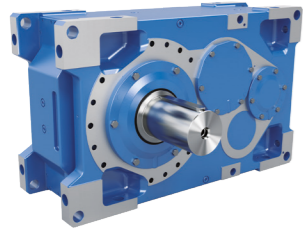


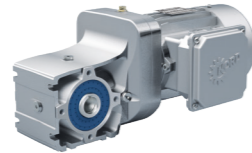
MAXXDRIVE® XD

Parallel Gear Units
Industrial Gear Units





Industrial gear units



Geared motors



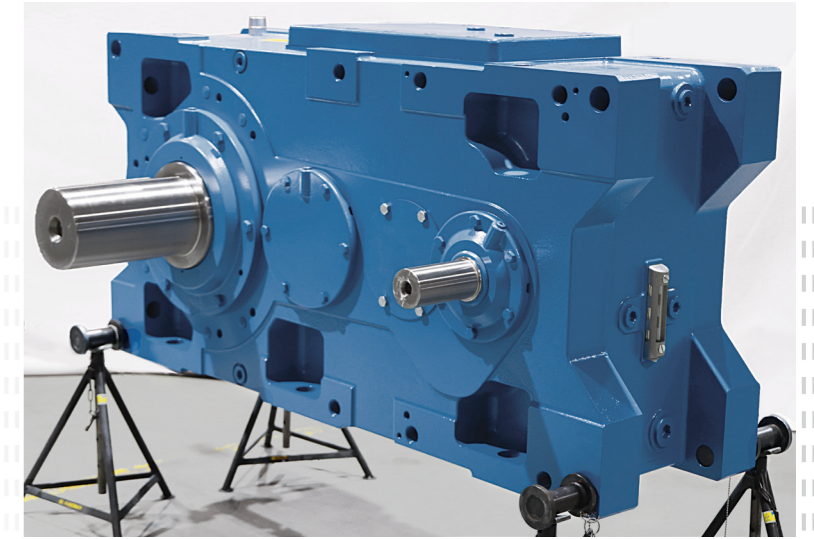
Frequency inverters and motor starters

- ▶ Headquarters and technology centre in Bargteheide near Hamburg.
- ▶ Innovative drive solutions for more than 100 branches of industry.
- ▶ 7 production locations with cutting edge technology produce gear units, motors and drive electronics for complete drive systems from a single source.
- ▶ NORD has 48 subsidiaries in 36 countries and further sales partners in more than 50 countries, providing local stocks, assembly centres, technical support and customer service.
- ▶ With more than 4,700 employees throughout the world create customised solutions.



The development of the new "MAXXDRIVE XD" series rounds off NORD's well-proven MAXXDRIVE® Industrial Gear Units range for specifically hoist applications.

MAXXDRIVE XD: XD – Extended center distance



Currently these additional types are available

Gearbox type	nominal ratio	M2,max [Nm]	M2,max [lb-in]
SK 5321	28 - 315	15.000	132.800
SK 7321 / SK 7421	28 - 355	25.000	219.100
SK 9321 / SK 9421	28 - 355	43.000	380.600
SK 11321 / SK 11421	22,4 - 355	77.300	684.200
SK 12321 / SK 12421	22,4 - 355	112.000	991.300

Design features:

- ▶ Rigid one-piece UNICASE housing (GJL)
- ▶ Inspection cover on top of the reducer
- ▶ Housings FEA-optimised for overhang load (especially downwards forces)
- ▶ Calculation & design of all components in accordance with the latest international standards
- ▶ Stable nominal torque ratings within the complete ratio range

Options

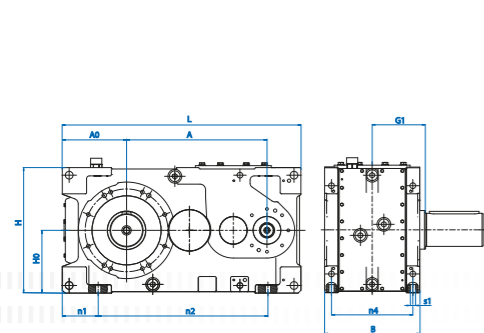
- ▶ Foot mounting & shaft mounting (with torque support) possible
- ▶ Input shaft: Solid input shaft with keyway (single or double extended)
- ▶ IEC/NEMA motor adaperts available and elastic input couplings available
- ▶ Thruster brakes (with brake console) available / input flange for flange-mounted brakes available
- ▶ Output shafts: Solid shaft with keyway(s), Double solid shaft with keyway(s), Splined solid shaft DIN5480, Keyed hollow shaft, Splined hollow shaft DIN5480, Hollow shaft with shrink disc
- ▶ Output coupling available optionally: e.g. barrel type (for direct connection to the rope drum)
- ▶ Ductile iron housing available optionally
- ▶ Additional options from our standardized modular system: Oil heater, PT100, Taconite sealings,, Monitoring devices and sensors



