Systems

**COOPER** | MACHINERY  
SERVICES



*Waukesha*

**JENBACHER**  
INNO



# SERVICE PORTFOLIO

## Integrated Industrial Field Services

R.I.S.E provides complete field execution, maintenance, reliability, and engineering support services for industrial and energy sector facilities.



### Core Services

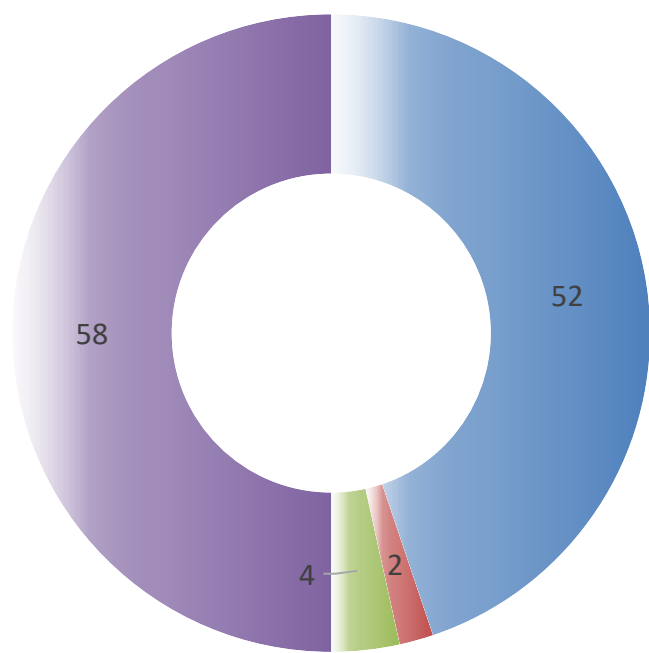
- ☐ Plant Installation & Commissioning
- ☐ Equipment Relocation & Asset Transfer
- ☐ Preventive & Corrective Maintenance
- ☐ Major Overhauls & Shutdown Execution
- ☐ Plant Reliability & Health Assessment
- ☐ Compressor Retrofits & Reconfiguration
- ☐ Heat Exchanger Re-tubing & Leakage Rectification
- ☐ Mechanical, Piping & E&I Works
- ☐ Troubleshooting & Root Cause Analysis
- ☐ Control System Upgradation
- ☐ Chemical Cleaning Services
- ☐ Skilled Technical Manpower Supply



# ANNUAL OUTLOOK-2025

| <div>RELIABLE INDUSTRIAL SOLUTIONS ENGINEERING (R.I.S.E) PVT LTD</div> |               |           |             |         |       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------|-------------|---------|-------|
| Field Services Dashboard-2025                                                                                                                          |               |           |             |         |       |
| Projects Database-2025                                                                                                                                 |               |           |             |         |       |
| S.N                                                                                                                                                    | Client        | Completed | In-Progress | Pending | Total |
| 1                                                                                                                                                      | OGDCL         | 24        | 0           | 3       | 27    |
| 2                                                                                                                                                      | UEP           | 13        | 0           | 1       | 14    |
| 3                                                                                                                                                      | MOL           | 12        | 1           | 0       | 13    |
| 4                                                                                                                                                      | MPCL          | 1         | 0           | 0       | 1     |
| 5                                                                                                                                                      | PPL           | 1         | 0           | 0       | 1     |
| 6                                                                                                                                                      | Prime & Misc. | 1         | 1           | 0       | 2     |
|                                                                                                                                                        |               |           |             |         |       |
|                                                                                                                                                        | Total         | 52        | 2           | 4       | 58    |

