



الافق للهندسة والخدمات الفنية ش.م.م  
Horizon Engineering & Technical Services L.L.C



A Trusted partner for **Green Field** and **Brown Field** Project support services in the Middle East.

HETS is a ISO 9001, ISO 45001 certified, multi disciplinary engineering & contracting company providing a range of services , especially focused in the Oil & Gas sector, Power generation, Large Industrial process plants, Industrial power Distribution, Balance of Plant (BOP) systems, and Project procurement services in the Gulf region. The company has been promoted by a team of experienced technocrats with a wide and global exposure to engineering and construction projects in 2011 .

#### Engineering & Administrative Office

PO:1095; PC:322,  
F#3, Uhi House, Bldg - 152  
Uhi Industrial Area - Suhar,  
Sultanate of Oman  
Ph: + 968 26948378 / 97122593

#### Fabrication Yard & Warehouse

Plot 235A, Al Uhi Industrial Area, Suhar.  
+968 95249465 / 95648686 / 96918019



info@hetsoman.com  
www.hetsoman.com

**Companies fabrication yard @ plot 235A, Uhi Ind Area, Sohar in an area of 2000 sqm.  
With Gantry crane of 5 ton capacity and Covered fabrication building – 800 sqm.**

The company owns a fleet of transport vehicles including 25 seater PDO certified passenger bus, pickups to support the project needs at various project sites including PDO sites.

The Division has qualified QA/QC personnel to oversee quality of the piping components and the site construction work is supported with “ Permit Holder” certified by PDO.



# PROJECTS DIVISION

## Engineering

Oil & Gas- Refinery & allied plants – Residual engineering  
Prebid engineering support  
As Built support

## Procurement

Mechanical equipment  
Instrument systems/ Pipe line instruments  
Piping systems , valves and accessories  
Control Systems- Hardware/ system upgrade  
Electrical systems components / spares

## Construction

Fabrication / Install. of structural elements  
Piping fabrication & installation  
Piping modification / upgrade in process plants  
Electrical & Instrumentation systems  
Testing & commissioning of electrical & instrument systems

## Maintenance

Upgradation of Elect, Mech & Inst. systems  
Static equipment maintenance services  
Flushing and cleaning of piping systems  
Rotary equipment / Gear Box overhaul

The Project Division of HETS is driven by a team of experienced engineers from a Consulting Engineering Background, hence are able to understand the projects / subsystems requirement as described in Front End Engineering & Design (FEED) documents and support the project in the complete range of services, in an EPC model. The division offers services both in Green Field and Brown Field Projects and have executed many projects in close coordination within operating process plants, namely Shell Oman, OQ, PDO power plant sites, Sohar Aluminium, Jindal Shadeed to name a few. The companies safe working approach is tuned with Shell's Global safety standards and is "Green Banded" to support Shell projects in the Middle East.

## Services

The division is well supported with qualified welders (6G certified), Experienced fitters/ technicians and supported with supervisors/ foreman. The division has an array of construction tools and tackles along with portable. Containerised lathe machine shop, containerised mechanical tools/ tackles to handle works at construction site/ maintenance project sites at remote desert locations and Emergency Shutdown Requirements. The projects division is supported with a well equipped fabrication yard for piping and structural components at plot 235A, Uhi Industrial area, Sohar.

# ELECTRICAL INSTALLATION & COMMISSIONING SERVICES



**Switchgear Installation**

**Cable Tray / Cable Installation**

**Outdoor cable laying upto 33kV**

**Electrical system pre commissioning**

**Switchgear Modification & R&M Works**

**Plant lighting installation**

**Safety grounding and earth pit reconditioning**

# INSTRUMENTATION INSTALLATION & COMMISSIONING SERVICES

- Pipe line instrumentation
- Tank gauging systems Process equipment installation,
- Process plants PLC integrator
- Site services for DCS/ ESD process companies for installations and commissioning supports
- Tank gauging instrumentation
- Fire and Gas instrumentation
- Flow Measurement skids
- Interfacing engineering/ implementation of various different Instrumentations systems with all communication protocols
- Process control and Safety systems



# MAINTENANCE SERVICES



**In situ Hydraulic oil / piping flushing services with HETS owned flushing skid**  
**Rotating equipment dismantling / installation, alignment checks.**

