
SMART
INDUSTRIAL
WATER SERVICE
We transform water operations into
measurable industrial performance.
Engineering • Operations • Optimization • Continuity
JHUESA
WATER TECHNOLOGY

WHEN WATER FAILS, PRODUCTION STOPS

THE TRUE VALUE OF A PLANT IS DEFINED BY ITS OPERATIONAL PERFORMANCE.

TODAY, INDUSTRY MUST ENSURE

- Production continuity
- Control of energy and chemical costs
- Consistent environmental compliance
- Sustained operational reliability

REAL PLANT RISKS

- Unplanned downtime
- Increased operating costs
- Process efficiency losses
- Environmental and regulatory risk
- Dependence on reactive intervention

A NEW OPERATING MODEL

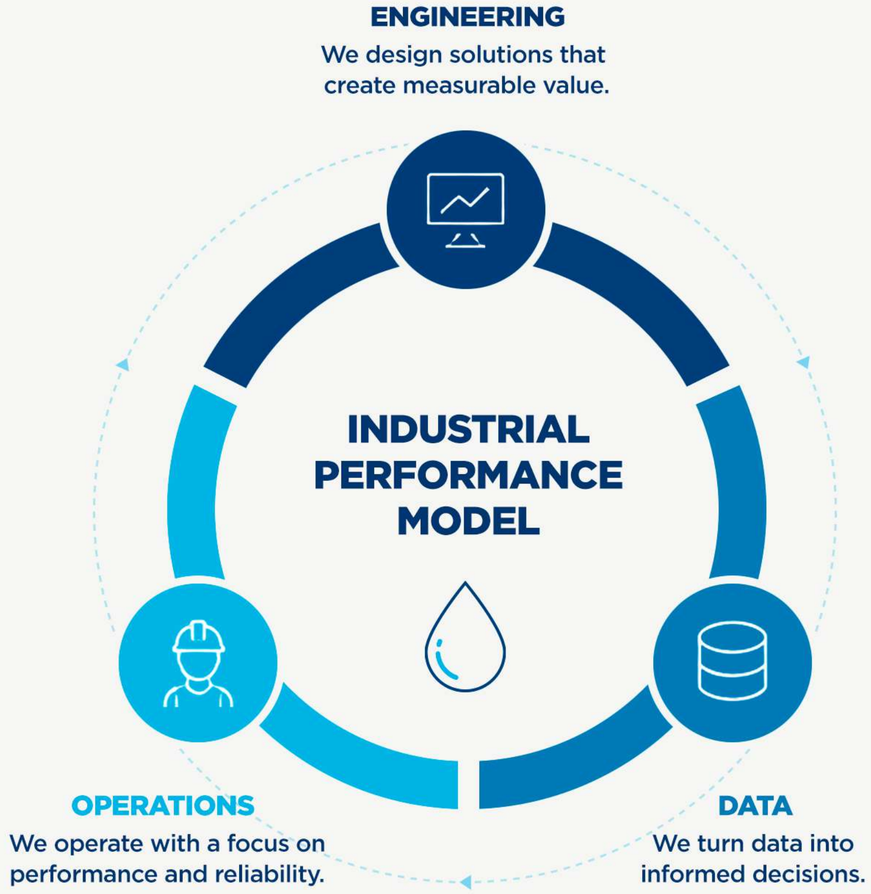
FROM MAINTAINING ASSETS TO MANAGING PERFORMANCE

Industrial water operations can **no longer be reactive.**

It requires a model capable of:

- **Anticipating** deviations
- **Controlling** performance in real time
- **Optimizing** energy consumption, chemical usage, and process performance
- **Reducing** ongoing operational risk

At **J. HUESA**, we integrate **engineering, operations, and data** into a single industrial performance model.



OPERATIONAL IMPACT:

- ↓ Operational risk
- ↓ Unplanned operating costs
- ↑ Plant availability
- ↑ Process stability
- ↑ Water and energy efficiency

SMART INDUSTRIAL SERVICE

A SINGLE MODEL TO MANAGE AND OPTIMIZE INDUSTRIAL WATER OPERATIONS

We integrate all the capabilities required to ensure optimum plant performance.