## FIELD SERVICE ANNUAL OUTLOOK-2025

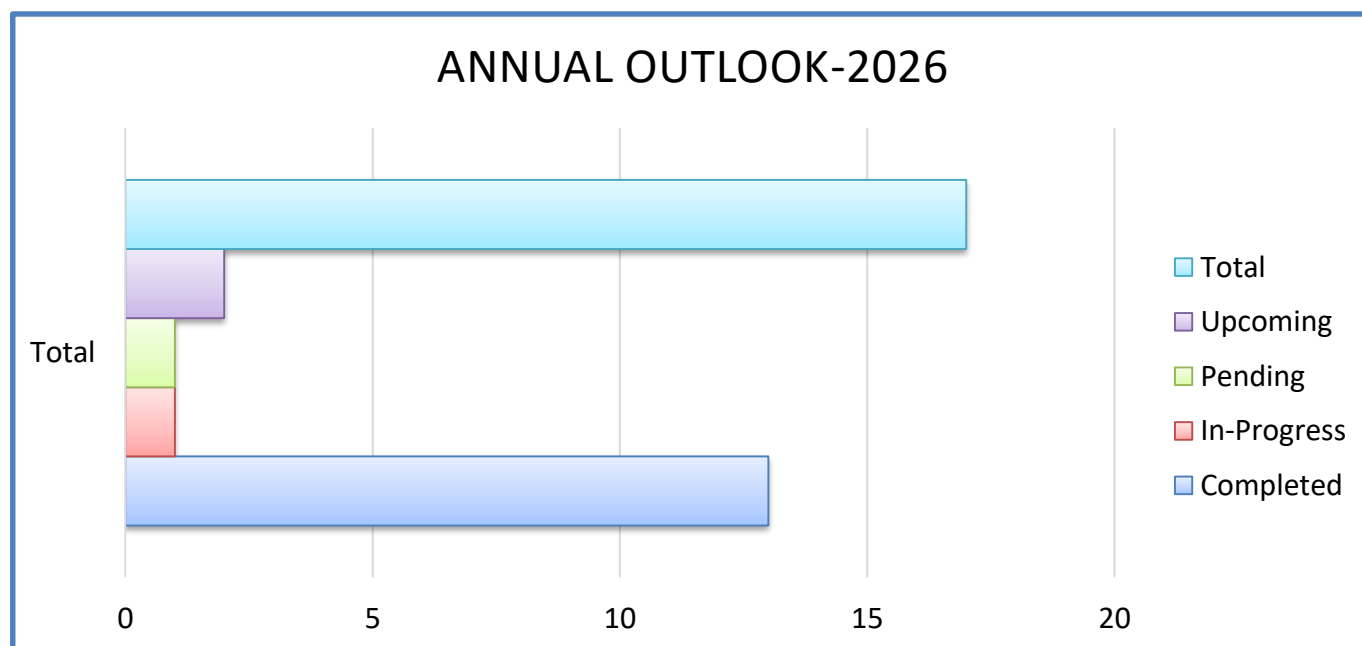


# MAJOR PROJECTS-2025

| S.No | Client                     | Projects                                                                   | Machinery / Equipment                                                                                                       | Numbers | Sub-Total |
|------|----------------------------|----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|---------|-----------|
| 1    | MOL Pakistan               | Services for 8,000 Hrs Preventive Maintenance                              | Superior Compressor WH64                                                                                                    | 2       | 14        |
| 2    |                            | Services for 80,000 Hrs Interval MOH                                       | Ajax DPC 2804 Non-LE                                                                                                        | 2       |           |
| 3    |                            | Services for 16,000 Hrs Preventive Maintenance                             | Ajax DPC-2804 Non-LE                                                                                                        | 3       |           |
| 4    |                            | Services for Retubing to Tube Bundle                                       | Heat Exchanger, Trunk Line Heater                                                                                           | 1       |           |
| 5    |                            | Services for Retubing to Tube Bundle                                       | Heat Exchanger, Glycol Regenerator                                                                                          | 1       |           |
| 6    |                            | Services for Inframe Overhauling                                           | Superior Engine 16SGTD                                                                                                      | 3       |           |
| 7    |                            | Services for Top End Overhauling                                           | Superior Engine 16SGTD                                                                                                      | 2       |           |
| 8    | United Energy Pakistan     | Services for Major Overhauling                                             | Ariel JGK-4 Compressor                                                                                                      | 1       | 19        |
| 9    |                            | Services for Major Overhauling                                             | Dresser Rand 5HOS4                                                                                                          | 1       |           |
| 10   |                            | Services for Major Overhauling                                             | Dresser Rand 5HOS2                                                                                                          | 1       |           |
| 11   |                            | Services for Major Overhauling                                             | Ariel JGE-2                                                                                                                 | 1       |           |
| 12   |                            | Services for Major Overhauling                                             | Ariel JGK-4                                                                                                                 | 1       |           |
| 13   |                            | Services for Major Overhauling                                             | Caterpillar G398TA                                                                                                          | 1       |           |
| 14   |                            | Services for Chemical Cleaning of cooler bundle                            | Package Cooler                                                                                                              | 8       |           |
| 15   |                            | Services for Top End Overhauling                                           | Waukesha L7042GSI                                                                                                           | 1       |           |
| 16   |                            | Services for Major Overhauling                                             | Superior Engine 16 SGT                                                                                                      | 1       |           |
| 17   |                            | Services for Major Overhauling                                             | Superior Compressor WH64                                                                                                    | 1       |           |
| 18   |                            | Services for Ignition System Upgradation to CPU-95                         | Superior Engine 16 SGT                                                                                                      | 1       |           |
| 19   |                            | Services for Chemical Cleaning of cooler bundle                            | Package Cooler (A/W & J/W)                                                                                                  | 1       |           |
| 20   | OGDCL                      | Services for 4,000 Hrs Preventive Maintenance                              | Superior WG-74 Compressor                                                                                                   | 6       | 62        |
| 21   |                            | Services for 4,000 & 8,000 Hrs Preventive Maintenance                      | Superior MH64 Compressor                                                                                                    | 4       |           |
| 22   |                            | Services for 8,000 Hrs Preventive Maintenance                              | Superior WG-74 Compressor                                                                                                   | 6       |           |
| 23   |                            | Services for 8,000 Hrs Preventive Maintenance                              | Ajax DPC-600                                                                                                                | 6       |           |
| 24   |                            | Services for 8,000 Hrs Preventive Maintenance                              | Ajax DPC-140                                                                                                                | 3       |           |
| 25   |                            | Services for 8,000 Hrs Preventive Maintenance                              | Ariel JGK-2                                                                                                                 | 1       |           |
| 26   |                            | Services for 8,000 Hrs Preventive Maintenance                              | Ariel JGK-4 Compressor                                                                                                      | 2       |           |
| 27   |                            | Services for 8,000 Hrs Preventive Maintenance                              | Ariel JGT-2                                                                                                                 | 3       |           |
| 28   |                            | Services for 8,000 Hrs Preventive Maintenance                              | Superior RAM-52 Compressor                                                                                                  | 1       |           |
| 29   |                            | Services for 24,000 Hrs Preventive Maintenance                             | Superior RAM-52 Compressor                                                                                                  | 4       |           |
| 30   |                            | Services for Leakage Rectification                                         | Shell & Tube, Floating Head Heat Exchanger                                                                                  | 4       |           |
| 31   |                            | Services for Chemical Cleaning of cooler bundle                            | Package Cooler                                                                                                              | 3       |           |
| 32   |                            | Services for Major Overhauling                                             | Ariel JGJ-2                                                                                                                 | 2       |           |
| 33   |                            | Services for Health Assessment                                             | Screw Compressor, SABROE (SAB85) ABB (S85A-HP)                                                                              | 3       |           |
| 34   |                            | Services for Health Assessment                                             | Ariel JGT-2                                                                                                                 | 2       |           |
| 35   |                            | Services for PLC Panel Rehabilitation job                                  | Superior CFA-34 Compressor                                                                                                  | 1       |           |
| 36   |                            | Services for Health Assessment                                             | Superior CFA-34 Compressor                                                                                                  | 1       |           |
| 37   |                            | Services for Health Assessment                                             | Cummins Engine KTA-50                                                                                                       | 1       |           |
| 38   |                            | Services for Health Assessment                                             | Cummins Engine NTA-85                                                                                                       | 1       |           |
| 39   |                            | Services for Health Assessment                                             | MAN Engine LSA-50                                                                                                           | 1       |           |
| 40   |                            | Installation & Commissioning of Compressor Package                         | Waukesha - Ariel                                                                                                            | 2       |           |
| 41   |                            | Services for Mechanical Cleaning of Heat Exchanger                         | Plate Type Heat Exchanger                                                                                                   | 2       |           |
| 42   |                            | Services for Tube Bundle Replacement                                       | Condensate Stabilizer Reboiler                                                                                              | 1       |           |
| 43   |                            | Services for Mechanical job during ATA                                     | Plant equipment Maintenance                                                                                                 | 1       |           |
| 44   |                            | Services for Plant Assets Dismantling                                      | Engine Driven Compressor Package, Glycol Dehydration Unit, Gas Metering Unit, Cooling Tower, CAT Genset, Electrical Panels. | 1       |           |
| 45   | Pakistan Petroleum Limited | Services for 8,000 Hrs Preventive Maintenance                              | Ariel JGD-4 Compressor                                                                                                      | 2       | 6         |
| 46   |                            | Services for 8,000 Hrs Preventive Maintenance                              | Ariel JGH-4 Compressor                                                                                                      | 1       |           |
| 47   |                            | Services for 8,000 Hrs Preventive Maintenance                              | Ariel JGJ-2 Compressor                                                                                                      | 1       |           |
| 48   |                            | Installation & Commissioning of Compressor Package Cooler Bundle           | Air Cooler Bundles                                                                                                          | 2       |           |
| 49   | Dewan Petroleum Limited    | Services for 8,000 Hrs Preventive Maintenance                              | Waukesha L7044GSI                                                                                                           | 2       | 4         |
| 50   |                            | Services for 8,000 Hrs Preventive Maintenance                              | D-R 6HOS2                                                                                                                   | 2       |           |
| 51   | Prime Pakistan             | Services for Major Overhauling                                             | Superior Engine 12SGTD                                                                                                      | 1       | 2         |
| 52   |                            | Services for Major Overhauling                                             | Superior Compressor MH64                                                                                                    | 1       |           |
| 53   | Maril Energies Limited     | Installation And Configuration Of Automatic Driven Bypass & Recycle Valves | Sale Gas Compressor                                                                                                         | 1       | 1         |

