

## **Demag drives**

Travelling, driving and guiding





## Demag drives make things move

Drives engineering has always been an integral part of Demag Cranes & Components product philosophy.

True to its "From components to systems" approach,

Demag Cranes & Components supplies drive components
as single units and as sub-assemblies, and also integrates
them into virtually all of its core products.

Crane installations, for example, only become efficient systems as a result of the components that are integrated with sophisticated controls, as well as system and wideranging application expertise.



In addition to individual gearboxes, motors and frequency inverters, Demag is the only supplier of drive products also to offer wheel block systems and complete drive units consisting of precisely matching parts, ranging from the travel wheel, housing and connecting arrangement to the gearbox and motor. In this way, fast and costeffective standardized and tailored modular solutions can be implemented to meet individual requirements.

Demag drives are suitable for all applications in which loads have to be supported, driven, guided and moved. Besides cranes and handling systems, applications also include moving architectural elements as well as many transport logistics solutions in a wide variety of industries, for example.



Rotating glass doors at Autostadt in Wolfsburg: The doors are opened and closed smoothly and gently by Demag offset gear motors with a particularly high gear ratio

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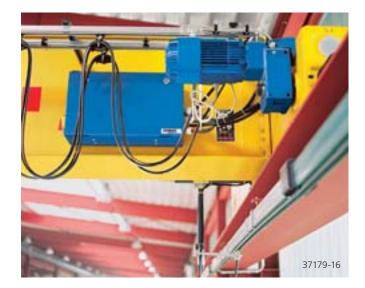
## Modular gear motor system

The Demag gear motor range is of modular design and mainly comprises:

- Offset gear motors
- Right angle gear motors
- Helical gear motors

We offer a choice of

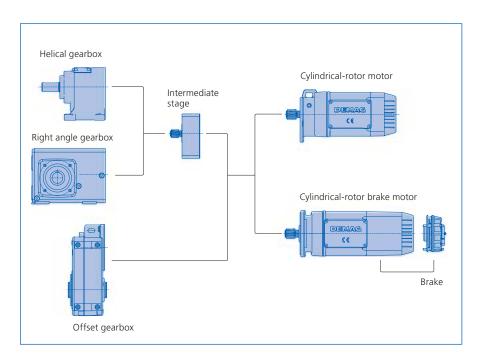
- Basic cylindrical-rotor motors
- Cylindrical-rotor brake motors
- Conical-rotor brake motors



A crane end truck driven by an offset gear motor

## Direct drive input

The modular Demag system makes it possible to implement tailor-made solutions for a vast range of tasks in the drives sector. For direct drive input, the various gearbox types are combined with Demag Z cylindrical-rotor motors by means of end caps. The gear ratio range of D type helical gearboxes and W type right angle gearboxes can be significantly increased by the use of an intermediate stage. A type offset gearboxes are designed for two and three-stage gear configurations.



The standard designs already offer you an exceptional range of possibilities. In addition, there are many optional features which can be used to extend them to meet your specific needs.

#### From basic motors to maximum brake torques

Almost any useful brake torque can be achieved – with solutions ranging from basic motors to the almost legendary braking capabilities of our sliding-rotor brake motors.

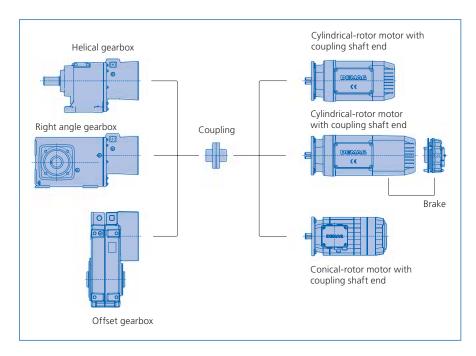
Our cylindrical-rotor brake motors not only feature different brake spring strengths, but also two different brake sizes for each motor frame size, enabling you to specify your drives with finely graded brake torques. KB sliding-rotor brake motors are also available.

**Microspeed drives** are designed for special requirements. They make it possible to achieve large mechanical speed ratios of up to 1:500 between the main and the positioning speed.

