

BIHORNS

Product Catalogue 2026

Reliable, Safe Ignition Solutions
for the Harshest Environments



ELECTRICAL & MECHANICAL CONTRACTING LTD.

- FIREBALL IGNITION SYSTEMS (FLAME FRONT GENERATORS)
- IGNITION SYSTEM CONTROL PANELS
- SOLAR-POWERED IGNITION SOLUTIONS

WHO WE ARE

BIHORNS COMBINES ROBUST IN-HOUSE DEVELOPMENT CAPABILITIES WITH VERSATILE PRODUCTION TECHNIQUES TO MANUFACTURE A COMPLETE RANGE OF IGNITION SYSTEMS FOR FLARE STACKS AND WELLHEAD BURNERS. WE SUPPLY FULLY INTEGRATED SYSTEMS AND INDIVIDUAL SPARES, INCLUDING IGNITION PILOTS, COILS, AND HIGH-TEMPERATURE CABLES.

AS A LEADING HIGH-TEMPERATURE IGNITION SYSTEMS MANUFACTURER IN THE MIDDLE EAST, OUR HIGH-QUALITY PRODUCTS ARE TRUSTED BY CUSTOMERS WORLDWIDE. OUR STRINGENT QUALITY-CONTROL PROCEDURES HAVE ESTABLISHED OUR REPUTATION AS A PREMIER PROVIDER OF AUTOMATIC AND RELIABLE IGNITION SOLUTIONS.

WE SPECIALIZE IN CUSTOMIZING OUR SYSTEMS TO MEET SPECIFIC CLIENT REQUIREMENTS.

OUR PRODUCT PORTFOLIO:

- MANUAL ELECTRICAL WELLHEAD BURNER IGNITION SYSTEMS (SINGLE AND MULTI-PILOT)
- MANUAL ELECTRICAL FLARE IGNITION SYSTEMS
- ADVANCED FLARE & WELLHEAD IGNITION SYSTEMS WITH SMART CONTROLLERS FOR CONTINUOUS MONITORING AND AUTO-IGNITING.
- FIREBALL IGNITION SYSTEMS (FLAME FRONT GENERATORS) IN ADVANCED AND MANUAL MODELS
- SOLAR-POWERED IGNITION SYSTEMS



Flare Ignition System

FLARE SYSTEMS IN REFINERIES, PETROCHEMICAL, AND STEEL PLANTS ARE ESSENTIAL FOR THE SAFE AND EFFICIENT DISPOSAL OF WASTE GASES. DESIGNED AND ENGINEERED FOR UNINTERRUPTED PERFORMANCE IN EXTREME CONDITIONS—DAY AND NIGHT OPERATION, THESE SYSTEMS MUST PERFORM RELIABLY FOR YEARS WITH MINIMAL MAINTENANCE. THIS MAKES PROPER DESIGN AND OPERATION EXTREMELY IMPORTANT.

WASTE GASES ARE TYPICALLY IGNITED BY DEDICATED, ALWAYS-ON PILOT BURNERS. A RELIABLE IGNITION SYSTEM IS PARAMOUNT; FAILURE CAN LEAD TO THE RELEASE OF UNBURNED HYDROCARBONS AND TOXIC GASES INTO THE ATMOSPHERE.

BIHORNS FLAME FRONT GENERATOR FEATURES

HIGH-ENERGY IGNITION: GUARANTEES RELIABLE IGNITION UNDER ALL CONDITIONS.

EXTENDED SERVICE LIFE: ENGINEERED FOR DURABILITY WITH LONGER MAINTENANCE INTERVALS.

ENVIRONMENTAL PROTECTION: RESISTANT TO MOISTURE, DIRT, AND HARSH CLIMATES.

