

**Complete drive systems  
with industrial gear units**



## Versatile and powerful – Industrial gear units from SEW-EURODRIVE

Excellent performance needs a strong partner – SEW-EURODRIVE has been a supplier of drive technology for many decades, and now is among the leading companies for drive technology worldwide.

### All services made by SEW-EURODRIVE

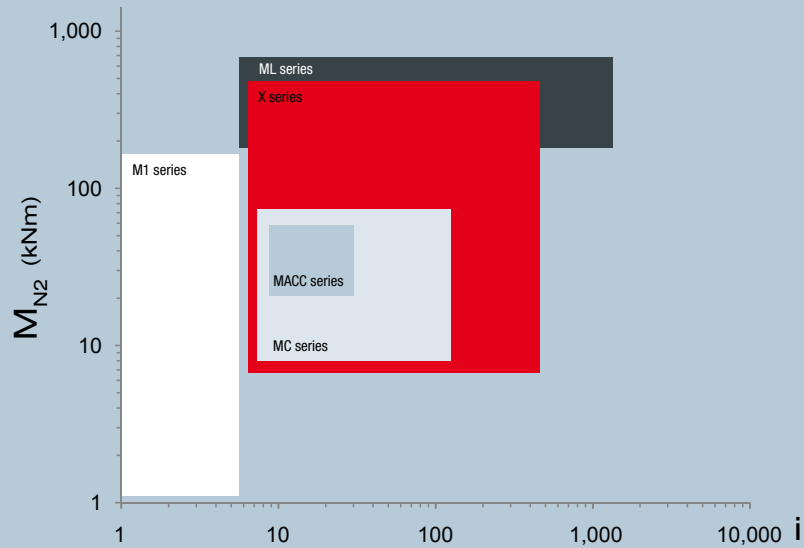
SEW-EURODRIVE offers suitable industrial gear units for applications requiring high torque ratings. The modular concept once again provides optimum adaptation of industrial gear units to meet a wide range of different applications.

SEW-EURODRIVE is your competent partner for all areas, from process planning, through project planning all the way to startup. These services are supported by our renowned, worldwide service for a comprehensive guarantee of reliable completion of all process stages.

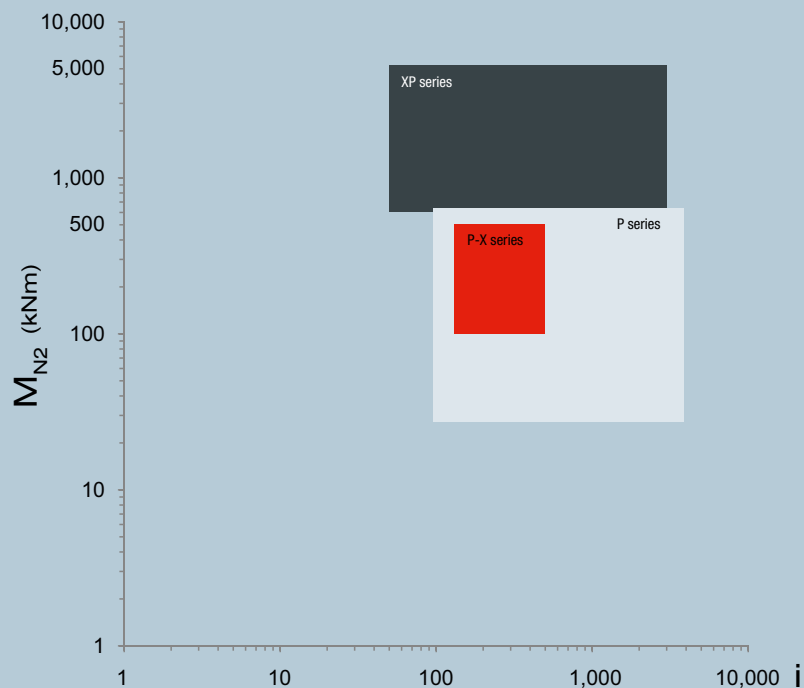


## Overview of Product Range and Torques

### X/MC/ML/M1/MACC helical and bevel-helical gear units



### P/P-X/XP planetary gear units



The gear units and gearmotors are manufactured and assembled in Germany, Brazil, India, Chile, China, Finland, Australia, South Africa, Singapore, and the United States. Our worldwide service network ensures high product availability.



## X series – Heavy-duty

With finely stepped sizes, the X series from SEW-EURODRIVE covers torques ranging from 6.8 to 475 kNm. The large number of predefined accessories offers a high degree of flexibility for adapting to a broad range of application situations – with a minimum of components at maximum availability.

