



No.1



ATEX 

LIFTING EQUIPMENT



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Overview

Explosion protection information

What is explosion protection?

Explosion protection is a branch of technology that deals with protecting against explosions or limiting their effects.

This is a sensitive and complex topic that belongs to the safety engineering area and that requires preventive measures to be established.



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Air rope hoist LIFTMASTER EHW

Capacity up to 120 kg

The pneumatic rope hoist LIFTMASTER EHW is a practical addition to the TC chain hoist program. This model is ideal for small load up to 120 kg that must be moved quite often.



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Lever hoist

PLANETA - PREMIUM PRO-EX

Capacity up to 9000 kg

The next development stage of the reliable PLH-PREMIUM lever hoist is the PREMIUM PRO. Thanks to a significant weight saving, handling is improved.



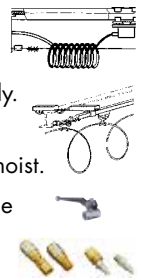
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Air supply

TYPE 1 Spiral hose: Beam length up to 10 m are best to serve with a spiral hose for air supply.

TYPE 2 Drag hose: Pulling the air hose behind the trolley is the easiest way to bring air to the hoist.

TYPE 3 C-track: A C-track is the most comfortable air supply. The total beam length can be used for driving.



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Manual chain hoist PREMIUM PRO with EX-protection

Capacity up to 10000 kg

The PREMIUM- PRO-EX gets a very special surface treatment and has some changes in design that allows you to use the manual chain hoist in explosion hazardous areas.



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Electric chain hoist PLANETA-GCH-EX with top hook suspension or top lug suspension

Capacity up to 5000 kg

- Cast aluminium housing with maximum solidity (no plastic material)
- For extreme working conditions: casted cooling gills



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EX-proof trolleys L87 and HD3N

Capacity up to 12500 kg

EX-proof trolleys have outstanding corrosion protection. All steel parts are electrolytically zinc plated. This is a must in wet rooms and in very aggressive environment.



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Rope winches

Capacity up to 37000 kg

The rope winches range combines a modern design, innovative technology and superlative components, which are produced exclusively in Germany.



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Air chain hoists

Capacity up to 25000 kg

The compressed air chain hoists with small and compact aluminum housings are characterized by ease of use. With high speeds and compressed air operation, they are well suited for explosive and corrosive areas eg on chemical plants, paint shops, etc.



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Note: PLANETA are constantly striving to increase and further improve the product range. Whilst every effort has been made to ensure the accuracy of the specifications and dimensions included at the time of printing, we are unable to warrant the given information. Designs and specifications are subject to change without notice or obligation. The inclusion of any product does not guarantee the availability of that product in the future. Customers should check both the availability and conformance of the product to any critical parameters at the time of ordering!

Ex -proof applications



What is explosion protection?

Explosion protection is a branch of technology that deals with protecting against explosions or limiting their effects. This is a sensitive and complex topic that belongs to the safety engineering area and that requires preventive measures to be established. Explosion protection is defined by technical solutions such as types of protection and zone classifications, is described by standards (e.g. IEC or EN) and is subject to constant changes. The legal provisions such as the European Union ATEX directives or the National Electrical Code (NEC) in the USA are the basis for this. It is important to observe these directives as people's lives can depend on their correct implementation.

Why explosion protection?

Explosion protection for electrical and mechanical machines is an important and necessary preventive measure for the safety of people and all types of production, storage and distribution equipment if explosive mixtures of flammable gases or dusts and air can arise there.

What is an explosion?

The term explosion means a sudden chemical reaction of a flammable substance with oxygen with a release of a large amount of energy. Flammable substances can be in the form of gases, vapours, mists or dusts.

An explosion can only occur if three factors occur together. Oxygen and a source of ignition are required in addition to the flammable substance.

Explosion protection measures

Explosion protection measures include avoiding an explosive atmosphere, preventing explosive atmospheres igniting or limiting the effects of an explosion. The finish of our devices helps to prevent ignition by avoiding spark or heat formation during operation.

Examples of areas in which there may be potential explosion risks:

- Chemical industry
- Landfill sites
- Energy generating companies
- Disposal companies
- Gas supply companies
- Metalworking companies
- Wood processing industry
- Paint shops
- Agriculture
- Food and feed industry
- Pharmaceutical industry
- Refineries
- Recycling companies

Dust explosion protection

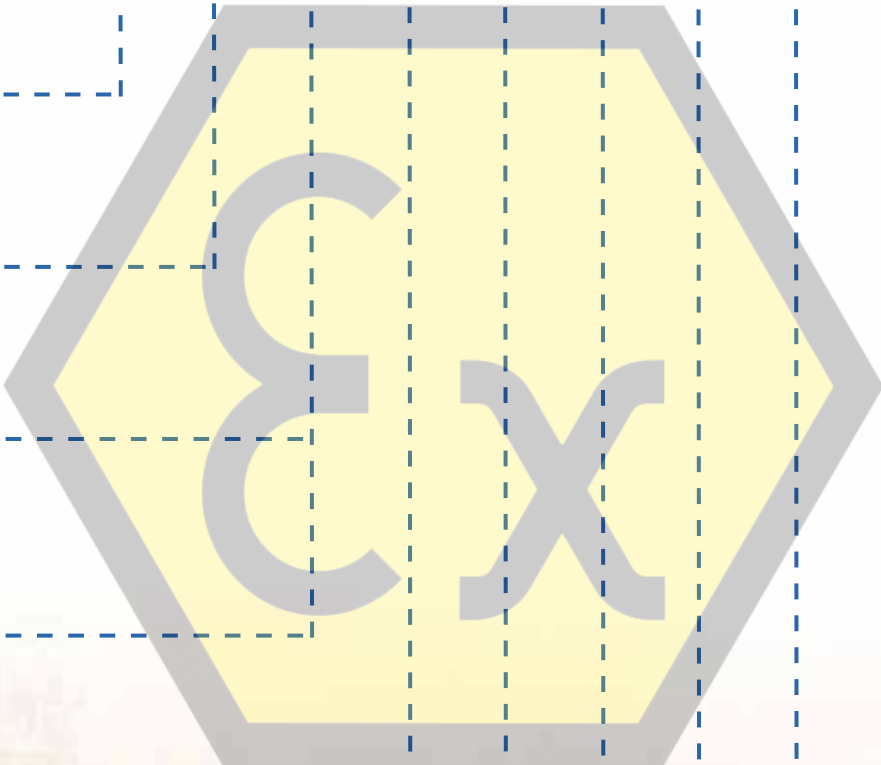
In addition to gases, dusts can also pose a potential explosion risk. In many production processes, dust may form and just a 1 mm layer of this dust can pose a potential explosion risk. When the dust is whipped up into a cloud and combined with oxygen and a source of ignition, an explosion is virtually guaranteed.

In addition to dusts as a product, this risk must also be considered for dusts that are a by-product of producing other items, as 80% of all dusts are flammable. The flammable particle size is between a particle size of 20 µm and <400 µm.

In addition to the technical explosion protection of our products, suitable organisational measures already help to significantly reduce the explosion risk due to dusts.

Explosion protection

Labels	CE	0123	Ex	II	3	G	D	E	Ex	c	IIC	T4
CE European conformity	---	---	---	---	---	---	---	---	---	---	---	---
0123 ID no. of our certification body (TÜV-Süd)	---	---	---	---	---	---	---	---	---	---	---	---
EX ATEX symbol per directive 94/9/EG	---	---	---	---	---	---	---	---	---	---	---	---
II General industry device group (I = mining)	---	---	---	---	---	---	---	---	---	---	---	---
3 (Zone 2) Device category (certification of constructional safety by the manufacturer)	---	---	---	---	---	---	---	---	---	---	---	---
2 (Zone 1) Device category (certification by the manufacturer and deposit at a nominated independent certification body)	---	---	---	---	---	---	---	---	---	---	---	---
G Gas	---	---	---	---	---	---	---	---	---	---	---	---
D Dust	---	---	---	---	---	---	---	---	---	---	---	---
E Per European standard	---	---	---	---	---	---	---	---	---	---	---	---
Ex Explosion-proof	---	---	---	---	---	---	---	---	---	---	---	---
c Constructive explosion protection	---	---	---	---	---	---	---	---	---	---	---	---
IIC Explosion group	---	---	---	---	---	---	---	---	---	---	---	---
T4 Temperature class	---	---	---	---	---	---	---	---	---	---	---	---





Explosion protection

Explosion protection information

According to ATEX Directive 95 (Directive 94/9/EC), as of 01/07/2003, manufacturers are obligated to produce hoists in accordance with the applicable rules, standards and regulations for explosion-protected operating materials, classified by EX class and identified accordingly.

The customer must specify either a classification or an EX zone.

When we have received this information, we can present you with a suitable quotation for the hoist you are interested in. Here is an overview of the classification of explosion-protected operating materials according to Directive 94/9/EC, to serve as a guide. The standards, regulations and directives of the appropriate authority, e.g. chemicals industry associations, regarding the use of equipment in areas at risk of explosion, must be observed by the owner during installation, assembly and operation of >> EX-protected hoists <<. PLANETA offers hoists for various use cases, which are suitable for the following operating conditions in EX zones:

- ➔ **Deployment in zones 1, 2, 21 and 22**
- ➔ **Temperature classes up to T4 or 135°C**
- ➔ **For gases in explosion groups IIA, IIB, IIC and dusts**

Zone classification

Flammable materials	Classification of areas at risk of explosion	Equipment group	Equipment category for Ex atmosphere	Probability
Gases & vapours	Zone 0	II	1G	Constant, long-term or frequent
	Zone 1	II	2G or 1G	Occasional
	Zone 2	II	3G or 2G or 1G	Unlikely
Dust	Zone 20	II	1D	Constant
	Zone 21	II	2D or 1D	Occasional
	Zone 22	II	3D or 2D	Unlikely

The adjacent table provides you with a brief overview of deployability Temperature classes:

The max. surface temperature of the operating material must always be less than the ignition temperature of the gas-vapour-air mixture. Operating materials which are classed in higher temperature classes are approved in all areas where lower temperature classes are required.

In areas at risk of explosion due to flammable dusts, the surface temperature may not exceed 2/3 of the ignition temperature of the dust/air mixture in °C. This temperature class information related to PLANETA hoists assumes a maximum ambient temperature between -20°C and +40°C.

Deployability of the operating material	List of gases and vapours						
	Explosion subgroup II for ignition protection type d, i, n	Gases and vapours					
	IIA	Ammonia, methane, ethane, propane	Ethyl alcohol, cyclohexane, n-butane	Benzene gen. jet fuels, n-hexane	Acetaldehyde		
	IIB	Acrylonitrile, city gas	Ethylene, ethylene oxide	Ethylene glycol, hydrogen sulphide	Ethyl ether		
	IIC	Hydrogen	Acetylene Ethin				Carbon disulphide
	Temperature class: Classification of gases, vapours and mists acc. to ignition temperature						
	T1	T2	T3	T4	T5	T6	
	Max. 450°C	Max. 300°C	Max. 200°C	Max. 135°C	Max. 100°C	Max. 85°C	
Deployability of the operating material ----- >T1 ----- >T2 ----- >T3 ----- >T4 ----- >T5 ----- >T6							

Explosion protection

Technical Information for the versions

BASIC version is appropriate for use in EX II 3 G IIB c T3 (Zone 2) :

- Fast-moving parts and contact parts treated with special coatings
- Galvanised load and hand chains
- Trolley with cellulose buffer

MEDIUM version is appropriate for use in EX II 2 G IIB c T3 (Zone 1) :

- Fast-moving parts and contact parts treated with special coatings
- Carrying and load hooks treated with special coating
- Galvanised load and hand chains
- Trolley with cellulose buffer

HIGH version is appropriate for use in EX II 2 G IIC c T3 (Zone 1) :

- Fast-moving parts and contact parts treated with special coatings
- Carrying and load hooks treated with special coating
- NIROSTA load and hand chains
- Trolley with cellulose buffer
- Wheels made of bronze

 **In the "HIGH" version, load chains made from NIROSTA special load chain fabrication steel are used, which causes a reduction in the load-bearing capacity of the series chain hoists.**

 **The table below shows that the load-bearing capacities of the "HIGH" version differ from the "BASIC" and "MEDIUM" versions.**

 **However, the hoists themselves are labelled with lower load-bearing capacity on their nameplates, even in the "HIGH" version.**

Load-bearing capacity in kg on the BASIC / MEDIUM version	TYPE Manual chain hoist for example	Chain diameter in mm	Number of chain falls	Reduced loadbearing capacity in kg on the HIGH version
250	PREMIUM PRO-EX 0,25	4 x 12	1	250
500	PREMIUM PRO-EX 0,5	5 x 15	1	500
1.000	PREMIUM PRO-EX 1	6 x 18	1	1.000
1.500	PREMIUM PRO-EX 1,5	8 x 24	1	1.250
2.000	PREMIUM PRO-EX 2	8 x 24	1	1.250
3.000	PREMIUM PRO-EX 3	10 x 30	1	2.000
5.000	PREMIUM PRO-EX 5	10 x 30	2	3.200
10.000	PREMIUM PRO-EX 10	10 x 30*	3	6.400

* Grade 100

Lever hoist PLANETA – PREMIUM PRO-

Lever hoist PLANETA – PREMIUM PRO-EX

The next development stage of the reliable PLH-PREMIUM lever hoist is the PREMIUM PRO. Thanks to a significant weight saving, handling is improved. Despite this, the frame has been strengthened compared to the previous generation. Proven quality also ensures longevity and its design makes it very robust.

Free-running mode

When the selection switch is moved to the middle point, the unladen chain can easily be pulled through the device freely to the required usage length. This makes tensioning the chain easier.

Load chain

The tempered, galvanised load chain according to DIN EN 818-7-T is supplied with the unit. The standard lifting height is 1.5 m; any length required for higher lifting is possible.

New chain end piece

The robust chain end piece provides additional safety because it cannot be pulled through the device with the chain.

Protected handle

The ergonomic rubber handle on the end of the lever protects the user against injury and is also screwed in place to prevent it slipping.