# ANNUAL OUTLOOK-2026

| <div>  RELIABLE INDUSTRIAL SOLUTIONS ENGINEERING (R.I.S.E) PVT LTD </div> |               |           |             |          |          |           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------|-------------|----------|----------|-----------|
| Projects Database-2026                                                                                                                                     |               |           |             |          |          |           |
| S.N                                                                                                                                                        | Client        | Completed | In-Progress | Pending  | Upcoming | Total     |
| 1                                                                                                                                                          | OGDCL         | 7         | 0           | 1        | 0        | 8         |
| 2                                                                                                                                                          | UEP           | 0         | 0           | 1        | 0        | 1         |
| 3                                                                                                                                                          | MOL           | 2         | 0           | 0        | 0        | 2         |
| 4                                                                                                                                                          | MPCL          | 0         | 0           | 0        | 3        | 3         |
| 5                                                                                                                                                          | Prime/PPL/PEL | 2         | 0           | 0        | 0        | 2         |
|                                                                                                                                                            |               |           |             |          |          |           |
| <b>Total</b>                                                                                                                                               |               | <b>11</b> | <b>0</b>    | <b>2</b> | <b>3</b> | <b>16</b> |



# CORE Field Services:

- ❖ **Relocation & Installation of Equipment / Plant Assets Plant Maintenance**
- ❖ **Preventive Maintenance / Corrective Maintenance / Overhaul**
- ❖ **Health Assessments and Reinstatement**
- ❖ **Re-tubing of Heat Exchanger / Servicing and Leakage Rectification of Heat Exchanger**



## Field Services:

# Relocation & Installation of Equipment / Plant Assets Plant Maintenance



## Project Name:

# Supply & Installation of Lube Oil Storage & Transfer System

**Client:** MOL Pakistan  
**Location:** CCPF-GPF / SGBCS Banda Daudkhel  
**Date:** 3 Sep 2025 Till 28 Oct 2025



## Project Objective:

Design, fabrication, installation, and commissioning of a complete lube oil storage and transfer system integrated with compressor package lubrication infrastructure.

## Scope Highlights

- Engineering and fabrication of 4500L & 3000L horizontal storage tanks
- Installation of pneumatic barrel transfer pumps
- Fabrication and installation of CS A106 piping network
- RCC foundation and secondary containment bund construction
- Complete mechanical installation and system integration
- Testing, commissioning, and operational handover

## Key Achievements

- Successful integration with existing lubrication system
- Improved operational oil handling efficiency
- Enhanced environmental and spill containment compliance
- Project completed within shutdown timeline



## Project Name:

# Installation & Commissioning of 20 MMSCFD Gas Compressor Package

**Client:** OGDCL  
**Location:** Sinjhor Gas Condensate Field  
**Date:** 5<sup>th</sup> Jan 2025 Till 12<sup>th</sup> Feb 2025



## Project Scope

Complete installation, piping fabrication, E&I integration, pre-commissioning, and startup support for 20 MMSCFD gas compressor package.

## Major Execution Activities

- Installation and alignment of compressor and engine skids
- Installation of vessels, fin-fan coolers, and auxiliary systems
- Fabrication and welding of 1,250 dia inches process piping
- Hydro testing, NDT, flushing, cleaning, and leak testing
- E&I installation and control integration
- Mechanical completion and startup support



## Key Achievements

- Successful commissioning and startup within schedule
- Full compliance with OEM and inspection requirements
- Zero major safety incidents during execution
- Reliable package performance achieved during startup

**Project Name:**

# Installation & Commissioning of 20 MMSCFD Gas Compressor Package

**Client:** OGDCL  
**Location:** Sinjhor Gas Condensate Field  
**Date:** 5<sup>th</sup> Jan 2025 Till 12<sup>th</sup> Feb 2025



## Project Name:

# Dismantling, Rigging & Loading of Plant Assets

**Client:** OGDCL  
**Location:** Hundi Sari Gas Plant  
**Date:** 25<sup>th</sup> Apr 2024 Till 5<sup>th</sup> May 2024



## Scope Overview

Execution of safe dismantling, rigging, preservation, and loading activities for complete gas plant assets and auxiliary systems.