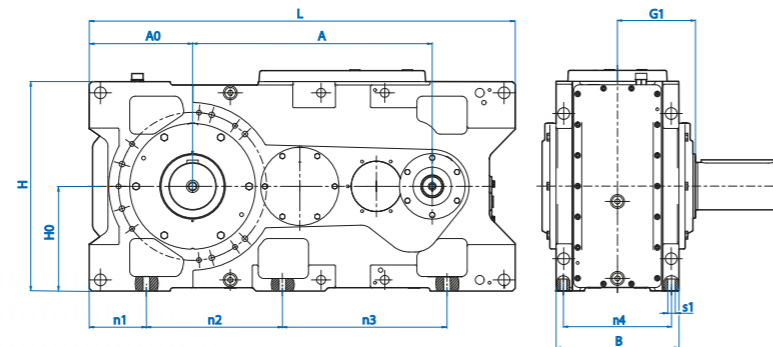
Advantages

- ▶ Center distance has been increased by +35% compared to our compact G1050 series
 - ▶ Maximum space for the U-shape arrangement of motor and rope drum on the same side of the gearbox
- ▶ Oversized gearboxes due to geometric constraints are a thing of the past:
 - ▶ The new MAXXDRIVE XD series allows the reductions of the drive weight up to 60%
- ▶ Precise drive dimensioning is a prerequisite for cost-optimised crane design:
 - ▶ Reduction of moving masses (lower energy consumption)
 - ▶ Material savings in the steel construction of the hoist trolley
- ▶ Selection based on FEM / DIN EN 13001
- ▶ Same housing dimensions and center distance for 3-stage and 4-stage reduction
 - ▶ Standardisation & variant reduction of the hoist design
- ▶ Drive solutions tailored to the customer's needs with short delivery times
- ▶ Long life service life - low maintenance
- ▶ NORD can supply all drives- such as travel drives - from a single source

SK5.21



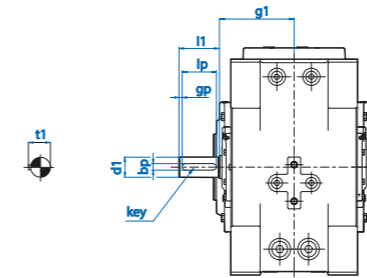
SK7.21 / SK9.21 / SK11.21 / SK12.21



Overall dimensions

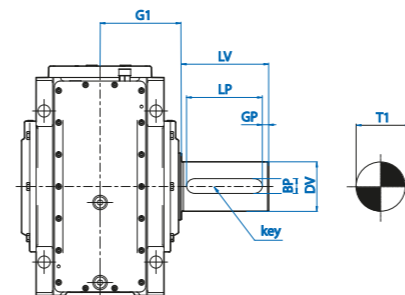
Gearbox type	H0 [mm]	H [mm]	A [mm]	A0 [mm]	L [mm]	B [mm]	G1 [mm]	n1 [mm]	n2 [mm]	n3 [mm]	n4 [mm]	S1 [mm]
SK 5.21	227,5	455	509	230	865	345	192,5	128	620	—	295	28
SK 7.21	265	530	592	295	1090	350	179	160	382,5	372,5	305	28
SK 9.21	325	650	718	330	1315	415	212,5	175	427,5	492,5	352	35
SK 11.21	375	750	858	370	1525	440	260	217,5	477,5	585,5	370	42
SK12.21	425	850	963	405	1720	510	294	257,5	482,5	697,5	430	48

Solid Input Shaft



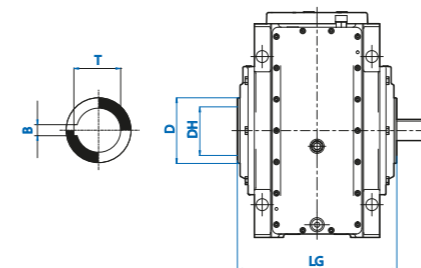
Gearbox type	∅ d1 [mm]	l1 [mm]	g1 [mm]	lp [mm]	bp [mm]	gp [mm]	t1 [mm]	Key
SK 5.21	48	110	192,5	100	14	5	51,5	14 x 9 x 100
SK 7.21	48	110	194	100	14	5	51,5	14 x 9 x 100
SK 9.21	55	110	227,5	90	16	10	59	16 x 10 x 90
SK 11321	70	140	260	125	20	7,5	74,5	20 x 12 x 125
SK 11421	55	110	260	90	16	10	59	16 x 10 x 90
SK 12.21	80	170	294	140	22	15	85	22 x 14 x 140

