

# Diamonized® Feed Tubes

Maintaining consistently high feed tube performance is important to the safe, efficient operation of any sootblower installation.

The useful life of feed tubes is limited in part by friction wear of the packing as it repeatedly slides over the surface of the feed tubes which can cause cracking. Steam leaks from cracked tubes lead to loss in efficiency, unsafe conditions and, ultimately, costly and more frequent replacement, so extending the life of the tubes has both operational and cost-saving benefits.

## *Cracks in feed tube coating*

To improve the surface hardness and minimize the abrasion in the small clearance between the feed tube outer diameter and lance tube inner diameter, some sootblower manufacturers apply a chrome coating to the tubing. However, because the chrome plating doesn't have the same thermal expansion characteristics as the stainless steel feed tube material, cracking and peeling result when subjected to heat during sootblower cycles. Over time, the rough surface wears the feed tube packing, regardless of the packing material used.

## *B&W's patented solution*

Designed and proven to extend the life of sootblower feed tubes, Babcock & Wilcox (B&W) offers Diamonized® feed tubes. Unlike those with chrome or sprayed thermal coatings, our feed tubes are manufactured using a patented process that creates an abrasion-resistant surface capable of withstanding exposure to flue gas and high-temperature steam. By hardening the metal itself, there is no coating to peel and no thermal expansion disparity between a surface layer and base material.



## **Benefits of Diamonized feed tubes:**

### **Extended feed tube and packing life**

*Durability of hardened material avoids need for replacement due to peeling or cracking*

### **Reduced maintenance time and costs**

*A customer operating 60 retractable sootblowers reported feed tube packing and maintenance expenses were reduced by approximately \$40,000 annually*

### **Better performance, improved efficiency**

*Minor leaks can result in steam losses of up to 200 lb/hr, safety hazards, shortened life of sootblower components, and accelerated gear rack and track wear*

## *Configurations and compatibility*

Diamonized feed tubes are available in all sizes and configurations, threaded and snap-ring poppet valve connections, and insulated feed tube designs. They have been field-tested to prove material compatibility with all feed tube packing types and packing gland designs such as stud-and-nut adjustable, threaded gland and live-loaded gland.

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### Chrome-plated tubes

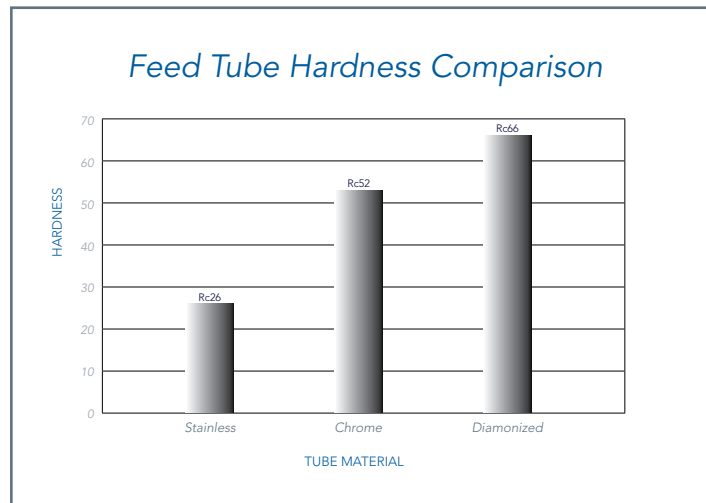


Chrome plating peeled away from feed tube, leaving a rough surface that causes leaks in packing glands.

### Diamonized tubes



Diamonized feed tubes are not coated and therefore are not subjected to surface cracking from thermal expansion.



Diamonized feed tubes are:  
150% harder than stainless steel  
20% harder than chrome (plated or spray-coated)

## The Babcock & Wilcox Company

1200 E Market Street, Suite 650  
Akron, Ohio, U.S.A. 44305  
Phone: +1 330.753.4511

[www.babcock.com](http://www.babcock.com)    

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