- ↓ Operational Risk
- ↓ OPEX
- ↑ Industrial Reliability
- ↑ Operational Availability
- ↑ Water Cycle Efficiency

TRADITIONAL MODEL VS THE J. HUESA MODEL

TRADITIONAL MODEL:

- Disconnected services
- Reactive incident management
- Limited performance visibility
- Delayed decision-making
- Hidden inefficiencies

Outcome:

Higher operational risk and increased structural costs

VS

J. HUESA MODEL:

- Integrated operations and process management
- Continuous monitoring and control
- Early detection and prevention of incidents
- Continuous performance optimization
- End-to-end plant visibility

Outcome:

A more stable, efficient, and predictable plant

- ↓ Unplanned downtime
- ↓ OPEX
- ↓ Critical incidents
- ↑ Availability
- ↑ Operational control

TECHNICAL AND OPERATIONAL CAPABILITY

FOR CRITICAL INDUSTRIAL ENVIRONMENTS

OPERATIONAL CAPABILITY

01 | **National and International Coverage**
Technical coordination and operational support capabilities for industrial facilities across multiple markets and regulatory environments.

02 | **55+ Years of Industrial Experience**
Extensive expertise applied to the design, operation, optimization, and continuous improvement of high-performance water treatment facilities.

03 | **Multidisciplinary Technical Ecosystem**
Engineering, automation, operations, chemistry, analytics, and digitalization integrated into a single operational model.

04 | **Performance - and Continuity-Oriented Support**
Continuous monitoring, technical response, and ongoing support capabilities for critical industrial facilities.

↓ Unplanned Downtime

↓ OPEX

↓ Critical Incidents

↑ Availability

↑ Operational Control

EXPERIENCE IN HIGH-DEMAND INDUSTRIAL PROCESSES

FOR CRITICAL OPERATING ENVIRONMENTS

Our cross-industry experience enables us to understand the production, regulatory, and operational requirements unique to each industrial environment.

- High technical complexity
- Cross-industry operational adaptability
- Critical industrial processes
- End-to-end coverage of the entire water cycle
- Specialized industrial expertise

Applications

Process Water · Drinking Water Treatment · Wastewater Treatment · Water Reuse · Boilers and Cooling Towers

Technologies

Membrane Technologies · Physico-Chemical and Biological Treatment Processes · Ion Exchange and Demineralization · Disinfection and Advanced Oxidation · Evaporation and ZLD

Sectors

Food & Beverage · Energy & Utilities · Chemicals . Pharmaceuticals . Battery Manufacturing · Metallurgy & Mining · Healthcare · Data Centers · Engineering & Infrastructure · Aerospace . Logistics

INTERNATIONAL CAPABILITY

FOR COMPLEX INDUSTRIAL OPERATIONS

Technical support and operational guidance for industrial facilities across different markets and regulatory environments.

- International Technical Coordination
- Remote Monitoring and Support
- Continuous Operational Support
- Technical Proximity and Operational Flexibility

Operating across 35+ countries worldwide

COMPREHENSIVE TECHNICAL AUDIT

We identify risks, deviations, and improvement opportunities before they impact production.

SCOPE

- Hydraulic and Process Review
- Electromechanical Review
- Automation Systems Review
- Critical Signals Assessment
- Electrical Consumption Analysis
- Chemical Consumption Analysis
- Critical Spare Parts Assessment
- Downtime Risk Identification
- Prioritized Improvement Plan

J. HUESA 360°

OPERATIONAL INTELLIGENCE FOR INDUSTRIAL WATER PERFORMANCE

COMMON CHALLENGES

- ✕ Lack of real-time data
- ✕ Lack of operational traceability
- ✕ Limited predictive maintenance capabilities
- ✕ Absence of integrated dashboards
- ✕ Information scattered across multiple systems
- ✕ Limited operational visibility and delayed response to incidents

SOLUTION

- **Continuous Monitoring and Supervision**
  Centralized control with real-time visualization of critical plant parameters.
- **Real-Time Operational KPIs.** Key performance indicators for monitoring efficiency, process stability, and operational performance.
- **Smart Alarms and Early Detection**
  Early identification of critical incidents and operational deviations.
- **Automated Reporting and Full Traceability**
  Generation of structured information to support analysis and decision-making.
- **Integrated Dashboards**
  A unified operational view enabling complete plant-wide control.
- **Advanced Analytics and Predictive Maintenance.** Data-driven optimization focused on efficiency, operational continuity, and downtime reduction.

