



QuarryMaster®

Helical-Bevel Geared Motors



It runs and runs and runs and runs...

Are you unearthing large quantities on an ongoing basis?
Do you sometimes move huge masses? Standstill is not part
of your vocabulary? If so, we're on your wavelength.



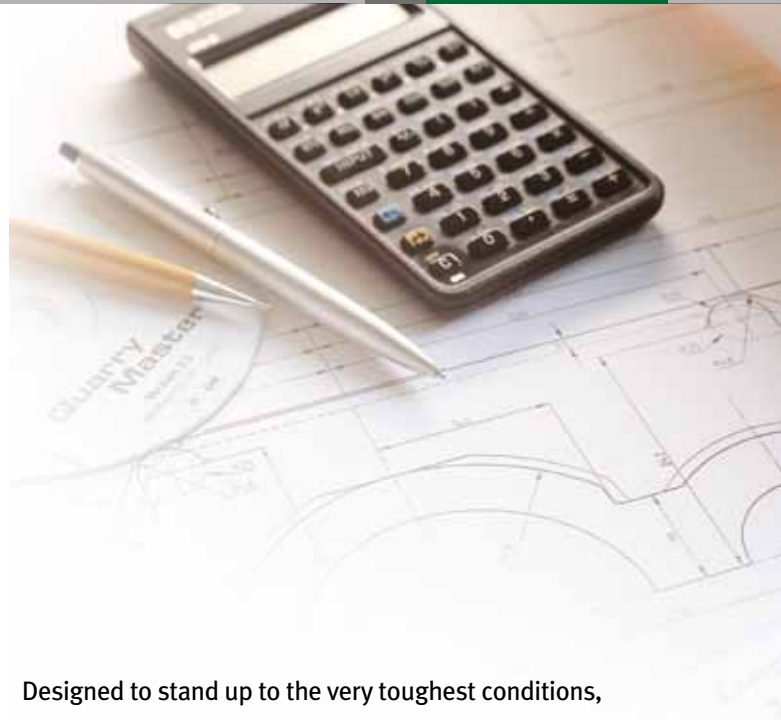


QuarryMaster® conveyor drives – powerful, robust, flexible

The Stiebel QuarryMaster® is a high-quality and extremely robust geared motor which we developed especially for the requirements of conveyor technology.

The compact casing combines the power Stiebel hightech gear with a high-quality IEC motor to form an impressive, long-lasting power unit. The B5 or B14 motors are directly flanged onto the gear casing. The output of the conveyor drive is between 1.1 and 90 kW.

Combined with the tried-and-tested gear coupling mounted in an oil bath between the gear and the motor, the conveyor drives are designed for the lower and medium load range. Thanks to their highly compact design they can be used in a wide variety of installation situations.



Designed to stand up to the very toughest conditions, QuarryMaster® provides impressive performance and optimum stability even under high loads or frequent load changes. This is especially due to highquality detail solutions such as the integrated torque absorption and the oil-lubricated backstop.

Thanks to the high variety of hollow shaft types the QuarryMaster® can be flexibly adapted to a wide range of different requirement profiles.



The very highest level of technology – based on tradition



Every Stiebel drive has within it the rich experience and intensive practice of six decades. This is expertise you can rely on.

We are well aware that our drives have to function impeccably at all times – under enormous strain, in the roughest surroundings and without a break. Even at the other end of the world. This is why we build them to the very highest technological standards – both robust and reliable. We ensure these high quality standards by continuous control using state-of-the-art measuring and testing equipment.





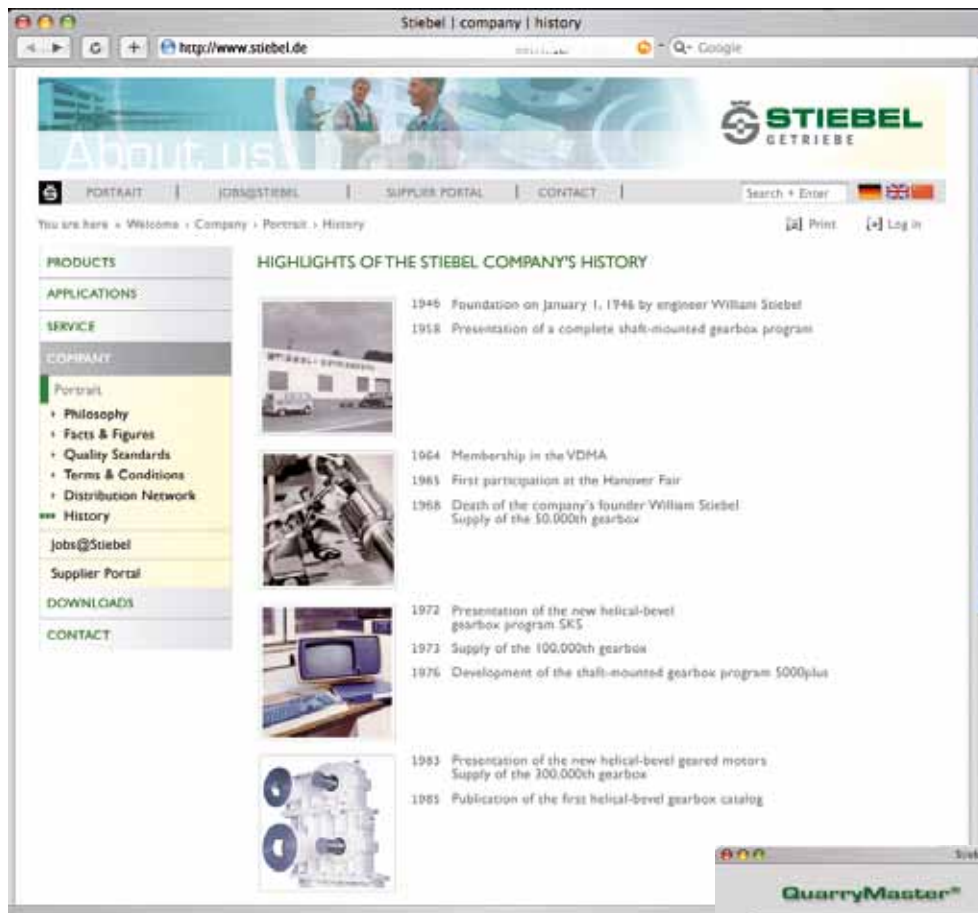
Application examples



Ideal for rigorous use in quarries, gravel pits, cement factories – and anywhere else where bulk materials are extracted and transported.