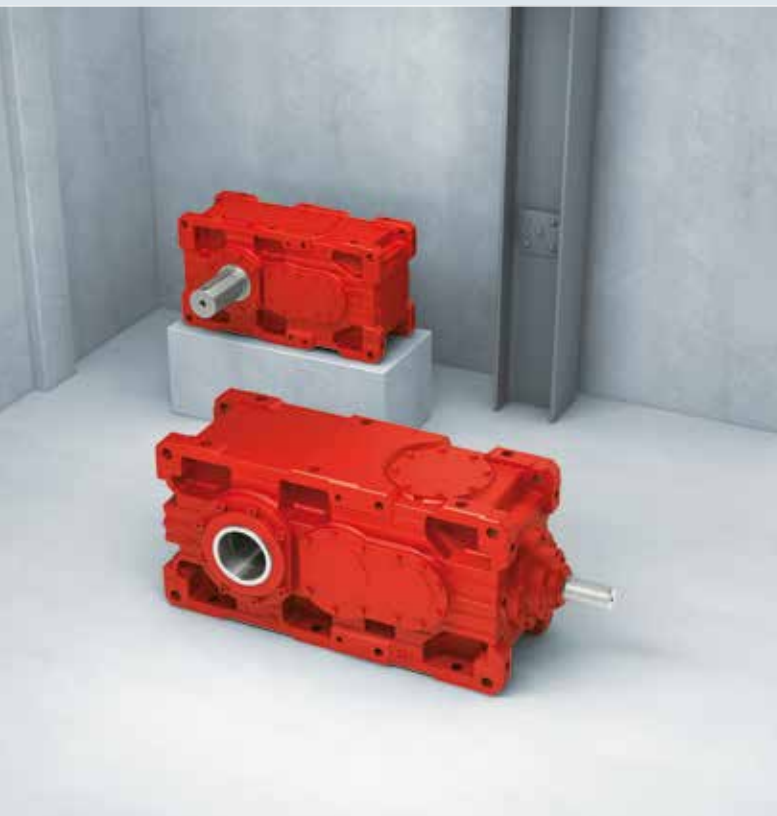
The wide range of gear ratios for helical and bevel-helical gear units from 6.3 to 450 demonstrates that the X series meets the requirements for a complete and comprehensive gear unit series.

Nearly any mounting position or shaft arrangement can be implemented on the driven machine. The reversible gear unit housing allows for variable installation since CCW and CW design is implemented in a single version, which

means a reduced number of variants for operators and original equipment manufacturers. Influencing factors, such as operational safety and ease of maintenance were particularly important for the design of the robust housing, low-noise gearing and cooling systems. Efficient project planning tools, which include the generation of 2D and 3D dimension drawings, as well as predefined drive packages for conveyor drives and bucket elevator drives complete the product range.

And if a specific customer solution should still be missing from our large number of predefined designs, we will of course add this to our range.

X series – The new industrial gear unit platform with finely stepped sizes.



The intelligent, comprehensive gear unit concept convinces by finely stepped sizes, variable installation and a great number of modular options, such as motor adapters, backstops, sealing systems, shaft end pumps, mounting flanges, and much more.

## X series: the most important facts and figures

### Design features

- Independent industrial gear unit platform
- Helical and bevel-helical gear units
- Single-piece and split gear unit housing
- Invertible gear unit housing
- Universal mounting positions
- Distinctive modular technology
- Great number of variants due to predefined accessory equipment and options
- Customization

### Advantages

- Extremely robust gear unit housing
- Reduced costs and weight due to high power density and finely stepped sizes
- Effective cooling systems
- CCW and CW versions can be implemented in a single gear unit version
- Flexible mounting capability
- Efficient project planning tools
- Short delivery times for standard versions and spare parts
- Also available as ATEX version
- Worldwide service

### Preferred application areas

- In conveyor systems as used in the building material, extractive, chemical, food and feed industries
- In the environmental industry
- In agitators and mixers
- In the timber and paper industry
- In the steel industry
- For bucket elevators in the handling of bulk material
- For shredders/disintegrators
- As travel drive for cranes
- Calender drives in the plastics industry

## X series

### Gear ratios and torques

**X.F. helical gear units: 2, 3 and 4 stages, gear ratio  $i = 6.3$  to 450**

**X.K. bevel-helical gear units: 2, 3 and 4 stages, gear ratio  $i = 6.3$  to 450**

**X.T. helical-bevel gear units: 3 and 4 stages, gear ratio  $i = 12.5$  to 450**

Gear unit size	Torque class $M_{N2}$ kNm	Gear unit size	Torque class $M_{N2}$ kNm
100	6.8	220	112
110	8.5	230	131
120	12.8	240	156
130	16	250	175
140	22	260	205
150	27.5	270	240
160	36	280	270
170	45	290	308
180	58	300	350
190	65	310	425
200	79	320	475
210	90		*

