



**GARAGUM
HAZYNASY**
IE

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SERVICES - DOWNSTREAM



PLANNED AND PREVENTIVE MAINTENANCE

SUSTAINABLE DEVELOPMENT AND INNOVATION



- Reducing Net Carbon Dioxide: Strategies and technologies to reduce net carbon dioxide and improve energy efficiency.
- Waste and Recycling Management: An initiative to reduce, recycle and reuse waste across all operations.
- Water Management: Advanced water treatment and reuse technologies to minimize water consumption and environmental impact.

CORRECTIVE MAINTENANCE



04

01



Equipment reliability programs:

implementing programs to ensure the reliability and availability of critical processing and distribution equipment

02



Predictive maintenance technologies:

usage of sensors and data analytics for predictive maintenance and preventing equipment failures

03



Optimizing service strategy:

developing optimized maintenance strategies to balance cost, performance and risk

04



Repair services and spare parts management:

providing timely repair services and efficient management of spare parts and inventory

05



Security systems and emergency response:

implementation of safety systems and emergency response plans to ensure worker safety and environmental protection

**REPAIR AND
MAINTENANCE OF
MECHANISMS AND
INSTALLATIONS**





1 | SHUT-OFF, CONTROL AND SAFETY VALVES



- Dismantling and installation of equipment: heat exchangers, filters, air heaters, boilers
- Replacement of tube sheets and heat exchanger tubes; mechanical cleaning of pipes; and replacement of reaction tubes of furnaces and boilers
- Painting of hulls with stripping
- Thermal insulation of housings

- Repair of shut-off valves: removal, disassembly, identification of defects, replacement or repair of worn parts (seats, cups, rods, and testing)
- Cleaning from corrosion with sandblasting, painting in accordance with standards.
- Repair of control and safety valves; adjustment and testing, and painting
- Mechanical processing and welding of welded joints of gate valves, regulators and valves

2 | EQUIPMENT





3 | INSTALLATION OF ALL TYPES OF PIPELINES; STEAM PIPELINES, FIRE PIPELINES



- Repair and defect detection of pipelines
- Pipeline insulation
- High pressure water jetting to remove deposits and residues
- Mechanical processing and elimination of welding defects in joints
- Installation and adjustment of fire alarms
- Installation and adjustment of instrumentation and automation

4 | ROTATING MACHINERY

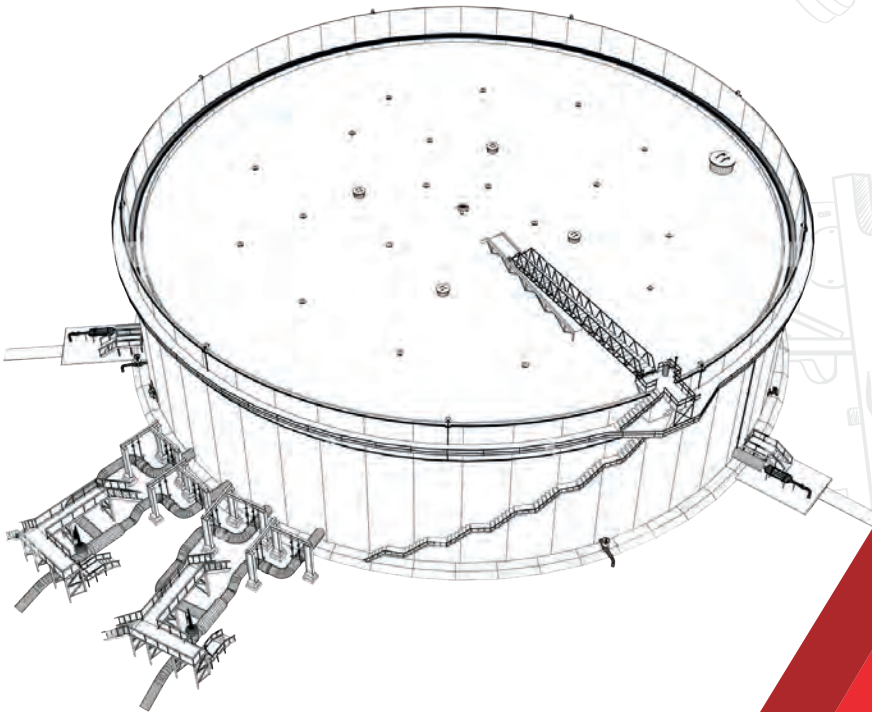
- Dismantling and installation of rotating mechanisms: pumps and fans
- Repair of smoke exhausters, dismantling and installation of smoke exhausters
- Cleaning and painting of mechanisms