Stiebel online

Our constantly updated website provides you with comprehensive and clearly presented information on all news and products from Stiebel. And of course it gives you all information and specifications relating to our QuarryMaster® drives, as well as a direct line to us.



Calculation and construction software

With our QuarryMaster® construction software we support you in the selection of the right geared motor to meet your individual requirements and needs. You will find the relevant link on our homepage: www.stiebel.de.



Performance features at a glance

Feature	QuarryMaster®
Power range, P	1,1 up to 90 kW
Speed, n_2	22 up to 175 min ⁻¹
Torque, T	300 up to 16.000 Nm
Service factor, B_F	≥ 1,3 standard
Housing design	Divided, symmetrical, without rain catcher
Housing material	Grey cast iron
Installation situations	8 different situations
Backstop	Lubricated within an oil bath, subsequently, installable and reversible
Hollow shaft diameter, D	30 up to 120 mm
Hollow shaft – keyway	Standard
Hollow shaft – shrinking disc	Outer shrinking disc additional charge
Rotary shaft seals	Input 1fold Output 1fold
Torque arm	Integrated in the casing, incl. flexible bush as standard
Motor	IEC Standard without additional charge
Electric motors – frequency/ supply voltage	50/60 Hz < 3 kW per 230/400 V ≥ 4 kW per 400/690 V
Electric motors – system of protection / ISO	IP 55 / F
Electric motors – thermistors	3 thermistors = for an additional charge
Brake motors	Upon request for an additional charge
Separately driven fan	Upon request for an additional charge

QuarryMaster® geared motors 1.1 - 1.5 kW

Conveyor drives

K011 1,1 kW		Motor flange B5-D200														approx. 74 kg	
Speed																	
175 158 144 128 115 102 88 80 73 64 57 51 46 40 37 33																min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P	
30/35/40	40	634	180	172	240	772	190	90	302	150	90	215	145	154	16,5	60	
	50											218					

K012 1,1 kW		Motor flange B5-D200														approx. 76 kg	
Speed																	
30 26 24 22																min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P	
30/35/40	40	634	180	172	240	772	190	90	302	150	90	215	145	154	16,5	60	
	50											218					

K015 1,5 kW		Motor flange B5-D200														approx. 78 kg	
Speed																	
175 158 144 128 115 102 88 80 73 64 57 51 46 40 37 33																min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P	
30/35/40	40	634	180	172	240	772	190	90	302	150	90	215	145	154	16,5	60	
	50											218					

K016 1,5 kW		Motor flange B14-D200														approx. 83 kg	
Speed																	
30																min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P	
30/35/40	40	665	180	172	240	803	200	90	302	161	90	215	145	154	16,5	60	
	50											218					

K016 1,5 kW		Motor flange B14-D200														approx. 83 kg	
Speed																	
26 24 22																min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P	
35/40/45	40	665	180	172	240	803	200	90	302	161	90	215	145	154	16,5	60	
	50											218					



QuarryMaster® geared motors 2.2 kW

Conveyor drives

K022 2,2 kW		Motor flange B14-D200														approx. 83 kg	
Speed																	
175 158 144 128 115 102 88																min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P	
30/35/40	40	665	180	172	240	803	200	90	302	161	90	215	145	154	16,5	60	
	50											218					

K022 2,2 kW		Motor flange B14-D200														approx. 83 kg	
Speed																	
80 73 64 57 51 46 40																min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P	
35/40/45	40	665	180	172	240	803	200	90	302	161	90	215	145	154	16,5	60	
	50											218					

K022 2,2 kW		Motor flange B14-D200														approx. 83 kg	
Speed																	
37 33																min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P	
40/45/50	40	665	180	172	240	803	200	90	302	161	90	215	145	154	16,5	60	
	50											218					

K023 2,2 kW		Motor flange B14-D200														approx. 98 kg	
Speed																	
30 26																min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P	
40/45/50	40	686	180	172	240	824	224	90	302	175	90	215	145	154	16,5	60	
	50											218					

K023 2,2 kW		Motor flange B14-D200														approx. 98 kg	
Speed																	
24 22																min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P	
40/45/50	50	686	180	172	240	824	224	90	302	175	90	218	145	154	16,5	60	

QuarryMaster® geared motors 3,0 kW

Conveyor drives

K030 3,0 kW		Motor flange B14-D200														approx. 86 kg	
Speed																	
175 158 144 128 115 102 88																min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P	
30/35/40/45	40	665	180	172	240	803	200	90	302	161	90	215	145	154	16,5	60	
	50											218					

K030 3,0 kW		Motor flange B14-D200														approx. 86 kg	
Speed																	
80 73 64 57																min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P	
35/40/45	40	665	180	172	240	803	200	90	302	161	90	215	145	154	16,5	60	
	50											218					

K030 3,0 kW		Motor flange B14-D200														approx. 86 kg	
Speed																	
51 46 40 37 33																min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P	
40/45/50	40	665	180	172	240	803	200	90	302	161	90	215	145	154	16,5	60	
	50											218					

K031 3,0 kW		Motor flange B14-D200														approx. 98 kg	
Speed																	
30 26 24																min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P	
40/45/50	50	726	180	172	240	864	276	90	302	205	90	218	145	154	16,5	60	