Solid Output Shaft



Gearbox type	∅ DV [mm]	LV [mm]	LP [mm]	BP [mm]	GP [mm]	T1 [mm]	Key
SK 5.21	120	210	180	32	15	127	32 x 18 x 180
SK 7.21	140	250	200	36	25	148	36 x 20 x 200
SK 9.21	160	300	260	40	20	169	40 x 22 x 260
SK 11.21	170	300	260	40	20	179	40 x 22 x 260
SK 12.21	200	350	300	45	25	210	45 x 25 x 300

Hollow Output Shaft



Gearbox type	∅ DH ^{H7} [mm]	∅ DV [mm]	LG [mm]	B [mm]	T [mm]
SK 5.21	105	140	385	28	111,4
SK 7.21	125	160	394	32	132,4
SK 9.21	160	220	506	40	169,4
SK 11.21	170	240	560	40	179,4
SK 12.21	190	250	630	45	200,4

The tasks of cranes, in picking up loads and setting them down gently at a precise location, requires special drives and integrated brakes as well as a frequency inverter technology that ensures a soft start and generator braking via defined adjustable ramps. Smooth motion with high positioning accuracy is essential - and is often required with the simultaneous movement of the crane and the trolley as well as the control and synchronous operation for travelling drives.

Efficient - NORD drive solutions are environmentally friendly and help to minimise CO₂ emissions.

- ▶ NORD motors with low mass inertia are designed for inverter operation and comply with the latest international energy requirements.
- ▶ NORD frequency inverters ensure efficient operation, improved process control, and optimised motor performance.
- ▶ Easy to service and maintain, NORD drives reduce standstill times and thus contribute to an increased efficiency and availability of the entire system.

Reliable - It is vital to prevent breakdowns in crane systems. For this reason, reliability is our main focus when developing drive solutions. All of our system components are precisely matched to each other and ensure smooth operation.

- ▶ UNICASE gear units ensure precise positioning of bearings and shafts.
- ▶ Precisely machined gear wheels with minimum wear are used.
- ▶ The gear units are extraordinarily robust, run very quietly and have a particularly long service life.
- ▶ NORD inverters electronically protect the drive system and can visualise the operating data.

Tried-and-tested - NORD special solutions for crane systems have proven themselves throughout the world.

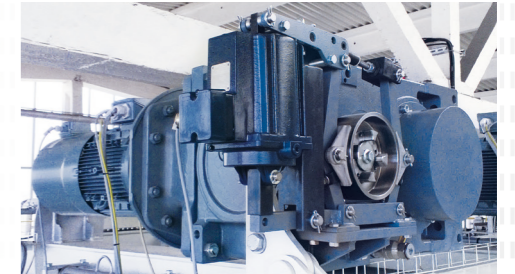
The reasons for this include:

- ▶ Gear units withstand a wide range of ambient conditions. They function both in dusty environments, as well as in environments with high humidity and heat, and large temperature differences.
- ▶ We provide our customers with individual solutions which are tailored to their requirements, so that functionality in all situations is ensured.



Lifting gear drives

- ▶ Industrial gear units for large hoists with heavy loads
- ▶ MAXXDRIVE® XD series and MAXXDRIVE® G1050 series with output torque ratings up to 282.000Nm (2.500.000 lb-in)™
- ▶ Housings available with extended center distance and also in compact design – depending on your needs
- ▶ Wide option range including input and output couplings, IEC/NEMA motor adapters, thruster brakes (with console)
- ▶ Modular and flexible design for optimum adaptation to your hoist
- ▶ Various solid & hollow output shaft designs – with different shaft configurations available
- ▶ For smaller hoists NORD's extensive gearmotor portfolio offers the perfect product for any requirement:
 - ▶ Parallel Shaft Gearmotors
 - ▶ Helical Bevel Gearmotors
 - ▶ Helical In-line Gearmotors



Travel drives (long travel & cross travel)

- ▶ Comprehensive portfolio of NORD gearmotors for all installation and torque requirements
 - ▶ Parallel Shaft Gearmotors
 - ▶ Helical Bevel Gearmotors
 - ▶ Helical In-line Gearmotors
- ▶ Reliable and service friendly UNICASE housing
- ▶ Premium-efficient motors according to international standards
- ▶ Motor options
 - ▶ Encoder
 - ▶ Forced ventilation (IC416)
 - ▶ Brake
- ▶ Paint and sealing systems to withstand harsh environmental conditions
- ▶ Frequency Inverters for cabinet installation and decentral motor-integration.
 - ▶ Precise vector control with high overload capacity
 - ▶ Closed-loop performance and master-slave synchronization
 - ▶ S-ramp acceleration and deceleration for smooth move performance



EN

Headquarters:
Getriebbau NORD GmbH & Co. KG
Getriebbau-Nord-Str. 1
22941 Bargteheide, Germany
T +49 4532 289 0,
F +49 4532 289 2253
info@nord.com