5 | TANKS

- Defects in tank body welds
- Dismantling and installation of tanks
- Cleaning from internal deposits and corrosion
- External and internal painting of buildings
- Manufacturing and replacement of tank fittings.



6 | METAL STRUCTURE

- Manufacturing of metal structures
- Installation of metal structures
- Repair and painting of metal structures





8 | CONSTRUCTION WORK

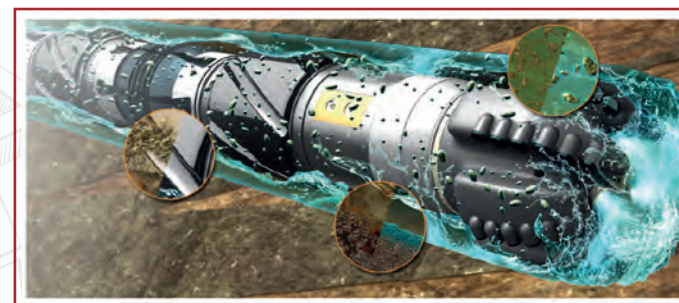
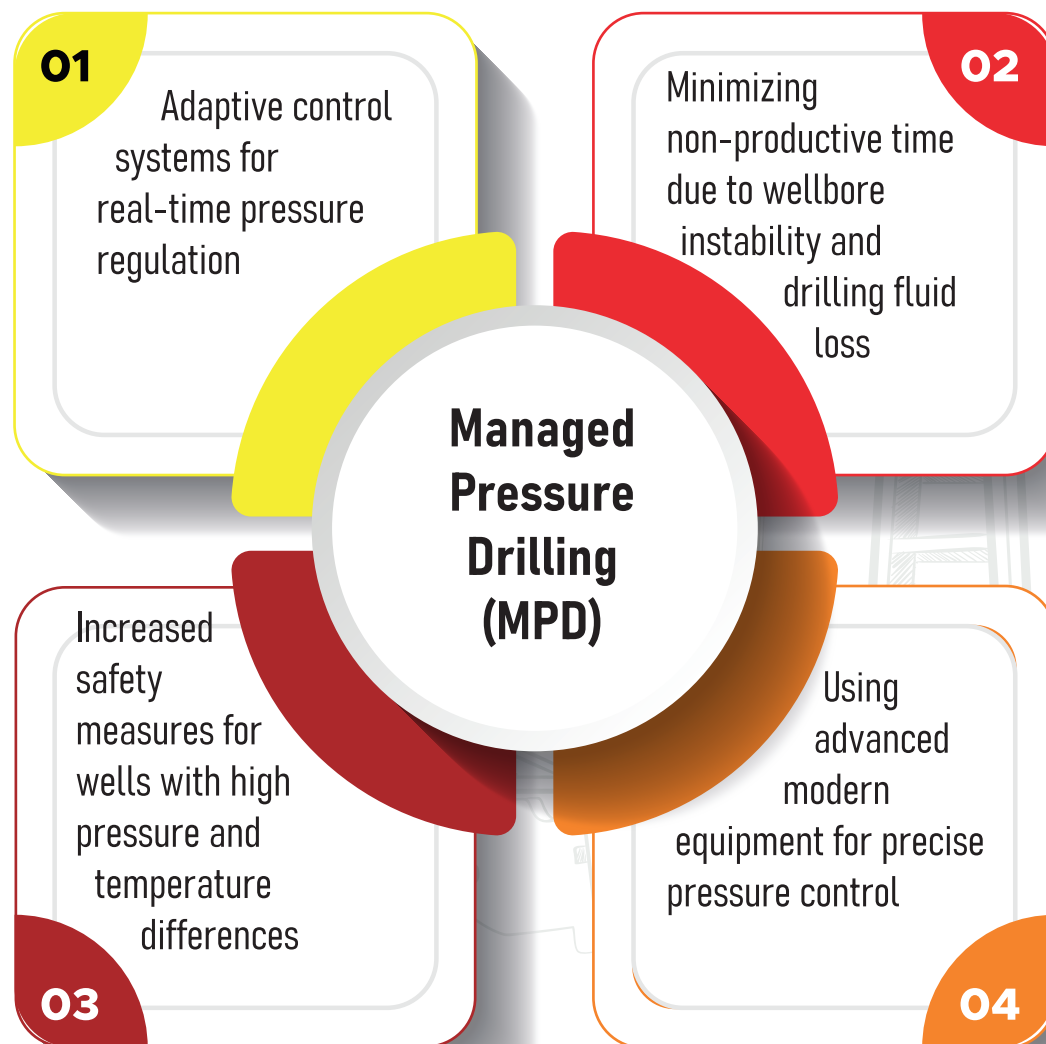
- Construction and renovation of residential and non-residential buildings up to five floors, including the construction of all cottages and many apartment buildings;
- Construction of non-residential buildings including all types of industrial buildings of plants, factories, workshops, administrative buildings, schools, kindergartens, scientific institutions, cultural centers, theaters, hospitals, offices, restaurants, shops, hotels, shopping and cultural centers, sports facilities, multi-storey car parks, warehouses;
- Installation of pipeline lines, construction of water structures

