HEXAGON
PPM

CASE STUDY

SCHWARTZ HAUTMONT, SPAIN

Key Facts

Company: Schwartz Hautmont

Website: www.shcm.es

Description: Schwartz Hautmont is a private Spanish corporation established in 1963 in Tarragona, Spain. The company offers a wide range of products and related services. Security, quality, reliability, on-time delivery and cost competitiveness have made Schwartz Hautmont an internationally leading company in its sector.

Industry: Pressure vessels, steel structures and modular construction

Country: Spain

Products Used:

- Intergraph Spoolgen®

Key Benefits:

- 40% lead time reduction in piping production
- 10% time reduction in piping production
- 30% less indirect staff required
- 60% time reduction in document management and quality control

SCHWARTZ HAUTMONT ENHANCES EFFICIENCY AND PRODUCTIVITY WITH HEXAGON PPM SOLUTIONS

IDENTIFYING GOALS

Schwartz Hautmont (SH), a leading company in steel construction was contracted to work on an Advanced Hydrocracker Project for one of the leading global oil and gas companies. Once ready, the unit will upgrade heavier hydrocarbon by-products into cleaner, higher value finished products. SH oversaw the delivery of the modular units to the refinery.

The scope of the project included prefabrication, erection and testing of all the mechanical, piping, equipment, steel structure, instrumentation and electrical work on the modules, that were later shipped from SH 's Tarragona facility to Rotterdam.

One of the key goals of the project was to deliver all the units on time, without any unfinished work to ensure that no extra labor would be needed on-site during the assembly. In addition, SH wanted to implement a paperless approach to document and information management for the spool and welding process with an advanced level of automation to provide real-time and error free documentation of good quality.

OVERCOMING CHALLENGES

Schwartz Hautmont wanted to digitalize the document management of the following disciplines during the project, including: steel structures, piping, material certificates, nondestructive testing (NDT) reports, coating and welding traceability, among others.

To do this, the company decided to interface Hexagon PPM's Intergraph Spoolgen® with its in-house SH Pipenet software. Spoolgen was chosen for the project because of its scalability for a larger project in a client server environment, the ability to customize the software based on Schwartz Hautmont's needs, and the compatibility with the client's 3D suite (another Hexagon PPM software, Intergraph Smart® 3D).

With Spoolgen, Schwartz Hautmont was able to retrieve all the piping data from the 3D models and integrate the information exchanged between the different disciplines and subcontractors into the same database. Spoolgen was used to import piping data and export it in a customized format that included all the information provided in the 3D models. With this information, SH could visualize the isometrics routing and welding location on its own 3D model and follow the progress in real-time. During the project, an improved execution strategy was implemented by importing all project data from Spoolgen into S.H.'s own software.

The enhanced functionality included:

- Having a real-time updated 3D model embedded within a simple web browser for all construction disciplines to view and access
- Erection strategy based on real data obtained from the 3D model
- Automated piping quality control on:
  - Weld maps (in combination with a barcode implementation)
  - Welding procedure selection
  - NDT assignment
  - Welders KPI
  - Welders induction plan
  - Tracers follow up (additional inspection in case of rejected welds)

Similar to S.H.'s management system, isometrics were linked to test packs and test packs were linked to turnover systems, enabling having a clear view of the project status at any time. Compared to the previously used manual approach, Schwartz Hautmont was able to dramatically improve efficiency and productivity.

After only three weeks of training, the employees were ready to use Spoolgen – SH_Pipenet combination that managed large amounts of data at once, including:

- 283,000 dia. metric inches
- 11,000+ isometrics with 3,000+ revisions
- Sharing all the data from different subcontractors and disciplines in one digital database allows us to coordinate work better"
- 10,000+ material certificates
- 22,000+ NDT reports for piping
- 6,100 delivery notes
- 1,000 + test packs
- 4,300+ material commodity codes

With the help of Spoolgen, Schwartz Hautmont was able to implement a paper free approach to documentation management and simplify the previously complex and time-consuming process by automating information exchange.

MOVING FORWARD

After four years, the combination of Spoolgen and SH_Pipenet continues to be used for all Schwartz Hautmont's modular projects as Spoolgen is capable of exporting data from different 3D solutions and from different clients.

Miguel Joglar, Corporate Engineering and IT .Manager Schwartz Hautmont, says: "We chose the combination of Spoolgen and SH_Pipenet to enable a real-time strategy for welding and construction while automating creation of most of the quality documents. With this integrated approach, we could avoid wasting resources and having disorganized pipe spools. All the fabricated elements automatically match a logical construction sequence enabling us to optimize the welding process and avoid idle time.

"Sharing all the data from different subcontractors and disciplines in one digital database allows us to coordinate work better, enabling us to:

- Reduce the lead time in piping production by 40%
- Reduce the time needed to produce the piping by 10%
- Reduce the amount of indirect staff required by 30%
- Spend 60% less time in managing documents and ensuring document quality"

ABOUT HEXAGON

Hexagon is a global leader in sensor, software and autonomous solutions. We are putting data to work to boost efficiency, productivity, and quality across industrial, 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