STILL iGo Technical Data
Scalable Automation Solutions

EXV iGo

FM-X iGo

MX-X iGo

Li-Ion INSIDE

first in intralogistics

With STILL iGo, we offer various truck-based extension levels for the automation of your intralogistics which can be individually adapted to your requirements.
Hardly any other solution offers as much potential for process optimisation, data exchange and networking as automated systems do. Robots, autonomous trucks and automated guided vehicles (AGV) play a key role in this area.

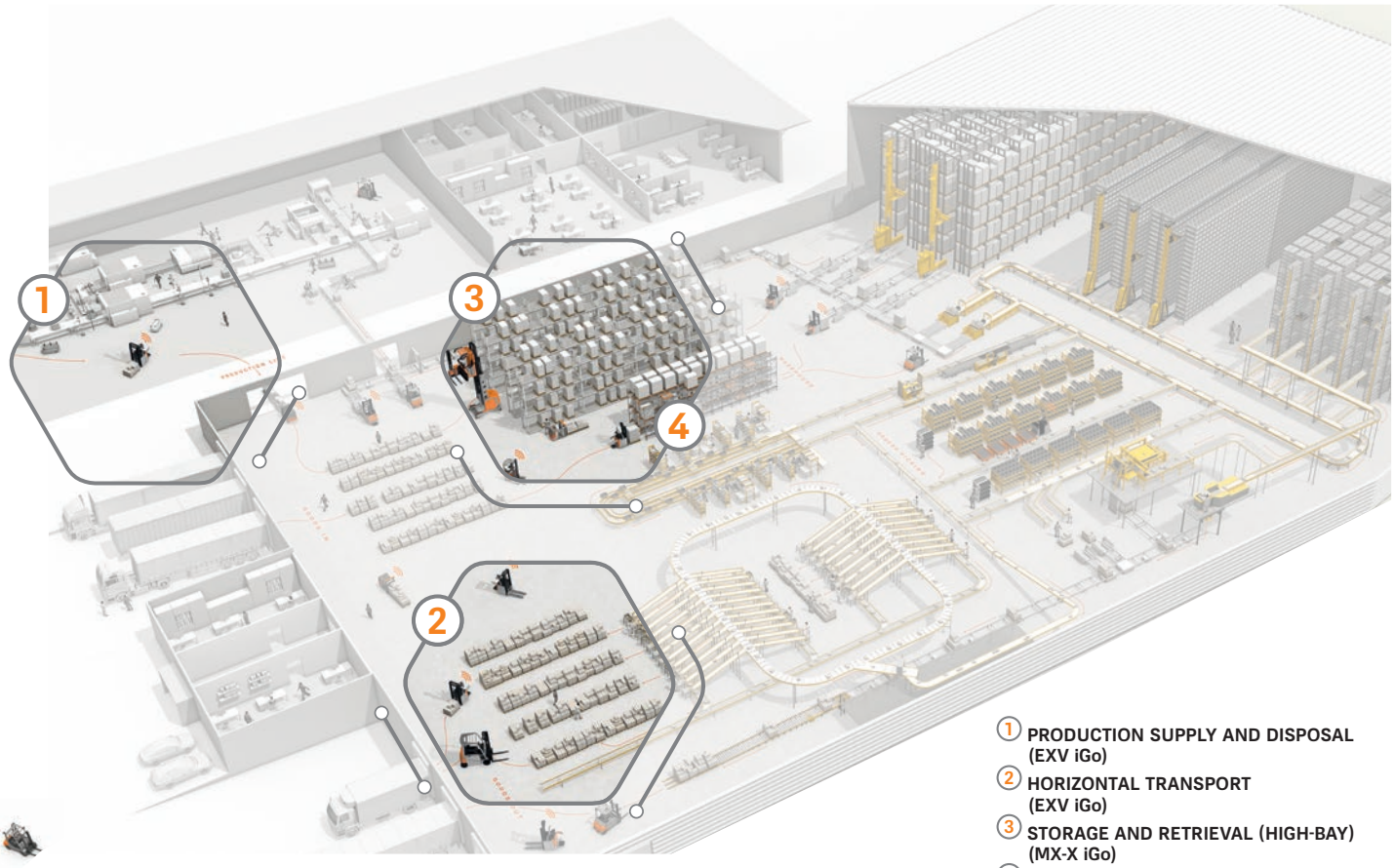
Given all this, it is no wonder that there has been so much development in the last few years. Today, we are seeing significant investment and research in a multitude of R&D areas – and not just by the major AGV manufacturers. Hundreds of start-ups, technology companies and software firms are also keen to break into the market in this field. With our wealth of experience and expertise in automation, we will be at your side right from the start to make sure that you find the perfect automation solution for you from among the numerous options on the market.