## Assets Handled

- Engine-driven compressor packages
- Glycol dehydration units
- Cooling towers & pumps
- Process vessels & separators
- CAT generator sets
- Electrical and instrumentation systems

## Key Achievements

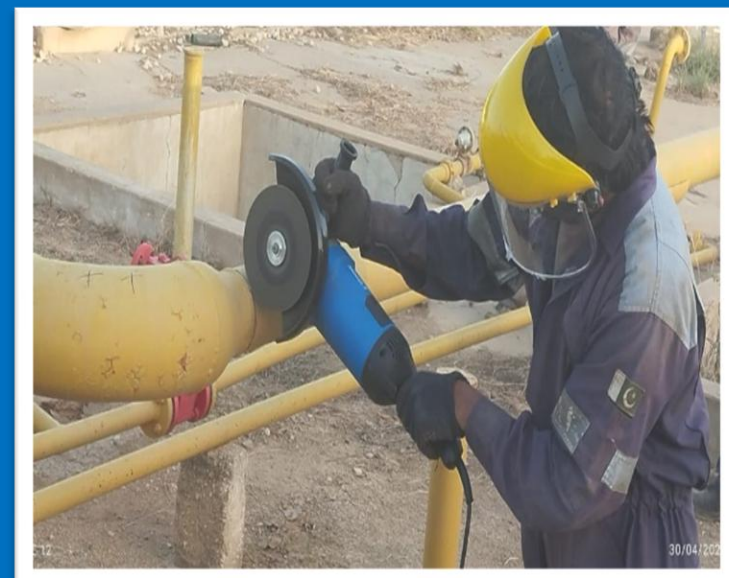
- Safe dismantling and lifting execution
- Efficient logistics coordination
- No equipment handling damage reported
- Site restoration and housekeeping completed successfully



**Project Name:**

# TECHNICAL SERVICES FOR DISMANTLING, RIGGING & LOADING OF PLANT ASSETS

**Client:** OGDCL  
**Location:** Hundi Sari Gas Plant  
**Date:** 25<sup>th</sup> Apr 2024 Till 5<sup>th</sup> May 2024



# **Project Name:** **ATA-2024 Plant Maintenance Services**

**Client:** OGDCL  
**Location:** CHANDA OIL FIELD  
**Date:** 21-06-24 to 30-06-24



## **Shutdown Maintenance Scope**

Comprehensive annual turnaround maintenance of rotating and static equipment across LPG processing facilities.

## **Major Maintenance Activities**

- Overhauling of 27 process pumps
- Maintenance of 13 engines and compressors
- Inspection and servicing of 7 process vessels
- Mechanical and chemical cleaning of heat exchangers
- Fin fan cooler servicing and radiator cleaning
- Valve replacement and fabrication works

## **Key Achievements**

- Shutdown completed within allocated turnaround window
- Improved equipment operational reliability
- Successful execution of multiple critical-path activities
- Enhanced plant readiness for production restart



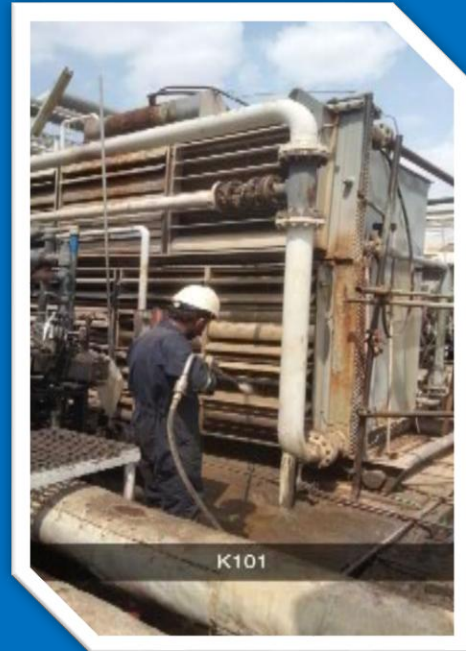
**Project Name:**

**SERVICES FOR MAINTENANCE JOBS OF CHANDA LPG  
PLANT DURING ATA-2024.**

**Client:** OGDCL  
**Location:** CHANDA OIL FIELD  
**Date:** 21-06-24 to 30-06-24



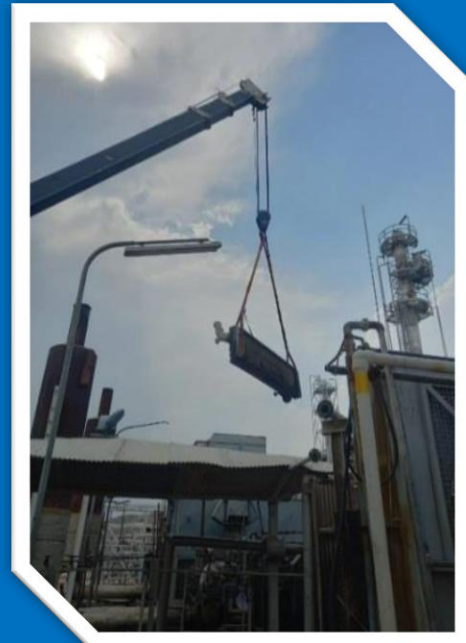
P800 C, Fire water pump engine



K101



G1- CAT 3412, before cleaning



## Project Name:

## Package Installation & Commissioning

**Client:** OGDCL  
**Location:** Kunnar Field, KPD-TAY Plant  
**Date:** 29<sup>th</sup> Jan 2023 Till 5<sup>th</sup> Mar 2023



### Scope Highlights:

- Installation and alignment of compressor and cooler skids
- Installation of auxiliary equipment and process piping
- SS tubing and cable laying for ESDVs and BDV systems
- Loop checking, terminations, and control verification
- Pre-commissioning and startup support

### Key Achievements:

- Successful mechanical completion and commissioning
- Reliable integration of field instrumentation and safety systems
- Efficient execution within project schedule



**Project Name:**

# TECHNICAL SERVICES FOR INSTALLATION, PRE-COMMISSIONING / COMMISSIONING OF SALES GAS COMPRESSOR PACKAGE

**Client:** OGDCL  
**Location:** Kunnar Field, KPD-TAY Plant  
**Date:** 29<sup>th</sup> Jan 2023 Till 5<sup>th</sup> Mar 2023



