



**Turnkey solutions  
for roll mills**

# Keeping production rolling

**When your production runs 24/7, every minute saved while mixing, homogenizing or warming up your materials is valuable. Our hydraulic drive systems let you work faster while utilizing your roll mills to the maximum – without compromising safety. Variable speed and friction, advanced monitoring systems and reliable safety functions are just a few of their key advantages.**



With Häggglunds hydraulic direct drives from Bosch Rexroth, you can adapt your roll mills for each raw material and compound. The ability to drive rollers independently gives you countless ways to optimize friction, simply by increasing or decreasing each roller's RPM.

No matter which materials you use or in which amount, you can quickly achieve a consistent, high-quality mix. Our technology lets you work with full torque from standstill, without any risk of the drive overheating.

Because our drive systems are highly modular, they offer great possibilities for customization and step-by-step upgrades. And you can enhance them with our monitoring systems, which combine with our maintenance agreements to reduce the risk of unplanned production stops.

Routine maintenance is quickly provided, thanks to our global presence and certified service experts.

” We have open roll mills and the Häggglunds drives offer us the best safety feature we can get. If we press the button, the rollers stop immediately.

*Dr. Wolfgang Keil, Managing Director of PTE*

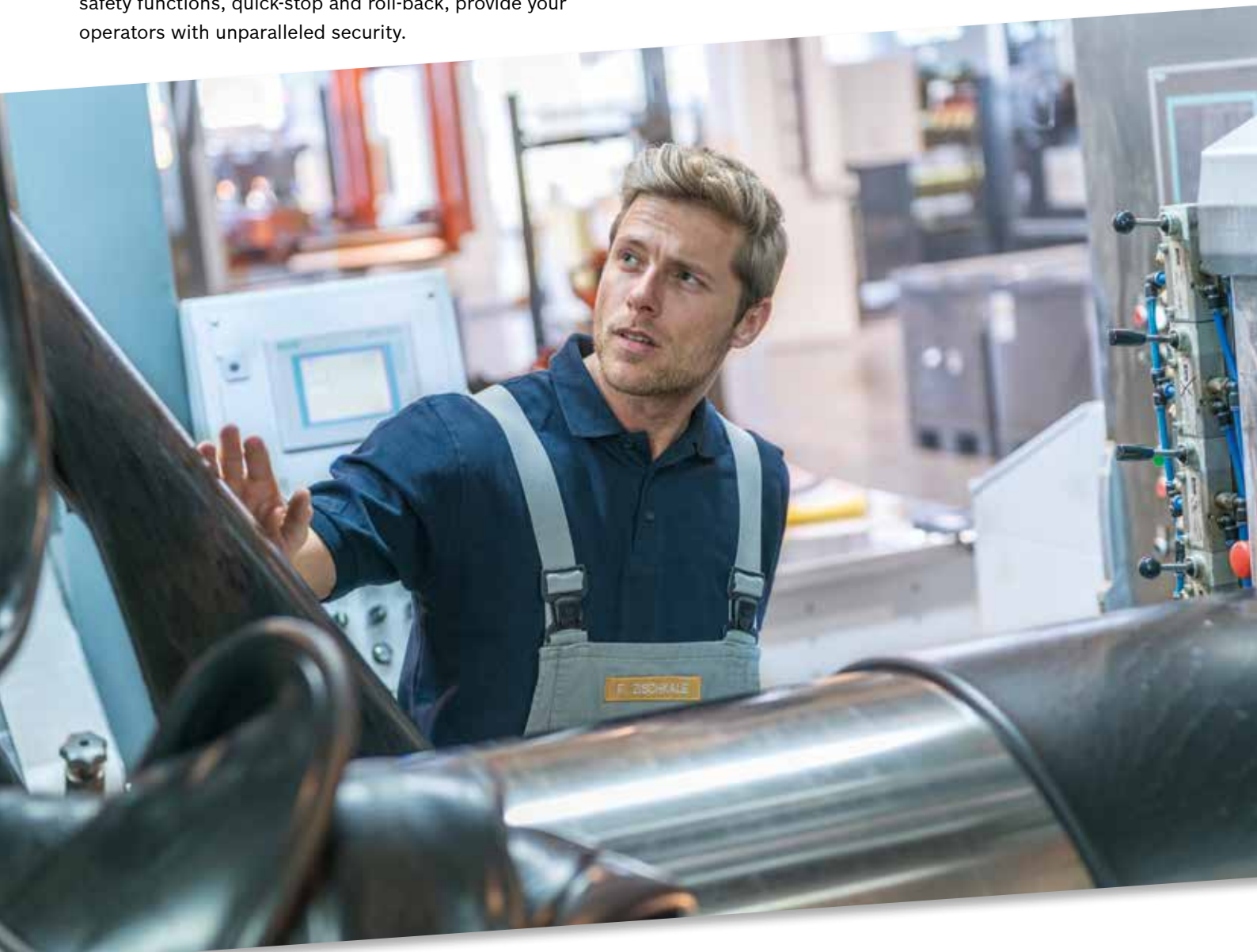
” If an accident occurs, it's crucial to be able to reverse the system slowly and safely. Working with the experts from Bosch Rexroth, we found a suitable solution.