EXV iGo
Automated high lift pallet truck

FM-X iGo
Automated reach truck

MX-X iGo
Automated very narrow aisle truck

Typical automation scenarios



① **PRODUCTION SUPPLY AND DISPOSAL (EXV iGo)**
② **HORIZONTAL TRANSPORT (EXV iGo)**
③ **STORAGE AND RETRIEVAL (HIGH-BAY) (MX-X iGo)**
④ **STORAGE AND RETRIEVAL (WIDE-AISLE WAREHOUSE OR BLOCK STORAGE) (EXV iGo and FM-X iGo)**

Flexible. Scalable. Efficient. Are you also confronted with challenges like these every day when competing for satisfied customers?

- **Delivery delays** due to rising order intake
- **Warehouse capacities** are reaching their limits
- **Warehouse employees** are exposed to high physical stress
- **Inefficient processes** caused by errors, empty runs and transport damage
- **Skills shortage**

If so, you should consider automating your intralogistics processes – it is a highly productive and cost-effective way to solve problems like these.

Automation with STILL iGo

Not every technological innovation is always financially feasible for every task. We will be your partner and ensure that you do not get lost amid the vast array of digital offers available as part of Industry 4.0.

No matter what stage of your automation project you are at, we will identify just the right mix of technical solutions for your intralogistics and will always keep a close eye on your return on investment.

- **Future-proof.** Standardised and scalable solutions for every automation requirement
- **Cost-effective.** The right automation solutions in terms of ROI
- **Smart.** From flexible plug & play solutions to highly customised system solutions
- **Competent.** Rely on many years of experience and the largest portfolio of state-of-the-art transport systems (mobile and stationary)
- **Predictable.** Short response times in the design and quotation preparation stages, as well as in the implementation of projects
- **Reliable.** Tailored service packages, software-assisted maintenance and service processes and competent service teams in your area

Warehouse applications

With STILL iGo, you can increase the efficiency of your processes and pave the way for smart processes. Whether in a wide-aisle or narrow-aisle warehouse, in block storage, in production supply or goods receipt and dispatch – iGo systems enables you to automate the entire range of your warehouse processes. Very narrow aisle trucks, reach trucks and high lift pallet trucks can be networked in an intelligent system and, depending on requirements, it is even possible to do this in conjunction with hybrid or manually operated trucks. Different transfer stations enable different trucks to work together seamlessly, and make it possible to transport a range of load carriers. This ensures maximum flexibility and productivity.

Individual automation solutions tailored to your precise requirements. STILL iGo enables automated interaction between one or more different trucks so that transport tasks in the warehouse can be performed without a driver. Our many years of experience have taught us that different warehouse situations require different solutions. With STILL iGo, we offer you various solutions for the automation of your processes that can be flexibly and scalably adapted to your requirements - and therefore always pay off.

Analysis, planning, implementation. Put your trust in automation that meets your needs and delivers maximum efficiency by selecting the best technologies for your requirements. This means that you can always stay flexible because all automated STILL Hybrid vehicles series-produced trucks can also be operated manually in the worst-case scenario. Once your tailor-made automation solution has been implemented, a professional, custom service model guarantees that your system is available at all times.

Charging and chargers

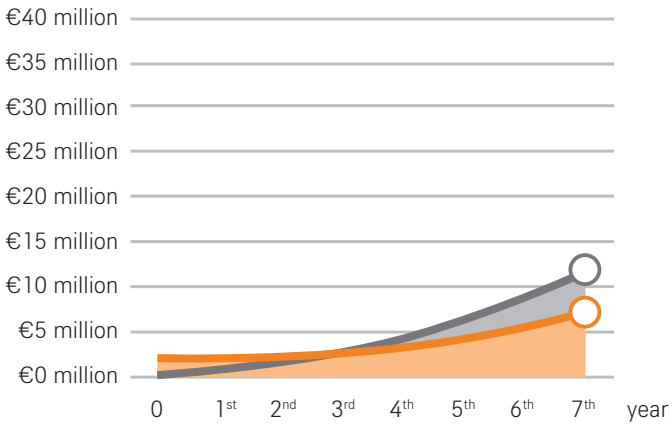
Smart automation also means smart charging. After all, tailor-made energy and charging concepts that are integrated into the overall process ensure that your fleet is always available. Therefore, in accordance with the level of automation in your warehouse, you also need to consider the automation of your charging concept, which may include manual, hybrid or fully automated charging processes. Having the right energy system also plays an important role here. Whether lead-acid or lithium-ion batteries are the best choice for you depends on factors such as truck utilisation, charging slots and charging infrastructure. Is there scope for changing batteries or charging them between shifts? Or would flexible opportunity charging during short breaks fit better into your workflow? Our logistics experts will be happy to help you answer these questions and to put together the perfect solution for you from our comprehensive and flexible portfolio to meet your needs and objectives.