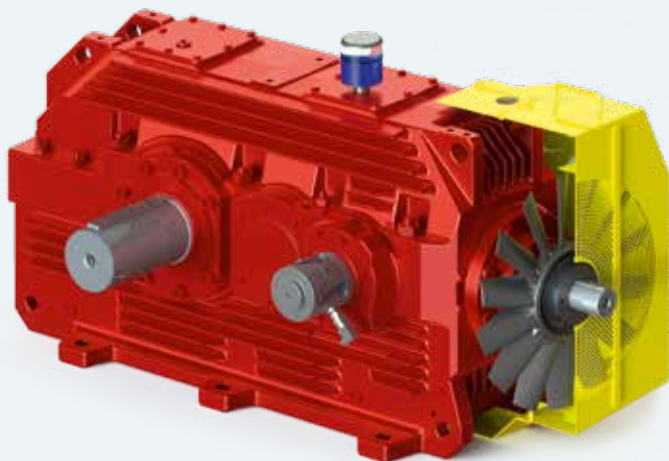
\* On request, a project-based solution can be offered for the torque range 475 kNm to 1200 kNm

## X series – Belt conveyors

Some conveyor belts only run occasionally, whereas others run 24 hours a day, seven days a week. It is for this reason that reliability and availability of the drive unit are of particular importance. Our robust, high-torque drive solutions from the X series, with its special housing concept, meet the challenging requirements of these systems. SEW-EURODRIVE's modular principle offers the right industrial gear unit for conveyor belt systems which are the ideal solution even when operating in tough conditions such as at high ambient temperatures.

All the way from project planning and installation through to operation: You can rely on us. We always keep the total operating costs of your conveyor system in mind, and try to keep them as low as possible. Whether you require technical calculations or specific documentation such as quality

certificates or project-specific operating instructions, condition monitoring or tailored services on-site – SEW-EURODRIVE is the right partner.



The modular products from the X series offer many design options that can be combined with this gear unit.



**Optimum project planning thanks to ideally suited and efficient project planning tools from SEW-EURODRIVE.**

## X series – Belt conveyors: the most important facts and figures

### Design features

- Gear unit consists of the proven components of the products from the X series
- Three-stage helical-bevel gear unit with special, horizontal housing for improved heat dissipation
- Increased cooling capacity thanks to an efficient fan concept
- Comprehensive range of X series accessories

### Advantages

- The efficient cooling concept means that external cooling units and a larger gear unit are no longer necessary
- Especially reliable in tough environments
- Also available in ATEX design

### Preferred application areas

- Cement industry
- Construction materials industry
- Surface and underground mining

## X series – Belt conveyors

### Gear ratios and torques

Bevel-helical gear units X3K.../HT...: 3-stage, gear ratio  $i = 12.5$  to  $90$

Gear unit size	Torque class $M_{N2}$ kNm
180	58
190	65
200	79
210	90
220	112
230	131
240	156
250	175
260	205
270	240
280	270
290	308
300	350
310	425
320	475

## X series – Bucket elevator drives

Bucket elevators are conveyor systems that transport large quantities of bulk material vertically upwards. Appropriately high drive powers are required, depending on the capacity of the container and the lifting height. For slow movement of the bucket elevator with the main motor switched off, for instance during maintenance, a directly mounted auxiliary drive is used.

X series bucket elevator drives are standardized application solutions. The mounted auxiliary drive can be supplied in an “empty bucket” or “full bucket” design, so that all drive components are optimally matched to the individual application.



X series bucket elevator drives are based on the proven concept of the basic gear unit.



High availability due to stocked components and the international assembly network of SEW-EURODRIVE.



## X series – Bucket elevator drives: the most important facts and figures

### Design features

- Based on the X series with predefined drive components
- Auxiliary drive with the proven SEW gearmotor
- Auxiliary drive adapter with overrunning clutch and incremental encoder
- Mounted backstop
- Radial labyrinth seal on input and output shafts

### Advantages

- All drive components are perfectly matched
- Safety through speed monitoring
- High availability due to modular concept
- Wide range of accessory equipment available upon request
- Worldwide service

### Preferred application areas

- For bucket elevators in the handling of bulk material
- In conveyor systems as used in the building material, extractive and chemical industries

## X series – Bucket elevator drives

### Gear ratios and torques

#### X3K.B... bevel-helical gear units: 3-stage, gear ratio $i = 28$ to $80$

Gear unit size	Torque class $M_{N2}$ kNm	Gear unit size	Torque class $M_{N2}$ kNm
100	6.8	200	79
110	8.5	210	90
120	12.8	220	112
130	16	230	131
140	22	240	156
150	27.5	250	175
160	36	260	205
170	45	270	240
180	58	280	270
190	65		

## MC series – Compact

Thousands of MC series gear units have been successfully used in many applications. The MC series in the industrial gear unit portfolio is designed for the small torque range up to 65 kNm and is characterized by little space requirements and high availability.

The gear units are suitable for horizontal, vertical and upright mounting on the customer's machine. The MC series is particularly suited for medium gear ratios.

The modular concept includes a great variety of optional accessory equipment, such as motor adapters, belt drives, and backstops.

Standardized application solutions are available for bucket elevators, cooling towers, and agitators. Even in process engineering plants, large

axial and radial forces occur at the agitator shaft during agitating processes. SEW-EURODRIVE's "EBD" (Extended Bearing Distance) concept offers stronger bearings within the gear unit itself, which means that in many cases separate bearings are no longer required in the agitator or an oversizing of the gear unit can be avoided. The concept is supplemented by an optional drywell seal, which prevents oil leakage at the output shaft and allows a standard mounting flange to be used.



