Interim management and organizational development for a special machine manufacturer

ORDER:
To establish a technology and service organization in the Asia-Pacific region.

DURATION/PLACE:
18 months/Germany, South Korea

INDUSTRY: SPECIAL MACHINES
Factory Ramp-up

JOB DESCRIPTION

For the manufacturer of flatbed plasma deposition lines, we established a technology and service organization in South-Korea to support their customers in the Asia-Pacific region. Our responsibilities in the process included setting up a branch office, building the local expert team, managing its costs and integrating it into the local structures. A dedicated customer and complaint management system was put in place to help them serve their customers more efficiently.

To ensure the smooth supply of critical spare parts in the Asia-Pacific region, an emergency storage facility was set up in the duty-free area of an international airport, easily accessible from both Germany and Korea. This reduced response time and downtime for the customers. Additionally, we provided them with lasting technical support by recruiting and training a team of local experts and engineers adept at rectifying on-site faults, thereby ensuring fast and effective service for their customers.

SERVICES OFFERED:

- Project leadership
- Recruitment and training of specialized team
- Logistic process development
- Establishment of a customer and complaint management system

RESULT

Successful establishment of a technology and service organization that was handed over to an internal successor at the end.

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Task force management in the field of spare parts logistics and field service

ORDER:
To lead a task force to reduce the error rate in the refurbishment kits delivered to the field for special machinery upgrade and repair

DURATION/PLACE:
14 months/
Netherlands, Germany, Taiwan

INDUSTRY: SPECIAL MACHINES
Taskforce Management

JOB DESCRIPTION

The international special machine manufacturer for Semiconductors faced challenges with faulty spare parts kits and incompatible upgrades that didn't align with the machine configurations in the field. The rapid technological advancements and frequent design changes added to the complexity, creating an urgent need to address these challenges and restore customer satisfaction, especially in the Asian market.

To address these issues, an interdisciplinary task force implemented an online version control system for hardware and software configurations, covering both in-house production and field equipment. By integrating a technical versioning system and a newly developed modular, sequential release concept, we successfully managed upgrades and minimized downtime for the critical plant components in the highly integrated production facility.

SERVICES OFFERED:

- Task force management
- Problem solving
- Technical change control / versions management

RESULT

Successfully reduced the error rate by 85% while simultaneously doubling the number of successfully executed upgrades.

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Project management: Commissioning of production lines

ORDER:
To Plan, install and commission turnkey plants for solar cells and module production

DURATION/PLACE:
26 months/
Spain, South Korea, Germany

INDUSTRY: SPECIAL MACHINES
Project Management,
Factory Ramp-up

JOB DESCRIPTION

The customer wanted to set up semiconductor production lines for solar modules based on polycrystalline silicon wafers.
Starting with an investment plan and performance specifications based on an existing manufacturing process, we designed the production lines for solar modules. The necessary machinery was developed, built, and approved in close collaboration with the customer.

Production facilities, including the chemical plant and logistics centers, were set up and the production processes were established and qualified on site. Teams were assembled to undertake tasks such as assembly, commissioning and process installation. With the training and orientation of the factory employees, a multi-shift operation was introduced, to maintain high efficiency in the production facility.

In accordance with the customer's performance specifications, the products were qualified, and the production lines were accepted and handed over to the customer.

SERVICES OFFERED:

- Programm & Project management
- Planning, construction and commissioning of a production line
- Orientation and training of employees

RESULT

Successfully planned, designed, and commissioned the production line. Completed all acceptance tests before handing it over to the customer.

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Project management in the field of Semiconductor-Special Machine Construction

ORDER:
Project management for the prototype development of an innovative light source for the production of sub-20nm semi-conductor structures

DURATION/PLACE:
24 months/Netherlands, USA

INDUSTRY: SPECIAL MACHINES
Project Management,

JOB DESCRIPTION

The mechanical main carrier for the novel light source in lithographic exposure systems for semiconductor production was developed and integrated with functional components from other subsystems.

Starting with an existing solution concept, we completed the system integration of the light source, followed by the design and development of functional prototypes. This system was then transitioned into a small prototype series through international collaboration. Employing the **"concurrent engineering"** approach, we addressed and resolved technical challenges in high vacuum technology, cleanroom production, and high-energy laser technology in the project.

To ensure optimal coordination of technical changes across subsystems both in terms of functionality and time, we also introduced systematic technical version control and structured technical change processes.

SERVICES OFFERED:

- Project management
- Introduction of prototype small series
- Technical problem solving
- Introduction of change proces

RESULT

Four prototypes were delivered, and an initial pre-series of 10 systems entered into production.

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