GH

Cranes & Components

HOIST CATALOGUE

HIGH CAPACITY HOISTS

PONTE ROLANTE · SUWNICE · GRUAS · CRANES · PONT-ROULANT · 电动桥式起重机

A New Conception
Future Technology

GH has manufactured hoists and other lifting equipment for over 50 years.

More than 100,000 installations are the proof of our experience and know-how.

Over the years we have installed lifting systems in over 60 different countries.

Cutting-edge design technology, highly sophisticated production resources and efficient organisation have placed GH among Europe's top lifting equipment manufacturers.

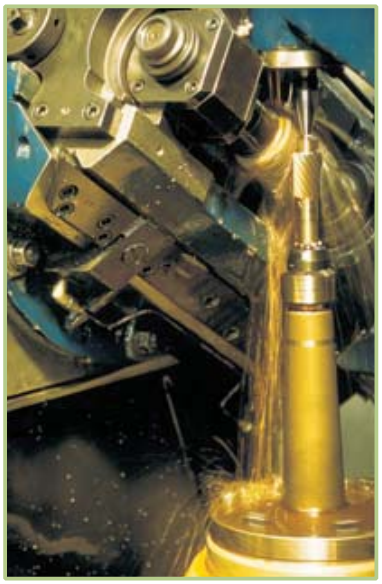
The new range of GH hoists have been designed with the following principles; reliability, security, durability, price and easy maintenance. The design is rectangular, modern, compact with perfect dimensional balance.

The functional arrangement of the different elements are standardised on a modular construction, permitting the easy interchangability of groups combining different lifting speeds, heights and duty factors, according to the requirements and working conditions of each application.

The construction of the GH electric wire rope hoist, is based on the rules and regulations of lifting devices according to the FEDERATION EUROPEENNE DE LA MANUTENTION (FEM) and the standards I.E.C.

Many years of experience and constant updating of our mechanisms, has enabled us to introduce our new range of hoists and standard crane components, which are represented in this technical catalogue.

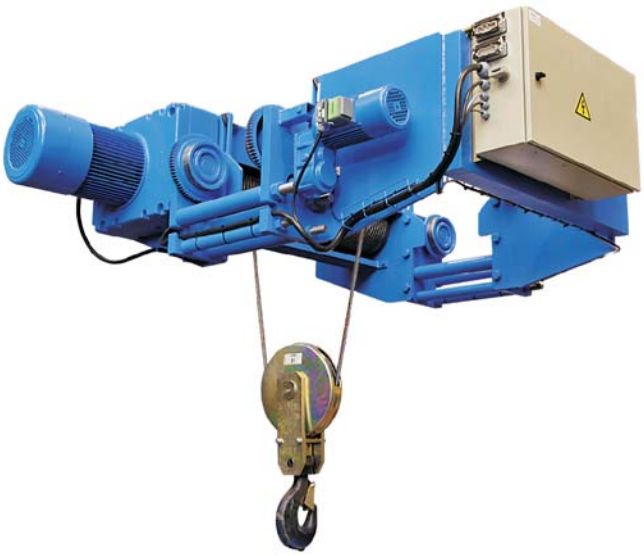
Good documentation is the base which allows us to choose the best and profitable handling solutions.