An automated warehouse offers many advantages. In addition to increasing efficiency and safety, the value-creating use of resources also plays an important role: when intelligent machines take over physically demanding and repetitive work, this frees up employees to focus on more creative and responsible tasks.

Manual
Automated

The graph is a sample illustration of costs.

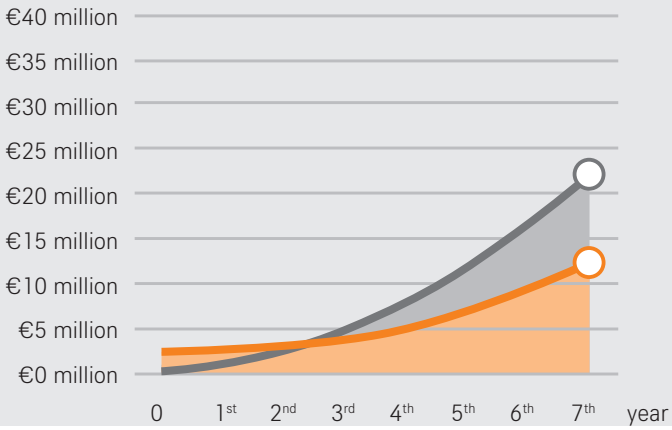
ONE-SHIFT OPERATION COSTS



AND YOU ALSO BENEFIT FROM A COST-EFFICIENCY PERSPECTIVE:

- Increased handling capacity and maximum productivity – 24/7 if required
- Significantly reduced accident rate and optimum safety for people and machines
- Less damage to goods, materials and trucks
- Minimal error rate thanks to intelligent systems
- Greater independence from the labour market while becoming more attractive as a place to work

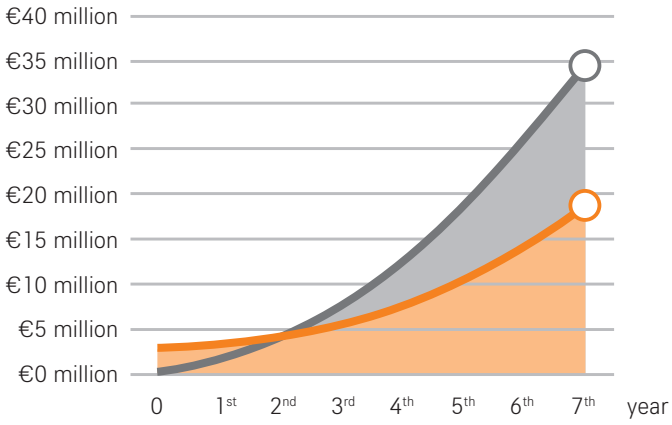
TWO-SHIFT OPERATION COSTS



AUTOMATION – AN INVESTMENT THAT PAYS OFF

Even in the very first year and in one-shift operation, you can achieve significant savings on annual costs, for example when comparing a manual warehouse with three trucks to an automated warehouse with four AGVs. Naturally, lower personnel costs play a big role in this, but potential additional costs and downtime costs are also much lower thanks to the high level of process reliability. Particularly when viewed over the course of several years, the cumulative costs clearly demonstrate the savings potential of automated processes. Not to mention the future viability.

THREE-SHIFT OPERATION COSTS



EXV iGo Automated High Lift Pallet Truck
Smart from the start

This specification sheet, which conforms to VDI guideline 2198, provides the technical values for the standard equipment only. Different tyres, other masts, additional equipment, etc. may produce different values.

