







WORLDWIDE

Pramac group operates through a proprietary distribution network of 15 branches covering the whole world.

BUSINESS AREAS

POWER
MATERIAL HANDLING EQUIPMENT
SERVICE&PARTS
PRAMAC RACING TEAM

PRAMAC history starts in 1966, when the Campinoti family founded L'Europa, a construction equipment company focused mainly in the Italian market. From then onwards PRAMAC has been expanding its activity in the energy and material handling sector, continuously growing on a global base with a wide and flexible product range to satisfy customers' energy needs in the world.







Since 1966 the company has been developing, manufacturing and selling from its Italian plant, a complete range of handling products aiming to satisfy any requirement expressed by Customers. The highly experienced personnel, the fully integrated production processes (from sheet metal to the finished product) and the on-going development of our trucks ensure that the entire range machines delivers top quality build and performance. From light duty to most intense applications, the extreme care and dedication to innovation, guarantee that the entire range of machines comply with all applicable safety regulations. Through the network of Pramac branches we directly provide customers with the highest level of assistance during the entire supply process, from sales advice to after-sales support. Quality, innovation and reliability: these are the criteria that lead our team towards its final objective, Customer satisfaction!

The strategic objective of final customer satisfaction can only be reached if the quality of the products being offered is high. This is what the PR INDUSTRIAL group assumes for its production philosophy. The continuous improvement of all company processes, formulated with absolute respect for the environment and the specialized training of its personnel are part of the Total Quality programme which the company supports. We believe in and we promote our own real Culture for Quality with respect for the environment and regarding all specific standards. A concrete testimony of our commitment is the European and Extra-European certificates obtained by the company at a group level.





SERVICE & PARTS

The after sales service supports our customers at every stage of the professional relationship, with availability of the full range of spare parts and components and a highly trained professional after sales team, answering requests worldwide. We ensure a quick service, taking advantage of our worldwide approved service network. Our website - www.pramacparts.com - is the powerful tool to support every after market aspects.

Following registration process, you will have access to a wide range of information.

Our portal provides detailed documentation and useful supports like:

- Product exploded drawings
- User manuals;
- Maintenance programs;
- Technical training activities;
- Service network point locator;
- Additional technical documentation;
- S&P catalogues and pricelist.

EXPERIENCE AND
TECHNOLOGY TO DEVELOP
TAILORED SOLUTIONS

OUR **SOLUTIONS** TO YOUR NEEDS

Our main objective is the complete customer satisfaction. This is possible only because we hardly work to provide best solutions to fulfill each and every customer need. This is the reason why we have created a product line dedicated to special solutions, providing customers with our vast professional experience focused on analyzing every single requirement. Indeed, this line integrates the high quality levels of our standard production line with the flexibility and versatility of custom made products.



Here the list of possible customized modifications that we can offer.
In case you may need further modifications, please, contact our local sales network.

HPT

- G (GS/B - Mr Hydro/X - Mr Hydro/I excluded)
- Forks width: from 350mm to 800mm
- Forks length: from 500mm to 2.000mm
- Frame galvanization of standard HPT
- Coil carrier
- ATEX certification

SCALES (GS/P Stainless steel excluded)

- Forks width: from 450mm to 800mm
- Forks length: from 500mm to 2.000mm
- ATEX certification

HX 10M - HIGH LIFT PALLET TRUCK

- Forks length: from 700mm to 2.000mm
- Forks width: from 470mm to 680mm
- Frame galvanization
- Manual brake
- ATEX certification

HX 10E - HIGH LIFT PALLET TRUCK

- Forks length: from 700mm to 2.000mm
- Forks width: from 470mm to 680mm
- Frame galvanization
- Auto leveling system *
- Battery charger built in *
- PLUS version with battery indicator
- ATEX certification

CX 14 - EPT

- Forks width: from 350mm to 685mm
- Forks length: from 500mm to 2.000mm
- Frame galvanization
- Load back rest

QX - EPT (double lifting excluded)

- Forks width: from 420mm to 680mm
- Forks length: from 800mm to 2.000mm
- Weighting system
- Kit for cold storage (max. -20°C)
- Frame galvanization
- Load back rest
- ATEX certification

TX - STACKERS

- Legs and forks width: from 500mm to 800mm
- Forks length: from 800mm to 1.150mm
- Max lifting height reduction
- ATEX certification
- Forks thickness reduction
- FEM forks
- PLUS version

RX

- Legs and forks width: from 500mm to 800mm
- Forks length: from 500mm to 1150mm
- Max lifting height reduction/meter or fraction
- ATEX certification
- FEM forks

GX - STACKERS

- Legs and forks width: from 500mm to 800mm
- Forks length: from 500mm to 1.150mm
- Max lifting height reduction / meter or fraction
- ATEX certification
- Forks thickness reduction
- FEM forks
- GX10 - PLUS version

TX STRADDLE - STACKERS

- Useful width for pallets (B2) up to 1.500mm
- Forks length: from 500mm to 1.500mm
- Max lifting height reduction
- TX12 Straddle version
- ATEX certification

GX STRADDLE - STACKERS

- Useful width for pallets (B2) up to 1.500mm
- Forks length: from 800mm to 1.500mm
- Max lifting height reduction
- GX10 Straddle version
- ATEX certification

LX - STACKERS

- Legs and forks width: from 500mm to 800mm
- Forks length: from 800mm to 1.150mm
- Max lifting height reduction
- Kit for cold storage
- Straddle version
- ATEX certification
- Forks thickness reduction
- FEM forks

* Models with a working width (b5) of 680mm

PRODUCT RANGE

Techno-polymer hand pallet trucks



**I-TON
I-NOX**
Capacity (t): 0.7 - 1.0

pag. 14

Scales

**GS/P25
PX20**

Capacity (t): 2.0 - 2.5

pag. 22



Manual Trucks

Hand Pallet Trucks



**GS
BASIC**
Capacity (t): 2.2

pag. 18

**GS
PRO**
Capacity (t): 2.5 - 3.0

pag. 18

**GS
SPECIAL**
Capacity (t): 2.0 - 3.0

pag. 18

**GS
PREMIUM**
Capacity (t): 2.5

pag. 18



**GS
MISTER
HYDRO**
Capacity (t): 2.5

pag. 20

High Lift Pallet Trucks



HX10M
Capacity (t): 1.0

pag. 24

HX10E
Capacity (t): 1.0

pag. 24

Electric Pallet Trucks



CX12
Capacity (t): 1.2

pag. 28

CX14
Capacity (t): 1.4

pag. 28



**QX18
QX20**
Capacity (t): 1.8 - 2.0

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QX20DL
Capacity (t): 2.0

pag. 30

Electric Pallet Trucks



QX20P
Capacity (t): 2.0

pag. 32



QX22
Capacity (t): 2.2

pag. 32

Stackers

Manual Stackers



MX
Lifting height (m): 1.6
Capacity (t): 0.5 - 1.0

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Semi-Electric Stackers



TX STRADDLE
Lifting height (m): 3.5
Capacity (t): 1.0 - 1.2

pag. 38

Electric Stackers



RX
Lifting height (m): 1.6
Capacity (t): 1.0

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GX
Lifting height (m): 3.5
Capacity (t): 1.0 - 1.2

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GX 12/28 FREE LIFT
Lifting height (m): 2.8
Capacity (t): 1.2

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GX STRADDLE
Lifting height (m): 3.8
Capacity (t): 1.2

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LX 12-16 DUPLEX
LX 14 TRIPLEX
Lifting height (m): 5.0
Capacity (t): 1.2 - 1.6

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Residual
Lifting Capacity

pag. 46





TECHNO-POLYMER HAND PALLET TRUCKS

We are the only handling system manufacturer in the world introducing an innovative hand pallet truck made of non-metallic material.

I-ton represents a real revolution making easier handling materials with respect for people, goods, work and environment. The use of a fiber glass reinforced techno-polymer compound, ensures some benefits in terms of lightness, maneuverability, noise level, environmental impact and cleanness.

I-TON

I-NOX



Techno-polymer hand pallet trucks

I-ton is the only pallet truck in the world made of non-metallic material. The new techno-polymer compound, based on modern technologies, is highly rigid and offers some important benefits:

- It is light
- It doesn't deform permanently
- It can be used in a broad temperature range
- It preserves its surface characteristics even when it is exposed to external corrosion agents

I-NOX



Rustproof,
hygienic, clean



SAFE ENTRY OF THE ROLLERS

The integrated slide in the frame allows a safe entry of forks inside the pallet, reducing impact against rollers and related wear.



QUICK LIFT FORKS

Maximum forks elevation can be reached with a limited number of strokes, reducing operator's effort and lifting work time.



ERGONOMIC TILLER

The innovative tiller design helps operations with one hand only, ensuring a very solid tiller grip.

1



2



3



ERGONOMIC TILLER

Ergonomic 3 positioning lever at the touch of a finger

1

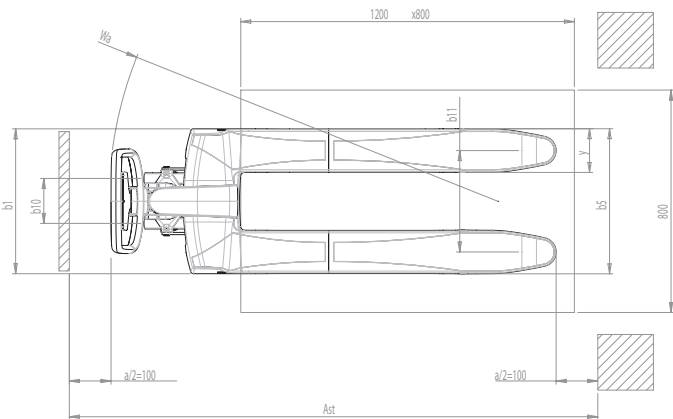
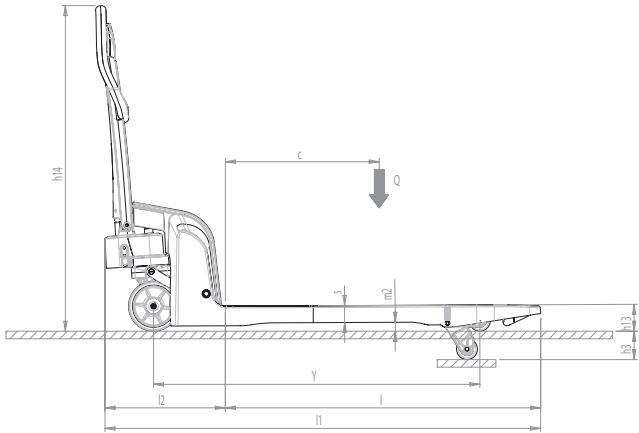
lifting

2

neutral

3

descent



I-TON VALUES

- **Ergonomic for people**
I-ton is light, quiet and has great maneuverability, making easier operator worklife, even for non professional users.
- **Ergonomic of handling goods**
I-ton guarantees quality and efficiency, assuring no corrosion, no rust and no contamination.
- **Ergonomic for work**
It is the hand pallet truck fitting to the widest range of applications, easy to be used by all the operators, guaranteeing a valuable improvement of productivity.
- **Ergonomic for the environment**
The material used for I-ton and the productive process guarantee fewer CO2 emissions during its life cycle, at the end of which it can be easily disassembled and recycled.

I-NOX

Stainless steel components replace the carbon steel ones of the standard version, also lubricants suitable for food contact and low temperature oils are used, making I-ton the ideal solution to operate in clean environments, where hygiene and extreme corrosion resistance are of the utmost importance, such as:

- Cold store environments
- Wet conditions
- In the presence of acid or saline solutions
- Sterile environments

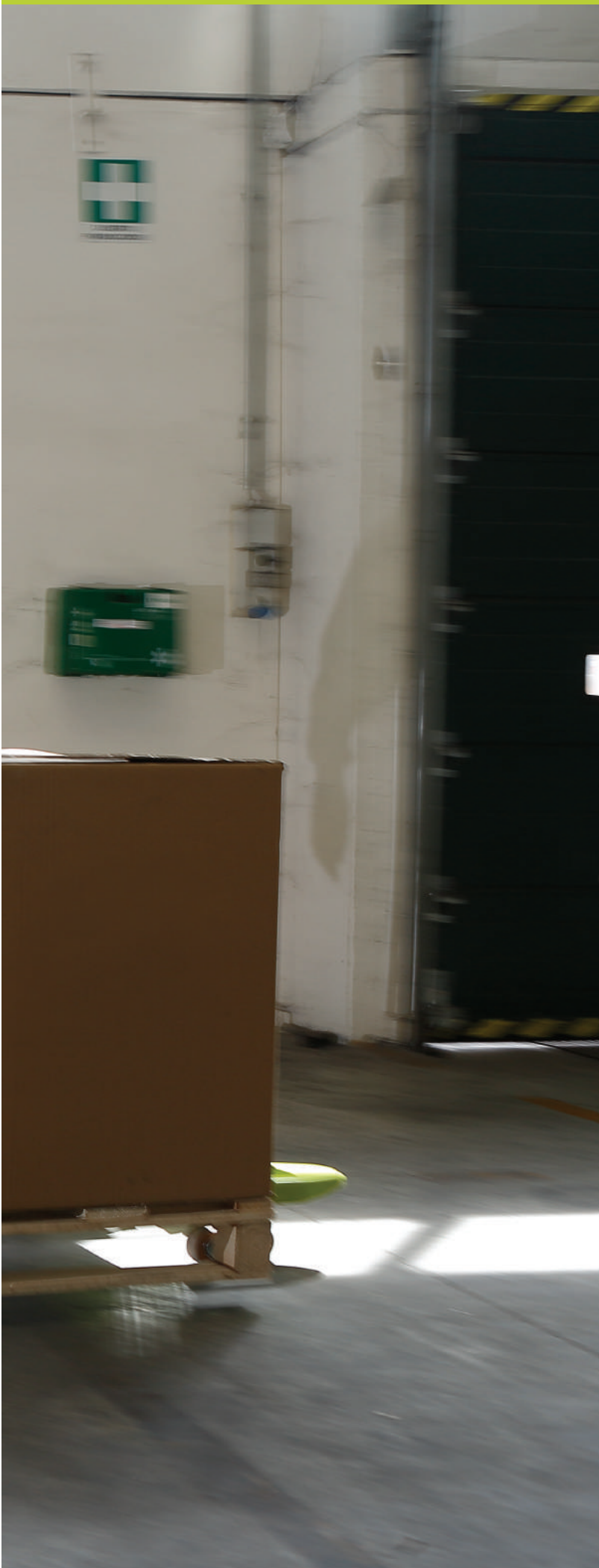
I-nox has ideal features to work in environments such as:

- Harbours
- Chemical industry
- Food industry, also in meat and fish processing
- Fruit & Vegetables markets
- Pharmaceutical industry
- Health care field

