

# Kennametal Cladding Solutions: Conveyance Equipment

### Shaft Sleeves

Kennametal offers a wide range of O.D. clad shaft sleeves to fit an assortment of pump sizes and configurations. This tungsten carbide wear protection can be applied to a variety of industrial components that are affected by abrasion, corrosion, and thermal shock.

- Extends sleeve life 3–5x longer resulting in fewer equipment shutdowns and component changes.
- Extremely resistant to abrasive, corrosive, and erosive wear.
- Decreased wear means less leakage flow on shaft seal sleeves and fewer packing adjustments.



## Reactor Tubing

- Extends tube life 4–5x times longer.
- Fully protects pendants, u-bends, and complex shapes.
- High coefficient of heat transfer and ability to withstand severe thermal shock.
- Linear wear offers predictable life extrapolation.
- Random 22 ft. lengths available.

## Proven Results

A major chemical company's reactor tubes were facing extreme abrasion and providing only a 12–18 month lifespan. They decided to install Kennametal prototypes and at the end of a six-month trial, the reactor tubes had only a 10% reduction in cladding thickness, indicating that the new tubing would last a minimum of five years.



## Fan Liners

- Extends fan life 3–6x longer.
- Reduced weight.
- Resists chipping and spalling.
- Direct clad or liners.





## Pump Components

- Extends pump component life up to 5x longer.
- Ability to clad components up to 64" in diameter and up to 6000 lbs.
- Casings, suction liners, impellers.
- Capable of cladding a variety of substrates such as carbon steels, stainless steels, and white iron.
- Clad surface finish of 125–250 RMS.

## Piping & Components

- Eliminate/reduce blowouts.
- Prevent lost product.
- Reduce maintenance costs and downtime.
- Avoid cross-contamination.
- Lengthen run-time between scheduled outages 10–15x longer than unprotected components.
- Reduce component weight.
- Replaceable wear plates for point of impact in cyclones.



Cyclones



Elbows



Diversers

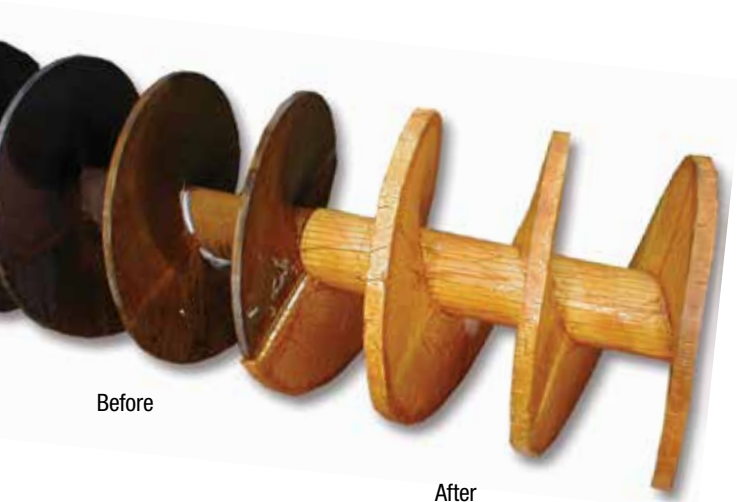
## Rotary Airlocks

- Retrofit and refurbishment services available.
- Rotary airlocks protected with our ceramic solutions last 5–10x times longer than standard airlocks.
- Retrofit or rebuild any size airlock.
- Machining and grinding capabilities allow modification of existing parts to accept any specified coating or lining, which can then be ground to meet exact tolerances.



## Screw Conveyors

- Extends the life of your screw conveyor up to 6x longer.
- Refurbishment of screws up to 35+ ft.
- Reduce downtime and maintenance costs.



## Proven Results

A 35 ft long and 18 inch diameter screw conveyor was originally fabricated with AR plating and hardfaced with a weld overlay on the flights, shaft, and digger teeth, but it required reapplication every 6–9 months. The reapplication of the weld overlay was expensive, but the machine downtime associated with the maintenance was an even bigger concern. After switching to a bonded ceramic and tungsten carbide lined screw, maintenance is not anticipated for at least 3–5 years.

## CONTACT US

Order Support:  
k-nalb.cs@kennametal.com | +1 888 289 4590

Kennametal Conforma Clad  
501 Park East Blvd.  
New Albany, IN 47150  
USA

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