K032 3,0 kW		Motor flange B14-D200														approx. 169 kg	
Speed																	
22																min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P	
55/60/70	60	797	225	219	310	973	276	100	366	205	112,5	267	180	192	16,5	60	
	70											273					



QuarryMaster® geared motors 4,0 kW

Conveyor drives

K040 4,0 kW		Motor flange B14-D200											approx. 92 kg			
Speed																
175 158 144 128 115															min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
30/35/40/45	40	686	180	172	240	824	224	90	302	175	90	215	145	154	16,5	60
	50											218				

K040 4,0 kW		Motor flange B14-D200											approx. 92 kg			
Speed																
102 88															min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
35/40/45	40	686	180	172	240	824	224	90	302	175	90	215	145	154	16,5	60
	50											218				

K040 4,0 kW		Motor flange B14-D200											approx. 92 kg			
Speed																
80 73															min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
35/40/45/50	40	686	180	172	240	824	224	90	302	175	90	215	145	154	16,5	60
	50											218				

K040 4,0 kW		Motor flange B14-D200											approx. 92 kg			
Speed																
64 57 51 46															min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
40/45/50	40	686	180	172	240	824	224	90	302	175	90	215	145	154	16,5	60
	50											218				

K040 4,0 kW		Motor flange B14-D200											approx. 92 kg			
Speed																
40 37 33															min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
40/45/50	50	686	180	172	240	824	224	90	302	175	90	218	145	154	16,5	60

QuarryMaster® geared motors 4,0 – 5,5 kW

Conveyor drives

K041 4,0 kW		Motor flange B14-D200												approx. 112 kg		
Speed																
30 min ⁻¹																
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
45/50	50	760	180	172	240	898	276	90	302	205	90	218	145	154	16,5	60

K042 4,0 kW		Motor flange B14-D200												approx. 160 kg		
Speed																
26 24 22 min ⁻¹																
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
55/60/70	60	831	225	219	310	1007	276	100	366	205	112,5	267	180	192	16,5	60
	70											273				

K055 5,5 kW		Motor flange B14-D200												approx. 115 kg		
Speed																
175 158 144 128 115 102 min ⁻¹																
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
35/40/45/50	40	726	180	172	240	864	276	90	302	205	90	215	145	154	16,5	60
	50											218				

K055 5,5 kW		Motor flange B14-D200												approx. 115 kg		
Speed																
88 80 73 64 min ⁻¹																
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
40/45/50	40	726	180	172	240	864	276	90	302	205	90	215	145	154	16,5	60
	50											218				

K055 5,5 kW		Motor flange B14-D200												approx. 115 kg		
Speed																
57 51 46 min ⁻¹																
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
40/45/50	50	726	180	172	240	864	276	90	302	205	90	218	145	154	16,5	60



QuarryMaster® geared motors 5,5 – 7,5 kW

Conveyor drives

K056 5,5 kW		Motor flange B14-D200												approx. 163 kg		
Speed																
40 37 33															min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
55/60/70	60	797	225	219	310	973	276	100	366	205	112,5	267	180	192	16,5	60
	70											273				

K057 5,5 kW		Motor flange B14-D200												approx. 172 kg		
Speed																
30 26 24															min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
55/60/70	60	848	225	219	310	1024	276	100	366	205	112,5	267	180	192	16,5	60
	70											273				

K057 5,5 kW		Motor flange B14-D200												approx. 172 kg		
Speed																
22															min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
55/60/70	70	848	225	219	310	1024	276	100	366	205	112,5	273	180	192	16,5	60

K075 7,5 kW		Motor flange B14-D200												approx. 118 kg		
Speed																
175 158 144															min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
35/40/45/50	40	760	180	172	240	898	276	90	302	205	90	215	145	154	16,5	60
	50											218				

K075 7,5 kW		Motor flange B14-D200												approx. 118 kg		
Speed																
128 115 102 88															min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
40/45/50	40	760	180	172	240	898	276	90	302	205	90	215	145	154	16,5	60
	50											218				

QuarryMaster® geared motors 7,5 – 9,2 kW

Conveyor drives

K075 7,5 kW		Motor flange B14-D200													approx. 118 kg	
Speed																
80 73 64															min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
40/45/50	50	760	180	172	240	898	276	90	302	205	90	218	145	154	16,5	60

K076 7,5 kW		Motor flange B14-D200													approx. 163 kg	
Speed																
57 51 46 40 37 33															min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
55/60/70	60	831	225	219	310	1007	276	100	366	205	112,5	267	180	192	16,5	60
	70											273				

K077 7,5 kW		Motor flange B5-D350													approx. 191 kg	
Speed																
30															min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
55/60/70	60	956	225	219	319	1132	335	100	366	205	112,5	267	180	192	16,5	60
	70											273				

K078 7,5 kW		Motor flange B5-D350													approx. 260 kg	
Speed																
26 24 22															min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
60/70/75/80	70/75	1026	250	244	360	1226	335	132	450	250	125	298	200	217	25	100
	80											304				

K092 9,2 kW		Motor flange B14-D200													approx. 126 kg	
Speed																
175 158 144 128 115 102															min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
40/45/50	40	777	180	172	240	915	276	90	302	205	90	215	145	154	16,5	60
	50											218				



QuarryMaster® geared motors 9,2 – 11,0 kW

Conveyor drives

K092 9,2 kW		Motor flange B14-D200														approx. 126 kg	
Speed																	
88 80 min⁻¹																	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P	
40/45/50	50	777	180	172	240	915	276	90	302	205	90	218	145	154	16,5	60	

K093 9,2 kW		Motor flange B14-D200														approx. 186 kg	
Speed																	
73 64 57 51 46 40 37 33 min⁻¹																	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P	
55/60/70	60	848	225	219	310	1024	276	100	366	205	112,5	267	180	192	16,5	60	
	70											273					