## Coupling connection

KB conical rotor motors and Z cylindrical rotor motors with a Demag coupling shaft end are fitted with a flange, coupling or coupling housing.

Since there is no oil present in the coupling housing, gearboxes can be fitted independently of the motor and motors can be easily disassembled, e.g. to transport the installation.



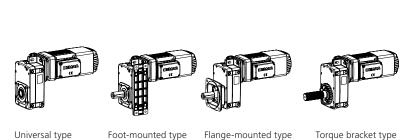
# Offset gear motors – torques from 95 to 8480 lb-ft



Demag offset gear motors feature parallel-shaft gearboxes with a large shaft center distance. With a shaft end on both sides, they are ideally suited for travel applications with central drive arrangements. For their large shaft center distance and high gear ratio, offset gearboxes offer large ground clearance. The use of helical gear wheels makes them a particularly efficient solution.

Demag offset gear motors can be supplied with various housing designs, for example with a cover featuring an integrated torque ring, which transfers the drive force to a wheel block via a torque bracket without any radial forces. The output shafts are available as solid or hollow shafts of various designs and diameters. Involute splined shafts are ideal for travel drives used in reversing operation in connection with a Demag wheel block, for example.

| Gearbox | Output         | Gear r    | atio (i)   |
|---------|----------------|-----------|------------|
| size    | torque (lb-ft) | 2-stage   | 3-stage    |
| A10     | 95             | 8.32-52.5 | -          |
| A20     | 150            | 6.21-28.0 | 31.7 – 123 |
| A30     | 275            | 7.78-71.9 | 82.4-156   |
| A40     | 485            | 8.78-61.6 | 73.8-256   |
| A50     | 850            | 8.69-71.6 | 78.0-218   |
| A60     | 1550           | 8.91-67.9 | 77.2-297   |
| A70     | 2730           | 9.23-68.1 | 78.9–267   |
| A80     | 4870           | 9.89-68.9 | 80.3-281   |
| A90     | 8480           | 10.2-69.7 | 76.3-274   |





## Right angle gear motors – torques from 85 to 8850 lb-ft

Thanks to their design with a shaft end on one or both sides, Demag right angle gear motors are suitable for travel applications with a single drive unit as well as with central drive arrangements. They can be used to achieve particularly "narrow" designs, which means that the track gauge can be much smaller than for applications with offset gear motors. Right angle gear motors can be fitted with output flanges, foot rails or torque brackets to meet your requirements.

Right angle gearbox sizes W10 to W50 feature a hypoid wheel pair, offering good efficiency in the lower power range for quiet running characteristics and a large gear ratio range. Right angle gearbox sizes W60 to W100 feature bevel gear wheels. The output shafts are available as solid or hollow shafts of various designs and diameters.





Right angle gearbox operating outdoors as a cleaning machine drive

| Gearbox size | Output         |           | Gear ratio (i) |         |
|--------------|----------------|-----------|----------------|---------|
| Gearbox Size | torque (lb-ft) | 2-stage   | 3-stage        | 4-stage |
| W10          | 85             | 5.34-100  | -              | _       |
| W20          | 150            | 5.45-90.1 | 97.1-369       | -       |
| W30          | 245            | 3.73-90.1 | 107-369        | -       |
| W40          | 370            | 3.87-90.8 | 99.6-371       | _       |
| W50          | 590            | 4.94-94.3 | 99.9-386       | _       |
| W60          | 995            | _         | 12.6-95.1      | 113-388 |
| W70          | 1845           | -         | 13.7-102       | 113-399 |
| W80          | 2950           | -         | 15.3-113       | 126-441 |
| W90          | 5165           | _         | 15.9-111       | 126-434 |
| W100         | 8850           | _         | 16.5-113       | 121-485 |









Universal type

Foot-mounted type

Foot-mounted type

Flange-mounted type

# Helical gear motors – torques from 65 to 4280 lb-ft



Demag helical gearboxes are the most cost-effective alternative to match speed and torque to application requirements. They allow for high radial forces on the output shaft and offer high efficiency thanks to the use of helical gear wheels. Due to the coaxial design, however, they do not offer the same number of output shaft variants as offset or right angle gearboxes.

