



Client Profile: Amazon R&D Center

Basic and Advanced Shop Tools and Safety Course

The Need: Invista Performance Solutions' Staff (IPS) and IPS instructors met with Amazon and their maintenance management team to discuss how to establish a formal training program for maintenance staff at the Amazon R&D Center in Sumner. Amazon needed to upgrade the technical skills of its maintenance team to enable them to utilize shop tools and equipment correctly and safely.

There had not been a formal training program for this, so the staff were not able to use the maintenance tools until completing training in proper techniques and safety. Invista provided Amazon with an assessment tool to help the Invista instructor in determining appropriate starting levels in mathematics and technical background skills.

The Solution:

We delivered three cohorts of the Shop Skills Program: two cohorts of 4 employees each during the spring and 4 people in the summer cohort. The trainings were delivered at the Amazon location in their own maintenance shop using their own equipment. The program was a hands-on, instructor-led 40-hour course to train each employee on the required machines, which included preventative maintenance and weekly assignments.

Amazon requested that we test each employee to make sure that they could safely and effectively operate each machine in the maintenance shop. Our instructors designed a hands-on skills test and written tests for each machine to certify each employee as competent.

Below are specific pieces of equipment that each employee was trained and tested on to ensure the proper use and safety:

- Vertical band saw
- Table Saw
- Handheld drill
- Milter Saw
- Drill Press
- Right Angle Grinder
- Box and Pan Brake
- Band Saw
- Hydraulic press

- Pan and Box brake
- Pedestal Grinder
- Foot shear
- Power Tools
- Fastener & Print Reading

Additionally, each student needed to demonstrate a basic understanding of hardware and safe and appropriate usage of proper Personal Protective Equipment.

The End Results:

At the end of each cohort, every employee who demonstrated through a written test and hands-on testing that they could safely operate each machine received a certificate of completion certifying them as competent on each machine.

The instructor from IPS had all of the employees complete a final creative project at the end of each cohort. After the 1st cohort in the spring, each student built a tool tray and a specialized storage shelf for the safekeeping of metal brake attachments. After the 2nd cohort in the summer, the employees used all of the various machines they were trained and tested on to build a toolbox, which was evaluated by the IPS instructor. The projects were assigned to demonstrate each employee's creative competency in using the equipment. The toolboxes, tool tray and specialized storage shelf were a testament to the effectiveness of IPS' hands-on approach to training.

IPS is currently finalizing the assembly of a Facilitator's Guide which includes all of the tests, quizzes, homework and weekly lesson plans so that in the future an Amazon trainer can deliver the program internally and independently.

IPS delivered end-of-course evaluations to all of the employees who took the Shop Skills Program. The following data was captured:

- 100% of the participants will use what they learned on the job
- 95% of the participants rated the instructors as excellent
- 98% of the participants rated the course as excellent
- 100% of the participants rated the course materials as excellent

“Invista was able to provide us with a comprehensive crash course on the correct use and maintenance of our shop tools. Their hands-on approach to teaching was well received with our junior and senior technicians alike. Their staff was very knowledgeable on the equipment and required very little coordination on my end to complete successfully. We had such a great experience working with them that we plan on having them back this summer for a second cohort.” - Luis Vazquez, Area Maintenance Manager | BF11, Amazon Operations R&D Center.