K110 11,0 kW		Motor flange B14-D200														approx. 120 kg	
Speed																	
175 158 144 min⁻¹																	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P	
40/45/50	40	777	180	172	240	915	276	90	302	205	90	215	145	154	16,5	60	
	50											218					

K111 11,0 kW		Motor flange B14-D200														approx. 173 kg	
Speed																	
128 115 102 88 80 73 64 57 51 46 min⁻¹																	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P	
55/60/70	60	848	225	219	310	1024	276	100	366	205	112,5	267	180	192	16,5	60	
	70											273					

K112 11,0 kW		Motor flange B5-D350														approx. 269 kg	
Speed																	
40 37 33 min⁻¹																	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P	
60/70/75/80	70/75	1026	250	244	360	1226	335	132	450	250	125	298	200	217	25	100	
	80											304					

QuarryMaster® geared motors 11,0 – 15,0 kW

Conveyor drives

K113 11,0 kW		Motor flange B5-D350											approx. 281 kg			
Speed																
30 min ⁻¹																
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
60/70/75/80	70/75	1070	250	244	360	1270	335	132	450	250	125	298	200	217	25	100
	80											304				

K113 11,0 kW		Motor flange B5-D350											approx. 281 kg			
Speed																
26 min ⁻¹																
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
60/70/75/80	75	1070	250	244	360	1270	335	132	450	250	125	298	200	217	25	100
	80											304				

K114 11,0 kW		Motor flange B5-D350											approx. 382 kg			
Speed																
24 22 min ⁻¹																
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
75/80/85/90/100	80	1165	280	272	450	1419	335	142	540	250	140	334	225	242	25	100
	85											341				
	90/95/100											345				

K150 15,0 kW		Motor flange B5-D350											approx. 252 kg			
Speed																
175 158 144 128 115 102 88 80 73 64 min ⁻¹																
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
55/60/70	60	1000	225	219	310	1176	335	100	366	250	112,5	267	180	192	16,5	60
	70											273				

K151 15,0 kW		Motor flange B5-D350											approx. 310 kg			
Speed																
57 51 46 40 37 min ⁻¹																
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
60/70/75/80	70/75	1070	250	244	360	1270	335	132	450	250	125	298	200	217	25	100
	80											304				



QuarryMaster® geared motors 15,0 kW

Conveyor drives

K152 15,0 kW		Motor flange B5-D350														approx. 414 kg	
Speed																	
33																	
min ⁻¹																	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P	
75/80/85/90	80	1165	280	272	450	1419	335	142	540	250	140	334	225	242	25	100	
	85											341					
	90/95/100											345					

K153 15,0 kW		Motor flange B5-D350														approx. 421 kg	
Speed																	
30																	
min ⁻¹																	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P	
75/80/85/90/100	80	1220	280	272	450	1474	366	142	540	285	140	334	225	242	25	100	
	85											341					
	90/95/100											345					

K153 15,0 kW		Motor flange B5-D350														approx. 421 kg	
Speed																	
26																	
min ⁻¹																	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P	
75/80/85/90/100	85	1220	280	272	450	1474	366	142	540	285	140	341	225	242	25	100	
	90/95/100											341					

K153 15,0 kW		Motor flange B5-D350														approx. 421 kg	
Speed																	
24																	
min ⁻¹																	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P	
80/85/90/100	85	1220	280	272	450	1474	366	142	540	285	140	341	225	242	25	100	
	90/95/100											345					

K153 15,0 kW		Motor flange B5-D350														approx. 421 kg	
Speed																	
22																	
min ⁻¹																	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P	
80/85/90/100	90/95/100	1220	280	272	450	1474	366	142	540	285	140	345	225	242	25	100	

QuarryMaster® geared motors 18,5 kW

Conveyor drives

K185 18,5 kW		Motor flange B5-D350												approx. 238 kg		
Speed																
175 158 144 128 115 102 88															min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
55/60/70	60	1055	225	219	310	1231	366	100	366	285	112,5	267	180	192	16,5	60
	70											273				

K186 18,5 kW		Motor flange B5-D350												approx. 307 kg		
Speed																
80 73 64 57 51 46															min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
60/70/75/80	70/75	1125	250	244	360	1325	366	132	450	285	125	298	200	217	25	100
	80											304				

K187 18,5 kW		Motor flange B5-D350												approx. 421 kg		
Speed																
40 37 33															min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
75/80/85/90	80	1220	280	272	450	1474	366	142	540	285	140	334	225	242	25	100
	85											341				

K188 18,5 kW		Motor flange B5-D350												approx. 501 kg		
Speed																
30 26															min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
80/85/90/100	85	1287	280	272	450	1541	405	142	540	341	140	341	225	242	25	100
	90/95/100											345				

K188 18,5 kW		Motor flange B5-D350												approx. 501 kg		
Speed																
24 22															min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
80/85/90/100	90/95/100	1287	280	272	450	1541	405	142	540	341	140	345	225	242	25	100



QuarryMaster® geared motors 22,0 kW

Conveyor drives

K220 22,0 kW		Motor flange B5-D350														approx. 248 kg	
Speed																	
175 158 144 128 115																min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P	
55/60/70	60	1055	225	219	310	1231	366	100	366	285	112,5	267	180	192	16,5	60	
	70											273					

K221 22,0 kW		Motor flange B5-D350														approx. 317 kg	
Speed																	
102 88 80 73 64 57																min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P	
60/70/75/80	70/75	1125	250	244	360	1325	366	132	450	285	125	298	200	217	25	100	
	80											304					

K222 22,0 kW		Motor flange B5-D350														approx. 431 kg	
Speed																	
51 46 40 37 33																min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P	
75/80/85/90	80	1220	280	272	450	1474	366	142	540	285	140	334	225	242	25	100	
	85											341					
	90/95/100											345					