Demag type D helical gear motors are available as foot and flange-mounted units. Flanges of various diameters can be connected to sizes D 11 to D 41. Combined foot/flange-mounted designs are also possible. Due to the coaxial design, helical gearboxes are only available with solid shafts.

| Gearbox | Output torque | Gear r    | atio (i) |
|---------|---------------|-----------|----------|
| size    | (lb-ft)       | 2-stage   | 3-stage  |
| D11     | 65            | 2.88-66.5 | -        |
| D21     | 95            | 2.88-66.5 | -        |
| D31     | 150           | 3.23-61.6 | 66.4-253 |
| D41     | 245           | 3.23-58.6 | 49.5-240 |
| D50     | 400           | 2.78-61.4 | 71.9-251 |
| D60     | 740           | 6.44-48.4 | 57.5-197 |
| D70     | 1325          | 6.89-51.3 | 56.7-201 |
| D80     | 2360          | 7.03-49.5 | 55.5-192 |
| D90     | 4280          | 7.49-51.2 | 55.1-220 |









Flange-mounted type

Helical gear motors drive the conveying screws of a feed system

## **Optional features**

Standard Demag gear motors already offer you an extremely wide variety of possibilities with functions tailored to meet a large range of requirements.

Numerous options enable you to adapt them even further to specific application features and your individual operating conditions.

- Foot plates
- Mounting flange
- Torque brackets
- Special lubricants
- Oil level gauge
- Extended temperature range
- Special paint finish
- Various output shaft designs
- Gearboxes with particularly low output speeds as double gearboxes



A narrow angular gear motor can be integrated into a powered door without presenting any obstacles



# Cylindrical-rotor motors – outputs up to 70 HP



Demag Z cylindrical-rotor motors are designed for optimum integration with Demag gearboxes and their design configurations.

Two variants are available in the form of brake motors (ZBA) and basic motors (ZNA) for standard solutions. The output ratings of the 2, 4, 6 and 8-pole motors are graded according to the IEC classification. The 4-pole standard motors are graded according to efficiency classes.

ZBF travel motors with an integrated flywheel feature smooth acceleration and braking characteristics thanks to their shallow torque curve.

Two speed standard and travel motors are also available.

| Output<br>(HP)<br>40 % / 40 % CDF | Designation   |
|-----------------------------------|---------------|
| 0.10 / 0.40                       | ZBF 63 A 8/2  |
| 0.14 / 0.55                       | ZBF 71 A 8/2  |
| 0.21 / 0.80                       | ZBF 80 A 8/2  |
| 0.32 / 1.29                       | ZBF 90 B 8/2  |
| 0.47 / 1.93                       | ZBF 100 A 8/2 |
| 0.74 / 3.1                        | ZBF 112 A 8/2 |
| 1.15 / 4.7                        | ZBF 132 A 8/2 |
| 1.41 / 5.6                        | ZBF 132 B 8/2 |

| Output<br>(HP)<br>100 % CDF | Designation<br>ZBA = braked<br>ZNA = no brake |
|-----------------------------|---|
| 0.29                        | ZBA/ZNA 63 B4                                 |
| 0.40                        | ZBA/ZNA 71 A4                                 |
| 0.60                        | ZBA/ZNA 71 B4                                 |
| 0.88                        | ZBA/ZNA 80 A4                                 |
| 1.2                         | ZBA/ZNA 80 B4                                 |
| 1.8                         | ZBA/ZNA 90 A4                                 |
| 2.4                         | ZBA/ZNA 90 B4                                 |
| 3.5                         | ZBA/ZNA 100 AL4                               |
| 4.8                         | ZBA/ZNA 100 B4                                |
| 6.4                         | ZBA/ZNA 112 A4                                |
| 8.8                         | ZBA/ZNA 132 AL4                               |
| 12.0                        | ZBA/ZNA 132 B4                                |
| 15.2                        | ZBA/ZNA 132 C4                                |
| 17.7                        | ZBA/ZNA 160 AL4                               |
| 24                          | ZBA/ZNA 160 B4                                |
| 30                          | ZBA/ZNA 180 A4                                |
| 35                          | ZBA/ZNA 180 B4                                |
| 48                          | ZBA/ZNA 200 A4                                |
| 60                          | ZBA/ZNA225 AL4                                |
| 70                          | ZBA/ZNA 225 B4                                |
|                             |   |



Right angle gear motors with no brake are used to drive a continuous conveyor for uninterrupted transport

#### **Brakes**

Demag ZB cylindrical-rotor brake motors are fitted with double-surface disk brakes, which are spring-activated when no voltage is applied. Various control modules are available for electrical brake release to provide operating times in line with application requirements.

