

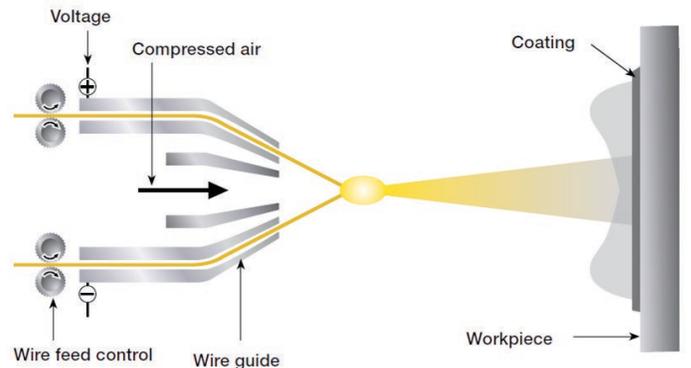
## BoreGuard™ Arc Wire Spray

Increasing bore wear resistance and reducing overall repair costs

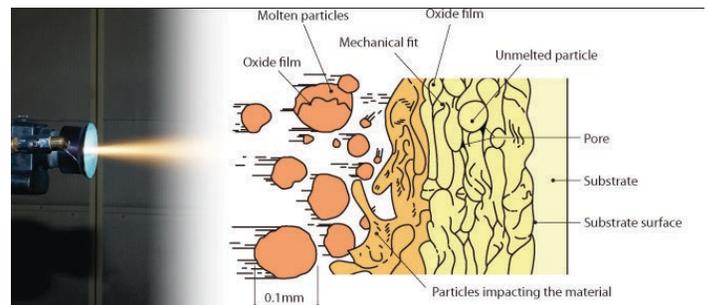
BoreGuard™ Electric Arc Wire Spray is an arc formed by two oppositely charged metallic wires. This leads to melting at the tip of the wire material. As this occurs, air atomizes the melted material and is accelerated onto the surface. The product was formulated for increasing bore wear resistance; minimizing distortion on other areas of chocks and component part; reducing repair costs; and decreasing turnaround time during the repair process.

The application process is comprised of two separate layers. The first layer is called the "Substrate" this layer is usually .007" - .010" thick per side. The purpose of the substrate is create a surface texture that allows the coating material to mechanically bond effectively to the surface of the part. The second layer is the actual coating itself. This can be a wide variety of different combinations of metal, each coating and substrate material have to compliment each other in a way that is most effective for the bonding process.

The key for this process of adhesion is as the heat from the coating particles is transferred to the cooler base material, the particles shrink and solidify and bond with the roughened base material.

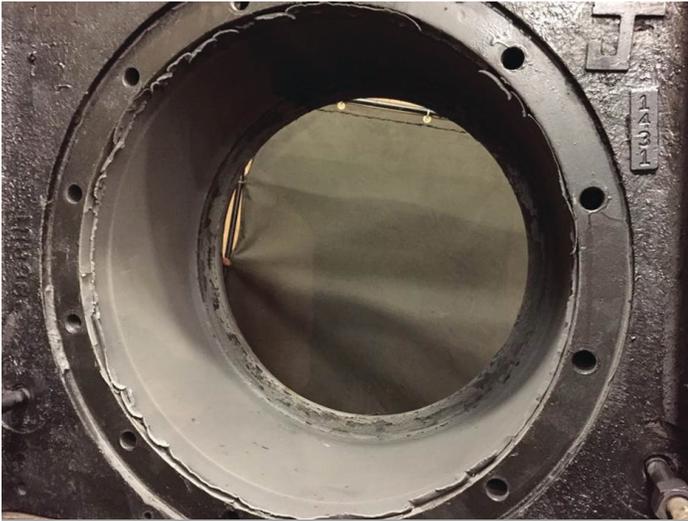


▲ Process of BoreGuard™ Arc Wire Spray Welding



▲ Composition of BoreGuard™ Arc Wire Spray Welding

At SMS group Inc.'s Mokena workshop, we have been utilizing the BoreGuard™ process in-house to repair chocks and chock components since 2010. The workshop has had their coating composition and process tested metallurgically and mechanically for Tensile strength, porosity, coating interface, cracking, globular's, oxides, uniformity, and overall integrity to ensure that our quality will withstand the duties of a bearing chock.

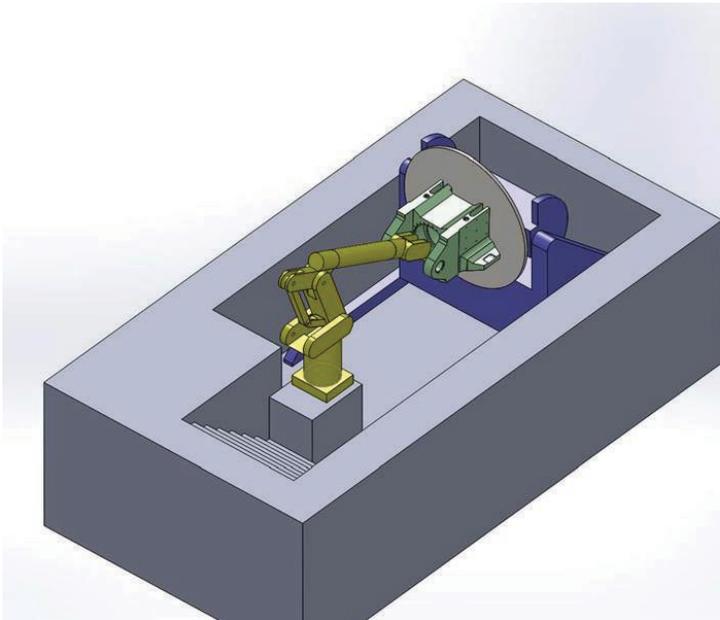


▲ Work roll chock after application of BoreGuard™ Arc Wire Spray



▲ Work roll chock after final machining

**SMS group Inc.**  
**Mokena Workshop**



- Lifting capacity of 20T
- Work Roll Chocks
- IMR Chocks
- Bore sizes 24-50"
- Covers / Retainers

**SMS GROUP INC.**

Mokena Workshop  
 19700 South 97th Ave  
 Mokena, IL 60448 USA

P: +1-708-479-1333  
 F: +1-708-479-1361

**Corporate Office**

100 Sandusky Street  
 Pittsburgh, PA 15212 USA

P: +1-412-231-1200

Email: [Info.TechnicalServices@SMS-group.com](mailto:Info.TechnicalServices@SMS-group.com)  
[www.sms-group.us](http://www.sms-group.us)