K223 22,0 kW		Motor flange B5-D350														approx. 525 kg	
Speed																	
30																min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P	
80/85/90/100	90/95/100	1287	280	272	450	1541	405	142	540	341	140	345	225	242	25	100	

K224 22,0 kW		Motor flange B5-D450														approx. 815 kg	
Speed																	
26 24 22																min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P	
100/110/120	100	1460	360	350	544	1770	405	200	700	341	180	433	300	321	38	120	
	120											437					

QuarryMaster® geared motors 30,0 kW

Conveyor drives

K300 30,0 kW		Motor flange B5-D350											approx. 407 kg			
Speed																
115 102 88 80															min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
60/70/75/80	70/75	1192	250	244	360	1392	405	132	450	341	125	298	200	217	25	100
	80											304				

K301 30,0 kW		Motor flange B5-D350											approx. 525 kg			
Speed																
73 64 57															min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
75/80/85/ 90/100	90/95/ 100	1287	280	272	450	1541	405	142	540	341	140	345	225	242	25	100

K301 30,0 kW		Motor flange B5-D350											approx. 525 kg			
Speed																
51 46 40 37 33															min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
80/85/90/ 100	90/95/ 100	1287	280	272	450	1541	405	142	540	341	140	345	225	242	25	100

K302 30,0 kW		Motor flange B5-D450											approx. 792 kg			
Speed																
30															min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
100/110/ 120	100/ 120	1583	360	350	544	1848	485	200	700	360	180	433	300	321	38	120
												437				

K302 30,0 kW		Motor flange B5-D450											approx. 792 kg			
Speed																
26 24 22															min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
100/110/120	120	1538	360	350	544	1848	485	200	700	360	180	437	300	321	38	120



QuarryMaster® geared motors 37,0 – 45,0 kW

Conveyor drives

K370 37,0 kW		Motor flange B5-D450											approx. 593 kg			
Speed																
115 102 88 80 73															min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
75/80/85/ 90/100	90/95/ 100	1396	280	272	450	1650	485	142	540	360	140	345	225	242	25	100

K370 37,0 kW		Motor flange B5-D450											approx. 525 kg			
Speed																
64 57 51															min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
80/85/90/ 100	90/95/ 100	1396	280	272	450	1650	485	142	540	360	140	345	225	242	25	100

K371 37,0 kW		Motor flange B5-D450											approx. 795 kg			
Speed																
46 40 37 33															min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
100/110/120	100	1538	360	350	544	1848	485	200	700	360	180	433	300	321	38	120
	120											437				

K372 37,0 kW		Motor flange B5-D550											approx. 988 kg			
Speed																
30 26															min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
100/110/120	120	1622	360	350	544	1932	520	200	700	430	180	437	300	321	38	120

K450 45,0 kW		Motor flange B5-D450											approx. 633 kg			
Speed																
115 102 88 80															min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
75/80/85/ 90/100	90/95/ 100	1396	280	272	450	1650	485	142	540	360	140	345	225	242	25	100

QuarryMaster® geared motors 45,0 – 90,0 kW

Conveyor drives

K450 45,0 kW		Motor flange B5-D450											approx. 633 kg			
Speed																
73 64															min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
80/85/ 90/100	90/95/ 100	1396	280	272	450	1650	485	142	540	360	140	345	225	242	25	100

K451 45,0 kW		Motor flange B5-D450											approx. 805 kg			
Speed																
57 51 46 40 37 33															min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
100/110/120	100	1538	360	350	544	1848	485	200	700	360	180	433	300	321	38	120
	120											437				

K550 55,0 kW		Motor flange B5-D550											approx. 890 kg			
Speed																
115 102 88 80 73 64 57 51 46 40 37															min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
100/110/120	100	1622	360	350	544	1932	520	200	700	430	180	433	300	321	38	120
	120											437				

K750 75,0 kW		Motor flange B5-D550											approx. 1265 kg			
Speed																
115 102 88 80 73 64 57															min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
100/110/120	100	1655	360	350	544	1965	575	200	700	455	180	433	300	321	38	120
	120											437				

K900 90,0 kW		Motor flange B5-D550											approx. 1306 kg			
Speed																
115 102 88 80 73															min ⁻¹	
D1	D2	A	B	C	E	F	G	H	J	K	L	M	N	N ₁	O	P
100/110/120	100	1693	360	350	544	2003	575	200	700	455	180	433	300	321	38	120
	120											437				



Technical Explanatory Notes

Electric Motors

Motors

All motors comply with existing standards and regulations stipulated by IEC. All motor ratings stated are indicated for the operation mode S1. All motors can also be designed for intermittent operation 60 %, 40 % and 25 % ED.

Stator winding

Standard class is „F“ insulation to VDE 0530. The insulation class is indicated on the name plate. Ambient temperature can be increased from 40 °C to 60 °C using standard motors with class „F“ insulation (use according to ISO „B“) running at not more than nominal capacity. Provided that the ambient temperature does not exceed 40 °C, the nominal capacity in continuous operation can be increased by approximately 10-15 %. This does not apply to standard motors class „F“ insulation (increased power).

Voltage and frequency

< 4 kW (50/ 60 Hz) 230 V Δ / 400 V Y
 ≥4 kW (50/ 60 Hz) 400 V Δ / 690 V Y

Star-delta starting is possible only if the mains voltage corresponds to the delta voltage. Motors wound for 50 Hz can also be operated at 60 Hz.

Changes in the numbers of revolutions, rating and torque resulting from this fact can be taken from the table.