7 | MOBILIZATION WORK

- Preparation of foundations for temporary structures
- Digging pits, laying sewer and water pipelines, backfilling pits
- Assembling sandwich panels, laying concrete blocks for rooms, warehouses and offices



SERVICES – UPSTREAM



Drilling fluids

Selection of reagents corresponding to specific geological conditions

Highly effective dopants for extreme temperatures and pressure

Supply of chemicals:

- ◇ High quality drilling and completion chemicals for increased productivity
- ◇ Environmentally friendly chemicals to ensure regulatory compliance
- ◇ Advanced logistics solutions for timely delivery to remote regions
- ◇ Technical support for the application and optimization of chemicals

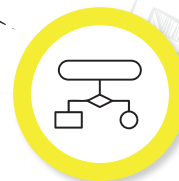


Condition-based monitoring:



Implementation of IoT sensors for continuous monitoring of equipment condition

Advanced analytics for early detection of potential failures



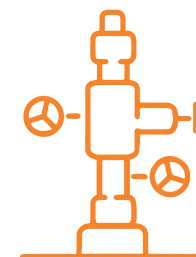
Algorithms for predicting equipment life cycle and maintenance needs

E-Line and Slickline services

- Precise downhole measurements and interventions using E-Line technology
- Wireline operations for mechanical work in the wellbore without stopping production
- Collect real-time data for accurate reservoir assessment
- Memory logging capabilities for cost-effective well diagnostics
- Advanced fishing services for locating lost or stuck equipment in a wellbore


Wellhead and X-mas tree Maintenance Services


- On-call personnel and equipment for onshore and offshore installations
- Physical inspection of the Wellhead and X-mas tree components
- Lubrication of valves and fitting control mechanisms
- Injection of lubricant and sealant into the cavity of the valve body
- Tubing head void test
- Pressure/functional testing of valves and fitting control mechanisms
- Pressure void testing of casing head
- Inspection for corrosion and erosion
- Cleanout, abandonment and painting
- Inspection and work report








Wellhead Control Panel Maintenance

 Routine examinations and diagnostics to assess functional integrity 01

 Emergency repair of leaks and operational failures 02

 Upgrade for improved performance and safety 03

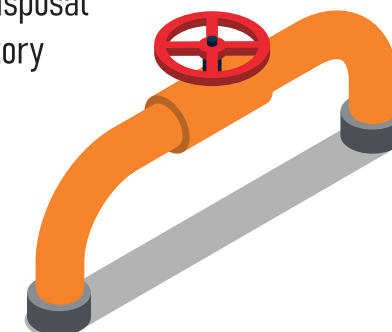
 Comprehensive testing of safety and pressure control systems 04