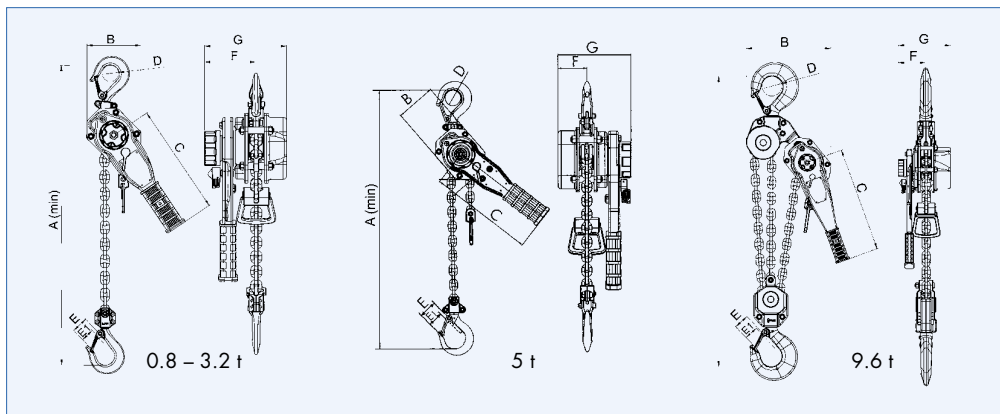
Technical advantages

Hand lever can be used in any position thanks to the ratchet; safety automatic mechanical brake; galvanised connecting parts; cast hook clip; large, non-slip and closed hand wheel; safety chain end piece.

-category see page 7.



PREMIUM PRO-EX 1,6 t



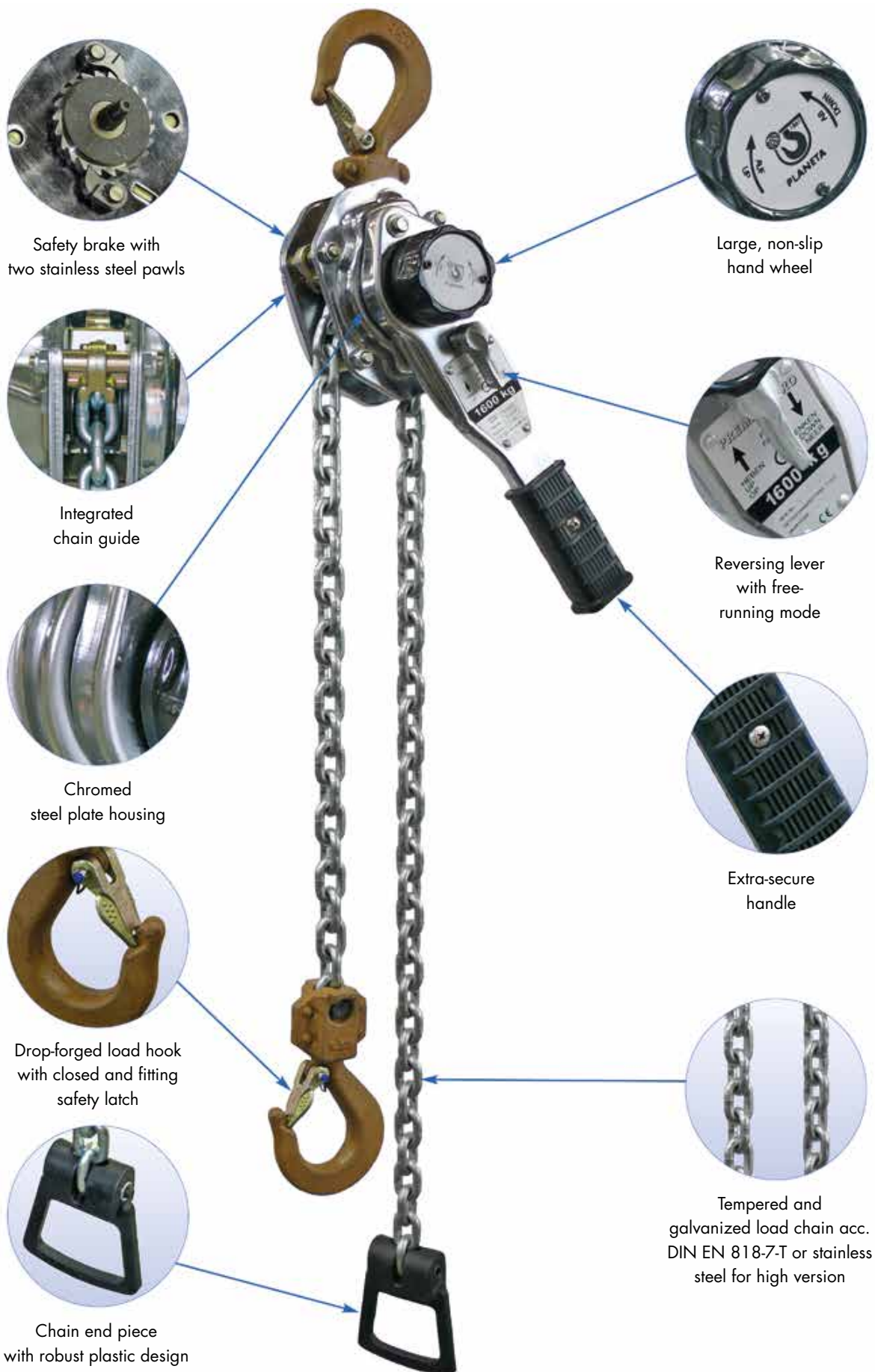
PREMIUM PRO-EX 5 t

TYPE	PREMIUM PRO-EX...	0,8	1,6	3,2	5	6,4	9,6
Capacity Basic/Medium	t	0.8	1.6	3.2	5	6.4	9.6
Capacity High	t	0.45	1.2	1.6	3.3	3.2	4.8
Standard lift	m	1.5	1.5	1.5	1.5	1.5	1.5
Min. headroom (A)	mm	320	360	431	655	500	635
Lever force	daN	22	24	33	37	36	38
Number of chain falls		1	1	1	1	2	3
Chain size	mm	5.6 x 17	7.1 x 21	9 x 27*	13 x 36	9 x 27*	9 x 27*
B (Dimensions)	mm	115	137	169	180	238	300
C	mm	239	259	374	400	374	374
D	mm	35	42	48	60	60	70
E	mm	35	38	46	43	59	54
E1	mm	23	28.5	33	41	39	51
F	mm	91	67	98	104	98	98
G	mm	146	162	187	213	187	187
Weight with standard lift	kg	5.3	8.6	15.2	32.5	23	43
Weight for 1m additional lifting height	kg	0.7	1.1	1.8	3.7	3.6	5.4
Version Basic: PREMIUM PRO-EX ... with 1.5 m lift	Order No.	G10320	G10321	G10322	G10323	G10324	G10325
Version Medium: PREMIUM PRO-EX ... with 1.5 m lift	Order No.	G10326	G10327	G10328	G10329	G10330	G10331
Add. lifting height per m Basic / Medium	Order No.	G10332	G10333	G10334	G10335	G10336	G10337
Version High: PREMIUM PRO-EX ... with 1.5 m lift	Order No.	G10338	G10339	G10340	G10341	G10342	G10343
Add. lifting height per m High	Order No.	G10344	G10345	G10346	G10347	G10348	G10349

* Grade 100



Lever hoist PLANETA – PREMIUM PRO-



Safety brake with two stainless steel pawls



Large, non-slip hand wheel



Integrated chain guide



Reversing lever with free-running mode



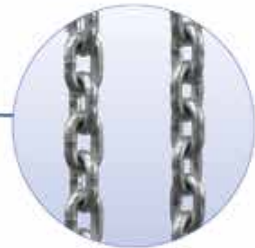
Chromed steel plate housing



Extra-secure handle



Drop-forged load hook with closed and fitting safety latch



Tempered and galvanized load chain acc. DIN EN 818-7-T or stainless steel for high version



Chain end piece with robust plastic design

Ex-proof manual chain hoists



PREMIUM PRO-EX 2 t

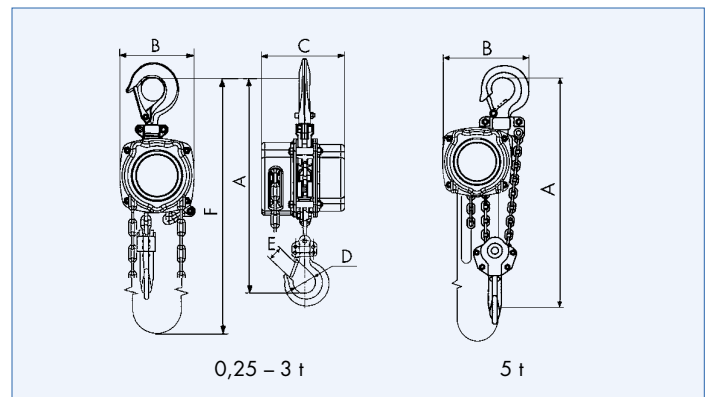
PREMIUM PRO with EX-protection

The PREMIUM PRO-EX gets a very special surface treatment and has some changes in design that allows you to use the manual chain hoist in explosion hazardous areas. It accords to EC-guide lines 94/9/EG (ATEX-standards).

Three explosion classes are specified. We offer the versions Basic, Medium and High. Please ask us for more detailed informations in case of doubts.

All around galvanization and chromatisation

Mud and dirt cannot harm this hoist! This protection begins with self-locking galvanized castle nuts, goes over bronze wheels and rustfree chains and ends with fully chromated housing parts. Overload protection in 0.5 t capacity hoist and bigger, supplied with ATEX-Certificate!



1 m more operation length	Capacity	Order No.
Hand chain Basic/Medium	0.5 - 10 t	G50032
Hand chain High	0.5 - 10 t	G50033

TYPE	PREMIUM PRO-EX...	0,25	0,5	1	1,5	2	3	5	10
Capacity Basic/Medium	t	0.25	0.5	1	1.5	2	3	5	10
Capacity High	t	0.25	0.5	1	1.25	1.25	2	3.2	6.4
Standard lift	m	3	3	3	3	3	3	3	3
Min. Headroom (A)	mm	259	309	373	460	460	553	630	900
Hand chain force	daN	22	24	30.5	36	36	37	39	39.5
Hand chain operation length	m	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Number of chain falls		1	1	1	1	1	1	2	3
Chain size	mm	4 x 12	5 x 15	6 x 18	8 x 24	8 x 24	10 x 30	10 x 30	10 x 30*
B (Dimensions)	mm	95	114	152	190	190	240	240	391
C	mm	99.4	110	139	150	150	158	158	166
D	mm	30	33	40	52	52	62	72	85
E	mm	22	22	28	33	33	37	44	60
F	mm	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Weight with standard lift	kg	4.2	5.7	10.8	16.8	17.1	26.2	40	62
Weight per m additional lift	kg	0.35	0.55	0.78	1.4	1.4	2.2	4.4	8.8
Version Basic: PREMIUM PRO-EX ... with 3 m lift	Order No.	G10360	G10361	G10362	G10363	G10364	G10365	G10366	G10367
Version Medium: PREMIUM PRO-EX ... with 3 m lift	Order No.	G10368	G10369	G10370	G10371	G10372	G10373	G10374	G10375
Add. lifting height per m Basic / Medium	Order No.	G10270	G10271	G10242	G10243	G10243	G10272	G10246	G10247
Version High: PREMIUM PRO-EX ... with 3 m lift	Order No.	G10376	G10377	G10378	G10379	G10380	G10381	G10382	G10383
Add. lifting height per m High	Order No.	G50024	G50025	G50026	G50027	G50028	G50029	G50030	G50031
Chain bag up to 3 m lift**	Order No.	H10164	H10164	H10165	H10165	H10166	H10166	-	-

* Grade 100 by versions Basic and Medium.

** Chain bag (plastic) up to 3 m lift. Chain bag up 6 t (steel plate) on request.

More capacities on request.

Ex -proof manual chain hoists



Safety brake with two stainless steel pawls



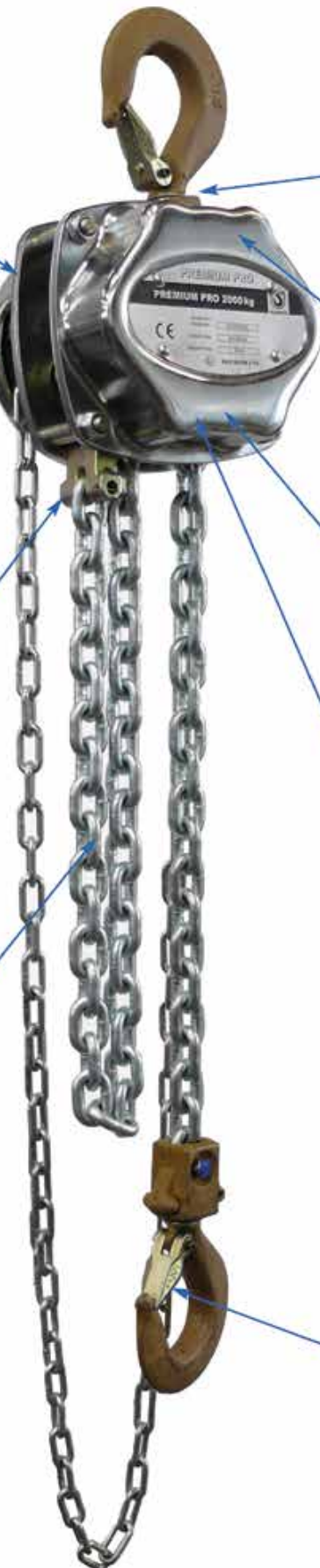
Standard overload protection (over 500 kg)



Chain mounting for lower terminal link



Tempered and galvanized load chain acc. DIN EN 818-7-T or stainless steel for high version



Swivelling top and bottom hook



Chrome plated housing for best corrosion protection



High quality spur gears



Ball bearing mounted sprocket shaft



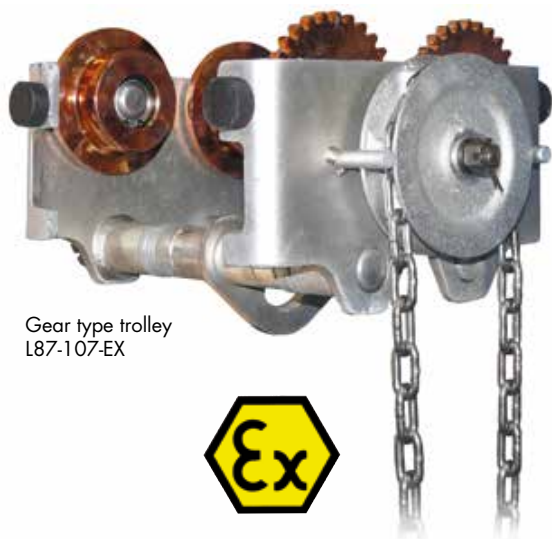
Drop-forged load hook with closed and fitting safety latch

Ex-proof trolleys

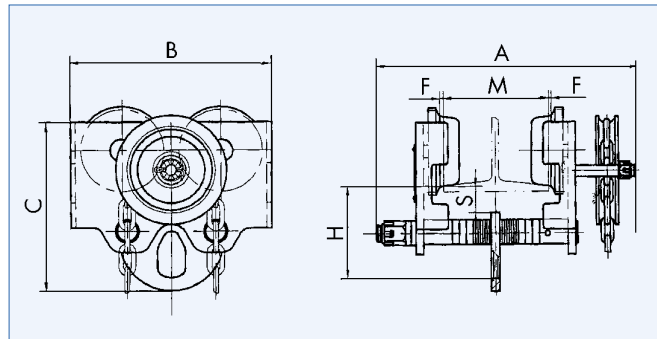
L87-Trolleys

L87-trolleys are manufactured in a higher quality for a very rough and unusual use. The trolleys have outstanding corrosion protection. All steel parts are electrolytically zinc plated.