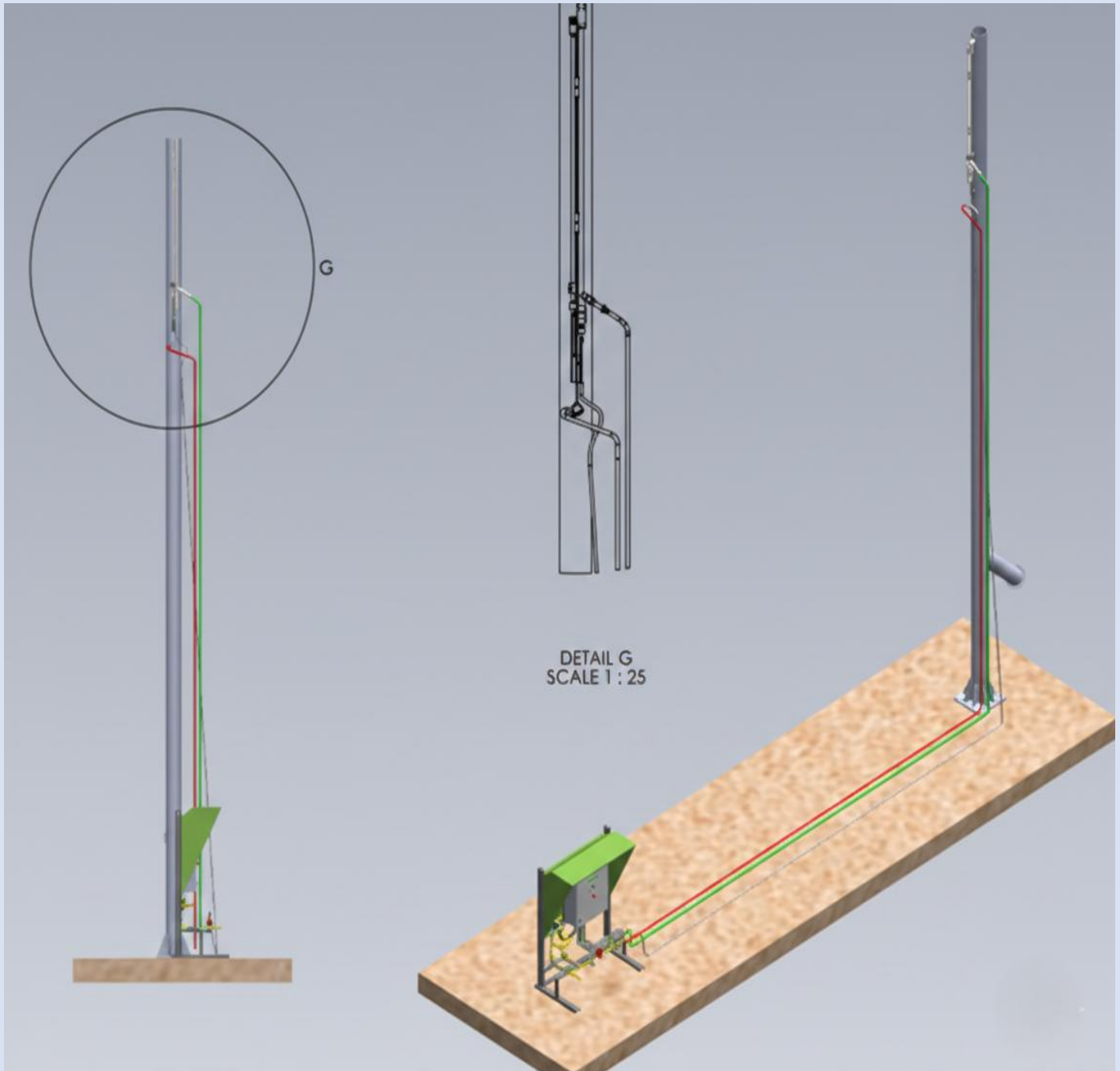
NATURALLY ASPIRATED, DESIGN: ELIMINATES THE NEED FOR AN EXTERNAL AIR SUPPLY.

CUSTOM TESTING: RIGOROUSLY TESTED TO MEET CLIENT SPECIFICATIONS.

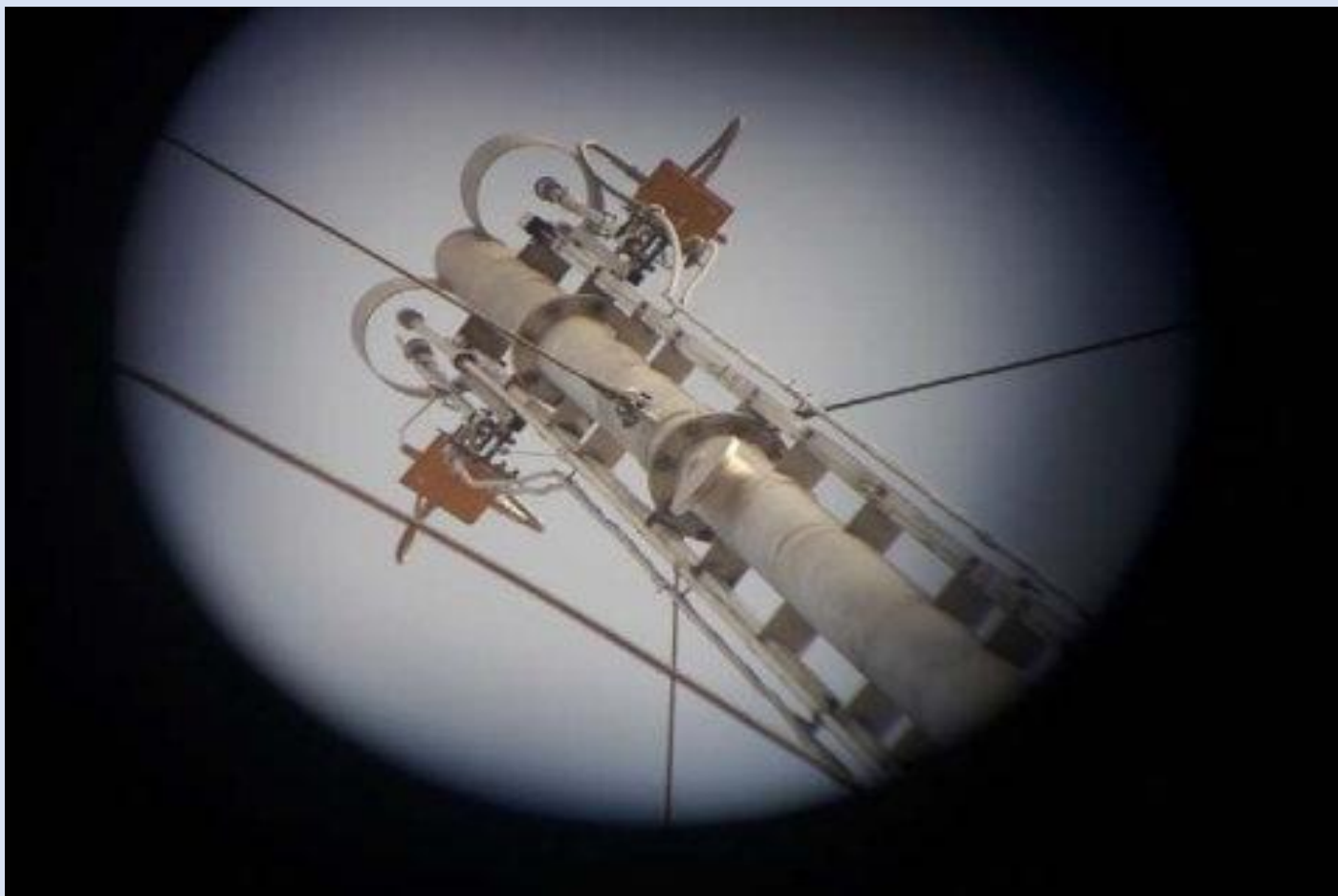
ROBUST CONSTRUCTION: FABRICATED ENTIRELY FROM HIGH-TEMPERATURE-RESISTANT STAINLESS STEEL (SS316).

