



CASE STUDY

Industry

Power Generation

Application

Boiler recycle centrifugal pumps at coal-fired power plant

Original Drive Description

Multiple strand V-belt drive with rated capacity of 500 HP. The 8-groove motor sheave measures 18" in diameter, and carries eight single 8V2360 V-belts.

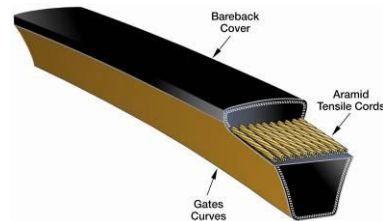


Problem

The boiler recycle centrifugal pumps run 24/7 and were burning up motor bearings, resulting in frequent and costly maintenance downtime. The suspected cause was belt overtensioning. However, an analysis using Gates Design IQ[®] revealed that the existing belt drive was undersized for the application (500 HP motor x 1.6 service factor = 800 design HP).

Solution Drive Description

The eight single V-belts were replaced with two 4-strand Predator[®] PowerBand[®] 8VP2360 belts. The new drive is rated for 820 HP using the same number of strands and the same sheaves.



Benefits of Gates Drive

The 70% initial price premium for the Predator belts was more than offset by the reduction in maintenance and downtime cost.

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