A specific brake is assigned to each ZB cylindrical-rotor brake motor as standard. A larger or smaller brake can be fitted for each motor frame size if a different brake torque is required for the application. In addition, the torque range of each brake size can be further adjusted using various brake spring combinations.



| Designation | Size | Brake torques | Size  | Brake torques |
|-------------|------|---------------|-------|---------------|
|             |      | (lb-ft)       |       | (lb-ft)       |
|             | Smal | l brake       | Large | e brake       |
| ZBF 63 A    | B003 | 0.7-1.8       | B007  | 0.7-1.7       |
| ZBF 71 B    | B003 | 0.7 - 1.0     | DUU/  | 0.7-1.7       |
| ZBF 80 A    | _    |               | B020  | 1.3-4.1       |
| ZBF 90 B    | B020 | 1.3-4.1       | B050  | 2.4-9.5       |
| ZBF 100 A   | DUZU | 1.5-4.1       | 0000  | 2.4-9.5       |
| ZBF 112 A   | B050 | 2.4-9.5       |       |               |
| ZBF 132 A   |      |               | B140  | 6.5-27        |
| ZBF 132 B   |      | _             |       |               |

|         | L |   |        |
|---------|---|---|--------|
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| dell'in |   | 3 | 8105-2 |

A cylindrical-rotor brake motor moves a tool-changing carriage into the exactly specified positions

| Designation  | Size | Brake torques | Size  | Brake torques |
|--------------|------|---------------|-------|---------------|
|              |      | (lb-ft)       |       | (lb-ft)       |
|              | Smal | l brake       | Large | e brake       |
| ZBA 63 B     |      |               |       |               |
| ZBA 71 A     | B003 | 0.7 – 1.7     | B007  | 1.0-5.8       |
| ZBA 71 B     |      |               |       |               |
| ZBA 80 A     |      |               |       |               |
| ZBA 80 B     | B007 | 1.0-5.8       | B020  | 2.4-14.7      |
| ZBA 90 A     |      |               |       |               |
| ZBA 90 B     |      |               |       |               |
| ZBA 100 A(L) | B020 | 2.4-14.7      | B050  | 6.1-36        |
| ZBA 100 B    |      |               |       |               |
| ZBA 112 A    |      |               |       |               |
| ZBA 132 A(L) | B050 | 6.1–36        | B140  | 17-103        |
| ZBA 132 B    | 0000 | 0.1-30        | D14U  | 17 - 103      |
| ZBA 132 C    |      |               |       |               |
| ZBA 160 A(L) |      |               |       |               |
| ZBA 160 B    | B140 | 17-103        | B280  | 34-205        |
| ZBA 180 A    |      |               |       |               |
| ZBA 180 B    | B280 | 34-205        | B680  | 83-500        |
| ZBA 200 A    | DZOU | 54-205        | DUOU  | 03-300        |
| ZBA 225 A(L) | _    | _             | B680  | 83-500        |
| ZBA 225 B    | _    | _             | DUOU  | 03-300        |

## **Optional features**

We also offer a wide variety of options for Demag cylindrical-rotor motors, some of the most important of which are:

- Rotary encoder
  - Integrated pulse generator
  - Optional pulse generator
- External fan
  - Additional integrated fan
  - Additional external fan
- Heavy fan
- Canopy
- Plug connector
- PTC thermistor
- Temperature detectors
- Increased enclosure
- Anti-condensation heater

### **Brake options**

- Manual brake release unit
  - with lock
  - no lock
- Microswitch for
  - Function checks
  - Adjustment monitoring
- Sealed/increased enclosure
- Reduced-noise design
- Various brake control modules





# Demag frequency inverters – for motor outputs from 1.0 to 750 HP

Demag Dedrive Compact and Dedrive Pro frequency inverters enable motors to meet specific requirements and achieve ulb-ftatched operating characteristics and maximum reliability.