**Gear box overhauling**

**Piping component modification/ hydro test**

**Hot tapping works and piping tie in works**

**Electrical works modifications**

**Process instrument installation/ calibration**

**Static equipment overhaul services during planned turnaround/ shutdown**

**Heat exchanger tube cleaning/ filter element replacement**

**In situ equipment painting services**

**Insulation / cladding services**

**Scaffolding installation services**

**Power plant, Refinery equipment/ Exploration side skids mechanical, Electrical and instrumentation maintenance/ shutdown services**

**Hoses testing and periodic re certification**



## LUBRICATING OIL FLUSHING SERVICES TO NAS CLEANLINESS



**FLUSHING OF GAS TURBINE BEARING  
LUBE OIL SYSTEM AT PDO SITE**

## MAJOR HETS OWNED MACHINERY




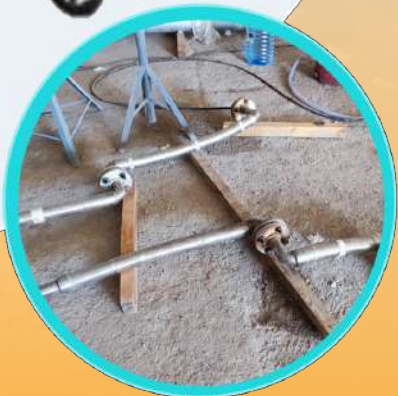
- a) Shot/ grit blasting and painting facility
- b) 15 ton capacity cable drum jacks- 3 sets
- c) Cable pulling Electric winch suitable for pulling cables from 12 tons cable drums.
- d) Air compressor/ electrode baking oven/ Arc / TIG machines
- e) Hydraulic tools ( jacks/ wrench), motorised pressure testing equipment
- f) Composite hose crimping machine upto 6" hoses
- g) Cup lock scaffolding components of 1800 cum for covering working area
- h) 40 feet containerised lathe / precision machining shop
- i) 20 feet containerised mechanical tools storage
- J) 40 KVA DG Set - 2Nos

## In Technical Collaboration with GASSO, Spain for Assembling Their Range of Composite, SS and Rubber Hoses

## for Assembling Their Range of Composite, SS and Rubber Hoses



Model	Size (in)	Material	Mounting
Competition Enduro	1.625"	Aluminum-Alloy, 6061 Aluminum (Steel: 4140, 4340, 52100, 52100H)	
Auto Enduro	1.625"	440C, 52100 (52100H, 52100H2)	
Auto Enduro	1.625"	Aluminum-Alloy, 6061 Aluminum (Steel: 4140, 4340, 52100, 52100H)	
Auto Enduro	1.625"	Aluminum-Alloy, 6061 Aluminum (Steel: 4140, 4340, 52100, 52100H)	