 On-site and remote technical support for troubleshooting and recommendations 05



PIPELINE MAINTENANCE

- Advanced inspection methods including ultrasound and magnetic flux leakage.
- Monitoring and controlling corrosion to extend the life of pipelines.
- Leak detection services using sophisticated acoustic and thermal imaging.
- Cleaning and maintenance services to prevent blockages and ensure flow efficiency.
- High pressure water jetting to remove deposits and residues.
- Chemical cleaning of incrustation, rust and other contaminants.
- Cleaning in accordance with safety and environmental standards.
- Waste management and disposal services to ensure regulatory compliance.
- Laying and insulation of pipelines





VALVE MAINTENANCE

- Comprehensive testing and certification of safety and service valves
- Specialized repair services for high pressure valves up to 10,000 psi
- Upgrades to improve functionality and extend service life
- Machining and welding on site for fast turnaround
- Manage inventory and provide spare parts for critical valve components

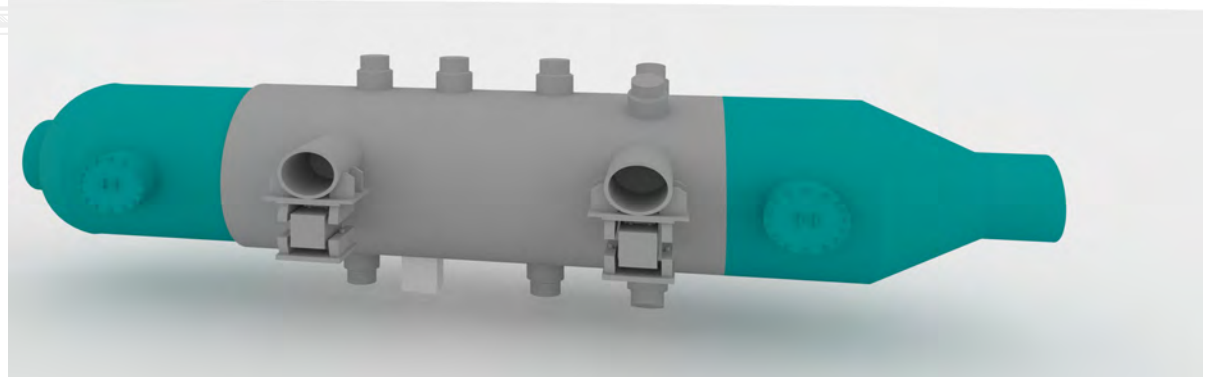
MAINTENANCE OF SAFETY VALVES

Comprehensive testing and certification of safety and service valves

CORRECTIVE MAINTENANCE

MAINTENANCE OF RESERVOIRS AND PRESSURE VESSELS

- ♦ Inspection and certification according to ASME and international standards
- ♦ Thickness testing and corrosion assessment for life cycle management
- ♦ Repair and conversion services to solve compliance problems
- ♦ Welding repairs and heat treatment processes to ensure structural integrity
- ♦ Non-destructive testing (NDT) methods for early detection of defects
- ♦ Cleaning and maintenance services to prevent blockages and ensure flow efficiency
- ♦ High pressure water jetting to remove deposits and residues
- ♦ Chemical cleaning of incrustation, rust and other contaminants
- ♦ Cleaning in accordance with safety and environmental standards
- ♦ Waste management and disposal services to ensure regulatory compliance





PAINTING AND SANDBLASTING

- Surface preparation and coating according to industry standards
- Highly effective coatings for corrosion protection and aesthetic maintenance
- Eco-friendly sandblasting and painting to ensure quality
- Mobile devices for on-site service in remote or offshore locations
- Detailed inspection and quality control throughout the entire coating process



