



GMD

w i r e r o p e h o i s t s

GMD
Cranes



GMD

GMD Crane Machines...

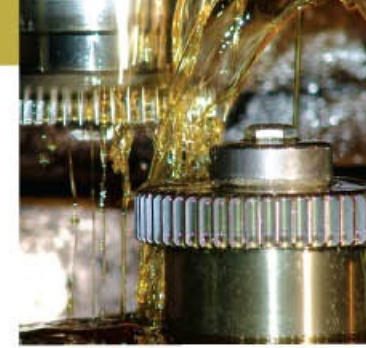


GMD hoists are produced between 1 ton and 80 tons as standard with different speed and working class alternatives. In wire rope hoists group; stationary hoists, monorail trolley hoists and double girder trolley hoists are manufactured. They are designed to work in narrow size ranges as of their physical dimensions. As a result of advanced technological investment and long-term tests, GMD hoists are produced under automation conditions with required equipments for giving continuous service.

Our technical team determining crane concepts to meet world standards has designed our machine as modular, standard and with easy service and maintenance conditions as a result of long-term research and development process.

End-carriage type of trolleys started to be applied in all groups of GMD hoists and travel drive types are converted to direct drive. The dead distance of machine that crane users consider important was reduced and an ergonomic appearance was achieved by use of control panel specific to Guralp Crane. Guralp increasing its existent quality and productivity by improving production lines creates difference by conducting 100% product test on prototype for necessary static analyses in its design and risk analysis being an ignored point in general.





Since 1991, with GURALP QUALITY CONCEPT



GMD hoist machines manufactured by the experienced Guralp staff have variety, range and features to satisfy market demands for long years.

Newly invested and developed "GMD hoists" are ready to serve in the world market for long years. All GMD equipment are strictly examined and tested during the production stage. After the assembly, the complete hoist machine is tested in accordance with standards at 1/1 load capacity.

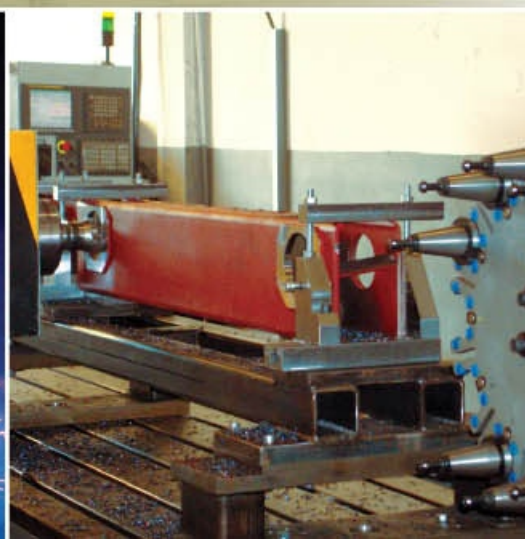
Guralp, carries on its R&D activities with the aim of continuous innovation idea together with its experienced project and engineering staff. Moreover, Guralp using technological innovations in design of its products is engaged in investment and organization to reach capacities enough for the world market requirements.

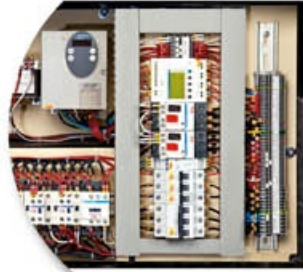
Guralp has already completed its organization in abroad with its dealers and sales offices and aims to achieve a significant share in the world market as a Turkish brand. Its products are being exported to Middle East, Arabian and European countries particularly Egypt, Jordan, Saudi Arabia, Qatar, United Arab Emirates, Palestine, Iran, Iraq, Lebanon, Russia, Romania, Kazakhstan and Azerbaijan.

Lighten your load with GMD!



www.guralpcrane.com





Controls

- IP55 and IP65 protection class
- Soft stop and start with PLC and frequency control
- Software for different applications
- Maximum safety
- Ergonomic design specific to machine



Rope Drum

- Constructed from seamless steel tube
- Fine machined grooves for minimum rope wearing



Overload Sensor

- Constant load control with PLC cut-off
- Reliable operation
- Load display option



Hook Block

- Hook made of forged steel
- 360° swivel hook
- Standard safety latch
- Enclosed hook sheaves

Trolley Group

- Specific design for crane applications
- Direct drive technology in all double rail trolleys
- Helical gears with high safety factor
- Smooth starting and braking with frequency inverter control
- Compact construction with minimal hook approach



Brake

- Long life time (one million cycles without adjustment)
- Adjustable torque
- Asbestos-free brake pads
- High cycle frequency
- Safety factor > 2,5



Hoist Motor - Gearbox - Brake Group

- Superior German technology
- Helical gears processed with high precision
- Quiet operation
- High start and stall torque
- Class F isolation and IP55 protection class
- PTC thermistor temperature sensors



Rope Guide

- High safety with spring pressure
- Machined from cast iron (GGG60)