The chain hoists PREMIUM PRO-EX of the same capacity as the trolley fits easily into the lugs with their top hook. Trolleys have rubber buffers at both sides!



Gear type trolley
L87-107-EX



Ball bearings

There are life-time lubricated ball bearings of high quality with seals inside the cast iron wheels. Their ball shaped surfaces offer a smooth and quiet run on any beam flange construction.

Wide adjustment for any flange width

Discs of different thicknesses are on the carrying bolts that allow to make the distance between side plates shorter or longer by exchanging them from outside to inside.

There are two main bolt lengths. The standard bolts are adjustable for normal width. Bolts of size 2 offer more possibilities up to beam flange sizes on HE-B-beams with 300 mm width. Prefer this when unclear for what kind of work you will use them.

Double safety

Climb stop on both side of the beam flange hinders the trolley to climb up the beam and prevents from falling down.

Right angled side plates work as wheel shaft breakage protection, falling down protection and beam flange cleaner.

Sturdy side plates

The load is balanced by two carrying bolts on all four wheels because the castle nuts tie only one side.

This gives the bolts a bit of tolerance for movement and equalizes unproper beam flanges.

EX-protection version

Trolleys for use in environments with explosion danger (so-called ex-proof areas) are equipped with special treated wheels and sparkfree hand chains for EX-areas up to **Ex-Zone 1 II 2 G IIC T4**. The trolleys accord to EC-Machine Directive 94/4/EG (Atex-guide lines).

TYPE	Gear type trolley L87-107-EX...	0,5	1	2	3	5
Capacity	t	0.5	1	2	3	5
Flange width M min. - max.	mm	50 – 203	64 – 203	88 – 203	100 – 203	114 – 203
Min. curve radius	m	0.8	0.9	1	1.2	1.3
Hand chain operation length	m	2.5	2.5	2.5	2.5	2.5
A (Dimensions)	mm	272	334	343	357	373
B	mm	194	236	268	322	362
C	mm	158	196	226	266	301
H	mm	75	96	110	122	142
S	mm	30	38	38	40	42
F	mm	2	2	2	3	3
Weight	kg	10	14	22	34.5	47
L87-107-EX with 2.5 m operation length	Order No.	G20250	G20251	G20252	G20253	G20254
Larger flange width min. - max.	mm	64 – 305	64 – 305	88 – 305	100 – 305	114 – 305
	Order No.	G20111	G20112	G20113	G20114	G20115
Additional hand chain operation length/m	Order No.	G20117	G20117	G20117	G20117	G20117

More capacities upon request.


-proof trolleys

SUPER-Corrosion protection (Basic/Medium)

HD3N-trolleys have outstanding corrosion protection. All steel parts are electrolytically zinc plated. This is a must in wet rooms and in very aggressive environment. Larger flange width (size 2 - 4) are optional. Wheels fit flat and also tapered flanges!

Capacities up to 25 t on request.

EX-protection version (High)

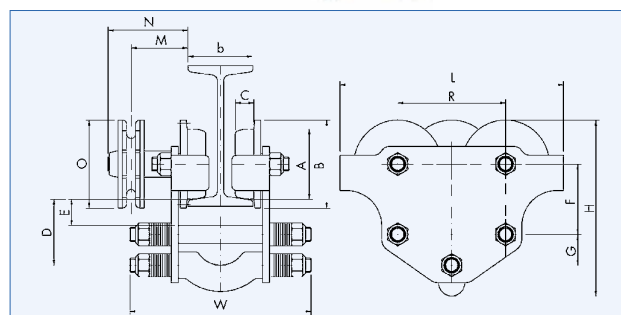
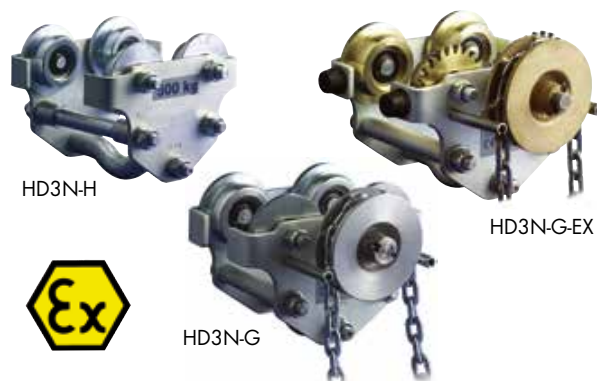
Trolleys for use in environments with explosion danger (so-called ex-proof areas) are equipped with bronze wheels and sparkfree hand chains for EX-areas **up to -Zone 1 II 2 G IIC T4.**

The trolleys accord to EC-Machine Directive 94/4/EG (Atex-guide lines).

Many special version upon request.

- Person transporting trolleys - acc. EN 1808 up to 4 t capacity
- Flame zinc plating
- NIROSTA - trolleys up to 3 t (non-corrosive steel)

1m more operation length	Order No.
Standard zinc plated (2.5 m total)	G20118
V2A (EX) rustfree (2.5 m total)	G20119



TYPE	Push trolley HD3N-H...	0,5	1	2	3,2	5	6,3	8	10	12,5
TYPE	Gear type trolley HD3N-G...	-	1	2	3,2	5	6,3	8	10	12,5
Capacity	t	0.5	1	2	3.2	5	6.3	8	10	12.5
Maximum weight of hoist	kg	100	120	250	150	300	200	550	600	150
Flange width b	min. / max. Size 1 mm	55/102	55/102	74/127	90/143	106/156	106/156	Fix (119 min.)	Fix (131 min.)	Fix (143 min.)
	min. / max. Size 2 mm	105/152	105/152	127/180	149/203	160/210	160/210			
	min. / max. Size 3 mm	-	156/203	190/243	203/254	210/260	210/260			
	min. / max. Size 4 mm	-	207/254	254/305	251/305	255/305	255/305			
Hand chain force	daN	-	10	16	20	20	25	16	19	23
Hand chain operation length	m	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Min. curve radius	m	1	1.5	1.6	2	2.9	2.9	3.5	3.5	3.5
A (Dimensions)	mm	45	60	80	100	125	125	160	160	160
B	mm	60	75	100	120	150	150	190	190	190
C	mm	15	18	22	25	30	30	35	35	35
D	mm	52	60	75	90	117	117	145	145	145
E	mm	15	20	27	35	40	40	45	45	45
F	mm	45	60	80	100	120	120	145	145	145
G	mm	30	30	35	40	60	60	80	80	80
H	mm	125	150	195	235	295	300	365	370	375
L	mm	150	190	255	300	375	375	450	450	450
M	mm	-	65	65	70	100	100	115	115	115
N	mm	-	90	90	95	130	130	135	135	135
O	mm	-	100	100	100	135	135	270	270	270
W	Size 1 mm	160	170	215	250	275	275	b + 150	b + 150	b + 150
	Size 2 mm	210	220	265	310	330	330			
	Size 3 mm	-	270	330	360	380	380			
	Size 4 mm	-	325	390	410	425	425			
R	mm	75	99	123	144	174	174	220	220	220
Weight HD3N-H	kg	3	5	11	18	33	35	85	90	95
Weight HD3N-G	kg	-	6	12	19	35	36	90	95	100
Version Basic/Medium	Order No.	G20120	G20121	G20122	G20123	G20124	G20125	G20126	G20127	G20128
Version High	Order No.	G20130	G20131	G20132	G20133	G20134	G20135	G20136	G20137	G20138
Version Basic/Medium	Order No.	-	G20141	G20142	G20143	G20144	G20145	G20146	G20147	G20148
Version High	Order No.	-	G20151	G20152	G20153	G20154	G20155	G20156	G20157	G20158
Larger Flange width size 2 - 4	Order No.	G20160	G20161	G20162	G20163	G20164	G20165	-	-	-
Flame zinc plating	Order No.	G20170	G20171	G20172	G20173	G20174	G20175	G20179	G20177	G20178

Air chain hoists



TCR 3000P
with
Pendant control



TCR 1000C2
with
Rope control

In compliance with EX-Zone-Classes
EN 50 014 and newest EC-Machinery
Directive 94/4/EG (ATEX- guide lines).

TYPE	LIFTMASTER TCR...	250C/P	500C/P	1000C2/P	1000C/P	2000C2/P	3000C/P
Capacity (Air pressure 6 bar - 1Bm)	t	0.25	0.5	1	1	2	3
Lifting speed without load	m/min	20.5	20.5	10.3	11.3	5.7	5.4
Lifting speed with full load	m/min	10.5	10.5	5.3	6	3	2.8
Lowering speed without load	m/min	13.4	13.4	6.7	6.8	3.4	3.3
Lowering speed with full load	m/min	17.9	17.9	9	10.3	5.2	4.6
Air consumption with full load	l/sec	25	25	25	25	25	33
Number of chain falls		1	1	2	1	2	1
Air inlet R	inch	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
Chain size (diameter)	mm	6.3 x 19.1	6.3 x 19.1	6.3 x 19.1	7.1 x 21	7.1 x 21	11.2 x 34
Weight with standard lift	kg	31	31	34	35	40	69
TCR... with 3m lift with rope control	Order No.	H10001	H10002	H10003	H10004	H10005	H10006
TCR... with 3m lift with pendant control	Order No.	H10015	H10016	H10017	H10018	H10019	H10020
Add. lift per meter	Order No.	H10029	H10029	H10030	H10031	H10032	H10033
Maintenance unit	Order No.	H10054	H10054	H10054	H10054	H10054	H10055
Chain bag (plastic) to 3 m lift	Order No.	H10057	H10057	H10058	H10058	H10058	H10059
Add. air powered trolley DLK	Order No.	H10044	H10052	H10053	H10099	H10045	H10046

TYPE	LIFTMASTER TCR...	6-C2/P2	10-C2/P2	12-C4/P4	15-C5/P5	20-C4/P4	25-C2/P2
Capacity (Air pressure 6 bar - 1Bm)	t	6	10	12	15	20	25
Lifting speed without load	m/min	2.7	2.2	1.4	1.1	1.2	0.7
Lifting speed with full load	m/min	1.4	1.5	0.7	0.6	0.8	0.5
Lowering speed without load	m/min	1.7	1.8	0.8	0.7	0.9	0.5
Lowering speed with full load	m/min	2.3	2.3	1.2	0.9	1.2	0.7
Air consumption with full load	l/sec	33	90	33	33	90	120
Number of chain falls		2	2	4	5	4	2
Air inlet R	inch	1/2"	1"	1/2"	1/2"	1"	1"
Chain size (diameter)	mm	11.2 x 34	16 x 45	11.2 x 34	11.2 x 34	16 x 45	22 x 66
Weight with standard lift	kg	90	190	170	221	470	320
TCR... with 3m lift with rope control	Order No.	H10007	H10008	H10009	H10010	H10011	H10012
TCR... with 3m lift with pendant control	Order No.	H10021	H10022	H10023	H10024	H10025	H10026
Add. lift per meter	Order No.	H10034	H10035	H10036	H10037	H10038	H10039
Maintenance unit	Order No.	H10055	H10055	H10055	H10055	H10056	H10056
Add. air powered trolley DLK	Order No.	H10047	H10048	H10049	H10109	H10050	H10051

TYPE	Order No.
Add. control length rope control / m	H10042
Add. control length pendant control / m	H10043

Chain bag up 6 t (steel plate) on request.

Pneumatic-Special-Oil	Order No.
Content: 2.5 Liter	H20566

Pneumatic air chain hoist LIFTMASTER TCR

The air chain hoist, why?

A hoist cannot be selected solely on the basis of its lifting capacity. Ease of operation, environment, intended use, frequency of use and degree of speed control are important factors that need to be considered. The driving force behind increased use of the LIFTMASTER in the industrial market place is that a growing number of industries are simply finding the many inherent advantages of the LIFTMASTER.

Environment

The air chain hoist LIFTMASTER can be operated in explosive atmospheres and corrosive environments, because the air motor is inherently spark resistant and also extremely resistant to adverse external conditions.

Reliable, trouble free

Overloading will not damage the motor because there is an automatic switch-off over 1 t capacity. Whether you are faced with constant stop-start or continuous operation, you can expect reliable performance.

Variable speed control

Infinitely variable speed control allows for accurate and precise load positioning. You can inch loads into position or increase the speed when accuracy is of less importance.

Smooth starts & stops

Important for operator safety as well as for reducing parts wear and maintenance. Smoother operation leads to less vibration, less stress on parts and a longer unit life.

Compact & lightweight

Small external dimensions and a lightweight construction make the LIFTMASTER hoist ideal for close head room situations and temporary installations.

