

# Kaplan Blade Runner Upgrade

Chesterton Fluid Power Equipment Sealing Solutions

# 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**

Hydropower

Case Study 002 FP

## **Improved Performance & Reliability**

Chesterton 22KN & AWC 800

- 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.



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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