DESCRIPTION					
1.2	MODEL		I-ton S2-S4	I-nox S2-S4	
1.3	DRIVE		MANUAL	MANUAL	
1.4	OPERATOR TYPE		PEDESTRIAN	PEDESTRIAN	
1.5	LOAD CAPACITY	Q	kg	1000	700
1.6	LOAD CENTRE DISTANCE	c	mm	600	600
1.8	LOAD DISTANCE, CENTRE OF DRIVE AXLE TO FORK	x	mm	925	925
1.9	WHEEL BASE	y	mm	1182	1182
WEIGHTS					
2.1	SERVICE WEIGHT		kg	37-38	37-38
2.2	AXLE LOAD LADEN, FRONT/REAR		kg	300/737-738	218/519-520
2.3	AXLE LOAD UNLADEN, FRONT/REAR		kg	25/12-13	25/12-13
TYRES/CHASSIS					
3.1	TYRES			N-P/P	N-P/P
3.2	TYRE SIZE, FRONT (Ø x width)			180x40	180x40
3.3	TYRE SIZE, REAR (Ø x width)			75x80-60x60	75x80-60x60
3.4	SIDE WHEELS (Ø x width)			-	-
3.5	WHEELS, NUMBER (x=DRIVEN) FRONT/REAR			2/2-2/4	2/2-2/4
3.6	TREAD, FRONT	b10	mm	160	160
3.7	TREAD, REAR	b11	mm	365	365
DIMENSIONS					
4.4	LIFT	h3	mm	115	115
4.9	HEIGHT OF TILLER IN DRIVE POSITION MIN/MAX	h14	mm	615/1175	615/1175
4.15	HEIGHT, LOWERED	h13	mm	85	85
4.19	OVERALL LENGTH	l1	mm	1575	1575
4.20	LENGTH TO FACE OF FORKS	l2	mm	425	425
4.21	OVERALL WIDTH	b1	mm	520	520
4.22	FORK DIMENSIONS	s/e/l	mm	60/155/1150	60/155/1150
4.25	DISTANCE BETWEEN FORK ARMS	b5	mm	520	520
4.32	GROUND CLEARANCE, CENTRE OF WHEEL BASE	m2	mm	25	25
4.33	AISLE WIDTH FOR PALLETS 1000x1200 CROSSWISE	Ast	mm	1644	1644
4.34	AISLE WIDTH FOR PALLETS 800x1200 LENGTHWISE	Ast	mm	1844	1844
4.35	TURNING RADIUS	Wa	mm	1369	1369
PERFORMANCE DATA					
5.2	LIFT SPEED, LADEN/UNLADEN		strokes	9/9	9/9
5.3	LOWERING SPEED, LADEN/UNLADEN		m/s	0,05/0,02	0,05/0,02

G = Rubber, N = Nylon, P = Polyurethane, A = Steel, NE = Nylon extra





MANUAL TRUCKS

The manual trucks range, produced in Italy, offers a complete series of ideal tools for handling pallets of any size. The range is made up of reliable products of high quality with a three-year warranty. Lifter by Pramac products are available in a wide range of models, with possible customisations based on specific final users requirements, offering tailor made solutions designed by the internal R&D department.

GS

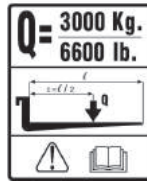
GS BASIC - GS PRO GS SPECIAL - GS PREMIUM

GS BASIC

The GS basic pallet truck is the model of access to the range of Lifter hand pallet trucks with which it shares reliability and solidity. Available with fork length 800 and 1.150 mm.

GS PRO, SPECIAL 3 ton

The GS pro pallet truck is equipped as a standard with a start and exit roller and a more ergonomic handle. The special series allows for the handling of pallets of any size thanks to the great variety of frames. The new 3.000 Kg model offers a load capacity of 3.000 Kilograms thanks to its reinforced structure.



GS PREMIUM

The GS premium pallet truck offers innovative cutting-edge solutions, such as the tilt guide wheel, the load lowering speed control, the covered steering wheel, apart from a certified hydraulic unit for 50.000 Cycles.



Available accessories: tandem rollers, polyurethane rollers (as a standard on Premium), rubber guide wheels, manual control brake



MAXIMUM PRESSURE VALVE

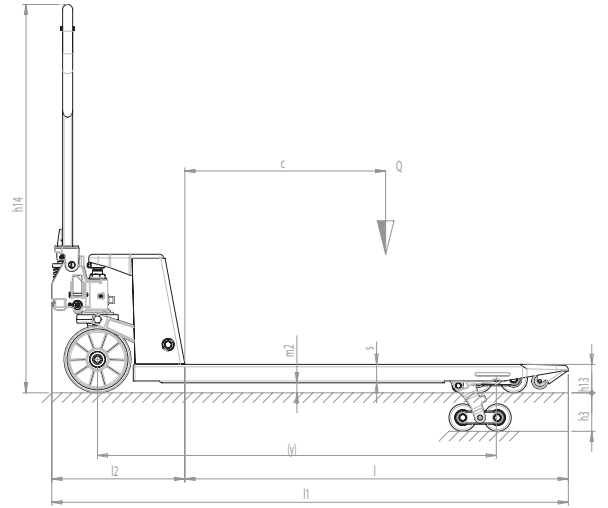
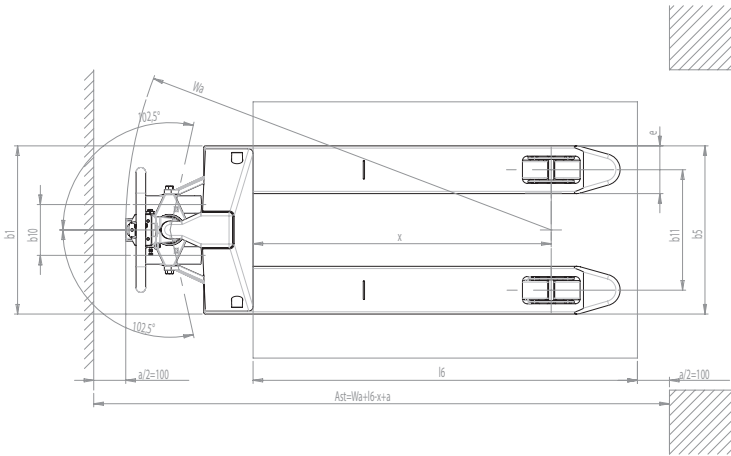
When the maximum load capacity is exceeded, oil pressure exceeds its maximum limit and the valve automatically locks the forks. Thus possible structural damage is avoided.



PAINTING

Following an appropriate conditioning operation the frame is varnished with epoxy-polyester powder at a temperature of 250° to guarantee maximum resistance to wear and atmospheric agents.

Manual Trucks



Description											
1.2	Model			GS BASIC 22 S2-S4	GS PRO 25 S2-S4	GS PREMIUM 25 S2-S4	GS/AV PRO 25 S2-S4	GS PRO 30 S4	GS/L PRO 25 S2-S4	GS/M PRO 25 S2-S4	GS B 20 S4
1.3	Drive			MANUAL	MANUAL	MANUAL	MANUAL	MANUAL	MANUAL	MANUAL	MANUAL
1.4	Operator Type			PEDESTRIAN	PEDESTRIAN	PEDESTRIAN	PEDESTRIAN	PEDESTRIAN	PEDESTRIAN	PEDESTRIAN	PEDESTRIAN
1.5	Load Capacity	Q	kg	2200	2500	2500	2500	3000	2500	2500	2000
1.6	Load Centre Distance	c	mm	600	600	600	600	600	600	400	600
1.8	Load Distance, Centre of Drive Axle to Fork	x	mm	932	932	932	932	932	932	582	945
1.9	Wheel Base	y	mm	1192	1192	1192	1192	1192	1192	842	1192
Weights											
2.1	Service Weight		kg	61-63	61-63	63-65	61-63	79	66-68	52-54	71
2.2	Axle Load Laden, Front/Rear		kg	655/1606-1608	767/1794-1796	739/1824-1826	738/1823-1825	889/2190	771/1795-1797	691/1861-1863	693/1378
2.3	Axle Load Unladen, Front/Rear		kg	42/19-21	42/19-21	43/20-22	42/19-21	53/26	46/20-22	35/17-19	48/23
Tyres/Chassis											
3.1	Tyres			P/N	P/N	P/P	P/N	P/N	P/N	P/N	P/A
3.2	Tyre Size, Front (Ø x width)			200x45	200x55	200x55	200x55	200x55	200x55	200x55	200x55
3.3	Tyre Size, Rear (Ø x width)			82x82-60	82x82-60	82x82-60	82x82-60	82x60	82x82-60	82x82-60	50x58
3.4	Side Wheels (Ø x width)			-	-	-	-	-	-	-	-
3.5	Wheels, Number (x=Driven) Front/Rear			2/2-2/4	2/2-2/4	2/2-2/4	2/2-2/4	2/4	2/2-2/4	2/2-2/4	2/4
3.6	Tread, Front	b10	mm	155	155	155	155	155	155	155	130
3.7	Tread, Rear	b11	mm	375	375	375	375	375	535	250	365
Dimensions											
4.4	LIFT	h3	mm	115	115	115	115	115	115	115	115
4.9	HEIGHT OF TILLER IN DRIVE POSITION MIN/MAX	h14	mm	690/1160	690/1160	690/1160	415/1250	690/1160	690/1160	690/1160	690/1160
4.15	HEIGHT, LOWERED	h13	mm	85	85	85	85	85	85	85	55
4.19	OVERALL LENGTH	l1	mm	1550	1550	1550	1550	1550	1550	1200	1550
4.20	LENGTH TO FACE OF FORKS	l2	mm	400	400	400	400	400	400	400	400
4.21	OVERALL WIDTH	b1	mm	525	525	525	525	525	685	400	525
4.22	FORK DIMENSIONS	s/e/l	mm	55/150/1150	55/150/1150	55/150/1150	55/150/1150	55/150/1150	55/150/1150	55/150/800	40/160/1150
4.25	DISTANCE BETWEEN FORK ARMS	b5	mm	525	525	525	525	525	685	400	525
4.32	GROUND CLEARANCE, CENTRE OF WHEEL BASE	m2	mm	30	30	30	30	30	30	30	15
4.34	aisle width for pallets 800x1200 lengthwise	Ast	mm	1835	1835	1835	1835	1835	1835	1435	1822
4.35	TURNING RADIUS	Wa	mm	1367	1367	1367	1367	1367	1367	1017	1367
Performance Data											
5.2	LIFT SPEED, LADEN/UNLADEN		strokes	13/13	13/13	13/13	13/6	13/13	13/13	13/13	13/13

G = Rubber, N = Nylon, P = Polyurethane, A = Steel, NE = Nylon extra

FORK LENGTH	l	mm	600	800	950	1000	1150	1220	1350	1500	1800	2000
LOAD CENTRE DISTANCE	c	mm	300	400	475	500	600	610	675	750	900	1000
WHEELS, NUMBER (x=DRIVEN) FRONT/REAR			2/2-2/4	2/2-2/4	2/2-2/4	2/2-2/4	2/2-2/4	2/2-2/4	2/4	2/4	2/4	2/4
OVERALL LENGTH	l1	mm	1000	1200	1350	1400	1550	1620	1750	1900	2200	2400
LOAD DISTANCE, CENTRE OF DRIVE AXLE TO FORK	x	mm	382	582	732	782	932	1002	1132	1282	1582	1782
WHEEL BASE	y	mm	642	842	992	1042	1192	1262	1392	1542	1842	2042
SERVICE WEIGHT		kg	52-54	57-59	59-61	60-62	63-65	65-67	90	112	127	134
AXLE LOAD LADEN, FRONT/REAR		kg	356/2196-2198	580/1017-1435	688/1871-1873	716/1844-1846	739/1824-1826	821/1744-1746	880/1710	929/1717	1002/1625	1037/1597
AXLE LOAD UNLADEN, FRONT/REAR		kg	37/15-17	40/17-19	40/19-21	39/21-23	43/20-22	44/21-23	59/31	66/46	76/51	80/54
TURNING RADIUS	Wa	mm	817	1017	1167	1217	1367	1437	1567	1717	2017	2217
AISLE WIDTH FOR PALLETS 800x1200-I LENGTHWISE	Ast	mm	1235	1435	1585	1635	1835	1855	1985	2135	2435	2635

Mr. Hydro

GS/G

The galvanised pallet truck offers good resistance to corrosion thanks to the hot dip galvanizing process of the frame, the control linkages of the pump body and the handle.

GS/X

In this version the parts getting in contact with the load and the operator are of aisi 304 electropolished stainless steel, while the remaining parts are subject to a hot dip galvanising treatment.

GS/I

Inox aisi 304 electropolished stainless steel is used for all metal sheet parts, while the pump is made of brass.

GS/Galvanised,
Stainless steel and Galvinox

Mr. Hydro series, which is available in a several number of versions, is the ideal tool to handle loads in humid and damp conditions.

In particular the stainless steel model is suitable for environments where high hygienic standards are enforced, such as the chemical, pharmaceutical or food & beverage industry.



HYDRAULIC PUMP MADE OF BRASS

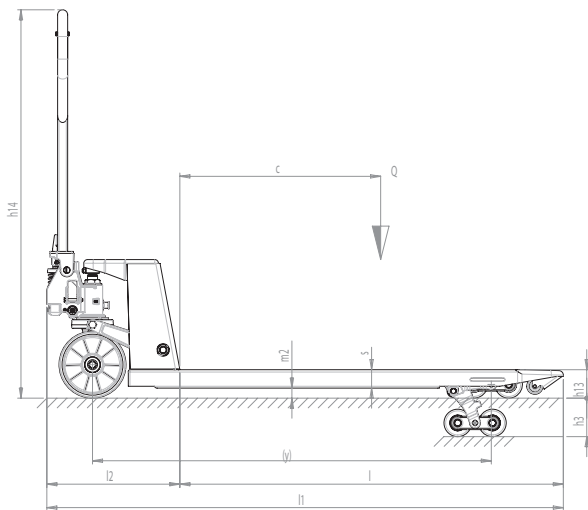
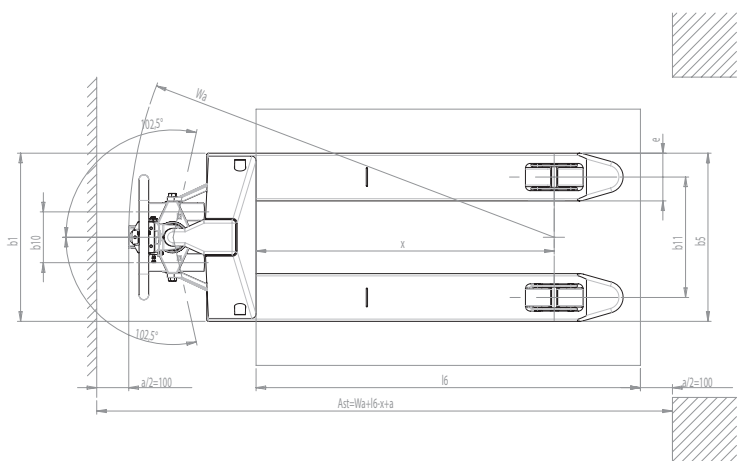
In the stainless steel version the hydraulic pump is made of brass to offer maximum resistance to humidity and oxidation.



ELECTROPOLISHING

The use of Inox AISI 304, combined with an electropolishing surface treatment, provides the machine with better appearance. Resistance to corrosion also guarantees maximum hygiene.

