

Pilot Cord Seal

Gas Turbine seal at temperatures up to 1200°C

What is cord seal?

Cord seal (also known as rope seal) offers designers and engineers the ability to increase operating efficiencies by reducing hot gas leakage between components in aircraft engines, other turbines and high temperature static sealing applications. The seals are designed to operate over multiple thermal and mechanical cycles, whilst also accommodating differing rates of expansion due to temperature between dissimilar components. The standard design is manufactured to locate into an O-ring type groove - other innovative seals can be designed for use in differing applications.

Supporting the need for elevated operating temperatures, the seals have been developed to currently operate continuously up to 1200°C (2220°F).



Applications

- Aerospace engines
- Gas turbine engines
- High temperature exhaust systems
- Plus, other high temperature applications

Installation styles

Cord seal can be supplied in three different styles:

- 1000ft (30m) spooled lengths, allowing cutting to length on site.
- Cut lengths to meet customer specifications to allow instant installation on site
- Endless rings for easy installation on site, reducing gas flow further by eliminating leakage where cord seal ends meet.

Standard Product Range

PRODUCT RANGE		
Style	Max Temp.	Application
S.3343	900°C / 1650°F	Static Conditions Minimal Thermal Cycling Minimal Level of Vibration
S.3721	1200°C / 2200°F	
S.3805	900°C / 1650°F	Moderate Thermal Cycling Moderate Level of Vibration
S.3819	1200°C / 2200°F	
S.3811	900°C / 1650°F	Significant Movement Due To Thermal Expansion Increased Level Thermal Cycling Increased Level of Vibration
S.3825	1200°C / 2200°F	



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Staggering resilience to pressure, unsurpassed strength and reliability

Sealing environments that demand the very best safety innovations

Aircraft engines represent the most demanding of all sealing environments, with the ultimate in safety-critical requirements.

Within both the power generation and aerospace industry, seals must withstand extreme pressure and temperature in applications where they are often exposed to high humidity, high levels of vibration, high temperatures with thermal expansion through each cycle.

Beldam Crossley has been involved in aircraft engine development for over 50 years and is recognised as pioneering in aerospace sealing.



Product Range: Styles

PRODUCT RANGE							
Style	Metallic Outer Braid / Cover				Core Yarn		Diameter
	Inconel* 600		Haynes** C214		Amouphus Silica		Minimum
	Single	Double	Single	Double	Standard	Bundled	mm
S.3343	X				X		1.0 - 1.2
S.3721			X		X		1.0 - 1.2
S.3805		X			X		*** 2.5
S.3819				X	X		*** 2.5
S.3811		X				X	*** 2.5
S.3825				X		X	*** 2.5

* Trade name of special metals group of companies. **Trade name of Haynes International. ***Smaller diameters to be confirmed on application.
Styles S.3343 and S.3721 - Diameters ≥ 9.0 mm have double outer covers.

Technical data available upon request...

For operating perimeters: compression/recovery and temperature/pressure please contact Beldam Crossley by emailing enquiries@beldamcrossley.co.uk or alternatively calling +44 (0)1204 675 700.

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