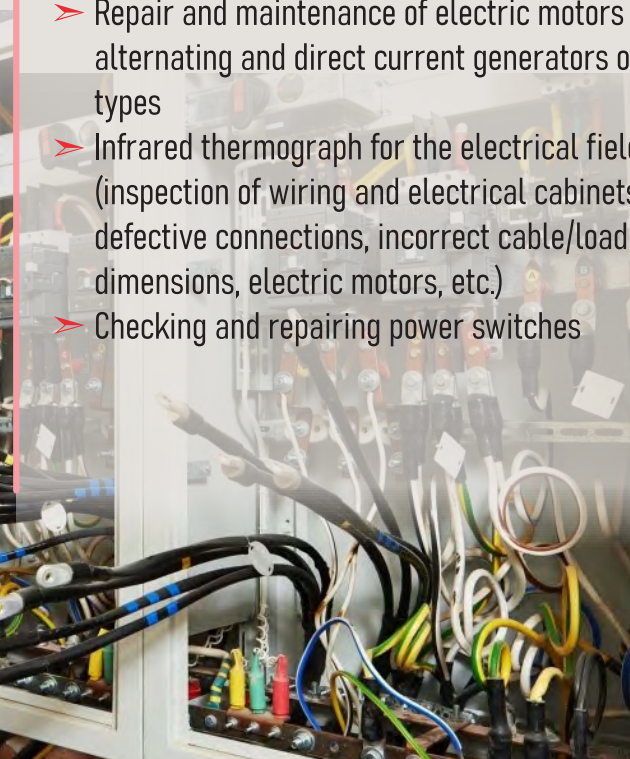
ENGINEERING SERVICES AND SUPERVISION IN ELECTRICITY

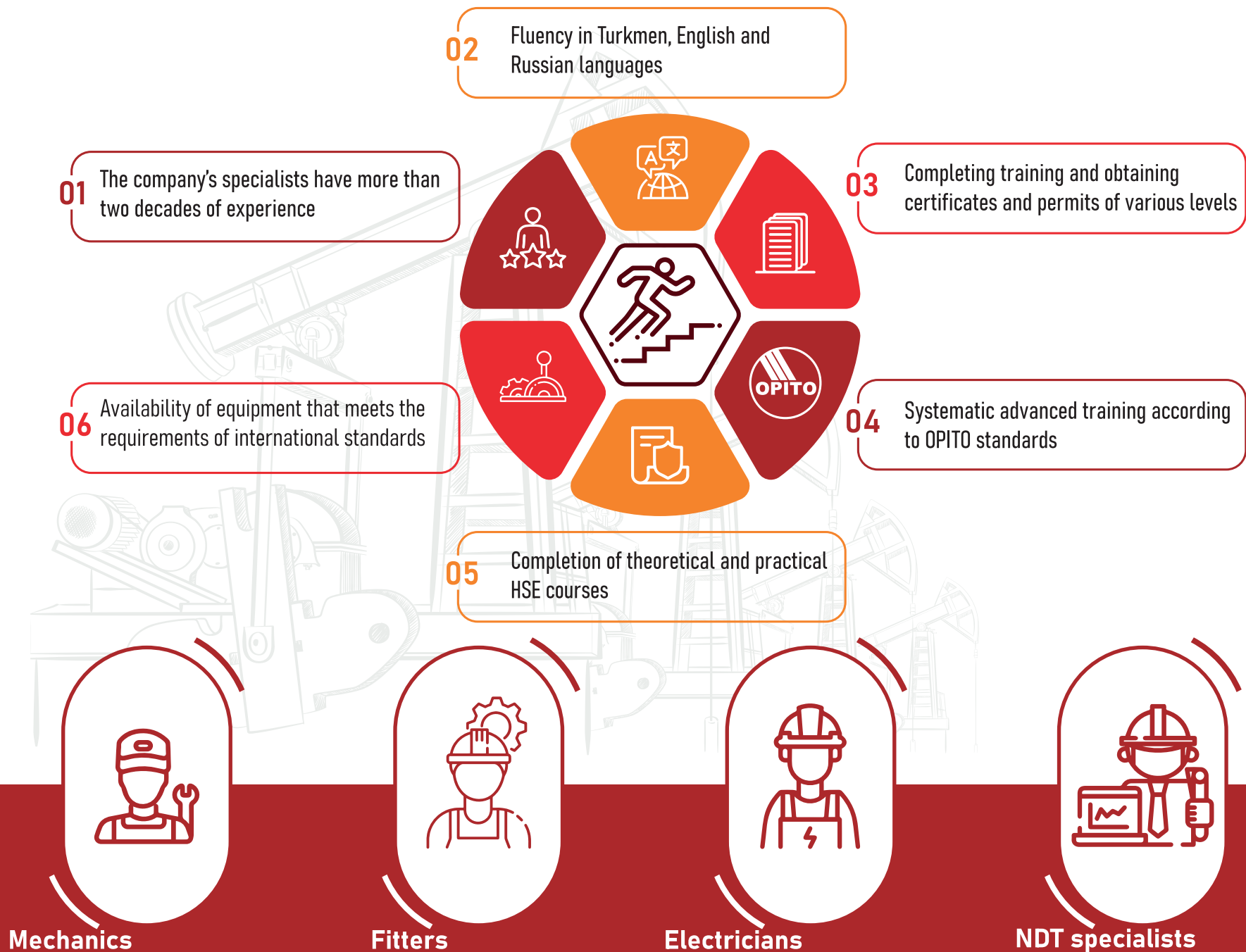
- Calculation, analysis and electrical load diagrams
- Electrical design and reconstruction of power distribution systems
- Protection, automation and control On-site supervision