Very economical

Approximately 1/3 of the cost of a wire-rope hoist of the same capacity with same features.

Standard

Height of lift 3 m,

Control length 2 m, use up to

-Zone IIA 3 GD c T4/T5/T6.

Air chain hoists

Air pressure

The LIFTMASTER hoist reaches its nominated performance data at 6 bar flowing air pressure. But it can operate also with only 4 or 5 bar, which decreases the lifting speed by 20 to 30 percent. The SWL will still be lifted. The type series TCR has a wide capacity spectrum from 250 kg up to 100 tons upon request. All hoists have an excellent relation between price and performance. They are infinitely adjustable in lifting and lowering speed and can work continuously. The pull chain control is even better in speed regulation than the push key control because it works directly on the inside main valve. The TCR is also available with special chains from sparkproof material and hooks can be treated with bronze plating. Please ask for our assistance to choose the correct option.

Air powered trolley

There are air powered and gear type trolleys available for all capacities of LIFTMASTER. Please inquire!

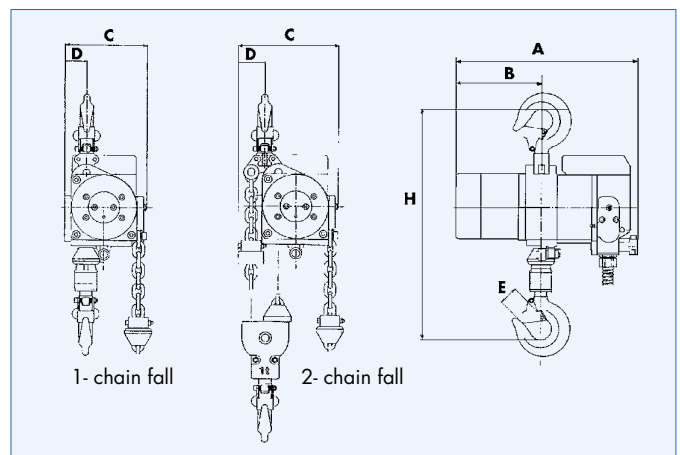
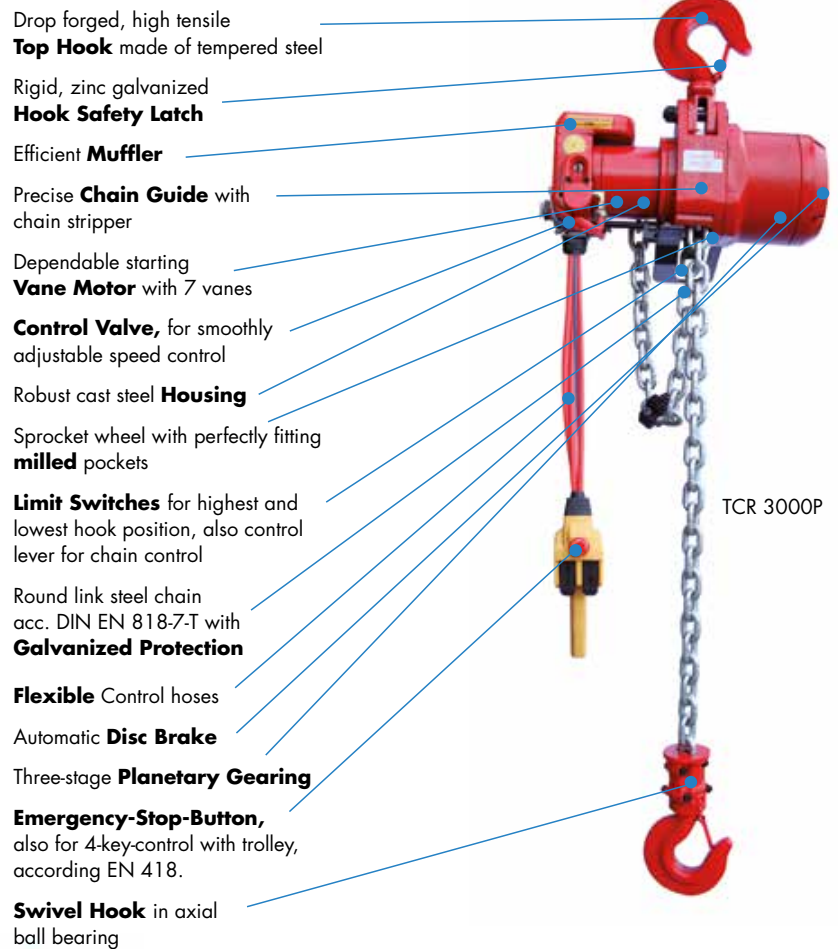


Air powered trolley DLK



10 t

25 t



TYPE	TCR...	A	B	C	D	E	H
TCR 250 C/P		342	156	149	52	29	462
TCR 500 C/P		342	156	149	52	29	462
TCR 1000 C2/P2		342	156	180	47	29	519
TCR 1000 C/P		342	156	157	40	29	466
TCR 2000 C2/P2		342	156	194	50	29	580
TCR 3000 C/P		449	202	245	47	34	580

TYPE	TCR...	A	B	C	D	E	H
TCR 6 C2/P2		449	202	275	63	42	690
TCR 10 C2/P2		560	247	445	165	40	890
TCR 12 C4/P5		441	191	520	210	57	900
TCR 15 C5/P5		441	191	480	210	83	900
TCR 20 C4/P4		549	247	230	200	100	1350
TCR 25 C2/P2		710	335	478	165	80	1440

Hoists in trolley on request!

Air chain hoists

Mini-Hoist TCRM/TCS

If you are looking for an excellent technical, flexible and compact air hoist that works under many different situations, now here it is. The new model range TC. This series comprises the new 125 to 990 kg pneumatic chain hoists. The TC is one of the most compact and transportable air chain hoist you can get. The headroom of the TC hoist is only 305 mm (125/250 kg). Although the weight is only 7 kg with inclusive 3 m length of load chain, the air hoist can lift up to 17 meters per minute without any problem. The new TC is available with rope or pendant control including emergency stop. The keys allow optimal control over variable speeds. Use up to **Zone IIA 3 GD c T4/T5/T6**.



Light
Very light weighted aluminium housing



Fast
Lifting speed from 4.5 to 17 m/min with full load



TCRM 250C
(Rope control)



Chain bag
for TCRM



Chain case for TYPE	Size of chain case	Order No.
TCRM 125	up to 12 m chain	H10354
	up to 20 m chain	H10355
TCRM 250	up to 12 m chain	H10354
	up to 20 m chain	H10355
TCRM 500	up to 6 m chain	H10354
	up to 10 m chain	H10355

TYPE	TCR...	M125 C/DP	M250 C/DP	M500 C2/DP2	TCS-500	TCS-980*
Capacity	kg	125	250	500	500	990
Number of chain falls		1	1	2	1	2
Air pressure	bar	6	6	6	6	6
Lifting speed with full load	m/min	14	9.3	4.5	17	8.5
Lifting speed without load	m/min	19	19	9.5	33	16.5
Air consumption	l/s	11.7	11.7	11.7	33	33
Chain dimensions	mm	4 x 12	4 x 12	4 x 12	6.3 x 19	6.3 x 19
Control length	m	2	2	2	2	2
Min. Headroom (H)	mm	305	305	365	414	456
A (Dimensions)	mm	230	230	230	365	365
B	mm	110	110	110	204	204
C	mm	120	120	120	161	161
D	mm	95	95	95	143	173
G	mm	130	130	130	151	173
K	mm	29	29	29	25	29
L	mm	15	15	15	15	29.5
S	mm	35	35	35	31	37
T	mm	60	60	60	112	136
Weight with standard lift	kg	7	7	8.5	15.9	16.8
Weight for 1 m additional lift	kg	0.35	0.35	0.7	0.9	1.8
TCR/TCS... with 3 m lift and rope control	Order No.	H10070	H10071	H10072	H10088	H10108
TCR/TCS... with 3 m lift and pendant control	Order No.	H10073	H10074	H10075	H10098	H10118
Additional lift per meter	Order No.	H10076	H10076	H10077	H10069	H10128

* Equipped with chain case up to 4 m lifting height.

Small air rope hoists

Air rope hoist LIFTMASTER EHW

Mobile application

The pneumatic rope hoist LIFTMASTER EHW is a practical addition to the TC chain hoist program. This model is ideal for small load up to 120 kg that must be moved quite often. All hoists are equipped with a high-tensile steel rope which is spooled on a drum inside of the hoist body. Only up to **II 2 G D II B T 5 (X)**.

Two types of control

The EHW types are hand guided and have their control direct at the hoist body that allows one hand of operator to be free for other actions. The EHW-R hoists have a separate push key pendant control with one red emergency shut-off mushroom button that ensures safety and complies with CE-regulations.

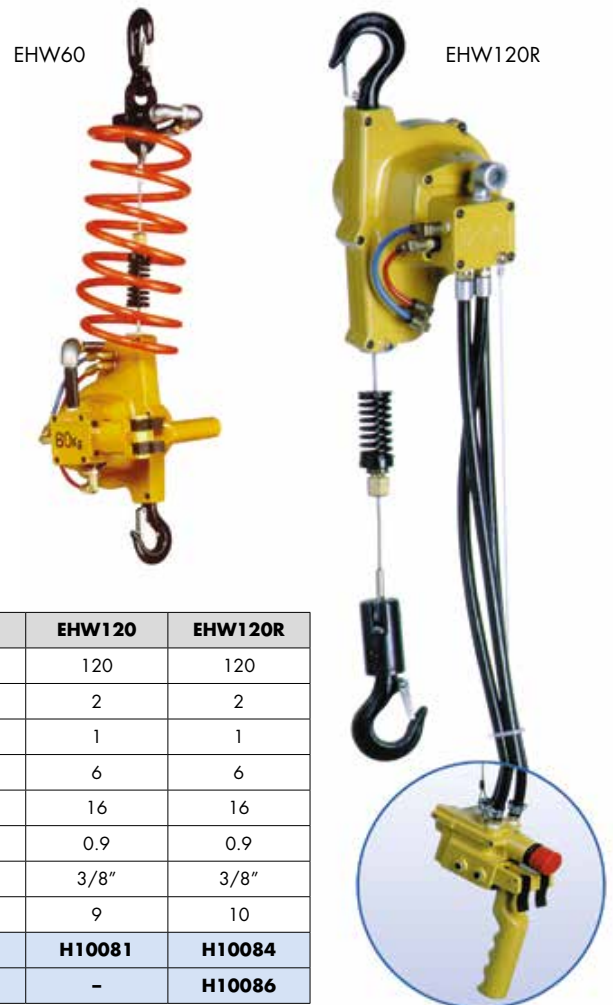
Automatic Brake

All hoists have a fail-safe automatic disc brake which holds the load in any position even if the air supply fails.

Versatility of Service

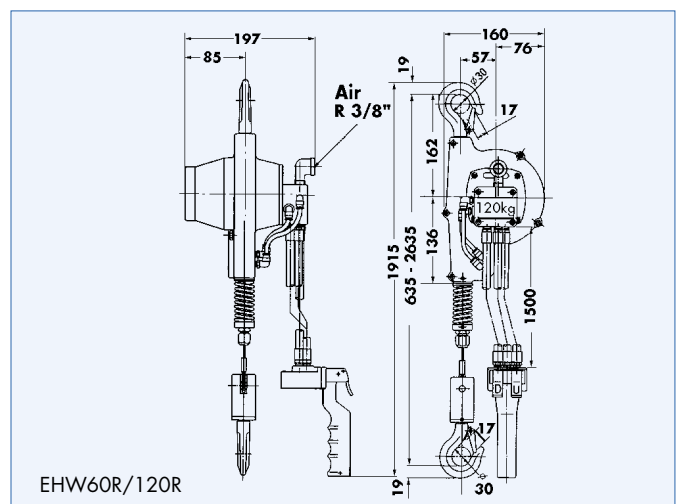
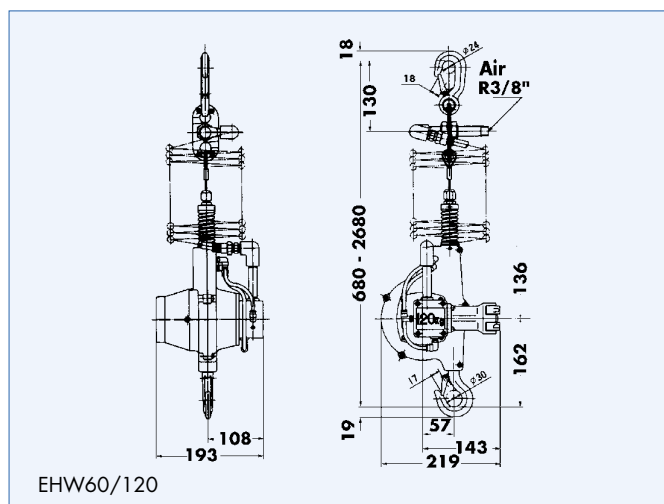
These hoist are perfectly used at pack tables, for lifting of barrels, bundles, parcels, over machine tools in slewing cranes etc. The hoists switch off automatically in highest and lowest hook position. Interesting is the combination with a pneumatic vacuum lifter, whereby both units can be served through one common air line. All hoists have a standard 2-meter rope which fits onto the drum.

That is sufficient in most cases. However if you need a longer rope, perhaps to allow a higher suspension of the type EHW-R, we can extend the rope. But this additional length cannot be spooled on the drum. The control hoses can be made longer up to 10 m. The air pressure shall be max. 6.3 bar, but it can drop to 4 bar and the hoist still lifts its rated capacity, only much slower.



TYPE		EHW60	EHW60R	EHW120	EHW120R
Capacity	kg	60	60	120	120
Standard lift	m	2	2	2	2
Number of rope strands		1	1	1	1
Air pressure	bar	6	6	6	6
Lifting speed with full load 0 -	m/min	26	26	16	16
Air consumption	m ³ /min	0.9	0.9	0.9	0.9
Air inlet R	inch	3/8"	3/8"	3/8"	3/8"
Weight with standard lift	kg	9	10	9	10
EHW... with standard rope length	Order No.	H10080	H10083	H10081	H10084
Longer control hoses per meter	Order No.	-	H10086	-	H10086

More capacities on request.



