



Essential Belt Drive Design Considerations for Food Processing Conveyors

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Conveyor Belt Drive Design Considerations

Key conveyor belt drive design aspects to consider

- Food Safety
- Performance
- Workforce Safety
- Cost of Ownership

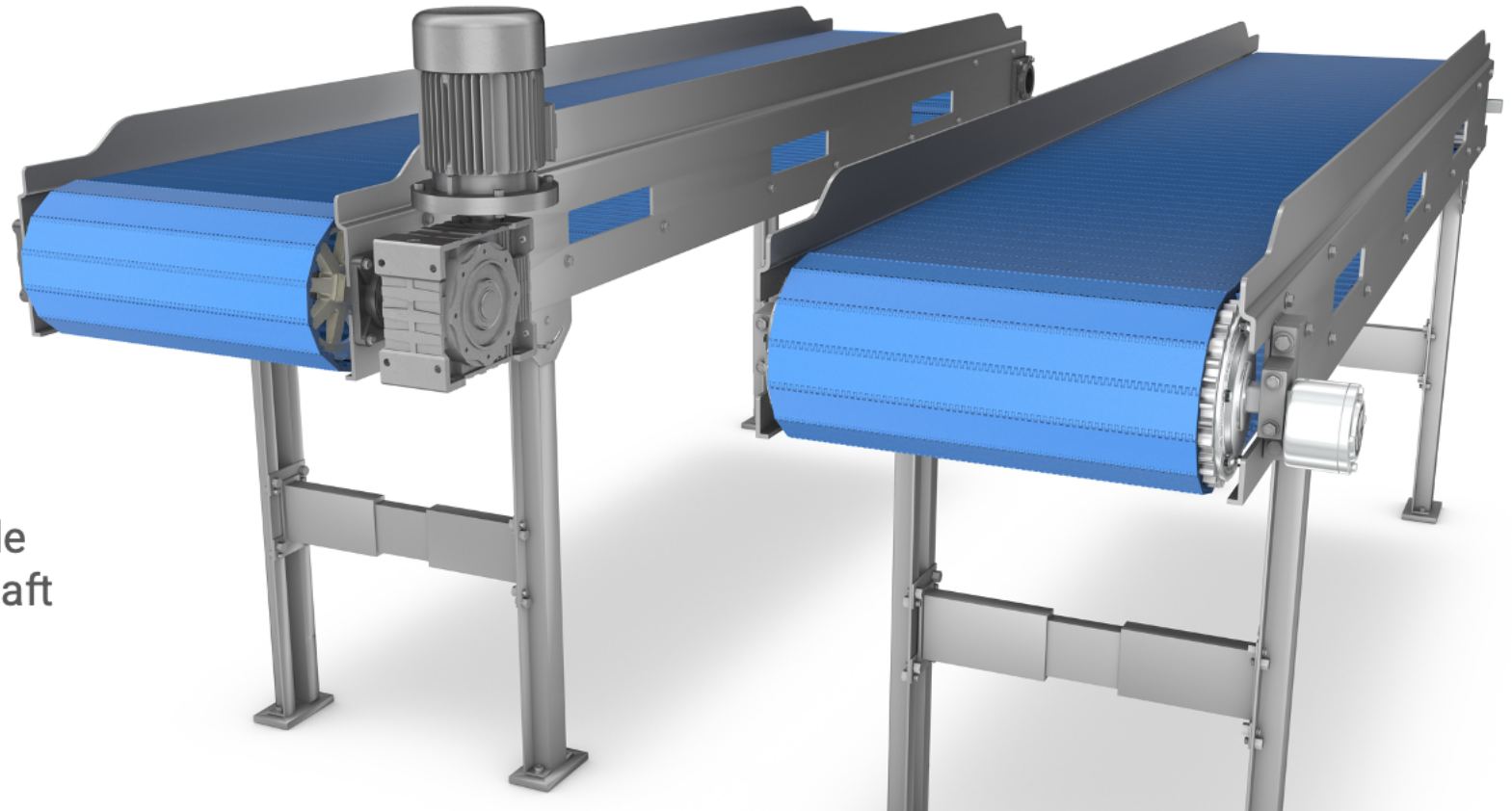




Conveyor Belt Drive Design Comparison

Traditional Drive Design

External motor and gearbox, sprockets on a square shaft



VDG Drum Motor Design

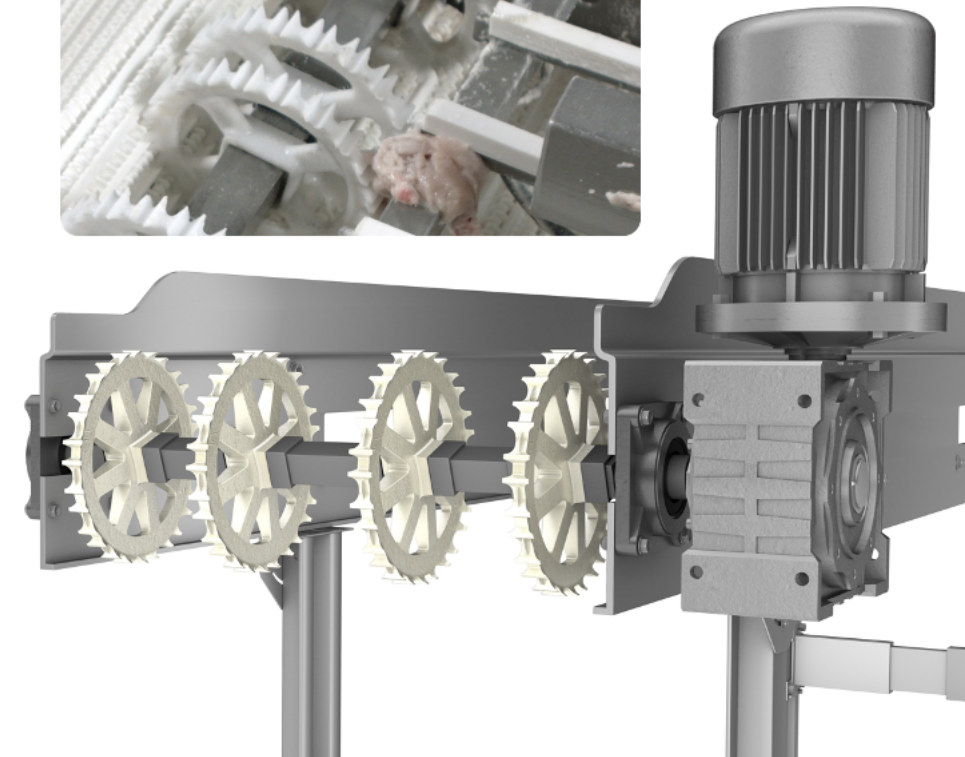
