

## Bison Gear & Engineering Features:

# PowerSTAR<sup>®</sup> Gearmotor Simplifies Jorgensen Chip Conveyor Design

The Bison PowerSTAR<sup>®</sup> gearmotor has carved out a niche for itself in industrial equipment applications by simplifying installation and providing long-lasting, reliable performance. Recently, the Bison team met with associates at Jorgensen Conveyors, Inc. to discuss a possible solution to drive their chip conveyor system. Jorgensen has dedicated over half a century to designing a wide range of coolant filtration and engineered conveyor solutions for CNC machine tool metal chip removal. The company was looking at simplifying their current chip conveyor design and to convert to a direct drive system. After reviewing the application requirements, Bison recommended PowerSTAR<sup>®</sup>.

Chip conveyors are critical in CNC machine tool equipment. During operation of vertical/horizontal milling and other CNC machines, metal chips and shavings quickly accumulate. If left unchecked, this can create significant maintenance issues. Chip conveyors solve this problem by collecting the accumulated material, commonly referred to as 'swarf,' and drive it out of the machine and into a collection bin for safe disposal.

Jorgensen's previous chip conveyor system relied on a multi-component chain and sprocket assembly to drive the metal chips down the conveyor. The components that comprise the assembly are sourced independently, requiring equipment operators to stock numerous parts in preparation for any potential maintenance issues to avoid machine downtime. Jorgensen was seeking a simpler, one-piece solution to eliminate this problem.

PowerSTAR<sup>®</sup> was a natural fit for this application. The concentric, right-angle design allows the gearmotor to mount directly against the equipment to save on space without additionally sourced components. The advanced hypoid gearing provides more efficient operation by running cooler and lasting longer. Installation and assembly time were significantly reduced, saving on cost. Also, Bison Gear and Engineering designs and manufactures all of their products in the US, which allowed for significantly reduced product lead time. After initial testing, the PowerSTAR<sup>®</sup> hypoid right-angle gearmotor proved to be an extremely viable replacement, and Jorgensen adopted it into their chip conveyor systems.

### About Jorgensen Conveyors, Inc.

Jorgensen is a global supplier who leads the way in providing the broadest range of engineered conveyor and coolant filtration solutions for CNC machine tool chip removal and coolant filtration. Since 1950, Mequon, WI-based Jorgensen Conveyors, Inc. has been solving problems for their customers with proven lines of conveyors, coolant filtration and material handling equipment. Jorgensen also designs and builds a complete line of process feeder conveyors for the recycling industry.



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