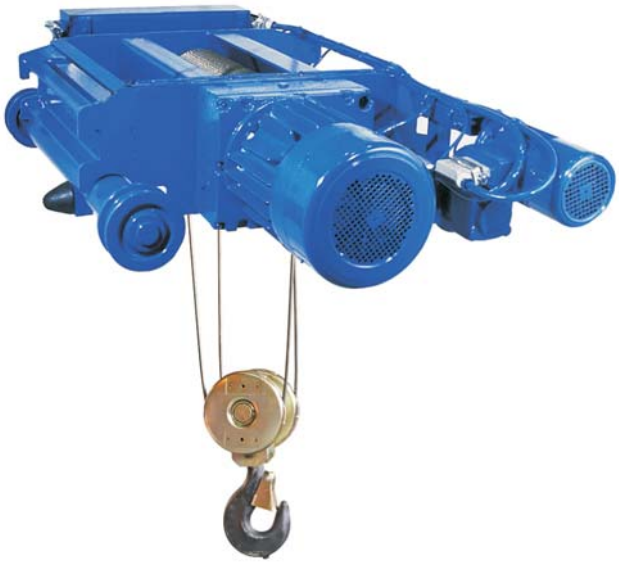
Single-girder overhead hoist

Foot-mounted hoist

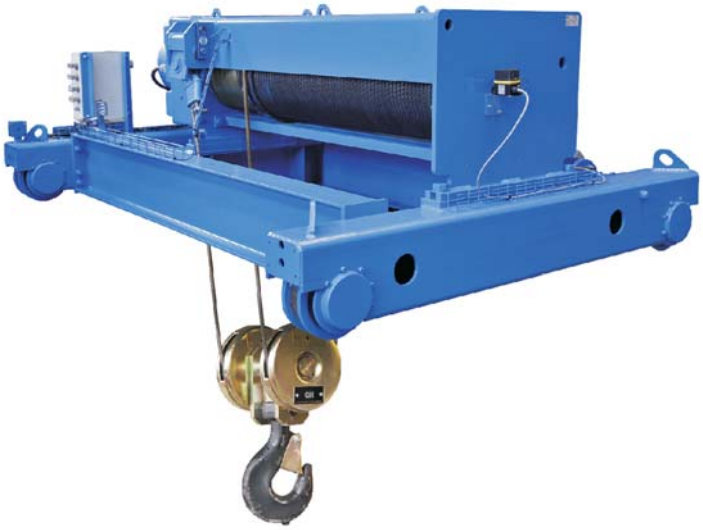
Low head room hoist



Standard double-girder hoist



End carriage hoist



Dual hook hoist

GEARBOX

Robust and compact, situated on the exterior, allowing ease of access.

The helical teeth in all the gears are cut with great precision, in cemented steel, assuring silent running, great reliabilty and long life.

The drive from the motor to the gearbox is direct, avoiding coupling devices which have a tendancy to fail.

All of the gears are lubricated by an oil bath in the interior of a closed casing, machining of the gear locations is made by high precision machine tools.

LIFTING MOTOR

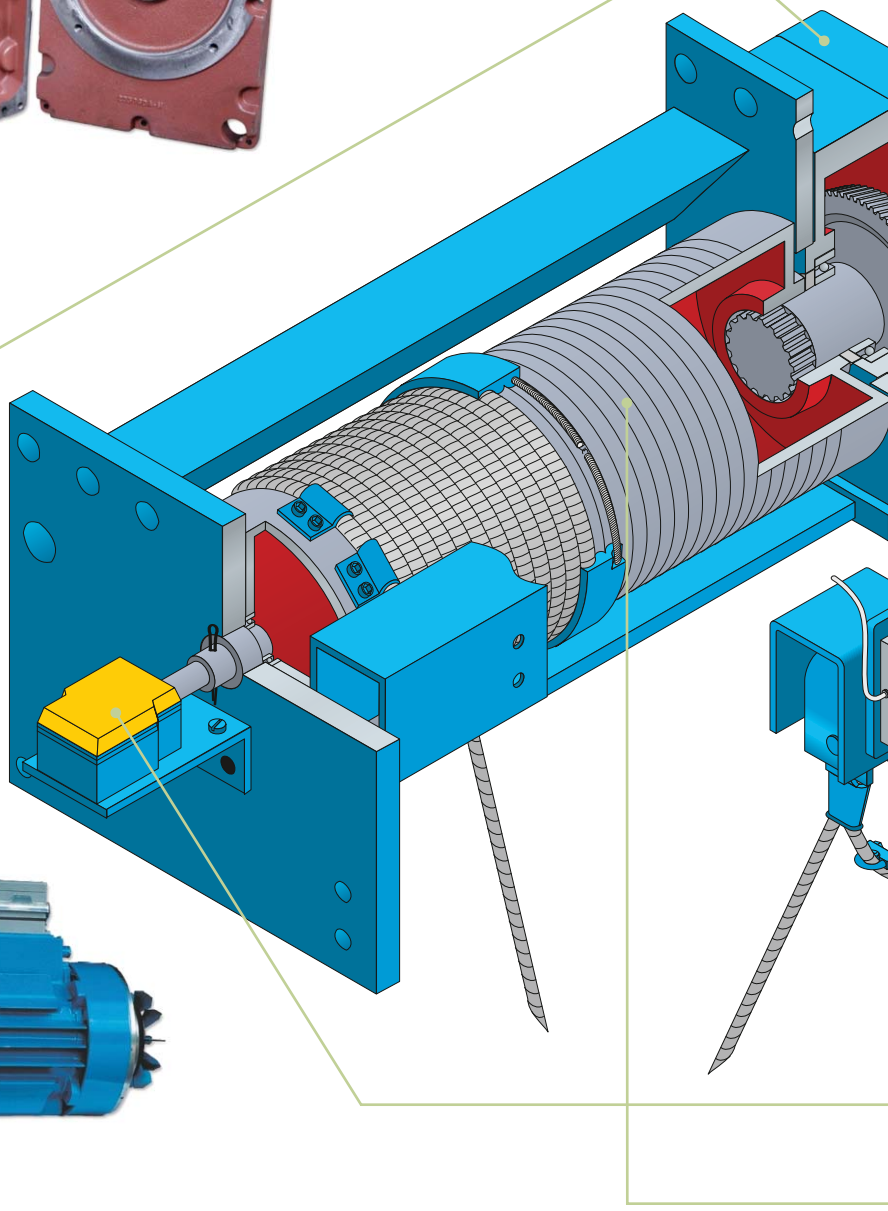
The hoist has a cylindrical short circuit motor with an incorporated electromagnetic brake.