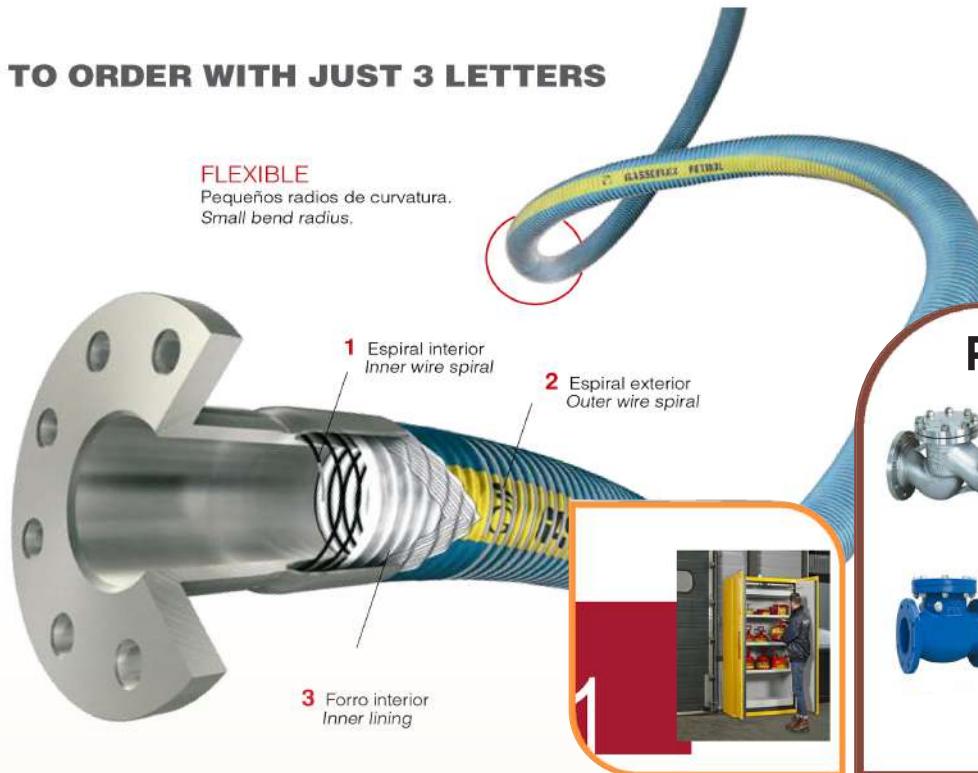


- **Hose Assembly**
- **Hose Hydro / Leak Test**
- **Hose Integrity and Recertification**

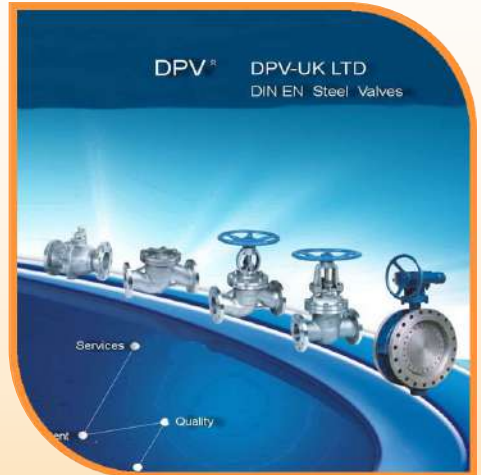
# PROJECT PROCUREMENT SERVICES

HETS is a registered procurement support company for various Industries and PDO Operating companies. We have an excellent data base and experienced engineers , who can source , Spare parts, Hard to find replacement parts, project related requirements of Mechanical, electrical, instrumentation and IT related hardware from around the globe. Besides HETS is also authorized distributors / channel partners for various principals and can source items with an extremely short turnaround time.

## EASY TO ORDER WITH JUST 3 LETTERS



## PECO VALVES



# TUFFTRAK

## Secondary Spill Containment

Secure deployment and no-worry, spill-readiness.



Steel Containment

- Modified PVC coated fabric
- Patented rigid-lock stainless-steel wall support
- Made in the Netherlands



Plastic Containment

- Seamless construction eliminates leaks
- Polyethylene & steel options
- Mobile steel spill pallet option



Flexible Containment

- Modified PVC coated fabric
- Patented rigid-lock stainless-steel wall support
- Made in the Netherlands



Make-A-Berm Kit

- Build your own custom containment
- Contains spills and leaks around unique equipment and situations
- Ideal for small to medium capacity containment needs

## Ground Protection & Temporary Road Mats

Top quality safety solutions for construction and events.



Heavy duty ground mats

- Heavy duty
- Connectors available for a secure trip-free solution
- HDPE
- Easy to maintain
- Will not rot, rust or crack



Medium duty ground mats

- Medium duty
- Connectors available for a secure trip-free solution
- HDPE or LDPE
- Easy to maintain
- Can be moved by two people
- Will not rot, rust or crack



Light duty ground mats

- Light duty
- Connectors available
- Overlap connector option available
- Can be moved by two people
- Will not rot, rust or crack



Outrigger Pads

- Combats noise pollution by absorbing and reflecting the sounds
- Foldable
- Weather resistant
- Will not rot, rust or crack

14 Start with the Essential

32 Start with the Essential

## Emergency Tank Showers

### 1500L Emergency Tank Showers

Essential in environments where tepid water, or a constant supply of water is unavailable. Suitable for use where insufficient water pressure exists or when it is impractical to use a plumbed in safety shower. Meets ANSI and European standards.

- Provides tepid water for over 15 minutes at a guaranteed flow of 76 litres per minute
- Outdoor immersion heated models prevent freezing in cold climates
- Jacketed and insulated indoor/out climate models maintain a steady temperature
- Intensity mounted eye/face wash unit

Model No.	Description	ESP Unit Size (mm)	Installed Dimensions (mm)
EXP-100-1500/1300	Immersion heated 1500 litre emergency tank shower with stainless steel frame (2000)	1478x1478x1478	1478x1478x1478
EXP-2-1500/1300	Jacketed and insulated 1500 litre emergency tank shower with stainless steel frame	1478x1478x1478	1478x1478x1478



Model No. EXP-100-1500/1300

### 350L Emergency Tank Showers

Essential in environments where tepid water, or a constant supply of water is unavailable. Suitable for use where insufficient water pressure exists.