Features	1.1	Manufacturer				STILL
	1.2	Manufacturer's type designation				**EXV iGo**
	1.3	Drive				Electric
	1.4	Operation				Manual/automated
	1.5	Rated capacity/rated load		Q	kg	1600
	1.6	Load capacity at load centre distance		c	mm	625
	1.8	Load centre distance		x	mm	701
	1.9	Wheel base		y	mm	1386
Weights	2.1	Service weight (incl. battery)			kg	1550
	2.2	Axle load, laden	drive end/load end		kg	1239/1912
	2.3	Axle load, unladen	drive end/load end		kg	1146/404
Tyres/chassis	3.1	Tyres				Rubber + polyurethane/ polyurethane
	3.2	Tyre size	drive end		mm	Ø 230 x 90
	3.3	Tyre size	load end		mm	Ø 85 x 85
	3.4	Additional wheels			mm	Ø 150 x 50
	3.5	Number of wheels (x = driven)	drive end/load end			1 x + 1/2
	3.6	Track width	drive end/load end	b_{10}/b_{11}	mm	534/380
Dimensions	4.2	Height, mast lowered		h_1	mm	1915
	4.3	Free lift		h_2	mm	150
	4.4	Lift		h_3	mm	2844
	4.5	Height, mast extended		h_4	mm	1915
	4.6	Initial lift		h_5	mm	-
	4.7	Height of overhead guard		h_6	mm	2443
	4.9	Height of drawbar in driving position	min./max.	h_{14}	mm	1163/698
	4.15	Fork height, lowered		h_{13}	mm	86
	4.19	Overall length		l_1	mm	2208 [1]
	4.20	Length to face of forks		l_2	mm	966 [1]
	4.21	Overall width		b_1	mm	1000
	4.22	Fork dimensions DIN ISO 2331		s/e/l	mm	71/182/1250
	4.24	Fork carriage width		b_3	mm	780
	4.25	Distance between fork arms		b_5	mm	560
	4.26	Distance between wheel arms		b_4	mm	255
	4.32	Ground clearance, centre of wheel base		m_2	mm	20
	4.34.1	Aisle width for pallets 1000 x 1200 crossways		A_{st}	mm	3075 [1, 2]
	4.34.2	Aisle width for pallets 800 x 1200 lengthways		A_{st}	mm	2925 [1, 2]
	4.35	Turning radius in manual mode		W_a	mm	1744 [1]
Performance data	5.1	Travel speed	laden/unladen		m/s	2.0/2.0
	5.2	Lifting speed	laden/unladen		m/s	0.16/0.30
	5.3	Lowering speed	laden/unladen		m/s	0.40/0.35
	5.10	Service brake				Electromagnetic
Electric engine	6.1	Drive motor rating S2 = 60 min			kW	2.3
	6.2	Lift motor rating S3 = 15%			kW	3.2
	6.3	Battery according to DIN 43531/35/36 A, B, C, no				3PzS
	6.4	Battery voltage/rated capacity K_5			V/Ah kWh	24/375 Li-Ion: 12
	6.5	Battery weight ±5% (depends on make)			kg	333
	6.6	Energy consumption in relation to VDI cycle (15 cycles/1 h)			kWh/h	0.925 [3]
Misc.	8.1	Drive control				AC control
	8.4	Sound pressure level at driver's seat			dB(A)	<66

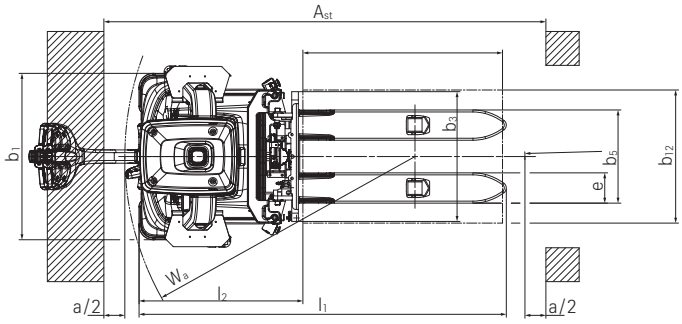
[1] +75 mm with 4PzS battery
[2] Minimum aisle width A_{st} with reduced speed
[3] At a nominal capacity of 1600 kg
Please note: This is a sample configuration. Depending on the use of the truck, the values may differ.