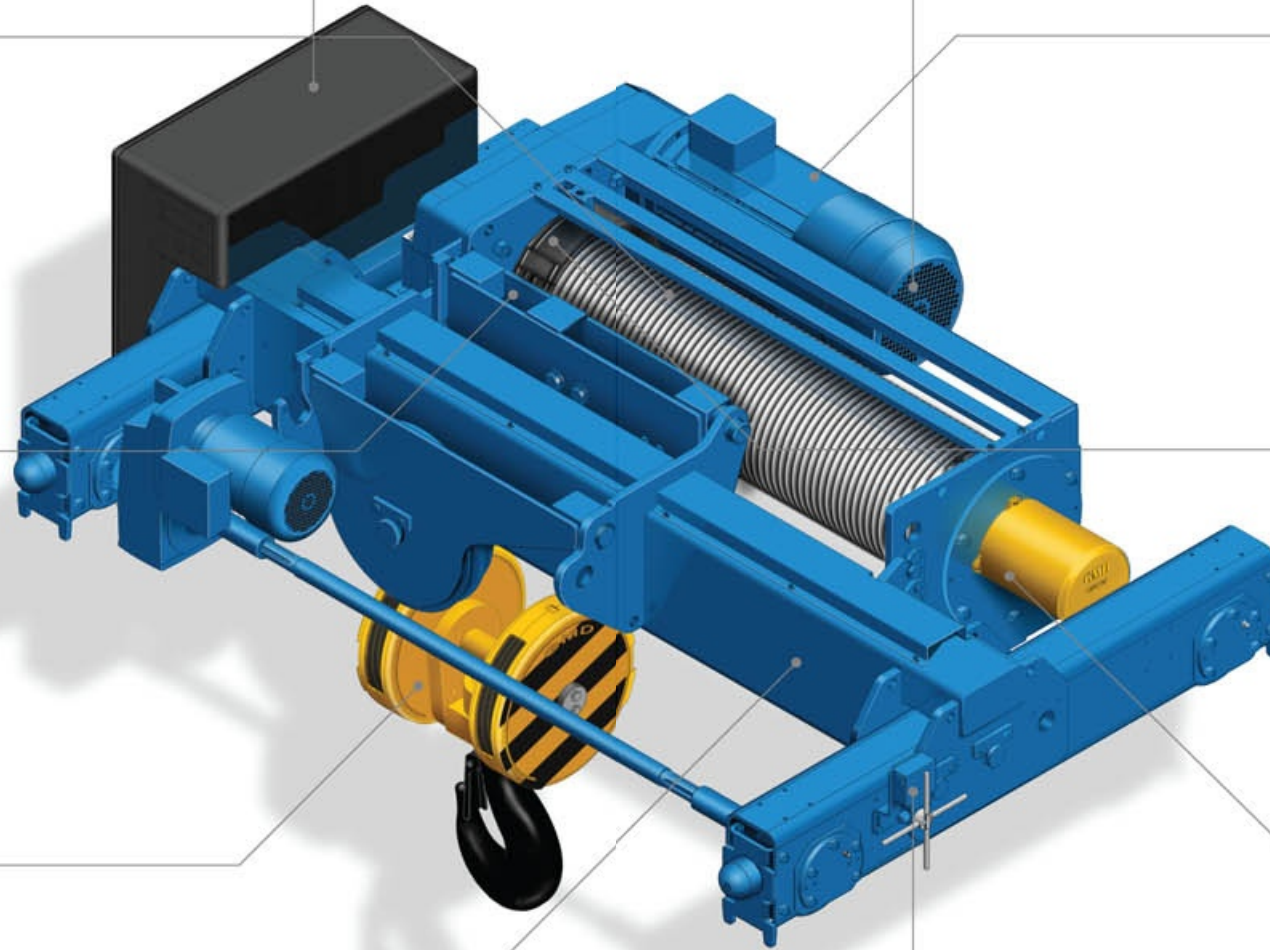
Hoist Limit Switches

- Adjustable rotary limit switch provides safety for highest and lowest hook positions.
- Directly activated from drum.



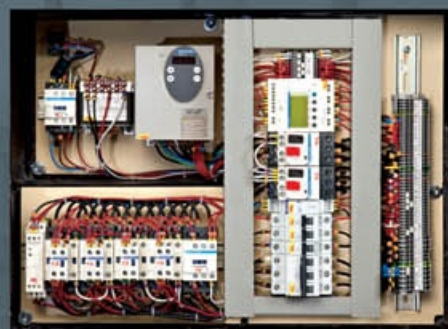
Travel Limit Switches

- Pre-switching for slowdown and limit switching for stopping in both directions for trolley and crane.

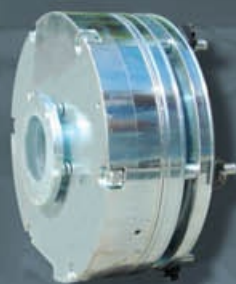




Hoist Motor - Gearbox - Brake Group



Controls



Brake



Hoist limit switches



Rope Drum



Travel limit switches



Rope Guide



Overload Protection



Hook Blocks



Trolley Group

GMD

Details determine the quality...

Hoist Motor - Gearbox - Brake Group

Motor - gearbox groups used in GMD hoists are the German-origin products developed especially for hoists. They are designed for heavy duty classes. It is offered to the recognition of customers with reasonable price and high functionality.

Gearbox and motor housing are special aluminum-alloy manufactured with metal injection methods. All gears operate in oil bath in this completely enclosed housing. Helical gears processed with high precision provide quiet operation and high torque values.

The motors are three-phase asynchronous motors with squirrel cage rotors. F isolation and IP55 protection class is standard. There are 2-12 poles double-speed and for frequency inverter control 4-poles single-speed motor options available. PTC thermistor temperature control sensor is standard in all motors.

Brake

Electromagnetic disc brakes perform braking operation automatically in case of power loss or power failure and ensure the safety of the system. Automatic braking is provided by compression of the disc with spring.

Main characteristics of brakes used in hoist drives are; adjustable torque, long-service life (at least one million time braking operation without adjustment), high cycle frequency, asbestos free brake lining and brake release lever. The safety factor is minimum 2,5 for all hoisting brakes.

Rope Drum

It is constructed from seamless steel tube. Fine machining of the drum grooves minimises wear on the rope, ensures every winding to be parallel each other and prevents rubbing of the ropes.

Rope Guide

It is machined from cast iron (GGG60) to prevent overlapping of the rope and groove bypassing. System is made more secure by the spring pressure in the rope guide.

Hook Blocks

Standard hook made of forged steel in accordance with DIN 15400 norms and working group and lifting capacity. Hook traverse and nuts are manufactured according to norms of DIN 15401, DIN 15402, DIN 15403, DIN 15412, DIN 15413. 360° swivel hook with axial bearing provides flexible load control. The safety of the operator and load are provided with enclosed hook sheaves and safety latches.

Controls

Control systems designed for hoisting and travelling groups are manufactured in accordance with TS EN 60204-1 standard. Specially designed ergonomic electrical control panel is made of glass fiber hardened polyamide material and is of IP55 & IP65 protection class. The system was made secure with phase sequence relay, motor protection relay, thermistor relay and emergency stop contactor.

In hoisting groups, smooth start and stop are ensured with programmable logic controller (PLC) for contactor control applications. The standard PLC programs with various functions help both the maintenance personnel and the operator. Moreover, application based PLC programs allows the implementation of specific projects. Travel groups are frequency inverter-controlled as standard. Soft stop and start provided with PLC and inverter control minimises static loads to affect the system and increase the system safety and extends the service life.

Limit Switches

Hoist limit switches

Adjustable rotary limit switch provides safety for highest and lowest hook positions. Switch shaft is attached to the drum axle and after a set number of revolutions, the cams operate the switches, thus starting the predetermined actions.

Travel limit switches

Approach distances can be adjusted as desired by ensuring that the system will stop on the point determined with limit switches assembled on trolley and crane. All travel limit switches are dual-step. By this means, the system is first slowed down to provide soft stopping at the final limit point.

Overload Protection

The overload protection is performed by means of a load sensor which provides analog signal output to a PLC. Hoist load value is continuously controlled by the PLC and when the maximum adjusted load value is reached then the system is safely stopped. Optional load display to display the lifted load value is available.

Trolley Group

All travel drives are direct drive and specifically designed for crane applications. Helical-gears with high safety factor are used. Motors are 4-poles squirrel-cage asynchronous motors. The frequency inverter provides smooth starting and stopping. All end-carriages of trolleys are hinged mounting. Wheels are made of sphero cast iron (GGG70).