BIHORNS PILOT IGNITION SYSTEMS

PILOT IGNITION SYSTEM IS THE HEART OF ANY FLARE SYSTEM. THEY ARE OFTEN INACCESSIBLE FOR SERVICE ONCE THE FLARE IS OPERATIONAL. BIHORNS PILOTS PROVIDE DEPENDABLE IGNITION THAT PERFORMS EVEN UNDER THE MOST EXTREME CLIMATIC CONDITIONS.







GENERAL SPECIFICATIONS:

| PARAMETER | SPECIFICATION |
|---------------------|---------------------|
| PILOT BODY DIAMETER | 1" |
| PILOT LENGTH RANGE | 447MM TO 2000MM |
| DESIGN | STRAIGHT OR ANGLED |
| MATERIAL | SS316 |
| MOUNTING HOOKS | STANDARD |
| AIR REQUIREMENT | NATURALLY ASPIRATED |
| SUPPLY GAS | PROPANE |
| GAS CONNECTION | 0.5" NPT |

Our Standard Models:

A. GAS-ELECTRICAL FLARE IGNITION PILOT

A STRAIGHT HEAD, PREMIXED, NATURALLY ASPIRATED PILOT BURNER WITH A SINGLE HIGH-ENERGY SPARK PLUG.

B. GAS-ELECTRICAL FLARE IGNITION PILOT

AN ANGLED HEAD, PREMIXED, NATURALLY ASPIRATED PILOT BURNER WITH A SINGLE HIGH-ENERGY SPARK PLUG.

C. GAS-ELECTRICAL WELLHEAD BURNER IGNITION

A STRAIGHT HEAD, PREMIXED, NATURALLY ASPIRATED PILOT BURNER DESIGNED FOR WELLHEAD APPLICATIONS, FEATURING ONE SPARK PLUG.