## Project Name:

# Air Cooler Installation Project

**Client:** Pakistan Petroleum Limited  
**Location:** Gambhat South Field  
**Date:** 8<sup>th</sup> Mar-2023 Till 30 Mar-2023



## Scope Highlights

- Structural assembly and erection of air cooler systems
- Installation of tube bundles, motors, blades, and ducting
- Crane lifting and structural alignment activities
- Mechanical installation of complete cooling package

## Key Achievements

- Successful erection and installation of dual air cooler systems
  - Safe heavy lifting execution with zero incidents
- Mechanical completion achieved within planned schedule



## Field Services:

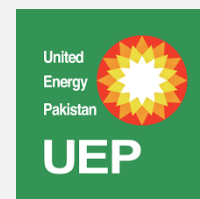
II Preventive Maintenance II  
II Corrective Maintenance II  
II Overhauling II  
II Upgradation II



## Project Name:

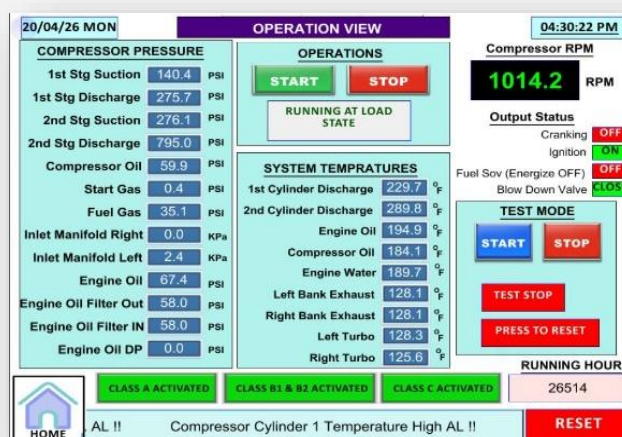
# C-4601 Caterpillar G398 TA/ Ariel JGE2 Control System Upgradation

**Client:** United Energy Pakistan  
**Location:** Kadanwari FEC  
**Date:** 28-03-26 to 20-04-26  
**Engine:** Superior 16SGT  
**Compressor:** Superior WH-64



## Scope Highlights

- Complete control system modernization
- PLC programming and HMI development
- Hardware replacement and commissioning
- Alarm, shutdown, and interlock verification
- Performance testing under full operating conditions



## Key Achievements

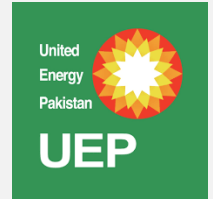
- Improved operational reliability and diagnostics
- Enhanced control stability and system safety
- Successful commissioning with stable package performance
- Recommendations provided for future reliability enhancements



**Project Name:**

# **MAJOR OVERHAULING OF CATERPILLAR G398 TA ENGINE – ARIEL JGE-2 COMPRESSOR**

**Client:** United Energy Pakistan  
**Eq. ID:** C-4601  
**Location:** Kausar Gas Field  
**Date:** July, August-2025



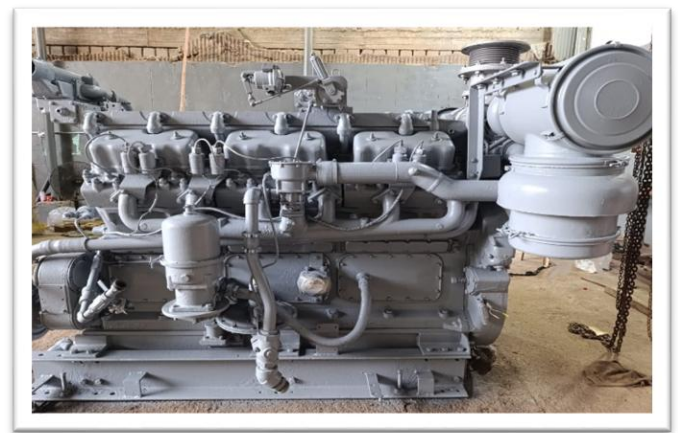
## **ACTIVITES MILESTONES:**

Successfully completed Caterpillar G398 TA Engine and Ariel JG2 Compressor MOH against all odds, that truly reflect exceptional technical expertise, problem-solving skills and persistence to overcome challenges.

Due to obsolescence of spares and unavailability of service support from the OEM, every step of the process presented new challenges, from sourcing alternatives to developing innovative repair solutions.

Despite these extreme constraints, our team overcame every challenge, completed MOH safely and successfully, and the unit has now been brought back to reliable operating condition.

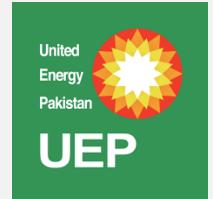
This milestone showcases our organization's ability to excel under the most demanding conditions. It is a proud moment for all of us.