Manual Trucks



DESCRIPTION			GS/G 25 S2-S4	GS/X 25 S2-S4	GS/I 25 S2-S4	GS/L G 25 S2-S4	GS/M G 25 S2-S4
1.2	MODEL		MANUAL	MANUAL	MANUAL	MANUAL	MANUAL
1.3	DRIVE		PEDESTRIAN	PEDESTRIAN	PEDESTRIAN	PEDESTRIAN	PEDESTRIAN
1.4	OPERATOR TYPE		PEDESTRIAN	PEDESTRIAN	PEDESTRIAN	PEDESTRIAN	PEDESTRIAN
1.5	LOAD CAPACITY	Q kg	2500	2500	2500	2500	2500
1.6	LOAD CENTRE DISTANCE	c mm	600	600	600	600	400
1.8	LOAD DISTANCE, CENTRE OF DRIVE AXLE TO FORK	x mm	932	932	932	932	582
1.9	WHEEL BASE	y mm	1192	1192	1192	1192	842
WEIGHTS							
2.1	SERVICE WEIGHT	kg	61-63	62-64	67-69	66-68	52-54
2.2	AXLE LOAD LADEN, FRONT/REAR	kg	738/1823-1823	739/1823-1825	742/1825-1827	771/1795-1797	575/1977-1979
2.3	AXLE LOAD UNLADEN, FRONT/REAR	kg	42/19-21	43/19-21	46/21-23	46/20-22	35/17-19
TYRES/CHASSIS							
3.1	TYRES		N/N	NE/NE	NE/NE	N/N	N/N
3.2	TYRE SIZE, FRONT (Ø x width)		200x50	200x50	200x50	200x50	200x50
3.3	TYRE SIZE, REAR (Ø x width)		82x82-60	82x82-60	82x82-60	82x82-60	82x82-60
3.4	SIDE WHEELS (Ø x width)		-	-	-	-	-
3.5	WHEELS, NUMBER (x=DRIVEN) FRONT/REAR		2/2-2/4	2/2-2/4	2/2-2/4	2/2-2/4	2/2-2/4
3.6	TREAD, FRONT	b10 mm	155	155	155	155	155
3.7	TREAD, REAR	b11 mm	375	375	375	535	250
DIMENSIONS							
4.4	LIFT	h3 mm	115	115	115	115	115
4.9	HEIGHT OF TILLER IN DRIVE POSITION MIN/MAX	h14 mm	690/1160	690/1160	690/1160	690/1160	690/1160
4.15	HEIGHT, LOWERED	h13 mm	85	85	85	85	85
4.19	OVERALL LENGTH	l1 mm	1550	1550	1550	1550	1200
4.20	LENGTH TO FACE OF FORKS	l2 mm	400	400	400	400	400
4.21	OVERALL WIDTH	b1 mm	525	525	525	685	400
4.22	FORK DIMENSIONS	s/e/l mm	55/150/1150	55/150/1150	55/150/1150	55/150/1150	55/150/800
4.25	DISTANCE BETWEEN FORK ARMS	b5 mm	525	525	525	685	400
4.32	GROUND CLEARANCE, CENTRE OF WHEEL BASE	m2 mm	30	30	30	30	30
4.35	TURNING RADIUS	Wa mm	1367	1367	1367	1367	1017
PERFORMANCE DATA							
5.2	LIFT SPEED, LADEN/UNLADEN	strokes	13/13	13/13	13/13	13/13	13/13
COMPONENT SPECIFICATIONS							
HYDRAULIC UNIT			GALVANIZED	GALVANIZED	BRASS	GALVANIZED	GALVANIZED
FRAME			GALVANIZED	INOX	INOX	GALVANIZED	GALVANIZED
PUSH RODS			GALVANIZED	GALVANIZED	INOX	GALVANIZED	GALVANIZED
ROCKER ARM			GALVANIZED	GALVANIZED	INOX	GALVANIZED	GALVANIZED
WHEELS			NYLON	NYLON EXTRA	NYLON EXTRA	NYLON	NYLON
LOAD ROLLERS			NYLON	NYLON EXTRA	NYLON EXTRA	NYLON	NYLON
TILLER			GALVANIZED	INOX	INOX	GALVANIZED	GALVANIZED

G = Rubber, N = Nylon, P = Polyurethane, A = Steel, NE = Nylon extra

FORK LENGTH	l	mm	800	1150	1220
LOAD CENTRE DISTANCE	c	mm	400	600	610
WHEELS, NUMBER (x=DRIVEN) FRONT/REAR			2/2-2/4	2/2-4/2	2/2-2/4
OVERALL LENGTH	l1	mm	1200	1550	1620
LOAD DISTANCE, CENTRE OF DRIVE AXLE TO FORK	x	mm	582	932	1002
WHEEL BASE	y	mm	842	1192	1262
SERVICE WEIGHT	kg		55-57	61-63	63-65
AXLE LOAD LADEN, FRONT/REAR	kg		579/1976-1978	738/1823-1825	820/1743-1745
AXLE LOAD UNLADEN, FRONT/REAR	kg		39/16-18	42/19-21	43/20-22
TURNING RADIUS	Wa	mm	1017	1367	1437
AISLE WIDTH FOR PALLET 800x1200-I LENGTHWISE	Ast	mm	1435	1835	1855

GS/P25

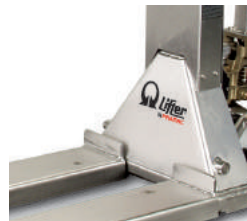
PX20

The Lifter scale truck series is available in two models, both of which equipped with an intelligent weighing device with many operating options. It is suitable for lifting and carrying heavy loads; it is therefore very precise and functional in all internal weighing operations.



DISPLAY

The PX20 pallet truck is a simple, economic and robust tool to be used for the weighing of transported loads. Its large-sized LCD display allows for easy reading of weight and the setting of tare simply and immediately.



GS/P25 - STAINLESS STEEL

GS/P differs from PX20 due to its hydraulic unit of higher load capacity (2.500 kg) and the bigger number of functions, such as the items counter and the load totalization indicator. The pallet truck may also be equipped with a thermal printer, memory card SD or may be provided in the INOX version.



FRAME STRUCTURE

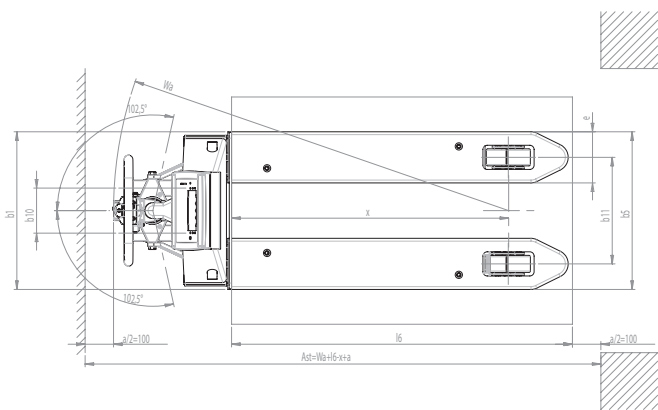
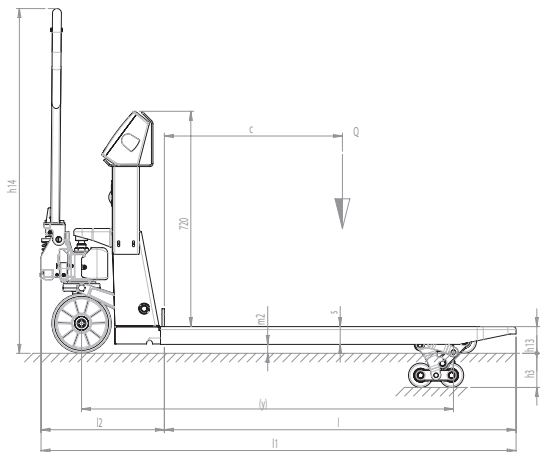
The structure is made up of a double frame and a lower fork on which a counter fork is placed; both forks house four load cells that allow for a uniform load distribution, thus keeping weighing precision even in case of collision and unbalanced load.



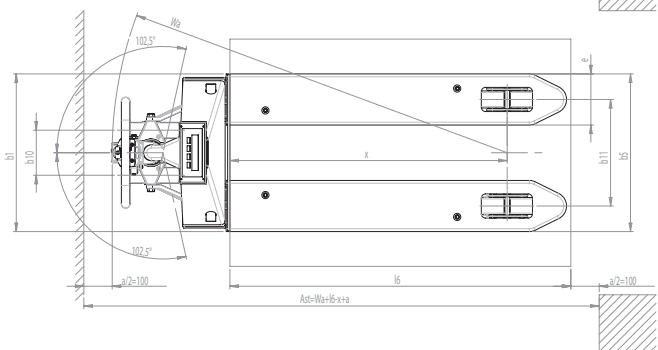
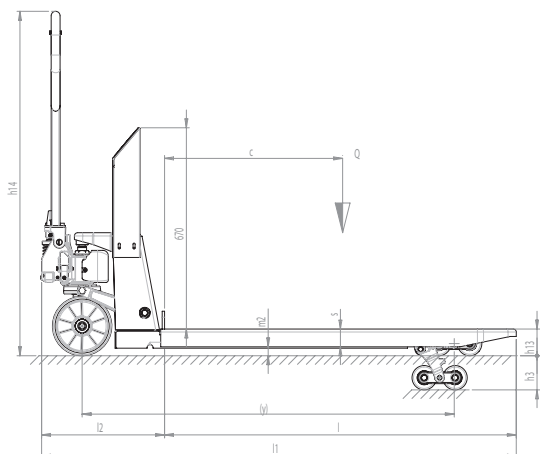
MEMORY CARD SD

GS/P pallet truck is available with printing on SD memory card and approved weighing.

Scales Trucks



GS/P



PX20

DESCRIPTION				
1.2	MODEL		GS/P	GS/P CE-M HOMOLOGATION
1.3	DRIVE		MANUAL	MANUAL
1.4	OPERATOR TYPE		PEDESTRIAN	PEDESTRIAN
1.5	LOAD CAPACITY	Q	kg	2500
1.6	LOAD CENTRE DISTANCE	c	mm	600
1.8	LOAD DISTANCE, CENTRE OF DRIVE AXLE TO FORK	x	mm	975,5
1.9	WHEEL BASE	y	mm	1250
WEIGHTS				
2.1	SERVICE WEIGHT		kg	124
2.2	AXLE LOAD LADED, FRONT/REAR		kg	787/1837
2.3	AXLE LOAD UNLADEN, FRONT/REAR		kg	77/47
TYRES/CHASSIS				
3.1	TYRES		P/P	P/P
3.2	TYRE SIZE, FRONT (Ø x width)		200x55	200x55
3.3	TYRE SIZE, REAR (Ø x width)		82x60	82x60
3.4	SIDE WHEELS (Ø x width)		-	-
3.5	WHEELS, NUMBER (x=DRIVEN) FRONT/REAR		2/4	2/4
3.6	TREAD, FRONT	b10	mm	155
3.7	TREAD, REAR	b11	mm	375
DIMENSIONS				
4.4	LIFT	h3	mm	115
4.9	HEIGHT OF TILLER IN DRIVE POSITION MIN/MAX	h14	mm	690/1160
4.15	HEIGHT, LOWERED	h13	mm	90
4.19	OVERALL LENGTH	l1	mm	1596
4.20	LENGHT TO FACE OF FORKS	l2	mm	411
4.21	OVERALL WIDTH	b1	mm	555
4.22	FORK DIMENSIONS	s/e/l	mm	60/180/1185
4.25	DISTANCE BETWEEN FORK ARMS	b5	mm	555
4.32	GROUND CLEARANCE, CENTRE OF WHEEL BASE	m2	mm	30
4.34	AISLE WIDTH FOR PALLETES 800x1200 LENGHTWISE	Ast	mm	1851
4.35	TURNING RADIUS	Wa	mm	1426
PERFORMANCE DATA				
5.2	LIFT SPEED, LADEN/UNLADEN	strokes	13/13	13/13
SCALE				
6.4	BATTERY VOLTAGE, NOMINAL CAPACITY	V/Ah	6/4	6/4
DISPLAY			Liquid crystals/6 digits 25mm	Liquid crystals/6 digits 25mm
UNITS OF MEASUREMENT			kg/lb	kg/lb
FUNCTIONS			Tare/Auto-off/Weight totalizer/Piece counting	Tare/Auto-off/Weight totalizer/Piece counting
AUTONOMY	h		50	50
PRECISION	% full scale		0,05	0,05
LOAD CELLS	n.		4	4
DIVISION	kg		0,5	0,5

HX

HX10M - HX10E

The HX10 series, available in manual and electric version, makes possible an easy and light lifting to a height of 800 mm, thus becoming a practical work platform, which is suitable for places such as machine workshops. This pallet truck is also able to carry out the support function and material supply along the assembly and production lines.



Battery and external battery charger
Also available in GEL version
and with an integrated battery charger



FRONT AND REAR STABILIZERS

The new control linkage makes the entry onto the closed side of the pallet possible by slight lifting, facilitating successive handling phases. Furthermore, a certain machine stability has been obtained using load rollers in a more advanced position and providing front stabilizers as standard equipment. Rear stabilizers, in turn, render work stable and safe even in the case of elevated loads once the 400 mm of lifting up have been exceeded.



AUTO LEVELLING SYSTEM

- Automatic system whose photocell adjusts the height of the forks, maintaining the work height set.
- An optical and acoustic signal is activated at every fork movement.
- Possibility of adjusting the photocell both in height and reading angle.
- Micro-limit switch, active both on the way up to prevent superfluous absorption of energy and on the way down to protect the operator.



CONTROL LEVER

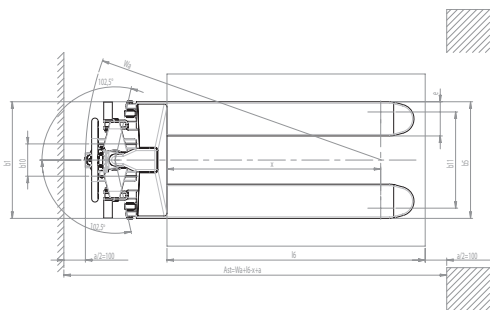
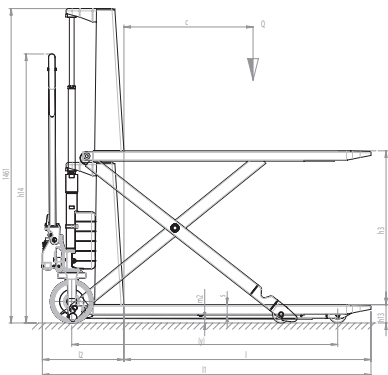
The hydraulic unit has been recently redesigned to allow for less effort at the steering wheel for all loads and a quick elevated function (30 cycles) for loads up to 150 kg.



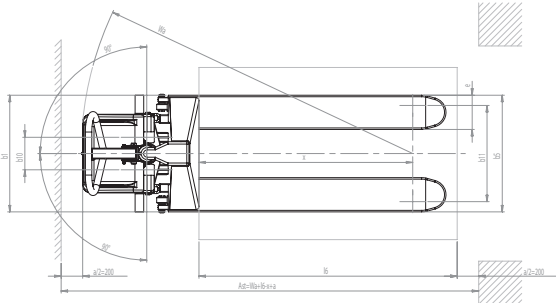
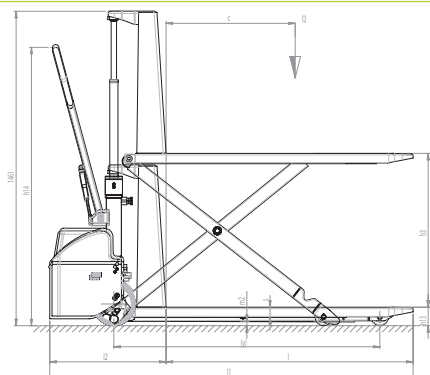
EMERGENCY PUSHBUTTON

The emergency pushbutton with a battery cut-off (isolator) switch function allows for a safer work.