The motor and brake have been designed for continuos service with high duty factors and cycles.

The brakes are electromagnetic disc, with asbestos free flat faced linings. They offer great reliability and automatic braking in the event of power failure. The friction linings are long lasting and the brake is easy to regulate.

Protection IP-55 to DIN 40050.

The standard version motor has the option of one or two speeds. The second speed has a relation of 1/6. Other relations 1/2, 1/3, 1/4 are available by customer request. Also upon customer request, we can supply inverter control or slip-ring motors.



PUSH BUTTON PENDANT

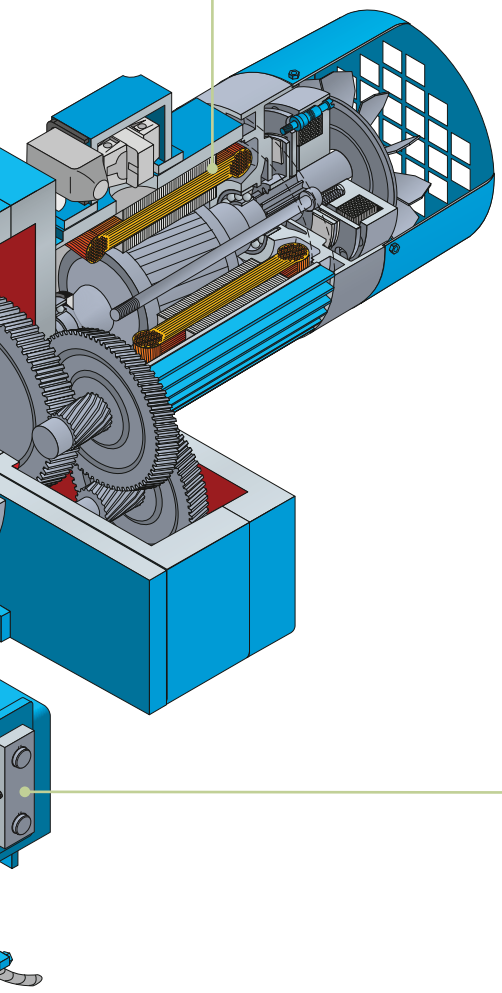
Is manufactured from high impact polypropylene and provides double insulation. The various motions are controlled by pushbuttons which are colour coded as well as being indentified by internationally recognised symbols. Low dead weight and ergonomically styled housing reduces operator's fatigue.

WHEELS

Dependant on the hoist model, the wheel material can be GG 60 for monorail hoists and GGG 70 (nodular cast iron with graphite structure) for birrail crabs. As shown, drive is via a direct splined axle.

ELECTRICAL CABINET

A metallic box located on the hoist frame, allowing easy access to the electrical control components.



TRAVELLING GEAREDMOTORS

Are specially designed for crane application. Low torque high inertia drives, provide gradual acceleration and smooth deceleration without excessive swing.

The drive to the wheel is via a direct splined shaft.

OVERLOAD LIMIT DEVICE

All of our hoists are fitted with an electromechanical load cell as standard (electronic control).
This load cell consists mainly of 2 parts:

- A electronic cell pin
- Load cell unit (to be installed in the electric panel).