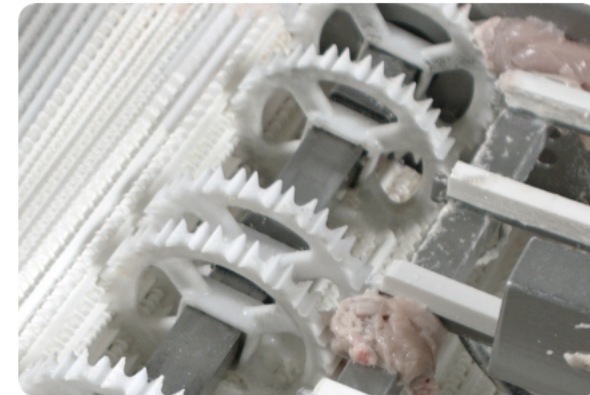
All drive components enclosed inside the drum, no sprockets or square shaft



Traditional Conveyor Belt Drive Design

Motor and gearbox attached to the conveyor frame with pillow block bearings at 90° to the drive shaft with sprockets

- Significant mechanical losses
- External moving components pose safety hazards,
- Requires downtime for routine maintenance
- By-products become trapped in gaps and crevices and harbor bacteria
- Hard to clean, requires excessive amount of water and time to clean during washdown cycles