Dedrive frequency inverters offer outstanding functionality and maximum performance for lifting, lowering, turning, travel or slewing motions. They can be used for solutions to many drive requirements, both in the general industrial drives sector as well as for materials handling applications.

With Demag frequency inverters, for example

- processes can be precisely adapted
- speeds can be infinitely adjusted
- loads on motors and gearboxes can be reduced
- goods can be transported more gently
- mechanical equipment can be protected
- starting currents can be limited
- motors can be used more efficiently





Frequency inverter-fed drives position a crane with the ladle to be located directly above the molds for casting

The following are available:

- Demag Dedrive Compact frequency inverters
  - for motor outputs from 1.0 to 75 HP
  - Rated voltage 400 V
- Demag Dedrive Pro frequency inverters
  - for motor outputs from 2.0 to 750 HP
  - Rated voltages 400 V, 500 V and 690 V
- Complete solutions in IP 54 enclosure with protection against dust and splashwater for decentral cabling and wiring

## Conical-rotor brake motors – outputs up to 67 HP



Our classic Demag KB conical-rotor brake motors can also be fittled to our gearboxes. They are connected by means of a roller coupling due to the axial movement of the rotor.

#### **Reliable function**

When the motor is switched on, the conical design of the stator and rotor causes the drive force to develop in the radial and axial directions. In this way, the rotor is pulled towards the drive end together with the brake disk and the brake is released at the same moment as the rotor begins to turn.

When the motor is switched off and in the event of a power failure, the forces are dissipated. The brake spring pushes the rotor and brake disk back, pressing the brake ring against the brake cover and automatically bringing the rotor to a standstill.

When the motor is at standstill, the brake spring continues to press the rotor and the brake ring on the brake disk against the brake cover: the motor is braked.

#### **Decisive advantages**

Demag KB conical-rotor brake motors feature a remarkably simple, robust and reliable brake system.

It is the ideal solution wherever demanding requirements have to be met by the brake, and provides for

- extremely high cycling frequency
- high braking energy
- resistance to temporary overload

#### Further benefits:

- No separate control or additional switching elements required, since the brake is automatically applied and released
- No additional motor temperature rise, since a brake coil is not necessary
- Long brake lining service life, since the heat generated by the brake is dissipated quickly and effectively via the large surface area of the brake cover
- Short overall length, since the brake disk simultaneously forms the motor fan

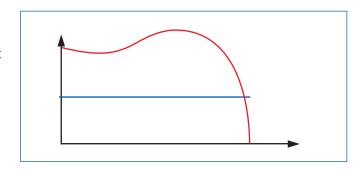


A variety of options is also available for KB motors.

## Drives for starting and stopping with short cycle times: KBA

Demag KBA conical-rotor brake motors feature high starting torques. They are particularly suitable for starting and stopping drives. KBA motors can be connected direct to a line supply or fed by a frequency inverter. They can be supplied for continuous or intermittent duty. KBA motors offer considerable thermal reserve capacity for particularly high cycling frequency thanks to IP 54 enclosure and insulation class F.

KBA motors can be supplied with 2, 4, 6 and 8-poles as single-speed units or also as two speed motors. Their braking characteristics can be adapted to specific requirements by fitting brake springs of different strengths and due to the possibility of specifically influencing the moment of inertia.



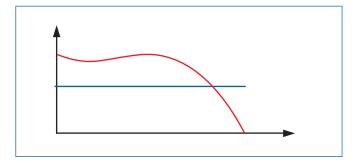
Torque-speed characteristic of KBA motors for standard applications