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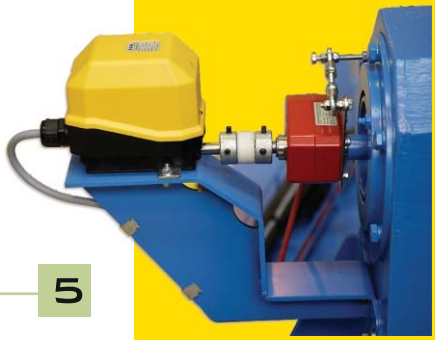

SECURITY LIMIT SWITCH

All of our hoists are fitted with a security limit switch in lifting, preventing a possible failure of the main limit switch.

LIMIT SWITCH

Is located in the drum axle. It limits hook movement in the up and down motions.

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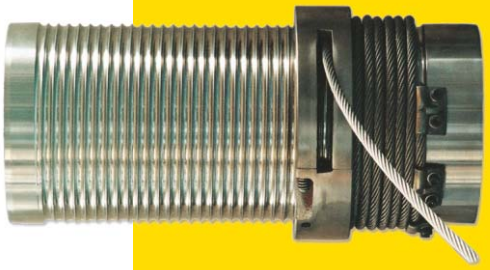


DRUM & ROPE GUIDE

The drum is designed and manufactured according to FEM 966 standard.

Constructed from a seamless steel tube with grooves machined according to DIN 15061. The groove is machined dependant on the wire rope exits i.e. 1 or 2 exits.

The drum is fitted to the hoist frame using high quality, self lubricating, comercial bearings. The drive from the gearbox to the drum is via a direct splined shaft.

The rope guide is manufactured from GGG 70 nodular cast iron with self lubricating graphite, which also gives particular resistance to wear.

The rope guide is formed by two pieces, which can easily be assembled without special tools.

3

BOTTOM HOOK BLOCK

The sheaves are designed according to FEM 9661. The machining of the groove is made according to DIN 15061. The cross pin and nut are machined according to DIN 15412 & 15413.

The hooks are selected according to DIN 154000 and machined to DIN 15401 & 15402, depending on whether they are single or double.

DUTY CLASS DETERMINATION FOR HOISTS, ACCORDING TO EUROPEAN MECHANICAL HANDLING FEDERATION

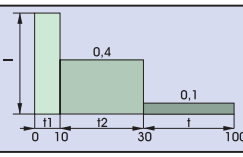
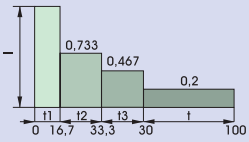
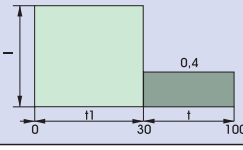
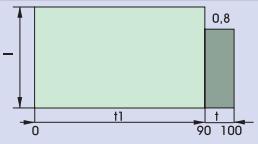
According to FEM classification, two fundamental criteria must be taken into account: the type of duty, and the time of operation (according to average daily operating time for the hoisting movement of the equipment).

OPERATIONAL TIME

Criteria to obtain the average operating time in hours per day (tm).

$$tm = \frac{2 \times \text{average hook travel (m)} \times \text{cycles per hour} \times \text{number of working hours per day}}{60 \times \text{lifting speed (m/min)}}$$

HOIST PERFORMANCE RATING

Service Classification	Mean Effective Loads	Average Operating Time tmA Day In Hrs			
1 Light	 (k ≤ 0.50) Load may vary from no load to occasional full rated loads. This service covers hoists used in repair shops, light fabricating industries, service and maintenance work, etc....	≤2	2-4	4-8	8-16
2 Standard	 (0;50 < k ≤ 0.63) Loads and utilization are randomly distributed with capacity loads are frequently handled. This service covers the hoists used in generat machine shops, fabricating and assembly industries, etc....	≤1	1-2	2-4	4-8
3 Heavy	 (0.63 < k ≤ 0.80) In this type of service, loads approaching 50 percent or the rated capacity wil be handled constantly. This service covers the hoists which may be used in heavy machine shops, foundries, fabricating plants steel warehouses, etc....	≤0,5	0,5-1	1-2	2-4
4 Severe	 (0.80 < k ≤ 1) In this type of service requires hoists capable of handling loads approaching a rated capacity throughout its life. Application may include bulk handling of material with magnets. buckets, or other heavy attachments.	≤0,25	0,25-0,5	0,5-1	1-2
Hoists Class		M3	M4	M5	M6