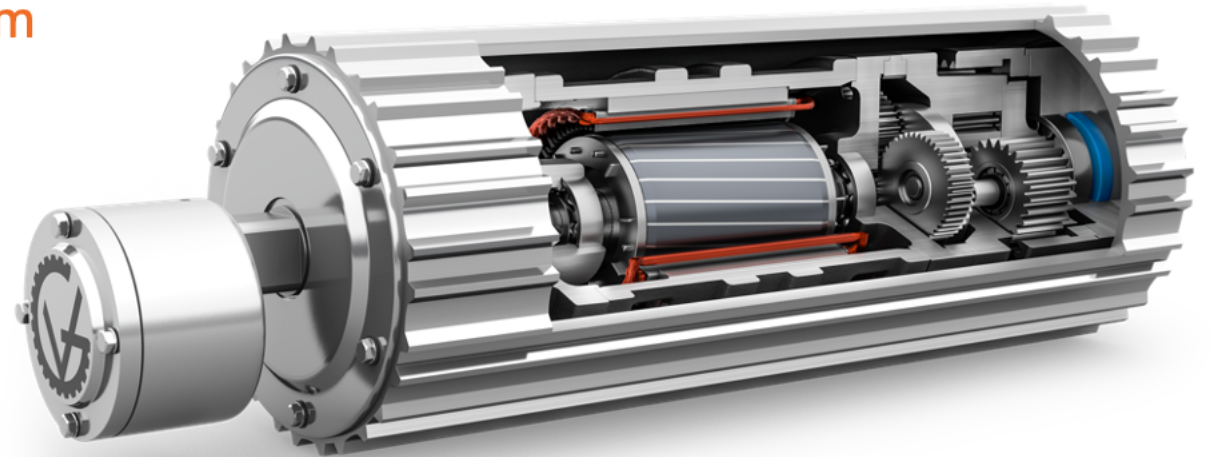




Drum Motor Conveyor Belt Drive Design

All drive components are enclosed inside the drum with the electric motor in-line to the gear reducer

- 96% mechanical efficiency
- Premium efficiency electric motor
- All enclosed design eliminates safety hazards
- Maintenance-free for 80,000 hours of operation