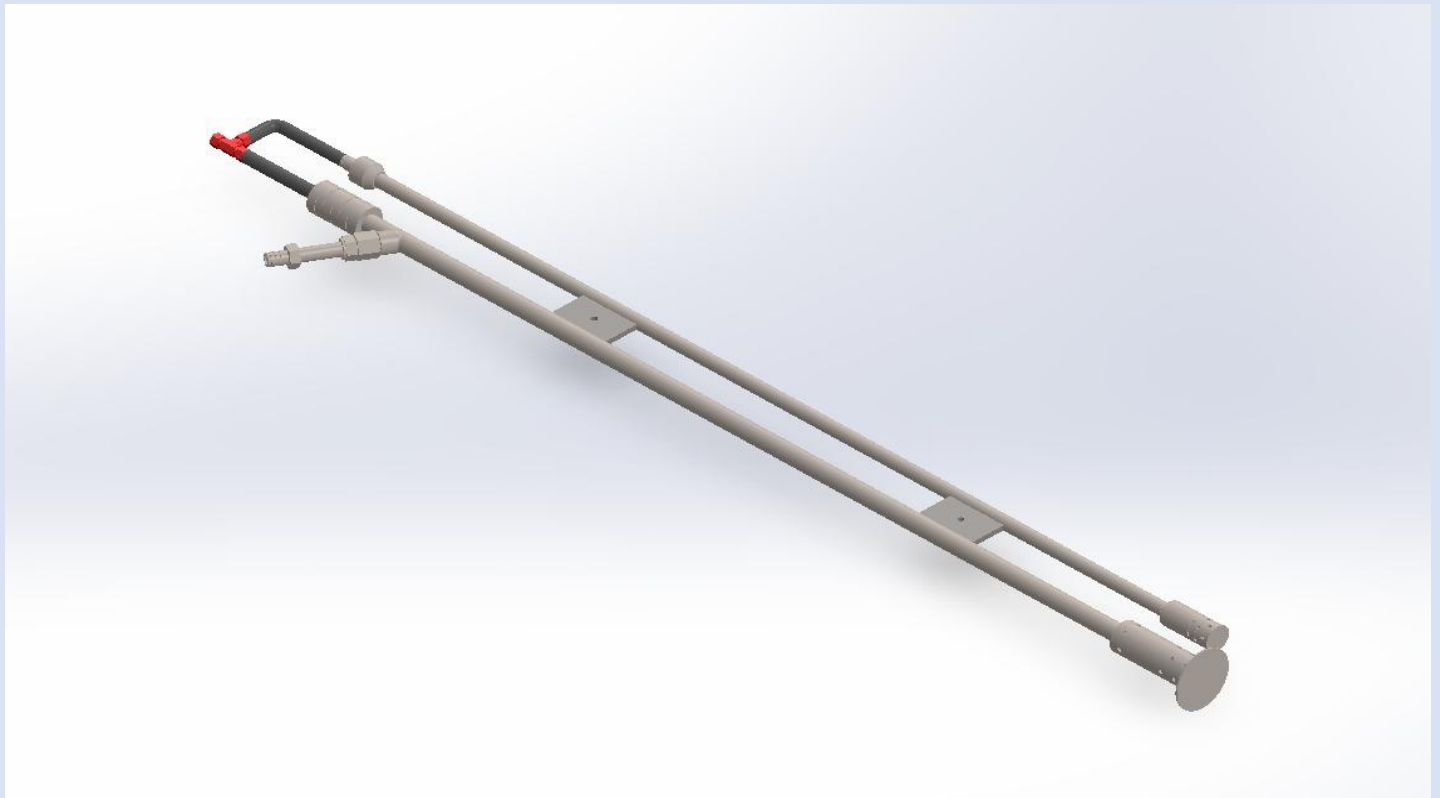
D. DEISEL WELL HEAD IGNITION PILOT

| MODEL NUMBER | DESCRIPTION | DESIGN | GAS FLOW (KG/H) | PRESSURE (PSI) | FUEL TYPE | AIR SUPPLY | MATERIALS |
|----------------|-----------------------|-------------------------------|-----------------|----------------|-----------|---------------------|-----------|
| BHLVASD2000C00 | DOUBLE PILOT IGNITION | VERTICAL, A, STRAIGHT, CLOSE | 1 | 5 - 10 | PROPANE | NATURALLY ASPIRATED | SS316 |
| BHLVBAS775000 | WELLHEAD SINGLE | HORIZONTAL, B, ANGLED, OPEN | 1 | 5 - 10 | PROPANE | NATURALLY ASPIRATED | SS316 |
| BHLHCSS475000 | WELLHEAD SINGLE PILOT | HORIZONTAL, C, STRAIGHT, OPEN | 1 | 5 - 10 | PROPANE | NATURALLY ASPIRATED | SS316 |
| BHDHDAS800000 | WELLHEAD DIESEL PILOT | HORIZONTAL, D, STRAIGHT, OPEN | -.- | -.- | DIESEL | NATURALLY ASPIRATED | SS316 |

Double Head Flare Ignition Pilot

BHLVASD2000C00

| | |
|---------------------------|---------------------|
| PILOT BODY DIAMETER | 1" |
| PILOT LENGTH | 2000 MM |
| DESIGN | STRAIGHT, SINGLE |
| MATERIAL | SS316 |
| MOUNTING HOOKS, DIRECTION | YES, VERTICAL |
| AIR REQUIREMENT | NATURALLY ASPIRATED |
| SUPPLY GAS | PROPANE |
| GAS CONNECTION | 3/8" NPT |