ROBUST AND SECURE TECHNOLOGICAL INFRASTRUCTURE

- Scalable industrial architecture
- Secure communications
- Up-to-date cybersecurity
- Full integration with industrial automation systems
- A platform designed to support operational growth

OPERATIONAL IMPACT

- ↑ Operational availability
- ↓ Response time
- ↑ Energy efficiency
- ↑ Predictive capabilities

ATE
SPECIALIZED TECHNICAL SERVICES

Specialized technical support focused on anticipating incidents, optimizing plant performance, and ensuring reliable long-term operation.

Through scheduled site visits and continuous technical follow-up, we assess the plant's actual performance, identify deviations, and recommend improvement actions to maximize the reliability, efficiency, and availability of water treatment systems.

PLANT INSPECTION AND DIAGNOSTICS

Regular assessment of equipment, processes, and instrumentation to verify operating conditions and identify potential operational risks.

PROCESS MONITORING AND OPTIMIZATION

Analysis of operating parameters, optimization of operating conditions, and technical guidance aimed at maximizing plant performance.

TECHNICAL CONTROL AND ANALYTICAL MONITORING

Process data collection, analytical control, verification of measurement instruments, and continuous evaluation of plant performance.

SPECIALIZED ADVISORY SERVICES AND TRAINING

Technical support for plant personnel to improve facility operation and ensure the implementation of operational best practices.

- ↓ Operational Risk
- ↓ Unplanned Incidents
- ↑ Industrial Availability
- ↑ Process Stability
- ↑ Asset Service Life

FULL O&M
COMPREHENSIVE OPERATIONS & MAINTENANCE

Comprehensive management of industrial water treatment facilities focused on ensuring availability, operational stability, and maximum performance throughout the entire asset lifecycle.

We take full responsibility for plant operations and maintenance through a specialized technical model that integrates qualified personnel, planned maintenance, process control, and continuous improvement to maximize efficiency and minimize operational risk.

01 | SPECIALIZED PLANT OPERATIONS

Daily technical management of the facility to ensure operational continuity, process stability, and achievement of operational objectives.

02 | PREVENTIVE AND PREDICTIVE MAINTENANCE

Planning and execution of maintenance activities designed to anticipate failures, increase equipment reliability, and reduce unplanned downtime.

03 | PROCESS CONTROL AND TECHNICAL SUPPORT

Operational monitoring, analytical control, chemical treatment programs, and supervision of critical parameters to optimize plant performance and ensure operational excellence.

04 | CONTINUOUS IMPROVEMENT AND OPERATIONAL OPTIMIZATION

Identification of improvement opportunities, resource optimization, reduction of operating costs, and continuous enhancement of plant performance.

- ↓ OPERATING COSTS
- ↑ INDUSTRIAL AVAILABILITY
- ↑ PROCESS STABILITY
- ↑ WATER AND ENERGY EFFICIENCY

SPECIALIZED FIELD SERVICE SUPPORT

Specialized technical response for the rapid and safe recovery of industrial water treatment facilities affected by critical incidents or operational anomalies.

Our technical team provides expert intervention across electromechanical, hydraulic, electrical, and automation systems to minimize downtime, restore plant operation, and ensure production continuity.

01 | **INCIDENT DIAGNOSIS AND TROUBLESHOOTING**

Fault identification and root cause analysis to restore plant operability in the shortest possible time.

02 | **COMPONENT REPAIR AND REPLACEMENT**

Specialized interventions on equipment, instrumentation, electrical systems, and critical electromechanical components.

03 | **RESTORATION OF OPERATIONAL CONTINUITY**

Actions aimed at minimizing the production impact of incidents and restoring normal operating conditions.

04 | **IMPROVEMENT AND PREVENTION RECOMMENDATIONS**

Identification of optimization, re-engineering, and preventive maintenance opportunities to prevent the recurrence of future incidents.

