14K Restriction Bushings

Robust, Restriction Bushing for Rotary Equipment

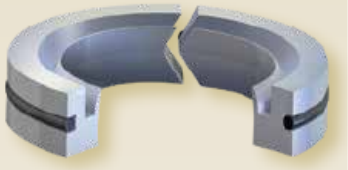
Chesterton 14K Restriction Bushings are used in rotary equipment to form a barrier between the sealing device in the stuffing box or the pump impeller housing and the fluid in the mixing tank. The restriction that is produced reduces flush requirements and helps to prevent suspended abrasive particles from entering the stuffing box area thus prolonging the service life of installed packing sets or mechanical seals.

The 14K's tapered lip design conforms to equipment eccentricities to minimize the annular gap formed around the rotating shafts, thereby creating the smallest possible free flow area for controlling flush flow rates. A secondary beneficial effect of increasing pressure drop with the 14K is that the flush around the shaft becomes very uniform, which is critical in preventing particulates from entering the stuffing box envelope. The dynamic lip acts as a check valve when flush is shut-off.

The solid 14K reduces the number of packing rings required in the stuffing box thus helping to reduce frictional force. Further, it helps to keep the lantern ring in its position and maintain the optimum flush rate.

The 14K is manufactured from superior abrasion-resistant polymers, while the PTFE compound offers broad media compatibility with high-temperature capability.

The 14K restriction bushings are manufactured using a machining process which allows the flexibility to create any size, based on equipment dimensions. Each bushing is individually manufactured and provides excellent performance in pumps, agitators, mixers, refiners, and other equipment.



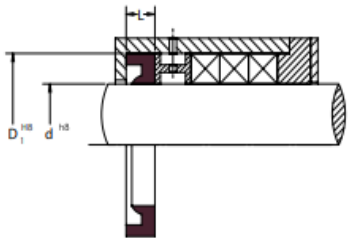
- Split design simplifies installation
- Minimize risk of entering particles into stuffing box; extend packing and seal life
- Tapered lip design controls fluid bypass and helps increase pumps efficiency
- Dual materials available; plant-wide usage
- Reduces the number of packing rings required which reduces frictional force
- Designed for pumps of all types including agitators, mixers, and refiners

SPECIFICATIONS

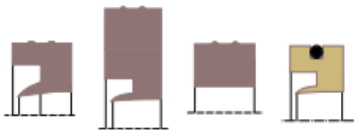
Material (designation)	Size Range* mm (inch)	Temperature °C (°F)	pH
AWC520 (PTFE)	25 – 355 (1 to 14)	Up to 200 (400)	0 – 14
AWC800 (EU)	25 – 355 (1 to 14)	Up to 85 (185)	4 – 10

**Contact engineering for speed, beyond these limits*
Applicable standard: ISO3069

Flow rates — approximated for water by the following formulas
Flow rate, liter/min = ([0.115 x Δ pressure, bar] + [0.064]) x shaft diameter, mm
Flow rate, gallon/min = ([0.053 x Δ pressure, psi] = [0.43]) x shaft diameter, inch



PRODUCT PROFILES



R14K R14K2P R14KRBS R14KPF

14KL Lantern Rings

Robust, Restriction Bushing for Rotary Equipment

Chesterton 14KL Lantern Rings are used in rotating equipment to improve lubrication as well as cooling for packing rings and lip seals by distributing the liquid uniformly around the circumference of the shaft, where the external lubrication is utilized. A further function of the Lantern Rings is to keep abrasives and chemicals flushed.

The 14KL greatly improves the service life of compression packing in pump, mixer, or rotary airlock stuffing box area. Lantern rings are also used in bearing protection applications with great results, where they help to duct lubricant and provide better lubrication for the rotary lip seal.

14KL incorporates multiple radial holes to provide proper and uniform fluid distribution. Lead-in chamfers on the OD of the rings make for easy installation.

The 14KL is manufactured from superior abrasion-resistant polymers, while PTFE compound offers broad media compatibility with high- temperature capability.

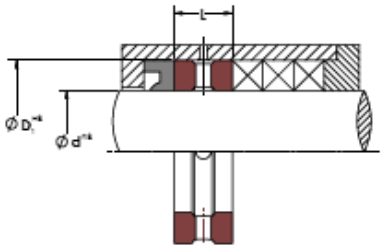
The 14KL Lanter Rings are manufactured using a machining process which allows the flexibility to create any size, based on equipment dimensions. Each bushing is individually manufactured and provides excellent performance in pumps, agitators, mixers, refiners, and other equipment. 14KL is available in solid and split or half-ring versions for ease of installation and maintenance.

- Improved lubrication and cooling effect helps to extend service life of packing and lip seals
- Keeps abrasives and chemicals flushed
- Split or half-ring design for ease of installation
- Different material options for plant-wide usage
- Designed for pumps of all types including agitators, mixers, and refiners

SPECIFICATIONS

Material (designation)	Outer Diameter Size Range* mm (inch)	Temperature °C (°F)	pH Range
AWL800 (LU)	38.1 660.4 (1.5 26)	Up to 85 (185)	4 10
AWL808 (AU)	38.1 400 (1.5 15.75)	Up to 85 (185)	4 10
AWL860 (LU)	38.1 660.4 (1.5 26)	Up to 120 (250)	4 10
AWL300 PTFE (Glass Filled)	38.1 381 (1.5 15)	Up to 200 (400)	0 14
AWL510 PTFE (Polymide Filled)	38.1 381 (1.5 15)	Up to 200 (400)	0 14
AWL520 PTFE (Virgin)	38.1 381 (1.5 15)	Up to 200 (400)	0 14

**Contact engineering for speed, beyond these limits*
Applicable standard: ISO 3069



PRODUCT PROFILES

14KL