



SIEMENS



Spare part packages for
mechanical drive technology

Tailored solutions for DMGH and DMG2 tube mill drives and
KMP, KMPS and KMPP vertical mill drives

[siemens.com/industry-services](https://www.siemens.com/industry-services)

The availability of your plants is our challenge

Transport equipment and production facilities like tube and vertical roller mills, whether used in the extraction of raw materials or in their processing and subsequent treatment, must operate reliably, day in and day out. With as little downtime as possible. This is the only way industrial enterprises can work cost-effectively while also meeting their commitments. That's why Siemens offers tailored spare part packages for DMGH and DMG2 tube mill drives as well as for KMP, KMPS and KMPP vertical mill drives.

Challenges in the cement and minerals industries

The cement and minerals industries are characterized by fierce competition. Drive technology from Siemens stands out due to its excellent quality and durability. After all, mechanical drives are key components in the production process. This places high demands on the operator in terms of output quantity and efficient use of available capacities. Enormous stress and harsh ambient conditions affect even the best technology. The result is an increasing demand over time for rapid, competitive availability of spare parts for relevant drive and coupling components.

Reliable tube mill drives - even under extreme conditions

DMGH drives as well as their follow-up products DMG2 were developed to operate tube mills with girth gears for the cement and minerals industries. The gear unit and the girth gear, with which it meshes directly, and the hood around the mill form a single unit. The axially floating intermediate shaft automatically distributes the transmitted power equally to the two output pinions that mesh with the girth gear. They are self-aligning, which means they can adjust to the girth gear's orientation, which constantly changes due to settling of the foundation and different operating modes of the mill.

Robust hub for powerful vertical mills

For milling coal in the lower power range normally vertical mills with KMP gear units are used. These gear units combine a bevel gear stage with a planetary gear stage and are equipped with rolling bearings.

KMPS gear units are used for coal mills in the medium power range, combining a bevel gear stage with a helical gear stage and a planetary gear stage. These gear units are equipped with rolling bearings, too.

For coal mills with medium to high power the KMPP gear units are deployed, which offer a high power density by using two planetary gear stages. These gear units are equipped with sliding bearings, as this solution is able to absorb dynamic loads even better. Due to highly individual machine designs, the gear units are available in many different variants.

Tailored spare part packages for tube mill and vertical roller mill drives

Siemens ensures delivery of essential spare parts globally as part of its service activities. If necessary, the requisite spare parts are made according to customer- and plant-specific requirements. This fundamentally ensures local availability at short notice if an unplanned need for spare parts arises. Tailored spare part packages are an important tool that enables rapid response to local customer requirements and optimal fulfillment of the needs.

Spare part packages with attractive benefits

Keeping spare part packages from Siemens in stock offers a wide range of benefits, from greater cost-effectiveness and shorter repair deployments to secured productivity and business continuity. This not only manifests itself in higher plant efficiency, but also helps give customers a competitive edge.

Higher plant availability

The cost of gear unit failures can be reduced through the timely ordering of spare part packages from Siemens. Because the spare parts are thus already on site and do not have to first be ordered, the downtime is also reduced. This increases the availability of the drive units and of the entire plant for production. It pays off particularly for plants in remote locations or difficult-to-access regions.

Lower total operating costs

The spare part packages help minimize the costs of breakdowns as they enable quick repair. At the same time, the shortened standstill reduces productivity and manpower deployment losses, because there is no need to wait for a replacement to arrive. They also reduce the risk of losing customers due to failure to meet delivery deadlines, the need to pay contract penalties or the inability to accept orders.

Better cost efficiency

Stocking up on the appropriate spare parts packages reduces costs not only in the event of a breakdown, thanks to minimized downtime. It also saves money at the time the spare parts are procured since the packages offer particularly attractive pricing: Ordering the spare parts as a package rather than each of the components included in a package separately is more cost-effective.

Proven Siemens quality

With the spare parts packages, operators have immediate access to original spare parts in proven Siemens quality, whenever needed. These spare parts are optimally coordinated with the respective application and ensure the perfect interaction of all components. The result is a positive impact on the warranty terms and, if the occasion arises, on damage assessments as well.

Spare part packages at proven Siemens quality help increase the availability of your entire plant.



Our solutions - just in case...

