

Launch a new facility for a client amid the Covid-19 and supply chain crises

INDUSTRY | Automotive Roofing

Situation

A large tier-1 roof supplier opened a facility during the start of the pandemic. However, during the pandemic, the supplier suffered significant setbacks in product design, process engineering, and overall manufacturing capacity. Those challenges immediately placed the facility under a capacity constraint whereby Original Equipment Manufacturer (OEM) target volumes could not be met.

In response, the supplier opted to launch a new facility to alleviate capacity issues and meet contract volumes. However, since most of the suppliers' resources were committed to the recovery and stabilization of the initial facility, they sought Seraph's support to successfully launch the new installation.

Seraph was hired specifically to ensure the second plant was operationally positioned in all functional areas for a successful launch.

Approach

Seraph deployed its "Seraph Launch Strategy", which consists of five main categories: Production, Logistics, Quality, Engineering, and Human Resources, to ensure the proper focus and detailed planning required.

The entire project was managed by a Senior Engagement Manager and each respective functional area was managed by a Senior Level Consultant. In addition, Seraph selectively partnered with a proven recruitment/staffing company to ensure expert support and mitigate the effects that a tight job market has on a launch.

Lastly, at project kickoff, a baseline assessment of critical risk factors was conducted to ensure detailed strategies addressed all risk areas to ensure the facility success.

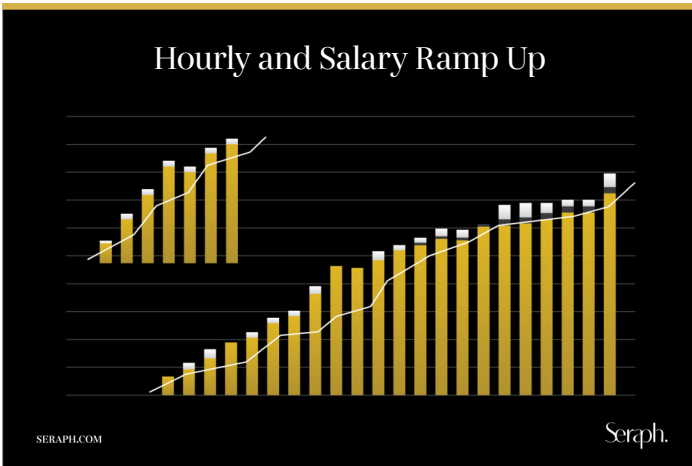
Overall Results

Seraph successfully hired and onboarded an entire leadership team and supported the hiring and onboarding of the next two tiers of management.

In addition, the transition of the client's systems, processes and procedures was successfully achieved, thanks to the development of the structure, the operational processes, and the identification of the necessary resources to launch the new plant facility.

This allowed us to create a culture of discipline and mindset around data, standards, and overall process approach.

Seraph ramped up both hourly and salary team aggressively - met the demand.



Production Accomplishments

The Seraph team provided a detailed assessment of the organizational structure both at the salaried level and the direct level, which resulted in better communication, overall effectiveness, and enhanced accountability. The recommendations provided from this assessment allowed the client to restructure and ultimately reduce its total headcount by over 30%.

Filtered and interviewed candidates down to the supervisor level were conducted by Seraph, in addition to fully staffing a production team on time and on budget. Additionally, Seraph managed workshops with cross-functional and cross-plant teams to ensure that each lesson learned from the initial plant/operation was captured and considered. The outcome of the workshop was a comprehensive tracking mechanism to prioritize all selected actions to address all lessons learned.

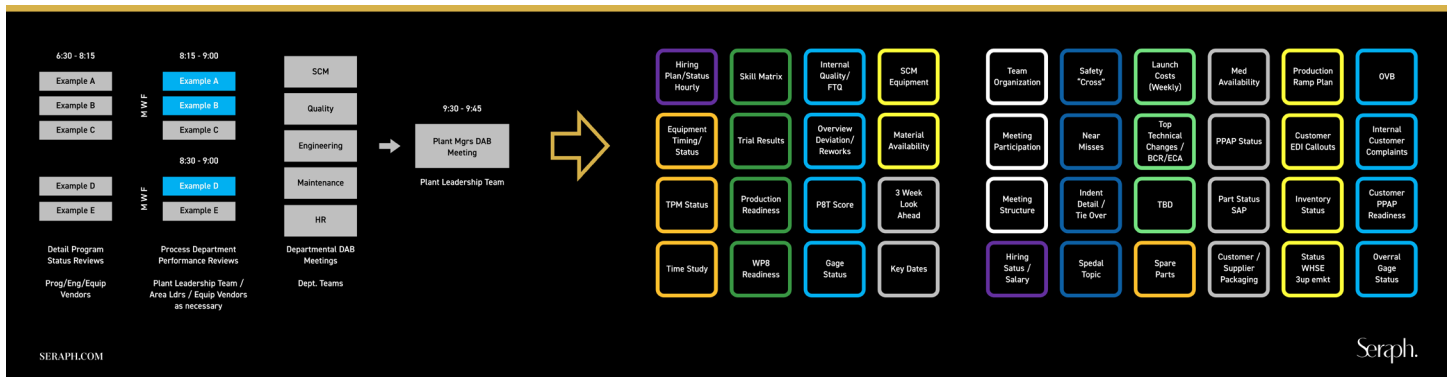
All standards were identified for all processes, to evaluate the effectiveness and make the necessary improvements for the transition to the new plant. Seraph completed its initial evaluation and identified targets for all elements relevant to the launch of the new plant based on the client's production system

Additionally, Seraph developed a tracking tool to assess progress and generate action where required and supported the development and implementation of launch boards with relevant and targeted KPIs specific to the new plant.

