HEURTEY PETROCHEM, ROMANIA

HEURTEY PETROCHEM ENHANCES ENGINEERING, DESIGN AND ANALYSIS ACCURACY WITH CADWORX® & ANALYSIS SOLUTIONS

A leading international engineering group engineers and designs process heaters for a gas-to-gasoline plant

IDENTIFYING GOALS

Founded in 1953, Heurtey Petrochem is an international oil & gas engineering group operating within two market segments: process furnaces for refining, petrochemicals and hydrogen production, and natural gas treatment.

Heurtey Petrochem was contracted to do the engineering, fabrication, inspection, testing, packaging, and shipment of seven process heaters for a new gas to gasoline plant in Akhat Velayat, Turkmenistan. The main goal of the project was to efficiently create up-to-date and factual P&IDs, design the heater coils and the external piping located on the heater as well as the design of piping skids.

Another key focus of the project was to showcase the benefits of using CADWorx® P&ID Professional together with CADWorx Plant Professional.

OVERCOMING CHALLENGES

As a long-term AutoCAD® user, Heurtey Petrochem was looking for a solution that would run in an AutoCAD environment, have flexible licensing options suitable for different project types, and have affordable pricing options. The company was also already familiar with the high quality of the Hexagon solutions, and recognized the value of having one solution provider for different engineering departments.
Hexagon PPM solutions were used throughout the project by the Heurtey Petrochem’s piping department. From creating P&IDs, 3D modeling, stress analysis, coils, and piping layouts to producing isometrics and extracting materials information, CADWorx & Analysis Solutions helped Heurtey Petrochem to improve efficiency and accuracy of engineering design and analysis work processes and deliverables.

REALIZING RESULTS

Heurtey Petrochem was able to start using the solutions almost immediately, as the easy and intuitive interfaces enabled engineers to learn while working.

In addition to creating P&IDs, the overall project scheme included 3D modeling, stress analysis and fabrication for the heater coils. Isometric diagrams, support modeling, and material procurement was also executed with Hexagon PPM solutions.

Additionally, the external piping for the heater and the skids were designed, analyzed, and procured using Hexagon solutions. Tie-in, line and valves list was obtained from CADWorx P&ID, while CADWorx Plant Professional was used for 3D modelling, and CAESAR II® for stress and support structure analysis.

During the project, eight project team members worked in CADWorx Plant Professional, while CADWorx P&ID and CAESAR II were used by one engineer each. The new system manages .DWG and .C2 files for tens of megabytes of data as well as tens of thousands of records in .mdb file format.

By using CADWorx & Analysis, Heurtey Petrochem was able to secure the following benefits:

- 50 percent cost savings (traditional 2D vs. 3D) for medium-sized projects
- Increased quality of work processes and documentation
- Improved efficiency by decreasing the time spent on non-engineering activities
- Ability to better track deadlines and budgets throughout the project

An example of how piping on skid will look in the gasoline plant. Created in CADWorx Plant Professional.

MOVING FORWARD

Currently, Heurtey Petrochem is using Hexagon PPM solutions in three different engineering projects, and is considering expanding the use of the solutions in the future. Remus Marinescu, lead piping engineer at Heurtey Petrochem Romania commented on their use of Hexagon PPM solutions: “The slogan ‘Shaping Smart Change’ perfectly describes the way the company helps to drive improvements in efficiency and engineering quality by providing smarter engineering solutions.”

ABOUT HEXAGON

Hexagon is a global leader in digital solutions that create Autonomous Connected Ecosystems (ACE). Our industry-specific solutions create smart digital realities that improve productivity and quality across manufacturing, infrastructure, safety and mobility applications.

Hexagon’s PPM division empowers its clients to transform unstructured information into a smart digital asset to visualize, build and manage structures and facilities of all complexities, ensuring safe and efficient operation throughout the entire lifecycle.

Hexagon (Nasdaq Stockholm: HEXA B) has approximately 20,000 employees in 50 countries and net sales of approximately 3.8bn EUR. Learn more at hexagon.com and follow us @HexagonAB.

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