## Project Name:

# MAJOR OVERHAULING OF CATERPILLAR G398 TA ENGINE – ARIEL JGE-2 COMPRESSOR

**Client:** United Energy Pakistan  
**Eq. ID:** C-4601  
**Location:** Kausar Gas Field  
**Date:** July, August-2025

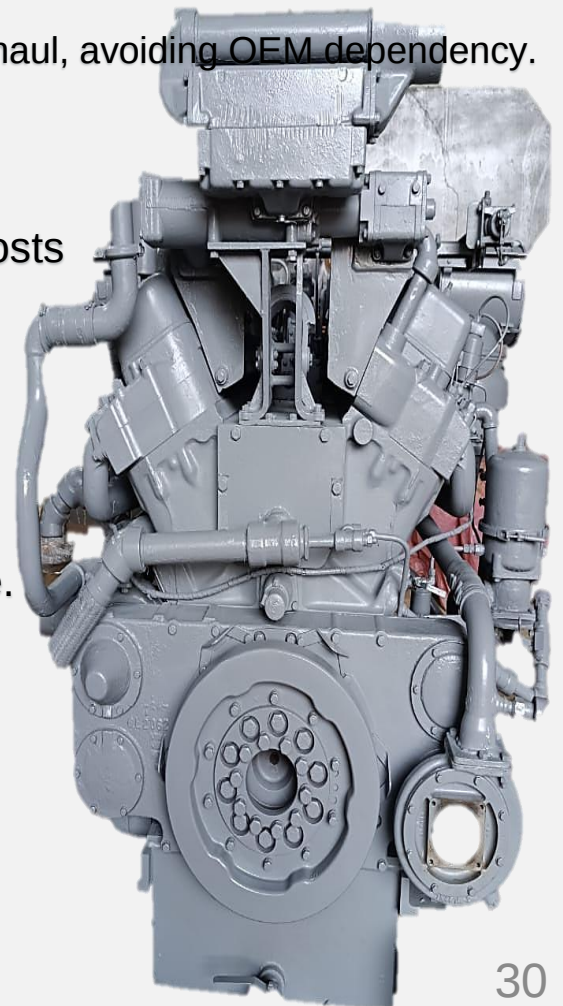


## Key Achievements

- ✓ Complex Overhaul Completed with Zero Safety Incidents despite challenges.
- ✓ Precision OEM Compliance – clearances, torque, and assembly per OEM standards.
- ✓ Critical Component Restoration – liners, turbochargers, cylinder heads refurbished to 'as-new'.
- ✓ Refurbishment over Replacement – major cost savings without compromising reliability.
- ✓ Enhanced Reliability – ensures optimized performance and extended service life.
- ✓ Workshop Operational Excellence – in-house overhaul, avoiding OEM dependency.

## Value Delivered:

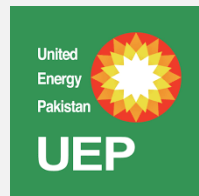
- 💰 Cost Efficiency – avoided excessive OEM costs through in-house replacement / refurbishment.
- ⚙️ Operational Readiness – engine ready for redeployment with maximum uptime assurance.
- 👥 Team Excellence – demonstrated high capability, adaptability, and teamwork under challenges.



**Project Name:**

# MAJOR OVERHAULING OF CATERPILLAR G398 TA ENGINE – ARIEL JGE-2 COMPRESSOR

**Client:** United Energy Pakistan  
**Eq. ID:** C-4601  
**Location:** Kausar Gas Field  
**Date:** July, August-2025



## GALLERY: BEFORE



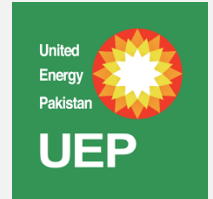
## GALLERY: AFTER



**Project Name:**

# MAJOR OVERHAULING OF FEC PACKAGE SUPERIOR ENGINE 16SGT & SUPERIOR COMPRESSOR WH64

**Client:** United Energy Pakistan  
**Location:** Kadanwari Gas Field  
**Date:** 4<sup>th</sup> Nov till 26 Nov-2025



## Project Milestones:

- ❑ Planned shutdown initiated on 05-Nov-2025 for Major Overhaul activities.
- ❑ Complete dismantling, inspection, refurbishment, and replacement of critical components carried out as per OEM guidelines.
- ❑ All maintenance activities executed with strict HSE and quality compliance.
- ❑ Unit startup successfully completed on 25-Nov-2025 with normal operating parameters.

## Key Achievements:

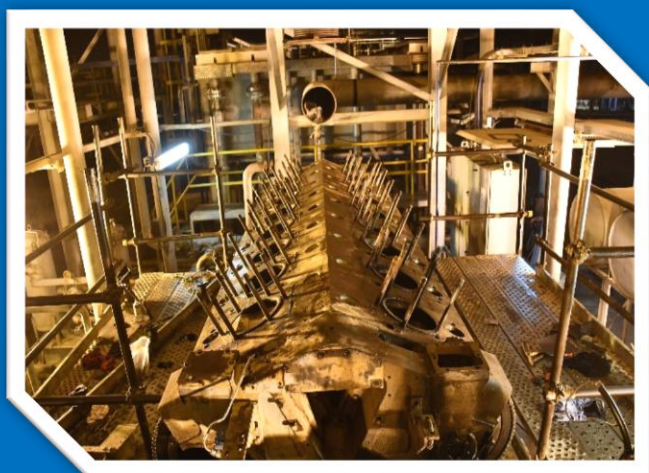
- ❑ Successful completion within planned shutdown duration.
- ❑ Restored equipment reliability and operational performance.
- ❑ Improved long-term operational stability and reduced downtime risk.
- ❑ Safe and efficient execution in compliance with OEM and HSE standards.



**Project Name:**

**MAJOR OVERHAULING OF FEC PACKAGE SUPERIOR  
ENGINE 16SGT & SUPERIOR COMPRESSOR WH64  
And IGNITION SYSTEM UPGRADATION**

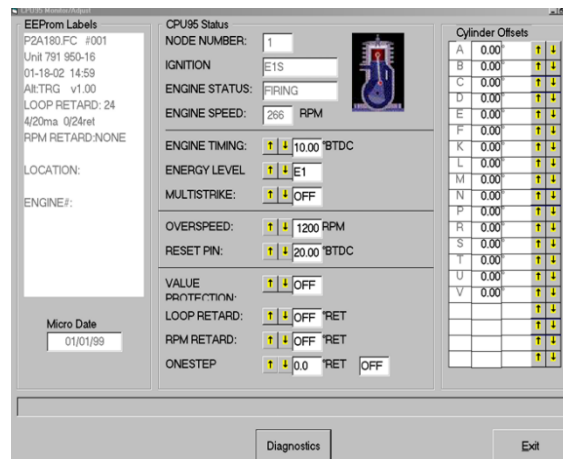
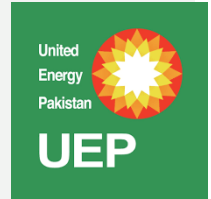
**Client:** United Energy Pakistan  
**Location:** Kadanwari Gas Field  
**Date:** 4<sup>th</sup> Nov till 26 Nov-2025



## Project Name:

# Ignition System Upgrade: CPU-95 and DET-1600 installation, commissioning and Configuration

**Client:** United Energy Pakistan  
**Location:** Kadanwari FEC  
**Date:** 05-11-25 to 24-11-25  
**Engine:** Superior 16SGT  
**Compressor:** Superior WH-64

