Queensland Alumina (QAL) is one of the world’s largest aluminum oxide producers and meets around 10% of worldwide needs. Centrifugal slurry pumps of a world-wide reputable pump manufacturer are used in production to pump aggressive media with a high solids content.

The problem
The service life of earlier seals was unacceptable for QAL. The company therefore set the task of developing a single seal with a minimum service life of 6 months. Complicated double seals with buffer system could not be used. The six month minimum service life was derived from the service life of the pump components in contact with the product up to the first maintenance.

The EagleBurgmann solution
The EagleBurgmann HR proved to be the optimum solution and exceeded expectations concerning service life six-fold. A flushing connection and a throttle with self-cleaning profile integrated into the seal housing were provided to aid lubrication of the sliding surfaces and keep out solids. The very small throttle gap means that purging water consumption can be limited to no more than 2 l/min.

This mode of operation achieved a service life of more than 3 years.