



# Case Study Improving Wear Resistance in Rotary Valves



## Improving Resistance, Improved Longevity

Working in collaboration, creating tailored solutions,  
engineer to improve your system.

### • The Application:

- Our customer required Rotary Valves to handle 3.5t/hr of Nickel powder.
- Due to the abrasive nature of the powder, the valves needed to withstand the wear that it causes.

### • The requirement:

- To provide a pair of Rotary Valves that could handle the high throughput and better withstand the wear and tear caused by the product.

### • The solution:

- We took our standard cast iron rotary valve and applied a tungsten carbide coating to the internal surfaces of the body and end covers. As well as superior wear resistance, Tungsten Carbide coatings provide excellent resistance to oxidation thanks to their incredibly strong bond strength and low porosity which seals off the base materials from its environment. In addition to this, we fabricated heavy duty rotors in stainless steel with thicker vanes and replaceable steel tips. Air purged seals and end cavity purge further help reduce wear to the valves.

### • The result:

- The improved wear resistance, and valve longevity, reduced the frequency at which they were being replaced, saving maintenance time and cost.