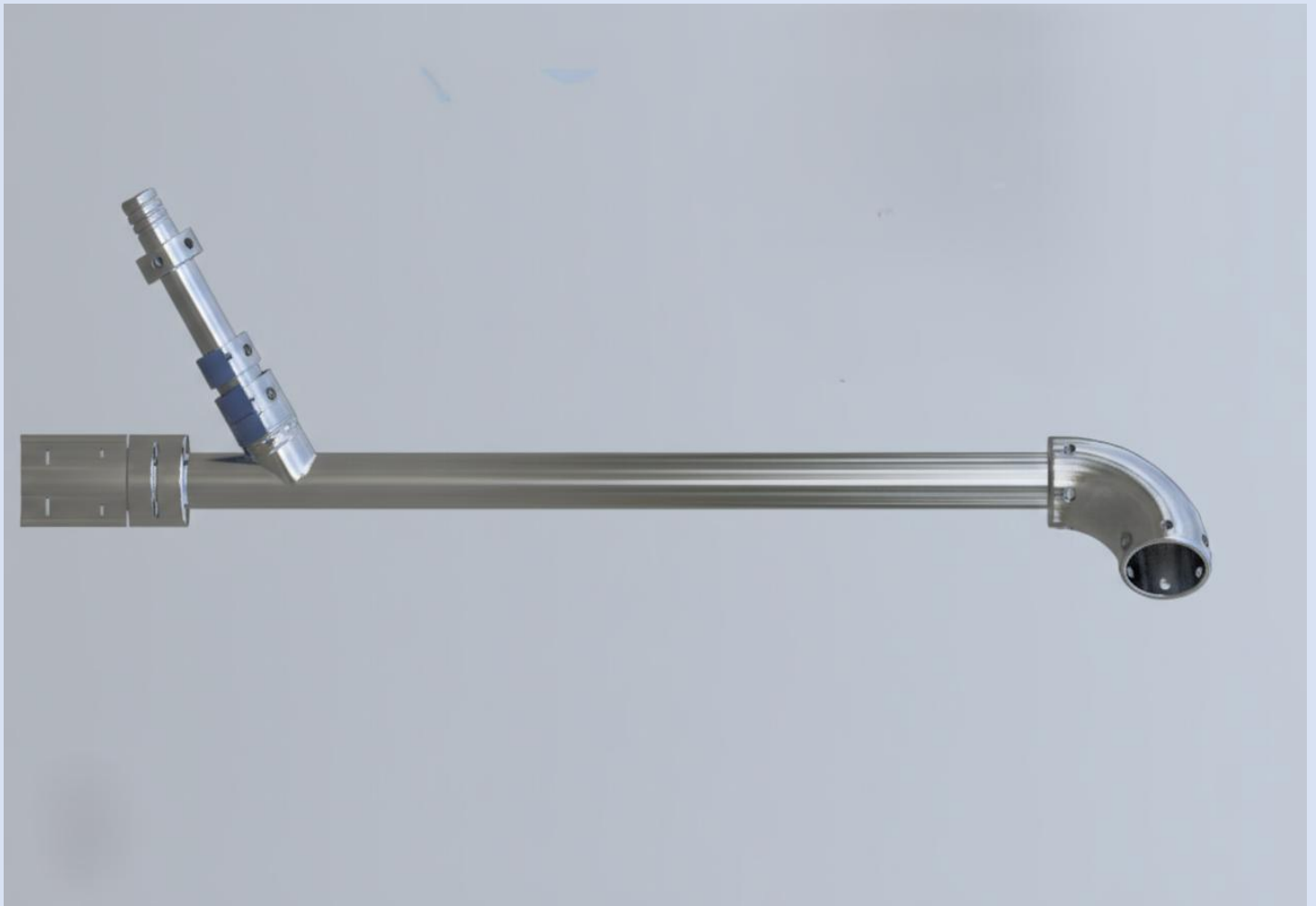
THE ULTIMATE IN RELIABILITY AND STABILITY

THE PILOT IS THE MOST CRITICAL COMPONENT OF ANY FLARE SYSTEM. IT MUST REMAIN CONTINUOUSLY LIT TO ENSURE WASTE GAS IS IGNITED INSTANTLY AND SAFELY UPON REACHING THE FLARE. A FAILED PILOT CAN LEAD TO DANGEROUS ACCUMULATIONS OF HEAVIER-THAN-AIR GASES AT GROUND LEVEL.

MODEL SPECIFICATIONS

BHLVBAS775000 (ANGLED FLARE PILOT):

| | |
|---------------------------|---------------------|
| PILOT BODY DIAMETER | 1" |
| PILOT LENGTH | 775 MM |
| DESIGN | ANGLE, SINGLE |
| MATERIAL | SS316 |
| MOUNTING HOOKS, DIRECTION | YES, VERTICAL |
| AIR REQUIREMENT | NATURALLY ASPIRATED |
| SUPPLY GAS | PROPANE |
| GAS CONNECTION | 0.5" NPT |



BHLHCSS475000 (Wellhead Ignition):

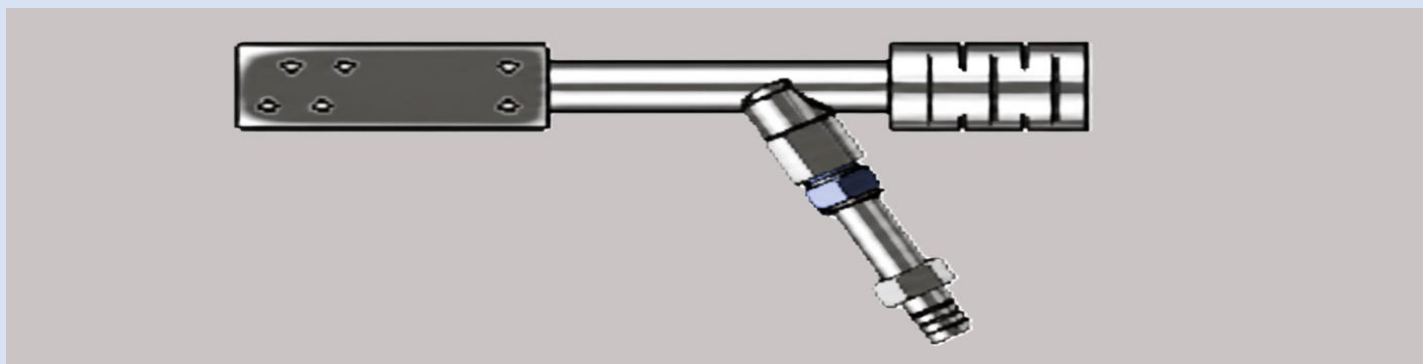
| | |
|---------------------------|---------------------|
| PILOT BODY DIAMETER | 1" |
| PILOT LENGTH | 475 MM |
| DESIGN | STRAIGHT, SINGLE |
| MATERIAL | SS316 |
| MOUNTING HOOKS, DIRECTION | YES, HORIZONTAL |
| AIR REQUIREMENT | NATURALLY ASPIRATED |
| SUPPLY GAS | PROPANE |
| GAS CONNECTION | Ø.5" NPT |



DIESEL WELLHEAD IGNITION SYSTEM

BHDHDAS800000

| | |
|-----------------|---------------------|
| PIPE DIAMETER | 1" |
| LENGTH | 800 MM |
| DESIGN | STRAIGHT, SINGLE |
| MATERIAL | SS316 |
| MOUNTING HOOKS | YES, HORIZONTAL |
| AIR REQUIREMENT | NATURALLY ASPIRATED |
| SUPPLY FUEL | DIESEL |
| FUEL CONNECTION | 1.5L |



FIREBALL IGNITION SYSTEM (FLAME FRONT GENERATOR)

THE PRINCIPLE OF FLAME FRONT GENERATION IS SIMPLE AND EFFECTIVE. FUEL GAS AND AIR ARE MIXED IN A FLAMMABLE RATIO AT AN ACCESSIBLE LOCATION NEAR THE BASE OF THE FLARE. THIS MIXTURE IS PIPED TO THE TOP OF THE FLARE VIA THE "FLAME FRONT LINE," WHERE IT IS IGNITED, CREATING A FIREBALL THAT LIGHTS THE MAIN GAS FLOW.