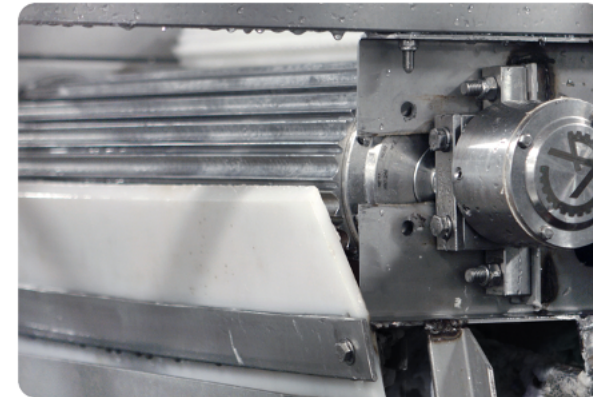


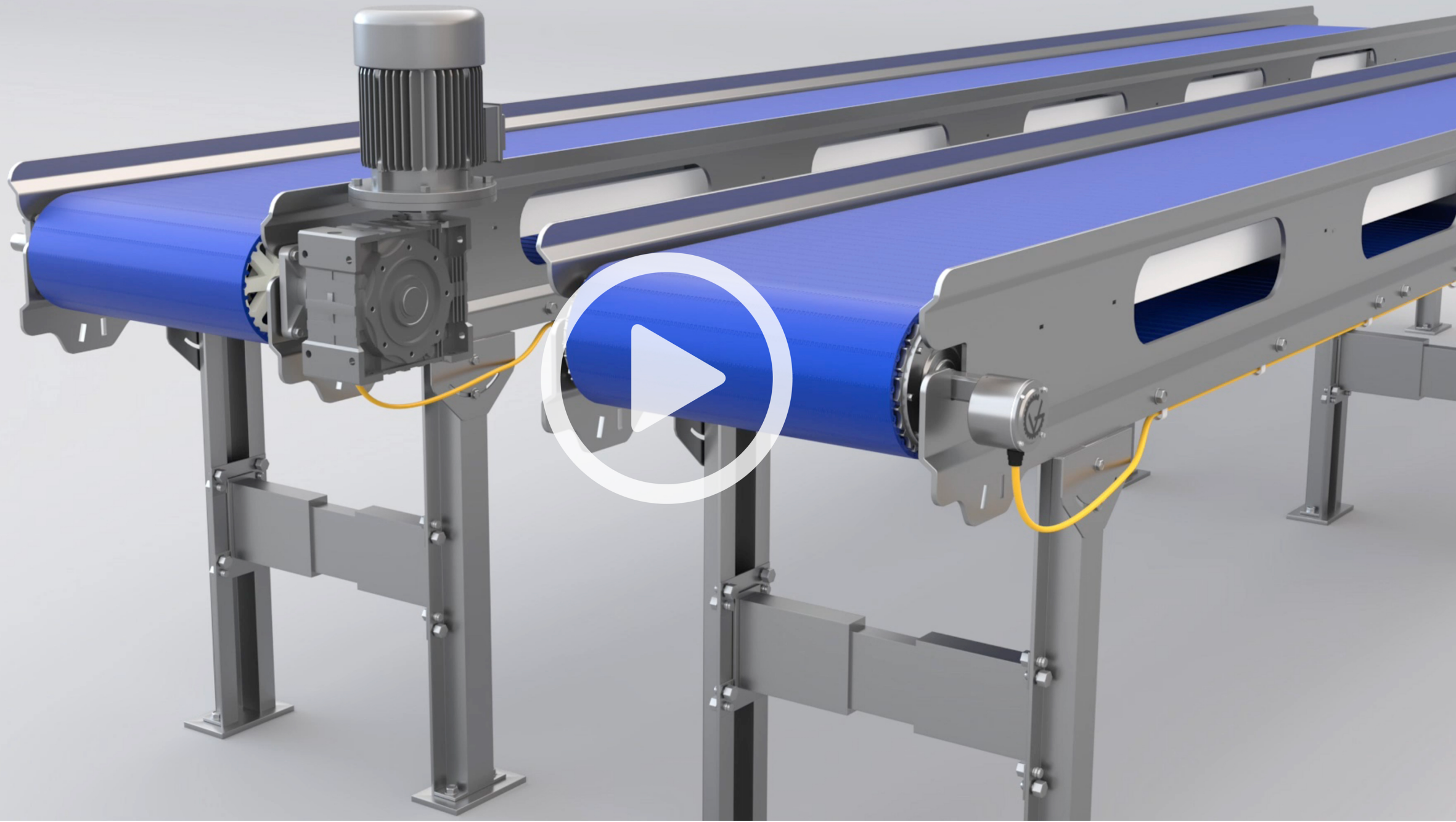


Drum Motor Conveyor Belt Drive Design

Belt profile is machined directly onto the drive drum to drive modular conveyor belts without using sprockets

- Eliminate sprockets, gaps, crevices and harborage areas
- Withstands pressure washdown up to 3,000 psi
- 50% less water and time for cleaning during washdown cycles