High Lift Pallet Trucks



HX10M



HX10E

DESCRIPTION								
1.2	MODEL		HX10M 1150x540	HX10M 1150x680	HX10E 1150x540	HX10E 1150x680	HX10E 1500x540	HX10E 1800x540
1.3	DRIVE		MANUAL	MANUAL	MANUAL	MANUAL	MANUAL	MANUAL
1.4	OPERATOR TYPE		PEDESTRIAN	PEDESTRIAN	PEDESTRIAN	PEDESTRIAN	PEDESTRIAN	PEDESTRIAN
1.5	LOAD CAPACITY	Q	kg	1000	1000	1000	1000	1000
1.6	LOAD CENTRE DISTANCE	c	mm	600	600	600	762	900
1.8	LOAD DISTANCE, CENTRE OF DRIVE AXLE TO FORK	x	mm	993	993	993	1368	1643
1.9	WHEEL BASE	y	mm	1236	1236	1236	1611	1886
WEIGHTS								
2.1	SERVICE WEIGHT		kg	104	111	139 (144*)	146	235 (240*)
2.2	AXLE LOAD LADEN, FRONT/REAR		kg	339/765	344/767	429/710 (434/710*)	434/712 (439/712*)	531/704 (536/704*)
2.3	AXLE LOAD UNLADEN, FRONT/REAR		kg	79/25	84/27	111/28 (116/28*)	116/30	155/80 (160/80*)
TYRES/CHASSIS								
3.1	TYRES		P/P	P/P	G/P	G/P	G/P	G/P
3.2	TYRE SIZE, FRONT (Ø x width)			200x45	200x45	200x50	200x50	200x50
3.3	TYRE SIZE, REAR (Ø x width)			80x50	80x50	80x50	80x50	80x50
3.4	SIDE WHEELS (Ø x width)			-	-	-	-	-
3.5	WHEELS, NUMBER (x=DRIVEN) FRONT/REAR			2/2	2/2	2/2	2/2	2/2
3.6	TREAD, FRONT	b10	mm	150	150	150	150	150
3.7	TREAD, REAR	b11	mm	447	587	447	587	447
DIMENSIONS								
4.4	LIFT	h3	mm	715	715	715	715	715
4.9	HEIGHT OF TILLER IN DRIVE POSITION MIN/MAX	h14	mm	415/1250	415/1250	915/1300	915/1300	915/1300
4.15	HEIGHT, LOWERED	h13	mm	85	85	85	85	85
4.19	OVERALL LENGTH	l1	mm	1526	1526	1690	1690	2065
4.20	LENGTH TO FACE OF FORKS	l2	mm	376	376	540	540	540
4.21	OVERALL WIDTH	b1	mm	540	680	540	680	540
4.22	FORK DIMENSIONS	s/e/l	mm	48/160/1150	48/160/1150	48/160/1150	48/160/1150	48/160/1525
4.25	DISTANCE BETWEEN FORK ARMS	b5	mm	540	680	540	680	540
4.32	GROUND CLEARANCE, CENTRE OF WHEEL BASE	m2	mm	21	21	21	21	21
4.34	AISLE WIDTH FOR PALLETS 800x1200 LENGTHWISE	Ast	mm	1779	1779	1948	1948	2273
4.35	TURNING RADIUS	Wa	mm	1372	1372	1541	1541	1916
PERFORMANCE DATA								
5.2	LIFT SPEED, LADEN/UNLADEN		strokes	62/30	62/30	0,08/0,13	0,08/0,13	0,08/0,13
5.3	LOWERING SPEED, LADEN/UNLADEN		m/s	0	0	0,13/0,06	0,13/0,06	0,13/0,06
ELECTRIC MOTORS								
6.2	LIFT MOTOR POWER		kW			1,6	1,6	1,6
6.4	BATTERY VOLTAGE, NOMINAL CAPACITY C5		V/Ah			12/60	12/60	12/60
6.5	BATTERY WEIGHT		kg			14	14	14
8.4 SOUND LEVEL AT DRIVER'S EAR								
			dB(A)			67	67	67

*G=Rubber, N=Nylon, P=Polyurethane, A=Steel, NE=Nylon extra * On board battery charger version

MODEL		HX10E 1150x540 GEL/PLUS	HX10E 1500x540 GEL/PLUS	HX10E 1800x540 GEL/PLUS	HX10E 2000x540 GEL/PLUS
SERVICE WEIGHT	kg	145	241	265	268
AXLE LOAD LADEN, FRONT/REAR	kg	435/710	537/704	578/687	590/678
AXLE LOAD UNLADEN, FRONT/REAR	kg	116/28	161/80	184/81	186/82
OVERALL LENGTH	l1 mm	1720	2095	2370	2570
LENGTH TO FACE OF FORKS	l2 mm	570	570	570	570
AISLE WIDTH FOR PALLETS 800x1200 LENGTHWISE	Ast mm	1978	2303	2578	2778
TURNING RADIUS	Wa mm	1571	1946	2221	2421
BATTERY VOLTAGE, NOMINAL CAPACITY C5	V/Ah	12/50	12/50	12/50	12/50
BATTERY WEIGHT	kg	19	19	19	19





ELECTRIC PALLET TRUCKS

The electric pallet trucks range has been designed to obtain compact machines able to operate even in spaces of extremely limited dimensions, where small sizes of trucks are a prerequisite. Range of products allows to cover several applications, from light to heavy duty use. On the whole series it is possible to do modifications in order to meet customer needs. The AC technology or the double lifting system are some of the mechanical and technological devices selected to improve and develop solutions that meet material handling market requests.

CX

12 - 14

The CX electric pallet trucks are available in different versions. They are suitable for carrying loads on smooth or paved surfaces. Its small size and turning radius make it the ideal tool to work with in confined spaces, such as lorries or narrow aisles.



Integrated battery and battery charger



STEERING WHEEL AND CONTROLS

- Ergonomic tiller
- Luminous indicator for battery state control.
- Butterfly valves for traction control.
- Safety pushbutton with warning buzzer.
- Forks way up/down control positioned on both sides of the handle (only on CX14).
- Hour counter in the Plus and Gel versions (only on CX14).
- "Tortoise" pushbutton for slow motion, which allows for the carrying out of operations with the tiller in vertical position.

COMPACT DIMENSIONS

Thanks to the B1 width, which is equal to the fork gauge, and the L2 measurement of 360 mm, the CX12 electronic pallet truck is the ideal tool for the handling of pallets on lorries, in supermarket aisles and any application where space is limited. This machine is the best configuration in its category thanks to the frame width, in-service weight and turning radius, guaranteeing great maneuverability and compactness.



PLUS BATTERIES

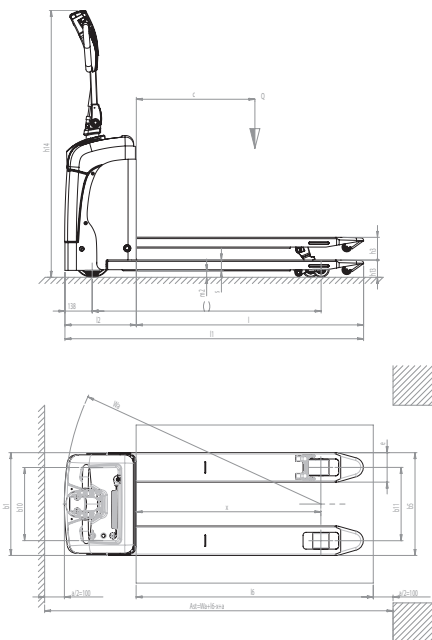
The Plus versions are equipped with semitraction batteries that guarantee greater autonomy and an operative life that allows for up to 5 times higher a number of charge life cycles. Thanks to the design of its guard, access to batteries is easy and rapid; this model also optimally combines size, power and low running cost also due to the integrated batteries and battery charger.



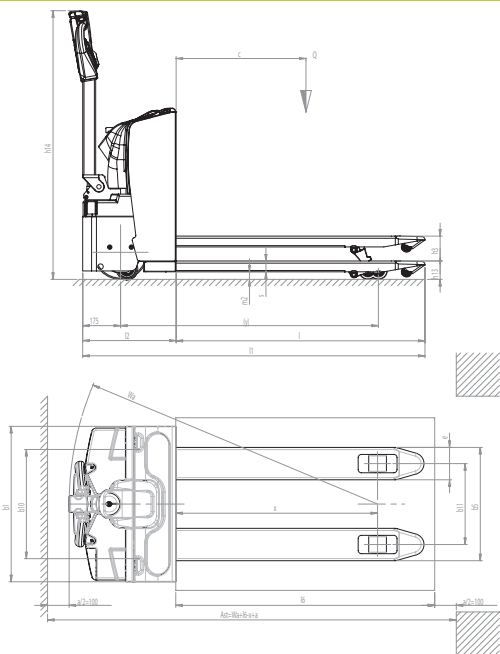
STABILIZERS

Two stabilizing wheels enable movement even on more difficult surfaces thus guaranteeing maximum stability in any condition of use.

Electric Pallet Trucks



CX12



CX14

DESCRIPTION			CX12 S2-S4	CX12 PLUS S2-S4	CX12 GEL S2-S4	CX14 S2-S4	CX14 PLUS S2-S4	CX14 GEL S2-S4
1.2	MODEL		CX12 S2-S4	CX12 PLUS S2-S4	CX12 GEL S2-S4	CX14 S2-S4	CX14 PLUS S2-S4	CX14 GEL S2-S4
1.3	DRIVE		ELECTRIC	ELECTRIC	ELECTRIC	ELECTRIC	ELECTRIC	ELECTRIC
1.4	OPERATOR TYPE		PEDESTRIAN	PEDESTRIAN	PEDESTRIAN	PEDESTRIAN	PEDESTRIAN	PEDESTRIAN
1.5	LOAD CAPACITY	Q kg	1200	1200	1200	1400	1400	1400
1.6	LOAD CENTRE DISTANCE	c mm	600	600	600	600	600	600
1.8	LOAD DISTANCE, CENTRE OF DRIVE AXLE TO FORK	x mm	886	886	886	935	935	935
1.9	WHEEL BASE	y mm	1119	1119	1119	1192	1192	1192
WEIGHTS								
2.1	SERVICE WEIGHT WITH BATTERY (see line 6,5)	kg	155-157	165-167	160-162	201-207	246-250	248-252
2.2	AXLE LOAD LADEN, FRONT/REAR	kg	431/924-926	441/924-926	436/924-926	562/1041-1045	599/1047-1051	600/1048-1052
2.3	AXLE LOAD UNLADEN, FRONT/REAR	kg	124/31-33	134/31-33	129/31-33	170/33-37	207/39-43	208/40-44
TYRES/CHASSIS								
3.1	TYRES		G+P/P	G+P/P	G+P/P	G+P/P	G+P/P	G+P/P
3.2	TYRE SIZE, FRONT (Ø x width)		186x50	186x50	186x50	250x76	250x76	250x76
3.3	TYRE SIZE, REAR (Ø x width)		82x82-60	82x82-60	82x82-60	82x80-60	82x80-60	82x80-60
3.4	SIDE WHEELS (Ø x width)		75x25	75x25	75x25	100x40	100x40	100x40
3.5	WHEELS, NUMBER (x=DRIVEN) FRONT/REAR		1x+2/2-2/4	1x+2/2-2/4	1x+2/2-2/4	1x+2/2-2/4	1x+2/2-2/4	1x+2/2-2/4
3.6	TREAD, FRONT	b10 mm	369	369	369	506	506	506
3.7	TREAD, REAR	b11 mm	371	371	371	375	375	375
DIMENSIONS								
4.4	LIFT	h3 mm	115	115	115	115	115	115
4.9	HEIGHT OF TILLER IN DRIVE POSITION MIN/MAX	h14 mm	885/1345	885/1345	885/1345	786/1242	786/1242	786/1242
4.15	HEIGHT, LOWERED	h13 mm	85	85	85	85	85	85
4.19	OVERALL LENGTH	l1 mm	1510	1510	1510	1650	1650	1650
4.20	LENGTH TO FACE OF FORKS	l2 mm	360	360	360	500	500	500
4.21	OVERALL WIDTH	b1 mm	520	520	520	720	720	720
4.22	FORK DIMENSIONS	s/e/l mm	55/150/1150	55/150/1150	55/150/1150	50/150/1150	50/150/1150	50/150/1150
4.25	DISTANCE BETWEEN FORK ARMS	b5 mm	520	520	520	525	525	525
4.32	GROUND CLEARANCE, CENTRE OF WHEEL BASE	m2 mm	30	30	30	35	35	35
4.34	AISLE WIDTH FOR PALLETS 800x1200 LENGTHWISE	Ast mm	1782	1782	1782	1900	1900	1900
4.35	TURNING RADIUS	Wa mm	1268	1268	1268	1435	1435	1435
PERFORMANCE DATA								
5.1	TRAVEL SPEED, LADEN/UNLADEN	km/h	4,3/4,8	4,3/4,8	4,3/4,8	4,5/4,7	4,5/4,7	4,5/4,7
5.2	LIFT SPEED, LADEN/UNLADEN	m/s	0,03/0,04	0,03/0,04	0,03/0,04	0,02/0,03	0,02/0,03	0,02/0,03
5.3	LOWERING SPEED, LADEN/UNLADEN	m/s	0,05/0,02	0,05/0,02	0,05/0,02	0,04	0,04	0,04
5.8	MAX GRADEABILITY, LADEN/UNLADEN		10/25	10/25	10/25	5/10	5/10	5/10
5.10	SERVICE BRAKE		ELECTRIC	ELECTRIC	ELECTRIC	ELECTRIC	ELECTRIC	ELECTRIC
ELECTRIC MOTORS								
6.1	DRIVE MOTOR POWER	kW	0,35	0,35	0,35	0,7	0,7	0,7
6.2	LIFT MOTOR POWER	kW	0,4	0,4	0,4	0,4	0,4	0,4
6.4	BATTERY VOLTAGE, NOMINAL CAPACITY C20	V/Ah	24/60	24/60 (45 C5)	24/48 (40 C5)	24/70 (C20)	24/118	24/105
6.5	BATTERY WEIGHT	V/Ah	2x14	2x19	2x16	32	78	80
8.4	SOUND LEVEL AT DRIVER'S EAR	dB(A)	67	67	67	76	76	76

G = Rubber, N = Nylon, P = Polyurethane, A = Steel, NE = Nylon extra

MODEL		CX12 S2-S4	CX12 S2-S4	CX14 S2-S4
FORK LENGTH	l mm	800	1000	1000
LOAD CENTRE DISTANCE	c mm	400	500	500
WHEELS, NUMBER (x=DRIVEN) FRONT/REAR		1x+2/2-2/4	1x+2/2-2/4	1x+2/2-2/4
OVERALL LENGTH	l1 mm	1160	1360	1500
WHEEL BASE	y mm	769	969	1042
LOAD DISTANCE, CENTRE OF DRIVE AXLE TO FORK	x mm	536	736	785
SERVICE WEIGHT WITH BATTERY (see line 6,5)	kg	150-152	153-155	199-203
AXLE LOAD LADEN, FRONT/REAR	kg	333/1017-1019	415/938-940	561/1038-1042
AXLE LOAD UNLADEN, FRONT/REAR	kg	121/29-31	123/30-32	169/30-34
TURNING RADIUS	Wa mm	918	1118	1285
AISLE WIDTH FOR PALLETS 800x1200 LENGTHWISE	Ast mm	1382	1582	1700

QX

18 - 20 - 20DL

QX/DL

In this version the QX20 structure still has a load capacity of 2.000 Kg but has been extended with the addition of a central cylinder that allows for the lifting of an 800 kg load on the plated forks in order to create a smooth support platform for the operator. The load backrest also guarantees total safety. The plated forks and clamps can be lifted independently through the pushbuttons on the wheelhouse.