Conversion factors for the rated data listed

Motor winding 50 Hz	Connection to 60 Hz	Rated speed	Rated power	Rated torque	Rated current	Starting torque
230 V	230 V	1,2	1,00	0,83	1,00	0,83
400 V	400 V	1,2	1,00	0,83	1,00	0,83
500 V	500 V	1,2	1,00	0,83	1,00	0,83
400 V	440 V	1,2	1,15	0,96	1,00	0,96
500 V	550 V	1,2	1,10	0,91	1,00	0,91

Permissible supply-voltage variation ± 5% at rated power and frequency (VDE 0530)

Temperature rise

The motor ratings as specified in VDE 0530 are based upon continuous operation, a maximum ambient temperature of 40 °C and site altitudes of up to 1000 metres above sea level. The power obtainable in the case of other conditions is tabulated below.

Ambient temperature in °C	Power obtainable in % of rated value
40	100
45	96
50	92
55	87
60	82

Site altitude above sea level in metres	Power obtainable in % of rated value
1000	100
1500	97
2000	94
2500	90
3000	86
3500	83
4000	80

Type of enclosure according to DIN 40050

	Type of enclosure DIN 4050	Protection against contact	Protection against foreign matter	Protection against water
Surface cooled	IP54	full protection against contact	against harmful dust accumulation in the interior	against spray water from all directions
	IP55	full protection against contact	against harmful dust accumulation in the interior	against water jets
	IP56	full protection against contact	against harmful dust accumulation in the interior	against heavy seas

Type of enclosure IP55

Standard construction

Terminal box: improved type of enclosure with heat-resistant seals. Condensate drain holes sealed with screws.

Motor protection

Thermistor protection: 3 temperature sensors are incorporated into the motor windings. The sensors are temperature sensitive resistors (thermistors) (PTC) which change value almost instantaneously at their response temperature and in conjunction with tripping devices stop the motor. The thermistors react: blocking or rotor, too high an ambient temperature (for example due to low influx of air) exceeding maximum duty cycles, overloading. The colour coding of the braided insulations is related to the rated cut-off temperatures:

blue-blue	130 °C
white-blue	140 °C
black-black	150 °C
white-green	170 °C

Checking of built-in thermistors – temperature sensors

Continuity checks should be carried out at room temperature with a test voltage < 1.5 V. Measuring bridges available on the market can also be used when the maximum measuring current does not exceed 50 mA.

Separate fan

The separately driven fans used are 1-phase with 230 V at 50 Hz.

Geared brake motors

The brake is fail-safe type, i.e. it is applied by spring action when the electrical supply circuit is interrupted. The d.c. brake coil is supplied from a rectifier. The motor and brake circuits must be energized simultaneously. As standard the brake is not connected. Please submit a detailed enquiry. Unless otherwise agreed upon, the brake motors are adjusted to, and tested for, the maximum braking torque (as listed herein) and for the minimum air gap.

Maintenance

If the maximum air gap is exceeded, the brake must be readjusted and the cone pulley changed.



Braking torque / engine extension

Power [kW]	Motor-Size [acc. to IEC]	Braking torque [Nm]	Extension by attachment of the brake [mm]	Extension by attachment of the separate fan [mm]	Extension by attachment of the canopy [mm]
1,1	90S-4	20	79	93	40
1,5	90L-4	20	79	93	40
2,2	100Ls-4	40	88	93	39
3,0	100L-4	40	88	93	39
4,0	112M-4	60	96	101	45
5,5	132S-4	60	116	111	50
7,5	132M-4	100	116	111	50
9,2	132Ma-4	100	116	111	50
11	132M-4V	100	116	111	50
11	160M-4	150	127	137	60
15	160L-4	150	127	137	60
18,5	180M-4	250	105	90	85
22	180L-4	250	105	90	85
30	200L-4	400	145	130	91
37	225S-4	400	145	125	100
45	225M-4	400	145	125	100
55	250M-4	400	145	158	100

Mechanical manual release

Mechanical manual release is possible by pulling the hand release lever. The engaged position is secured by spring action. The lever is kept in a pre-determined position during operation by the preload spring.

Electrical release

Each brake can be electrically released independent of the motor by feeding it the specified control voltage.

Special protection against dust, dirt and humidity

The DC brake is in totally-enclosed and corrosion-resistant design. Protection class IP 66.

Circuit and connection

In order to protect against the very high transient voltages which occur in many cases, all rectifiers are equipped with a varistor as standard. The braking system is connected by means of a rectifier fitted in the

terminal box according to the circuit diagram provided in each case. The connection voltage to be applied is shown in the circuit diagram. Rapid build up of the braking torque is obtained by switching-off at the d.c. side. If a gradual build-up of braking torque for gentler stopping is required, e.g. crane travelling drives, switch-off at the AC side. This applies in particular for lifting gear and similar applications, in this way, an extremely low degree of over-running is achieved (factor 5-6). The switch contact is generally connected in parallel with the control switch at the motor. Observe protection according to VDE 0580.

Brake voltage

The brake coil voltage is generally designed so that it corresponds to the delta voltage of the motor. Please observe circuit diagram in the terminal box.

Fax to +49 2291 791-298

Stiebel-Getriebebau GmbH & Co. KG
Industriestr. 12
D-51545 Waldbröl

Company: _____
 Contact: _____
 Street: _____
 Postcode, Town: _____
 Phone: _____
 Fax: _____
 E-Mail: _____

