

# JuraESP

## ESP Well Management & Intelligent Analysis System

Empower ESP wells with an intelligent brain

JuraESP is built on real-time well data, dynamic production data and well history, combined with AI algorithms, machine learning and digital twin technology, to realize intelligent management of ESP wells across the full lifecycle:

Data Collection → Evaluation & Diagnosis → Prediction Analysis → Optimization Decision

Driving oilfields from preventive maintenance to predictive & autonomous maintenance.



### ? Why Oilfields Need JuraESP?



#### Too many wells, too few people

A large number of real-time parameters make it difficult to rely on manual monitoring sustainably.



#### Too many alarms, hard to identify real issues

High false alarm rate of traditional threshold-based alarms, making complex conditions hard to detect early.



#### Adjustment relies on expert experience, difficult to act

Frequency and pressure adjustments depend heavily on experts, lacking a safe verification environment.



#### Long-term deviation from optimal zone, high cost

Equipment runs inefficiently for long periods, leading to energy waste and shortened service life.

### ? How JuraESP Works?



Real-time Production Data



Field-wide Automatic Inspection



AI Condition Recognition



Anomaly Trend Alert



Digital Twin Simulation



AI Optimization Recommendation



Effect Tracking & Evaluation

### ★ Key Features



#### AI-Powered Diagnosis

Automatically identify complex conditions and anomaly trends.



#### Digital Twin Simulation

Achieve zero-risk online simulation and optimization verification.



#### Predictive Maintenance

Reduce unplanned downtime and workover frequency.

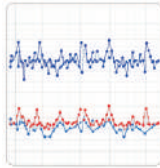
# Core Business Scenarios

## Real-time Diagnosis of Single Well

Through AI and multi-parameter fusion analysis:

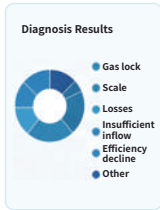
### Automatically Identify:

- Gas lock
- Scale
- Losses
- Insufficient inflow
- Efficiency decline



### Achieve:

- Second-level automatic inspection
- AI intelligent diagnosis
- Early anomaly warning
- Closed-loop diagnosis tracking

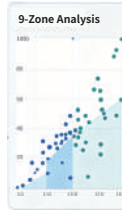


## Operation Optimization of Single Well

Based on digital twin and reinforcement learning:

### Achieve:

- AI automatic well screening
- Frequency/pressure adjustment recommendation
- Online simulation verification
- Automatic evaluation of optimization effect



### Help Oilfields Achieve:

- Increase production
- Reduce energy consumption
- Extend equipment life



## New ESP Well Design

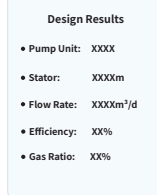
### Achieve:

- IPR curve analysis
- Multiphase flow dynamic calculation
- Intelligent unit selection
- Temperature/Pressure&GOR correction



### Help New Wells:

- High production
- Low energy consumption
- Stable operation



## Why JuraESP is Different?



### Not Traditional Monitoring

But AI-Powered Diagnosis



### Not Single-threshold Alarm

But Multi-parameter Fusion Analysis



### Not Real-world Trial & Error

But Digital Twin Simulation



### Not Manual Experience Adjustment

But AI Reinforcement Learning Optimization

## Product Value



### Average Production Increase per Well

5%-8%



### Total Energy Consumption Reduced

10%+



### Workover Cycle Extended

460 Days → 535 Days



### Well Screening Efficiency Improved

30 Days/times → 1 Day each time