- Instant activation by panic bar or optional foot panel
- Outdoor immersion heated models prevent freezing in cold climates
- Jacketed and insulated indoor/out climate models maintain a steady temperature
- Side mounted eye/face wash unit

Model No.	Description	ESP Unit Size (mm)	Installed Dimensions (mm)
EXP-100-350/250	Immersion heated 350 litre emergency tank shower with stainless steel frame (2000)	726x1026x250	726x1026x250
EXP-2-350/250	Jacketed and insulated 350 litre emergency tank shower with stainless steel frame	726x1026x250	726x1026x250



## Outdoor Safety & Storage Cabinets

Our safety storage cabinets offer top performance for outdoor flammable liquid storage and protection.



## Safety & Storage Cabinets

Our safety cabinets offer top performance for indoor flammable liquid storage and protection.



## Storage & Dispensing

Protect workers and reduce fire risks by transferring, storing and dispensing flammable liquids in our OSHA & FM-approved safety cans & containers.



Outdoor Storage Deposits for IBCs

- Hot galvanized steel metal
- Renewable galvanized grid with a high heat capacity
- Lockable door



Outdoor Storage Deposits for Drums

- Sheet steel construction
- Cover is supported by gas shock-absorbers
- Fitted with attention grille



Flat Pack Modular Containers

- Easy to assemble
- Suitable for limited access areas
- Supplied with screws and user manual
- Labels included



Gas Cylinder Storage

- Hinged doors with explosion protection safety lock
- Manufactured from steel
- Modular



EN Cabinets

- Extreme fire resistance up to 30 minutes
- Certified according to EN14720 norms
- Double or single door



EN Lithium-ion Cabinets

- Extreme fire resistance up to 30 minutes
- Certified according to EN14720 norms
- Double or single door



FM Cabinets

- Fire resistance up to 10 minutes
- FM approved
- Manual or self-close options



Acid Cabinets

- Suitable for more aggressive substances
- Polyethylene or vinyl



Galvanized Steel Cans

- Stainless steel frame
- Flame arrester
- FM approved
- Made in the EU



Stainless Steel Cans

- Stainless steel frame
- Flame arrester
- Resistant to tough acids
- FM approved



Poly Cans

- Ideal for use in laboratories
- FM approved
- Steel-wire polyethylene



Lab Cans

- Ideal for use in laboratories
- FM approved
- Steel-wire polyethylene



Plunger & Bench Cans

- Galvanized steel or polyethylene options
- FM approved
- Steel-wire polyethylene
- Will not rot, rust or crack

# CLEAN EARTH SOLUTIONS FOR ELECT. & ELV SYSTEMS

## SAFE EARTHING KIT



Save Life, Livestock & Equipments From Electrical Fires....



Physical Properties of Earth enhancing compound Earthcon:

Presentation	: Amorphous
Granulometry	: Powder to 0.8mm
Color	: Reddish Grey
Smell	: Inodorous
Solubility in water	: Partially miscible
pH value	: 6.9 – 7.2 of 1000gm/lit at 20°C

### Features:

- Corrosion free & Long Life
- Environment Friendly Certified by Karnataka State Pollution Control Board
- RoHS Compliant
- MSME Tested for Resistance Consistency
- Saves Electrical & Sensitive Electronic Equipments from Ground Faults

### Kit Contents:

1. Earthcon Regular 25Kg
2. Copper Bonded M.S. Electrode (17mm dia, 2.0 mtr long, 250 microns, molecularly bonded)
3. 'U' Bolt Clamp
4. HDPE Earthing Cover



## OUR OTHER EARTHING PRODUCTS

AUDIT, DESIGN, REFURBISHING AS PER IS/BS/IEEE STANDARDS

### MOBI EARTH

Mobi Earth is a respite to all mobile Electrical, Electronic & Communication equipments. It is a need for mobile equipments used in Defence, Space programs, Intelligence agencies. Mobi Earth provides quick & efficient earthing. Proper earthing ensures reference voltage (GND) for its functional needs. It is also the safe path to conduct VHF, Harmonics, Surges, Spikes, Unbalances, Short Circuit Current & other faults into the ground mass.

