

What Attendees Experienced on PMPA's Mastery Program

PMPA hosted their new Mastery Program. The first of three tours was held in Cleveland, Ohio. Where did attendees go and how did they broaden their knowledge?

PMPA recently hosted the first of three Mastery Tours, in association with our National Technical Conference and PMTS show in Cleveland, Ohio. Performers from operations, purchasing, engineering and management to saw for themselves the supply chain that serves them in order to broaden their knowledge. The attendees received reference materials produced to give them deeper insights into the materials and processes used by their suppliers.

First, due to COVID restrictions, attendees were unable to visit Charter Steel but were shown two videos describing

Experiencing First-Hand

Toolmakers work to tolerances often one-tenth as “generous” as ours. Our attendees first visit was to Fisher Special Tooling in Mentor, Ohio where they saw the best practices and technologies used to create the “special” tools used in our shops. Some attendees had no idea that custom tooling was even an option. Others learned how the tolerances are achieved, and all got interesting insights into how 5S — as deployed at Fisher — was a production advantage.

Machine importers are just something that we take for granted. At Absolute Machine Tools in Lorian, Ohio, attendees walked through the entire process of importing the machine tools that are found in our shops. Handling payment details, shipping and freight forwarding, customs details and inventory storage helped our attendees get a much richer picture of the investment involved — and the global reach and expertise needed — in acquiring the machine tools on which they exercise their craft.

Concast Metal Products in Birmingham, Ohio gave our attendees the chance to see the actual production of continuous cast bronze and copper alloys — from batching of the materials for the initial melt, through casting, laboratory testing and analysis, and mark, pack and load. This gave our attendees a further appreciation for how their work pieces are produced — and what that means for performance on their machines.

Northlake Steel in Valley View, Ohio was the last stop and the goal was to see not just the range of cold finishing processes, but the understanding of how those processes imparted properties into the starting hot rolled steel. Turning processes for turned and polished, shot-blasting ahead of cold drawing and straightening to remove the hard abrasive oxide scale that would destroy tool edges in our machines, were just two of the many things our attendees experienced. Straightness is critical in our shops, so seeing the processes for Medart and press-straightening at Northlake gave our attendees a better understanding of what is happening upstream of their machines — and why careful handling to preserve straightness is crucial. One attendee told us, after seeing the centerless grinding operation, “Now I know why centerless ground bars cost so much. And why they are worth it.”



The Mastery Program at Northlake Steel in Valley View, Ohio.

the full process of melting, casting, and rolling Special Bar Quality Steel (SBQ) at Charter Steel. The impact of seeing how the process starts with huge quantities of carefully selected scrap and other materials, the various computer controls, and processes to not only melt but refine and customize the material to make an optimum product changed a lot of minds regarding raw materials versus “precision inputs.”

Then, our mastery program attendees were guided through the PMTS exhibits, visiting approximately 80 PMPA member booths where they were given an overview of why the technology displayed might or might not be important in their shop. Several attendees remarked that they would not have stopped at that booth and were glad they did because they didn't realize how it related to their shop.