INSTALLATION, REPAIR AND COMMISSIONING IN ELECTRICITY

- Cable grooves and insulating pipes
- Electricity routing - installation of equipment, lighting, cables
- Commissioning of power panels, transformers, UPS systems, inverters, converters, etc.
- Protection, automation and control systems
- Fire detection and alarm systems
- Repair and maintenance of electric motors and alternating and direct current generators of all types
- Infrared thermograph for the electrical field (inspection of wiring and electrical cabinets, defective connections, incorrect cable/load dimensions, electric motors, etc.)
- Checking and repairing power switches





Reliability in every action - this is how a success story begins when you choose a company as your reliable partner. We are proud that the team speaks Turkmen, English and Russian, the staff has professional knowledge, more than twenty years of experience in various fields of activity and impeccable work experience.

Our approach to work is not only based on extensive practical experience, but also on the constant pursuit of excellence. Each member of our team is regularly trained and certified to the latest OPITO standards, as well as mandatory safety courses, including hands-on training.

Our team consists of highly qualified mechanics, installers, electricians, NDT and instrumentation specialists, as well as specialists capable of performing welding work of any complexity. We also have professionals in the field of scaffolding installation and slingers, which allows us to ensure the proper level of safety during the work.

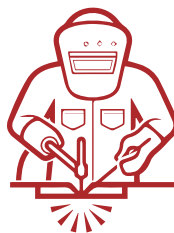
By choosing our team, you choose not only professionalism and experience, but also reliability, trust and confidence that your project will be implemented in accordance with the requirements of international norms and regulations.

In the process of concluding contracts for the provision of services, the company strives for timely and high-quality completion of assigned tasks, which is the basis for long-term and fruitful relationships.

Together we are creating the future of the oil and gas industry through knowledge, skills and an unwavering commitment to excellence. Let our experience and professionalism become your reliable foundation on the path to success.



**Instrumentation and
automation specialists**



**Specialists in various types of
welding work**



Scaffolders and slingers

A large industrial facility, possibly a refinery or chemical plant, is shown at sunset. The sky is a mix of orange, yellow, and blue, with some clouds. The industrial structures, including tall distillation columns and complex piping, are silhouetted against the bright sky. In the foreground, there are large, light-colored storage tanks. The overall scene conveys a sense of industrial scale and activity.

EQUIPMENT



Welding Machine (DC TIG)

Model: ZTD-500A
Manufacturer: DAEHONG
Quantity: 94



Oven for drying and firing electrodes

Model: 200 kg / 220 W
Manufacturer: Jihye
Quantity: 1



Welding Machine (DC ARC)