### Technical Parameters

Resistance in vertical setting	: 32.45% of soil resistivity
Resistance in horizontal setting	: 21.05% of soil resistivity
Unbalance withstand capability	: 6.28 A
Short term duty for 1 sec.	: 596.60 A

### Material

Body	: SS 304L
Central Conduction	: 250 µ Molecularly Bonded Copper Over Steel

### Infill Compound

Presentation	: In granular form
Granulometry	: 0.85 mm to 4 mm
Colour / Smell	: Grey / In-odorous
Volumetric Mass	: 500 to 650 Kg/m³ Compressed 450 to 500 Kg/m³ Uncompressed
Solubility in Water	: Partially miscible
pH Value	: 6.9 to 7.2 of 1000 gm/lit at 20° C
Approx. Number of operations	: 75 Times or 2 Years whichever is earlier



### COPPER BONDED EARTH RODS

SGI copper bonded earth rods are made from low carbon steel of Grade BS 970 or AISI 1018 with a high tensile strength of at least 600 N/mm². Low carbon steel core are molecularly bonded with 99% pure electrolytic copper 250 micron.



### Salient Features

- Perfectly bonded rod will last longer, drive easier & will not crack.
- Corrosion resistance while providing the lowest resistance to ground.
- Threads are rolled by 'roll threading process' that ensures an even copper covering is maintained, even at the root of the thread.
- Roll thread gives greater strength than the cut thread.
- Thread rolling process raises the surface of the rod.

### Standard size

14 mm dia, 1.2 mtr length
17 mm dia, 3 mtr & 2 mtr length
19 mm dia, 1.8 mtr length

### COPPER ALLOY CLAMPS



### HDPE EARTH PIT COVER

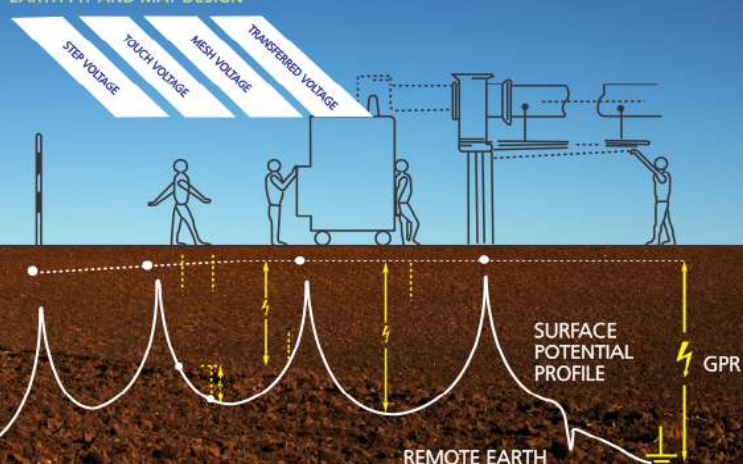


Earthing

# INTELLIGENTLY

# TEREC +

### EARTH PIT AND MAT DESIGN



As per IEEE 80 2000 clause 14.5 d



## TERRANITE - EARTH ENHANCING COMPOUND

TESTED AS PER IEC 62561-7

SAFE



EARTHING

## TERRANITE

### PHYSICAL PROPERTIES

Presentation	: Amorphous	Resistivity	: 0.91 Ωm	Colour	: Black	Smell	: Inodorous
Granulometry	: Powder to 0.8 mm	Soluble in Water	: Partially miscible	pH Value	: 8 – 9.774 of 10 Lit/Kg		

### FEATURES

- Highly conductive Earthing backfill Compound.
- Capable of reducing Soil Resistivity for Electrical requirements.
- Non- corrosive property improves the life of the Earthing System.
- Does not damage the electrode metal in any way.
- Performs in all weather conditions giving stable Earth Resistance values.
- Compatible with all types of Earthing electrodes, be it pipes, plates or rods of any metal.
- Can also be used in trenches made for horizontal type Earthing Systems.
- Increases the total Surface Area of the Earthing ensuring quick dissipation of fault currents.
- Maintains constant volume regardless of moisture content.
- Long shelf life; can be stored for very long periods without deterioration.
- Environment friendly; does not pollute or contaminate the water table.

Earthing **INTELLIGENTLY**