Technical questionnaire Conveyor drives

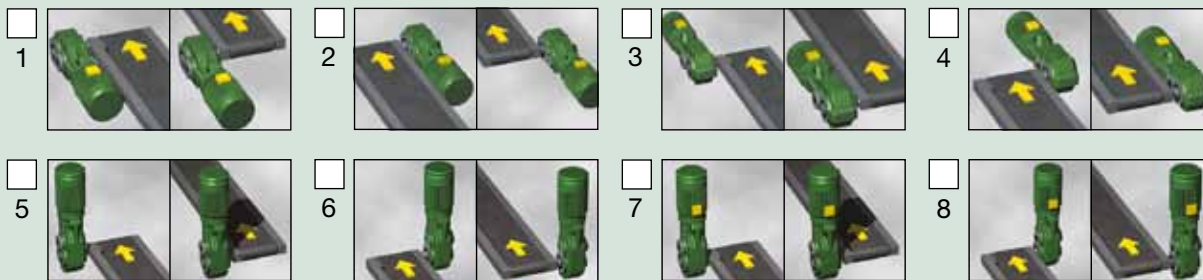
Input

Power P kW Speed n_2 min^{-1} or drum \varnothing mm
 Belt speed: v m/s

Type of output

Hollow sleeve shaft \varnothing mm Hollow shaft with shrinking disc \varnothing mm
 with cover

Installation situation



Permissible inclination: Motor downwards 25°, Motor upwards 12° • Installation situation 5 - 8: Motor with canopy
 Gears with brake motor inclination downwards is not permissible

Options

Reverse lock Thermistors Separate driven fan Motor brake Motor brake with manual release

E-Motor

Voltage V Frequency Hz Type of enclosure IE3

Operating conditions

Environment: normal dusty humid other

Ambient temperature: Minimum °C Maximum °C

Choice of colour

0 - primed 3 - RAL 3002 carmine red 6 - RAL 7035 light grey
 1 - RAL 6002 leaf green (Stiebel standard) 4 - RAL 5007 brilliant blue 7 - RAL 7015 slate grey
 2 - RAL 1021 rape yellow 5 - RAL 7001 silver grey
 F - different choice of colour S - Special lacquer finish

System of order numbers

Conveyor drives

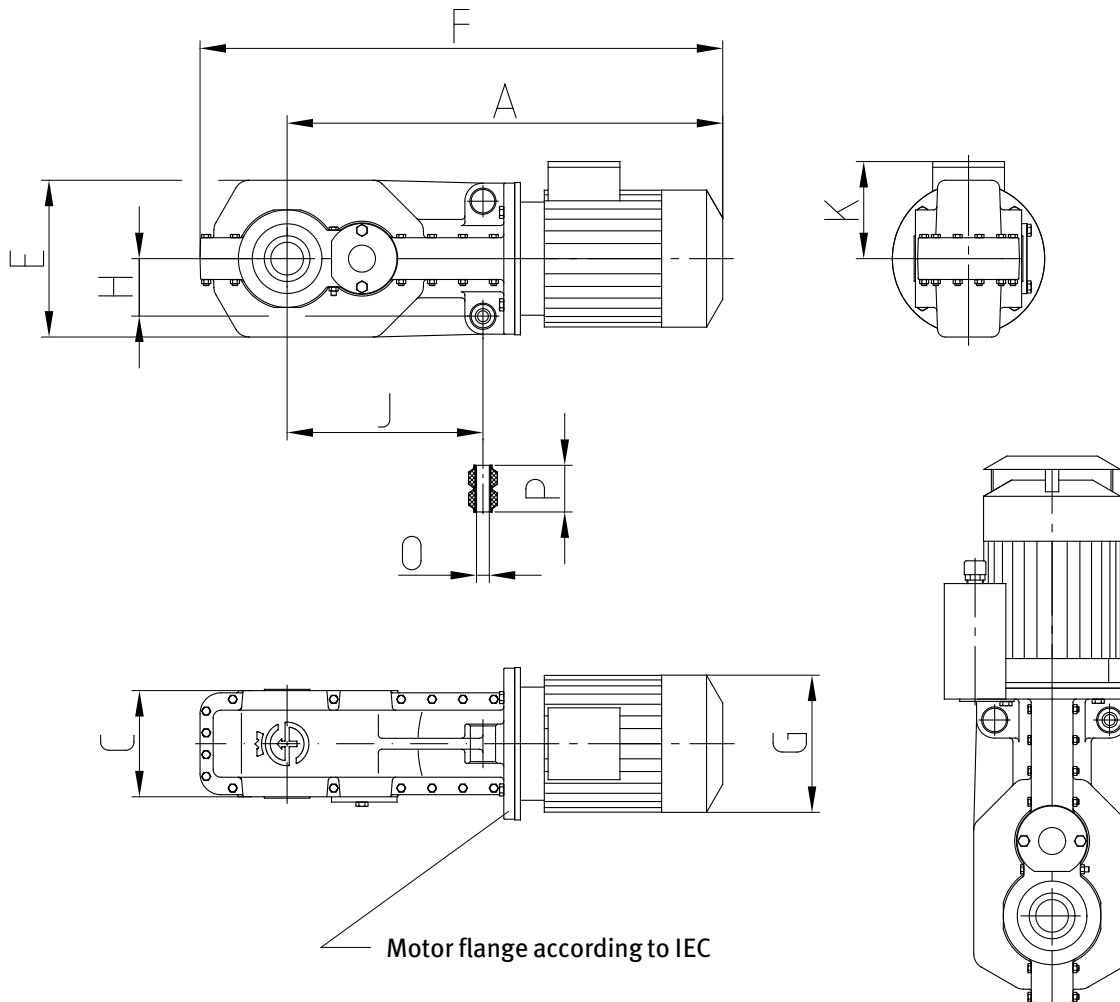
Example: K040.072.040S1000033

Example	Designation	Variants	Explanation
K	Helical-bevel geared motor		
040.	Power	011 - 900	Variations in power (kW) e.g. 040 \triangleq 4kW
072.	Speed	175 - 022	Revolutions (rpm) e.g. 072 \triangleq 72 min ⁻¹
040.	Output \varnothing	030 - 120	Output diameter (mm) e.g. 040 \triangleq 40 mm
S	Type of output Hollow shaft	P / S	P - Keyway S - Shrinking disc
1	Backstop	0 / 1	0 - without 1 - with
0	Cover	0 / A	0 - without A - with, only for output Shrinking disc
0	Separately driven fan	0 / F	0 - without F - with
0	Brake	0 / 1 / 2 / E	0 - without 1 - with 2 - with manual release E - Energy saving motor
0	Thermistors	0 / K 1 / S	Installation situation 1-4: 0 - without K - with Installation situation 5-8: 1 - without S - with
3	Installation situation	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8	For installation situation see page 26
3	Colour index number	0 - 7 / F / S	For choice of colour see page 26