*Manfred Achleitner, Technical Manager at Kraiburg Austria*

# Maximize your safety with smart turnkey packages

**Bosch Rexroth is a global supplier to a global market. No matter where you operate, you can be sure that we, like you, set our sights on the highest level of operator security. If you want to optimize safety, we have your solution.**

When it comes to roll mills, the most important safety aspect is your ability to stop and reverse the rollers quickly. Our two safety functions, quick-stop and roll-back, provide your operators with unparalleled security.



# The fastest quick-stop function in the world



Speed is the key to efficiency, but also to safety. Nothing in the rubber industry makes this clearer than a roll mill.

## Every degree counts

The quick-stop function of our Häggblunds direct drive systems provides the market's fastest stopping time. It brings the rollers to a full stop within a rotation angle of as little as 3°, depending on the machine. When the rollers can stop within just a few degrees of rotation, it safeguards the life and limb of your operators.

Compared to the 57° required by the European standard (EN1417+A1;2008/AC;2009) applicable to rubber industry safety, the difference is significant. By the European standard, the rollers of an 84" roll mill have 340 millimeters in which to stop. With our quick-stop function, they travel just 50 millimeters or less.

The quick-stop function can be tested over and over again – before every shift if you wish – without any impact on your machine.

# Peace of mind with automatic roll-back function



You can further improve the safety of your roll mill by equipping the main rollers with our roll-back function.

## **Freedom to act**

After a quick stop of the roll mill, the rollers are automatically moved apart and the emergency drive rolls them back by  $60^\circ \pm 5^\circ$ . This enables easy removal of whatever is jammed in the machine, without you having to think about which buttons to press. You can devote all your focus to

the situation at hand. As a bonus, the roll-back function supports intentional reversing in jog mode. This is useful if a tool falls into the machine, for example, since it lets you avoid damage to the rollers.

## **Quick and easy retrofit**

The roll-back function is an option for all new drive unit deliveries from Bosch Rexroth. We also offer an easy retrofit for older drive units, to make even your existing hydraulic roll mills reversible.

# 5 big benefits with hydraulic drive systems

## Flexible production

Fully variable speed on both rollers allows precise control and enables production with many different recipes. There's no limit to the number of starts and stops your roll mill can make when equipped with a hydraulic direct drive.

## Variable friction

Independent drive on the rollers creates countless alternatives for optimizing friction according to your compound. By setting the rollers to precise yet different speeds, your roll mill can be fully adapted for each raw material or additive. This creates an optimal process for mixing to a consistent quality.

## Safety

Our quick-stop function provides the market's fastest stopping time, and our roll-back function automatically reverses your roll mill after an emergency stop. That means maximum safety for your roll mill operators. With our drives you also avoid the risk of overheating and fire, no matter how tough and difficult the material being processed.

## Low maintenance

The modular design of our Hägglunds drive solutions, which is based on standard components, is as rugged as it is compact. That in itself means a long service life. Add the security of a maintenance agreement from Hägglunds service experts within Bosch Rexroth, and you can focus completely on your core business.

## Compact and lightweight

Our direct-mounted Hägglunds drive solutions provide the greatest possible flexibility. No other solution is as compact or lightweight. Minimal space is required around your roll mill, and the drive unit can be located wherever convenient for easy access and maintenance.



## Suitable for roll mills

The Hägglunds motor range is part of our reliable drive systems that have long been used in the rubber industry. Thanks to their heavy-duty construction, these radial piston motors can handle sector-specific shock loads and stop instantly when required.

With their space-saving design and versatile mounting possibilities, Hägglunds motors offer you a high degree of configuration freedom. A wide range of sizes and displacements enables thorough optimization when selecting motor and hydraulic pump combinations.

## New possibilities

We take great pride in the continuous improvement of our products, solutions and designs, all of which are tested 24/7 in our unique hydraulic laboratory in Sweden. Still more new solutions are on the way. As a customer with any of our products, you naturally benefit from all the knowledge gained in our never-ending development process.



# Investing in peace of mind

**Our mission is to make sure that our clients get the most out of their processes and work by providing great system solutions and services. To facilitate and enhance their operations by being an active, long-term partner offering experience, know-how and excellent technological solutions.**

Wherever you are, we are right there with you. With our global network of knowledge and service, we offer local support that goes well beyond the ordinary. Our experienced engineers are not only experts in our own solutions, but also have a great application know-how.