TYPICAL OPERATIONAL DISTANCES:

| | | | |
|---------|-------------|----------------------|------------------------------------|
| 1" LINE | GAS 10 PSIG | AIR 10 PSIG | 1500 FT NORMAL LIMIT |
| 1" LINE | GAS 25 PSIG | AIR 25 PSIG | CAN EXCEED 5000 FT (NOT PREFERRED) |
| 2" LINE | GAS 20 PSIG | NATURAL DRAFT AIR | 100 FT |
| 2" LINE | GAS 50 PSIG | NATURAL DRAFT AIR | 250 FT |
| 3" LINE | GAS 30 PSIG | NATURAL DRAFT AIR | 400 FT |

BH015GVD2WKB

| MODEL NUMBER | DESCRIPTION | DESIGN | PRESSURE | GAS TYPE | IGNITION | AIR REQUIREMENT | MATERIALS |
|--------------|-----------------------|----------|----------|----------|--------------|------------------|-----------|
| BH015GVD2WKB | FLAME FRONT GENERATOR | FIREBALL | 7 PSI | PROPANE | 1 SPARK PLUG | SELF-CONSUMPTION | SS316 |

| PARAMETER | SPECIFICATION |
|--------------------------|---------------|
| PIPE DIAMETER | 1" |
| MOUNTING HOOKS | YES |
| LENGTH | 200M |
| GAS SET PRESSURE | 7PSI |
| DESIGN | STRAIGHT |
| AIR SET PRESSURE | 35 PSI |
| IGNITION TIME | 15 SEC |
| SUPPLY GAS | PROPANE |
| FIREBALL GENERATION TIME | 30 SEC |
| MATERIALS | SS316 |

IGNITION SYSTEM CONTROL PANEL

THE CONTROL UNIT IS AS CRITICAL AS THE IGNITION HARDWARE ITSELF. BIHORNS OFFERS TWO ROBUST CONTROL PANEL DESIGNS ENGINEERED TO PERFORM RELIABLY UNDER THE MOST EXTREME CLIMATE CONDITIONS.

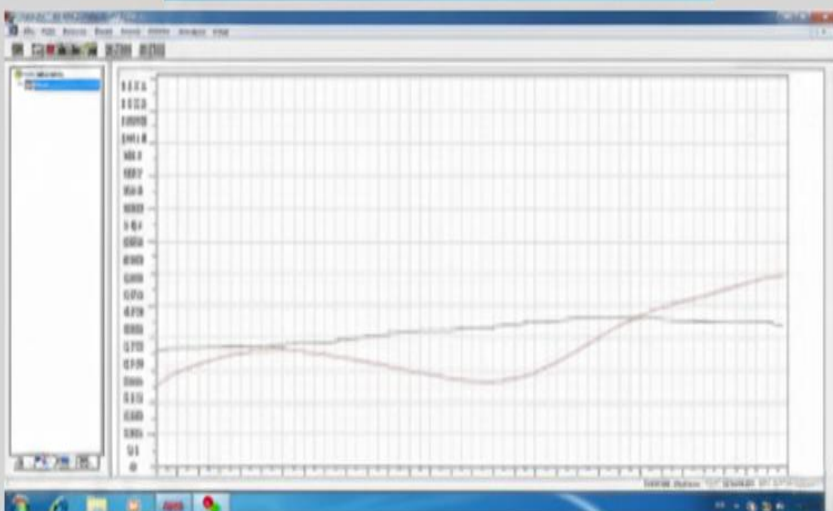
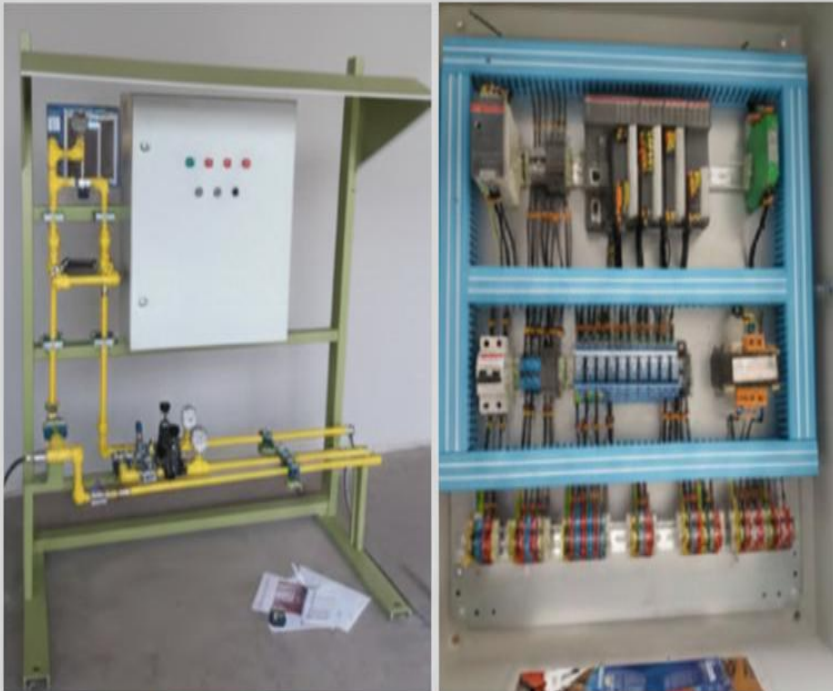
FEATURES AND BENEFITS:

HIGH-ENERGY IGNITION:
POWERFUL SPARK FOR
GUARANTEED IGNITION.