Drive for starting and stopping applications with short cycle times and high positioning accuracy in an automotive welding line

| Output<br>(HP) | Designation  | Brake torque |
|----------------|--------------|--------------|
| 100 % CDF      |              | (lb-ft)      |
| 0.60           | KBA 71 A4    | 4.0          |
| 0.88           | KBA 71 B4    | 5.2          |
| 1.35           | KBA 80 A4    | 8.9          |
| 1.6            | KBA 80 B4    | 10.5         |
| 2.0            | KBA 90 A4    | 13.5         |
| 2.5            | KBA 90 B4    | 16.0         |
| 3.1            | KBA 100 A4   | 21.0         |
| 3.7            | KBA 100 B4   | 28.0         |
| 4.5            | KBA 112 B4 A | 34.0         |
| 5.6            | KBA 112 B4   | 38.0         |
| 7.4            | KBA 125 B4 A | 51           |
| 9.2            | KBA 125 B4   | 60           |
| 12.0           | KBA 140 B4 A | 79           |
| 14.0           | KBA 140 B4   | 96           |
| 24             | KBA 160 B4   | 131          |
| 35             | KBA 180 A4   | 208          |
| 48             | KBA 200 B4   | 302          |
| 68             | KBA 225 B4   | 415          |

## Drives for line-fed travel motions: KBF



Torque-speed characteristic of KBF travel motors

Demag KBF conical-rotor brake motors are ideally suited to the demanding requirements placed on travel drives, particularly in materials handling installations. They offer smooth starting and gentle braking and make it possible to achieve long run-up times and high cycling frequencies. KBF motors also meet the specifications for high-inertia loads.

The torque characteristics of KBF motors provide for largely constant run-up torque without any extreme starting and tilting moments.

KBF motors can be supplied as two speed units with output speeds of 1800/3600, 900/3600, 600/3600 and 600/1800 rpm and as 2 and 4-pole units with speeds of 3600 and 1800 rpm.

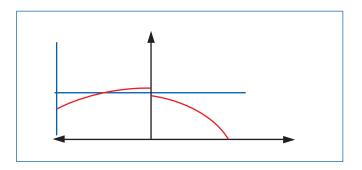
| Output                  | Designation   | Brake torque |
|-------------------------|---------------|--------------|
| (HP)<br>40 % / 40 % CDF |               | (lb-ft)      |
| 0.07 / 0.32             | KBF 71 A 8/2  | 0.81         |
| 0.10 / 0.48             | KBF 71 B 8/2  | 1.20         |
| 0.21 / 0.80             | KBF 80 A 8/2  | 2.0          |
| 0.32 / 1.30             | KBF 90 A 8/2  | 3.2          |
| 0.42 / 1.95             | KBF 100 A 8/2 | 4.6          |
| 0.67 / 3.10             | KBF 112 A 8/2 | 6.6          |
| 1.05 / 4.70             | KBF 125 A 8/2 | 8.6          |
| 1.80 / 7.20             | KBF 140 A 8/2 | 14.2         |



Line-fed KBF motor used as a shuttle drive for smoothly transporting goods in a storage system

## **KBS** torque motors

As standard, we also supply motors which develop their maximum torque at standstill and which can be operated continuously at this operating point. KBS motors are used as winding drives for cable drums, for example. They also make it possible to achieve relatively small and varying speeds in both directions of rotation, as well as largely constant torque in driving and braking operation. Rated for continuous operation, the windings are also resistant to continuous short circuit if the rotor is blocked.



Torque-speed characteristic of KBS torque motors



| Torque<br>(lb-ft)<br>100 % CDF | Designation |
|--------------------------------|-------------|
| 1.3                            | KBS 80 B12  |
| 1.9                            | KBS 90 B12  |
| 2.7                            | KBS 100 B12 |
| 4.1                            | KBS 112 B12 |
| 5.2                            | KBS 125 B12 |
| 7.4                            | KBS 140 B12 |

A cable drum driven by a KBS motor

# Microspeed drives – speed ratios up to 500:1



Demag FG microspeed drives are ideally suited for applications with high cycling frequencies in which demanding repeat positioning accuracy requirements have to be met and large masses have to be moved in short cycles.

