

## **TPC Training's operator training program improves knowledge transfer and skills application while reducing equipment downtime.**

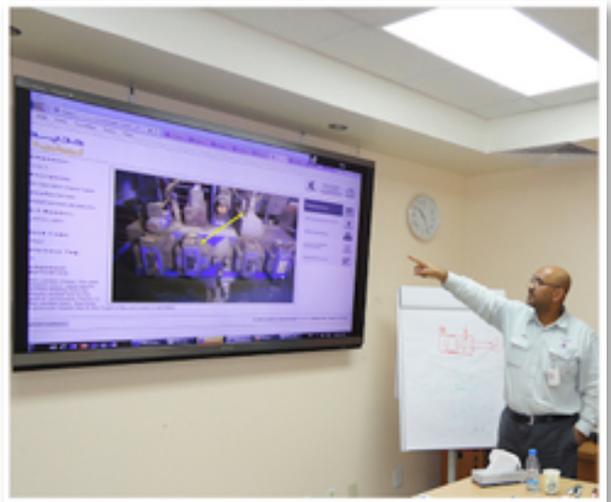
Every facility runs on information. But too often, the information that a workforce needs to operate and maintain the facility is outdated, missing, or difficult to utilize in the field. Hadeed Saudi Iron & Steel Company came to TPC Training Systems with similar challenges: inadequate distribution of machine-specific knowledge was bogging down their steel manufacturing workforce with unnecessary downtime and high overtime hours. Hadeed's over-utilized veteran technicians and operators were simply spread too thin by managing novice workers while trying to maintain the high standard of quality that Hadeed demands.

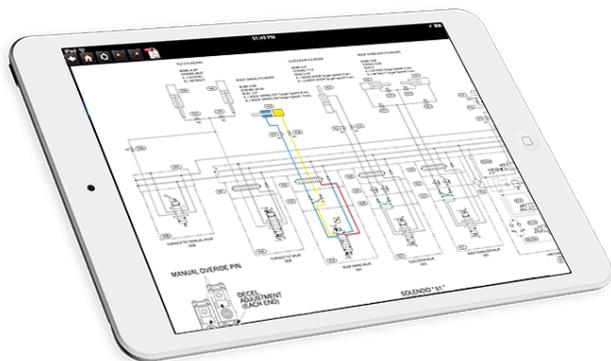
TPC sent on-site teams to conduct a detailed review of the actual processes and equipment involved in Hadeed's production and maintenance. Saudi Arabia's largest steel manufacturer produces 5.5 million metric tons of a combined steel rebar, wire rod, hot rolled coils, cold rolled coils, galvanized coil, and other flat steel products annually, using highly customized and specialized equipment. The information collected at Hadeed's steel facilities pointed to low standardization of information, stunted information distribution processes, and large knowledge gaps between veterans and new hires. TPC's review recommended a tailored, integrated workforce development plan that combined core online skills training with digital performance support materials made available on the job.

The integrated workforce plan would employ different components of TPC's portfolio of solutions, with each piece focusing on key areas that are critical to each job requirement. The resultant operator and technician training program would aim to:

1. Drive efficiency in senior technician utilization.
2. Enhance new hire fundamental knowledge and troubleshooting techniques.
3. Capture critical machine documentation and troubleshooting information.
4. Assess technical and safety knowledge throughout the workforce.
5. Underscore correct safety procedures for each technician and operator.

At the core of TPC Training Systems' services is an industry-leading learning management system (LMS), TPC Online. With the most comprehensive industrial training catalog in the industry, TPC Online provides Hadeed with interactive tools to develop a detailed training regimen that addresses key competency areas within their workforce. Assessment is fundamental to maintaining





**With TPC Operate, technicians are able to drill-down into specific operating events critical to machine maintenance in the field.**

The patented TPC Operate performance support platform provided the means to upgrade troubleshooting processes with ongoing job support and advanced training utilities. The role of TPC Operate is to map complex system and machine events in an easy-to-use mobile format, placing every operation, task, and machine event at the fingertips of every worker. The custom-built, interactive modules empower Hadeed's technicians with detailed process and component-level information directly in the field. Its patented process converts static documentation into modules that allow workers to interact with the components that make up their hydraulic machine processes – shortening downtime while performing maintenance procedures. The machine-specific information, detailed descriptions, animations, and images give trainers a platform to teach procedures in the classroom using up-to-date schematics of the actual processes running in their facilities.



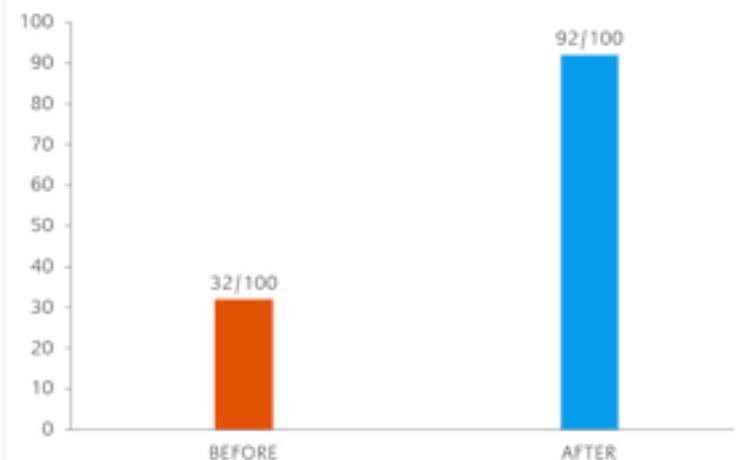
“The large quantity of machine documentation that Hadeed employs called for a centralized, simpler system for accessing and searching for relevant process information,” said Tim McDaniel, Product Manager for TPC Operate. “TPC Operate is the only training solution that cuts through the clutter and places essential, job-relevant information directly within each machine process.”

The detailed training schedule at Hadeed combines three training activities where new hires receive instruction in the classroom, job-relevant exercises, and integrated site visits. Each worker completes a five-day schedule, using TPC Online, learning the basics of hydraulics, to working with servo valves and specific hydraulic pumps. Day Five is dedicated to troubleshooting and fault-finding using TPC Operate. After implementing the full-scale



## AVERAGE OF TEST SCORES

(BEFORE & AFTER)



training program, Hadeed has seen immediate results. Since implementation Hadeed's workers have improved their average test scores by 60% in core competency areas. This achievement provides the foundational knowledge necessary to effectively troubleshoot the machine systems in their facilities.

Hadeed is now able to efficiently use their veteran technicians across their facilities because critical system information is readily available to all technicians using TPC Operate. Their veterans, who are the expert source for procedural information, can now focus on critical areas while lowering the amount of overtime needed to operate the plant. Additionally, Hadeed's

workforce can now train on over 1,000 course hours of technical and safety subjects; Hadeed has already seen workers achieve large gains in assessment scores on core knowledge areas.

"In the past, it was difficult to obtain information on a component's functional details or learn the skills of troubleshooting and repair," said Saad Al Jeri, Senior Hydraulic Specialist. "Now, with the development of educational materials and experienced staff, learning has become easier to gain the knowledge and necessary skills for individual development."

The digital availability of TPC's training solutions makes its integration into workforce processes seamless. Workforces are able to efficiently train on critical knowledge areas, assess workforce progress, document procedures and processes, and safely and accurately troubleshoot the critical systems running their facilities. TPC's ability to identify training needs, combine customized solutions, and assess the outcomes makes TPC Training Systems the total training solution.