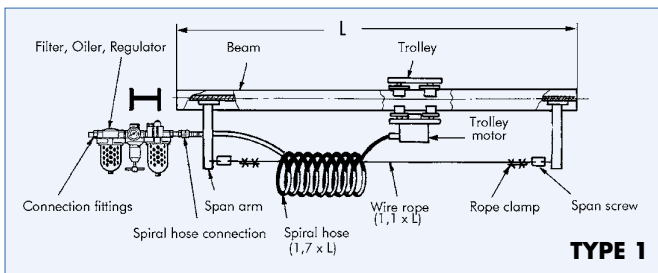
Air supply

TYPE 1: Spiral hose

Beam length up to 10 m are best to serve with a spiral hose for air supply. A rope is spanned parallel to the beam between two holding arms. The spiral hose winds around it. The plastic hose acts like a spiral spring, gets longer or shorter with the moving trolley.

Complete set for 3 meter beam drive:

Spiral hose with reserve (1.7 x L), twistable connections with male thread, 2 span arms, wire rope with reserve, 4 rope clamps and 2 span screws. The maintenance unit (filter, lubricator, regulator) should be fixed as near as possible to the trolley. Short beams may have it at the beginning of the beam.



TYPE 2: Drag hose

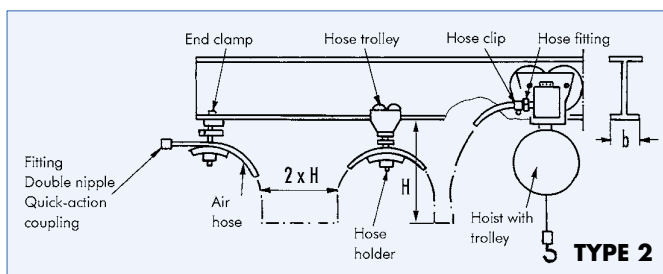
Pulling the air hose behind the trolley is the easiest way to bring air to the hoist. Small plastic trolleys carry the hose in certain distance behind the trolley. The hose hangs normally one meter down. So one hose carrier is needed each two meters. The hose is transparent with a strengthening textile inlet. It stands a pressure up to 15 bar. Water and oil cannot harm it. Since the trolleys are pushed together when the train comes into end position, the beam must be a little bit longer.

Complete set

The beside mentioned order number includes all accessory for a beam length of 3 m. In details: air hose plus 3 meter addition for leading down to the ground where a ball valve cuts air supply off. Plastic trolleys, end clamp, nipples end other fittings. If the hose shall be detachable, a quick-acting coupling shall be ordered.

ATTENTION:

Driving through curves need special equipment. Please inquire!



TYPE 3: C-track

A C-track is the most comfortable air supply. The total beam length can be used for driving. This type is mostly used with slewing cranes because the complete length of swing arm is necessary to

drive on. Here the holding arm of C-rack can be fixed easily what is difficult in opposite under the ceiling in case of a double T-beam. C-tracks are available in lengths of 6 m. They are added with combiners to longer rails.

Complete set

The beside mentioned order number includes all accessory for a beam length of 3 m. In details: air hose plus 3 meter addition for leading down to the ground, where a ball valve cuts air supply off. Three holding arms, connection clamps, screws, C-rail holder, C-rails in 2 m length, C-rail connectors, first trolley leading arm, hose clamps, fittings.

All metal parts are zinc plated.

Remind when ordering that hoses have the correct diameter.

Choose one size bigger in case that hoses are longer than 10 m.

The longer the hose, the deeper the pressure drops.

Hoists need minimum 5 bar FLOWING pressure during operation.

Each quick-acting coupling, every pipe bow, all valves etc.

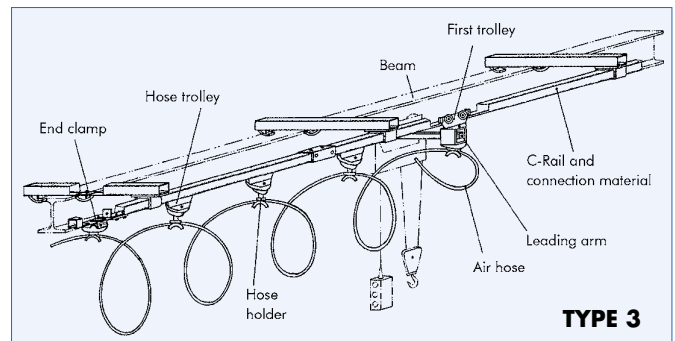
reduce flow pressure. Even when static pressure is 6 bar before

operation, the flow pressure is a result of air friction in hoses and

fittings and other users of the same ring pipe line. Keep an eye

on your pressure gauge! A bad performance of air hoist is for 99%

a result of wrong air supply and too low flow pressure.



TYPE		1	2	3
Standard driving length	m	3	3	3
Complete 1/2 inch	Order No.	H10180	H10181	H10182
1 m more rail length 1/2 inch	Order No.	H10183	H10184	H10185
Complete 3/4 inch	Order No.	H10186	H10187	H10188
1 m more rail length 3/4 inch	Order No.	H10189	H10190	H10191
Complete 1 inch	Order No.	-	H10193	H10194
1 m more rail length 1 inch	Order No.	-	H10196	H10197
Special equipment:				
Quick-action coupling 1/2 inch	Order No.	-	H10199	H10200
Quick-action coupling 3/4 inch	Order No.	-	H10202	H10203
Quick-action coupling 1 inch	Order No.	-	H10205	H10206
Air hose 1/2 inch - 6 bar	Order No.	-	H10208	H10209
Air hose 3/4 inch - 6 bar	Order No.	-	H10211	H10212
Air hose 1 inch - 6 bar	Order No.	-	H10214	H10215
Air hose 1 1/4 inch - 6 bar	Order No.	-	H10217	H10218
Air hose 1 1/2 inch - 6 bar	Order No.	-	H10220	H10221

Ex -proof applications



Electric chain hoist GCH-EX



GCH with standard lug suspension and plastic chain case

Version:
 Type N = Single speed
 Type NF = Two speeds
 Type SF = Fast speed and slow speed
 Type HF = High speed and slow speed

Electric chain hoist PLANETA-GCH-EX with top hook suspension or top lug suspension with contactor control (low voltage)

Housing

- Cast aluminium housing with maximum solidity (no plastic material)
- For extreme working conditions: casted cooling gills

Motor

- Design for tough working conditions
- Normal, fast and super fast speed models available

Speed

- With one or two speeds

Brake

- Maximum safety (construction: brake after slipping clutch)
- New advanced brake design

Capacities

- According ISO (FEM)-classes

Protection

- Isolation class F

Voltage

- Standard is 3-ph-400V-50 Hz
- Other voltages available

Chain wheel

- Made of hardened steel
- With additional chain pockets (4 mm): hence quiet running

Hoisting chain

- Zinc plated acc. DIN EN 818-7-T
- Surface-hardened

Geared limit switch (standard)

- Simple adjustment
- Exact positioning

Contactor control system

- Simple technology (no electronics susceptible to interference)
- 42 V control system allowing highest safety of operation

- For Dust Ex-Zone:

II 3D Ex tc IIIA T130 °C Db

TYPE GCH-EX...	Capacities in kg acc. ISO (FEM)*					Lifting speed with load m/min.	Number of chain falls	Chain size mm	Motor power kW	3 x 400 V 50 Hz (example) A	Weight with 3 m lift kg	Weight each meter add. lift kg	Order No. GCH-EX with 3 m lift	Order No. Add. lift per m**
	M3 (1Bm)	M4 (1Am)	M5 (2m)	M6 (3m)	M7 (4m)									
250/1N	250	200	160	125	100	8	1	4 x 12.3	0.36	1.3	19	0.32	H29500	H20088
250/1NF	250	200	160	125	100	8/2	1	4 x 12.3	0.36/0.09	2.7/3	22	0.32	H29501	H20088
250/1SF	160	125	100	100	100	12.5/3	1	4 x 12.3	0.36/0.09	2.7/3	22	0.32	H29502	H20088
250/1HF	100	100	100	100	100	20/5	1	4 x 12.3	0.36/0.09	2.7/3	22	0.32	H29503	H20088
250/2N	500	400	320	250	200	4	2	4 x 12.3	0.36	1.3	22.5	0.64	H29504	H20089
250/2NF	500	400	320	250	200	4/1	2	4 x 12.3	0.36/0.09	2.7/3	23	0.64	H29505	H20089
250/2SF	320	250	200	200	200	6.25/1.5	2	4 x 12.3	0.36/0.09	2.7/3	23	0.64	H29506	H20089
500/1N	500	400	320	250	200	8	1	5 x 15.3	0.72	2.1	20	0.52	H29507	H20090
500/1NF	500	400	320	250	200	8/2	1	5 x 15.3	0.72/0.18	2.9/3	22.5	0.52	H29508	H20090
500/1SF	320	250	200	160	125	12.5/3	1	5 x 15.3	0.72/0.18	2.9/3	22.5	0.52	H29509	H20090
500/1HF	200	160	125	100	100	20/5	1	5 x 15.3	0.72/0.18	2.9/3	22.5	0.52	H29510	H20090
500/2N	1000	800	630	500	400	4	2	5 x 15.3	0.72	2.1	24.5	1.04	H29511	H20091
500/2NF	1000	800	630	500	400	4/1	2	5 x 15.3	0.72/0.18	2.9/3	25	1.04	H29512	H20091
500/2SF	630	500	400	320	250	6.25/1.5	2	5 x 15.3	0.72/0.18	2.9/3	25	1.04	H29513	H20091
1000/1N	1000	800	630	500	400	8	1	7 x 22	1.45	3.7	45	1.04	H29514	H20093
1000/1NF	1000	800	630	500	400	8/2	1	7 x 22	1.45/0.36	4.0/2.8	46	1.04	H29515	H20093
1000/1SF	500	400	320	250	200	16/4	1	7 x 22	1.45/0.36	5.8/2.6	48	1.04	H29516	H20093
1000/2N	2000	1600	1250	1000	800	4	2	7 x 22	1.45	3.7	50	2.08	H29517	H20094
1000/2NF	2000	1600	1250	1000	800	4/1	2	7 x 22	1.45/0.36	4.0/2.8	51	2.08	H29518	H20094
1000/2SF	1000	800	630	500	400	8/2	2	7 x 22	1.45/0.36	5.8/2.6	53	2.08	H29519	H20094
1600/1N	1600	1250	1000	800	630	8	1	9 x 27	2.44	6.0	63	1.75	H29700	H20095
1600/1NF	1600	1250	1000	800	630	8/2	1	9 x 27	2.44/0.61	6.6/4.2	65	1.75	H29701	H20095
1600/1SF	1000	800	630	500	400	12.5/3	1	9 x 27	2.39/0.58	6.6/4.2	65	1.75	H29702	H20095
1600/2N	3200	2500	2000	1600	1250	4	2	9 x 27	2.44	6.0	73	3.5	H29703	H20096
1600/2NF	3200	2500	2000	1600	1250	4/1	2	9 x 27	2.44/0.61	6.6/4.2	75	3.5	H29704	H20096
1600/2SF	2000	1600	1250	1000	800	6.25/1.5	2	9 x 27	2.39/0.58	6.6/4.2	75	3.5	H29705	H20096

* ISO (FEM) classification: Quantity of starts at pendant control per hour

- M3 (1Bm) = 150 starts per hour, 25% duty cycle
- M4 (1Am) = 180 starts per hour, 30% duty cycle
- M5 (2m) = 240 starts per hour, 40% duty cycle
- M6 (3m) = 300 starts per hour, 50% duty cycle
- M7 (4m) = 360 starts per hour, 60% duty cycle

** Load chain and control cable

Electric chain hoist GCH-EX

TYPE GCH-EX...	Capacities in kg acc. ISO (FEM)*					Lifting speed with load m/min.	Number of chain falls	Chain size mm	Motor power kW	3 x 400 V 50 Hz (example) A	Weight with 3 m lift kg	Weight each meter add. lift kg	Order No.	Order No.
	M3 (1Bm)	M4 (1Am)	M5 (2m)	M6 (3m)	M7 (4m)									
2000/1N	2000	1600	1250	1000	800	8	1	10 x 28	3.05	7.3	65	2.25	H29706	H20101
2000/1NF	2000	1600	1250	1000	800	8/2	1	10 x 28	3.05/0,77	8.0/4.5	67	2.25	H29707	H20101
2000/1SF	1250	1000	800	630	500	12.5/3	1	10 x 28	2.98/0.72	8.0/4.5	67	2.25	H29708	H20101
2000/2N	4000	3200	2500	2000	1600	4	2	10 x 28	3.05	7.3	76	4.5	H29709	H20102
2000/2NF	4000	3200	2500	2000	1600	4/1	2	10 x 28	3.05/0.77	8.0/4.5	78	4.5	H29710	H20102
2000/2SF	2500	2000	1600	1250	1000	6.25/1.5	2	10 x 28	2.98/0.72	8.0/4.5	78	4.5	H29711	H20102
2500/1N	2500	2000	1600	1250	1000	6.4	1	10 x 28	3.05	7.7	65	2.25	H29712	H20103
2500/1NF	2500	2000	1600	1250	1000	6.4/1.6	1	10 x 28	3.05/0.77	8.2/4.4	67	2.25	H29713	H20103
2500/1SF	1600	1250	1000	800	630	10/2.5	1	10 x 28	3.05/0.77	8.2/4.4	67	2.25	H29714	H20103
2500/2N	5000	4000	3200	2500	2000	3.2	2	10 x 28	3.05	7.7	76	4.5	H29715	H20104
2500/2NF	5000	4000	3200	2500	2000	3.2/0.8	2	10 x 28	3.05/0.77	8.2/4.4	78	4.5	H29716	H20104
2500/2SF	3200	2500	2000	1600	1250	5/1.25	2	10 x 28	3.05/0.77	8.2/4.4	78	4.5	H29717	H20104

** Load chain and control cable

Chain case* for TYPE	Size of chain case	Version	Order No.
GCH-EX 250	up to 8 m Chain	Plastic	H20754
	up to 16 m Chain	Plastic	H20755
	up to 25 m Chain	Textile	H20756
GCH-EX 500	up to 6 m Chain	Plastic	H20754
	up to 12 m Chain	Plastic	H20755
	up to 20 m Chain	Textile	H20756
GCH-EX 1000	up to 8 m Chain	Plastic	H20757
	up to 35 m Chain	Textile	H20758
GCH-EX1600	up to 20 m Chain	Textile	H20758
GCH-EX 2000 / 2500	up to 15 m Chain	Textile	H20758

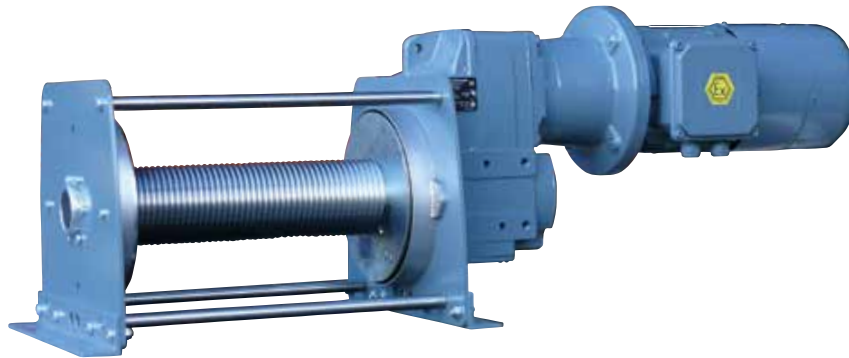
* Only in combination with electric chain hoist/trolley
 More sizes for higher lifts upon request!