Duty class to F.E.M. standards
Corresponding to I.S.O. standards

Average daily operating time in hours				0,5		≤1		≤2		≤4		≤8		≤16	
Class of duty				V0,25	T2	V0,5	T3	V1	T4	V2	T5	V3	T6	V4	T7
type of service	1	L1	Light					1Bm	M3	1Am	M4	2m	M5	3m	M6
	2	L2	Medium			1Bm	M3	1Am	M4	2m	M5	3m	M6		
	3	L3	Heavy	1Bm	M3	1Am	M4	2m	M5	3m	M6				
	4	L4	Very heavy	1Am	M4	2m	M5	3m	M6						

GROUP	1Bm	M3	1Am	M4	2m	M5	3m	M6
Duty factor	25%		30%		40%		50%	
No of starts per hour	150		180		240		300	

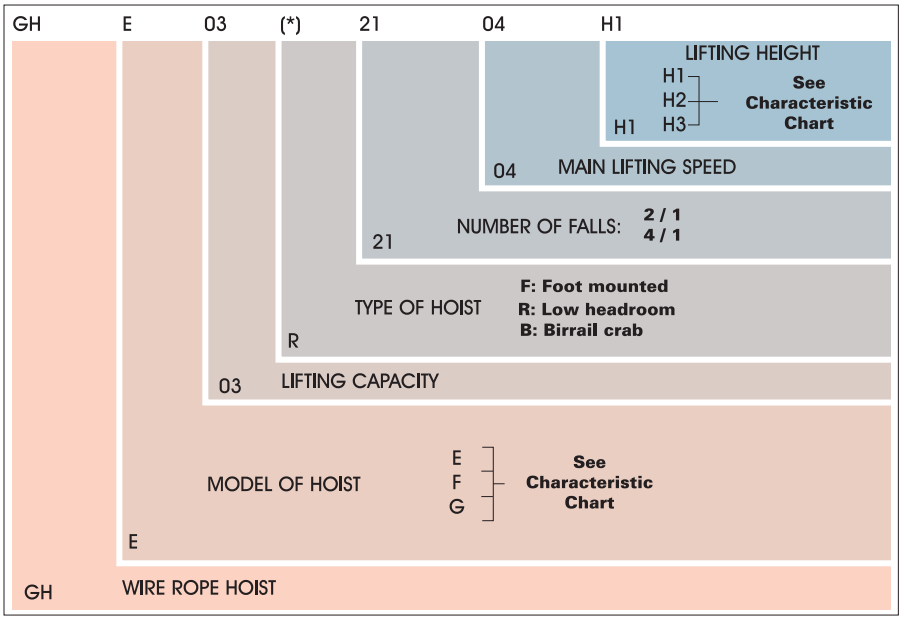
PRACTICAL EXAMPLE FOR SELECTION OF A HOIST

- Capacity: 10,000 kgs
- Lifting height :6 metres
- Average hook travel: Estimated 4 metres
- Lifting speed: 5 m/min
- Number of cycles per hour estimated: 12 cycles
- Number of working hours per day: 8 hours
- Duty factor. Standard

$$tm = \frac{2 \times 4 \times 12 \times 8}{60 \times 5} = 2.56 \text{ hours}$$

Consulting the classifaction chart we arrive to the conclusion that the group is 2 m (M5).