The QX pallet truck series meets the needs of a vast number of applications guaranteeing high performance, even during the haviest operations. The ac technology introduced in the traction motor promotes high energy efficiency and a longer battery charging duration; the absence of brushes in the motor and the simpler structure of the motor increase system reliability. Furthermore, the double lifting version keeps the high functionality of the electrical pallet truck and combines it with the practical convenience of stackers.



TILLER

- Ergonomic tiller
- Luminous indicator for battery state control.
- Butterfly valves for traction control.
- Safety pushbutton with warning buzzer.
- Forks way up/down control positioned on both sides of the handle
- Hour counter
- "Tortoise" pushbutton for slow motion, which allows for the carrying out of operations with the tiller in vertical position.
- Ideal for running in confined spaces.



FORKS AND CONNECTION

The structure of QX pallet trucks is designed to guarantee maximum solidity and reliability: front forks are made of very thick cast iron just like clevis and other connecting rod parts. Impact on pallets and difficult surfaces is no longer a problem!



MOTOR WHEEL AND STABILIZING WHEELS

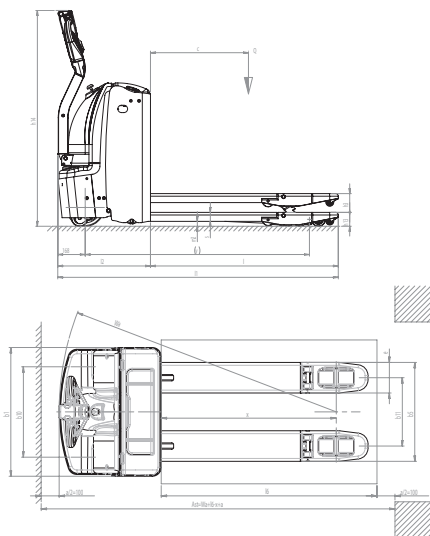
The motor wheel equipped with AC technology guarantees an excellent speed control system, with or without load on board (6 km/h). Two stabilizing wheels also enable movement even on more difficult surfaces, ensuring maximum stability in any condition of use.



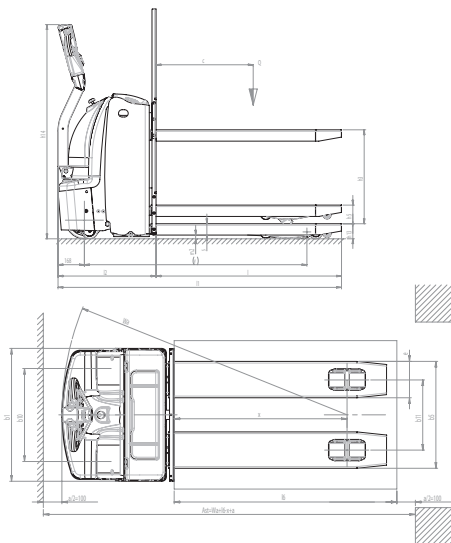
AC TECHNOLOGY

AC technology guarantees more energy efficiency and longer battery charging duration, thus reducing maintenance cost. Furthermore the absence of brushes in the motor and the simpler motor structure increase system reliability.

Electric Pallet Trucks



QX18-20



QX20DL

KENNZEICHEN				
1.2	MODEL		QX18 S2-S4	QX20 S2-S4
1.3	DRIVE		ELECTRIC	ELECTRIC
1.4	OPERATOR TYPE		PEDESTRIAN	PEDESTRIAN
1.5	LOAD CAPACITY	Q	kg	1800
1.6	LOAD CENTRE DISTANCE	c	mm	600
1.8	LOAD DISTANCE, CENTRE OF DRIVE AXLE TO FORK	x	mm	973
1.9	WHEEL BASE	y	mm	1373
WEIGHTS				
2.1	SERVICE WEIGHT WITH BATTERY (see line 6,5)		kg	510-515
2.2	AXLE LOAD LADEN, FRONT/REAR		kg	874/1436-1441
2.3	AXLE LOAD UNLADEN, FRONT/REAR		kg	388/122-127
TYRES/CHASSIS				
3.1	TYRES		P+P/P	P+P/P
3.2	TYRE SIZE, FRONT (Ø x width)		230x75	230x75
3.3	TYRE SIZE, REAR (Ø x width)		85x90-80	85x80
3.4	SIDE WHEELS (Ø x width)		100x40	100x40
3.5	WHEELS, NUMBER (x=DRIVEN) FRONT/REAR		1x+2/2-2/4	1x+2/4
3.6	TREAD, FRONT	b10	mm	506
3.7	TREAD, REAR	b11	mm	380
DIMENSIONS				
4.4	LIFT	h3	mm	115
4.6	INITIAL LIFT	h5	mm	-
4.9	HEIGHT OF TILLER IN DRIVE POSITION MIN/MAX	h14	mm	784/1320
4.15	HEIGHT, LOWERED	h13	mm	85
4.19	OVERALL LENGTH	l1	mm	1715
4.20	LENGTH TO FACE OF FORKS	l2	mm	565
4.21	OVERALL WIDTH	b1	mm	716
4.22	FORK DIMENSIONS	s/e/l	mm	55/170/1150
4.25	DISTANCE BETWEEN FORK ARMS	b5	mm	550
4.32	GROUND CLEARANCE, CENTRE OF WHEEL BASE	m2	mm	30
4.34	aisle width for pallets 800x1200 lengthwise	Ast	mm	2002
4.35	TURNING RADIUS	Wa	mm	1575
PERFORMANCE DATA				
5.1	TRAVEL SPEED, LADEN/UNLADEN		km/h	6,0/6,0
5.2	LIFT SPEED, LADEN/UNLADEN		m/s	0,04/0,05
5.3	LOWERING SPEED, LADEN/UNLADEN		m/s	0,05/0,04
5.8	MAX GRADEABILITY, LADEN/UNLADEN			10/20
5.10	SERVICE BRAKE			ELECTRIC
ELECTRIC MOTORS				
6.1	DRIVE MOTOR POWER		kW	1,2
6.2	LIFT MOTOR POWER		kW	2,2
6.4	BATTERY VOLTAGE, NOMINAL CAPACITY C5		V/Ah	24/180
6.5	BATTERY WEIGHT		kg	190
8.4	SOUND LEVEL AT DRIVER'S EAR		dB(A)	58,4

G = Rubber, N = Nylon, P = Polyurethane, A = Steel, NE = Nylon extra

MODEL		QX18 S2-S4	QX20 S2-S4
FORK LENGTH	l	mm	1000
LOAD CENTRE DISTANCE	c	mm	500
OVERALL LENGTH	l1	mm	1565
WHEEL BASE	y	mm	1223
LOAD DISTANCE, CENTRE OF DRIVE AXLE TO FORK	x	mm	823
SERVICE WEIGHT WITH BATTERY (see line 6,5)		kg	502-507
AXLE LOAD LADEN, FRONT/REAR		kg	868/1434-1439
AXLE LOAD UNLADEN, FRONT/REAR		kg	382/120-125
TURNING RADIUS	Wa	mm	1425
aisle width for pallets 800x1200 lengthwise	Ast	mm	1802
BATTERY			
BATTERY VOLTAGE, NOMINAL CAPACITY C5		V/Ah	24/180
BATTERY WEIGHT		kg	185

QX

20P – 22

QX22

The QX22 is ideal to move loads rapidly and over long distances. Structural solidity, quality of components, elevated load capacity (2.2 T), excellent shift speed (10 km/h) and battery capacity (315 ah) make QX22 the best choice for those who work on different shifts.



QX models equipped with a footplate are highly versatile electrical pallet trucks which, thanks to their folding footplate, can be used in confined spaces or over medium distances with an excellent shift speed (8 - 10 km/h). The strong frame, the separately excited traction motor technology and the braking system with energy recovery are just few samples of the high technology of this machine.



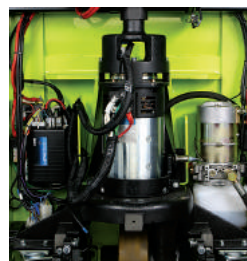
WHEELS

- Wheel drive of considerable power (2 kW) and big size (Ø mm 230x75).
- Two stabilizing wheels enable movement even on more difficult surfaces, ensuring maximum stability in any condition of use.



REPLACEMENT OF BATTERIES X22

- The battery compartment is equipped with a removable side frame and an internal roller that minimizes effort during the battery extraction and connection phases. A trolley is also available upon request to replace the battery rapidly.



TECHNOLOGY AND SAFETY

The machine is equipped with 3 sensors that automatically adjust speed control and reduce it up to 6 km/h when at least one of the following events occurs:

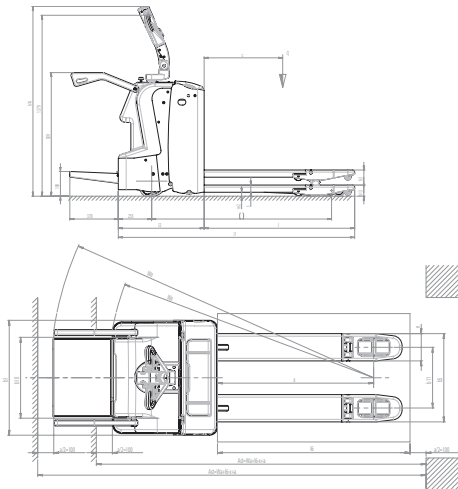
1. Lateral protection guards are not raised and are not brought to the "run" position.
2. The turning radius sensor registers a curve with an angle over 8 degrees.
3. The footplate is kept in closed position.



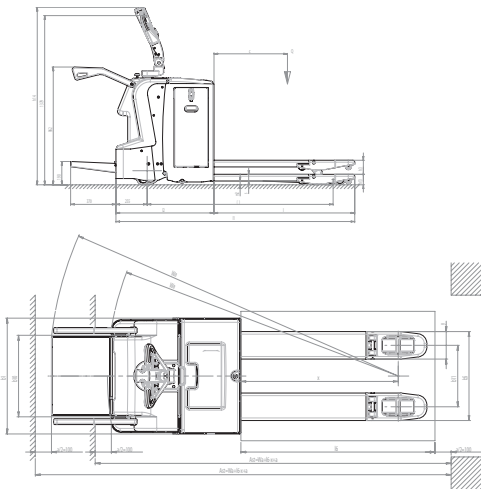
MOTORS

- Lifting (2.2 kW) and traction (2 kW) motors have both a voltage of 24 Volt. The vertical assembly not only allows for a more rapid access to all the parts but also minimizes room cluttering-up and wiring stress. Separately excited traction motor (SEM) technology ensures speed which is independent from the load carried, while electronic control (MOSFET) allows for a better traction adjustment and a smoother and more progressive speed control. Furthermore the machine is equipped with a microswitch that protects the battery, avoiding energy waste, once the forks are brought to the maximum height.

Electric Pallet Trucks



QX20P



QX22

KENNZEICHEN					QX20P S2-S4		QX22 S2-S4	
1.2	MODEL				ELECTRIC		ELECTRIC	
1.3	DRIVE				PEDESTRIAN/STANDING		PEDESTRIAN/STANDING	
1.4	OPERATOR TYPE							
1.5	LOAD CAPACITY	Q	kg		2000		2200	
1.6	LOAD CENTRE DISTANCE	c	mm		600		600	
1.8	LOAD DISTANCE, CENTRE OF DRIVE AXLE TO FORK	x	mm		973		973	
1.9	WHEEL BASE	y	mm		1373		1520	
WEIGHTS								
2.1	SERVICE WEIGHT WITH BATTERY (see line 6,5)		kg		559-564		632-637	
2.2	AXLE LOAD LADEN, FRONT/REAR		kg		1582-1587/977		1872-1877/960	
2.3	AXLE LOAD UNLADEN, FRONT/REAR		kg		117-122/442		190-195/442	
TYRES/CHASSIS								
3.1	TYRES				P/P+P		P/P+P	
3.2	TYRE SIZE, FRONT (Ø x width)				85x90-80		85x90-80	
3.3	TYRE SIZE, REAR (Ø x width)				230x75		230x75	
3.4	SIDE WHEELS (Ø x width)				100x40		100x40	
3.5	WHEELS, NUMBER (x=DRIVEN) FRONT/REAR				2/4 - 1x+2		2/4 - 1x+2	
3.6	TREAD, FRONT	b10	mm		380		380	
3.7	TREAD, REAR	b11	mm		506		506	
DIMENSIONS								
4.4	LIFT	h3	mm		115		115	
4.9	HEIGHT OF TILLER IN DRIVE POSITION MIN/MAX	h14	mm		1107/1450		1107/1450	
4.15	HEIGHT, LOWERED	h13	mm		85		85	
4.19	OVERALL LENGTH (PLATFORM CLOSED/OPEN)	l1	mm		1806/2176		1950/2320	
4.20	LENGTH TO FACE OF FORKS (PLATFORM CLOSED/OPEN)	l2	mm		656/1026		800/1170	
4.21	OVERALL WIDTH	b1	mm		716		716	
4.22	FORK DIMENSIONS	s/e/l	mm		55/170/1150		55/170/1150	
4.25	DISTANCE BETWEEN FORK ARMS	b5	mm		550		550	
4.32	GROUND CLEARANCE, CENTRE OF WHEEL BASE	m2	mm		30		30	
4.34	AISLE WIDTH FOR PALLET 800x1200 LENGTHWISE (PLATFORM CLOSED/OPEN)	Ast	mm		2084/2442		2225/2582	
4.35	TURNING RADIUS (PLATFORM CLOSED/OPEN)	Wa	mm		1657/2015		1798/2155	
PERFORMANCE DATA								
5.1	TRAVEL SPEED, LADEN/UNLADEN (PLATFORM CLOSED/OPEN)		km/h		6,0/6,0 (8,0/8,0)		6,0/6,0 (10,0/10,0)	
5.2	LIFT SPEED, LADEN/UNLADEN		m/s		0,04/0,05		0,04/0,05	
5.3	LOWERING SPEED, LADEN/UNLADEN		m/s		0,05/0,04		0,05/0,04	
5.8	MAX GRADEABILITY, LADEN/UNLADEN				8/20		8/20	
5.10	SERVICE BRAKE				ELECTRIC		ELECTRIC	
ELECTRIC MOTORS								
6.1	DRIVE MOTOR POWER		kW		2		2	
6.2	LIFT MOTOR POWER		kW		2,2		2,2	
6.4	BATTERY VOLTAGE, NOMINAL CAPACITY C5		V/Ah		24/180		24/230	
6.5	BATTERY WEIGHT		kg		190		216	
8.4	SOUND LEVEL AT DRIVER'S EAR		dB(A)		56,4		56,4	

G = Rubber, N = Nylon, P = Polyurethane, A = Steel, NE = Nylon extra

MODEL					QX20P S2-S4		QX22 S2-S4	
FORK LENGTH	l	mm			1000		1000	
LOAD CENTRE DISTANCE	c	mm			500		500	
OVERALL LENGTH (PLATFORM CLOSED/OPEN)	l1	mm			1656/2026		1800/2170	
WHEEL BASE	y	mm			1223		1370	
LOAD DISTANCE, CENTRE OF DRIVE AXLE TO FORK	x	mm			823		823	
SERVICE WEIGHT WITH BATTERY (see line 6,5)		kg			551-556		624-629	
AXLE LOAD LADEN, FRONT/REAR		kg			1581-1586/970		1869-1874/955	
AXLE LOAD UNLADEN, FRONT/REAR		kg			116-121/435		187-192/437	
TURNING RADIUS (PLATFORM CLOSED/OPEN)	Wa	mm			1507/1865		1648/2005	
AISLE WIDTH FOR PALLET 800x1200 LENGTHWISE (PLATFORM CLOSED/OPEN)	Ast	mm			1884/2242		2025/2382	
BATTERY QX20P								
BATTERY VOLTAGE, NOMINAL CAPACITY C5		V/Ah			24/180		24/230	
BATTERY WEIGHT		kg			185		218	
BATTERY QX22								
BATTERY VOLTAGE, NOMINAL CAPACITY C5		V/Ah			24/230		24/315	
BATTERY WEIGHT		kg			218		280	





STACKERS

The stackers line offers a wide range of solutions, from manual and semi-electric to electric machines. Products are designed to work in narrow spaces and cover different type of uses, from the light to heavy duty. Moreover stackers can be modified offering tailor made solutions on the base of customers individual needs.