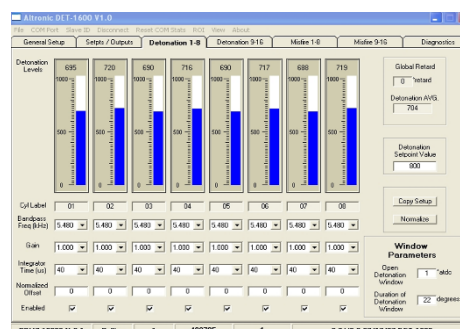


## Scope Highlights

- Migration from conventional magneto ignition system
- Installation and commissioning of Altronic CPU-95 & DET-1600
- System integration with package controls and protections
- Loop verification, diagnostics, and safety validation
- Technical training for client operations team

## Key Achievements

- Improved combustion efficiency and operational stability
- Enhanced engine protection and diagnostics capability
- Reduced maintenance downtime and operational risk
- Successful digital ignition system modernization



## Project Name:

# ANNUAL PM OF AJAX INTEGRAL ENGINE COMPRESSOR DPC-600 & 140

**Client:** OGDCL  
**Location:** Chanda Oil Field  
**Date:** In 2023, 2024 & 2025, Consecutive 3 times during shutdown



## ACTIVITES MILESTONES:

### Project Milestones

- ☐ Annual Preventive Maintenance (PM) of AJAX Integral Engine Compressor DPC-600 & 140 successfully executed during planned shutdown.
- ☐ Complete inspection, cleaning, servicing, and maintenance activities performed on both Power Side and Compressor Side equipment.
- ☐ Critical clearances, bearings, valves, piston assemblies, and lubrication components inspected and verified as per OEM standards.
- ☐ Cylinder heads, suction/discharge valves, reed valves, fuel injection valves, and FFL pumps serviced and reinstated.
- ☐ Crankcase cleaning, compressor inspection, and operational condition assessments completed successfully.

### Key Achievements:

- ☐ Successful completion of annual PM within shutdown timeline.
- ☐ Equipment health and operational reliability restored.
- ☐ All critical inspection parameters observed within acceptable limits.
- ☐ Improved compressor and engine performance with reduced risk of unplanned downtime.
- ☐ Maintenance activities completed safely in compliance with OEM and HSE requirements.



**Project Name:**

# ANNUAL PM OF AJAX INTEGRAL ENGINE COMPRESSOR DPC-600 & 140

**Client:** OGDCL  
**Location:** Chanda Oil Field  
**Date:** In 2023, 2024 & 2025, Consecutive 3 times during shutdown



# IN-FRAME OVERHAULING OF SUPERIOR ENGINE 16SGTD CFEC Unit-A, B & C

**Client:** Mol Pakistan Oil & Gas Company  
**Location:** B.V Makori gas field MOL  
**Date:** Nov, Dec, 2023 & Jan-2024



## Project Milestones:

- ☐ In-frame overhauling of Superior Engine 16SGTD CFEC Units A, B & C successfully executed as per OEM guidelines.
- ☐ Complete replacement of liners, pistons, piston rings, piston pins, retainers, and connecting rod big end bearings carried out.
- ☐ Refurbishment and reinstallation of 16 cylinder heads and gas admission valves completed with new gasket kits.
- ☐ Inspection, servicing, and refurbishment of auxiliary systems including J/W, A/W & lube oil pumps, turbocharger, intercoolers, and starting motors performed.
- ☐ Crankcase inspection, sump cleaning, tappet adjustment, alignment checks, and critical clearance verification completed successfully.
- ☐ Spark plugs, filters, thermostats, and related consumables replaced, followed by lubrication oil and coolant replenishment.

## Key Achievements:

- ☐ Successful completion of overhaul activities within planned shutdown duration.
- ☐ Restoration of engine reliability, combustion efficiency, and operational performance.
- ☐ All critical parameters and clearances verified within OEM acceptable limits.
- ☐ Improved operational stability and reduced risk of unplanned failures.
- ☐ Maintenance activities executed safely with full compliance to OEM and HSE standards.



## Project Name:

# 16K PM OF AJAX INTEGRAL ENGINE COMPRESSOR DPC 2804 NON-LE UNIT: PC-A & B

**Client:** MOL Pakistan Oil & Gas Company B.V  
**Location:** VA-03  
**Date:** 7<sup>th</sup> Sep 2023 Till 13<sup>th</sup> Sep 2023

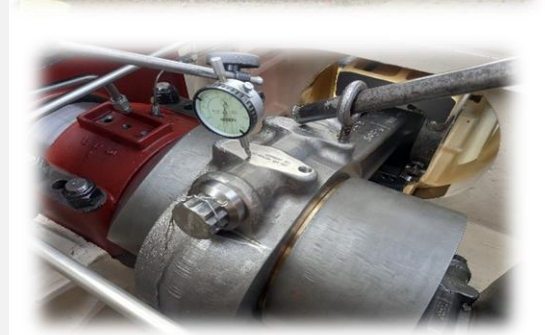


## Project Milestones:

- ❑ 16K Preventive Maintenance of AJAX Integral Engine Compressor DPC 2804 NON-LE Units PC-A & B successfully completed during planned shutdown.
- ❑ Replacement and clearance verification of main bearings and connecting rod big end bearings carried out as per OEM standards.
- ❑ Inspection and servicing of power cylinder pistons, crossheads, and compressor throw assemblies completed with required component replacements.
- ❑ Compressor pistons removed, cleaned, inspected, and reinstalled with new piston rings following clearance verification.
- ❑ Vibration damper replacement, cooler maintenance, and ignition system servicing successfully performed.
- ❑ FFL pumps servicing, pressure testing, and divider block purging completed to ensure proper lubrication performance.

## Key Achievements:

- ❑ Successful execution of 16K PM within planned maintenance schedule.
- ❑ Critical component inspections and clearances verified within acceptable operational limits.
- ❑ Improved engine and compressor reliability, operational efficiency, and equipment health.
- ❑ Enhanced lubrication and ignition system performance achieved.



