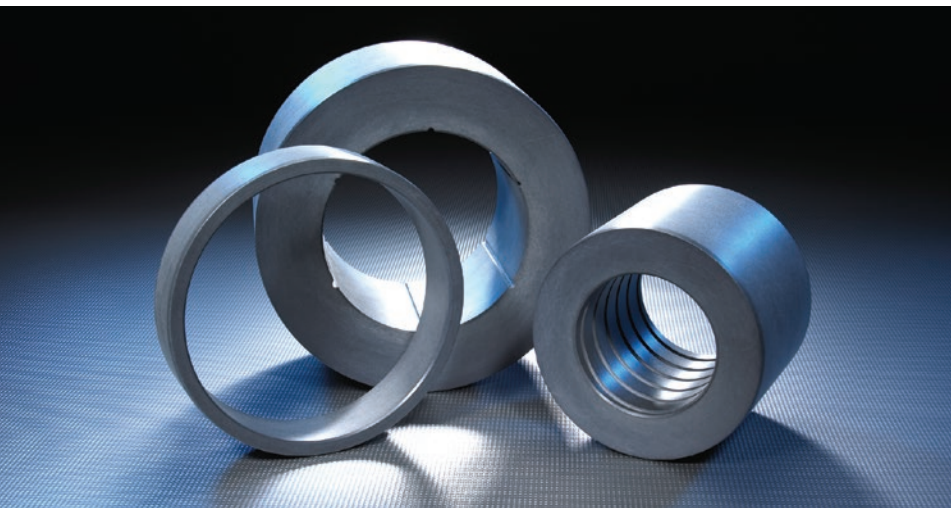




## AR<sup>®</sup> HT Composite Bushings

### Outperforms Carbon Components in Abrasive Applications



Greene Tweed leveraged its innovative AR<sup>®</sup> HT composite material to offer a leading manufacturer of paper products and packaging a superior bushing solution within its Viking LL 125 pumps. Our AR<sup>®</sup> HT bushings offered this customer easy installation, increased MTBF (mean time between failure), and significantly reduced cost of ownership.

#### Challenge

Our customer, a global paper products and packaging company, uses Viking LL125 pumps to apply the latex coating required to protect and color its packaging products. These pumps offer the customer a robust pumping solution with infrequent failure – with one specific exception. The pumps' bushings, manufactured from inherently brittle and easily broken carbon material, caused frequent operational interruptions. When the carbon bushings failed and required replacement, the fragile components often broke during installation. During routine maintenance, if a pump's bushings were removed for other repair requirements, they often crumbled during

#### Highlights

##### CUSTOMER

- Global paper products and packaging company

##### CHALLENGE

- Experienced frequent operational disruptions due to brittle carbon bushings
- Sought a more stable bushing solution for easier installation and reliable operation

##### SOLUTION

- Greene Tweed AR<sup>®</sup> HT thermoplastic bushings

##### RESULTS

- Simplified bushing installation
- Significantly increased reliability
- Increased MTBF from 2 months to over 15 months





removal and had to be replaced. In addition, vibrations caused by premature bushing failures contributed to mechanical seal failures, leading to dangerous product leakage. These multiple component issues led to added pump downtime, as well as increased maintenance and inventory costs.

## Solution

To solve this customer's challenges, Greene Tweed utilized its proprietary AR<sup>®</sup> HT thermoplastic material developed specifically for bushings, bearings, and wear rings for pumps handling abrasive media. The AR<sup>®</sup> HT bushings provide outstanding chemical, thermal shock, and impact resistance, making it an ideal replacement for the brittle carbon bushings. The solution combines excellent abrasive resistance, good dry run capability, and superior vibration dampening characteristics with no hydrolysis or swell.

## Results

By installing Greene Tweed's AR<sup>®</sup> HT bushings in its Viking pumps, the customer has achieved simplified bushing installation and significantly increased reliability, boosting the MTBF from 2 months to more than 15 months. Because the new bushings handle abrasive materials and vibration better than the legacy carbon material, the customer has reduced maintenance costs through lower instances of seal failure. In addition, the customer is now able to reuse the AR<sup>®</sup> HT bushings if they are removed for other maintenance needs, realizing a lower total cost of ownership.

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## Greene Tweed

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