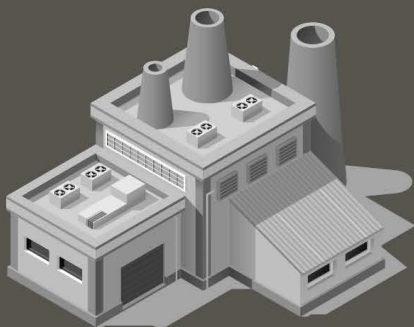
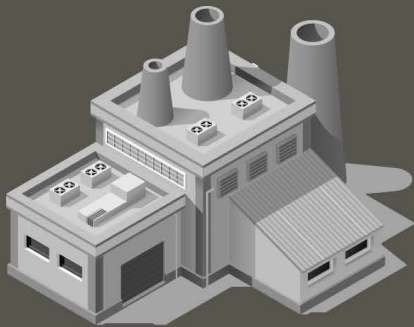
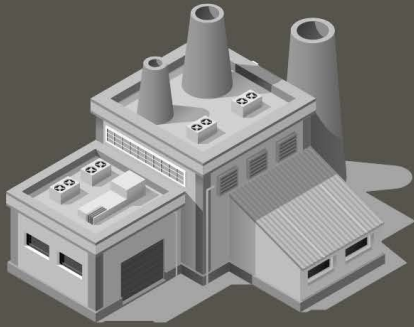


CASE STUDY

**SIEMENS
CHARLOTTE**

 **DEUFOL**

Deufol's Hub Concept Increases Value and Outsources Cost



FACTORY

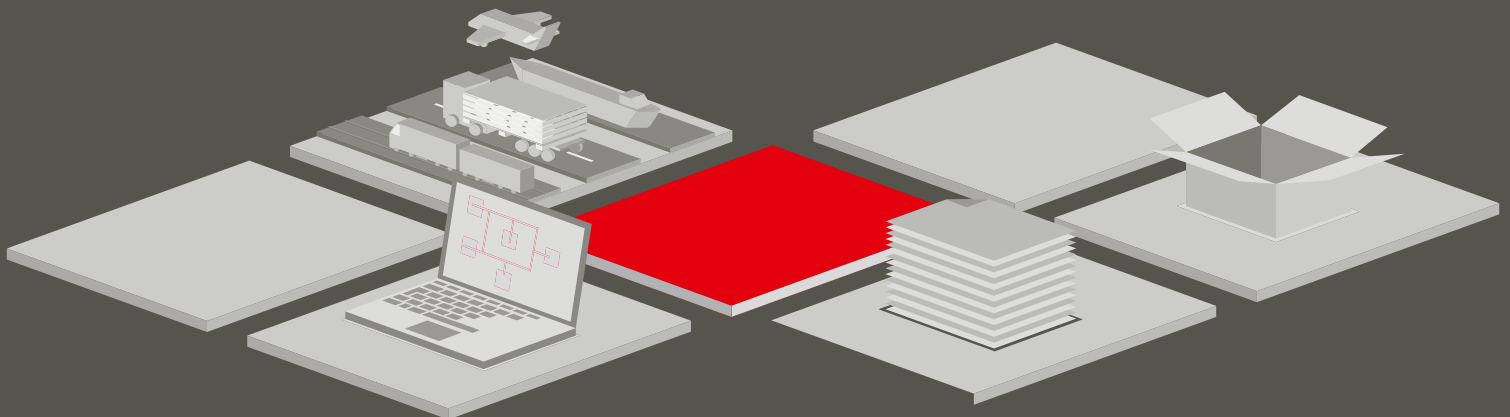
DEUFOL
BUSINESS
SOLUTION

RESULTS

SIEMENS CHARLOTTE

Siemens Energy, Inc. located in Charlotte, North Carolina is the largest gas turbine facility in the United States. It is one of Siemens' largest production plants in the world with more than 1 million square feet of space and 80-100 feet high manufacturing bays. Gas and steam turbines and generators are manufactured by more than 1,550 people 24 hours/day, 365 days/year in Charlotte. They range in size from 150 MW up to over 1,600 MW and are destined for both the United States market and export throughout the world.

Siemens has utilized Deufol's Export & Industrial Packaging expertise in 8 major operations across the globe beginning as far back as 25 years ago; including locations in Germany, Czech Republic and Austria. The primary support and services Deufol has provided include but are not limited to kitting, crating, warehousing, hazardous material handling, vendor and supply chain management all powered by custom IT solutions.

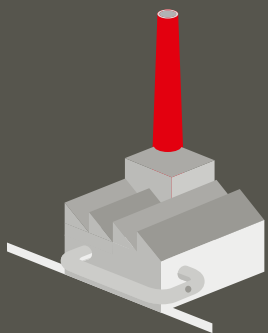


OPPORTUNITIES IDENTIFIED

Having several plants in North America, Siemens recognized some advantages to be had from consolidation and centralization of their manufacturing facilities. With the centralization decision made, the challenges of the process were significant and required a unique partner.

That partner would be required to receive, count and inventory manufacturing materials and supplies from multiple locations into one consolidated warehouse. The partner would need to maintain a high level of responsiveness providing delivery of materials and parts for daily production requirements. The partner would help Siemens avoid the burden for additional capital, human resources and special programming/technology necessary for the centralization. Finally, this partner would need to be competent in industrial, hazardous and export packaging for outbound power generation.

Siemens key objective was to avoid a resource drain in order to maintain their focus on their core competencies by addressing these needs.