MX

Manual Stackers

MX Series is not only an excellent compromise between price and performance but also a very resistant machine. Reinforced forks, steel pulley and forks precisely driven by rollers, are some of the main features of this stacker. The machine is also equipped with a foot pedal to lift forks, which considerably reduces the operator's effort.



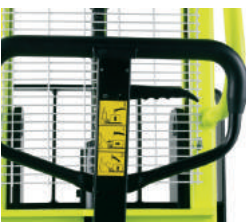
STEEL PULLEY

A big chain and a strong steel pulley ensure great resistance and reliability even working with the max load capacity.



FOOT BRAKE

The foot brake performs the parking brake function.



TILLER

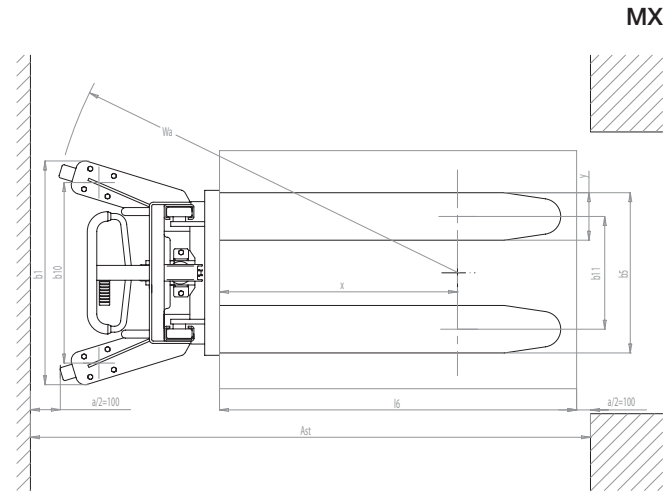
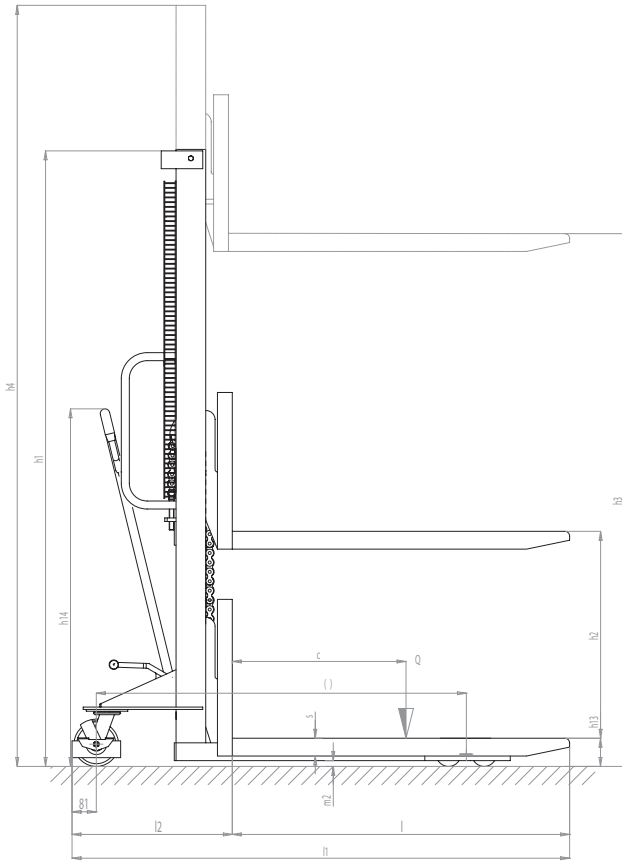
The plastic cover increases the ergonomic character of the MX handle, rendering the raising and transport operations even "lighter". The 3-position control lever (down, neutral, up) is placed on the steering wheel to foster manoeuvrability.



MAX PRESSURE VALVE

When maximum load capacity is exceeded, the oil pressure exceeds its maximum limit and the valve automatically stops the forks from lifting. In this way, possible structural damage is avoided.

Manual Stackers



KENNZEICHEN					
1.2	MODEL		MX 510	MX 516	MX 1016
1.3	DRIVE		MANUAL	MANUAL	MANUAL
1.4	OPERATOR TYPE		PEDESTRIAN	PEDESTRIAN	PEDESTRIAN
1.5	LOAD CAPACITY	Q kg	500	500	1000
1.6	LOAD CENTRE DISTANCE	c mm	600	600	600
1.8	LOAD DISTANCE, CENTRE OF DRIVE AXLE TO FORK	x mm	800	800	800
1.9	WHEEL BASE	y mm	1240	1240	1240
WEIGHTS					
2.1	SERVICE WEIGHT WITH BATTERY	kg	185	200	210
2.2	AXLE LOAD LADEN, FRONT/REAR	kg	202/483	213/487	309/901
2.3	AXLE LOAD UNLADEN, FRONT/REAR	kg	113/72	123/77	129/81
TYRES/CHASSIS					
3.1	TYRES		N/N	N/N	N/N
3.2	TYRE SIZE, FRONT (Ø x width)		150x40	150x40	150x40
3.3	TYRE SIZE, REAR (Ø x width)		80x70	80x70	80x70
3.5	WHEELS, NUMBER (x=DRIVEN) FRONT/REAR		2/2	2/2	2/2
3.6	TREAD, FRONT	b10 mm	600	600	600
3.7	TREAD, REAR	b11 mm	380	380	380
DIMENSIONS					
4.2	HEIGHT, MAST LOWERED	h1 mm	1490	2080	2080
4.3	FREE LIFT	h2 mm	910	1510	1510
4.4	LIFT	h3 mm	910	1510	1510
4.5	HEIGHT, MAST EXTENDED	h4 mm	1490	2080	2080
4.9	HEIGHT OF TILLER IN DRIVE POSITION MIN/MAX	h14 mm	490/1090	490/1090	490/1090
4.15	HEIGHT, LOWERED	h13 mm	90	90	90
4.19	OVERALL LENGTH	l1 mm	1690	1690	1690
4.20	LENGTH TO FACE OF FORKS	l2 mm	540	540	540
4.21	OVERALL WIDTH	b1/b2 mm	740	740	740
4.22	FORK DIMENSIONS	s/e/l mm	60/170/1150	60/170/1150	60/170/1150
4.24	FORK-CARRIAGE WIDTH	b3 mm	550	550	550
4.25	DISTANCE BETWEEN FORK ARMS	b5 mm	550	550	550
4.32	GROUND CLEARANCE, CENTRE OF WHEEL BASE	m2 mm	30	30	30
4.34	aisle width for pallets 800x1200 LENGTHWISE	Ast mm	2166	2166	2166
4.35	TURNING RADIUS	Wa mm	1400	1400	1400
PERFORMANCE DATA					
5.2	LIFT SPEED, LADEN/UNLADEN	m/s	37/37	73/73	73/73
5.3	LOWERING SPEED, LADEN/UNLADEN	m/s	0.16/0.05	0.16/0.05	0.12/0.03
5.10	SERVICE BRAKE		-	-	-
ELECTRIC MOTORS					
6.2	LIFT MOTOR POWER	kW	-	-	-
6.4	BATTERY VOLTAGE, NOMINAL CAPACITY C5	V/Ah	-	-	-
6.5	BATTERY WEIGHT	kg	-	-	-
8.4	SOUND LEVEL AT DRIVER'S EAR	dB(A)	-	-	-

G = Rubber, N = Nylon, P = Polyurethane, A = Steel, NE = Nylon extra

TX

Semi-Electric Stackers

The TX Series are characterized by manual traction and electrohydraulic lifting technology. Version 12 (1.2 t) includes polyurethane wheels as standard to reduce resistance and effort required even with full load capacity.

TX/STRADDLE

The main feature of the straddle series, which is available for the TX models, gives the possibility to adjust forks and clamps for great versatility in the handling of loads of different sizes.



Integrated battery and battery charges



START KEY AND BATTERY CUT-OFF (ISOLATOR) SWITCH

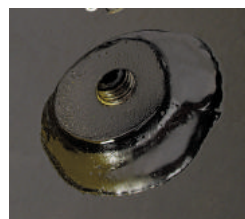
The start key on the TX stacker performs a double function:

- It switches the stacker on/off
- is an emergency control, i.e. it completely stops battery power supply and thus prevents the lifting of forks.



FOOT BRAKE

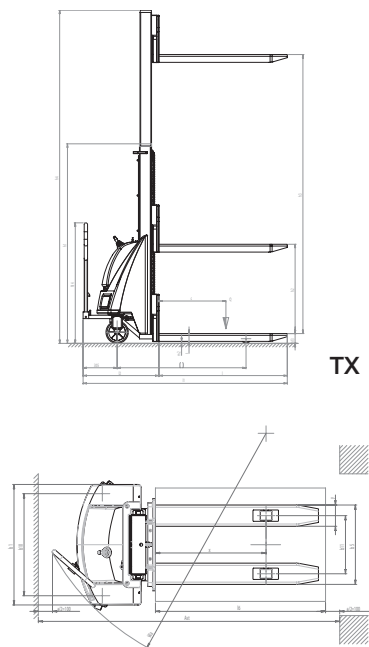
The foot brake performs the parking brake function.



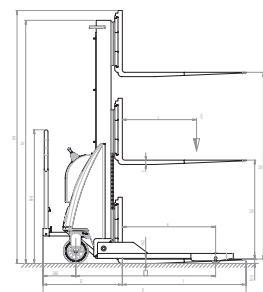
ADJUSTABLE BUFFERS

The TX 12 is equipped with adjustable buffers that minimize possible oscillation during lifting.

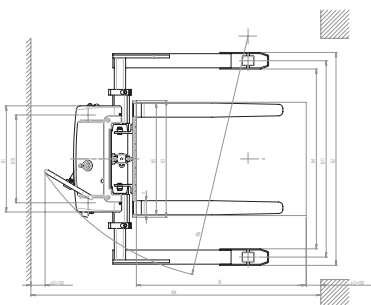
Semi-Electric Stackers



TX



TX STRADDLE



KENNZEICHEN					
1.2	MODEL		TX 10/20	TX 12/35	TX 10/16 STRADDLE
1.3	DRIVE		MANUAL	MANUAL	MANUAL
1.4	OPERATOR TYPE		PEDESTRIAN	PEDESTRIAN	PEDESTRIAN
1.5	LOAD CAPACITY	Q kg	1000	1200	1000
1.6	LOAD CENTRE DISTANCE	c mm	600	600	600
1.8	LOAD DISTANCE, CENTRE OF DRIVE AXLE TO FORK	x mm	630	780	755
1.9	WHEEL BASE	y mm	965	1155	1130
WEIGHTS					
2.1	SERVICE WEIGHT WITH BATTERY	kg	321	474	415
2.2	AXLE LOAD LADEN, FRONT/REAR	kg	253/1068	537/1137	453/962
2.3	AXLE LOAD UNLADEN, FRONT/REAR	kg	222/99	345/129	270/145
TYRES/CHASSIS					
3.1	TYRES		G/N	P/N	G/N
3.2	TYRE SIZE, FRONT (Ø x width)		200x50	200x50	200x50
3.3	TYRE SIZE, REAR (Ø x width)		82x70	82x70	82x70
3.5	WHEELS, NUMBER (x=DRIVEN) FRONT/REAR		2/2	2/2	2/2
3.6	TREAD, FRONT	b10 mm	620	720	620
3.7	TREAD, REAR	b11 mm	410	410	1080/1387
DIMENSIONS					
4.2	HEIGHT, MAST LOWERED	h1 mm	2370	2250	1970
4.3	FREE LIFT	h2 mm	1910	80	1510
4.4	LIFT	h3 mm	1910	3410	1510
4.5	HEIGHT, MAST EXTENDED	h4 mm	2370	3915	2045
4.9	HEIGHT OF TILLER IN DRIVE POSITION MIN/MAX	h14 mm	60/1080	60/1080	60/1080
4.15	HEIGHT, LOWERED	h13 mm	90	90	35
4.19	OVERALL LENGTH	l1 mm	1750	1850	1640
4.20	LENGTH TO FACE OF FORKS	l2 mm	600	700	640
4.21	OVERALL WIDTH	b1/b2 mm	750	850	750/1199-1504
4.22	FORK DIMENSIONS	s/e/l mm	70/150/1150	70/150/1150	35/100/1000
4.24	FORK-CARRIAGE WIDTH	b3 mm	650	650	825
4.25	DISTANCE BETWEEN FORK ARMS	b5 mm	560	560	230/790
4.26	DISTANCE BETWEEN LEGS MIN/MAX	b4 mm	-	-	965/1270
4.32	GROUND CLEARANCE, CENTRE OF WHEEL BASE	m2 mm	20	20	40
4.34	aisle width for pallets 800x1200 LENGTHWISE	Ast mm	2336	2540	2588
4.35	TURNING RADIUS	Wa mm	1440	1760	1790
PERFORMANCE DATA					
5.2	LIFT SPEED, LADEN/UNLADEN	m/s	0,09/0,12	0,09/0,12	0.09/0.12
5.3	LOWERING SPEED, LADEN/UNLADEN	m/s	0,4/0,1	0,4/0,1	0.4/0.1
5.10	SERVICE BRAKE		-	-	MANUAL
ELECTRIC MOTORS					
6.2	LIFT MOTOR POWER	kW	1,6	2,2	1.6
6.4	BATTERY VOLTAGE, NOMINAL CAPACITY C5	V/Ah	12/70 (C20)	24/70 (C20)	12/70 (C20)
6.5	BATTERY WEIGHT	kg	16	32	32
8.4	SOUND LEVEL AT DRIVER'S EAR	dB(A)	67	67	67

G = Rubber, N = Nylon, P = Polyurethane, A = Steel, NE = Nylon extra

MODEL			TX 10/09	TX 10/16	TX 12/25	TX 12/29
LIFT	h3	mm	810	1510	2410	2810
HEIGHT, MAST LOWERED	h1	mm	1300	1970	1780	1980
FREE LIFT	h2	mm	810	1510	-	-
HEIGHT, MAST EXTENDED	h4	mm	1300	1970	2985	3385
SERVICE WEIGHT WITH BATTERY (SEE ROW 6.5)		kg	296	311	415	431
AXLE LOAD LADEN, FRONT/REAR		kg	228/1068	241/1070	493/1122	502/1129
AXLE LOAD UNLADEN, FRONT/REAR		kg	197/99	210/101	301/114	310/121

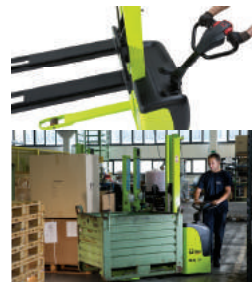
RX

RX is the most compact in the stackers' range, single mast, completely electric, suitable for loads up to 1.000 kg and elevation up to 1.600 mm, allowing a comfortable, safe use, with low maintenance costs, thanks to robust design with easy access for maintenance. RX combines compactness and ergonomics, offering a wide range of applications distribution and manufacturing environments and it is not intended for continuous daily activity.