REFERENCE EXPLANATION FOR STANDARD GH ELECTRIC WIRE ROPE HOISTS



PONTE ROLANTE • SUWNICE • GRUAS • CRANES • PONT-ROULANT • 电动桥式起重机

CABLE FALLS 1/1 or 2/2

Capacity kgs.	TYPE	GROUP FEM	LIFTING SPEED m/min V1	V 2	LIFTING HEIGHT m H1	H2	H3
1600	GHD01-1116	M6	16	2,6	15,2	28,8	51
2000	GHD02-1116	M6	16	2,6	15,2	28,8	51
	GHD02-2216	M6	16	2,6	4,9	14,4	29,5
2500	GHD02-1116	M4	16	2,6	15,2	28,8	51
	GHE02-1116	M6	16	2,6	18	29,4	55
	GHD02-2216	M6	16	2,6	4,9	14,4	29,5
3200	GHE03-1116	M6	16	2,6	18	29,4	55
	GHD03-2212	M5	12	2	4,9	14,4	29,5
	GHE03-2216	M6	16	2,6	6	13,3	29,7
4000	GHE04-1116	M5	16	2,6	18	29,4	55
	GHE04-2216	M6	16	2,6	6	13,3	29,7
5000	GHF05-1116	M6	16	2,6	43	55	66,5
	GHE05-2216	M6	16	2,6	6	13,3	29,7
6300	GHF06-1116	M5	16	2,6	43	55	66,5
	GHE06-2212	M5	12	2	6	13,3	29,7
	GHF06-2216	M6	16	2,6	19,5	26,7	33,8
8000	GHF08-1116	M5	16	2,6	43	55	66,5
	GHF08-2216	M6	16	2,6	19,5	26,7	33,8
10000	GHF10-2216	M5	16	2,6	19,5	26,7	33,8
12500							
16000							
20000							
25000							
32000							
40000							
50000							
63000							
80000							
100000							

CABLE FALLS 2/1 or 4/2

TYPE	GROUP FEM	LIFTING SPEED m/min V1	V 2	LIFTING HEIGHT m H1	H2	H3
GHD02-2108	M6	8	1,3	7,6	14,4	25,5
GHD02-4208	M6	8	1,3	-	7	14,7
GHD03-2108	M6	8	1,3	7,6	14,4	25,5
GHD03-4208	M6	8	1,3	-	7	14,7
GHD04-2108	M4	8	1,3	7,6	14,4	25,5
GHD04-2108	M6	8	1,3	7,6	14,4	25,5
GHD04-4208	M5	8	1,3	-	7	14,7
GHD04-4208	M6	8	1,3	-	7	14,7
GHD05-2108	M4	8	1,3	7,6	14,4	25,5
GHD05-2108	M6	8	1,3	7,6	14,4	25,5
GHD05-4208	M5	8	1,3	-	7	14,7
GHD05-4208	M6	8	1,3	-	7	14,7
GHD06-2106	M4	6	1	7,6	14,4	25,5
GHE06-2108	M6	8	1,3	9	14,7	27,5
GHD06-4206	M4	6	1	-	7	14,7
GHE06-4208	M6	8	1,3	-	6,1	14,3
GHE08-2108	M4	8	1,3	9	14,7	27,5
GHE08-2108	M6	8	1,3	9	14,7	27,5
GHE08-4208	M4	8	1,3	-	6,1	14,3
GHE08-4208	M6	8	1,3	-	6,1	14,3
GHE10-2108	M4	8	1,3	9	14,7	27,5
GHE10-2108	M5	8	1,3	9	14,7	27,5
GHF10-2108	M6	8	1,3	21,6	27,5	33,3
GHE10-4208	M4	8	1,3	-	6,1	14,3
GHE10-4208	M6	8	1,3	-	6,1	14,3
GHF12-2108	M4	8	1,3	21,6	27,5	33,3
GHF12-2108	M6	8	1,3	21,6	27,5	33,3
GHE12-4206	M4	6	1	-	6,1	14,3
GHF12-4208	M6	8	1,3	8,7	12,3	15,8
GHF16-2108	M5	8	1,3	21,6	27,5	33,3
GHF16-4208	M4	8	1,3	8,7	12,3	15,8
GHF16-4208	M6	8	1,3	8,7	12,3	15,8
GHG16-4212	M6	12	1,2	8	12	14
GHF20-2108	M5	8	1,3	19	24	29,2
GHF20-4208	M4	8	1,3	8,7	12,3	15,8
GHF20-4208	M5	8	1,3	8,7	12,3	15,8
GHG20-4212	M6	12	1,2	8	12	14
GHG25-4212	M5	12	1,2	8	12	14
GHG32-4208	M4	8	0,8	8	12	14