Forward-looking planning, design and development are Siemens' core competencies. This is reflected not only in the long operating times of the company's reliable and efficient tube mill drives (DMGH and DMG2) and vertical roller mill drives (KMP, KMPS and KMPP), but also in the well-designed spare parts concept.

Stocking up on spare part packages

Siemens offers suitable spare part packages for all applications in the cement and mineral industries, from damaged bearings to defective drive shafts. To prevent particularly expensive machine downtimes, plant operators can thus prepare themselves just in case - for example in cases of normal wear and tear, by stocking parts on site. Thus, depending on the package and type of breakdown, the right set of components – including the suitable mounting accessories – is immediately available.

Of course, it is possible to reorder components individually at any time and not only the entire spare part packages.

Spare part packages at a glance

Siemens offers a total of 18 spare part packages for the DMGH and DMG2 tube mill drives. The following sets are available for each gear unit size:

- A general spare part set with seals
- Four different assembly groups
- Four different sets of spare parts with bearings

The following packages are available for each size of the KMP, KMPS and KMPP vertical roller mill drives:

- A general spare part set with seals
- An assembly group for the bevel gear stage
- Three different sets of spare parts with bearings

Tailoring the packages

Plant operators can be certain that all necessary components for the respective type of breakdown are included in the package – which is individually coordinated for their plant and equipment. How does this work? Each replacement package order is based on an analysis of the condition of the respective drive. The parts and quantity needed can therefore immediately be determined and the right package can be selected.

When ordered in a good time manner, everything that's needed for a specific case is available at the right time.

Detecting the need for spare parts early on

Condition Monitoring Services make it possible to monitor and diagnose the performance and actual condition of drives. That's why Siemens provides an online Condition Monitoring Systems as well as a periodic manual determination and analysis of the drive's condition.

... for DMGH and DMG2 tube mill drives

Spare part packages - tube mill drives type DMGH

		Size 18	Size 22	Size 25.4
Assembly group input shaft	2LP8150-	1AA10-0AA0	1AB10-0AA0	1AC10-0AA0
Assembly group intermediate shaft		1AA30-0AA0	1AB30-0AA0	1AC30-0AA0
Assembly group upper output shaft		1AA20-0AA0	1AB20-0AA0	1AC20-0AA0
Assembly group lower output shaft		1AA21-0AA0	1AB21-0AA0	1AC21-0AA0
Bearings for input shaft, version 1*	2LP8150-	1AA15-0AA0	1AB15-0AA0	1AC15-0AA0
Bearings for input shaft, version 2*		1AA16-0AA0	1AB16-0AA0	1AC16-0AA0
Bearings for intermediate shaft		1AA35-0AA0	1AB35-0AA0	1AC35-0AA0
Bearings for upper output shaft		1AA25-0AA0	1AB25-0AA0	1AC25-0AA0
Bearings for lower output shaft		1AA26-0AA0	1AB26-0AA0	1AC26-0AA0
Gasket seal set	2LP8150-	1AA13-0AA0	1AB13-0AA0	1AC13-0AA0

* Depending on the design of the input shaft bearings

Spare part packages - tube mill drives type DMG2

		Size 18	Size 22	Size 25.4
Assembly group input shaft	2LP8150-	3AA10-0AA0	3AB10-0AA0	3AC10-0AA0
Assembly group intermediate shaft		3AA30-0AA0	3AB30-0AA0	3AC30-0AA0
Assembly group upper output shaft		3AA20-0AA0	3AB20-0AA0	3AC20-0AA0
Assembly group lower output shaft		3AA21-0AA0	3AB21-0AA0	3AC21-0AA0
Bearings for input shaft	2LP8150-	3AA15-0AA0	3AB15-0AA0	3AC15-0AA0
Bearings for intermediate shaft		3AA35-0AA0	3AB35-0AA0	3AC35-0AA0
Bearings for upper output shaft		3AA25-0AA0	3AB25-0AA0	3AC25-0AA0
Bearings for lower output shaft		3AA26-0AA0	3AB26-0AA0	3AC26-0AA0
Gasket seal set	2LP8150-	3AA13-0AA0	3AB13-0AA0	3AC13-0AA0

To order a spare part package for DMGH / DMG2, simply indicate the corresponding MLFB which consisting of the serial number "2LP8150-" and the number for the specific size. For example, the MLFB for an assembly group intermediate shaft for DMGH size 22 is 2LP8150-1AB30-0AA0.



