

The image features a stylized graphic on the left side, composed of several thick, flowing, curved shapes. The top portion is a vibrant blue, which transitions into a bright orange at the bottom. The shapes are layered and overlap, creating a sense of movement and fluidity, reminiscent of water or energy. The background is plain white.

**Let's Talk  
Utilities.**

# Optimal performance. Top-of-the line safety. Maximum plant production.

Poorly performing utilities can stop you from having all of the above. Plus, improper engineering of new systems causes budgeting for things you will never need—or worse, under-designing those safety measures you will need when trouble arises.

Hydrus Works specializes in the design, diagnosis, and commissioning of plant utilities, including

- fire protection
- cooling water
- instrument air
- steam
- safety shower systems.

No other company focuses solely on these crucial and often overlooked elements to production longevity and plant safety. We apply our years of experience to meet your specific challenges. Our licensed experts work closely with you using a performance-based approach to determine the best utility design for new engineering projects, or to perform comprehensive diagnostics on existing systems.



## Utilities Performance Quiz

Are you confident that your fire water systems are ready to perform when you need them?

Do you have to cut rates in the summer because your heat exchangers are overworked?

Do you have any units struggle with low steam flows or pressure?

Have you had any major additions to your facility since your utilities were designed?

Have you seen any accumulation of moisture in your instrument air systems?

## We prioritize utilities to make your facility run at its peak.

Hydrus Works formed after we noticed the lack of attention larger firms placed on infrastructure analysis and utilities design. In our experience, underperforming utilities are among the greatest contributors to production limitations at refineries and chemical plants.

## What set us apart gives you the advantage

The Hydrus Works mission is simple: we're here to help your plant run as smoothly, as safely, and as productively as possible. We deliver on this promise by providing services that include:

- **A cost-effective, performance-based approach**—rather than going by vague code specifications, we consider all variables to optimize performance.
- **Licensed engineers with 30+ years of experience**—our experts help certify the quality of every project.
- **Latest products and technology**—advanced hydraulics modeling and simulation enable us to deliver based on your unique operating conditions.



# Portfolio of Services for Your Unique Challenges

Meeting demand with complete EPC solutions for utilities.

Whatever the challenge, we deliver the best solution customized to your specific needs. Our comprehensive portfolio of services ensures your utilities perform their best for more productivity and safety at your facility.

## Utility Diagnosis & Optimization

- Cooling Water
- Instrument and Compressed Air
- Firewater
- Steam
- Hydrogen
- Nitrogen
- Process Lines
- Any Distribution Network

## Engineering & Design

- Front End Engineering and Design (FEED)
- Detailed Design
- Project Management
- Construction Management
- Commissioning and Startup

## Process Safety

- SIL Determination
- Failure Modes and Effects Analysis
- Quantitative Risk Analysis
- PSM and RMP Compliance Audit and Program Support
- ALARP Assessments
- Human Factors Analysis
- Facility Siting Analysis
- Layer of Protection Analysis (LOPA)
- Fire and Explosion Modeling
- Flame and Gas Detection Mapping
- Incident Investigation
- Process Hazard Analysis (PHA) Facilitation
- Offshore Safety Case Studies

## Fire Protection Engineering

- Hydraulic Modeling
- Surge Modeling
- Radiation Modeling
- Explosion Modeling
- Gas and Fire Detection Mapping
- Gas Dispersion Modeling
- Code Consulting
- Audits and Flow Surveys
- Hazard Identification
- System Design and Review
- Client Liaison and Negotiation
- Performance Based Designs

## Process Reliability

- Debottlenecking Distillation Columns and Units
- Improving Cooling in Summer Months or Bad Acting Exchangers
- Improving Instrument Air System Reliability to Avoid an Unnecessary Shutdown
- Improving Steam Distribution and Reducing Waste

## Risk Management & Loss Prevention

- Highly Protected Risks
- Fire Protection System Analysis
- Business Continuity Planning
- Disaster Preparedness and Recovery
- Windstorm Analysis
- Site and Product Assessments
- Loss Trending and Analysis
- Loss Reduction Strategies