

MANUFACTURE: HARD SURFACING MACHINE

CLIENT CHALLENGE

The client was seeking to use a plasma arc to weld tungsten carbide powder to metal surfaces to eliminate the wear of oilfield tools. Given Alberta's booming oil and gas industry, the demand for a successful process that would extend the life of oilfield tools was significant. Unfortunately, the client was **unable to find a hard banding system suitable for their application**. They needed a system that could weld complex shapes in three dimensions on round surfaces. In addition, the client was unable to find an operator with sufficient skill to operate the equipment consistently. As a result, the **client was unable to meet demand** and was in danger of missing out on a significant opportunity.

THE BP AUTOMATION SOLUTION

BP Automation designed the concept and **fabricated a 40-foot hard banding system with four-axis of control**. We provided an operator interface that was easy to set up and configure with minimal training, thus reducing the need for operators with higher skill levels.

Our ability to take the project from concept to creation ensured the client was able to rely exclusively on BP Automation for the solution. **Our in-house team provided a range of services** including:

- Mechanical drawings
- Controlled schematics
- Software design and programming
- Electrical control panel configuration
- Components installation
- Final machining and fabrication

RESULTS

1. Reduce production time from 8.0 hours to 3.5 hours per piece
2. Unique capabilities of custom hard banding system allowed client to attract new customers



Hard Surfacing Machine