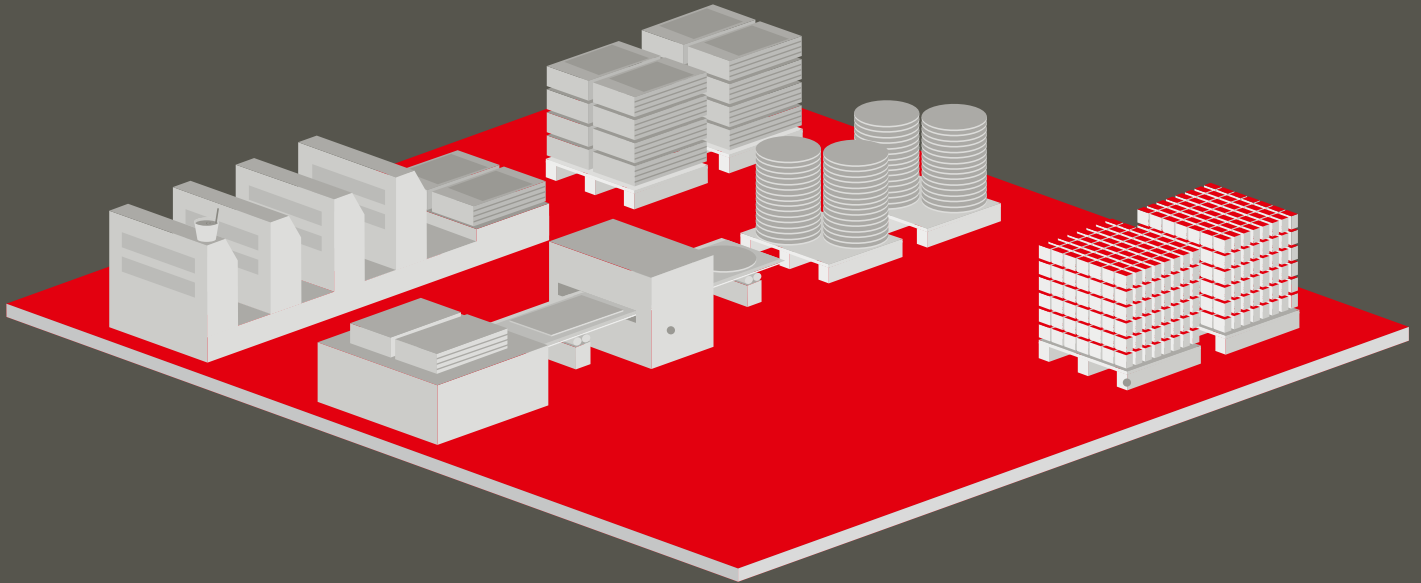
1. Logistics, coordination and reporting for the consolidation of manufacturing facilities and warehouses
2. Material delivery to meet daily production driven demand
3. Kitting by Work Breakdown Structure elements
4. Traceability and visibility of materials and production project status
5. Outbound packaging expertise and equipment
6. Reduction in warehousing and packaging capital

SOLUTIONS PROVIDED

In 2011, Deufol expanded the Export & Industrial Packaging services it has provided to Siemens for years in Europe to the United States with Deufol's facility located in Charlotte, North Carolina. Material that is used in the manufacturing of the steam and gas turbines and generators is received at Deufol's 155,000 square feet warehouse and delivered to pointofuse in the Siemens factory as requested.

Siemens benefits from this collocation with Deufol through:

	Requirement	Delivered
1	Logistics, coordination and reporting for the consolidation of manufacturing facilities and warehouses	Deufol coordinated the relocation, organization and consolidation of nearly all materials in 2011 for Siemens.
2	Material delivery to meet daily production driven demand	Deufol annually meets daily production delivery of on average 40,000 pieces.
3	Kitting by Work Breakdown Structure elements	Small parts kitted and provided on demand
4	Traceability and visibility of materials and production project status	Deufol has integrated with Siemens systems with 24/7 visibility
5	Outbound packaging expertise and equipment	Over 30,000 parts crated annually with zero damage loss claims
6	Reduction in warehousing and packaging capital	Deufol manages all facility, equipment and labor costs



Over the last 2 years, Siemens has worked directly with Deufol's Industrial Packaging facility, located less than 4 miles from the Siemens plant. In this time, Deufol's post-production crating and export packaging for Siemens has resulted in zero damage loss claims. Material kitting and delivery for Siemens fiscal year in 2013 from Deufol was over 37,000 pieces with over 2,100 of those requiring delivery within 4 hours. Siemens continues to utilize the quality, logistics handling and experience of Deufol in Charlotte for the industrial and export packaging needs of steam and gas turbines and generators.

ABOUT DEUFOL



The Deufol Group provides Export & Industrial Packaging, Automated Packaging, Data Packaging, Promotional & Display Packaging and services supplementary to the packaging process. It operates international branches in 77 locations in ten countries with more than 4,000 employees worldwide.

Deufol North America is made up of three manufacturing facilities, two in Sunman, Indiana and one in Charlotte, North Carolina. The Sunman facilities main focus is Automated Packaging, Data Packaging and Promotional & Display Packaging; which includes thermoforming, trapped blister and clamshell packages, all types of display construction and pack out, inventory management, and prepaid gift card production and packaging. The Charlotte facility's main focus is Export & Industrial Packaging; which includes kitting, crating, warehousing, hazardous material handling, vendor and supply chain management and IT solutions.

For more information, or to discuss your own industrial challenges, visit <http://info.deufol-us.com/industrial>

For answers to your most challenging packaging problems, subscribe to the Deufol Packaging Solutions blog at <http://blog.deufol-us.com/>