CABLE FALLS 4/1

TYPE	GROUP FEM	LIFTING SPEED m/min V1	V 2	LIFTING HEIGHT m H1	H2	H3
GHD06-4104	M6	4	0,6	3,8	7,2	10
GHD08-4104	M4	4	0,6	3,8	7,2	10
GHD08-4104	M5	4	0,6	3,8	7,2	10
GHD10-4104	M4	4	0,6	3,8	7,2	10
GHD10-4104	M5	4	0,6	3,8	7,2	10
GHE12-4104	M4	4	0,6	4,5	7,3	10,2
GHE12-4104	M6	4	0,6	4,5	7,3	10,2
GHE16-4104	M4	4	0,6	4,5	7,3	10,2
GHE16-4104	M6	4	0,6	4,5	7,3	10,2
GHE20-4104	M4	4	0,6	4,5	7,3	10,2
GHE20-4104	M5	4	0,6	4,5	7,3	10,2
GHF20-4104	M6	4	0,6	9	11,9	14,8
GHF25-4104	M4	4	0,6	9	11,9	14,8
GHF25-4104	M6	4	0,6	9	11,9	14,8
GHF32-4104	M4	4	0,6	9	11,9	14,8
GHF32-4104	M5	4	0,6	9	11,9	14,8
GHF40-4104	M4	4	0,6	8,3	11	13,6

CABLE FA LLS 8/2 or 12/2

TYPE	GROUP FEM	LIFTING SPEED m/min V1	V 2	LIFTING HEIGHT m H1	H2	H3
GHF25-8204	M6	4	0,6	8,5	14	18,5
GHF32-8204	M5	4	0,6	8,5	14	18,5
GHF32-12204	M6	4	0,6	9,3	12,3	15,3
GHF40-8204	M4	4	0,5	8,5	14	18,5
GHF40-8204	M5	4	0,6	8,5	14	18,5
GHG40-8206	M6	6	0,6	13	17,5	22
GHF50-12203	M4	3	0,5	9,3	12,3	15,3
GHG50-8204	M5	4	0,4	13	17,5	22
GHG50-12204	M6	4	0,4	8,8	11,8	14,8
GHF63-12202	M3	2,6	0,4	9,3	12,3	15,3
GHG63-8204	M4	4	0,4	13	17,5	22
GHG63-12204	M6	4	0,4	8,8	11,8	14,8
GHG80-12203	M5	3	0,3	8,8	11,8	14,8
GHG100-12202	M4	2,5	0,2	8,8	11,8	14,8

ELECTRICAL OPTIONS

- *Thermic probes.*
- *Anti-condensation heaters.*
- *Non standard voltages.*
- *Remote control.*
- *Frequency invertor control.*
- *Tropicalisation.*

MECHANICAL OPTIONS

- *Manual release brake.*
- *FEM lifting group duty change.*

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CHINA

SHANGHAI
LIFTING EQUIPMENT CO.,LTD.
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ghchina@ghsa.com

FRANCE

COUËRON
GH FRANCE, SA
Tlf.: +33 (0) 240 86 12 12
www.ghfrance.fr
ghfrance@ghsa.com

MEXICO

QUERETARO
GRÚAS GH MÉXICO SA DE CV
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www.ghsa.com.mx
ghmexico@ghsa.com.mx

POLAND

KŁOBUCK
GH INTERTECH
Tlf.: +48 34 3597317
www.ghsa.pl
intertech@ghsa.pl

INDIA

PUNE
GH CRANES INDIA
Tlf.: +91 020 64730438
www.ghsa.com
ghindia@ghsa.com

PORTUGAL

OPORTO
GH PORTUGAL
Tlf.: +351 229821688
www.ghsa.com.pt
geral@ghsa.com

RUSSIA

MOSCÚ
GH RUSSIA
Tlf.: + 7 (495) 642 63 12
www.ghsa.ru
ghrussia@ghsa.com

THAILAND

SAMUTPRAKARN
LEE MACHINERY-GH THAILAND
Tlf.: +66 (0)8 4660 1365
www.ghsa.com
ghthailand@ghsa.com

USA

ILLINOIS
GH CRANES CORPORATION
Tlf.: (815) 277-5328
www.ghcranes.com
ghcranescorp@ghsa.com

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Uruguay
Usa
Venezuela
Vietnam

GH is present in more than 60 different countries, through its local representatives and dealers.

With a staff of over 300 in Spain and 600 worldwide, GH has a weekly production capacity of:

- 50 standard cranes
- 1 special crane
- 40 hoists/kits
- 2 industrial gantries
- 0.5 straddle carriers/travelifts

GH develops both standard and tailored products.

WWW.GHSA.COM

· GH ·

INDUSTRIAS
ELECTROMECANICAS GH, S.A.

TEL.: +34 943 805 660
FAX: +34 943 888 721
E-MAIL: GHSA@GHSA.COM
APDO. 27 - Bº SALBATORE
20200 BEASAIN
(GIPUZKOA) SPAIN

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