Mast Tables

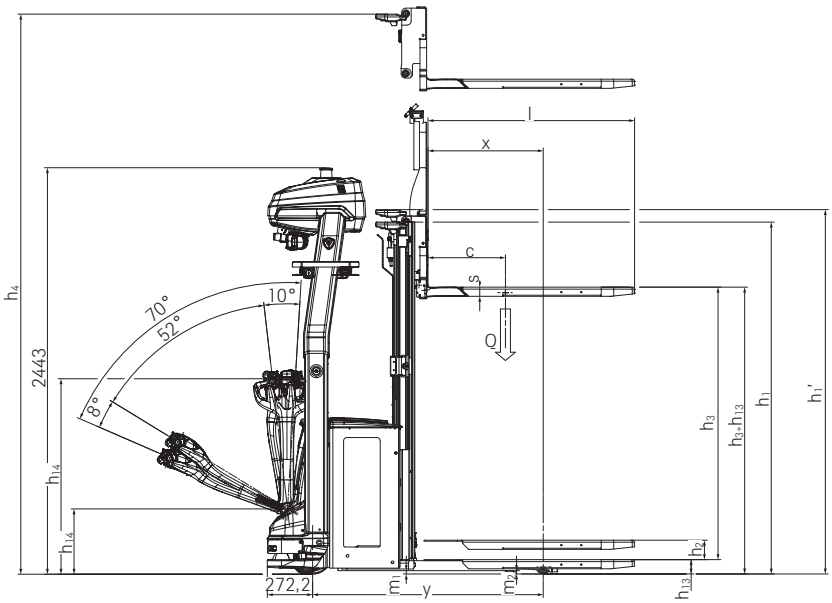
				Telescopic mast		
EXV 16 iGo systems	Height	h_1	mm	1915	2115	2365
	Mast height with activated free lift (h_3 = 150 mm)	h_1'	mm	1990	2190	2640
	Free lift [1]	h_2	mm	150	150	150
	Lift	h_3	mm	2844	3244	3744
	Height, mast extended	h_4	mm	3364	3764	4264
	Maximum storage height [2]	h	mm	2780	3180	3680

[1] With increased mast height h_1'
[2] Considering free lift and load detection: $h = h_3 + h_{13} - h_2$

EXV iGo Automated High Lift Pallet Truck
Technical Drawings

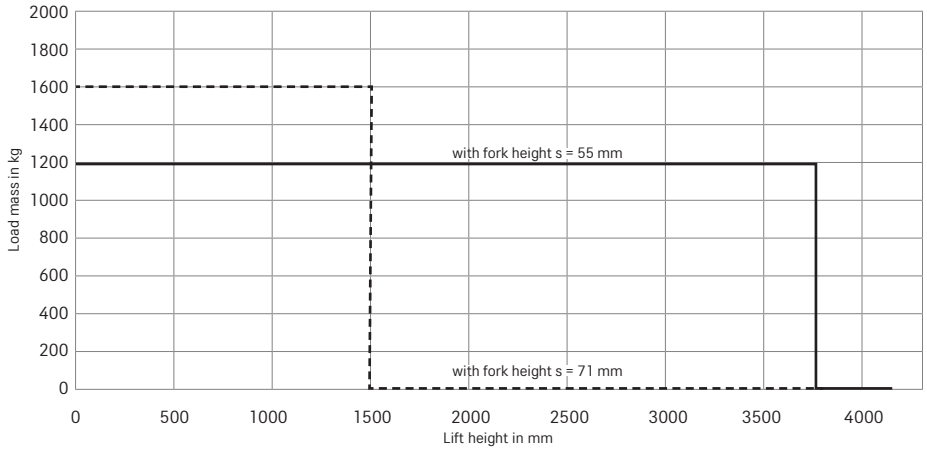


Top view EXV iGo



Side view EXV iGo

Basic Load Capacities



1. This diagram shows the loads and shelf heights for which the automated truck can transport, store and retrieve loads safely, reliably and consistently.

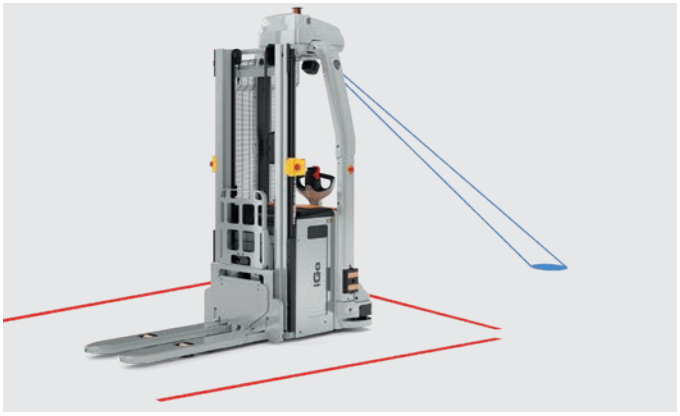
2. The ability to automate storage and retrieval depends not only on the truck, but also on other factors such as the load carriers, the nature of the load and the transfer stations to be operated. Suitability must therefore be confirmed on a project-specific basis.

