

**Refine your sugar  
production with  
raw milling power**



# Squeezing the most out of sugar

**Extracting sugar is sticky work in more ways than one. Tough raw materials and a tough environment make it a challenge to keep things running smoothly. System solutions and sugar mill machinery drives from Bosch Rexroth stand up to the harshest conditions, providing the power and control to get the job done right.**

## **1. Hilo winches – drive features**

- ▶ excellent controllability
- ▶ weight and space-saving design
- ▶ ability to start, stop and reverse with precise control

## **2. Wagon tippers – drive features**

- ▶ excellent controllability
- ▶ high reliability for optimized capacity
- ▶ all functions from one supplier

## **3. Cane tables and conveyors – drive features**

- ▶ torque control protects the chain/belt from overloads
- ▶ soft starts and stops keep chain stress to a minimum
- ▶ low speeds for easy inspection
- ▶ high starting torque can be maintained for an unlimited period of time

## **4. Intermediate conveyor – drive features**

- ▶ excellent controllability
- ▶ weight- and space-saving design
- ▶ optimization of the feed between units

## **5. Assist drives – features**

- ▶ powerful solutions with small size that are adaptable to space available
- ▶ modularity in design offers great possibilities for upgrades and changes
- ▶ repowering existing drives by 100%



**6. Pressure feeders – drive features**

- ▶ built-in overload protection provides smooth and safe operation for both machinery and personnel
- ▶ space and weight-saving design allows solutions to fit in available space without major adjustments or costly changes
- ▶ excellent controllability allows better extraction

**7. Drives for roll mills, including top roll drives and independent roll drives – features**

- ▶ optimize your production for both extraction or power saving
- ▶ minimize the shock loads in the mill
- ▶ solutions with the best power-to-weight ratio available
- ▶ high reliability thanks to the low moment of inertia
- ▶ torque control of each roller minimizes the individual slip and reduces the wear of the rollers

**8a. Chainless diffusers – drive features**

- ▶ high reliability through built-in redundancy and proven technology
- ▶ modular design makes it easy to upgrade and expand as needs change
- ▶ global network of service and support

**8b. Chain diffusers – drive features**

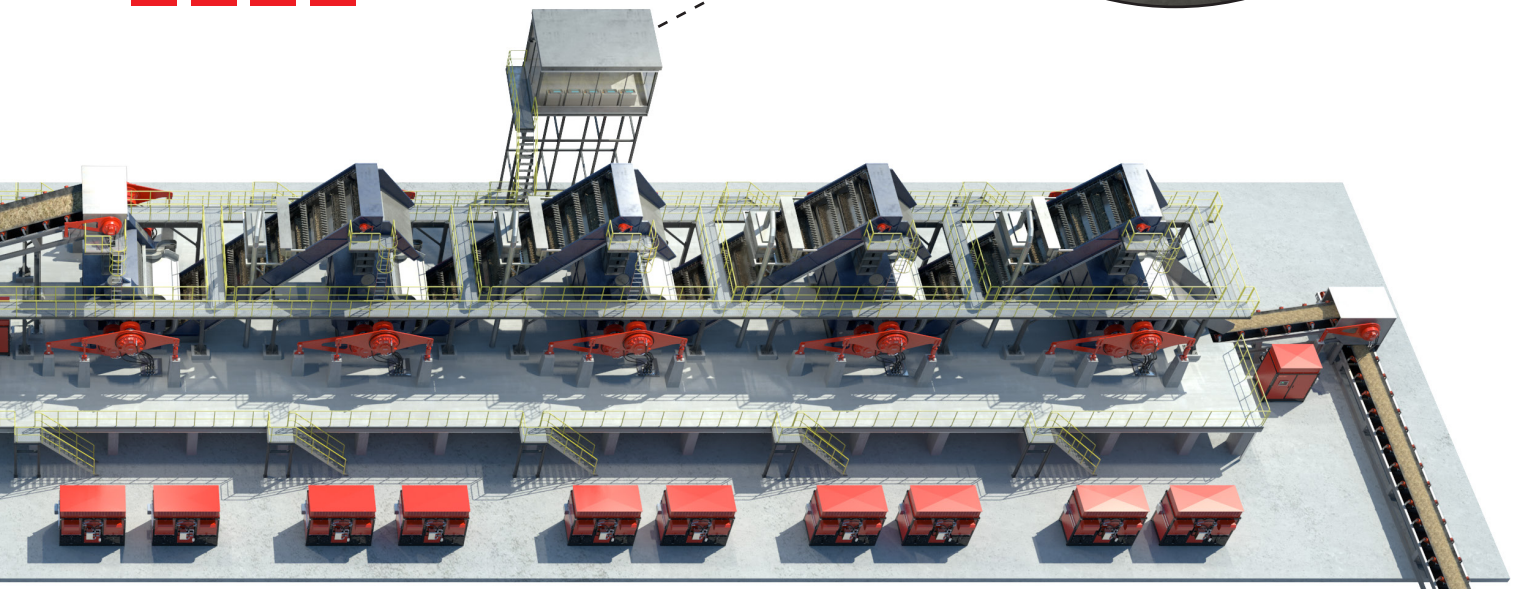
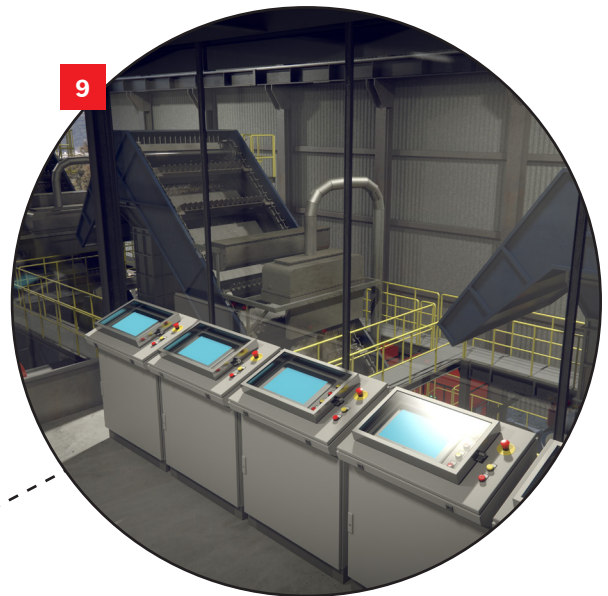
- ▶ high starting torque
- ▶ soft starts and stops keep chain stress to a minimum
- ▶ low speed for maintenance