GMD Specifications



Capacity	Machine Type	Working Class	Lifting Height	Rope Diameter	Hoisting Speed	Hoist Motor Power	MONORAIL		DOUBLE GIRDER		
							Trolley Speed	Trolley Motor Power	Trolley Speed	Trolley Motor Power	Track Gauge
kg	FEM / ISO	m	mm	m/min	kW	m/min	kW	m/min	kW	mm	
1000	GMD20 2 3 12 2/1	2 m / M5	12	8	1,4 / 8	0,37 / 2,5	4 / 16	2 x 0,18	5 / 20	0,25	1200
	16		1200								
	20		1400								
1250	GMD20 2 3 12 2/1	2 m / M5	12	8	1,4 / 8	0,37 / 2,5	4 / 16	2 x 0,18	5 / 20	0,25	1200
	16		1200								
	20		1400								
1600	GMD20 2 3 12 2/1	1 Am / M4	12	8	1,4 / 8	0,37 / 2,5	4 / 16	2 x 0,18	5 / 20	0,25	1200
	16		1200								
	20		1400								
2000	GMD20 2 3 6 4/1	2 m / M5	6	8	0,7 / 4	0,37 / 2,5	4 / 16	2 x 0,18	5 / 20	0,25	1200
	8		1200								
	10		1400								
	GMD20 2 3 10 4/1	2 m / M5	12	10	1,4 / 8	0,8 / 4,9	4 / 16	2 x 0,18	5 / 20	0,25	1200
	GMD30 2 3 12 2/1		16								1200
GMD30 2 3 16 2/1	24	1400									
2500	GMD20 2 3 6 4/1	2 m / M5	6	8	0,7 / 4	0,37 / 2,5	4 / 16	2 x 0,18	5 / 20	0,25	1200
	8		1200								
	10		1400								
	GMD20 2 3 10 4/1	2 m / M5	12	10	1,4 / 8	0,8 / 4,9	4 / 16	2 x 0,18	5 / 20	0,55	1200
	GMD30 2 3 12 2/1		16								1200
GMD30 2 3 16 2/1	24	1400									
3200	GMD20 2 3 6 4/1	1 Am / M4	6	8	0,7 / 4	0,37 / 2,5	4 / 16	2 x 0,18	5 / 20	0,25	1200
	8		1200								
	10		1400								
	GMD20 2 3 10 4/1	1 Bm / M3	12	10	1,4 / 8	0,8 / 4,9	4 / 16	2 x 0,18	5 / 20	0,55	1200
	GMD30 2 3 12 2/1		16								1200
GMD30 2 3 16 2/1	24	1400									
4000	GMD30 2 3 6 4/1	2 m / M5	6	10	0,7 / 4	0,8 / 4,9	4 / 16	2 x 0,25	5 / 20	0,55	1200
	8		1200								
	12		1400								
	GMD30 2 3 8 4/1	2 m / M5	12	14	1,3 / 8	1,5 / 9,5	4 / 16	2 x 0,25	5 / 20	1,1	1400
	GMD40 2 3 12 2/1		16								1400
GMD40 2 3 16 2/1	24	1700									
5000	GMD30 2 3 6 4/1	2 m / M5	6	10	0,7 / 4	0,8 / 4,9	4 / 16	2 x 0,25	5 / 20	0,55	1200
	8		1200								
	12		1400								
	GMD30 2 3 12 4/1	2 m / M5	12	14	1,3 / 8	1,5 / 9,5	4 / 16	2 x 0,25	5 / 20	1,1	1400
	GMD40 2 3 16 2/1		16								1400
GMD40 2 3 24 2/1	24	1700									
6300	GMD30 2 3 6 4/1	1 Bm / M3	6	10	0,7 / 4	0,8 / 4,9	4 / 16	2 x 0,25	5 / 20	0,55	1200
	8		1200								
	12		1400								
	GMD30 2 3 12 4/1	1 Am / M4	12	14	1,3 / 8	1,5 / 9,5	4 / 16	2 x 0,25	5 / 20	1,1	1400
	GMD40 2 3 16 2/1		16								1400
	GMD40 2 3 24 2/1	24	1700								
	GMD50 2 3 17 2/1	2 m / M5	17	16	1,2 / 8	2 / 12,5	-	-	5 / 20	2 x 0,55	1700
GMD50 2 3 24 2/1	24		1700								
GMD50 2 3 32 2/1	32		2000								
8000	GMD40 2 3 6 4/1	2 m / M5	6	14	0,6 / 4	1,5 / 9,5	4 / 16	2 x 0,37	5 / 20	1,1	1400
	8		1400								
	12		1700								
	GMD40 2 3 12 4/1	1 Am / M4	17	16	1,2 / 8	2 / 12,5	-	-	5 / 20	2 x 0,55	1700
	GMD50 2 3 17 2/1		24								1700
GMD50 2 3 24 2/1	32	2000									

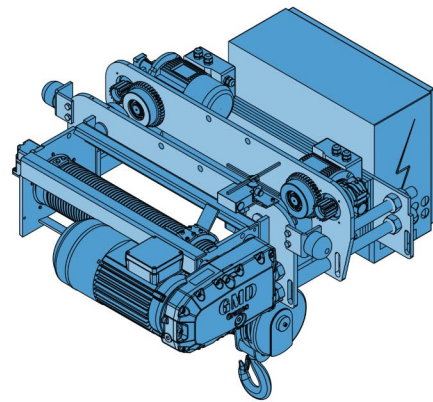
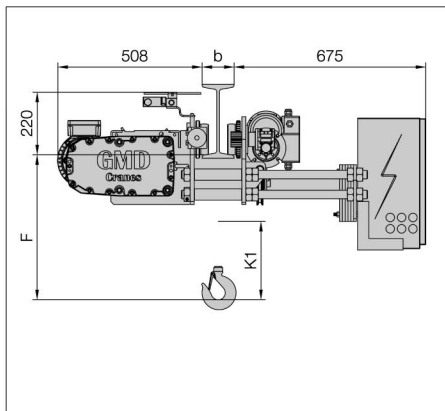
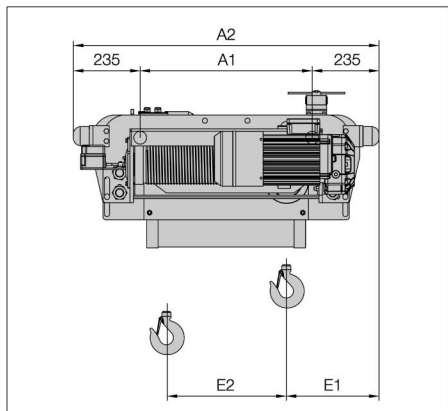
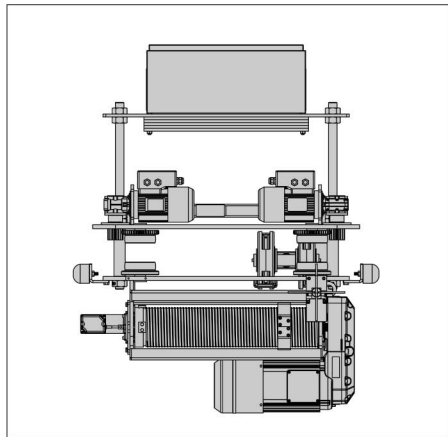
Note: Standard hoist motors are 2-12 poles double speed motors in all GMD hoists up to 32 tons capacity. For the same hoists, frequency inverter controlled 4-poles single speed motor options are available.