## Field Services:

Health Assessment;  
Vibration Analysis;  
RCA



## Project Name:

# HEALTH ASSESSMENT AND VIBRATION RECTIFICATION OF C-602 COMPRESSOR PACKAGE

**Client:** United Energy Pakistan  
**Location:** UEPL DHABI  
**Date:** 14-10-22 to 24-10-22  
**Engine:** Waukesha 7042GU  
**Compressor:** MW64



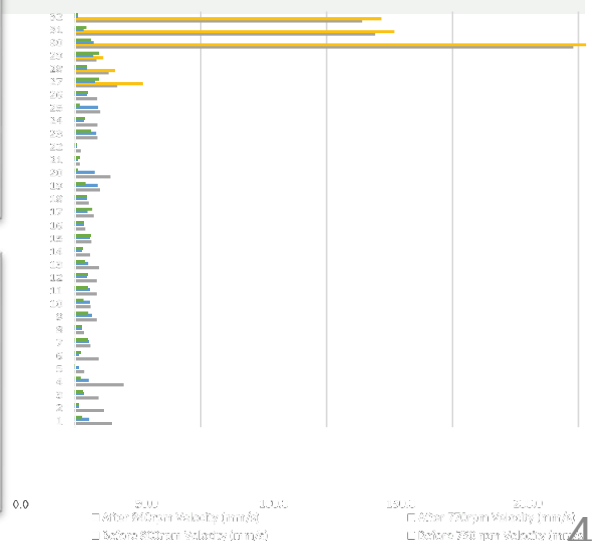
## Technical Scope

- Vibration analysis and troubleshooting
- Skid leveling and structural corrections
- Installation of piping and bottle supports
- OEM compliance modifications and balancing
- Replacement of stage transmission assembly



## Key Achievements

- Excessive vibration issue successfully resolved
- Operating RPM increased from 740 to 840 RPM
- Stable package operation restored
- Improved operational reliability and safety



## Field Services:

# Re-tubing & Leakage Rectification of Heat Exchangers



**Project Name:**

# RETUBING OF TUBE BUNDLE OF OIL TRUNK LINE HEATER E-306-01

**Client:** MOL Pakistan Oil & Gas Company B. V  
**Location:** CPF/MGPF  
**Date:** 02 Sep-2024 to 04 Oct-2024



## Scope Highlights

- Complete re-tubing and tube sheet refurbishment
- Tube expansion, stress relieving, and hydro testing
- Bundle fabrication and quality inspections
- Site installation and testing support

## Key Achievements

- Successful restoration of heat exchanger integrity
- Hydro testing completed successfully
- Equipment returned to reliable operation

### PICTURES

Bundle Tubes cutting/ New tubes Cold Bending



**Project Name:**

# RETUBING OF TUBE BUNDLE OF OIL TRUNK LINE HEATER E-306-01

**Client:** MOL Pakistan Oil & Gas Company B. V  
**Location:** CPF/MGPF  
**Date:** 02 Sep-2024 to 04 Oct-2024



**Project Name:**

# RETUBING OF MEG REBOILER TUBE BUNDLE H-690

**Client:** MOL Pakistan Oil & Gas Company B. V  
**Location:** Tulanj Processing Facility  
**Date:** 15 Mar-2025 to 26 Mar-2025



## Scope Highlights

- Supply and fabrication of SA-179 seamless tubes
- Tube bundle re-tubing and testing
- Shell cleaning and leakage rectification
- Installation support and final leak testing

## Key Achievements

- Successful restoration of re-boiler performance
- All pressure tests completed satisfactorily
- Reliable process operation restored

### PICTURES



**Project Name:**

## **RETUBING OF MEG REBOILER TUBE BUNDLE H-690**

**Client:** MOL Pakistan Oil & Gas Company B. V  
**Location:** Tulanj Processing Facility  
**Date:** 15 Mar-2025 to 26 Mar-2025



### PICTURES



Project Name:

# LEAKAGE RECTIFICATION OF INLET GAS TRIM COOLER

## EQUIPMENT ID: E-4401

Client: OGDCL  
Location: Kunnar LPG Plant & Oil Field  
Date: 24 till 27 February 2024

Equipment Make: KERUI GROUP  
Equipment Serial No: 13KR/R81  
Equipment Type: Shell and Tube



### Project Milestones:

- ❑ Leakage rectification of Inlet Gas Trim Cooler E-4401 successfully executed during planned shutdown.
- ❑ Unit isolation and installation of spade blinds completed prior to maintenance activities.
- ❑ Channel head removal, test ring installation, and shell-side hydrostatic testing carried out at 195 psi.
- ❑ Damaged/leaking tube identified and isolated through tube plugging at both ends.
- ❑ Reassembly of channel head completed with new gasket installation and hydraulic stud tightening.
- ❑ Tube bundle hydro testing performed at 1350 psi with satisfactory results and no leakage observed.
- ❑ Final leak testing, reinstatement, and housekeeping activities successfully completed.

### Key Achievements:

- ❑ Successful leakage rectification and restoration of equipment integrity.
- ❑ Hydrostatic and leak tests completed successfully with zero leakage observed.
- ❑ Improved operational reliability and reduced risk of process interruption.
- ❑ Maintenance activities completed safely in compliance with OEM and HSE requirements.



Project Name:

# LEAKAGE RECTIFICATION OF LEAN AMINE TRIM COOLER

## EQUIPMENT ID: E-4405

Client: OGDCL

Location: Kunnar LPG Plant & Oil Field

Date: 12 Mar till 21 Mar-2024

Equipment Make: KERUI GROUP

Equipment Serial No: 13KR/R94

Equipment Type: Floating Head



## Project Milestones

- ❑ Leakage rectification of Lean Amine Trim Cooler E-4405 successfully carried out during planned shutdown.
- ❑ Unit isolation and installation of end blinds completed for shell and tube bundle circuits.
- ❑ Removal of front/rear channel heads and floating head performed for detailed inspection and testing.
- ❑ Shell-side hydrostatic testing conducted at 260 psi with satisfactory results and no leakage observed.
- ❑ Floating head and channel heads reinstalled with new gaskets and proper tightening procedures.
- ❑ Tube bundle hydrotesting carried out at 150 psi with no leakage detected.
- ❑ Final reinstatement, leak testing, and housekeeping activities completed successfully.

## Key Achievements

- ❑ Successful restoration of heat exchanger operational integrity.
- ❑ All hydrostatic and leak tests completed satisfactorily with zero leakage observed.
- ❑ Improved equipment reliability and process safety achieved.
- ❑ Maintenance activities executed safely in compliance with OEM and HSE standards.



## **CONTACT US**

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