**9. Control desk– features**

- ▶ health monitoring of your system
- ▶ friction and torque control to maximize performance

**10. Crystallizers – drive features**

- ▶ uniformed crystallization - torque vs. viscosity control
- ▶ minimize power requirement
- ▶ shaft mounted - easy installation



# The drive to build a better solution

**With no foundations, no gearboxes and no sensitive couplings, Hägglunds hydraulic direct drives offer flexibility and reliability beyond the ordinary. But they also deliver exceptional power, with control over speed and torque no other drive solution can match.**

A direct drive system is based on one or more Hägglunds hydraulic motors, which are mounted directly on the driven shaft. The force and direction of rotation is determined by fast-acting hydraulic pumps, which are located in a flexibly placed drive unit. Overseeing it all is a control and monitoring system, ensuring safe, smooth and optimized drive function.

## 5 big benefits with hydraulic drive systems

### **Controllability**

Direct drives with low speed and high torque gives maximum controllability. You can work at full torque from standstill, without time restrictions. The pressure control system detects if the torque is too high and automatically reduces the speed.

### **Reliability**

The operating principle of our hydraulic direct drives is proven to be good practice for milling plants. The low moment of inertia gives unbeatably smooth driving with high reliability. No matter how many times you have to start, stop or reverse, the drive system simply keeps on going.



### **Maximum uptime**

With few components, no gearbox and a generous rated service life our motors only need a minimum of maintenance. We provide a global network of knowledge and service to ensure the lasting performance of your drives.

### **Compact**

Mounted directly on the driven shaft, the compact motor takes up minimal space, leaving more room for access and maintenance of the machine. The Drive Unit is separate and can be placed wherever convenient.

### **Process efficiency**

With the accurate and instant control of speed, flow and capacity that you get with our drive solutions, you can fully maximize the efficiency and versatility of your process.

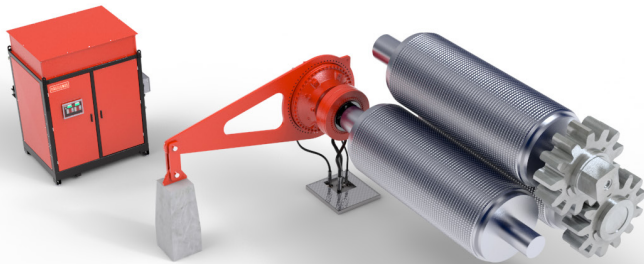
# Easy installation

**Compact and lightweight, Hägglunds drives simplify design work and are easy to get in place. Because they often reduce installation weight by many tons, the lifting, maneuvering and securing all become easier.**

## Assist drives

An assist drive, adds power to the existing system and creates greater capacity in the electricity production. With Hägglunds direct drives you can easily re-power your mill.