↓ DOWNTIME

↓ PRODUCTION IMPACT

↓ RECURRENCE RISK

↓ RESPONSE TIME

APPLIED ENGINEERING, PMO AND RE-ENGINEERING

Continuous technical evolution focused on maximizing the performance, reliability, and efficiency of industrial water treatment facilities.

We transform improvement opportunities into real-world projects through a model that integrates engineering, in-house manufacturing, implementation, and commissioning, ensuring the continuous evolution of each facility in line with the operational needs of every client.

01 PERFORMANCE IMPROVEMENT & OPTIMIZATION PROJECTS (PMO)

Identification, definition, and execution of initiatives aimed at increasing the capacity, efficiency, reliability, and availability of existing facilities.

02 PROCESS RE-ENGINEERING AND OPTIMIZATION

Technical assessment of equipment, processes, and operating conditions to eliminate inefficiencies, reduce operating costs, and improve overall plant performance.

03 IN-HOUSE DESIGN AND MANUFACTURING OF CUSTOM EQUIPMENT

Design and manufacture of customized solutions tailored to the specific requirements of each facility, ensuring seamless integration with existing systems.

04 IMPLEMENTATION AND COMMISSIONING

End-to-end execution of upgrades, expansions, and modifications, ensuring an efficient transition from project definition through to operational start-up.

- ↓ OPEX
- ↓ ENERGY CONSUMPTION
- ↓ OPERATIONAL RISK
- ↑ TREATMENT CAPACITY
- ↑ WATER AND ENERGY EFFICIENCY

CRITICAL SPARE PARTS AND COMPONENT MANAGEMENT

We ensure the operational continuity of industrial water treatment facilities through the immediate availability of critical consumables, spare parts, and components.

01

CRITICAL CONSUMABLES

Membranes, resins, cartridges, and filter media to ensure continuous process performance.

02

SPARE PARTS AND COMPONENTS

Instrumentation, valves, probes, and electromechanical equipment tailored to each facility.

03

INVENTORY CONTROL AND OBSOLESCENCE MANAGEMENT

Critical inventory management, safety stock strategies, obsolescence monitoring, and equivalent replacement solutions with planned substitution programs.

04

OPERATIONAL AVAILABILITY

Reduction of downtime caused by material shortages and optimization of service continuity.

- ↓ UNPLANNED DOWNTIME
- ↓ OPERATIONAL RISK
- ↓ OBSOLESCENCE RISK
- ↑ SYSTEM RELIABILITY

CHEMICAL TREATMENT PROGRAMS AND ANALYTICAL CONTROL

Chemistry applied to the performance, efficiency, and protection of industrial water treatment facilities.

We design customized chemical treatment programs based on the actual operating conditions of each facility, optimizing process performance, reducing operating costs, and extending equipment service life.

01

WATER ANALYSIS AND CHARACTERIZATION

Analysis of feed water, process water, and discharge water characteristics to determine the actual chemical treatment requirements.

02

CUSTOMIZED CHEMICAL TREATMENT PROGRAMS

Design and supply of tailored treatment programs for process water, wastewater, boilers, cooling towers, and water reuse applications.

03

ANALYTICAL CONTROL AND TECHNICAL MONITORING

Periodic monitoring of critical parameters to verify treatment effectiveness and detect potential operational deviations.

04

CONSUMPTION AND PERFORMANCE OPTIMIZATION

Continuous optimization of chemical dosages and operating conditions to maximize technical, economic, and environmental efficiency.

- ↑ OPERATIONAL STABILITY
- ↓ UNPLANNED DOWNTIME
- ↑ EQUIPMENT SERVICE LIFE
- ↑ PERFORMANCE OPTIMIZATION

ADVANCED DIAGNOSTICS AND PERFORMANCE RECOVERY

Specialized technical analysis focused on identifying root causes, restoring performance, and maximizing the efficiency of industrial water treatment facilities.

Performance degradation, equipment fouling, and recurring incidents are often symptoms of underlying issues that require in-depth technical analysis.

01

MEMBRANE AND CARTRIDGE AUTOPSIES

Detailed analysis of membranes, resins, and filtration media to identify fouling, scaling, corrosion, or degradation mechanisms affecting plant performance.

02

CHEMICAL CLEANING AND CIP PROTOCOLS

Performance recovery of membranes, piping systems, tanks, boilers, and heat exchangers through specialized cleaning procedures tailored to each process.