EASY MAINTENANCE

Strong ABS carter/cover with storage compartments on top, easily removable to speed up maintenance operations. The bottom access opening allows an immediate disassembly of motor wheel, portal and tiller without lifting the machine.



ERGONOMICS

Ergonomic tiller placed laterally to increase visibility, ensuring an optimal arrangement of components inside the motor compartment. RX 10/16 solves perfectly the problem of handling goods in narrow spaces and corridors



VERSATILITY

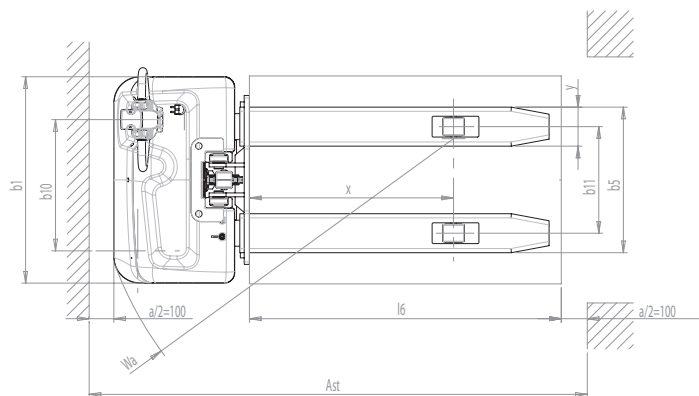
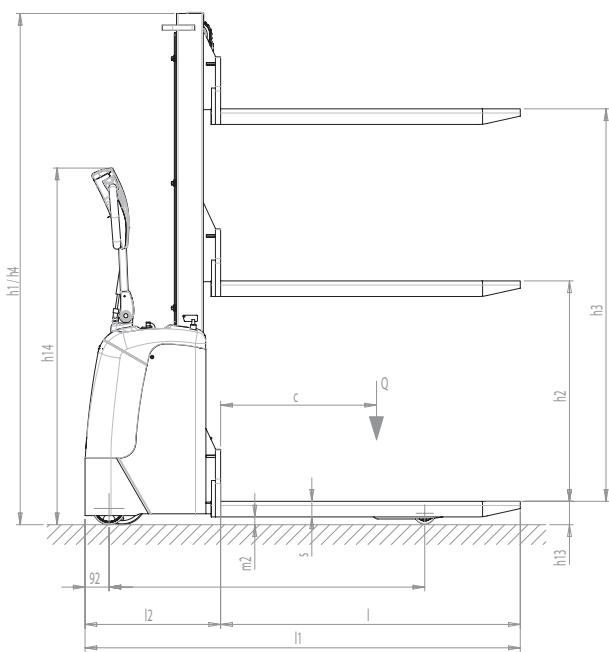
It's ideal to move, even horizontally, palletized goods and at the same time it can be used as an adjustable worktable, reducing stress for the operator who must place goods on a shelf. Forks thickness 60 mm for an easier entrance inside pallet, while working in elevation.



BATTERY PACK

Starting batteries (light-traction PLUS or GEL type as option), lightweight and inexpensive, allow up to 3 hours autonomy.

Electric Stackers



KENNZEICHEN					RX 10/16	RX 10/16 "PLUS"	RX 10/16 "GEL"
1.2	MODEL				ELECTRIC	ELECTRIC	ELECTRIC
1.3	DRIVE				PEDESTRIAN	PEDESTRIAN	PEDESTRIAN
1.4	OPERATOR TYPE						
1.5	LOAD CAPACITY	Q	kg		1000	1000	1000
1.6	LOAD CENTRE DISTANCE	c	mm		600	600	600
1.8	LOAD DISTANCE, CENTRE OF DRIVE AXLE TO FORK	x	mm		786	786	786
1.9	WHEEL BASE	y	mm		1165	1165	1165
WEIGHTS							
2.1	SERVICE WEIGHT WITH BATTERY (SEE ROW 6.5)		kg		363	371	371
2.2	AXLE LOAD LADEN, FRONT/REAR		kg		426/937	434/937	434/937
2.3	AXLE LOAD UNLADEN, FRONT/REAR		kg		261/102	269/102	269/102
TYRES/CHASSIS							
3.1	TYRES				G+P/P	G+P/P	G+P/P
3.2	TYRE SIZE, FRONT (Ø x width)				186x50	186x50	186x50
3.3	TYRE SIZE, REAR (Ø x width)				82x70	82x70	82x70
3.4	SIDE WHEELS (Ø x width)				125x45	125x45	125x45
3.5	WHEELS, NUMBER (x=DRIVEN) FRONT/REAR				1x+1/2	1x+1/2	1x+1/2
3.6	TREAD, FRONT	b10	mm		505	505	505
3.7	TREAD, REAR	b11	mm		410	410	410
DIMENSIONS							
4.2	HEIGHT, MAST LOWERED	h1	mm		1970	1970	1970
4.3	FREE LIFT	h2	mm		1510	1510	1510
4.4	LIFT	h3	mm		1510	1510	1510
4.5	HEIGHT, MAST EXTENDED	h4	mm		1970	1970	1970
4.9	HEIGHT OF TILLER IN DRIVE POSITION MIN/MAX	h14	mm		930/1365	930/1365	930/1365
4.15	HEIGHT, LOWERED	h13	mm		90	90	90
4.19	OVERALL LENGTH	l1	mm		1675	1675	1675
4.20	LENGTH TO FACE OF FORKS	l2	mm		522	522	522
4.21	OVERALL WIDTH	b1	mm		794	794	794
4.22	FORK DIMENSIONS	s/e/l	mm		60/150/1153	60/150/1153	60/150/1153
4.24	FORK-CARRIAGE WIDTH	b3	mm		650	650	650
4.25	DISTANCE BETWEEN FORK ARMS	b5	mm		560	560	560
4.32	GROUND CLEARANCE, CENTRE OF WHEEL BASE	m2	mm		20	20	20
4.34	AISLE WIDTH FOR PALLETS 800x1200 LENGTHWISE	Ast	mm		2120	2120	2120
4.35	TURNING RADIUS	Wa	mm		1344	1344	1344
PERFORMANCE DATA							
5.1	TRAVEL SPEED, LADEN/UNLADEN		km/h		3,7/4,3	3,7/4,3	3,7/4,3
5.2	LIFT SPEED, LADEN/UNLADEN		m/s		0,11/0,18	0,11/0,18	0,11/0,18
5.3	LOWERING SPEED, LADEN/UNLADEN		m/s		0,18/0,18	0,18/0,18	0,18/0,18
5.8	MAX GRADEABILITY, LADEN/UNLADEN		%		9/25	9/25	9/25
5.10	SERVICE BRAKE				ELECTRIC	ELECTRIC	ELECTRIC
ELECTRIC MOTORS							
6.1	DRIVE MOTOR POWER		kW		0,35	0,35	0,35
6.2	LIFT MOTOR POWER		kW		2,2	2,2	2,2
6.4	BATTERY VOLTAGE, NOMINAL CAPACITY C5		V/Ah		24/70 (C20)	24/54	24/50
6.5	BATTERY WEIGHT		kg		32	38	38
8.4	SOUND LEVEL AT DRIVER'S EAR		dB(A)		63	63	63

G = Rubber, N = Nylon, P = Polyurethane, A = Steel, NE = Nylon extra

GX

GX/Straddle

The main feature of the straddle series is the possibility to adjust the forks and the clamps for greater versatility in the handling of loads of different sizes.



GX/Free Lift

This stacker combines the characteristics of the gx series with the total free lift, allowing lifting forks up to 1.472 mm from the ground without increasing the minimum machine bulk (1.967 mm). For this reason the truck can also be used in working spaces with reduced height.



GX/PLUS

The GX Series is available in the plus version with a more powerful battery and the gel version with a gel battery. The battery of the plus model also allows for a greater number of charging cycles and longer autonomy.

Plus GX 12



Integrated battery and battery charger
Available with double lifting command
Available with poly motorwheel ring



TILLER

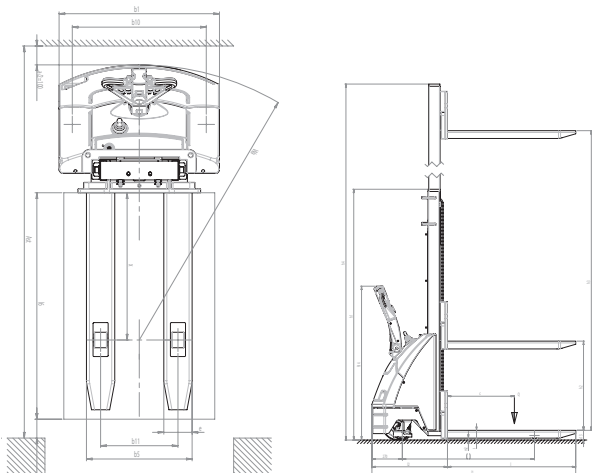
- Butterfly valve for traction control
- Safety pushbutton with warning buzzer
- Luminous display for battery state control
- Hour counter (version Plus and Gel)
- Possibility of fork lifting double control



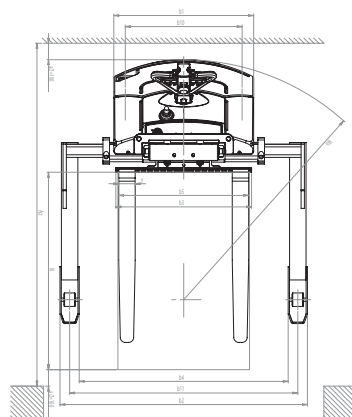
PROTECTION GUARD

The ABS "double" guard is synonymous of reliability and practical convenience. The removal of the only lower part ensures rapidity in the ordinary maintenance operations. Finally the particular thickness of the guard makes the machine even stronger.

Electric Stackers



GX



GX STRADDLE

KENNZEICHEN															
1.2	MODEL			GX 10/09		GX 10/16		GX 10/20		GX 12/25		GX 12/29		GX 12/35	
1.3	DRIVE			ELECTRIC		ELECTRIC		ELECTRIC		ELECTRIC		ELECTRIC		ELECTRIC	
1.4	OPERATOR TYPE			PEDESTRIAN		PEDESTRIAN		PEDESTRIAN		PEDESTRIAN		PEDESTRIAN		PEDESTRIAN	
1.5	LOAD CAPACITY			Q	kg	1000		1000		1000		1200		1200	
1.6	LOAD CENTRE DISTANCE			c	mm	600		600		600		600		600	
1.8	LOAD DISTANCE, CENTRE OF DRIVE AXLE TO FORK			x	mm	785		785		785		785		785	
1.9	WHEEL BASE			y	mm	1185		1185		1185		1185		1185	
WEIGHTS															
2.1	SERVICE WEIGHT WITH BATTERY (SEE ROW 6.5)				kg	372		393		413		481		496	
2.2	AXLE LOAD LADEN, FRONT/REAR				kg	428/944		443/950		457/956		545/1136		559/1137	
2.3	AXLE LOAD UNLADEN, FRONT/REAR				kg	273/99		288/105		302/111		358/123		372/124	
TYRES/CHASSIS															
3.1	TYRES					G+P/P		G+P/P		G+P/P		G+P/P		G+P/P	
3.2	TYRE SIZE, FRONT (Ø x width)					240x60		240x60		240x60		250x76		250x76	
3.3	TYRE SIZE, REAR (Ø x width)					82x70		82x70		82x70		82x70		82x70	
3.4	SIDE WHEELS (Ø x width)					150x40		150x40		150x40		150x40		150x40	
3.5	WHEELS, NUMBER (x=DRIVEN) FRONT/REAR					1x+2/2		1x+2/2		1x+2/2		1x+2/2		1x+2/2	
3.6	TREAD, FRONT			b10	mm	710		710		710		710		710	
3.7	TREAD, REAR			b11	mm	410		410		410		410		410	
DIMENSIONS															
4.2	HEIGHT, MAST LOWERED			h1	mm	1300		1970		2370		1780		1980	
4.3	FREE LIFT			h2	mm	810		1510		1910		-		80	
4.4	LIFT			h3	mm	810		1510		1910		2410		2810	
4.5	HEIGHT, MAST EXTENDED			h4	mm	1300		1970		2370		2985		3385	
4.6	INITIAL LIFT			h5	mm	-		-		-		-		-	
4.9	HEIGHT OF TILLER IN DRIVE POSITION MIN/MAX			h14	mm	990/1390		990/1390		990/1390		990/1390		990/1390	
4.15	HEIGHT, LOWERED			h13	mm	90		90		90		90		90	
4.19	OVERALL LENGTH			l1	mm	1825		1825		1825		1825		1825	
4.20	LENGTH TO FACE OF FORKS			l2	mm	675		675		675		675		675	
4.21	OVERALL WIDTH			b1/b2	mm	850		850		850		850		850	
4.22	FORK DIMENSIONS			s/e/l	mm	70/150/1150		70/150/1150		70/150/1150		70/150/1150		70/150/1150	
4.24	FORK-CARRIAGE WIDTH			b3	mm	650		650		650		650		650	
4.25	DISTANCE BETWEEN FORK ARMS			b5	mm	560		560		560		560		560	
4.32	GROUND CLEARANCE, CENTRE OF WHEEL BASE			m2	mm	20		20		20		20		20	
4.34	AISLE WIDTH FOR PALLETS 800x1200 LENGTHWISE			Ast	mm	2236		2236		2236		2236		2236	
4.35	TURNING RADIUS			Wa	mm	1460		1460		1460		1460		1460	
PERFORMANCE DATA															
5.1	TRAVEL SPEED, LADEN/UNLADEN				km/h	4/5		4/5		4/5		4/5		4/5	
5.2	LIFT SPEED, LADEN/UNLADEN				m/s	0.09/0.12		0.09/0.12		0.09/0.12		0.09/0.12		0.09/0.12	
5.3	LOWERING SPEED, LADEN/UNLADEN				m/s	0.4/0.1		0.4/0.1		0.4/0.1		0.4/0.1		0.4/0.1	
5.8	MAX GRADEABILITY, LADEN/UNLADEN				%	5/10		5/10		5/10		5/10		5/10	
5.10	SERVICE BRAKE					ELECTRIC		ELECTRIC		ELECTRIC		ELECTRIC		ELECTRIC	
ELECTRIC MOTORS															
6.1	DRIVE MOTOR POWER				kW	0.5		0.5		0.5		0.7		0.7	
6.2	LIFT MOTOR POWER				kW	2.2		2.2		2.2		2.2		2.2	
6.4	BATTERY VOLTAGE, NOMINAL CAPACITY C5				V/Ah	24/70 (C20)		24/70 (C20)		24/70 (C20)		24/88 (C20)		24/88 (C20)	
6.5	BATTERY WEIGHT				kg	32		32		32		40		40	
8.4	SOUND LEVEL AT DRIVER'S EAR				dB(A)	67		67		67		67		67	