Capacity	Machine Type	Working Class	Lifting Height	Rope Diameter	Hoisting Speed	Hoist Motor Power	MONORAIL		DOUBLE GIRDER		
							Trolley Speed	Trolley Motor Power	Trolley Speed	Trolley Motor Power	Track Gauge
kg	FEM / ISO	m	mm	m/min	kW	m/min	kW	m/min	kW	mm	
8000	GMD60 2 3 16 2/1	2 m / M5	16	18	1,2 / 7,6	2,6 / 16	-	-	5 / 20	2 x 0,75	1700
	GMD60 2 3 24 2/1		24								2000
	GMD60 2 3 36 2/1		36								2000
10000	GMD40 2 3 6 4/1	2 m / M5	6	14	0,6 / 4	1,5 / 9,5	4 / 16	2 x 0,37	5 / 20	1,1	1400
	GMD40 2 3 8 4/1		8								1400
	GMD40 2 3 12 4/1		12								1700
	GMD60 2 3 16 2/1	1 Am / M4	16	18	1,2 / 7,6	2,6 / 16	-	-	5 / 20	2 x 0,75	1700
	GMD60 2 3 24 2/1		24								2000
	GMD60 2 3 36 2/1		36								2000
12500	GMD40 2 3 6 4/1	1 Am / M4	6	14	0,6 / 4	1,5 / 9,5	4 / 16	2 x 0,55	5 / 20	1,1	1400
	GMD40 2 3 8 4/1		8								1400
	GMD40 2 3 12 4/1		12								1700
	GMD50 2 3 8 4/1	2 m / M5	8	16	0,6 / 4	2 / 12,5	-	-	5 / 20	2 x 0,55	1700
	GMD50 2 3 12 4/1		12								1700
GMD50 2 3 16 4/1	16	2000									
16000	GMD50 2 3 8 4/1	1 Am / M4	8	16	0,6 / 4	2 / 12,5	-	-	5 / 20	2 x 0,55	1700
	GMD50 2 3 12 4/1		12								1700
	GMD50 2 3 16 4/1		16								2000
	GMD60 2 3 8 4/1	2 m / M5	8	18	0,6 / 3,8	2,6 / 16	-	-	5 / 20	2 x 0,75	1700
	GMD60 2 3 12 4/1		12								2000
GMD60 2 3 18 4/1	18	2000									
20000	GMD60 2 3 8 4/1	1 Am / M4	8	18	0,6 / 3,8	2,6 / 16	-	-	5 / 20	2 x 0,75	1700
	GMD60 2 3 12 4/1		12								2000
	GMD60 2 3 18 4/1		18								2000
25000	GMD60 2 3 8 6/1	2 m / M5	8	18	0,4 / 2,5	2,6 / 16	-	-	5 / 20	2 x 1,1	2000
	GMD60 2 3 12 6/1		12								2000
32000	GMD60 2 3 8 6/1	1 Am / M4	8	18	0,4 / 2,5	2,6 / 16	-	-	5 / 20	2 x 1,1	2000
	GMD60 2 3 12 6/1		12								2000
	GMD70 3 3 8 4/1		8								2000
	GMD70 3 3 12 4/1	2 m / M5	12	24	1,25 / 5	38	-	-	5 / 20	2 x 1,5	2000
	GMD70 3 3 18 4/1		18								2500
GMD70 3 3 24 4/1	24	3000									
40000	GMD70 3 3 8 4/1	1 Am / M4	8	24	1,25 / 5	38	-	-	5 / 20	2 x 1,5	2000
	GMD70 3 3 12 4/1		12								2000
	GMD70 3 3 18 4/1		18								2500
	GMD70 3 3 24 4/1	2 m / M5	24	24	0,8 / 3,2	38	-	-	5 / 20	2 x 1,5	2000
	GMD70 3 3 8 6/1		8								2000
GMD70 3 3 12 6/1	12	2500									
50000	GMD70 3 3 16 6/1	1 Am / M4	16	24	0,8 / 3,2	38	-	-	5 / 20	2 x 2,2	2000
	GMD70 3 3 8 6/1		8								2000
	GMD70 3 3 12 6/1		12								2500
	GMD70 3 3 16 6/1	2 m / M5	16	24	0,6 / 2,4	38	-	-	5 / 20	2 x 2,2	2000
	GMD70 3 3 9 8/1 *		9								2500
GMD70 3 3 12 8/1 *	12	3000									
63000	GMD70 3 3 8 6/1 *	1 Bm / M3	8	24	0,8 / 3,2	38	-	-	5 / 20	2 x 2,2	2000
	GMD70 3 3 12 6/1 *		12								2500
	GMD70 3 3 16 6/1 *		16								3000
	GMD70 3 3 9 8/1 *	2 m / M5	9	24	0,6 / 2,4	38	-	-	5 / 20	2 x 2,2	2500
	GMD70 3 3 12 8/1 *		12								3000
80000	GMD70 3 3 9 8/1 *	1 Am / M4	9	24	0,6 / 2,4	38	-	-	5 / 20	2 x 3	2500
	GMD70 3 3 12 8/1 *		12								3000

* Trolleys are TG40 type

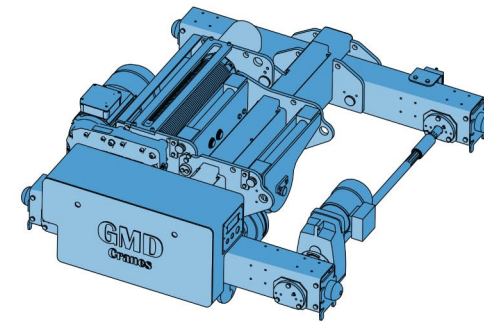
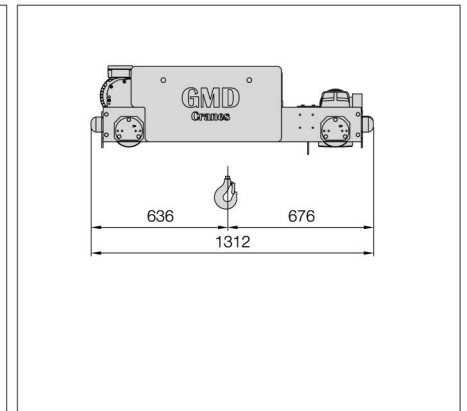
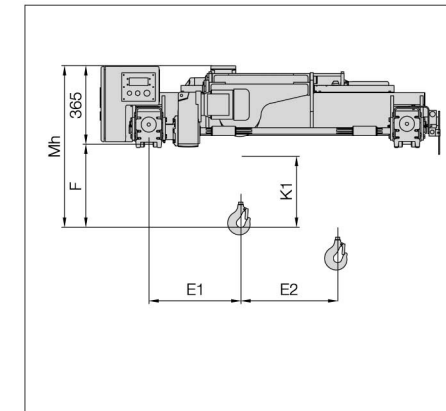
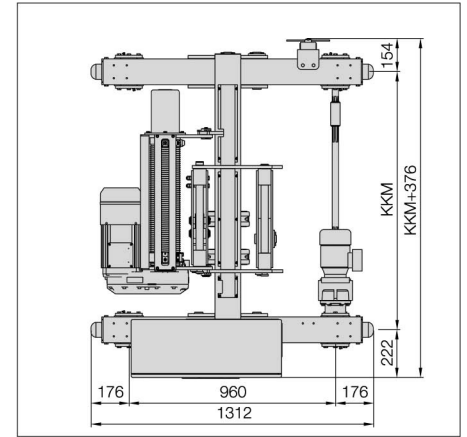
GMD 20

