

VLT

VLT® drive increased sugar production by 16 tons per day

Applying a Danfoss VLT to the centrifuge enabled Usina Coruripe to increase production by one cycle every hour. Each centrifuge produces 875 kg of sugar per cycle. As a result, sugar production was increased by 16 tons per day.

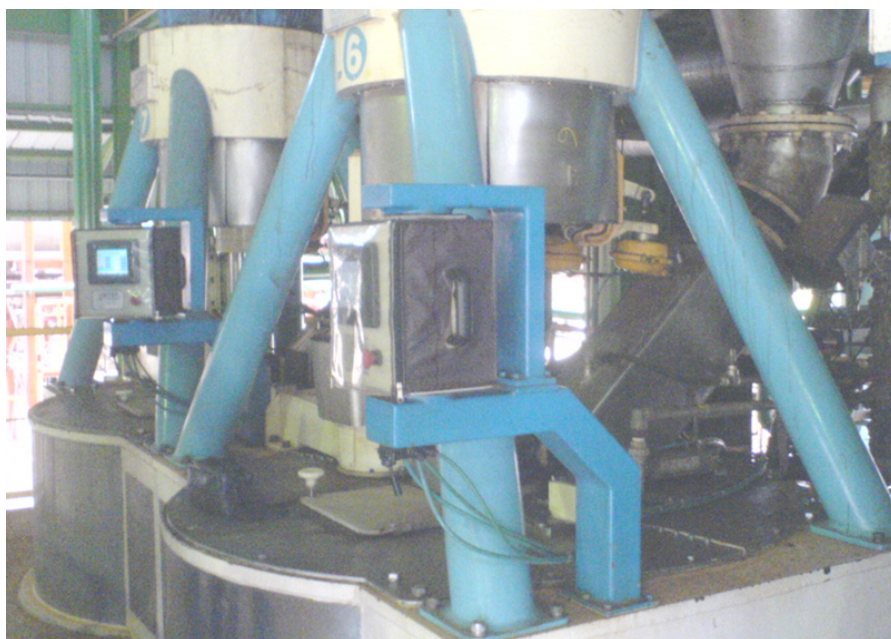
The VLT operated flawlessly for the entire sugar harvesting season (over seven months)

Usina Coruripe S/A, one of Brazil's leading sugar and alcohol producers, purchased a new sugar centrifuge to increase their production capabilities. However, the new centrifuge did not result in the expected production increase because the frequency converter delivered with the centrifuge was unreliable and often resulted in costly repairs.

Although the centrifuge was relatively new, Usina Coruripe sought to replace the frequency converter with a brand that would be more reliable and from a company would be able to provide exceptional service.

Confidence and experience

The drive that was being replaced had an active front end which is commonly used in sugar centrifuges due to their ability to regenerate power back into the system. Because of this, Usina Coruripe naturally began their replacement search by initially considering active front end drives.



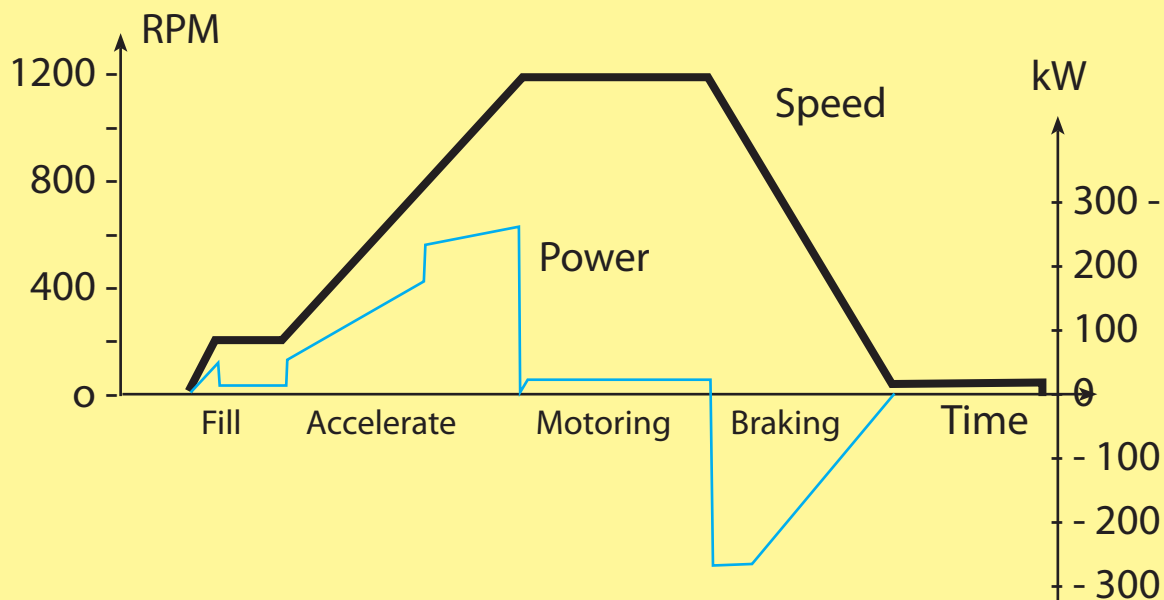
However, since 70% of the frequency converters in Usina Coruripe's plant were Danfoss VLT® frequency converters (more than 120), they were confident with the reliability of the Danfoss VLT® name along with the affordability and availability of Danfoss service. As a result, a 315 kW Danfoss VLT® Automation Drive and a third-party regeneration unit were considered in addition to the active front end drives.

After evaluating the options, Usina Coruripe selected the Danfoss drive and regeneration unit primarily due to their confidence in, and experience with the Danfoss VLT® frequency converters. However numerous other advantages also

influenced their decision:

- High efficiency (98.5% at full load)
- Compact size (33% smaller than the drive it replaced)
- Terminals that allow external connection for the regen module, the system can be easily reversed to a standard two-quadrant for another application
- User-friendly graphical display with quick menu and full DeviceNet control
- Very accurate torque control due to the VVC+ Vector Control capabilities
- S-Curve ramp profile allows smooth transitions between different speeds
- Excellent technical support
- Competitive price

Speed and Power curves for a sugar centrifuge



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