EXV iGo Automated High Lift Pallet Truck
Detailed Photos

Excellent operator safety thanks to reliable 360-degree safety laser on the truck

The entire charging process of the EXV iGo can be fully automated: Charging contacts for both lithium-ion and lead-acid batteries

Dynamic safety fields around the truck ensure maximum safety and collision avoidance: Real-time adjustment of the driving speed depending on corner radius



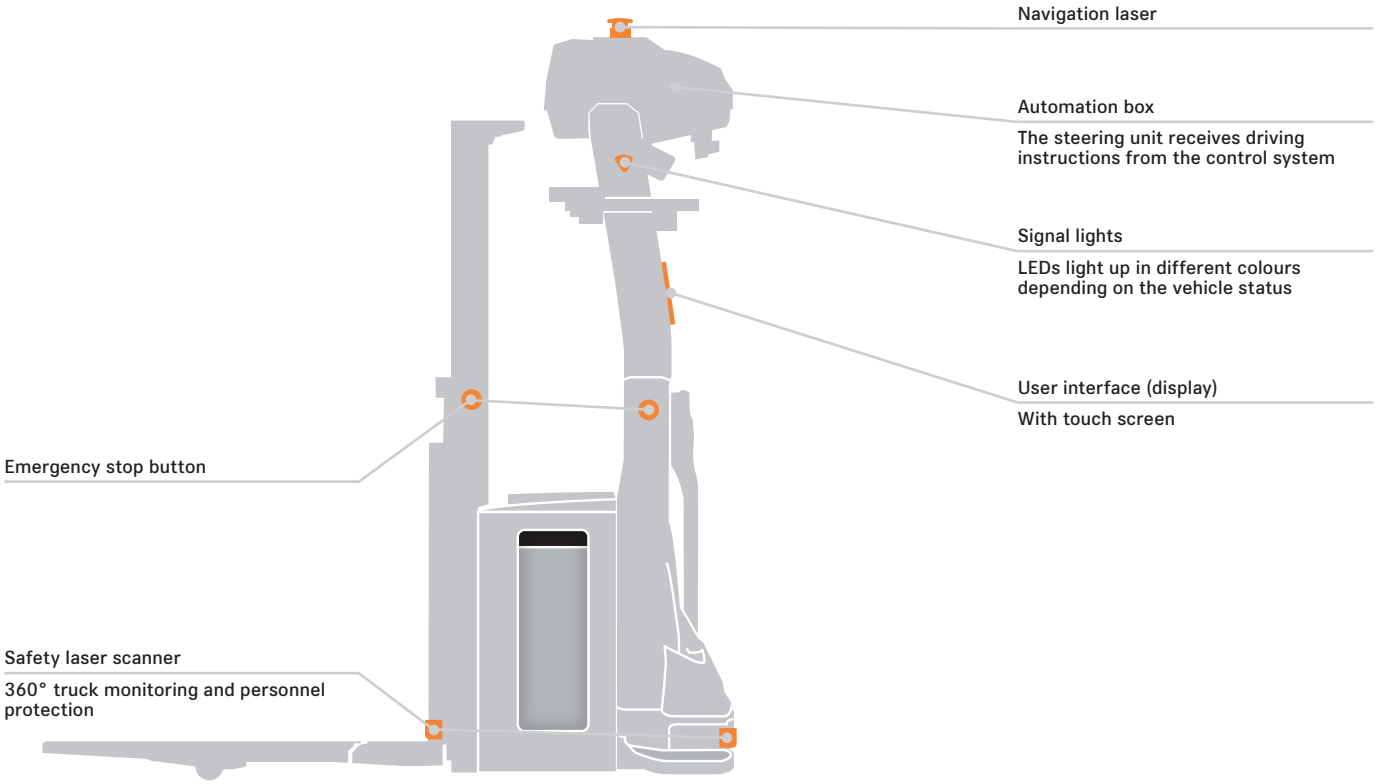
Eye-catching warning lights for high visibility and recognition of the truck

Large touch screen at eye level for intuitive operation and maximum ease of use

Reliable collision avoidance with additional sensors for detecting obstacles in the truck's environment

Experience and know-how: STILL's tried and tested truck technology is the basis of our reliable, safe and efficient goods transport

No aisle too narrow, no warehouse too small: The EXV iGo boasts impressively compact dimensions and high manoeuvrability