Monorail
Trolley Hoist



GMD 20

Double Girder
Trolley Hoist



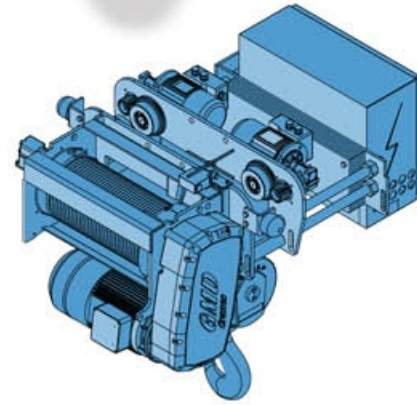
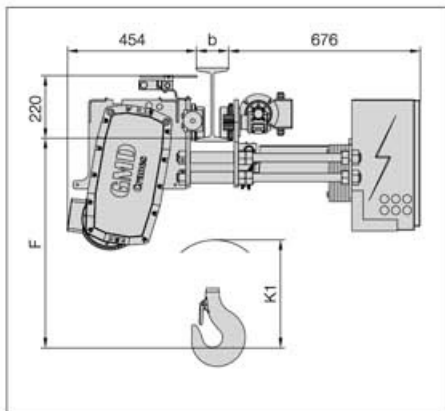
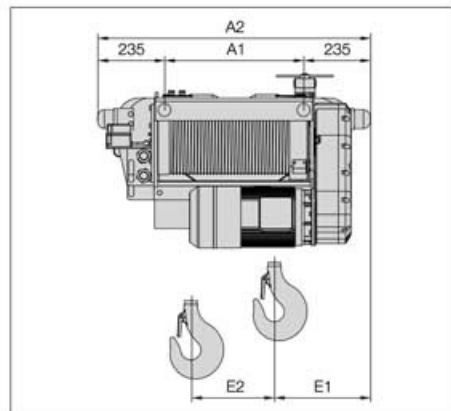
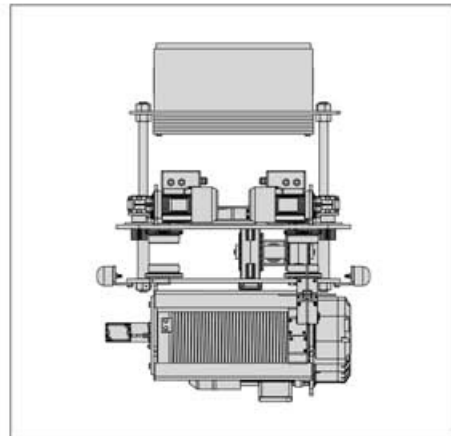
		2/1				4/1						
A1	A2	Wheel Diameter	Lifting Height	K1	F	E1	E2	Lifting Height	K1	F	E1	E2
mm	mm	mm	m	mm	mm	mm	mm	m	mm	mm	mm	mm
606	1076	109	12	399	599	285	256	6	365	565	325	129
786	1256		16				346	8				174
1156	1626		20				531	10				266

		2/1				4/1							
KKM	Wheel Diameter	Lifting Height	K1	F	Mh	E1	E2	Lifting Height	K1	F	Mh	E1	E2
mm	mm	m	mm	mm	mm	mm	mm	m	mm	mm	mm	mm	mm
1200	125	12	433	475	840	419	247	6	345	395	760	425	135
1200		16					324	8					173
1400		20					409	10					861



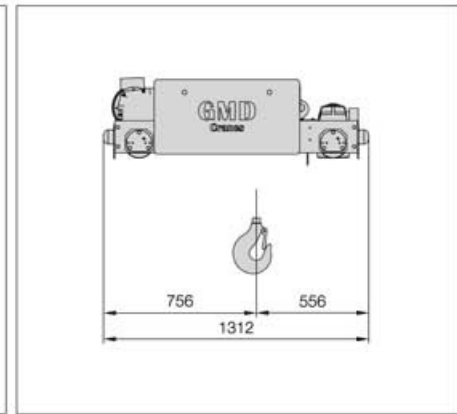
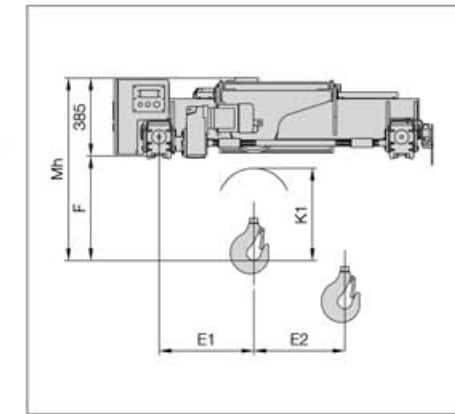
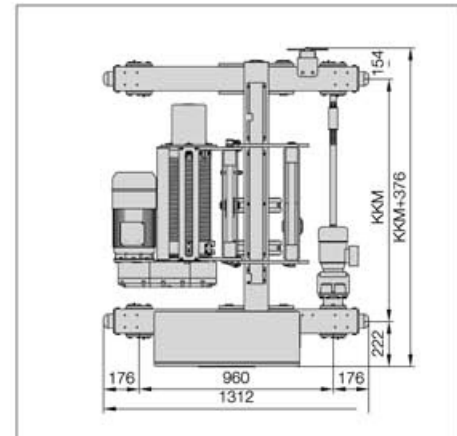
GMD
30