MC series: 8 sizes of particularly compact parallel shaft gear units or right-angle gear units.



The proven series for the small torque range with stable single-piece gear unit housing for nearly any industry and application.

## MC series: the most important facts and figures

### Design features

- Independent gear unit series
- Helical and bevel-helical gear units
- Modular concept
- Special solutions can be implemented
- Block housing design means gear units do not have a parting line
- Universal mounting positions
- All commercially available connection elements are possible at input and output side
- With the EBD concept, various predefined output bearing types depending on the requirement profile and application, variable flange geometries and “drywell” versions are available

### Advantages

- The compact drive ensures high torque transmission capability
- Finely stepped torques
- Modular product concept
- Parts for standard versions are in stock, ensuring short delivery times
- Robust unit due to block housing
- Leakage free due to optional “drywell” version
- Worldwide service

### Preferred application areas

- In conveyor systems as used in the building material, extractive, chemical, food and feed industries
- In the environmental industry
- In agitators and mixers
- In the timber and paper industry
- For bucket elevators in the handling of bulk material
- For shredders/disintegrators
- As travel drive for cranes
- For bucket elevators in the handling of bulk material

## MC series

### Gear ratios and torques

**MC.P.. helical gear units: 2 and 3 stages, gear ratio  $i = 7.1$  to  $112$**

**MC.R.. bevel-helical gear units: 2 and 3 stages, gear ratio  $i = 7.1$  to  $112$**

Gear unit size	Torque class $M_{N2}$ kNm	Standard output shaft $\emptyset$ mm	EBD2 output shaft $\emptyset$ for high radial loads, high axial loads mm	EBD1 output shaft $\emptyset$ for moderate radial loads, high axial loads mm
02	8	80	95	80
03	12	100	115	95
04	16	105	125	105
05	21	120	135	120
06	27	130	150	125
07	37	140	160	–
08	48	160	170	–
09	65	170	180	–

## ML series – Versatile

Customer-specific applications and tailor-made solutions must also be implementable for large machines and systems. The ML series meets the specific requirements in the upper torque range from 180 to 680 kNm and ensures the highest degree of flexibility and variability.

A large variety of modules can be mounted on the input and output end of the ML series gear units. Additional elements can easily be connected on both sides of continuous shafts – cutting costs and without any major effort. It

goes without saying that gear units of the ML series meet all the quality-relevant criteria for which SEW-EURODRIVE has stood for decades and that have made our gear units so successful on the global market.



Gear units of the ML series are available in five sizes from 180 to 680 kNm. This wide variety allows for numerous application options.



**The ML series really shows what it's made of with large machines that need to be reliably driven in the upper torque range.**

## ML series: the most important facts and figures

### Design features

- Independent gear unit series
- Helical and bevel-helical gear units
- Housing in welded construction
- All gear units have a parting line
- All commercially available connection elements are possible at input and output side
- For horizontal mounting positions
- Available with increased center distance for lifting applications

### Advantages

- Flexible thanks to the welded construction of the housing
- Easy maintenance due to parting line
- Worldwide service

### Preferred application areas

- In mining
- In crane construction/hoists (boom hoist, main hoist/winch)
- In large conveyor drives for handling bulk material
- In mill drives in raw material processing
- In large special and single machines in a variety of industrial applications

## ML series

### Gear ratios and torques

**ML.P. helical gear units: 2, 3 and 4 stages, gear ratio  $i = 5.6$  to 315**

**ML.R. bevel-helical gear units: 3, 4 and 5 stages, gear ratio  $i = 14$  to 1250**

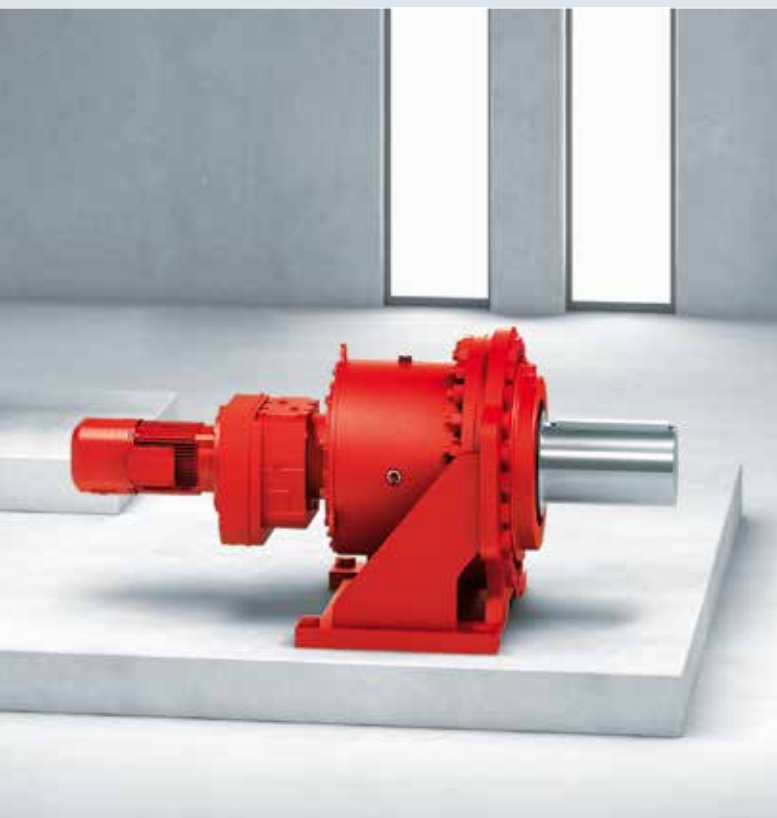
Gear unit size	Torque class $M_{N2}$ kNm
100	180
110	250
120	350
130	460
140	680

