Kaplan Blade Runner Upgrade

Chesterton Fluid Power Equipment Sealing Solutions

Hydropower
Chesterton 22KN & AWC 800
Case Study 002 FP

Challenge

Background

A hydropower plant using Kaplan turbines noticed that their blade runners were not working at optimum efficiency due to leakage of the blade runner seals.

Root Cause

Failing OEM rubber stacked v-rings had to be replaced every few years leading to lost downtime and unplanned maintenance.

Customer needed to get back online in the quickest possible timeframe.

Solution

Service

Chesterton's SpeedSeal facility manufactured all seals within days and had them onsite to meet the customer's maintenance schedule.

Product

Use two **Chesterton 22KN** seals back-to-back, creating a positive seal both internally and externally.

Material

Durable **AWC 800** thermoset urethane material provides excellent wear and hydrolysis resistance for outstanding performance in this applications.

Results

Improved Performance & Reliability

- Helped the customer get the equipment up and running quickly, saving valuable time and money.
- Zero leakage for over 4 years, eliminating the environmental and safety concerns, as well as associated costs.
- Blade runners are working at optimum efficiency.

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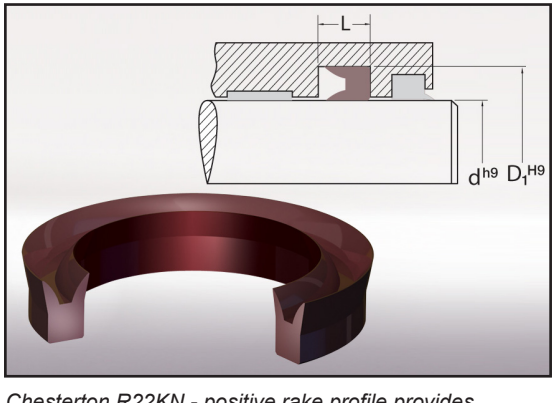
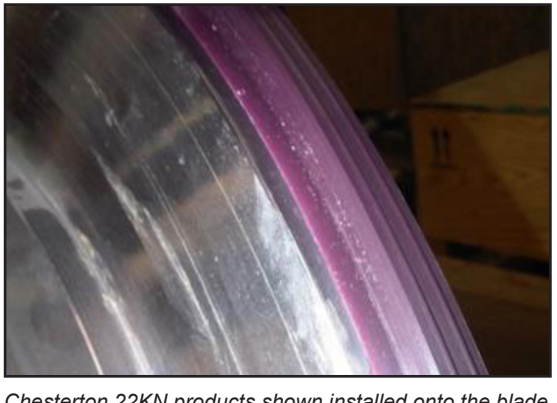
Equipment showing internal housing and blade runner.



Chesterton R22KN - positive rake profile provides optimum amount of radial loading and wipes contaminants away from mating surface.



Chesterton 22KN products shown installed onto the blade runner hardware.

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