Monorail
Trolley Hoist



GMD
30

Double Girder
Trolley Hoist

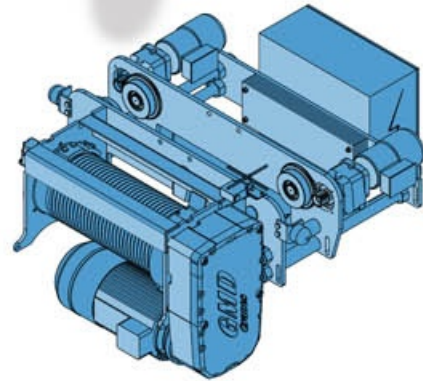
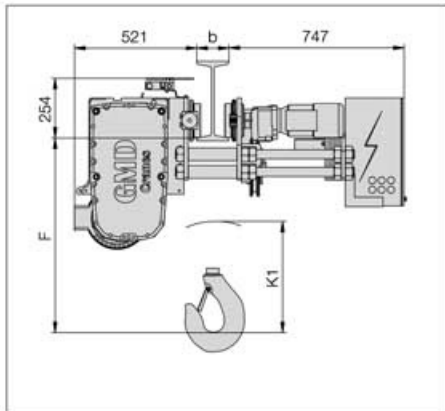
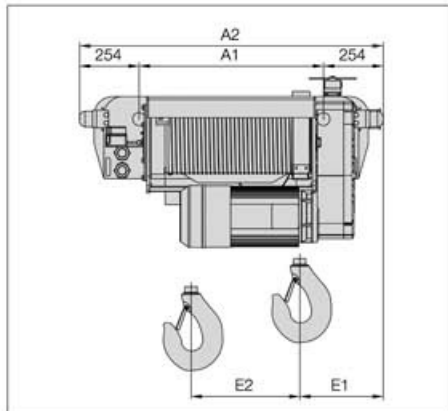
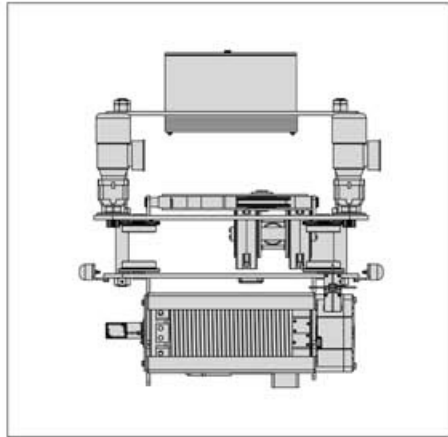
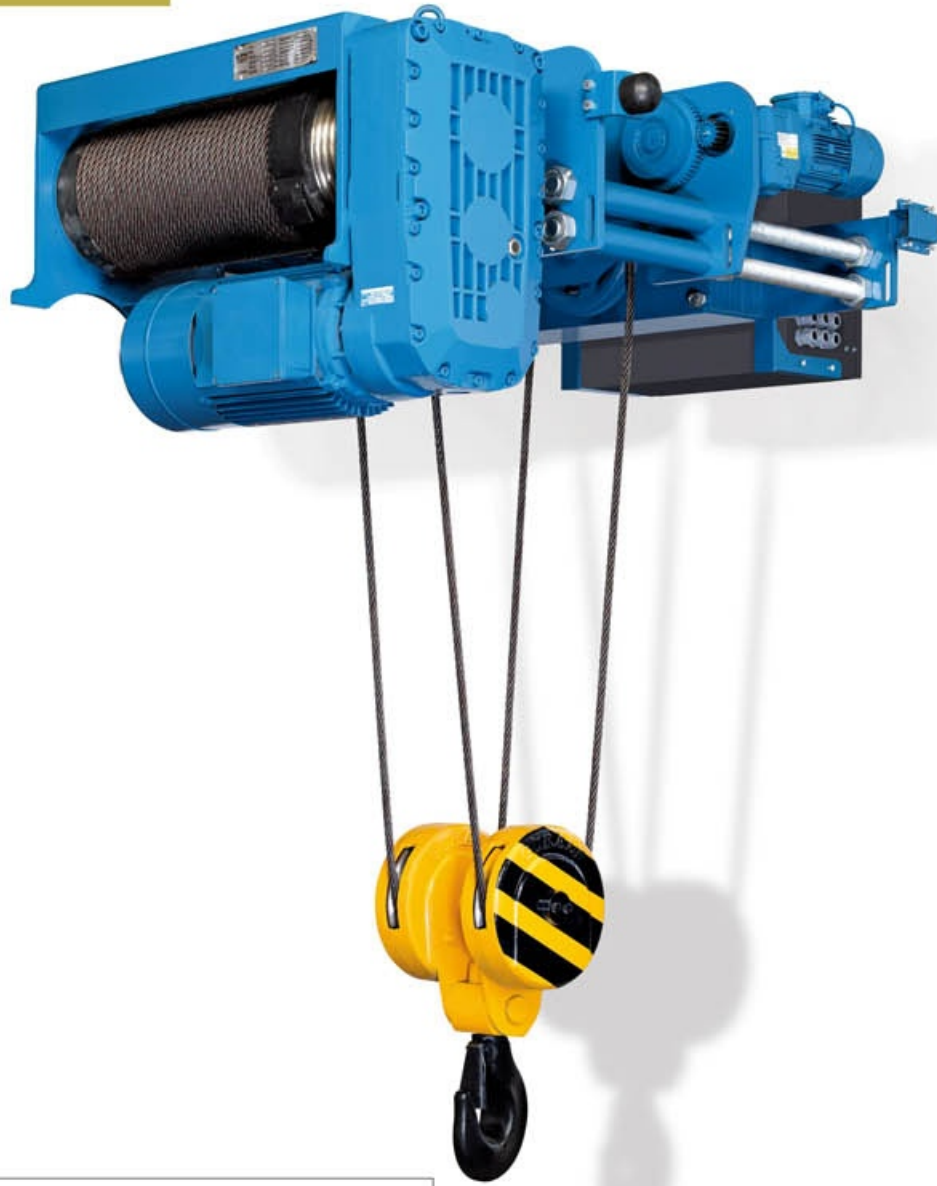


		2/1				4/1						
A1	A2	Wheel Diameter	Lifting Height	K1	F	E1	E2	Lifting Height	K1	F	E1	E2
mm	mm	mm	m	mm	mm	mm	mm	m	mm	mm	mm	mm
490	960	109	12	440	640	283	194	6	460	660	377	79
697	1167		16				298	8				131
1055	1525		24				477	12				220

		2/1				4/1							
KKM	Wheel Diameter	Lifting Height	K1	F	Mh	E1	E2	Lifting Height	K1	F	Mh	E1	E2
mm	mm	m	mm	mm	mm	mm	mm	m	mm	mm	mm	mm	mm
1200	125	12	483	570	955	475	214	6	432	518	903	468	114
1200		16					284	8					149
1400		24					424	12					218

GMD 40

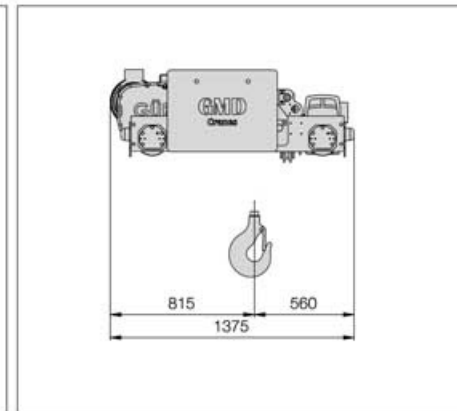
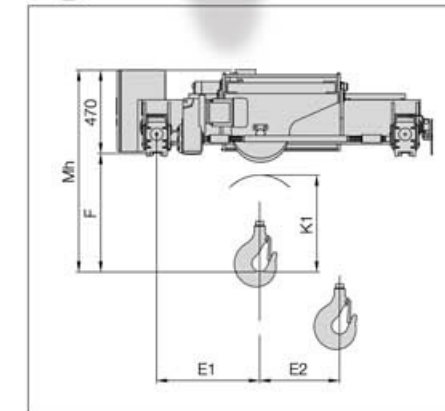
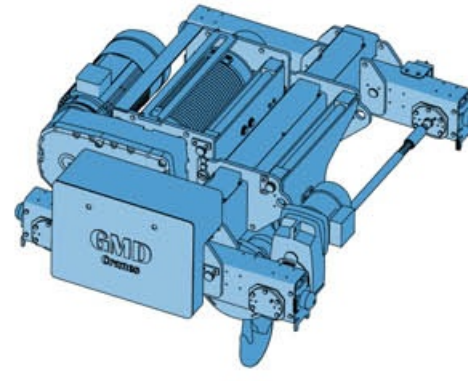
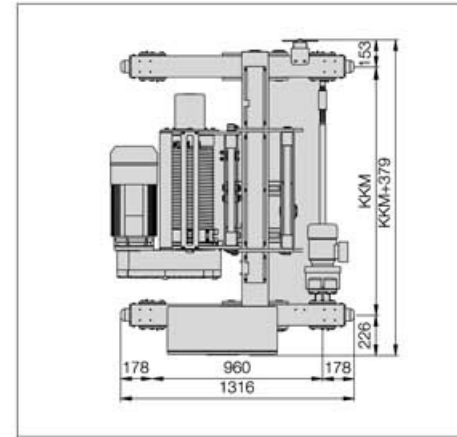
Monorail
Trolley Hoist



