



## iANARO-HP

Your Source for reliable Solutions

## HORIZONTAL DIRECTIONAL DRILLING

### SURVEY PRECISION

#### Gyro

|               |            |
|---------------|------------|
| Azimuth       | 0.04 deg * |
| Pitch         | 0.02 deg   |
| Toolface roll | 0.10 deg   |

#### 3D Magnetic (microcoil)

|                      |              |
|----------------------|--------------|
| Magnetic 3D-accuracy | 1 % of depth |
|----------------------|--------------|

### INCLUDED FEATURES

#### Pressure sensor

|                  |         |
|------------------|---------|
| Annular pressure | 100 bar |
|------------------|---------|

#### One wire PowerLine communication

|                   |               |
|-------------------|---------------|
| PowerLine voltage | 48 V          |
| Minimum length    | up to 3'000 m |
| Connection type   | wet connector |

### TECHNICAL SPECIFICATION iANARO-HP

| with BHA           |                       | without BHA   |
|--------------------|-----------------------|---------------|
| 195 mm (8")        | Outside diameter      | 148 mm (6")   |
| 3'500 mm           | Overall length        | 1'200 mm      |
| 6 5/8" API reg box | Uphole connection     | ---           |
| 6 5/8" API reg pin | Downhole connection   | ---           |
| 2'000 l/min        | Maximum mud flow rate | ---           |
| 100 bar            | Maximum pressure      | 100 bar       |
| -10 ... 71 °C      | Temperature (sensor)  | -10 ... 71 °C |
| ~500 kg            | Weight                | ~60 kg        |

\* Gyro compassing depends on the rotation rate of the earth and therefore depends on the local latitude. The achievable precision increases in direction of the equator and can be calculated by: accuracy = 0.04 deg / cos (latitude)



iANARO-HP

iANARO-mini

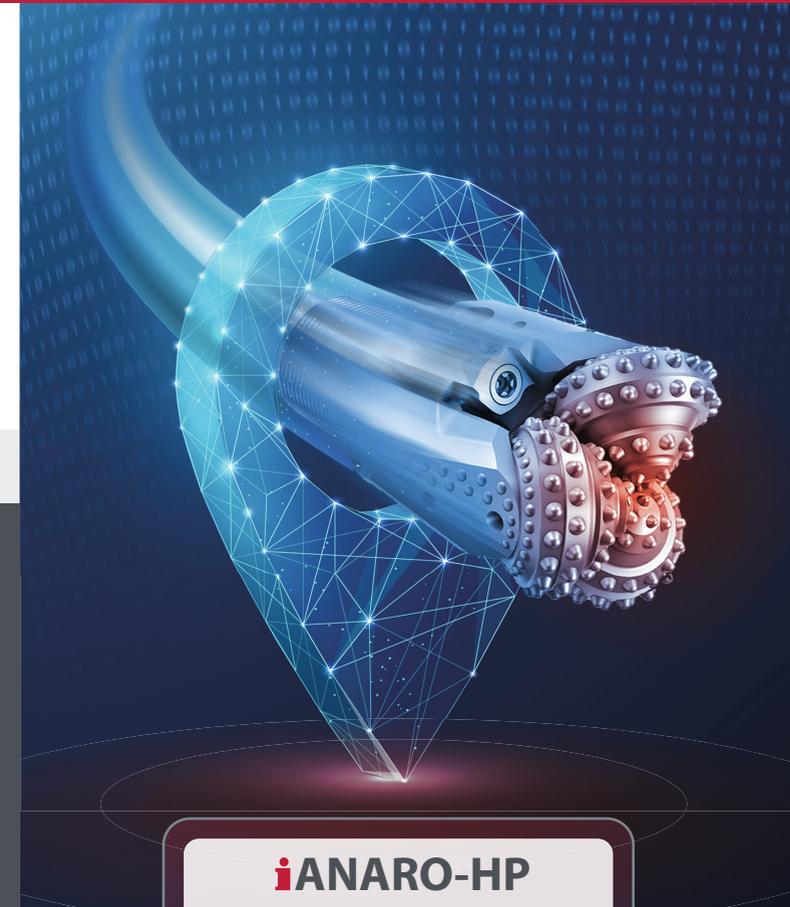
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Lon 7.159663° E • Lat 49.273880° N • Alt 311.9 m

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iANARO-HP

The most precise Gyro based  
HDD Steering Tool  
in its Class



## iANARO

## Complete system components

## TrueGyde

For more than **30 years** iMAR is a **leader** in developing most precise and robust inertial navigation systems. Since **more than 20 years**, iMAR manufactures the leading ultra precise tools for horizontal and vertical borehole surveying and drill head steering for directional drilling (HDD). **iANARO-HP is the latest generation** of a most robust gyro based drillhead steering tool, made of state of the art and robust technology. It uses a unique technology to provide precise information in order to determine the position and attitude of the drillhead in **realtime**.

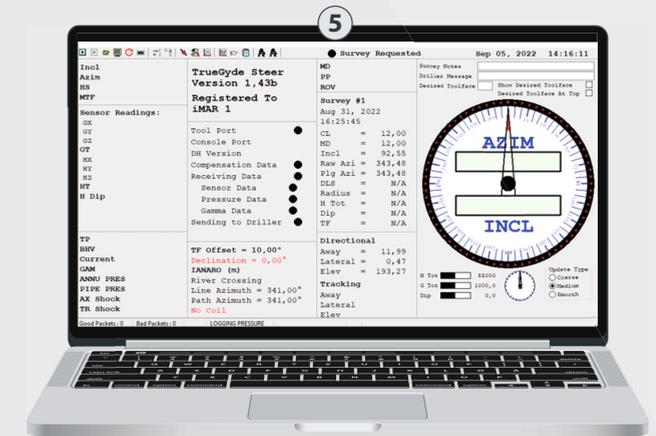
### CONTENTS OF iANARO SYSTEM

- ① iANARO GYRO steering tool (AMD)
- ② iANARO ground control box (ACB)
- ③ iANARO control software

### OPTIONAL:

- ④ 3D high precision magnetic sensor
- ⑤ TrueGyde software
- ⑥ Bottom Hole Assembly (BHA) with all parts mounted ready to drill

In combination with the **TrueGyde** steering software, **iANARO-HP** can be **used right away** for planning steering and documentation. TrueGyde Systems bore planning and navigation was developed more than 10 years ago in Canada in order to provide enhanced support for the latest generation of magnetic steering tools. The TrueGyde system has since become **a global leader in HDD** navigation systems. It is compatible with all the leading tools in the industry.



The system provides a **very accurate, true north** related heading and pitch information (azimuth and inclination), even under very harsh environmental conditions, up to **hard-rock drilling** and high rotation rates around the drill rod. Furthermore, it provides environmental and operational information, like temperature, pressure, battery and health status.