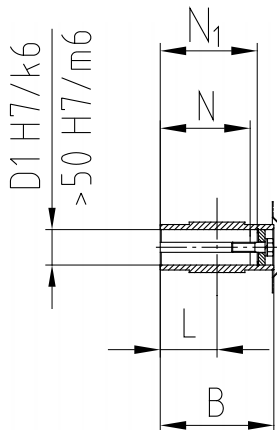
Mounting dimensions (in mm)

Conveyor drives



Motor flange according to IEC

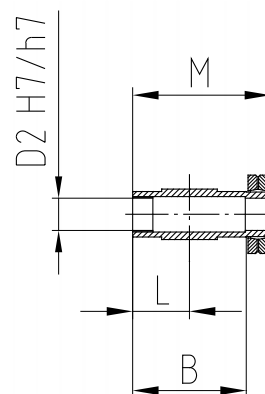
Hollow shaft with keyway
according to DIN 6885 page 1



Tolerance for shaft ends:
 $\varnothing \leq 50$ mm ISO k6
 $\varnothing > 50$ mm ISO m6

N: maximum length of the shaft

Hollow shaft
with shrinking disc



tolerance for shaft ends: h7
surface roughness $\leq R_t = 16$
required yield strength for shaft material
 $R_e \text{ min} = 375 \text{ N/mm}^2$

The dimensional data of the motors varies depending on the make. For technical motor data, see pages 23f. Note: Refer to table page 25 for auxiliary engine equipment

Additional drive solutions Individual and with outstanding serviceable life

QuarryMaster® HighPower

Rock solid, with many variants and efficient:
Reliable drive groups for the harshest of conditions.
Manufactured by us ready for use.

- Power range: 11 – 710 kW
- Speeds: 28 – 145 rpm



QuarryMaster® slewing conveyor drives

Helical-bevel geared motors designed for slewing conveyors or gantry cranes.

- Power range: 0,25 – 3 kW
- Speeds: 0,9 – 63 rpm
- Service factor $B_f \geq 1,0$ (full load)
- 2 different installation situations possible



A 2000

The robust construction and very flat mounting form ensure reliable gears for bulk material handling! A wide range of different hollow shaft variants provides for additional flexibility.

- Power range: 0,5 – 168 kW
- Speeds: 16 – 263 rpm
- Torque: 150 – 45.000 Nm
- 6 different installation situations possible



S 2000

Cylinder and helical-bevel gear units capable of bearing high loads with high ratio range and flexible installation possibilities. Developed specially for bucket wheels and log washers.

- Speeds: 0,5 – 250 rpm
- Torque: 20.000 – 240.000 Nm
- 6 different installation situations possible

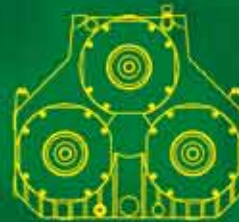
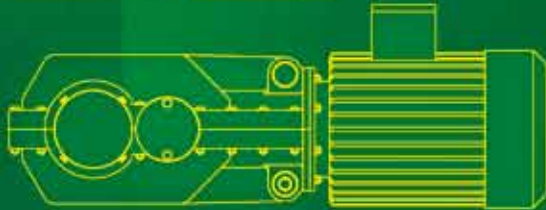
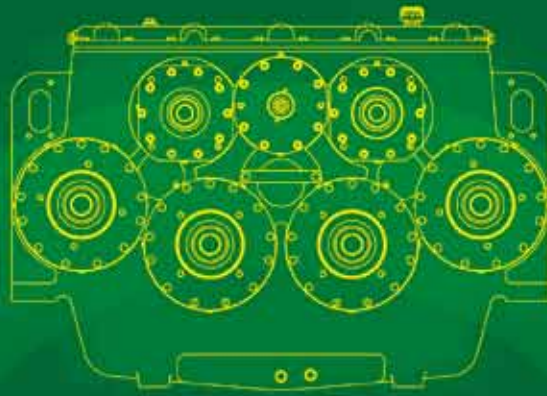


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We develop and manufacture custom-made special gear units. Based upon many years of experience and the extensive expertise of our engineers and product managers the implementation times are very short and costs are kept absolutely within the budget. Even small quantities pay off!

Special Gear Units

Custom-made Drive Solutions

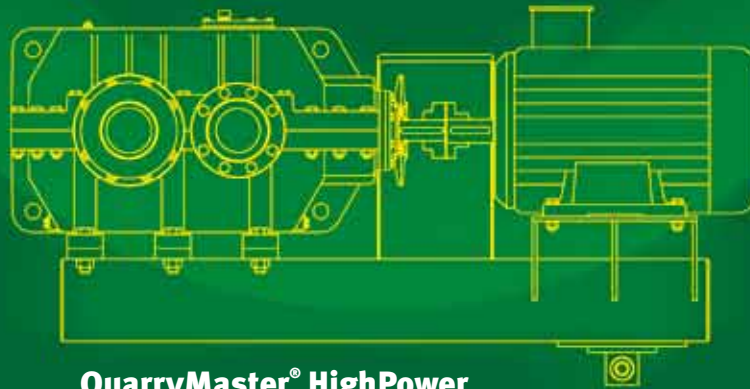


P 2000

Pump Drives

QuarryMaster®

Helical-bevel Geared Motors



QuarryMaster® HighPower

Drive Groups



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