		2/1				4/1						
A1	A2	Wheel Diameter	Lifting Height	K1	F	E1	E2	Lifting Height	K1	F	E1	E2
mm	mm	mm	m	mm	mm	mm	mm	m	mm	mm	mm	mm
701	1209	145	12	628	888	355	188	6	639	899	502	95
851	1359		16				263	8				133
1151	1659		24				413	12				208

GMD 40

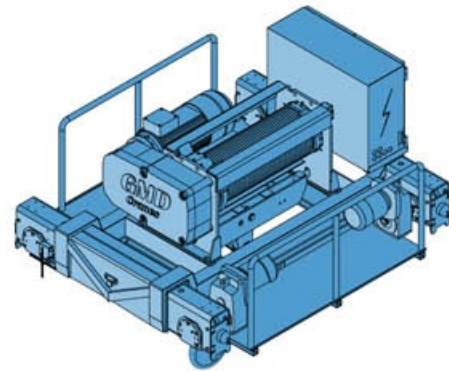
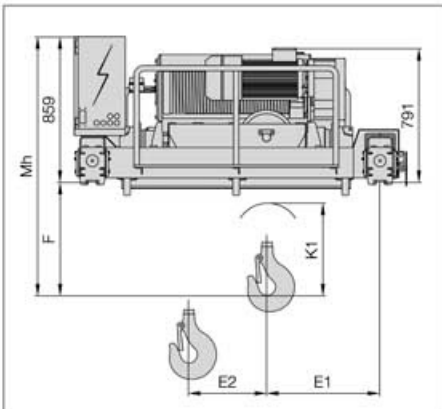
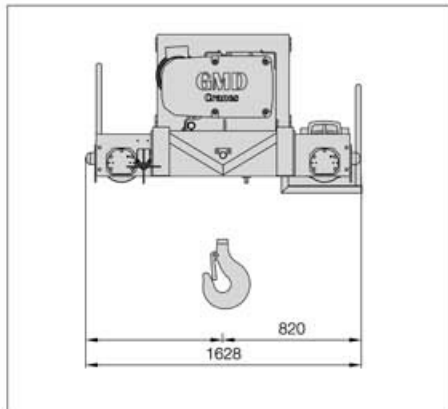
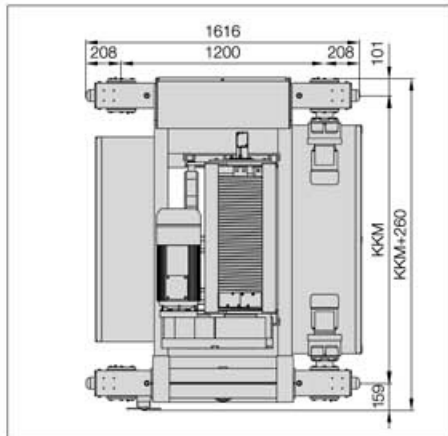
Double Girder
Trolley Hoist



		2/1					4/1						
KKM	Wheel Diameter	Lifting Height	K1	F	Mh	E1	E2	Lifting Height	K1	F	Mh	E1	E2
mm	mm	m	mm	mm	mm	mm	mm	m	mm	mm	mm	mm	mm
1400	160	12	629	716	1186	580	224	6	580	668	1138	581	127
1400		16					299	8					165
1700		24					449	12					240

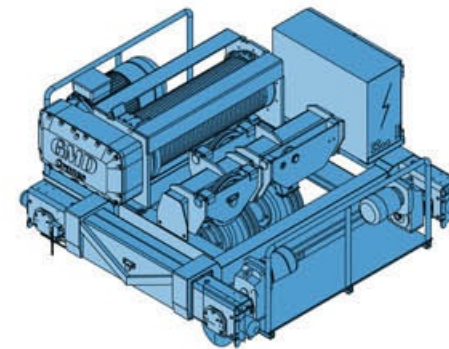
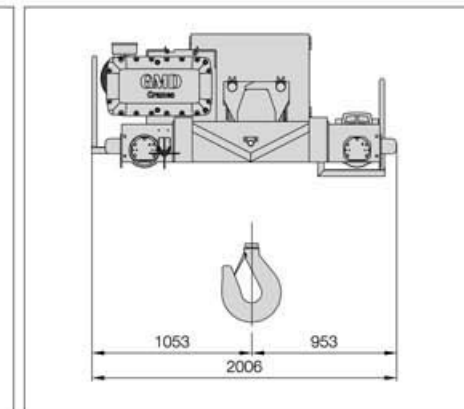
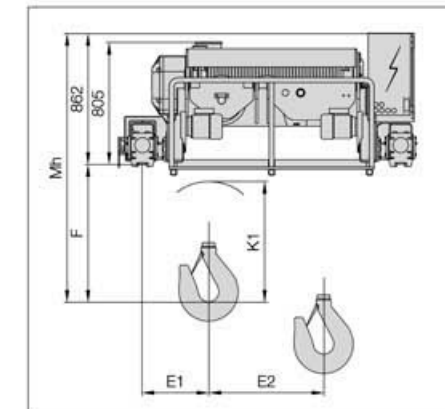
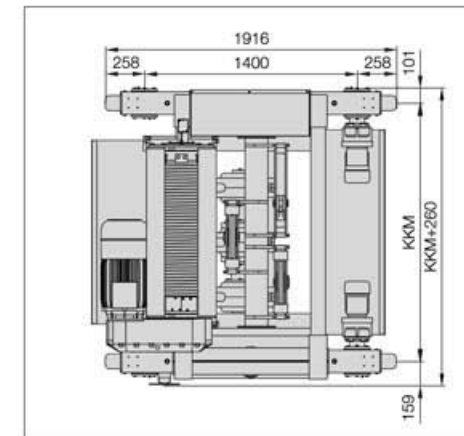
GMD 50