Advantages of automated high lift pallet trucks

Automated high lift pallet trucks are efficient, safe and powerful, and – combined with other driverless transport systems – pave the way for highly efficient, safe and flexible logistics processes. The EXV iGo is the perfect truck for setting new standards, particularly in production logistics and the pre-storage zone. It excels in storage and retrieval in wide-aisle and block storage systems, at high rack warehouse transfer stations, in automatic route provision, and also in horizontal transport – for the latter it can also easily handle longer distances with a maximum speed of 2.0 m/s. The truck's high residual load capacity and a lift height of up to 3.8 metres make it a reliable and powerful partner for storage and retrieval. The EXV iGo can easily be integrated into existing IT structures, or be used as a stand-alone system for simple, repeat transport tasks. It guarantees optimal process reliability, precision and maximum safety, even in mixed operation. This is ensured by the 360° personnel protection, which protects people, the truck and the load using sensitive scanners and sensors. The following safety features are integrated as standard: a safety laser scanner that detects people and objects in the path of travel; visual and acoustic warning systems (e. g. when changing direction of travel); and an emergency stop button that can be used to bring the forklift truck to an immediate standstill. The EXV can be operated in dual operation if required.

Industrialised AGVs (automated guided vehicles) are powerful components for optimising your warehouse and your logistics.

FM-X iGo Automated Reach Truck
Smart from the start

This specification sheet, which conforms to VDI guideline 2198, provides the technical values for the standard equipment only. Different tyres, other masts, additional equipment, etc. may produce different values.

Features	1.1	Manufacturer				STILL	STILL	STILL	STILL	STILL
	1.2	Manufacturer's type designation				**FM-X 12 iGo**	**FM-X 14 iGo**	**FM-X 17 iGo**	**FM-X 20 iGo**	**FM-X 25 iGo**
	1.3	Drive				Electric	Electric	Electric	Electric	Electric
	1.4	Operation				Manual/automated	Manual/automated	Manual/automated	Manual/automated	Manual/automated
	1.5	Rated capacity/rated load		Q	kg	1100	1300	1600	1900	2400
	1.6	Load centre distance		c	mm	600	600	600	600	600
	1.8	Load distance, centre of drive axle to fork		x	mm	278	348	410	410	482
	1.9	Wheel base		y	mm	1275	1381	1453	1525	1669
Weights	2.1	Service weight (incl. battery)			kg	3340	3570	3570	3920	4210
	2.3	Axle load, unladen	drive end/load end		kg	2150/1180	2270/1300	2310/1260	2490/1430	2660/1550
	2.4	Axle load, fork raised, laden	drive end/load end		kg	850/3580	850/4010	730/4440	820/5000	810/5790
	2.5	Axle load, fork retracted, laden	drive end/load end		kg	1820/2610	1950/2910	2030/3140	2180/3640	2420/4190
Tyres/chassis	3.1	Tyres				Polyurethane	Polyurethane	Polyurethane	Polyurethane	Polyurethane
	3.2	Tyre size	drive end		mm	∅ 360 x 130	∅ 360 x 130	∅ 360 x 130	∅ 360 x 130	∅ 360 x 140
	3.3	Tyre size	load end		mm	∅ 285 x 100	∅ 285 x 100	∅ 285 x 100	∅ 350 x 100	∅ 350 x 100
	3.5	Number of wheels (x = driven)	drive end/load end			1x/2	1x/2	1x/2	1x/2	1x/2
	3.7	Track width	load end	b_{11}	mm	1167	1167	1167	1167	1167
Dimensions	4.1	Tilt of mast/fork carriage	forward/backward	α/β	°	0/4	0/4	0/4	0/4	0/4
	4.2	Height	mast lowered	h_1	mm	2450	2450	2450	2450	2450
	4.3	Free lift		h_2	mm	1672	1672	1662	1662	1610
	4.4	Lift		h_3	mm	5532	5532	5532	5362	5362
		Maximum storage height			mm	5400	5400	5400	5230	5230
	4.5	Height	mast extended	h_4	mm	6643	6643	6643	7261	7261
	4.6	Height of protective roof		h_6		2200	2200	2200	2200	2200
	4.6.1	Height of overhead guard incl. automation		$h_{6.1}$	mm	2475	2475	2475	2475	2475
	4.8	Seat height relating to SIP/stand height		h_7	mm	1140	1140	1140	1140	1140
	4.10	Height of wheel arms		h_8	mm	308	308	308	373	373
	4.19	Overall length		l_1	mm	2430	2466	2476	2548	2620
	4.20	Length to face of forks		l_2	mm	1280	1316	1326	1398	1470
	4.21	Overall width		b_1/b_2	mm	1465	1465	1465	1465	1465
	4.22	Fork dimensions DIN ISO 2331		s/e/l	mm	50/100/1250	50/100/1250	50/100/1250	50/100/1250	50/100/1250
	4.23	Fork carriage ISO 2328, class/type A, B				2/A	2/A	2/A	2/A	2/A
	4.24	Fork carriage width		b_3	mm	760	760	760	760	760
	4.25	Distance between fork arms	min./max.	b_5	mm	520/620	520/620	520/620	520/620	520/620
	4.26	Distance between wheel arms/loading surfaces		b_4	mm	920	920	920	920	920
	4.28	Reach distance		l_4	mm	449	529	591	623	695
	4.31	Ground clearance, laden, below mast		m_1	mm	49	49	49	49	49
	4.32	Ground clearance, centre of wheel base		m_2	mm	70	70	70	70	50
	4.34.1	Aisle width for pallets 1000 x 1200 crossways		A_{st}	mm	2975	3000	3050	3100	3200
	4.34.2	Aisle width for pallets 800 x 1200 lengthways		A_{st}	mm	3000	3025	3050	3100	3175
	4.35	Turning radius		W_a	mm	1702	1802	1872	1940	2077
	4.37	Length across wheel arms		l_7	mm	1685	1791	1863	1968	2112
	4.43	Step height			mm	345	345	345	345	345
Performance data	5.1	Travel speed	laden/unladen		m/s	1.7/1.7	1.7/1.7	1.7/1.7	1.7/1.7	1.7/1.7
	5.1.1	Travel speed backwards	laden/unladen		m/s	0.8/0.8	0.8/0.8	0.8/0.8	0.8/0.8	0.8/0.8
	5.2	Lifting speed	laden/unladen		m/s	0.47/0.70	0.45/0.68	0.45/0.68	0.37/0.58	0.34/0.50
	5.3	Lowering speed	laden/unladen		m/s	0.56/0.50	0.56/0.52	0.55/0.52	0.53/0.50	0.52/0.50
	5.4	Reaching speed	laden/unladen		m/s	0.18	0.18	0.18	0.18	0.18
	5.9	Acceleration time	laden/unladen		m/s²	0.4/0.4	0.4/0.4	0.4/0.4	0.4/0.4	0.4/0.4
	5.10	Service brake				Regenerative electric/ hydraulic	Regenerative electric/ hydraulic	Regenerative electric/ hydraulic	Regenerative electric/ hydraulic	Regenerative electric/ hydraulic
Electric engine	6.1	Drive motor rating S2 = 60 min			kW	6.5	6.5	6.5	6.5	6.5
	6.2	Lift motor rating S3 = 15 %			kW	14	14	14	14	14
	6.3	Battery according to DIN 43531/35/36 A, B, C, no				3PzS	3PzS	3PzS	4PzS	5PzS
	6.4	Battery voltage/nominal capacity K_5			V/Ah	48/465	48/465	48/465	48/620	48/775
	6.5	Battery weight (depending on manufacturer ±5 %)			kg	750	750	750	940	1120
	6.6	Energy consumption according to VDI cycle			kWh/h	3.23	3.4	3.56	3.59	4.49
Misc.	10.1	Operating pressure for attachments			bar	200	200	200	200	200
	10.2	Oil volume for attachments			l/min	20	20	20	20	20