G = Rubber, N = Nylon, P = Polyurethane, A = Steel, NE = Nylon extra

MODEL			GX 12/25 PLUS	GX 12/29 PLUS	GX 12/35 PLUS	GX 12/28 FREE LIFT	GX 12/25 STRADDLE	GX 12/29 STRADDLE	GX 12/35 STRADDLE	GX 12/38 STRADDLE
LIFT	h3	mm	2410	2810	3410	2750	2410	2810	3410	3710
HEIGHT, MAST LOWERED	h1	mm	1780	1980	2250	1967	1780	1980	2250	2425
FREE LIFT	h2	mm	-	-	80	1382	-	-	80	80
HEIGHT, MAST EXTENDED	h4	mm	2985	3385	3915	3335	2985	3385	3915	4270
SERVICE WEIGHT WITH BATTERY (SEE ROW 6.5)		kg	515	530	565	508	565	580	615	665
AXLE LOAD LADEN, FRONT/REAR		kg	579/1136	593/1137	619/1146	564/1144	582/1183	596/1184	617/1198	656/1209
AXLE LOAD UNLADEN, FRONT/REAR		kg	392/123	406/124	432/133	381/127	380/185	394/186	426/189	464/201
DISTANCE BETWEEN FORK ARMS MIN/MAX	b5	mm	560	560	560	560	230/790	230/790	230/790	230/790
DISTANCE BETWEEN LEGS MIN/MAX	b4	mm	-	-	-	-	965/1270	965/1270	965/1270	965/1270

LX

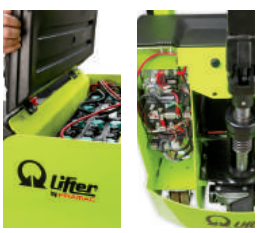
LX/Initial lifting First edition

Apart from the LX series high capacity characteristics, the initial lifting models also offer the possibility to lift legs, hence facilitating the overcoming of ramps and knick points. These models can also be used for the simultaneous transport of 2 pallets: one with the forks and one with the clamps.

The new LX is a strong and reliable partner which bridges the gap between low-duty and heavy duty material handling daily operations. Due to its durability, low maintenance LX is suitable for environments as logistic centers, terminals, production and manufacturing areas. Also the new tiller arm equipped with fork lifting and lowering proportional control improves user-friendliness and maneuverability of the truck.



Flip down operator platform available
AC traction motor



CARTER INTERNAL FEATURES
The New LX design with its strong wheel protection guard integrated into the frame structure aimed to increase both stability and safety. Now the new strong ABS battery cover comes with hinges which speed up all ordinary battery maintenance operations.



TOTAL WIDTH REDUCTION
The LX maneuverability has been improved by reduction of total width from 850 mm to 800 mm and by side wheel always within the truck width even when pivoting, allowing the operator to handle goods in narrow spaces and corridors.

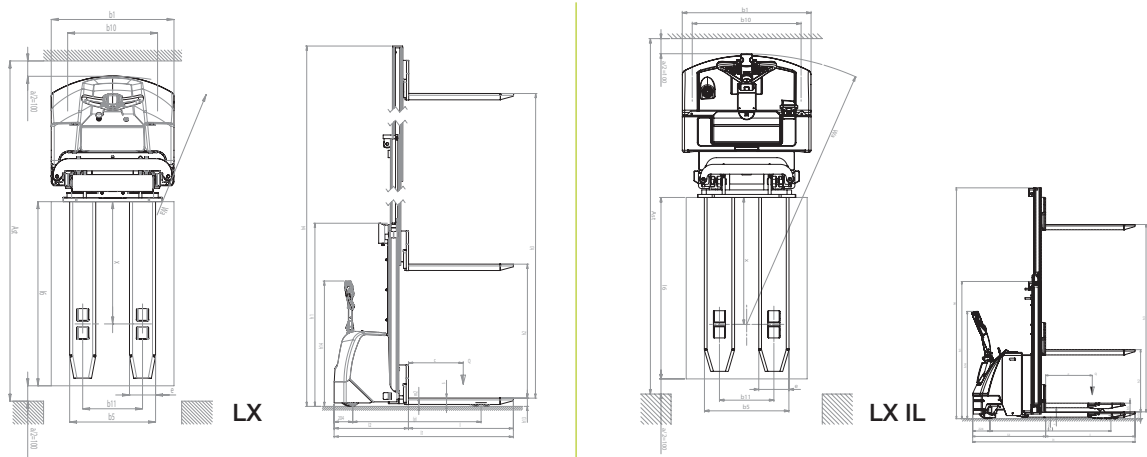


IMPROVED TILLER
Improved tiller with lifting/lowering proportional control. Fully integrated system with throttle, safety pushbutton, horn, hourmeter, battery status indicator.



MAST
The wider mast combined with the new ergonomic tiller to make LX more agile and easy to use. A sticker ruler allows the operator to easily check the forks elevation by sight.

Electric Stackers



DESCRIPTION				LX 14/45		LX 12/25 INITIAL LIFTING		LX 14/29 INITIAL LIFTING		LX 16/29		LX 12/29						
1.2	MODEL			ELECTRIC		ELECTRIC		ELECTRIC		ELECTRIC		ELECTRIC						
1.3	DRIVE			PEDESTRIAN		PEDESTRIAN		PEDESTRIAN		PEDESTRIAN		PEDESTRIAN						
1.4	OPERATOR TYPE			PEDESTRIAN		PEDESTRIAN		PEDESTRIAN		PEDESTRIAN		PEDESTRIAN						
1.5	LOAD CAPACITY	Q	kg	1400		1200		1400		1600		1200						
1.6	LOAD CENTRE DISTANCE	c	mm	600		600		600		600		600						
1.8	LOAD DISTANCE, CENTRE OF DRIVE AXLE TO FORK	x	mm	797		840		820		820		780						
1.9	WHEEL BASE	y	mm	1436		1555		1555		1436		1373						
WEIGHTS																		
2.1	SERVICE WEIGHT WITH BATTERY (SEE LINE 6.5)			kg		1190		947		1080		837						
2.2	AXLE LOAD LADEN, FRONT/REAR			kg		1002/1588		739/1408		856/1624		977/1673						
2.3	AXLE LOAD UNLADEN, FRONT/REAR			kg		801/389		590/357		674/406		723/315						
TYRES/CHASSIS																		
3.1	TYRES			G+P/P		G+P/P		G+P/P		G+P/P		G+P/P						
3.2	TYRE SIZE, FRONT (Ø x width)			250x101		250x76		250x101		250x101		250x76						
3.3	TYRE SIZE, REAR (Ø x width)			82x70		78x78		78x78		82x70		82x70						
3.4	SIDE WHEELS (Ø x width)			2 x 100x38		125x50		125x50		2 x 100x38		2 x 100x38						
3.5	WHEELS, NUMBER (x=DRIVEN) FRONT/REAR			1x+2/4		1x+2/4		1x+2/4		1x+2/4		1x+2/2						
3.6	TREAD, FRONT	b10	mm	586		720		720		586		586						
3.7	TREAD, REAR	b11	mm	390		360		360		390		390						
DIMENSIONS																		
4.2	HEIGHT, MAST LOWERED	h1	mm	2080		1765		1965		1965		1985						
4.3	FREE LIFT	h2	mm	-		-		-		-		-						
4.4	LIFT	h3	mm	4410		2410		2810		2810		2810						
4.5	HEIGHT, MAST EXTENDED	h4	mm	5020		2970		3370		3370		3390						
4.6	INITIAL LIFT	h5	mm	-		120		120		-		-						
4.9	HEIGHT OF TILLER IN DRIVE POSITION MIN/MAX	h14	mm	990/1390		990/1390		990/1390		990/1390		990/1390						
4.15	HEIGHT, LOWERED	h13	mm	90		90		90		90		90						
4.19	OVERALL LENGTH	l1	mm	1966		2100 (2192/2603)		2110 (2202/2613)		1944		1920						
4.20	LENGTH TO FACE OF FORKS	l2	mm	816		950 (1042/1453)		960 (1052/1463)		795		770						
4.21	OVERALL WIDTH	b1	mm	800		850		850		800		800						
4.22	FORK DIMENSIONS	s/e/l	mm	70/170/1150		70/200/1150		70/200/1150		70/170/1150		70/150/1150						
4.24	FORK-CARRIAGE WIDTH	b3	mm	644		650		644		644		650						
4.25	DISTANCE BETWEEN FORK ARMS	b5	mm	560		560		560		560		560						
4.32	GROUND CLEARANCE, CENTRE OF WHEEL BASE	m2	mm	20		17/137		17/137		20		20						
4.34	AISLE WIDTH FOR PALLETS 800x1200 LENGTHWISE	Ast	mm	2380		2432 (2485/2942)		2446 (2499/2956)		2365		2330						
4.35	TURNING RADIUS (PLATFORM CLOSED/OPEN)	Wa	mm	1613		1694 (1747/2204)		1694 (1747/2204)		1613		1550						
PERFORMANCE DATA																		
5.1	TRAVEL SPEED, LADEN/UNLADEN			km/h		6/6		5.5/6 (3.5/4)		5.5/6 (3.5/4)		6/6						
5.2	LIFT SPEED, LADEN/UNLADEN			m/s		0,14/0,28		0,09/0,15		0,08/0,12		0,13/0,25						
5.3	LOWERING SPEED, LADEN/UNLADEN			m/s		0,34/0,40		0,4/0,1		0,40/0,1		0,31/0,38						
5.8	MAX GRADEABILITY, LADEN/UNLADEN			%		5/10		5/10		5/10		5/10						
5.10	SERVICE BRAKE			ELECTRIC		ELECTRIC		ELECTRIC		ELECTRIC		ELECTRIC						
ELECTRIC MOTORS																		
6.1	DRIVE MOTOR POWER			kW		1.2		1.2		1.2		1.2						
6.2	LIFT MOTOR POWER			kW		3.2		2.5		2.5		3.2						
6.4	BATTERY VOLTAGE, NOMINAL CAPACITY C5			V/Ah		24/300		24/180		24/180		24/300						
6.5	BATTERY WEIGHT			kg		270		200		200		270						
MODEL				LX 12/16	LX 12/25	LX 12/35	LX 12/38	LX 14/42	LX 14/42 FREE LIFT	LX 14/45 FREELIFT	LX 14/50	LX 14/50 FREELIFT	LX 16/16	LX 16/25	LX 16/35	LX 14/25 INITIAL LIFTING	LX 14/45 INITIAL LIFTING	
SERVICE WEIGHT WITH BATTERY (SEE LINE 6.5)				750	822	878	888	1172	1204	1223	1229	1262	920	1025	1090	1055	1232	
AXLE LOAD LADEN, FRONT/REAR				761/1190	789/1233	810/1268	814/1274	883/1689	902/1702	913/1710	916/1713	935/1727	888/1632	960/1665	1005/1685	834/1621	940/1692	
AXLE LOAD UNLADEN, FRONT/REAR				540/210	592/230	632/246	639/249	789/383	810/394	823/400	827/402	849/413	633/287	706/319	750/340	652/403	768/464	
HEIGHT, MAST LOWERED				h1 mm	1965	1785	2250	2425	1985	1994	2089	2285	2294	1965	1765	2265	1765	2099
FREE LIFT				h2 mm	1510	-	80	80	-	1370	1470	-	1675	1510	-	-	-	-
LIFT				h3 mm	1510	2410	3410	3760	4110	4110	4410	5025	5025	1510	2410	3410	2410	4410
HEIGHT, MAST EXTENDED				h4 mm	1965	2990	3915	4265	4725	4734	5029	5635	5644	1965	2970	3970	2970	5039
INITIAL LIFT				h5 mm	-	-	-	-	-	-	-	-	-	-	-	120	120	
BATTERY																		
BATTERY VOLTAGE, NOMINAL CAPACITY C5				V/Ah	24/225	24/300												
BATTERY WEIGHT				kg	270	270												

STACKERS

Residual lifting capacity - kg



* H3																	
MODEL	900	1000	1200	1600	2000	2500	2800	2900	3300	3500	3600	3800	3850	4000	4200	4500	5000
MX 510		500 kg															
MX 516				500 kg													
MX 1016				1000 kg													
TX 10/09	1000 kg																
TX 10/16				1000 kg													
TX 10/20					1000 kg												
TX 12/25						1200 kg											
TX 12/29						1200 kg		800 kg									
TX 12/35						1200 kg		800 kg		600 kg							
GX 10/09	1000 kg																
GX 10/16				1000 kg													
GX 10/20					1000 kg												
GX 12/25						1200 kg											
GX 12/29						1200 kg		800 kg									
GX 12/28 Free Lift						1200 kg	800 kg										
GX 12/35						1200 kg		800 kg		600 kg							
LX 12/16				1200 kg													
LX 12/25						1200 kg											
LX 12/25 IL						1200 kg											
LX 12/29						1200 kg		1000 kg									
LX 12/35						1200 kg		1000 kg		800 kg							
LX 12/38						1200 kg		1000 kg		800 kg			800 kg				
LX 14/42									1400 kg		1200 kg			1000 kg	800 kg		
LX 14/45									1400 kg		1200 kg			1000 kg		800 kg	
LX 14/45 IL								1400 kg		1200 kg				1000 kg		800 kg	
LX 14/50									1400 kg		1200 kg			1000 kg			800 kg
LX 16/16				1600 kg													
LX 16/25						1600 kg											
LX 14/25 IL						1400 kg											
LX 16/29						1600 kg		1400 kg									
LX 14/29 IL						1400 kg		1300 kg									
LX 16/35						1600 kg		1400 kg		1100 kg							
GX 12/38 Straddle												1200 kg					
GX 12/29 Straddle								1200 kg				1200 kg					
GX 12/25 Straddle						1200 kg											
GX 12/35 Straddle										1200 kg							
TX 10/16 Straddle				1000 kg													
LX 14/42 Free Lift									1400 kg		1200 kg			1000 kg	800 kg		
LX 14/45 Free Lift									1400 kg		1200 kg			1000 kg		800 kg	
LX 14/50 Free Lift									1400 kg		1200 kg			1000 kg			800 kg

*H3: Lifting height (mm) - Load center at C = 600 mm



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