An assist drive can be the first step toward increasing your production and milling performance. And when you're ready to take the next, it can easily be upgraded to an independent roll drive.



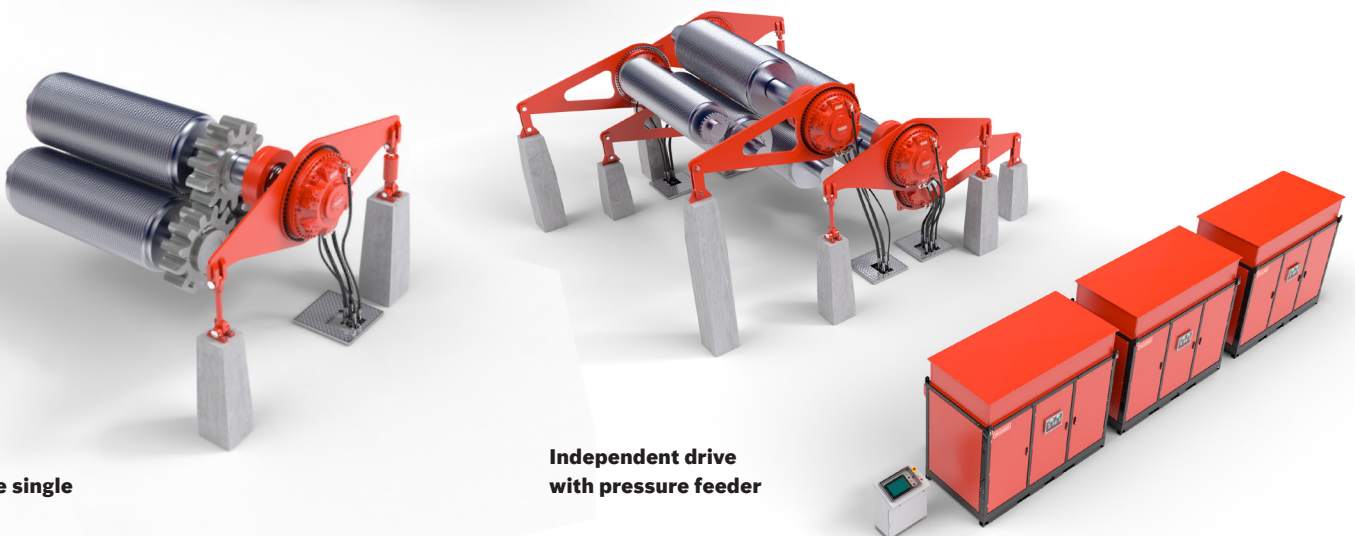
**Assist drive**

## Independent roll drives

The Independent roll drive is our most advanced drive for cane crushing mills. It gives you maximum flexibility, since each roll can be given its own torque and rotation speed.

Utilizing the excellent torque control of the Hägglunds drives, you can easily adjust the speed to match different cane types and product qualities. Here, you really can optimize your production according to the capacity and the load at hand – as well as minimizing power consumption.

Our integrated control system allows you to have extremely fast pressure control which detects if the torque is too high and automatically reduces the speed. This minimizes unwanted peaks in the system and reduces stresses in the machine.

