

# XPULSE™

A DIVISION OF **EXTREME**  
ENGINEERING

## SURVEY ON CONNECTION™

Providing the best in Wellbore Monitoring Systems for jointed pipe and coil applications, **Survey On Connection™** tools require no manpower on location and utilize automatic presentation of data.

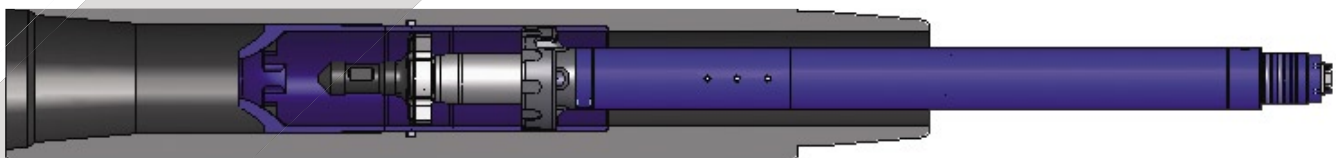
**LET XPULSE REDUCE YOUR SURVEY TIME AND OPERATING COSTS!**

### APPLICATIONS

- Placement of critical wellbores
- Monitoring vertical oil & gas wells where crossing a boundary is not an option
- Drilling to kick-off point before Directional Services are required & drilling ahead after Directional Services are released
- Monitoring doglegs to ensure that the logging tools & production casing can easily be deployed
- Control verticality of wellbore using Passive MWD™ Toolfacing



- ### FEATURES
- Stand Alone – no operator required other than initial set up
  - Efficient – surveys are stored automatically when making connections & transmitted to the surface during regular drilling operations reducing non-productive time
  - Accurate – precision Inclination & Azimuth information
  - Reliable – designed and constructed in-house using the most advanced engineering, design, & manufacturing processes
  - Integral – reduces non-circulating time while surveying in critical wellbores
  - Proven – reduces drilling time & operating costs

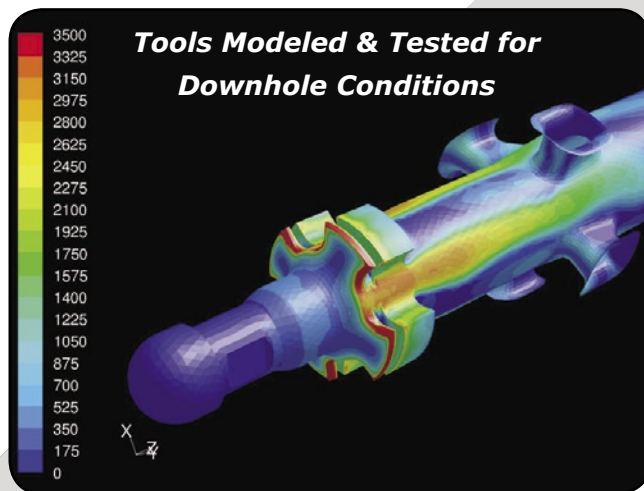


**EFFICIENT. ACCURATE. RELIABLE.**

### SPECIFICATIONS

SYSTEM SPECIFICATIONS	
TELEMETRY TYPE	ENCODED MUD PULSE
SURVEY PRESENTATION (SURFACE RECEIVER)	AUTOMATIC DECODE, COLOR TOUCH DISPLAY, WITS INTERFACE, MEMORY LOG OF ALL DATA
PROBE DIAMETER	1 3/4" DIAMETER (44 MM)
BHA SIZES AVAILABLE	4 3/4" (121 MM) 6 1/2" (165 MM) CALL FOR OTHER OPTIONS
OPERATING TEMPERATURE	302° F MAXIMUM (150° C)
OPERATING PRESSURE	20,000 PSI (138 MPA)
BATTERY TYPE	LITHIUM
BATTERY LIFE	1,200 TO 1,400 HOURS
PRESSURE DROP	40 PSI (276 KPA)

DIRECTIONAL SENSOR ACCURACY (0° TO 90°)	
INCLINATION	± 0.1°
AZIMUTH	± 1.0°
TOOLFACE	± 0.1°



Pulsar

Total Tool Length  
17.5 feet (5.25 meters)

Battery

Directional Module