## P series – Standardized

Not so long ago, huge transmissions and gears were required to achieve low output speeds and high torques. Today, such drives are implemented using planetary gear units with the powerful support of primary gearmotors. The product advantages of this completely new type of planetary gearmotor are impressive. It is in this way that nominal gear unit torque could be increased by up to 25%. This resulted in further space and cost savings.

First of all, they are all very compact units. The gear units are designed so that the gearmotor is directly mounted in front of the planetary gear unit. Couplings, intermediate flanges and adapter flanges that take up space and increase costs are a thing of the past. Meaning that the entire range of SEW-EURODRIVE gearmotors is available. The series is a standardized product. This

means: You can access the current dimension sheets and dxf files at any time, for example for planning and calculation purposes. Thanks to SEW-EURODRIVE's modular concept, considerable synergies can also be achieved in production processes. This results in an excellent price/performance ratio and short delivery times.



Planetary gearmotors as standardized series.



**SEW-EURODRIVE also offers standardized planetary gearmotors for the upper torque range.**

## P series: the most important facts and figures

### Design features

Planetary gear units

- can transmit high torque
- are very compact
- offer a large variance on the input side
- are variable in the gear reduction range
- can be used as helical gear or bevel-helical gear units

### Advantages

- Perfectly matched units (gear unit and motor)
- Wide range of options thanks to the SEW-EURODRIVE modular concept
- Short, compact design because there is no need for couplings and adapter flanges
- Increase in torque offers cost saving potential by using smaller sizes
- Standardized units, which means excellent price/performance ratio and short delivery times

### Preferred application areas

All applications requiring low output speeds and high torques.

For example:

- For drying processes in the construction materials industry
- For apron conveyors in mining
- For slewing and pivoting gears in materials handling technology
- For filling processes in the cement industry
- For slow-running material processing systems, such as mixers, rotary filters
- For spiral belt freezers and conching drives for the food industry
- For all industries with similar requirements

## P series

### Gear ratios and torques

**P.RF... helical planetary gear unit: 4 and 5 stages, gear ratio  $i = 100$  to 4000**

**P.KF.. bevel-helical planetary gear unit: 5-stage, gear ratio  $i = 140$  to 4000**

Gear unit size	Torque class $M_{N2}$ kNm*
002	29
012	46
022	64
032	86
042	111
052	140
062	209
072	274
082	397
092	513
102	631

\* for a defined service life

## NEW: P-X series – High power density

Many applications, including those used in handling of bulk material or in the environmental and recycling industry, require drives with high torque at medium speed. SEW-EURODRIVE offers the solution: a perfectly matched unit comprising planetary gear units and standardized primary helical or helical-bevel gear units.

The P-X gear unit consists of a combination of a planetary gear unit and a primary gear unit from the proven X series. All mounting options and optional features of the X series are available.

The optimized gear unit housing and the shared oil chamber result in an extremely high thermal rating.

For applications with high torque at medium speed: the P-X series.



High transmittable torque and very compact design



## P-X series: the most important facts and figures

### Design features

- 7 sizes
- High transmittable torque at medium speed
- Compact design
- Variable in the gear reduction range
- Weight-optimized drive
- High permitted radial load at output
- Invertible housing
- High thermal rating
- Shared oil chamber

### Advantages

- High thermal rating due to optimum exchange of oil between P and X series gear units
- Application-specific sealing systems and lubricants are available
- Reduced space and weight due to the use of a motor scoop or adapter
- Reduced costs as no replacement gear unit is needed (invertible housing)
- Can be used at temperatures under  $-25\text{ }^{\circ}\text{C}$
- Oil lubricated and maintenance-free rolling bearings and backstops

### Preferred application areas

All applications requiring medium output speeds and high torques.