Hook mounting* for GCH-EX	Order No.
TYPE 250 / TYPE 500	H29760
TYPE 1000	H29761
TYPE 1600 / TYPE 2000 / TYPE 2500	H29762

* Only in combination with electric chain hoist/trolley



Electric rope winch PFW-EX



Electric rope winch PFW-EX

With a load bearing capacity from 250 to 3000 kg this electrical cable winch with its modular construction principle is one of the most modern devices for pulling, lifting and moving loads. With its extensive range of configuration and finishing options it can be adapted to suit almost any installation situation.

The PFW-EX version is built according to the CE directive 2006/42/EC and European ATEX-guidelines 94/9/EC.

With its special equipment and configuration these winches may be used in areas at risk of explosion.

Made in Germany

The PFW range combines a modern design, innovative technology and superlative components, which are produced exclusively in Germany. Prior to shipping, each winch is tested dynamically with 125% of the nominal load and leaves our factory with a 24 month guarantee.

Equipment

- Electrical control in pressure-resistant casing
EX II 2 GD de IIB T4 T 135°C
- Standard Protection Classification IP55 with isolation F
- Standard ambient temperature from -10°C to +40 °C
- Standard mechanism group acc. FEM 1.001: M3 (1Bm)
- Standard supply voltage of 3 PH / 400 Volt / 50 Hz

- Contactor control available for areas at risk of explosion or standard version for installation in safe areas to combine safe equipment with price advantages
- Pendant remote control and radio remote control available for areas at risk of explosion

Available options

- Grooved drum with drum length on customer demand for higher rope storage and better spooling
- Different voltage and frequency
- Adjustable speed with frequency converter
- Free spooling clutch
- Special paintings and higher protection class of electrical equipment for outdoor and offshore applications
- Drum pressure roller
- Multi rope exits or drum divider
- Drum cover
- Limit switches according to ATEX guidelines
- Overload protection
- Special ropes with bronze coated hooks or solid steel version

Classification

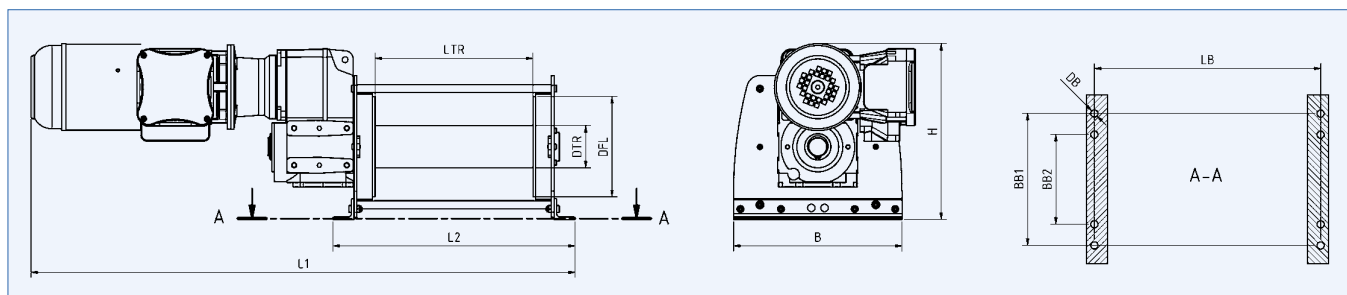
EX II 2 GD de IIB T4 T 135°C

Basic design

TYPE	PFW-1D-EX	250	500	750	1000	1500	2000	3000
Lifting capacity in 1st rope layer	kg	250	500	750	1000	1500	2000	3000
Lifting capacity in 5th rope layer	kg	160	320	480	640	950	1270	1920
Rope diameter	mm	5	6	7	8	10	12	14
Rope length in 1st rope layer	m	11	11	11	10	10	9	9
Rope length in 5th rope layer	m	75	75	75	75	75	75	75
Expansion every 100 mm extended drum 1st/5th layer	ca. m	4/25	4/25	4/25	4/25	4/25	4/25	4/25
Rope speed in 1st rope layer	ca. m/min	8	8	8	8	8	8	8
Rope speed in 5th rope layer	ca. m/min	12	12	12	12	12	12	12
Motor power	kW	0.37	0.75	1.1	1.5	2.1	2.6	4
PFW-1D-EX with standard speed	Order No.	H62501	H62511	H62521	H62531	H62541	H62551	H62561

Electric rope winch PFW-EX

Dimensions and weights – PFW-1D-EX



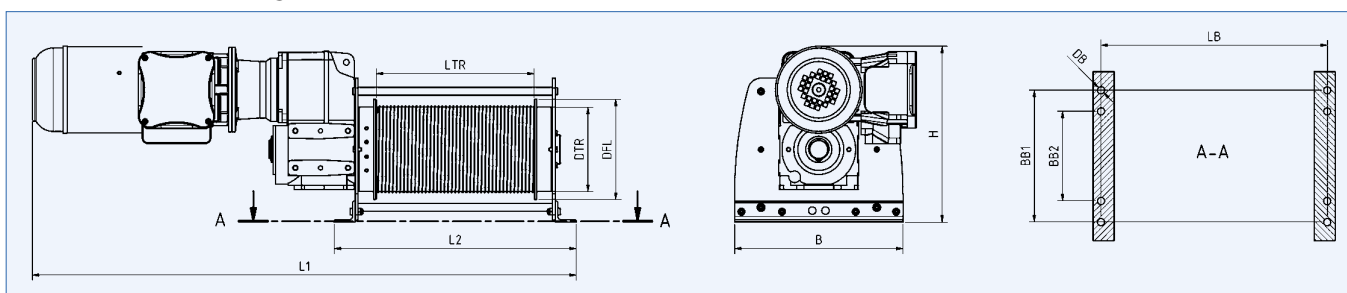
TYPE	PFW-1D-EX	250	500	750	1000	1500	2000	3000
L1*	ca. mm	1000	1050	1070	1160	1180	1300	1350
L2	mm	460	460	460	500	500	570	570
B	mm	270	320	360	400	460	550	620
H	ca. mm	310	340	420	460	550	630	690
LTR	mm	300	300	300	300	300	300	300
DTR	mm	65	80	92	105	130	155	185
DFL	mm	155	190	220	250	310	370	430
LB	mm	430	430	430	460	460	520	520
BB1	mm	220	250	310	350	410	500	560
BB2	mm	–	–	–	220	280	320	380
DB	mm	13.5	13.5	13.5	13.5	13.5	17.5	17.5
Weight without accessories	ca. kg	35	60	75	110	155	240	380

* Length can vary according to configuration.

Double diameter drum

TYPE	PFW-2D-EX	250	500	750	1000	1500	2000	3000
Lifting capacity in 1st rope layer	kg	125	250	375	500	750	1000	1500
Rope diameter	mm	5	6	7	8	10	12	14
Rope length in 1st rope layer	m	20	20	20	20	19	18	17
Expansion every 100 mm extended drum 1st layer	ca. m	7	7	7	7	7	7	7
Rope speed in 1st rope layer	ca. m/min	15	15	15	15	15	15	15
Motor power	kW	0.37	0.75	1.1	1.5	2.1	2.6	4
PFW-2D-EX with standard speed	Order No.	H62601	H62611	H62621	H62631	H62641	H62651	H62661

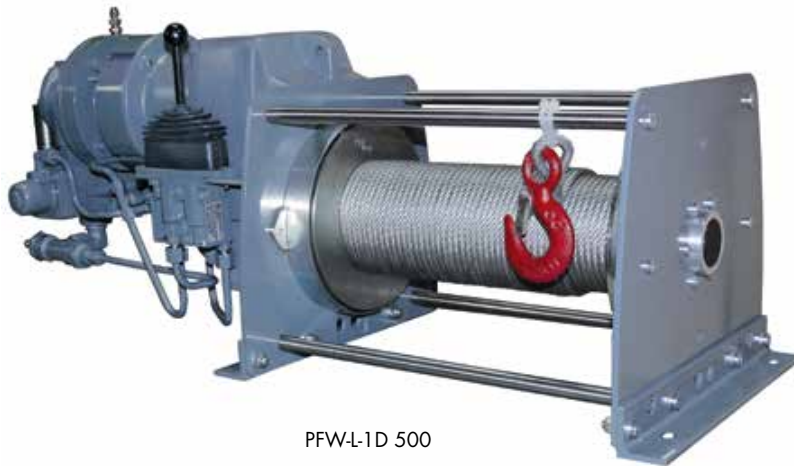
Dimensions and weights – PFW-2D-EX



TYPE	PFW-2D-EX	250	500	750	1000	1500	2000	3000
L1*	ca. mm	1000	1050	1070	1160	1180	1300	1350
L2	mm	460	460	460	500	500	570	570
B	mm	270	320	360	400	460	550	620
H	ca. mm	300	340	420	460	550	630	660
LTR	mm	300	300	300	300	300	300	300
DTR	mm	130	160	185	210	260	310	350
DFL	mm	155	190	220	250	310	370	430
LB	mm	430	430	430	460	460	520	520
BB1	mm	220	250	310	350	410	500	560
BB2	mm	–	–	200	220	280	320	380
DB	mm	13.5	13.5	13.5	13.5	13.5	17.5	17.5
Weight without accessories	ca. kg	40	65	85	120	170	280	425

* Length can vary according to configuration.

Pneumatic winch PFW-L



PFW-L-1D 500

Pneumatic winch PFW-L-Series

For pneumatic winch applications, demanding a modular and solid design, this range of explosion proof winches provides the solution.

The use of vane type motors and spring applied pneumatic disc brakes ensures trouble free operation and low maintenance requirements.

These winches find their use in general industry, oil and gas exploration and in many places where compact, explosion proof hoisting gear is required. Because of the modular design of the PFW winch also the pneumatic version can be delivered with advantageous delivery times.

Upon request faster rope speeds are available.

Standard features

- High efficiency spur gear box
- Rotary vane motor with pneumatic fail-safe disc brake
- Steel drum (not grooved) with cable fixing point at flange
- Two drum supports
- Double layer 2 component conservation, colour RAL 5010

Available options

- Manual disengaging clutch
- Grooved drum
- Drum pressure roller
- Alternative speeds
- Alternative drum dimensions / split drums / additional rope anchors / etc.
- Drum guard
- Marine / offshore coating systems
- Proportional control valve, local or remote
- Pneumatic limit switch
- Pneumatic slack wire switch