03

TREATABILITY STUDIES AND TECHNICAL VALIDATION

Analytical testing and laboratory studies designed to determine the most effective treatment, optimization, and water reuse strategies.

04

DIAGNOSTICS AND IMPROVEMENT RECOMMENDATIONS

Root cause identification and definition of corrective actions aimed at increasing the overall reliability, availability, and efficiency of the facility.

- ↓ RECURRING INCIDENTS
- ↓ EQUIPMENT FOULING
- ↓ CORRECTIVE MAINTENANCE COSTS
- ↑ PROCESS EFFICIENCY

ENVIRONMENTAL MANAGEMENT
AND INDUSTRIAL WASTE MANAGEMENT

Regulatory compliance, traceability, and sustainability applied to the comprehensive management of industrial water systems.

At **J. HUESA**, we support our clients in the technical, administrative, and operational management of the environmental aspects associated with their water treatment facilities.

01

COMPREHENSIVE INDUSTRIAL WASTE MANAGEMENT

Coordination and management of waste generated during plant operations, ensuring full traceability, safety, and compliance with applicable regulations.

02

REGULATORY SUPPORT AND ENVIRONMENTAL CONSULTING

Technical support to facilitate compliance with legal requirements, environmental permits, inspections, and documentation obligations associated with industrial operations.

03

SPECIALIZED INDUSTRIAL CLEANING SERVICES

Planning and execution of specialized cleaning activities to ensure the proper condition of equipment, tanks, process lines, and auxiliary systems.

04

ENVIRONMENTAL OPTIMIZATION AND CONTINUOUS IMPROVEMENT PROGRAMS

Identification of opportunities to reduce resource consumption, minimize waste generation, improve environmental performance indicators, and advance towards a more efficient and sustainable water cycle management model.

↓ ENVIRONMENTAL RISK

↓ MANAGEMENT COSTS

↑ REGULATORY COMPLIANCE

↑ INDUSTRIAL SUSTAINABILITY

TECHNICAL TRAINING FOR OPERATORS

Technology only reaches its full potential when the people operating it have the right training and expertise.

For this reason, we develop training programs tailored to each facility, enhancing safety, efficiency, and operational autonomy.

01

PLANT OPERATIONS AND MANAGEMENT

Practical training for the safe and efficient operation of industrial processes.

02

MAINTENANCE AND OPERATIONAL BEST PRACTICES

Training focused on preventing incidents and improving equipment reliability.

03

WATER TREATMENT AND PROCESS CONTROL

Technical knowledge applied to critical operating parameters and process control.

04

SAFETY, REGULATORY COMPLIANCE, AND ENVIRONMENTAL MANAGEMENT

Continuous training on procedures, compliance requirements, and sustainability practices.

↓ OPERATIONAL ERRORS

↑ WORKFORCE AUTONOMY

↑ OPERATIONAL SAFETY

↑ PLANT PERFORMANCE

SMART INDUSTRIAL SERVICE

Engineering, operations, and operational intelligence applied to industrial water performance.

At **J. HUESA**, we integrate technical expertise, operational capability, and continuous improvement into a single service model designed to ensure the continuity, efficiency, and long-term evolution of industrial water treatment facilities.

YOUR TECHNOLOGY PARTNER FOR:

- **Anticipating risks and preventing downtime**
- **Optimizing plant performance**
- **Reducing operating and energy costs**
- **Ensuring compliance and sustainability**
- **Supporting the long-term evolution of your facilities**

Audits · Specialized Technical Services · Full O&M · Field Service Support · Performance Improvement & Optimization Projects (PMO) · Re-engineering · In-House Manufacturing · Chemical Treatment & Analytics · Remote Monitoring & Control · Environmental Management · Technical Training

+ 55 YEARS DRIVING INDUSTRIAL WATER PERFORMANCE

Engineering • Operations • Optimization • Continuity

Excellence, Drop by Drop

www.jhuesa.com jhuesa@jhuesa.com +34 955 600 808 Seville, Spain


Cofinanciado por
la Unión Europea


MINISTERIO
DE HACIENDA


Fondos Europeos


cámara
de Comercio de España