

# Black Oxide Plating

## Automated Finishing Technology (AFT)

Black oxide is a conversion coating created by a chemical reaction with the oxidizers and the metal to form an integral protective surface. Applications to ferrous alloys and metals begin as oxidizing salts react with iron magnetite, the "black oxide" of iron. This reaction creates a fusion resulting in complete integration with the metal and alloy it protects, adding less than 5 to 10 millionths of an inch to the dimension of the surface. An oil, wax, or other coating is applied after treatment to give additional corrosion protection.

Black oxide is commonly used in the aerospace industry for transmission and hydraulic systems, where the finish will be constantly coated with oil, or for other moving parts that cannot tolerate the dimensional change of a more corrosion resistant finish.



Centrally located in the Dallas/Forth Worth area, we provide service to our customers locally and throughout the United States.

## Why AFT?

- High-Quality Plating
- Ability to Plate Large Pipes & Parts
- Shorter Lead Times
- Excellent Customer Service
- Competitive Prices
- Centrally Located



MIL-STD-13924D  
AMS-2485G  
MIL-F-495

Can meet most private specifications



Customer service and quality are AFT's highest priorities. All processes are verified and guaranteed with certification sheets upon request.

## Production Capacity

- High volume rack and barrel
- Parts up to 7 ft. or 84 in. in length
- Parts up to 2,000 lbs. in weight
- Available on alloys, stainless, copper, and brass



## Benefits of Black Oxide

- **Dimensional Stability** - Black oxide's success is due to its ability to give cosmetic appeal without affecting dimensional properties.
- **Versatility** - This process can be applied to many diverse metals including: carbon, alloy and stainless steels, copper, brass, bronze, die cast zinc, and cast iron.
- **Durability** - The finish will not chip, craze, peel or rub off. The only way to remove the finish is by mechanical or chemical methods.
- **Protection** - Oxidized surfaces have an excellent ability to absorb oils, waxes and lacquers. This enhances the appearance while protecting the treated metal or alloy.



AFT offers over 16 quality specified plating processes, including: silver, black oxide, zinc nickel, phosphate, tin, matte tin, and Xylan® Coatings.

Visit our website, [www.AFT-Corp.com](http://www.AFT-Corp.com) for a complete list of plating processes, or call us at **972-988-1999** to find out what AFT can do for you.

