

## **ER-PMINS Pipe Inertial Mapping System**

### **Introduction**

ER-PMINS Pipe Inertial Mapping System can measure the trajectory, coordinate of oil and gas pipeline, and do meter grade positioning , assisted pipeline safety assessment and damaged point positioning. With the advantages of a highly automatic, low power consumption, long term working and the centimeter grade measurement precision of pipeline deformation , the product has successfully applied in CNOOC, petro china pipeline detection engineering application.

### **Feature**

Long time high precision navigation technology (100h+);  
High precision correction technology in Mark spot;  
Spiral trajectory error compensation technology;  
Closed pipe "special situation" processing technology;  
Pipeline environmental adaptability technology;  
Accurate positioning in pipeline surveying and mapping.

### **Application**

Pipeline detection  
Pipe mapping inertial navigation system

### **Specifications**

Measurement range

Speed range	-50 m/s~50m/s
Pitch angle	$\pm 90^\circ$
Roll angle	$\pm 180^\circ$
Heading range	$0^\circ \sim 360^\circ$

### Measurement Precision

Height	$\pm 2\text{m} (1\sigma)$
Horizontal positioning accuracy (east,north)	$\pm 2\text{m} (1\sigma)$
Pitch angle (initial alignment)	$\pm 0.15^\circ$
Roll angle (initial alignment)	$\pm 0.15^\circ$
Heading angle (initial alignment)	$\pm 3^\circ$