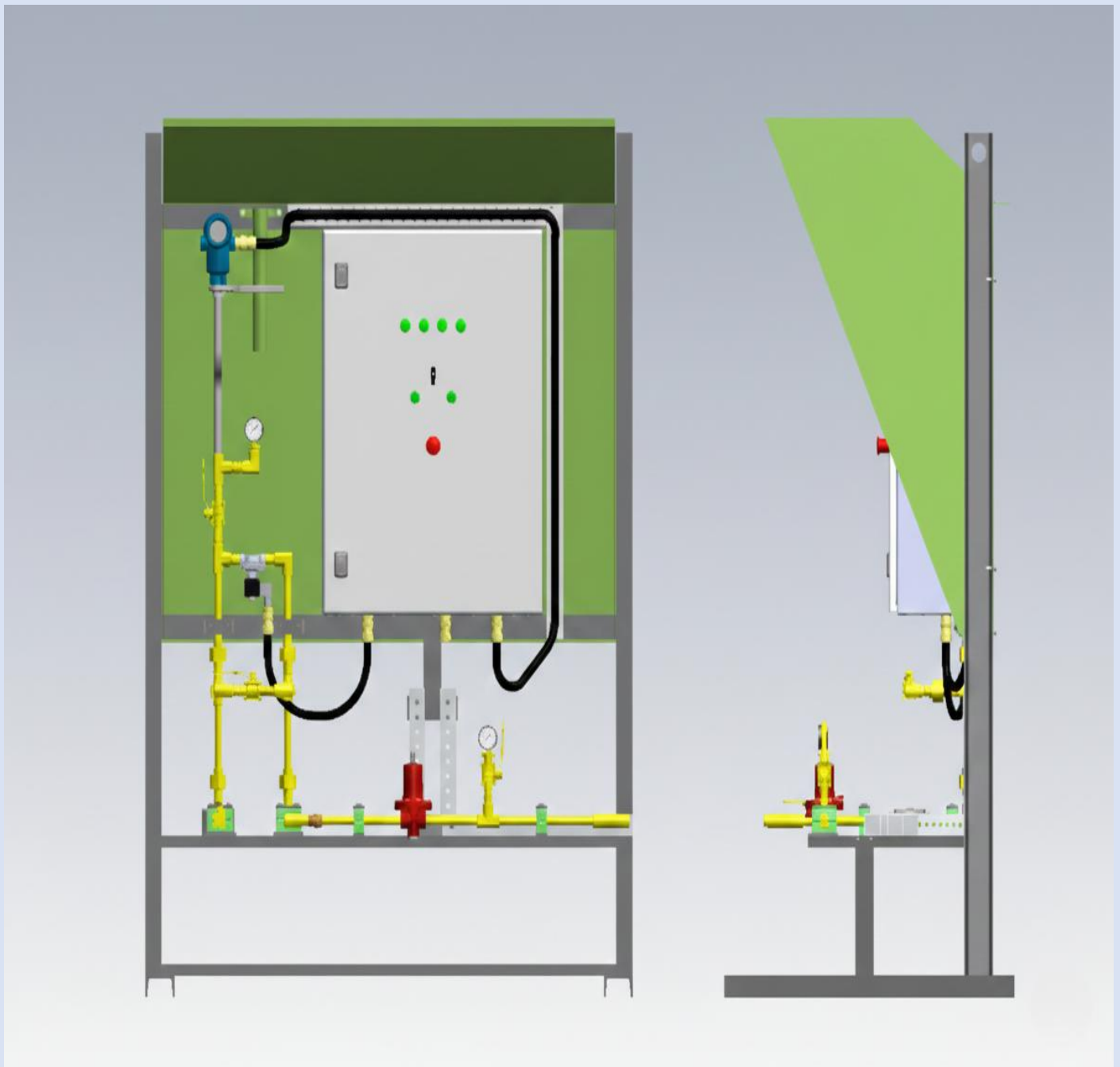
WIDE VOLTAGE INPUT
RANGE: COMPATIBLE WITH
VARIOUS POWER SUPPLY
VOLTAGES.

LOW POWER
CONSUMPTION: ENERGY-
EFFICIENT OPERATION.

UNLIMITED CABLE LENGTH:
NO RESTRICTIONS ON
CABLE LENGTH FOR
REMOTE FLARE IGNITION
UNITS.



CONTROL PANEL SPECIFICATIONS



AC POWER CONTROL UNIT

| FEATURE | STANDARD MODEL/ LOCAL OPERATED BHSACML | REMOTE OPERATED MODEL BHSACAR |
|--------------|---|--|
| FUNCTION | IGNITION, FLAME DETECTION, PUSH BUTTON | IGNITION, FLAME DETECTION, PUSH BUTTON |
| POWER SOURCE | MAINS (CITY CURRENT) | MAINS (CITY CURRENT) |
| POWER SUPPLY | 220 VAC | 220 VAC |
| IGNITION | NGK SPARK PLUG | NGK SPARK PLUG |
| CONTROL | PUSH BUTTON | REMOTE START (PLC) |
| ENCLOSURE | EX ENCLOSURE, IP65 | EX ENCLOSURE, IP65 |
| INDICATORS | LED STATUS AND FAULT LAMPS | LED STATUS AND FAULT LAMPS |
| SWITCHES | SELECTOR POWER ON, PUSH BUTTON | MAIN POWER ISOLATOR, START BUTTON |
| REMOTE RELAY | NO | PLC |
| FLAME RELAY | NO | PHOENIX |
| CABLING | SS FLEXIBLE HOSE, DOUBLE SHIELD | SS FLEXIBLE HOSE, DOUBLE SHIELD |