Double Girder
Trolley Hoist



GMD 60

Double Girder
Trolley Hoist

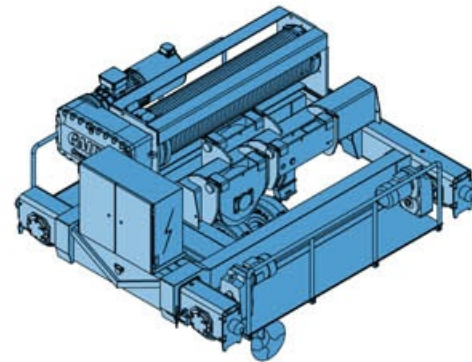
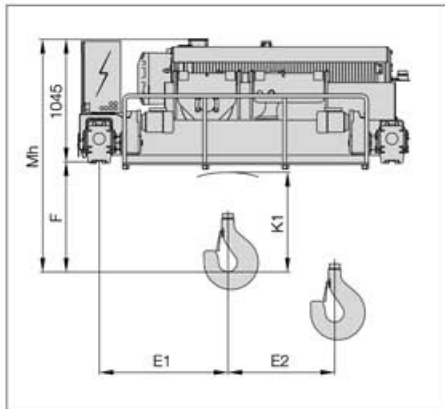
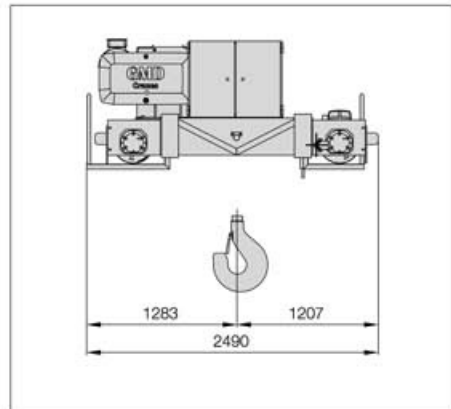
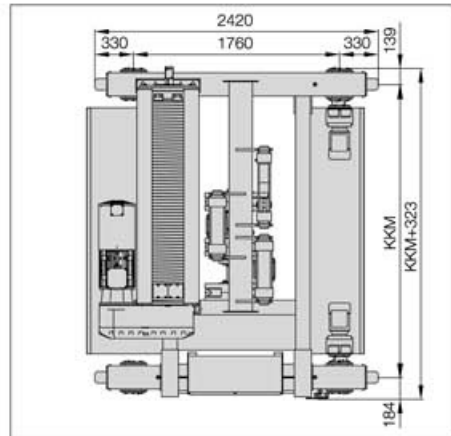


KKM	Wheel Diameter	Lifting Height	2/1					4/1						
			K1	F	Mh	E1	E2	Lifting Height	K1	F	Mh	E1	E2	
mm	mm	m	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	
1700	200	17	687	574	1433	515	285	8,5	668	680	1539	671	152	
1700		24				381	425					12	535	221
2000		32				370	580					16	526	299

KKM	Wheel Diameter	Lifting Height	2/1					4/1					6/1							
			K1	F	Mh	E1	E2	Lifting Height	K1	F	Mh	E1	E2	Lifting Height	K1	F	Mh	E1	E2	
mm	mm	m	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	
1700	200	16	630	438	1300	550	278	8	751	738	1600	665	140	-	-	-	-	-	-	
2000		24				405	423					12	520	213	8	992	1008	1870	671	144
2000		36				340	638					18	455	321	12	606	215			

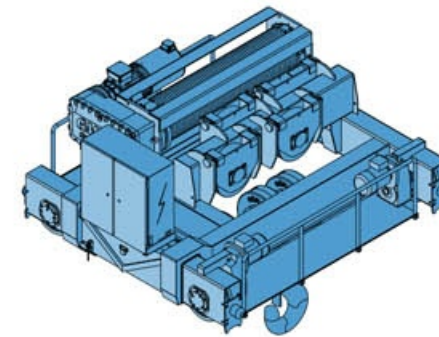
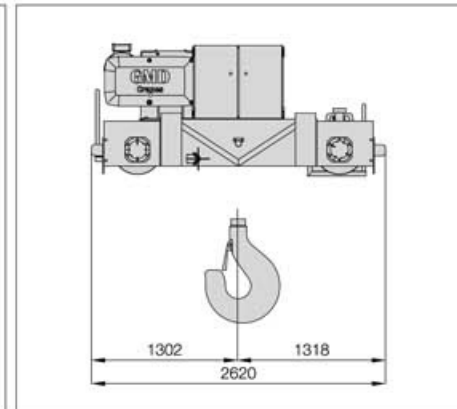
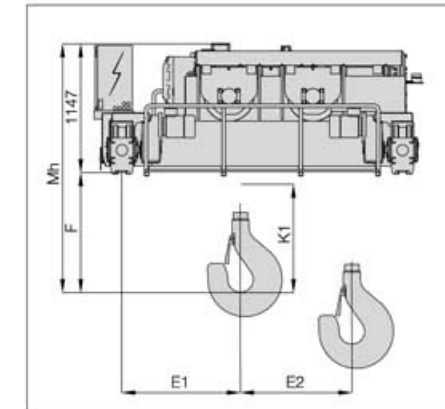
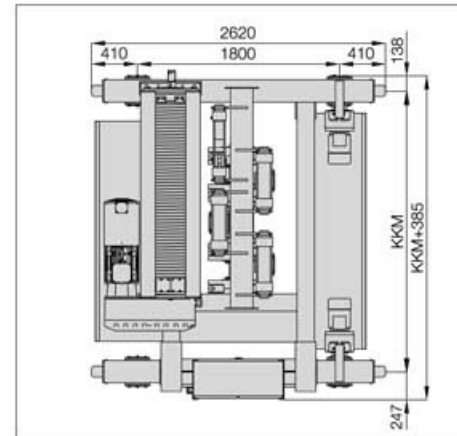
GMD 70

Double Girder
Trolley Hoist
(TG31 Type Trolley)



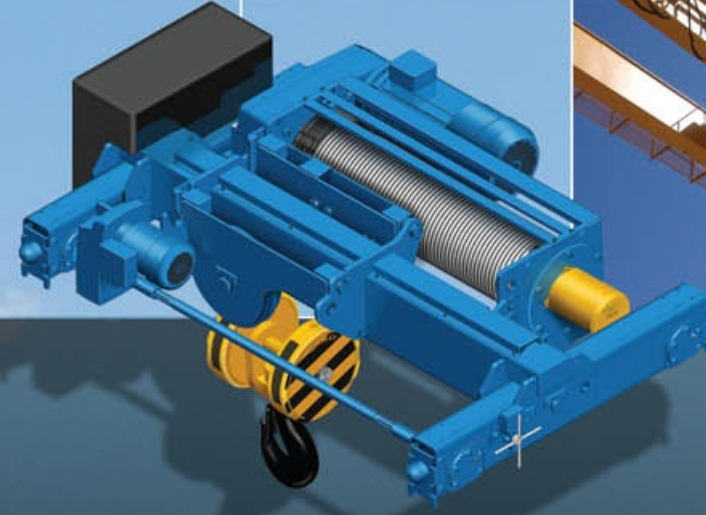
GMD 70

Double Girder
Trolley Hoist
(TG40 Type Trolley)



KKM	Wheel Diameter	Lifting Height	4/1					6/1					
			K1	F	Mh	E1	E2	Lifting Height	K1	F	Mh	E1	E2
mm	mm	m	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
2000	315	8	1120	1083	2128	878	151	-	1290	1252	2297	-	-
2000		12				950	240	8				1137	160
2500		18				920	372	12				1107	249
3000		24				890	559	16				1077	377

KKM	Wheel Diameter	Lifting Height	6/1					8/1					
			K1	F	Mh	E1	E2	Lifting Height	K1	F	Mh	E1	E2
mm	mm	m	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
2000	400	8	1290	1280	2427	1127	159	-	1320	1298	2445	-	-
2500		12				1141	192	9				1327	5
3000		16				1114	336	12				1300	250



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