Compared to two speed motors, Demag FG microspeed drives make it possible to achieve a significantly larger mechanical difference between the main and the positioning speeds. In many applications, they are also the simple, robust and economic alternative to inverter-fed AC motors. In addition, they are much less susceptible to vibrations, higher ambient temperatures and other influences than drives featuring electronic equipment. Microspeed drives are also ideally suited for emergency operation.

| Micro-<br>speed<br>gearbox | Main<br>motor | Creep speed motor       |          |            |   |             |   |   |            |
|----------------------------|---------------|-------------------------|----------|------------|---|-------------|---|---|------------|
|                            |               | KB 71 80 90 100 112 125 |          |            |   |             |   |   | 14         |
|                            |               | Z                       | 63<br>71 | 80<br>90 A |   | 90 B<br>100 | - |   | 11:<br>13: |
| FG 06                      | KB 71         |                         | •        |            |   |             |   |   |            |
|                            | KB 80         |                         | •        | •          |   |             |   |   |            |
|                            | KB 90         |                         | •        | •          |   |             |   |   |            |
|                            | KB 100        |                         | •        | 0          |   |             |   |   |            |
|                            | KB 112        |                         | •        | 0          |   |             |   |   |            |
| FG 08                      | KB 112        |                         | •        | -          | • | -           |   |   |            |
|                            | KB 125        |                         | •        | •          | • | •           |   |   |            |
|                            | KB 140        |                         | •        | •          | • | 0           |   |   |            |
|                            | KB 160        |                         | •        | 0          | 0 | 0           |   |   |            |
| FG 10                      | KB 160        |                         | •        | -          | • | -           | - | • | •          |
|                            | KB 180        |                         | •        | •          | • | •           | • | • | •          |
|                            | KB 200        |                         | •        | •          | • | •           | • | • | •          |
|                            | KB 225        |                         |          |            |   |             |   |   | 0          |

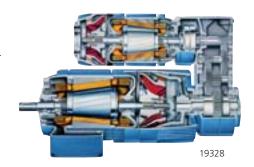
- = U or Z mounting arrangement
- = Z mounting arrangement

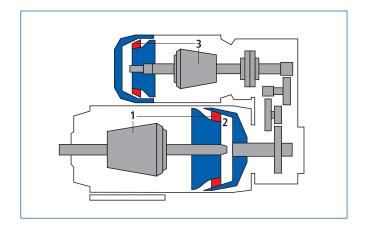


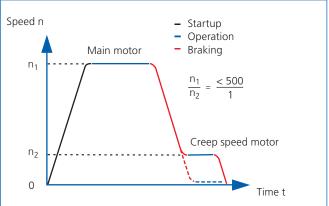
Microspeed drives are ideally suited as a robust drive for cutting lines in the timber industry

Microspeed drives consist of main and microspeed motors that are connected by means of microspeed gearboxes. Both U and Z type models are possible. The output shaft runs either at the speed of the main motor or at the speed of the microspeed motor reduced by the gear ratio of the intermediate gearbox, as required. The brake of the main motor is also designed as a clutch. Braking from the high speed to the low speed is achieved mechanically with constant torque.

A conical-rotor motor is used as the main motor due to the axial movement of rotor. The microspeed motor can be a KB or a Z motor – also for inverter operation. The gear ratios of our microspeed gearboxes are available at fine increments from 4 to 125.







Speed/time diagram n = f(t)

### **Microspeed operation**

- 1 Main motor in braking position
- 2 Main motor coupling engaged
- 3 Microspeed motor in running position

## Fast and simple planning – Drive Designer Online

Whatever you develop and design – everything is easier, faster and safer with Drive Designer for gear motors and wheel blocks.

In only a few minutes at

### www.demag-drivedesigner.com, you can

- specify drives
- determine dimensions
- transfer drawings to your design
- view electrical circuit diagrams
- obtain technical data

### Specify and select gear motors

If you already know the technical details of your drive, simply enter the corresponding data. Drive Designer Online will list all the suitable variants

#### With all the extras

Drive Designer Online generates the individual <u>dimension</u> <u>diagrams</u> for the specific gear motors and wheel blocks you select.

The <u>2D geometry diagrams</u> are available as DXF or DWG files. You can import the drawings direct into your design in AutoCAD.

Drive Designer Online enables you to generate <u>3D models</u> for motors, gearboxes, gear motors, wheel blocks and travel drives up to and including complete sub-assemblies. The model design corresponds to the actual practical requirements.