SOLAR-POWERED CONTROL UNIT

| FEATURE | STANDARD MODEL/ LOCAL OPERATED BHSDCML | REMOTE OPERATED MODEL BHSDCAR |
|--------------|---|---|
| FUNCTION | IGNITION, FLAME DETECTION, PUSH BUTTON | IGNITION, FLAME DETECTION, REMOTE START |
| POWER SUPPLY | 12-24VDC | 12-24 VDC |
| CONTROL | PUSH BUTTON | REMOTE START (PLC) |
| ENCLOSURE | EX ENCLOSURE, IP65 | EX ENCLOSURE, IP65 |
| INDICATORS | LED STATUS AND FAULT LAMPS | LED STATUS AND FAULT LAMPS |
| SWITCHES | SELECTOR POWER ON, PUSH BUTTON | MAIN POWER ISOLATOR, START BUTTON |
| REMOTE RELAY | NO | PLC |
| FLAME RELAY | NO | PHOENIX |
| CABLING | SS FLEXIBLE HOSE, DOUBLE SHIELD | SS FLEXIBLE HOSE, DOUBLE SHIELD |

Solar System Components

SOLAR CHARGE CONTROLLER SPECIFICATIONS:

| | |
|----------------------|-----------------------------------|
| MODEL | SCC-MPPT 600W |
| MPPT RANGE | 30V ~ 66V @ 24V / 15V ~ 33V @ 12V |
| MAX SOLAR VOC | 75V @ 24V / 50V @ 12V |
| MAX SOLAR POWER | 600W @ 24V / 300W @ 12V |
| MAX CHARGING CURRENT | 25 A |
| CHARGING METHOD | 3-STAGE (BULK, ABSORPTION, FLOAT) |

BATTERY SPECIFICATION:

| | |
|--------------------|--------------|
| RATED VOLTAGE | 12 V |
| CAPACITY | 150AH @ 10HR |
| MAX CHARGE CURRENT | 22.5A |
| OPERATING TEMP | -20°C ~ 50°C |

OUR CLIENTS



Weatherford[®]



Schlumberger

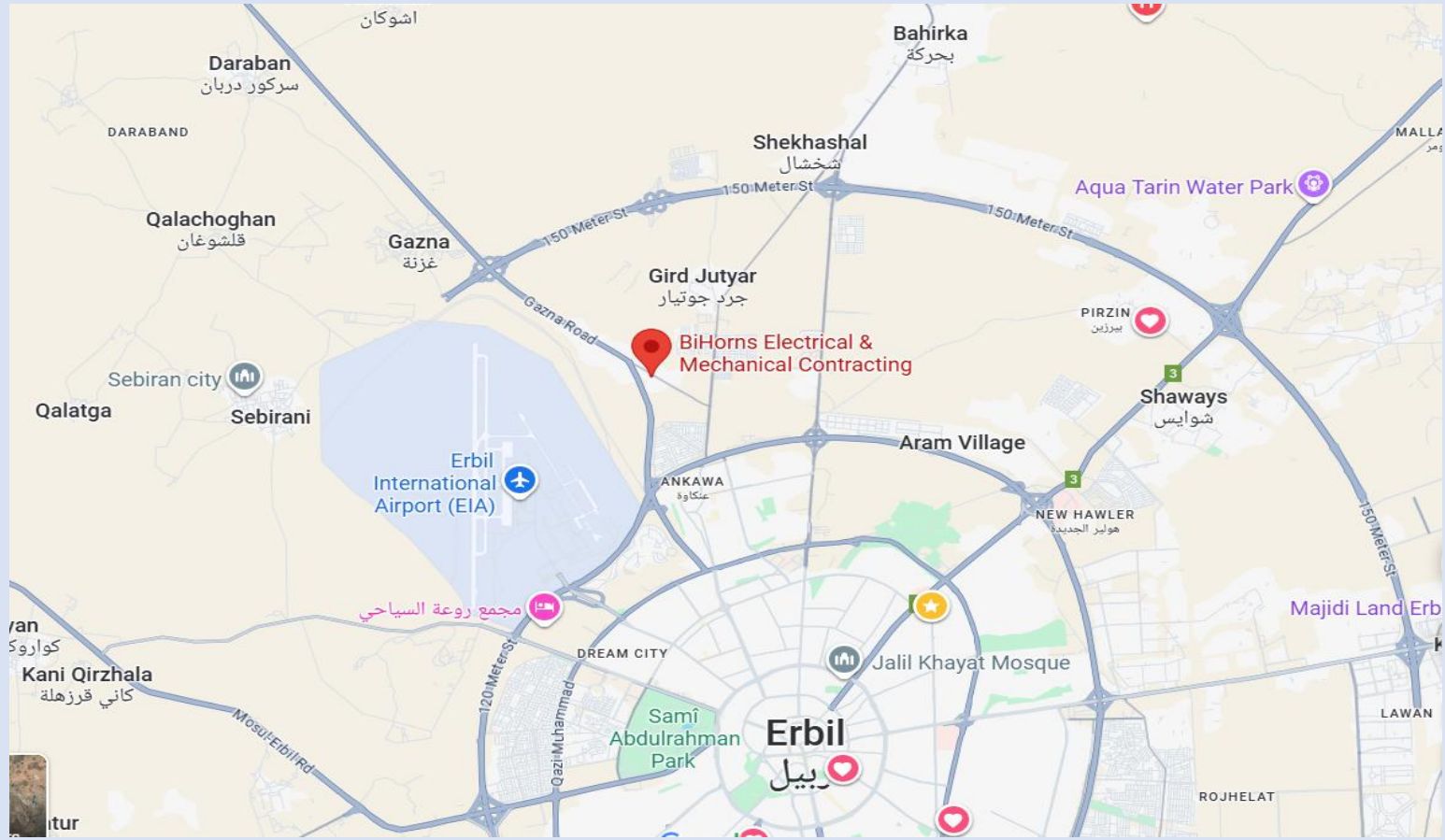
HALLIBURTON



OILSERV

OilTECH

TRUSTED BY IGNITION SYSTEM INDUSTRY SINCE 2017



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