Application Bulletin

Conforma Clad™ Twin-Screw, Co-Rotating Extruder Barrels

Experience increased service life in the most extreme extrusion processes.

Improved Abrasion and Corrosion Resistance

While competitive materials can only provide protection from one mode of wear, our cladding has been scientifically engineered to resist both abrasion and corrosion.

Increased Consistency and Quality

Protecting critical equipment tolerances permits tighter process control, resulting in more consistent product quality and throughput.

Enhanced Heat Transfer

Direct-clad barrels provide excellent heat transfer when needed.

Reduced Risk of Catastrophic Failures

Uniform, metallurgically-bonded cladding promises dependable wear rates and predictable life. Direct-clad barrels and sleeves prevent costly equipment failures.

Engineered Cladding Solutions

A large assortment of standard and custom cladding formulations are available to meet all of your wear protection needs.

OFFERS UP TO

3x THE LIFE

Maintain maximum performance levels with increased system availability and profitability. Kennametal Conforma Clad™ barrels last up to 3x longer than those protected by competitive materials.

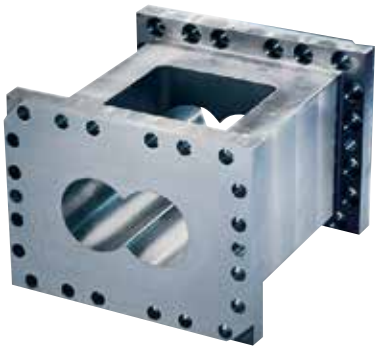
KENNAMETAL™
CONFORMA CLAD

conformaclad.com

Conforma Clad™ Extruder Barrels

Kennametal Conforma Clad twin-screw extruder barrels are engineered to withstand the most extreme extrusion processes. We manufacture wear-protected replacement barrels and liners for virtually all OEMs.

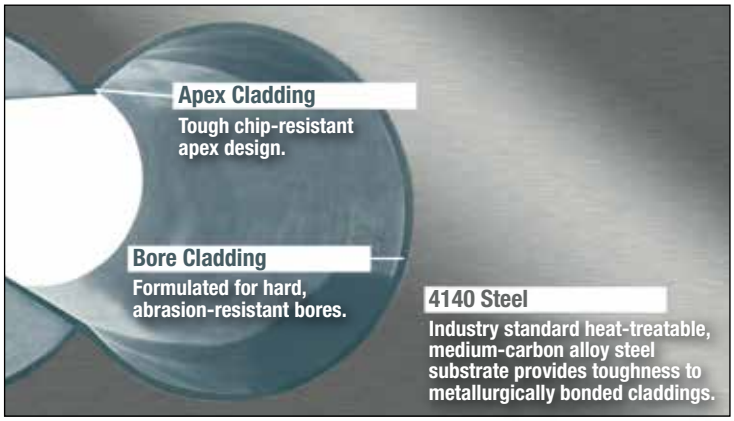
Our infiltration brazed tungsten carbide cladding is metallurgically bonded to barrel surfaces, resulting in barrels that are extremely abrasion and corrosion resistant. The Kennametal Conforma Clad cloth delivery system enables densely-packed tungsten carbide to be uniformly applied to complex geometries, providing a protective barrier that wears at a consistent and predictable rate.



Tri-Metallic Advantage™

Our exclusive Tri-Metallic Advantage is the only available wear solution that uses multiple cladding formulas to target the distinct properties required to protect extruder barrel bores and apexes.

Over 20 years ago, Kennametal and Coperion co-developed this tri-metallic wear solution for extruder barrels known as WPR-29. The same tri-metallic protection is available to end-users directly from Kennametal.



CONFORMA Clad X2™

Dual Protection for Severe Corrosion & Abrasion

Conforma Clad X2™ is the next generation in cladding technology. X2 cladding uses twin layers of Stellite™ and tungsten carbide, realizing the benefits of both materials. The Stellite underlayer offers superior corrosion protection, eliminating any access of extruded compounds to the base material. The tungsten carbide top layer offers the same severe abrasive wear protection on which Conforma Clad built its reputation. This dual-protection system has shown significant benefits in the most challenging corrosive and abrasive twin-screw extrusion environments.

Barrel Specifications

	Barrel Dimensions (mm)	
Manufacturer	**Bore Diameter**	**Barrel Length**
Coperion	30–177	93–720
Krauss Maffei Berstorff	43–140	160–650
Davis-Standard/Toshiba	32–152	105–490
JSW	specific sizes available	
Leistritz	specific sizes available	
Entek	specific sizes available	
Clextral	specific sizes available	
Buhler	specific sizes available	

Cladding Specifications	
Substrates	Cladding can be applied to most carbon steels, precipitation hardened steels, stainless steels, and other corrosion-resistant alloy materials.
Temperature	Continuous operation at temperatures up to 1900 °F (1038 °C) with nominal performance impact. Able to withstand transients in excess of 2000 °F (1093 °C).
Chemical Resistance	Compatible with many chemicals commonly found in plastics extrusion, including hydrochloric acid, sulfuric acid, and nitric acid.

CONTACT US

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