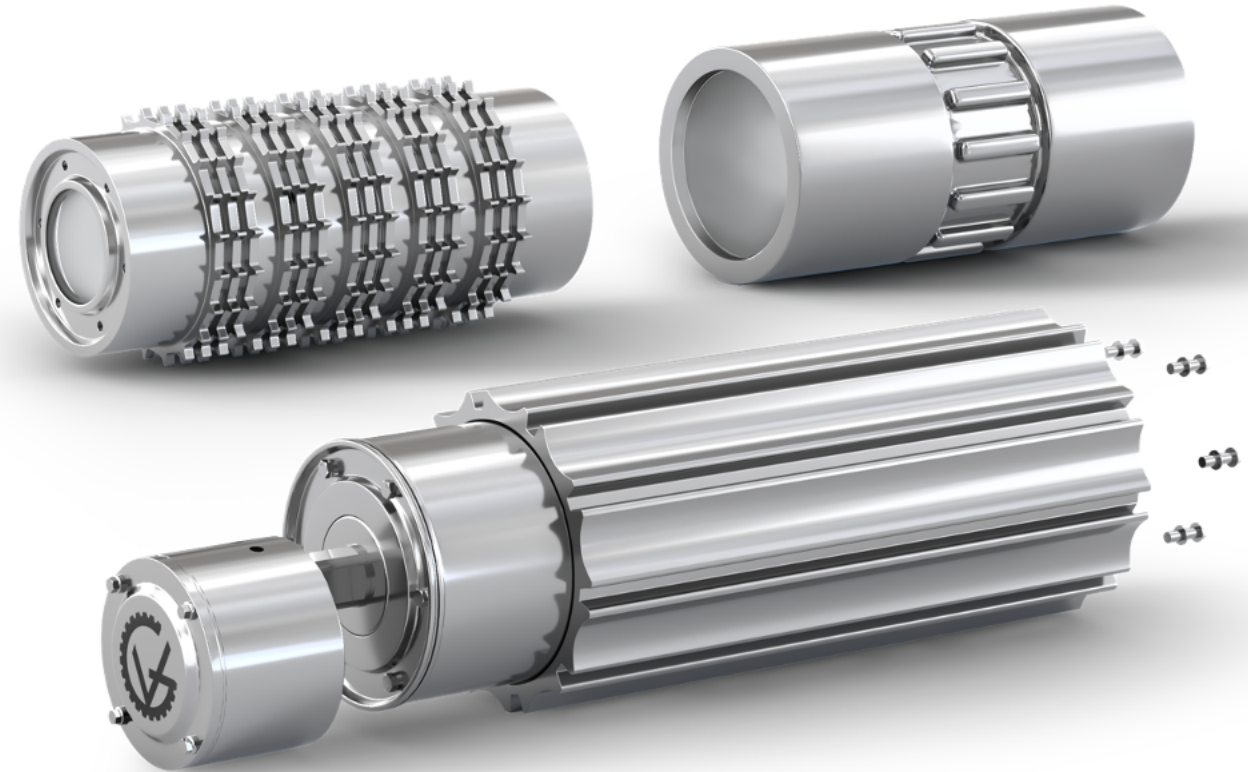


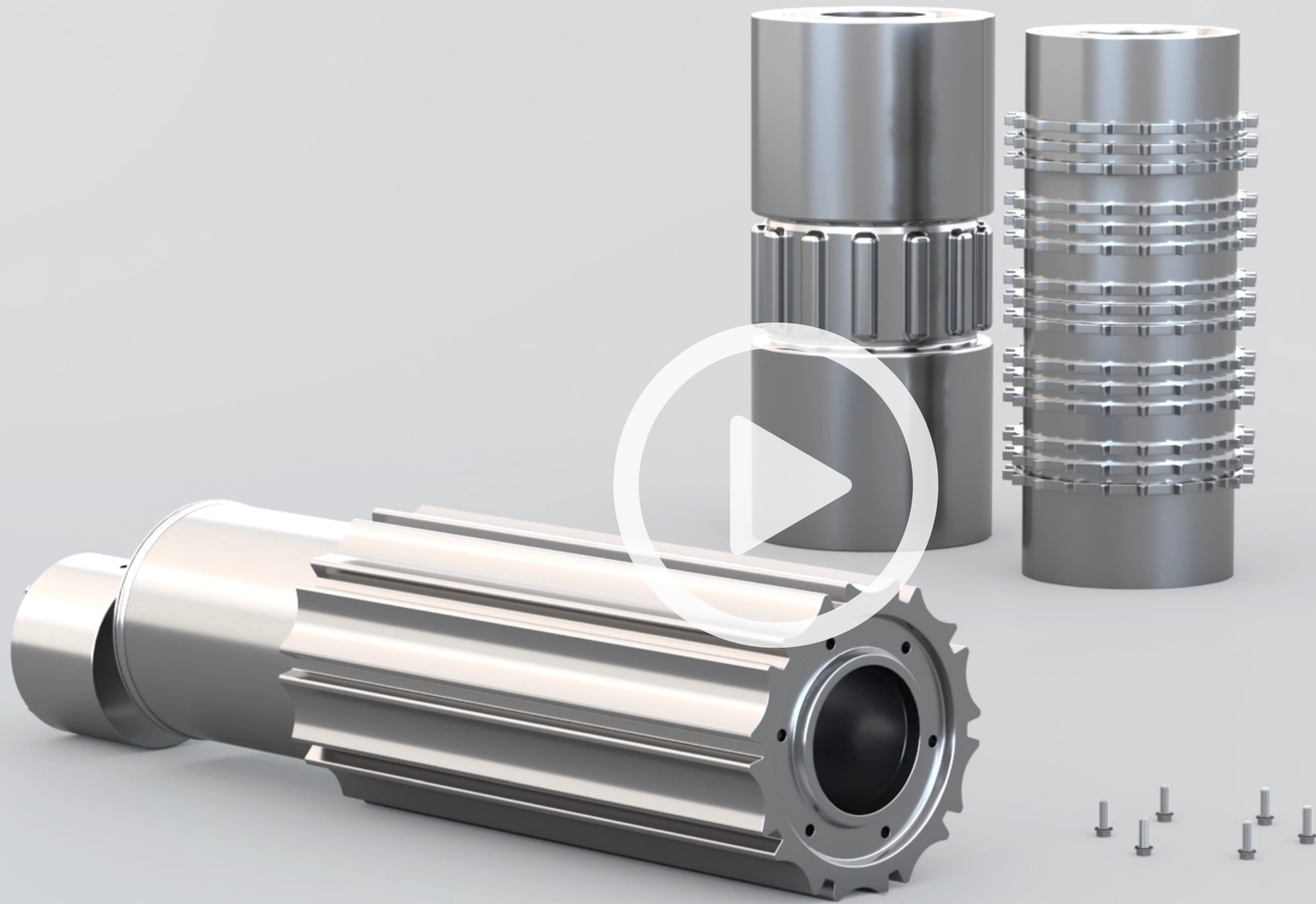


NEW SSV-XP Drum Motor

Exchangeable Profiled Sleeve

- Belt profile machined directly onto the drive sleeve
- Profiled sleeve (XP) can be easily removed and exchanged for another profiled sleeve to match the belt required on the conveyor
- Provides flexibility to use the same drum motor when switching to another belt for a different type of processing







Questions?



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Thank You