“Keeping spare part packages in stock makes both the customer and his machinery more secure.”

... for KMP, KMPS and KMPP vertical mill drives

Spare part packages - vertical mill drives type KMP

		Size 225	Size 250	Size 280	Size 300	Size 320	Size 340	Size 360	Size 380	Size 400	Size 425	Size 450
Assembly group for bevel gear set	2LP8160-	2AC10	2AD10	2AE10	2AF10	2AH10	2AK10	2AM10	2AP10	2AR10	2AS10	2AU10
Roller bearings for bevel gear set	2LP8160-	2AC11	2AD11	2AE11	2AF11	2AH11	2AK11	2AM11	2AP11	2AR11	2AS11	2AU11
Roller bearings spare part set		2AC15	2AD15	2AE15	2AF15	2AH15	2AK15	2AM15	2AP15	2AR15	2AS15	2AU15
Thrust slide bearings spare part set		2AC13	2AD13	2AE13	2AF13	2AH13	2AK13	2AM13	2AP13	2AR13	2AS13	2AU13
Gasket seal set	2LP8160-	2AC12	2AD12	2AE12	2AF12	2AH12	2AK12	2AM12	2AP12	2AR12	2AS12	2AU12

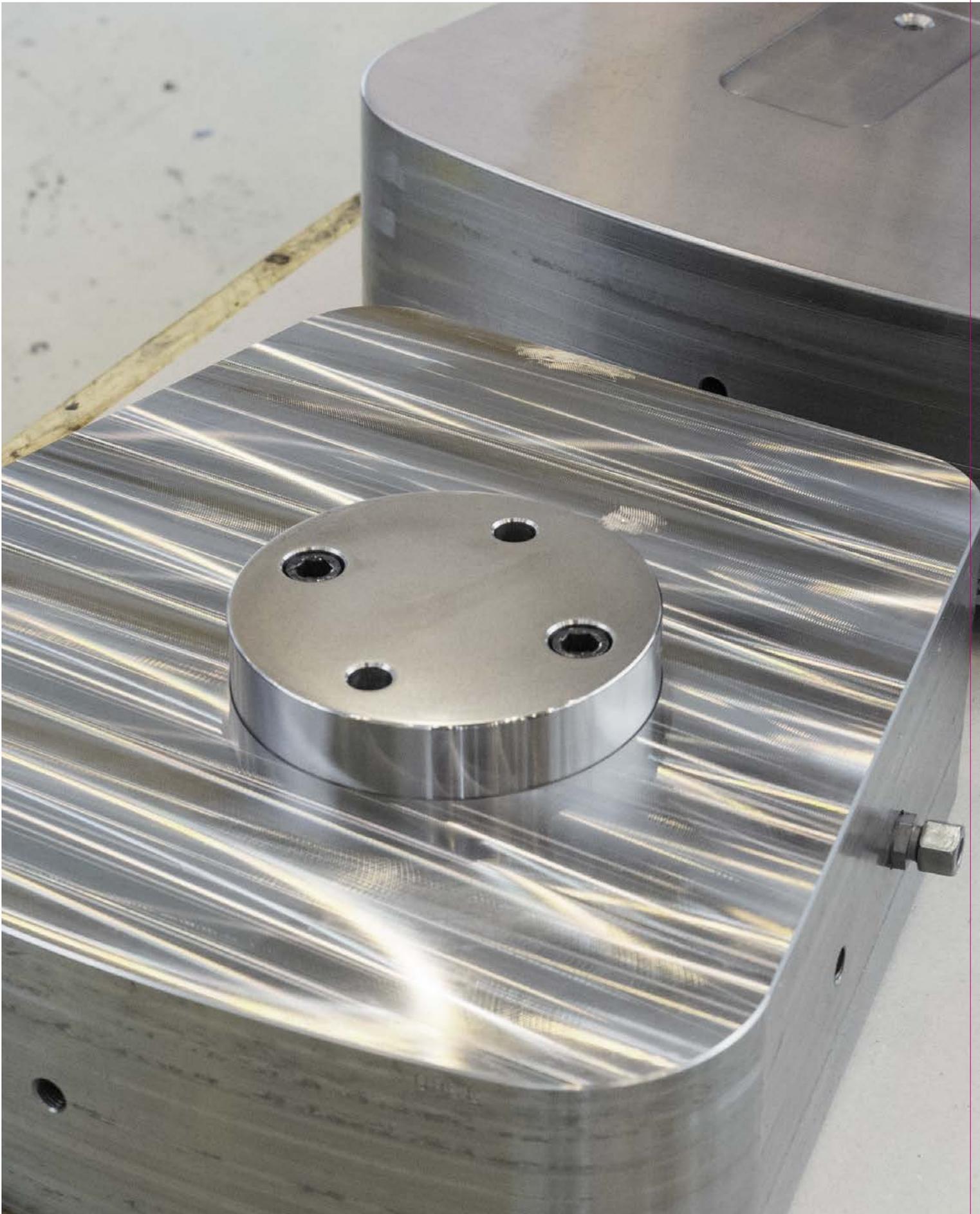
Spare part packages - vertical mill drives type KMPS