For example:

- For apron conveyors and bucket wheel drives in mining
- For filling processes in the cement industry
- For material processing systems, such as mixers and rotary filters
- For drum washers in the pulp and paper industry
- For particle board systems in the timber industry
- For shredders in the recycling industry
- For drying processes in the construction materials industry

## P-X series

### Gear ratios and torques

**P-X... helical/bevel-helical gear units: gear units sizes 042 to 102, gear ratio  $i = 160$  to 550**

Gear unit size	Torque class $M_{N2}$ kNm
042	100
052	124
062	185
072	245
082	359
092	420
102	500

For gear ratios outside this range, please contact us.

## NEW: XP series – The strong series

Applications in the highest torque range generally require highly individual and very specific drive solutions. SEW-EURODRIVE offers a reliable and robust drive for applications where maximum loads under tough conditions are the norm, e.g. in the sugar industry and the extraction of raw materials. The XP series fulfills the necessary requirements up to a maximum output torque of 5200 kNm.

XP series gear units are primarily designed as stand-alone gear units with free input shafts. The new modular system and the finely stepped torques provide the perfect gear unit for any application.

The number of stages and the individual gear ratios are very flexible and can be adapted to individual customer applications. They can also be directly coupled with a primary gear unit from the SEW modular concept.



XP-gear units as customer-specific solutions for the highest output torques.



Gear units from the XP series can also be offered at torques above the specified torque range.

## XP series: the most important facts and figures

### Design features

- Modular system of components
- Highest torques
- High power density
- Maximum flexibility with customer adaptations
- Various mounting positions
- Foot or flange-mounted
- Can be combined with a primary gear unit

### Advantages

- Tailor-made solutions
- High thermal rating
- Individual gear ratios can be modified more easily
- Highly variable due to coupling with gear units from the SEW modular concept on the input side
- Wide range of equipment options
- Worldwide availability and service

### Preferred application areas

- Raw materials and mining industry
  - Food industry
  - Chemical industry
  - Energy recovery
  - Paper and pulp processing
  - Steel industry
  - Construction materials industry
- Application examples:
- Apron conveyors
  - Bucket wheel drives
  - Crawlers for mobile stone crushers
  - Shredders
  - Sugar mills
  - Roller presses
  - Drum washers
  - Mixers and agitators
  - In many more applications requiring highest torques

## XP series

### Gear ratios and torques

XP planetary gear units: 2- and 3-planetary stages, gear ratio  $i = 50$  to  $3000^{1)}$

Gear unit size	Torque class $M_{N2}$ kNm	Gear unit size	Torque class $M_{N2}$ kNm
XP130	600	XP200	2300
XP140	730	XP210	2750
XP150	900	XP220	3300
XP160	1050	XP230	4000
XP170	1310	XP240	4500
XP180	1600	XP250	5200
XP190	1900		

<sup>1)</sup> In combination with primary gear units from the SEW-EURODRIVE modular concept.

Sizes with higher nominal torques on request.

## MACC series – Air cooled condensers

A dedicated gear unit series for air cooled condensers ... Reliable, powerful, quiet, and efficient design with high quality internals, rigid housing and bearing arrangement to fulfill the wide variety of demands of the application, such as high torque, fan impeller loads, extensive speed range including wind-milling, low noise level and support of motor weight.

High thermal capacity due to large housing, cooling ribs, optimized oil level and oil circulation. Low-noise axial cooling fan as option for increased thermal capacity. For aggressive

ambient conditions, a reliable surface treatment is available. All necessary optional accessories are provided in a maintenance-friendly way, accessible from the walkway on the fan bridge.



Also available on request:

- Special ratio
- ATEX environment



Reliable surface treatment for aggressive ambient conditions.

## MACC series: the most important facts and figures

### Design features

- Enhanced motor lantern
- Drywell
- Shaft end pump for pressure lubrication
- Cooling fan
- Backstop, internal design

### Advantages

- Optimized thermal rating
- High housing stiffness
- High thrust load capacity on LSS

### Preferred application areas

- Air cooled condensers

## MACC series

Gear unit size	H	W	L	Torque class $M_{N2}$ kNm	Nominal ratio range
05	484	480	897	21	9 – 25
06	516	530	992	28	9 – 25
07	540	570	1055	37	9 – 25
08	585.5	716	1187	51	9 – 25
09	606	730	1267	66	9 – 25

## M1 series – Low ratio applications

Energy prices are expected to rise also in the future and will further increase the cost pressure in the paper industry. This is why the persons responsible in the paper mills will have to intensify their efforts in using energy sparingly to be able to achieve cost savings. The gear units of SEW-EURODRIVE can contribute a lot to reduce these energy costs.

The M1 series gearboxes are single-stage gear units for applications with low ratios in the range of 1.12 to 7.1. The maximum nominal torque is 168 kNm.

Typical fields of application are, for example, pump drives or rollers and refiners (paper industry) where foot-mounted helical gear units are required.



The horizontal, split housing design is maintenance-friendly.



Worldwide service to improve your productivity.