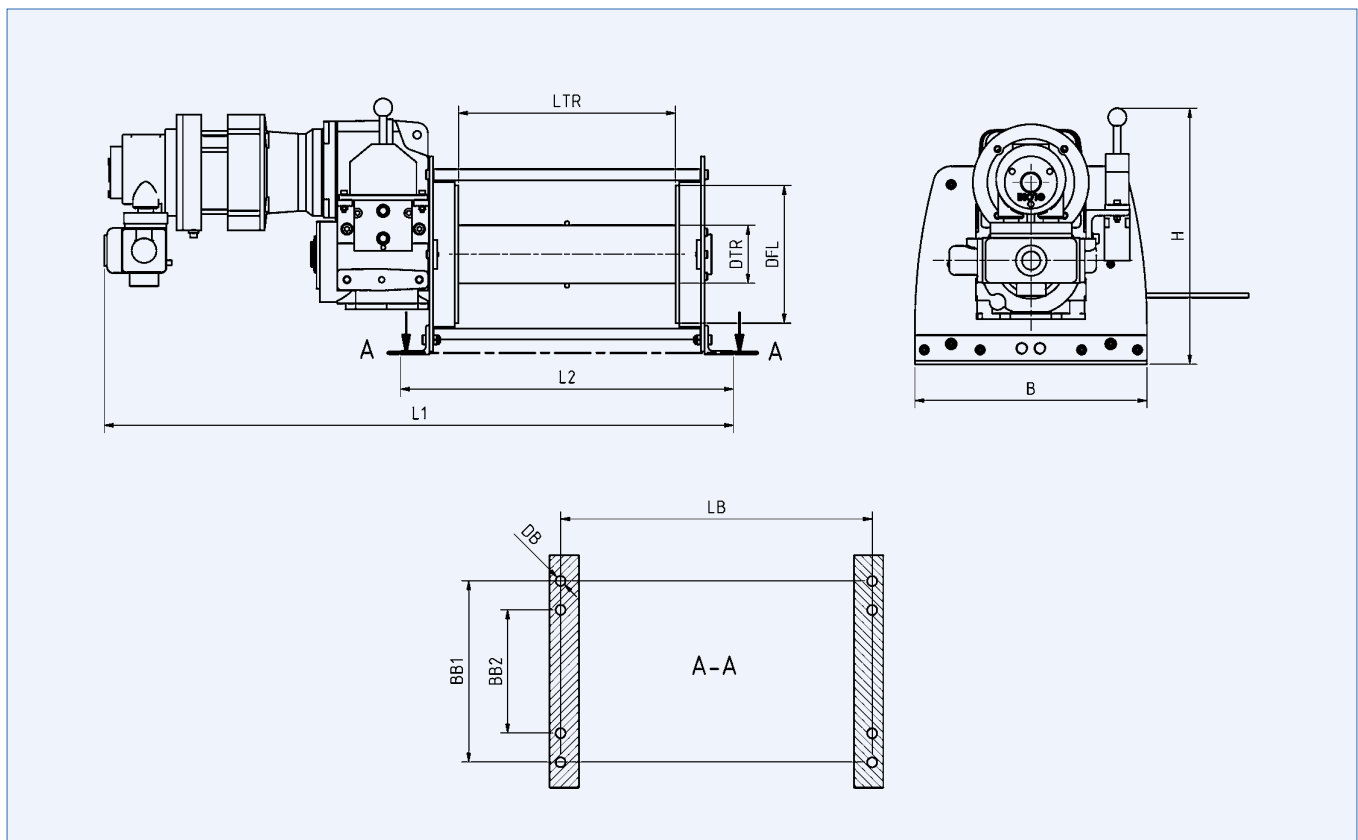
Classification

II 2 GD c T4 135°C

TYPE	PFW-L-1D	500	750	1000	1500	2000	3000
Lifting capacity in 1st rope layer	kg	500	750	1000	1500	2000	3000
Lifting capacity in 5th rope layer	kg	320	480	640	950	1270	1920
Rope diameter	mm	6	7	8	10	12	14
Rope length in 1st rope layer	m	11	11	10	10	9	9
Rope length in 5th rope layer	m	75	75	75	75	75	75
Expansion every 100 mm extended drum 1st/5th layer	ca. m	4/25	4/25	4/25	4/25	4/25	4/25
Rope speed in 1st rope layer	ca. m/min	9	10	8	12	8	5
Rope speed in 5th rope layer	ca. m/min	14	15	13	18	12	8
Motor power	kW	1.8	2.2	2.2	3.5	3.5	3.5
Air pressure	bar	6	6	6	6	6	6
Flow in	l/min	45	55	55	80	80	80
PFW-L-1D with standard speed	Order No.	H62711	H62721	H62731	H62741	H62751	H62761

Pneumatic winch PFW-L

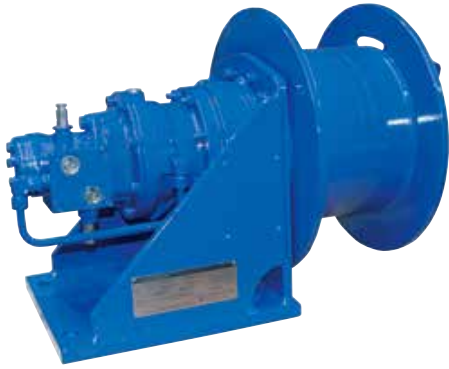
TYPE	PFW-L-2D	500	750	1000	1500	2000	3000
Lifting capacity in 1st rope layer	kg	250	375	500	750	1000	1500
Rope diameter	mm	6	7	8	10	12	14
Rope length in 1st rope layer	m	20	20	20	19	18	17
Expansion every 100 mm extended drum 1st layer	ca. m	7	7	7	7	7	7
Rope speed in 1st rope layer	ca. m/min	18	19	15	22	15	9
Motor power	kW	1.8	2.2	2.2	3.5	3.5	3.5
Air pressure	bar	6	6	6	6	6	6
Flow in	l/min	45	55	55	80	80	80
PFW-L-2D with standard speed	Order No.	H62811	H62821	H62831	H62841	H62851	H62861



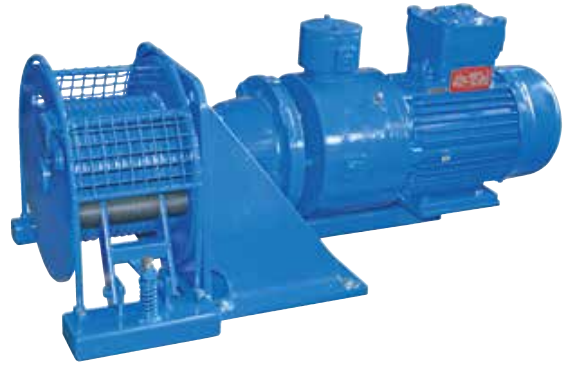
Dimensions and weights

TYPE	PFW-L-1D/ PFW-L-2D	500	750	1000	1500	2000	3000
L1	ca. mm	890	980	1050	1110	1210	1275
L2	mm	460	460	500	500	570	570
B	mm	320	360	400	460	550	620
H	ca. mm	330	410	460	540	620	680
LTR	mm	190	220	250	310	370	430
DTR 1D/2D	mm	80/160	92/185	106/210	130/260	155/310	186/350
DFL	mm	190	220	250	310	370	430
LB	mm	430	430	460	460	520	520
BB1	mm	250	310	350	410	500	560
BB2	mm	-	-	220	280	320	380
DB	mm	13.5	13.5	13.5	13.5	17.5	17.5
Weight	ca. kg	50	80	105	140	230	355

Compact rope winch PLANETA-FD



FD-H with hydraulic motor



FD-E with electric motor

Planetary crane winches FD-Series

Specially designed for applications where space is at a premium, these compact and lightweight lifting winches are ideally suited for installation on cranes, davits and derricks. The single drum support enables the rope to leave the drum at any angle. The heavy duty planetary drive is partly located within and protected by the drum core. The large drum diameters ensure a healthy drum to cable diameter ratio and sufficient working length despite the short drums.

Standard features

- Heavy duty planetary gearbox
- FD E; IP 54 aluminium braked motor 400 VAC / 3 phase/ 50 Hz
- FD H; orbit or radial piston type hydraulic motor complete with brake valve
- FD LPR; radial piston type air motor complete with hand control valve and mufflers
- Steel drum with cable fixing point at flange
- Single drum support
- Double layer 2 component conservation, colour RAL 5010

Available options

- IP 56 TENV cast iron motor for marine applications
- Explosion proof motors
- Protective steel motor cover
- Drum pressure roller
- Alternative speeds
- Alternative supply voltages
- Drum guards
- Marine / offshore coating systems
- Tubular offshore frame construction with lifting eyes

Available control options

- Control box IP 55 with pushbuttons and emergency stop
- Control box IP 55 with low voltage IP 65 remote control
- Load limiter (required by CE)
- Frequency inverter for variable speed control
- Wireless radio remote control system
- Limit switches
- Slack wire switches
- Radio / Infra-red remote control

Classification

II 2G Exd IIB-T4



Installation on an oil platform

Compact rope winch PLANETA-FD

TYPE FD-Series electric

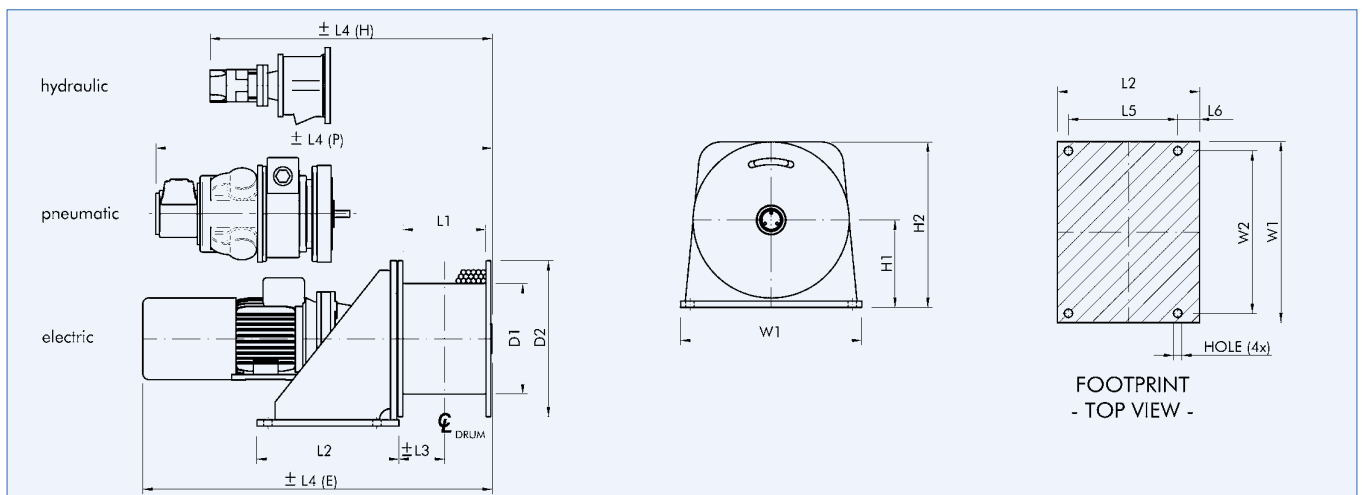
TYPE	Max. capacity 1st layer kg	Max. capacity top layer kg/layers	Recomm. rope diam. mm	Speed 1st layer m/min	Speed top layer m/min.	Drum storage 1st layer m	Drum cap. all layers m/layers	Motor power 400 V AC kW	Order No.
FD 300-E	950	800/4	8	8.5	10	15	70/4	1.5	H50330
FD 301-E	1850	1470/4	11	9	11	10	53/4	3	H50331
FD 303-E	2300	1970/3	12	7	8.5	11	41/3	3	H50332
FD 305-E	3350	2800/3	14	9	11	10	40/3	5.5	H50333
FD 306-E	4100	3500/3	16	7	8.5	15	56/3	5.5	H50334
FD 307-E	5250	4490/3	18	12	14	18	67/3	11	H50335

TYPE FD-Series hydraulic

TYPE	Max. capacity 1st layer kg	Max. capacity top layer kg/layers	Recomm. rope diam. mm	Speed 1st layer m/min.	Speed top layer m/min.	Drum cap. 1st layer m	Drum storage all layers m/layers	Pressure drop in bar	Flow in l/min.	Order No.
FD 300-H	950	800/4	8	30	35	15	70/4	140	35	H50336
FD 301-H	1850	1470/4	11	20	25	10	53/4	130	55	H50337
FD 303-H	2300	1970/3	12	15	17	11	41/3	130	50	H50338
FD 305-H	3350	2800/3	14	13	16	10	40/3	135	60	H50339
FD 306-H	4100	3500/3	16	13	15	15	56/3	140	70	H50340
FD 307-H	5250	4490/3	18	13	15	18	67/3	170	70	H50341

TYPE FD-Series pneumatic

TYPE	Max. capacity 1st layer kg	Max. capacity top layer kg/layers	Recomm. rope diam. mm	Speed 1st layer m/min.	Speed top layer m/min.	Drum storage 1st layer m	Drum cap. all layers m/layers	Air pressure bar	Air consumption l/sec.	Order No.
FD 300-LPR1	800	675/4	8	8	10	15	70/4	7	30	H50342
FD 300-LPR2	950	800/4	8	18	21	15	70/4	7	90	H50343
FD 301-LPR2	1850	1470/4	11	9	11	10	53/4	7	90	H50344
FD 303-LPR2	2300	1970/3	12	7	8	11	41/3	7	90	H50345
FD 303-LPR3	2300	1970/3	12	15	18	11	41/3	7	150	H50346
FD 305-LPR3	3350	2800/3	14	10	12	10	40/3	7	150	H50347
FD 306-LPR4	4100	3500/3	16	15	18	15	56/3	7	225	H50348
FD 307-LPR4	5250	4490/3	18	12	14	18	67/3	7	240	H50349



Dimensions

TYPE	Weight kg	Dimensions (mm)														
		D1	D2	L1	L2	L3	L4 (E)	L4 (H)	L4 (L)	L5	L6	H1	H2	W1	W2	Hole-Ø
FD 300	125	244	380	176	310	93	736	520	765	240	44	215	405	440	400	18
FD 301	130	244	380	176	310	93	796	558	785	240	44	215	405	440	400	18
FD 303	175	272	410	191	350	106	818	595	905	275	50	235	440	500	450	22
FD 305	240	272	410	210	350	116	1030	625	950	275	50	235	440	500	450	22
FD 306	330	355	500	266	455	146	1100	780	1110	350	70	285	535	580	520	27
FD 307	590	406	625	310	510	175	1313	885	1215	400	75	348	660	750	680	27

Planetary standard build winches SB-Series



SB-Series pneumatic

The standard build SB type winch provides the basis of the solution to many pulling and lifting winch applications. The winch is constructed in the conventional manner with motor, gearbox and drum in line. When it comes to the need of a shorter design the SB winch is available with an angular gearbox. The choice of the rope complies with the pulling force in the 5th rope layer. The drum is built according to classification 1Am. The drum diameter is at least 16-times bigger than the diameter of the indicated rope diameter. Although the name of this winch indicates different, these winches are very suitable to fit to your specific winch application and can be equipped with different drums, other gearboxes or motors. Many options can be offered on these highly versatile winches. The standard version comes without a rope and control.