Model: ZDI-250
Manufacturer: DAEHONG
Quantity: 10



Heating unit PWHT

Model: 65 KW
Manufacturer: HONEYWELL
Quantity: 8

Mobile drying oven

Model: 5 kg
Manufacturer: YUNCHAN
Quantity: 48



Oven for drying and firing electrodes

Model: Edon Cut-160
Manufacturer: Edon
Quantity: 2

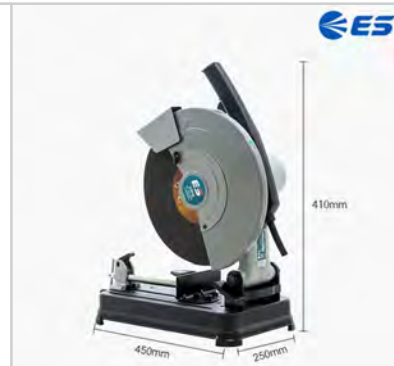


PIPING

20

High Speed Cutting Machine

Model: C314, 105x155 mm
Manufacturer: ES
Quantity: 8



Straight grinder

Model: GGS 28
Manufacturer: BOSCH
Quantity: 15



Angle Grinder

Model: 115 mm
Manufacturer: KEYANG
Quantity: 38



Cold pipe cutter

Model: 1/8" - 2 1/2"
Quantity: 6

Angle Grinder

Model: 110-230 mm
Manufacturer: KEYANG
Quantity: 80



Heater for fiberglass pipes

Quantity: 1



Gas cutter

Model: with pressure gauge,
hose, flame arrester and
torch
Quantity: 20



Pipe vise

Model: HS-PV3
Manufacturer: Hanshin
Quantity: 6



Pipe bender

Model: 664FH08, 12 mm
Manufacturer: Imperial
Quantity: 2



Pipe vise

Model: 1"-3"
Quantity: 2

Pipe cutter

Model: 1/8-inch to 2 inch
Quantity: 8



Beveling machine

Quantity: 6



HYDRAULIC

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High pressure pump

Model: 150/250 bar
Quantity: 4



Water pump

Model: 1000 l/min
Manufacturer: Total
Quantity: 2



Pneumatic Diaphragm Pump

Quantity: 1



Three-phase pressure washing (HP)

Model: 200 bar
Quantity: 1

High pressure hand pump

Model: 300 bar
Manufacturer: KYOWA TESTER
Quantity: 4



Grease Gun

Quantity: 8



Vacuum cleaner

Model: BY-781
 Manufacturer: UDT
 Quantity: 4

**Single-phase compressor 3.5 HP**

Model: S35-40-3.5HP
 Manufacturer: Seowon Compressor
 Quantity: 1

**Compressor 7.5 HP**

Model: KAC-7
 Manufacturer: Kyungan
 Quantity: 1

**Mobile fan**

Model: 24*10 m
 Manufacturer: Inotech
 Quantity: 20

**Compressor 20 HP**

Model: KAC-20
 Manufacturer: Kyungan
 Quantity: 1

**Heater**

Model: TK-50K
 Manufacturer: Tigerking
 Quantity: 2



TESTING

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Clamp meter tester

Model: TK-600A
Manufacturer: Tekwang
Quantity: 4



HART communication protocol

Model: 475
Manufacturer: EMERSON
Quantity: 1



Analog voltammeter

Model: BT-260TR
Manufacturer: BlueBird
Quantity: 3



Insulation resistance tester

Model: UT 513
Manufacturer: Uni-Trend
Technology Limited
Quantity: 1

Multimeter

Model: Fluke 287
Manufacturer: Fluke
Quantity: 2



Loop Calibrator

Model: mAcal
Manufacturer: AMETEK
Quantity: 1



Bench grinder

Model: AGF-8000
 Manufacturer: All Win
 Quantity: 1

**Scales**

Model: 100 kg
 Manufacturer: Samsung Instrument
 Quantity: 4

**Impact wrench**

Model: 22-110 mm
 Manufacturer: K.D.Y / Smato / Pusan
 Quantity: 10 sets

**Protractor and protractor**

Model: 42 x 84 x 124 mm
 Manufacturer: Miracle Point
 Quantity: 10

**Combination key**

Model: 22-110 mm
 Manufacturer: INFAR
 Quantity: 10 sets

**Adjustable wrench**

Model: 300 mm, 375 mm, 600 mm
 Quantity: 55 sets



MECHANICAL

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Ratchet wrench

Model: 14*17; 17*19; 17*21; 19*21; 21*22; 24*27; 27*32; 30*32; 32*36; 36*41; 41*46; 46*50 mm
Manufacturer: KYD
Quantity: 5 sets