		Size 376	Size 396	Size 426	Size 446	Size 476	Size 496	Size 526	Size 546	Size 576
Assembly group for bevel gear set	2LP8160-	5AA10	5AB10	5AC10	5AD10	5AE10	5AF10	5AG10	5AH10	5AJ10
Roller bearings for bevel gear set	2LP8160-	5AA11	5AB11	5AC11	5AD11	5AE11	5AF11	5AG11	5AH11	5AJ11
Roller bearings spare part set		5AA15	5AB15	5AC15	5AD15	5AE15	5AF15	5AG15	5AH15	5AJ15
Thrust slide bearings spare part set		5AA13	5AB13	5AC13	5AD13	5AE13	5AF13	5AG13	5AH13	5AJ13
Gasket seal set	2LP8160-	5AA12	5AB12	5AC12	5AD12	5AE12	5AF12	5AG12	5AH12	5AJ12

To order spare part packages for vertical mill drives, once again simply indicate the corresponding MLFB (serial number "2LP8160-" plus the number of the specific gear). For example, choose the following MLFB for ordering the roller bearings spare part set for KMPS size 546: 2LP8160-5AH15.

Spare part packages - vertical mill drives type KMPP

		Size 501	Size 601	Size 651	Size 701	Size 751	Size 751M	Size 801	Size 851	Size 901
Assembly group for bevel gear set	2LP8160-	3AC10	3AE10	3AA10	3AF10	3AB10	3AK10	3AJ10	3AG10	3AH10
Slide bearings for bevel gear set	2LP8160-	3AC16	3AE16	3AA16	3AF16	3AB16	3AK16	3AJ16	3AG16	3AH16
Slide bearings spare part set (excl. thrust slide bearings)		3AC17	3AE17	3AA17	3AF17	3AB17	3AK17	3AJ17	3AG17	3AH17
Thrust slide bearings spare part set (first planetary stage)		3AC14	3AE14	3AA14	3AF14	3AB14	3AK14	3AJ14	3AG14	3AH14
Thrust slide bearings spare part set (output shaft)		3AC13	3AE13	3AA13	3AF13	3AB13	3AK13	3AJ13	3AG13	3AH13
Gasket seal set	2LP8160-	3AC12	3AE12	3AA12	3AF12	3AB12	3AK12	3AJ12	3AG12	3AH12



Learn more:

siemens.com/industry-services

Industry Services
Throughout the world, Siemens supports its customers with services for products, systems and applications over the entire lifecycle of plants and machinery. Customers benefit from an integrated service portfolio, comprehensive technology and product knowledge as well as industry expertise of Siemens experts.

Find out more
about our Industry
Services here



Subject to change without notice
Article no.: DFCS-B10034-00-7600
Dispo 21638/K-Nr. 20334
Printed in Germany
gB 150489 GbB DB 10150.5
© Siemens AG 2015

The information provided in this brochure contains descriptions or characteristics of performance which in case of actual use do not always apply as described or which may change as a result of further development of the products. An obligation to provide the respective characteristics shall only exist if expressly agreed in the terms of contract.

All product designations may be trademarks or product names of Siemens AG or supplier companies whose use by third parties for their own purposes could violate the rights of the owners.

Follow us at:
twitter.com/siemensindustry
youtube.com/siemens

Siemens AG
Digital Factory
PO Box 48 48
90026 Nuremberg
Germany