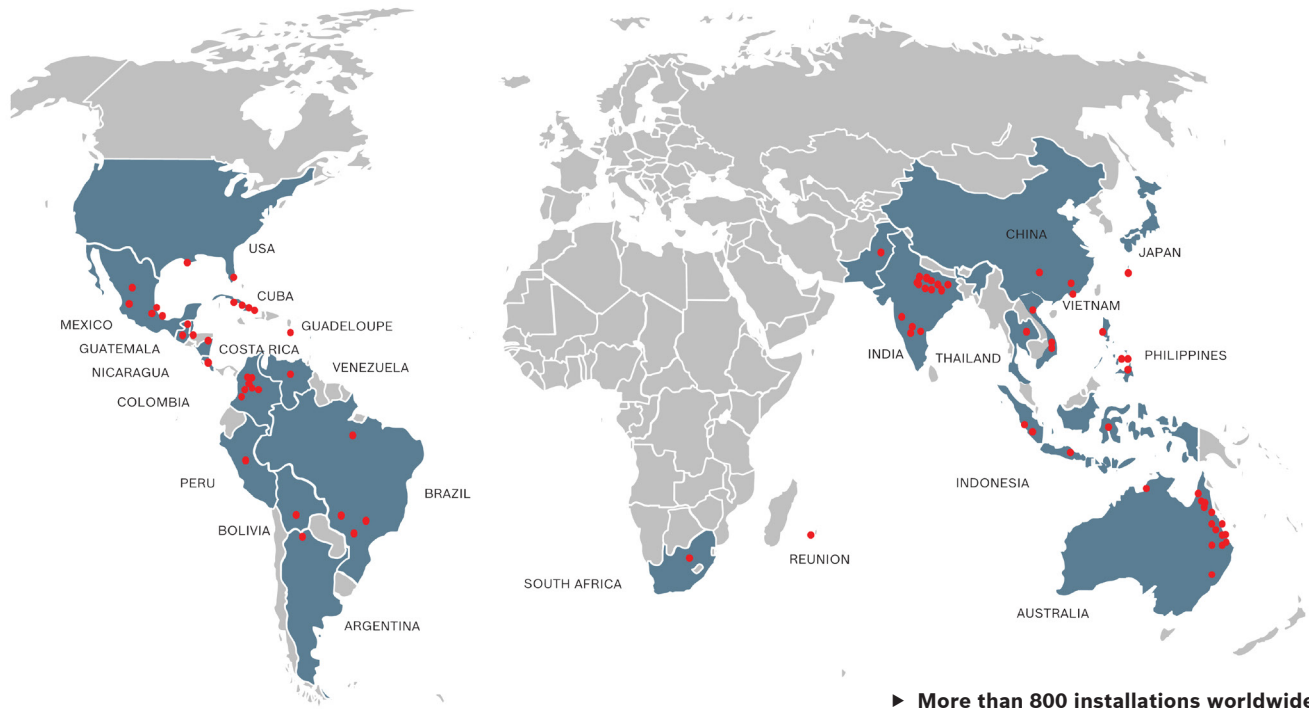


**Top drive single**

**Independent drive with pressure feeder**

# A global partner, always nearby

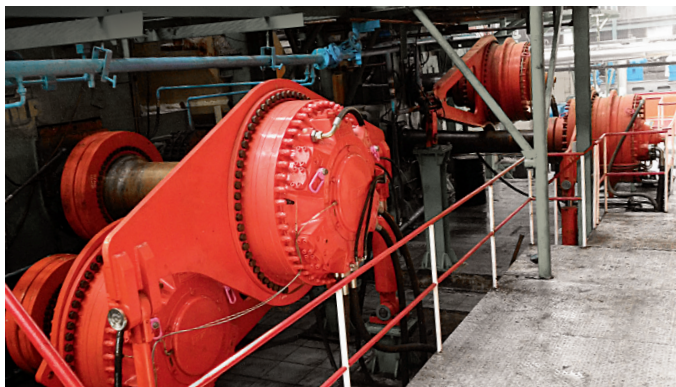
**Whether you need complete drive solutions or upgrades of existing equipment, you can always count on our assistance and support.**



► **More than 800 installations worldwide.**

Our worldwide organization provides engineering, installation and service, regardless of geographical location. For you, that means quick and well-coordinated global support for quotations, installation and on-site service or assistance when needed. We have extensive experience in the sugar industry, where our solutions have been used for 40 years now.

This long experience and our motivation to improve and develop our products and services, has given us an exceptional depth of knowledge and understanding of how to configure each function to get the best out of your sugar mill.



# Service that connects you with expertise

Bosch Rexroth can draw on experience from sugar mill applications worldwide, both in drive systems and beyond. By listening closely to your challenges and making full use of our knowledge, we bring you reliable, long-term solutions that minimize risk and maximize peace of mind.

Today those solutions include not Hägglunds original spare parts, smart upgrades and expert field service, but also cutting-edge connectivity. Our Hägglunds Inside Intelligence portfolio offers new ways to utilize our expertise, combining smart technology in your drive system with mobile

devices and interactive solutions. Whether using Hägglunds CMP for condition monitoring or Hägglunds InSight Live to work with our service experts through augmented reality, you experience new levels of confidence and optimization.

For total peace of mind, you can combine the right mix of support and services – from parts to connectivity – in a Hägglunds performance agreement designed for your specific needs.



## RANGE OF REXROTH SERVICES FOR MACHINERY APPLICATIONS AND ENGINEERING



Spare Parts



Preventive and Predictive Services



Repairs



Retrofit and Modernization



Field Service



Hägglunds Inside Intelligence

Detailed information  
[boschrexroth.com/service/hagglunds](https://boschrexroth.com/service/hagglunds)



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