Perforator

Model: PHD-40
Manufacturer: KEYANG
Quantity: 5



Pneumatic Impact Wrench

Model: MI-3800P
Manufacturer: TOKU
Quantity: 4



Screw spiker

Manufacturer: BOSCH
Quantity: 15

Perforator

Model: GBH 11
Manufacturer: BOSCH
Quantity: 3



Bench vice

Model: 4"
Manufacturer: HWASHIN
Quantity: 1



PAINTING

Sandblasting machine

Model: For abrasive processing
Manufacturer: Graco
Quantity: 5



Painting machine

Model: Graco-70
Manufacturer: Graco
Quantity: 4



Painting machine

Model: Graco-50
Manufacturer: Graco
Quantity: 2



OTHER

Speaker

Model: 315 x 190 mm
Manufacturer: PA-335S
Quantity: 2



Auto level

Model: B20
Manufacturer: SOKKIA
Quantity: 6



Dial indicator

Model: na-2046S
Manufacturer: BLUEBIRD
Quantity: 35



OTHER

28

Magnetic mount

Model: MB-B
Manufacturer: BLUEBIRD
Quantity: 17



Ultrasonic thickness gauge

Model: BO-850
Manufacturer: BLUEBIRD
Quantity: 1



Micrometer

Model: NA103-050S
Manufacturer: BLUEBIRD
Quantity: 6



Automatic level

Manufacturer: Bosch
Quantity: 6

Precision plate

Model: HARDY
Manufacturer: BLUEBIRD
Quantity: 6



Theodolite

Model: DTC-110
Manufacturer: MYZOX
Quantity: 3



Gasket cutter

Model: 1"-28"
 Manufacturer: SALMARCON
 Quantity: 1

**Decibel meter**

Model: Testo 815
 Manufacturer: Chekman
 Quantity: 1

**Anemometer**

Model: Testo 410-1
 Manufacturer: Chekman
 Quantity: 1

**Non-contact infrared thermometer**

Model: 383-A
 Manufacturer: TPI EUROPE
 Quantity: 1

Non-contact voltage detector

Model: TK-8030
 Manufacturer: Chekman
 Quantity: 1

**Gas detector H2S**

Model: BW clip 2
 Manufacturer: Honeywell
 Quantity: 20



SCAFFOLDING

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Scaffolding

Model: 1,2,3 m
Manufacturer:
Quantity: 12000 m²



Scaffolding materials

Model: Fixed Clamp, Beam Connector, Rotary Coupling, Nut Coupling, Outer Driver, Inner Bushing



Scaffolding pipes

Model: 1,2,3,4,6 m
Quantity: 12000 m²



Scaffolding ladder

Model: 3,4,6 m
Quantity: 20 sets

Awning

Size: 10-100m²
Quantity: 34



Stair beam

Size: 3-6m
Quantity: 70



LIFTING

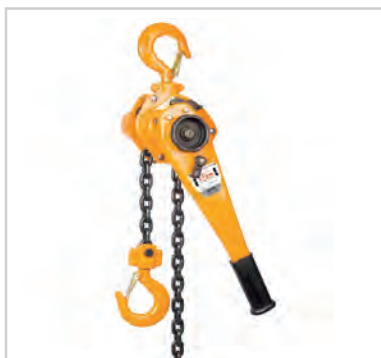
Chain winch

Model: CB-1/CB-1.5/CB-5/CB-10
 Manufacturer: MAX
 Quantity: 34



Hydraulic jack

Model: 50T-100T
 Manufacturer: UDT
 Quantity: 8



Lever winch

Model: LX-2
 Manufacturer: MAX
 Quantity: 16



Hydraulic pump

Model: UP-2A
 Manufacturer: UDT
 Quantity: 8

Three-phase rope winch

Model: CWG-30750, 2t/50m
 Manufacturer: CWG
 Quantity: 2



Rope winch

Model: 3t/20m
 Manufacturer: UD
 Quantity: 6







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RELIABILITY IN EVERY ACTION

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