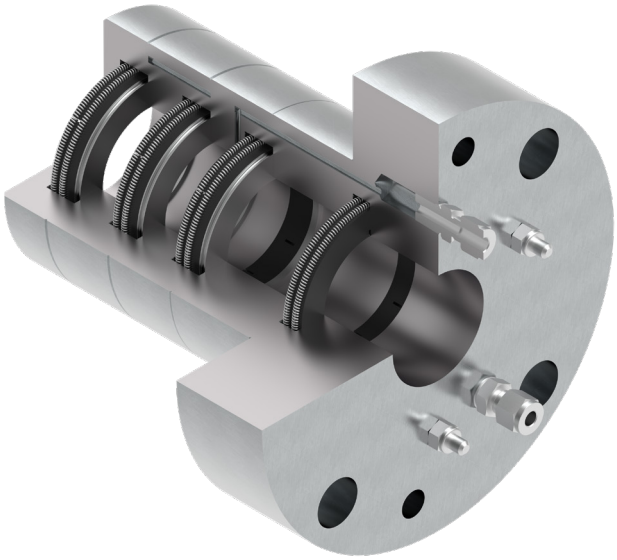
ARIEL ULTRA-LOW EMISSIONS PACKING

ARIEL | WORLD STANDARD COMPRESSORS

Lower Emissions Without Compromise

If you're looking for a packing system that is both long-lasting and reduces leakage, Ariel Ultra-Low Emissions Packing delivers! Our uncut ring technology provides thousands of hours of reliable, low-leakage operation between service intervals – containing processed gas by eliminating the leak paths of conventional segmented ring sets.

We stand behind our thorough data and research verifying that Ariel Ultra-Low Emissions Packing will reduce your compressor emissions. We now offer our uncut ring technology standard in all new units and upgrades due to its longevity and field-proven sealing capabilities.



Ariel Ultra Low Emissions Packing Leakage Statement

Ariel has documented significant reduction in emissions when comparing uncut seal ring technology against traditional technologies, both in a controlled R&D environment, and in available field data. Ariel has measured leakage rates near zero to 0.75 SCFM per throw during the first year of operation. When applied properly, there are additional sealing performance improvements during idle pressurized conditions.

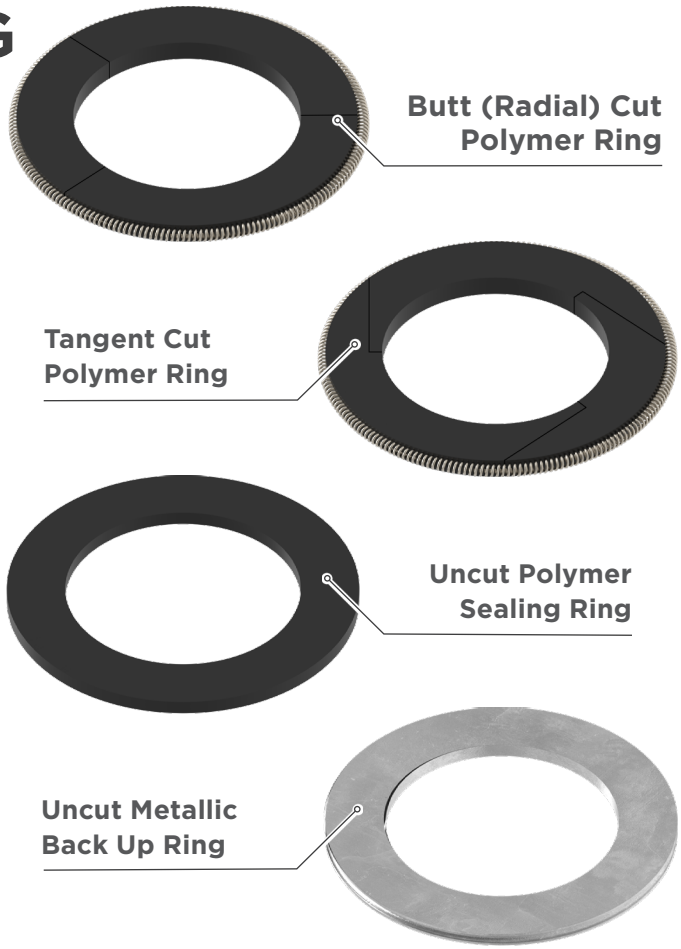
*Actual packing leakage rates depend on many variables, including but not limited to, equipment application, operating conditions, equipment maintenance, lubricants used, and piston rod and packing component wear.

The bottom line: Ariel Ultra Low Emissions Packing leaks less than 0.75 scfm when properly applied, maintained, installed and operated.

WHAT IS UNCUT RING TECHNOLOGY?

The Ultra-Low Emissions ring set works by combining uncut and cut rings to create an exceedingly tight seal. The radial cut and tangent cut rings first break down the pressure, while the backup solid sealing ring and metallic ring provide structural support. In many applications, the solid, uncut rings compress under pressure, which creates additional sealing against the piston rod.

The Ariel Ultra Low Emissions Packing features high-performance thermoplastic and metallic materials. These engineered materials are specifically chosen to operate reliably within their designed applications. The Ultra-Low Emissions Packing product family includes additional ring sets using uncut ring technology, which may employ different styles of cut rings and utilize the uncut final ring.



Environmental Benefits and Increased Revenue

Emissions result in potential lost gas delivery and revenue. The Ariel Ultra-Low Emissions Packing has shown significant ROI, often delivering 99% or more of compressed gas. Ariel's products align to provide substantial customer benefits and send a clear message to stakeholders:

"The best compressors now come standard with packing built for low emissions."

Field Proven Success

Ariel continues to invest in research and development efforts to ensure the best possible seal, including modeling and testing packing in extreme operating conditions. We strive to do even better: developing designs and materials that further reduce emissions beyond industry standards. Ariel's ultimate goal is to deliver packing that minimizes emissions as close to zero as possible while extending the life of the packing.

For example, a customer with six JGT/4 compressors installed Ariel Ultra-Low Emission Packing. After 28,000 operating hours, the leakage rates on the 24 packing cases showed an excellent reduction in the typical leakage and wear rates. The average leakage rate across the 24 packing cases was 0.45 scfm.