## M1 series: the most important facts and figures

### Design features

- Cooling with fan or with cooling coil
- Oil heating available
- Sealing concept also for rough conditions

### Advantages

- Optimized thermal rating
- Easy maintenance
- Fine-tuned range

### Preferred application areas

- Paper industry
- Pump applications
- Many other applications where low ratios are mandatory

## M1 series

Size M1P	Nominal output torque $M_{N2}$ kNm																
	Nominal ratio $i_N$																
	1.12	1.25	1.40	1.60	1.80	2.00	2.25	2.50	2.80	3.15	3.55	4.00	4.50	5.00	5.60	6.30	7.10
19	1.47	1.55	1.64	1.69	1.75	1.70	1.68	1.59	1.53	1.45	1.31	1.21	1.09	0.92	0.76	0.69	0.51
20	5.22	5.51	5.81	6.04	6.34	6.60	6.84	7.09	6.79	6.42	5.93	5.46	4.96	4.36	3.73	3.09	2.51
30	9.42	9.94	10.5	10.9	11.4	11.9	12.1	12.3	12.3	12.4	11.8	10.8	10.0	8.49	6.93	6.50	5.12
40	13.0	13.7	14.5	15.1	15.8	16.4	17.1	17.8	18.3	18.6	17.3	15.9	14.4	12.8	11.0	9.28	7.59
50	19.1	20.1	21.3	22.2	23.2	24.1	25.2	26.0	26.9	26.1	24.4	21.9	19.8	17.5	15.4	12.9	10.5
60	24.6	26.0	27.4	28.6	30.1	31.4	32.6	33.6	34.4	34.6	34.5	31.7	28.3	25.1	21.0	18.1	15.3
70	35.1	37.1	39.2	40.7	42.6	44.6	46.2	48.0	49.4	50.9	49.0	45.1	40.5	36.2	31.9	27.3	22.5
80	47.1	49.7	52.5	54.7	57.6	59.5	62.4	64.3	66.8	68.7	70.6	66.5	60.0	54.3	47.1	40.1	32.1
90	59.3	62.6	66.2	69.0	72.3	75.2	78.4	81.3	83.8	86.3	88.9	91.1	86.0	71.4	66.3	58.3	–
100	82.3	87.1	92.3	96.1	100	104	109	113	116	120	124	127	126	107	98.3	88.3	–
110	106	112	119	124	130	135	141	146	151	155	160	165	168	133	135	123	–

## Segmented girth gear – Customer-specific solution

Girth gears are used to drive large, rotating systems such as dryers, rotary kilns or horizontal mills. They are installed around the circumference of these systems and transfer the drive torque from the gearmotor to the rotary cylinder. SEW-EURODRIVE has developed a flexible concept that meets all individual requirements. It also offers advantages for production, transportation and assembly.

In comparison to girth gears made of conventional materials, girth gears made of ADI (Austempered Ductile Iron) weigh less than half due to their amazing material characteristics, but offer the same performance and the same level of safety. The professional configuration of the

girth gear offered by SEW-EURODRIVE makes it possible to make use of all available advantages. In addition, increased segmentation also offers optimum solutions to individual requirements.

Possible scopes of delivery are

- Segmented girth gears
- Drive pinion and, if required, pedestal bearing
- Fastening parts for the girth gear: Mounting springs or mounting flange
- Main gear unit
- Motors
- Auxiliary drives
- Lubrication system
- Foundation or base frame
- Couplings and covers
- Condition monitoring
- Installation as well as startup of the whole drive system



For large rotating systems, the versatile girth gear offers more than the sum of the individual segments.



## Segmented girth gear: the most important facts and figures

### Design features

- Girth gear pitch diameter up to 16 m. Larger diameters are possible. Contact SEW-EURODRIVE.
- Maximum width 600 mm
- Maximum power 4000 kW per pinion
- Maximum pitch line velocity 6 m/s
- Girth gear module 20, 25, 30, and 40 mm
- Calculation according to standard ISO 6336 (AGMA on request)

### Advantages

- The design of the feeders and the use of heat sinks guarantee a seamless casting quality.
- Simple handling: Segmented girth gears can be transported in standard containers. There is no need for cost-intensive transportation arrangements.
- Easy exchange: If a segment is damaged, it can be exchanged without dismantling the whole ring.
- Low weight: ADI has an over-average contact fatigue strength due to its cold work hardening properties. This enables a compact and lighter design compared to the traditional solution. In addition, the low weight is advantageous when handling and assembling the girth gear as well as the circumferential velocity that can be achieved.
- Longer service life: With the correct dimensioning, load and lubrication, an ADI girth gear is nearly wear-free.
- Short delivery time: The small segments allow for a faster production and therefore a shorter delivery time.