Standard winch features

- Heavy duty planetary gearbox
- SB E; IP 54 aluminium braked motor 400VAC / 3phase / 50 Hz
- SB H; orbit or radial piston type hydraulic motor complete with brake valve
- SB LPR; radial piston type air motor complete with hand control valve and mufflers
- SB LG; gear type air motor complete with hand or remote control valve and mufflers
- Steel drum with cable fixing point at flange
- Two drum supports
- Double layer 2 component conversation, colour RAL 5010

Available options

- IP 56 TENV cast iron motor for marine applications
- Alternative drum dimensions / split drums / additional rope anchors /etc.
- Explosion proof motors
- Protective steel motor cover
- Drum pressure roller, spooling gears, grooved drums
- Band brakes (manual or failsafe automatic)
- Manual disengaging clutch
- Alternative speeds
- Alternative supply voltages
- Drum guards
- Manual emergency crank
- Slip ring mounting
- Warping head
- Angular gear

Available control options

- Control box IP 55 with pushbuttons and emergency stop
- Control box IP 55 with low voltage IP 65 remote control
- Load limiter (required by CE for applications exceeding 1000 kg W.L.L.)
- Frequency inverter for variable speed control
- Wireless radio remote control systems
- Limit switches (electric, pneumatic)
- Slack wire switches (electric, pneumatic)
- Proportional local or remote control valve (pneumatic or hydraulic)
- Motor overheating protection

Classification

II 2 GD c T4 135°C

TYPE SB-Series electric

TYPE	Lifting capacity 1st layer	Lifting capacity 5th layer	Recommended rope diameter	Rope speed 1st layer	Rope speed 5th layer	Drum storage 1st layer	Drum storage 5th layer	Motor power 3-ph	Order No.
	kg	kg	mm	m/min.	m/min.	m	m	kW	
SB 300-E	1250	875	9	8.5	12.5	24	155	2.2	H50091
SB 301-E	2000	1400	11	8.5	12.5	24	155	3	H50092
SB 304-E	3000	2100	14	8.5	12.5	24	155	5.5	H50175
SB 305-E	4000	2800	16	8	11.5	24	155	5.5	H50071
SB 306-E	5500	3800	19	8	11.5	24	155	7.5	H50072
SB 307-E	7000	4900	22	8	11.5	24	155	11	H50073
SB 309-E	9000	6300	24	10	14	24	155	15	H50074
SB 310-E	12000	8400	28	8	11.5	24	155	18.5	H50093
SB 311-E	15000	10400	32	7.5	11	23	154	22	H50075
SB 313-E	18000	12400	34	6	9	22	153	22	H50076
SB 314-E	23000	16000	38	6	9	22	153	30	H50177
SB 315-E	30000	20400	44	6	9	20	145	30	H50094
SB 316-E	37000	24500	48	6	9	18	137	45	H50095

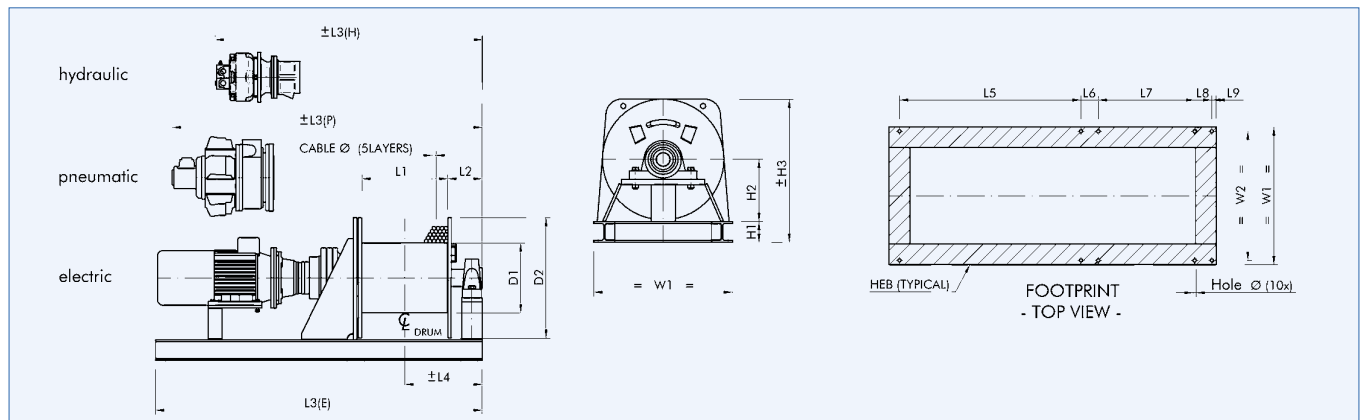
Planetary standard build winches SB-Series

TYPE SB-Series hydraulic

TYPE	Lifting capacity 1st layer kg	Lifting capacity 5th layer kg	Recommended rope diameter mm	Rope speed 1st layer m/min.	Rope speed 5th layer m/min.	Drum storage 1st layer m	Drum storage 5th layer m	Oil pressure drop in bar	Oil flow in l/min.	Order No.
SB 303-H	2500	1740	14	18	26	26	165	140	60	H50077
SB 305-H	4000	2770	16	18	26	25	161	160	80	H50078
SB 306-H	5500	3970	18	25	35	28	181	225	95	H50079
SB 307-H	7000	4960	22	20	28	26	171	230	100	H50080
SB 309-H	9000	6285	26	13	18	24	163	190	100	H50081
SB 310-H	12000	8460	28	11	16	24	168	230	95	H50096
SB 311-H	16000	10655	34	10	15	19	144	230	110	H50082
SB 313-H	20000	13610	38	8	12	19	151	210	120	H50083
SB 315-H	30500	20800	44	8	12	19	151	235	165	H50097
SB 316-H	37000	24570	48	6	9	17	141	225	160	H50098

TYPE SB-Series pneumatic

TYPE	Lifting capacity 1st layer kg	Lifting capacity 5th layer kg	Recommended rope diameter mm	Rope speed 1st layer m/min.	Rope speed 5th layer m/min.	Drum storage 1st layer m	Drum storage 5th layer m	Air pressure drop in bar	Air flow in l/min.	Order No.
SB 300-LPR2	1200	845	10	11	16	26	168	7	90	H50119
SB 301-LPR2	2100	1435	12	7	10	24	157	7	90	H50121
SB 303-LPR2	2500	1740	14	6	9	26	165	7	90	H50084
SB 303-LPR3	2500	1740	14	12	17	26	165	7	140	H50122
SB 305-LPR3	4000	2770	16	9	13	25	161	7	150	H50085
SB 305-LPR4	4000	2770	16	15	21	25	161	7	240	H50123
SB 306-LPR4	5500	3970	18	10	14	28	181	7	240	H50086
SB 307-LPR4	7000	4960	22	8	11	26	171	7	240	H50087
SB 307-LG6	7000	4960	22	13	18	26	171	7	350	H50124
SB 309-LPR4	9000	6285	26	6	9	24	163	7	220	H50125
SB 309-LG6	9000	6285	26	10	14	24	163	7	350	H50088
SB 310-LG6	12000	8460	28	7	10	24	168	7	350	H50126
SB 311-LG6	16000	10655	34	5	7.5	19	144	7	350	H50089
SB 313-LG6	20000	13610	38	4	6	19	151	7	350	H50090



Dimensions

TYPE	Weight kg	Dimensions (mm)																		
		D1	D2	L1	L2	L3 (E)	L3 (H)	L3 (P)	L4	L6	L7	L8	L9	H1	H2	H3	W1	W2	HEB	Hole-Ø
SB 300	250	178	410	500	135	1350	-	1450	385	80	540	80	20	100	215	520	500	460	100	14
SB 301	250	195	410	500	155	1350	-	1450	405	80	540	80	20	100	215	520	500	460	100	14
SB 303	400	244	500	500	155	1600	1350	1650	405	80	550	80	20	100	260	610	600	560	100	14
SB 305	400	272	500	500	155	1650	1350	1800	405	80	550	80	20	100	260	610	600	560	100	14
SB 306	510	355	600	500	165	1700	1450	1850	415	80	560	80	20	100	310	710	700	660	100	18
SB 307	790	406	700	500	200	1950	1550	1900	450	100	560	100	25	120	360	830	800	750	120	20
SB 309	1100	455	850	500	230	2000	1550	1900	480	110	560	110	30	140	435	1000	1000	940	140	22
SB 310	1420	508	900	500	235	2100	1600	1950	485	120	590	120	40	160	460	1070	1100	1040	160	26
SB 311	1740	508	1000	500	259	2150	1600	1950	509	120	590	120	40	160	510	1170	1150	1090	160	30
SB 313	2320	610	1150	500	260	2150	1700	1950	510	120	590	120	40	180	585	1340	1350	1280	180	32
SB 315	3400	711	1350	500	299	2600	2050	-	549	140	590	140	40	200	685	1560	1550	1470	200	36
SB 316	2900	711	1400	500	299	2650	2100	-	549	140	590	140	40	200	710	1610	1600	1520	200	36

Manual rope winches

Hand operated worm gear winch PLANETA WW-EX

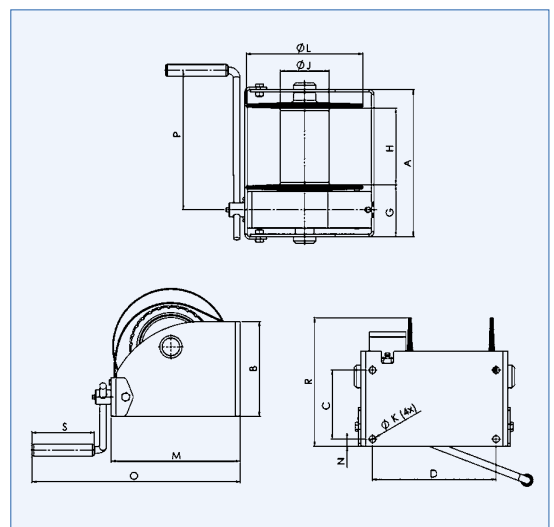
- Robust and safe hoisting winch
- Static safety factor of 4
- Square worm-wormwheel transmission and maintenance free bearing
- Adjustable crank, with ergonomic grip
- Easy to grease worm-wormwheel transmission
- Load pressure brake with quiet double ratchet system
- Optional ATEX certified **II 3 GD T4**, suitable for zone 2 and 22 type example WW250 GR/D/Ex
- Grooved drum as extra option (GD instead of D)
- 2 cable compartments (2D instead of D) multi compartment possible upon request
- Standard paint finish 1 layer (60 - 80 Micron)
- In compliance with EN13157, DIN 15020 and Ex types ATEX 95 (94/9/EG)



Options:
Winch with zinc-plated finishing (6 - 8 Micron)

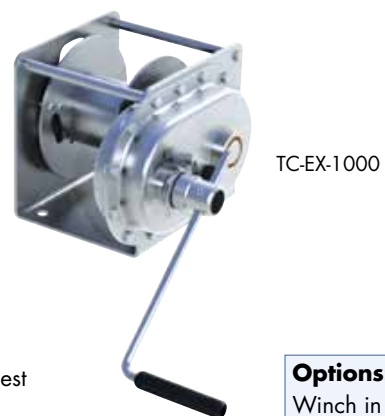
TYPE	WW-EX...	250	500	1000	1500
Max. pulling force bottom (1st) cable layer	kg	250	500	1000	1500
Max. pulling force top (last) cable layer	kg	95	239	542	845
Crankforce 1st cable position	daN	6	10	13	14
Hoisting length by one rotation of crank , 1st layer	mm	17	20	13	9
Max. cable storage (one drum compartment)	m	59	77	55	42
Diameter cable	mm	5	6	9	10
Min. breaking load cable	kN	15.9	22.9	51	63
Own weight	kg	13	16	29	28
WW-EX... (without rope)	Order No.	H50460	H50461	H50462	H50463
WW-EX... complete with rope and hook	Order No.	H50464	H50465	H50466	H50467

TYPE	A	B	C	D	G	H	J	K	L	M	N	O	P	R	S
WW-EX-250	238	145	100	192	106	102	48	14	160	191	15	354	280	171	130
WW-EX-500	269	160	115	223	107	131	70	14	190	221	15	384	325	192	130
WW-EX-1000	302	195	141	254	110	160	102	17	240	266	15	429	350	264	130
WW-EX-1500	302	250	178	254	111	160	102	17	240	278	15	441	350	306	130



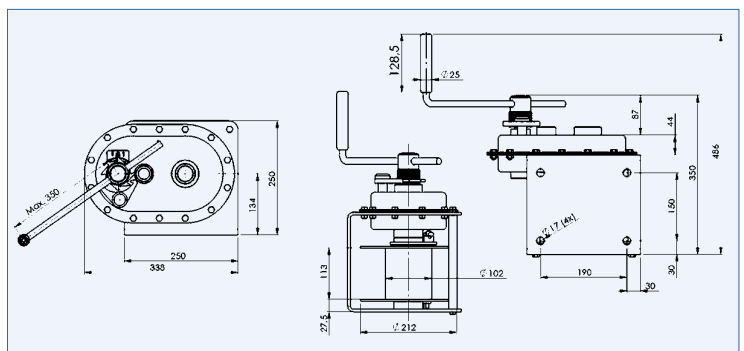
Hand driven spur gear winch PLANETA TC-EX

- Robust and safe hoisting and pulling (approx. 2.5x hoisting cap.) winch
- Static safety factor of 4
- Load pressure brake with double ratchet system
- Maintenance-free bearing
- Adjustable crank from 250 to 350 mm, ergonomic plastic grip
- Cable outlet to left, right, and top side
- Standard paint finish 1 layer (60 - 80 Micron) GR
- Optional ATEX certified **II 3 GD T3**, suitable for zone 2 and 22 type example TC1000 GR/FS/Ex
- With free spool FS
- 2 cable compartments as extra option (2D instead of D), multi compartments upon request
- Closed gearbox
- In compliance with EN 13157 and DIN 15020 and Ex types ATEX 95 (94/9/EG)



Options:
Winch in stainless steel design.

TYPE	TC-EX...	1000	1500
Max. pulling force bottom (1st) cable layer	kg	1000	1500
Max. pulling force top (last) cable layer	kg	587	844
Crankforce 1st cable position	daN	11	12
Hoisting length by one rotation of crank , 1st layer	mm	20	14
Cable capacity	m	25	21
Diameter cable	mm	9	10
Min. breaking load cable	kN	51	63
Own weight	kg	27	27.5
TC-EX... (without rope)	Order No.	H50470	H50471
TC-EX... complete with rope and hook	Order No.	H50472	H50473



Waar kunt u ons vinden?

Wij zijn gevestigd te Meppel, centraal gelegen tussen de snelwegen A32 en A28. Dankzij deze optimale ligging kunnen wij u altijd de beste service bieden. Tevens zijn wij 24/7 bereikbaar in geval van calamiteiten.

Tevens bieden wij samen met onze transportpartners een haal- en brengservice, zodat u geen kostbare tijd verliest.



LiftingPlus
Hijzen met visie

Liftingplus BV
Eekhorstweg 21
7942 JC Meppel

T 0522 82 09 05
E info@liftingplus.nl

liftingplus.nl