Human Resources Accomplishments

Seraph team streamlined a complicated hiring process and created a robust tracking tool complemented with visual KPIs. Additionally, a supplemental robust training and onboarding strategy was developed, both to maximize the client's process and to capitalize on knowledge of existing plant processes.

Job evaluations were also designed and executed to ensure geographic locations (and travel time) to balance staff between the initial plant and the new plant facility. And a hiring ramp plan for all departments -including all required hires- was developed and deployed.





Supply Chain Management Accomplishments

Seraph supported the design of the plant layout to optimize material flow and resources, including current and future needs in the final plan. To achieve this, a detailed PFEP (Plan for Each Part) was created, with clearly defined system parameters and interdependent with the plant design. In addition, the warehouse layout and detailed storage requirements were designed with the speed and flow of all material movement throughout the process. Seraph worked with the client to define a detailed transition between plants to optimize the launch of the new facility and protect customer demand.

Additionally, Seraph supported the tracking and delivery of the equipment. All warehouse and equipment needs were identified and sourced, and work instructions were also developed for all required logistics processes to ensure standardization in training and robust onboarding of all employees to be transferred to the new plant management.

Seraph further developed a planning tool which allowed for key variable inputs (volume, cycle time, OLE, shift patterns, and yield) to properly model multiple scenarios, and easily generate a required sensitivity analysis. The tool also allowed for ease of movement between equipment to ensure balance could be properly evaluated.

Finally, Seraph supported a local team with SAP expertise for MRP setup and developed shop floor processes aligned to SAP processes and transactions. A robust plan to ensure proper capture of scrap within the SAP system was also designed.

Quality Accomplishments

Seraph initiated quality support by developing a detailed list of required equipment and timelines, resulting in a seven-phase implementation tracking tool that provided clarity around delivery goals and insights for escalation. An evaluation of the initial plant's gauge strategy was executed, as well as an evaluation of its effectiveness and recommendations for improvement. In the assessment, Seraph identified increasing accountability and a sense of urgency throughout the decision-making process as a priority.

In addition, Seraph supported the implementation and ensured that the client's quality systems were included in the master timeline. KPIs associated with the initial plant performance were created to allow a clear understanding of the main issues affecting overall part quality. Seraph ensured that major issues were properly prioritized, and actions assigned to understand or address root causes.

Example actions include:

1. Created and implemented an APQP task dashboard to track open items to closure for APQP compliance.
2. PFMEA KPI Tracking developed, cross-functional team by value stream defined, and meeting cadence established with internal Client Teams and OEM to drive risk lower.
3. Supported reverse PFMEA process to properly assess each control for compliance to PFMEA and control plan. Seraph led efforts to accurately communicate the gaps and drive decision and/or resolution of all violations.
4. PFMEA and RPNs analyzed for integrity, robustness, accuracy, completeness, and relevance. Subsequently, RPNs were re-calculated and action plans were developed to reduce overall risk for the project.

Additionally, Seraph drove alignment of all documents, including drawings, customer specifications, PFMEA, control plan, and incoming inspection.



Tooling & Equipment Move - Detailed Planning



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Engineering/Maintenance Accomplishments

Seraph started by setting up a Technical Program Manager (TPM) and Project Management (PM) process. The process to map out the PM requirements allowed the strategy and plans to be set up in a structured and effective way in SAP. The functional location and PM task were established according to the individual manufacturing process department and taking into account each piece of equipment. In addition, Seraph ensured that work instructions and training processes were developed to enable the Manufacturing Execution System (MES) to be used successfully in the new plant.

Additionally, Seraph provided additional visibility into internal and external equipment-related processes by mapping out maintenance processes, along with workflows for spare management, MOR control, cycle counts, and maintenance work order systems. This allowed achieving structured and consistent processes in the maintenance area, as well as ease in handling work instructions.

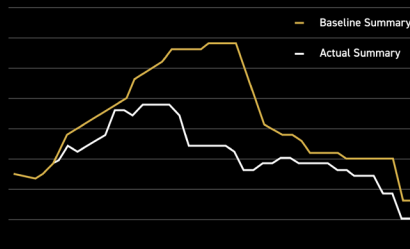
A capital tracker was implemented to empower management with the ability to view and understand capital spending versus budget for all process areas. In addition, to designing a clear and concise manufacturing IT system for material flow mapping, which was shared with the management of the new plant.

Finally, a precise monitoring system and order management for spare parts and Maintenance, Repair, and Operations (MRO) - approximately 2,600 items - was carried out for the final launch of the new plant.

Launch — Resources 2021/2022

36% Reduction

36% reduction to budgeted costs



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