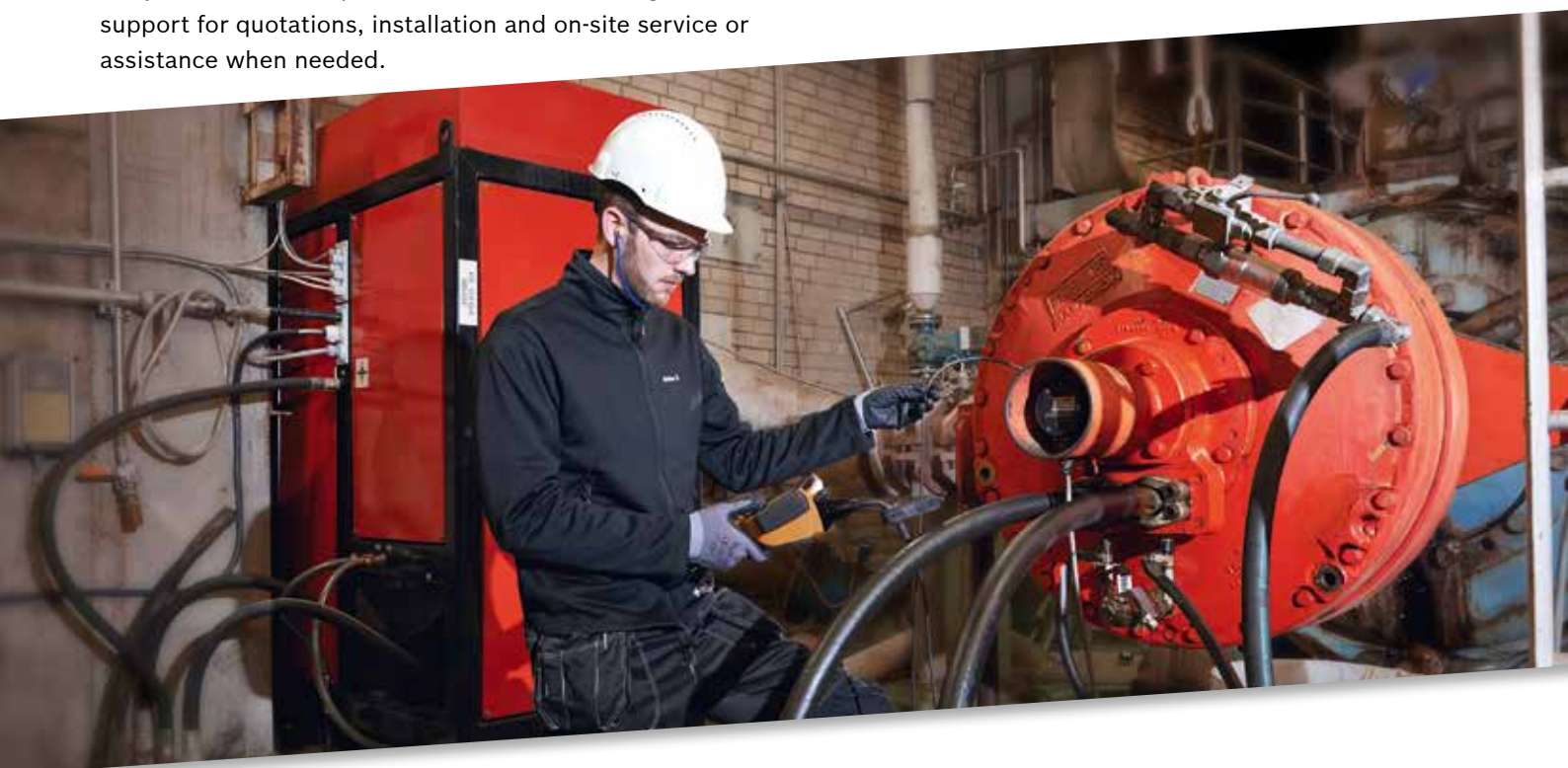
Bosch Rexroth is your guarantee of quality and a one-stop solution, where you get everything you need from a single supplier. Our worldwide organization provides engineering, installation and service, regardless of geographical location.

For you, that means quick and well-coordinated global support for quotations, installation and on-site service or assistance when needed.

## **Long service life**

When you need to increase production, you can easily make additions and adjustments to our modularly designed drive systems – with minimal disruption and optimal results. When our drives are combined with a maintenance agreement from Hägglunds service experts within Bosch Rexroth, you can focus completely on your core business.

You can rely on us for fast, professional assistance anywhere in the world. With 160 service centers in over 80 different countries, we are always close at hand.



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