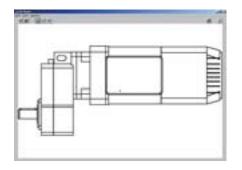
We offer drawing files for drive components in two different levels of detail:

- Low level of detail results in small files and fast download times
- Higher level of detail results in exact volume models for collision checks and, at the same time, a precise view of the interfaces to other structural elements, such as shafts, flanges, threaded bore holes, foot plates

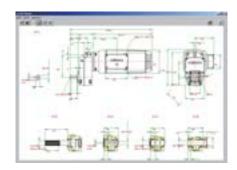


www.demag-drivedesigner.com









2D CAD files to scale

3D product geometries

Individual dimension drawings

Drive Designer Online supports non-platform-specific 3D CAD formats such as STEP, IGES, SET and VDA. For rapid visualisation of the models, the files can also be exported in VRML format for standard 3D viewers.

All <u>technical data</u> such as weight, rated current, wheel load, braking torque and the mounting code can be obtained immediately.

Drive Designer Online also provides <u>circuit diagrams</u> for the gear motors and single motors you select. Drive Designer is online on the Internet. Decisive benefits:

- Requires no installation and no hard disk space
- Latest technical data and dimensions
- All information available round the clock worldwide



## Complete overview – the gear motor catalog

Our catalog provides comprehensive information on our three gear motor types – helical, right angle and offset gear motors – in combination with cylindrical-rotor and conical-rotor motors. It also includes selection tables relating to the various gear motor types, structured according to output ratings. It also provides you with technical data and details on the options.

## Precise drive data - CalDrive calculation software

The required output, loads and speeds need to be entered into Drive Designer Online to select travel units.

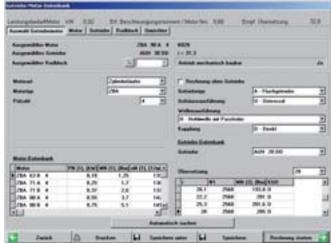
Alternatively, the travel unit can be selected on the basis of the complete mounting code.

In contrast to Drive Designer, the required drive data is calculated from the specified physical characteristics using CalDrive calculation software. The basic characteristics and data of Demag gear motors and wheel blocks are included in CalDrive.

Drives for travel and hoist applications can be specified with ease. The program suggests solutions for the combination of our offset, right angle and helical gear-boxes with cylindrical or conical-rotor motors. You can also determine drive solutions for line-fed or frequency inverter systems, of course. Besides the technical data, you are also provided with acceleration and deceleration values in the result.

You can request the current version of the multi-lingual CalDrive calculation program on CD-ROM free of charge at www.drives.demagcranes.com.





## Complete industrial drive solutions – from wheels to inverters

### **Demag gear motors**

- as helical gear motors from 65 to 4280 lb-ft
- as right angle gear motors from 85 to 8850 lb-ft
- as offset gear motors for 95 to 8480 lb-ft with cylindrical-rotor motors from 0.29 to 70 HP

### **Demag conical-rotor brake motors**

for increased requirements such as extremely high switching frequencies and braking operation for outputs from 0.60 to 68 HP

#### **Demag microspeed drives**

with conical-rotor motors; for high speed stages and positioning with high stopping accuracy; speed ratios up to 500:1

## Demag Dedrive Compact and Dedrive Pro frequency inverters

for AC drives with motor shaft outputs up to 750 HP; control of cylindrical and conical-rotor motors as single unitsor groups of drives; current loads from 2.4 to 110 A or 4.2 to 544 A

#### **Demag travel unit components**

Modular systems for elements in materials handling installations and mechanical engineering applications without the need for any additional design work and production

- DRS wheel block system: many wheel variants and connection possibilities, high performance; from 2.75 t
   to 40 t
- RS wheel block system: with sheet-steel housing for special applications, also in the high-temperature range up to 350 °C
- LRS travel wheel system: the simple system for the lower load range up to 6.5 t
- RAE/RNE wheel sets: for integration into hollow-profile sections or for corner-bearing arrangements, up to 60 t

### **Demag DCL Compact Line**

Power feed system: designed for currents up to 200 A (60 % CDF); fitted with up to 7 conductors, as required; both for supplying mobile consumers with power as well as for transferring control signals



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