

Challenge

Background

An original Kaplan hydro turbine was installed in 1978, refurbished in 1996, and was being refurbished again. The contractor's biggest headache during the rebuild process is always the blade seals.

The contractor reached out to Chesterton for our expertise and had EPS engineers come onsite to take measurements for replacements.

While measuring the existing blade seals and hub, Chesterton noticed the current seals were held in place by some type of metal bracket. The bracket was not shown on the OEM drawing.



Polymer seal engineer measuring hub.

Solution

Product

EPS engineering recommended **Chesterton® R22KN5 seals** and spacers. These were made from **AWC800** polyurethane for abrasion resistance and long life.



Turbine blades.

Results

Optimal Fit with Precise Measurements

The contractor installed eight new **R22KN5 Seals**, and spacers made from **AWC800** in May 2022 on the blades.

The contractor was ecstatic about the support provided by EPS engineering. The overall process was extremely smooth from measurement of seal hubs, fabrication of parts to specific dimensions, and installation.



Installed seals and spacers.