### Applications

Industry sectors

- Chemicals
- Environment
- Mining
- Power
- Pulp and paper industry
- Steel
- Cement

Application examples

- Ball mills
- Rotary kilns
- Rotary dryers and calciners
- Drum brakers
- Drum pulper and drum screens

### Typical application sizes

Mill	Rotary kiln
Up to about 15 MW	Up to about 1 MW
Up to about 16 m	Up to about 9 m
Flange	Leaf spring
High (10 to 20 min <sup>-1</sup> )	Low (1 to 2 min <sup>-1</sup> )

## Application-specific solutions

The key to attaining a real competitive advantage lies in creating innovative, safe and energy-efficient concepts: from the comprehensive modular system of drive components to the solution-oriented, function-optimized and cost-optimized packages with a high degree of adaptability to specific applications.

SEW-EURODRIVE, a leading specialist in drive technology, calls this Drive 360° – Seeing the big picture: from problem-solving expertise to system availability, from energy efficiency to the finished system that sets new standards. SEW-EURODRIVE has supported and guaranteed all of this with a global presence for more than

87 years – with manufacturing and assembly plants in Germany, Brazil, India, Chile, China, Finland, Australia, South Africa, Singapore and the USA. In addition, our worldwide service ensures high product availability and shorter downtimes.

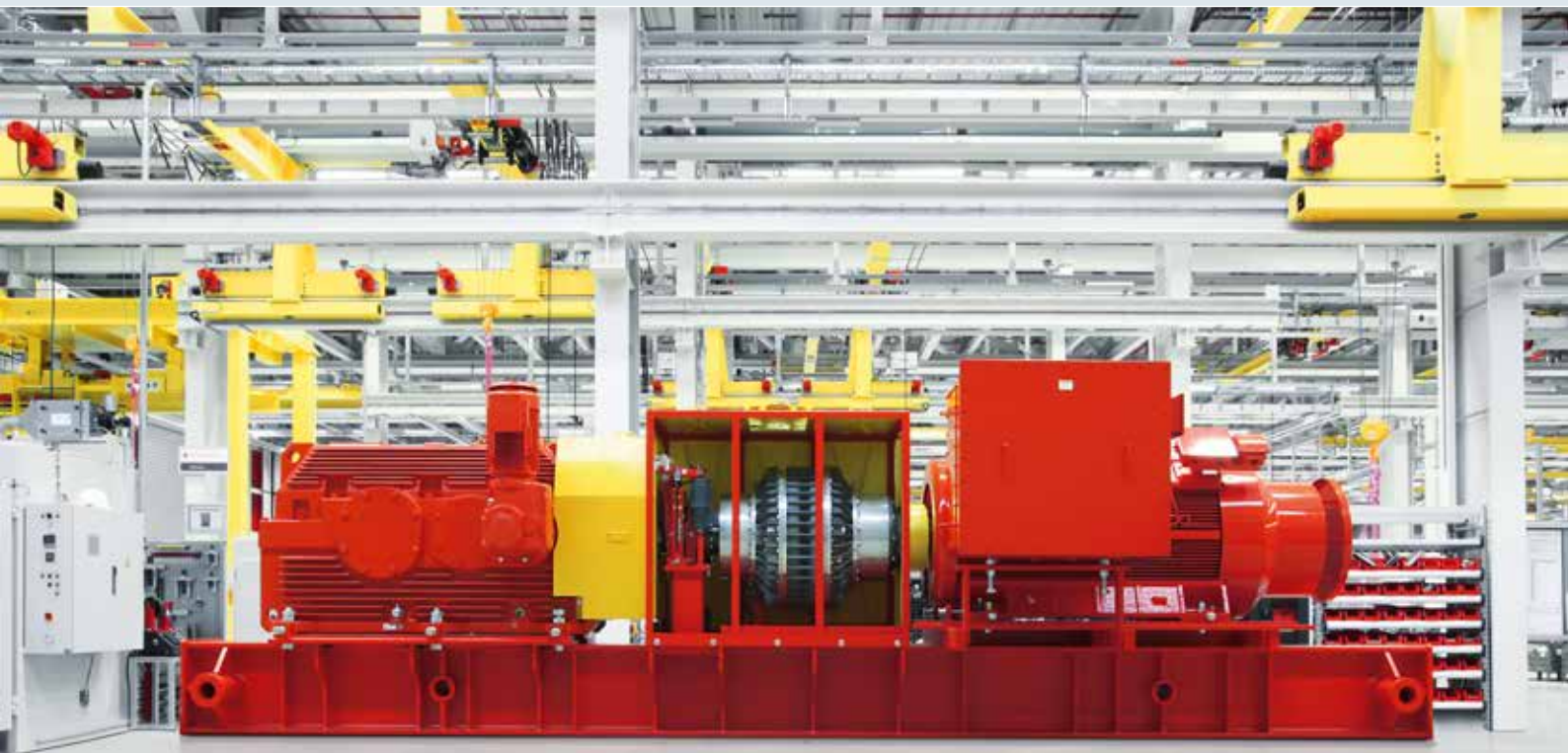


The DUO oil aging sensor makes it possible to monitor the condition of the gear unit.



**Reduce your indirect costs, minimize your production losses and avoid unplanned downtimes using condition monitoring.**

Example drive packages and application-specific solutions for industrial applications



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