Please note: This is a sample configuration. Depending on the use of the truck, the values may differ.

The FM-X iGo systems is equipped with a pallet positioning sensor for precise and efficient pallet handling even at the highest levels of the shelving

Automatic opportunity charging via charging contacts located on the overhead guard for a fully automated process

Maximum operator safety thanks to reliable 360-degree safety lasers on the truck

Maximum precision through navigation laser on the overhead guard

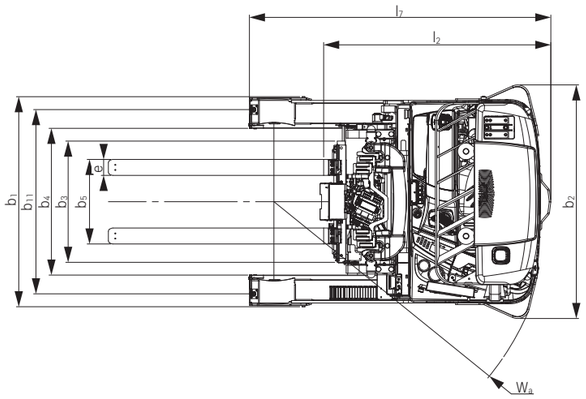
FM-X iGo Automated Reach Truck
Mast Tables

				FM-X 12 iGo – FM-X 14 iGo													FM-X 12 iGo		FM-X 14 iGo										
Triplex mast	Height, mast lowered	h_1	mm	1950	2015	2050	2200	2250	2300	2400	2450	2500	2600	2700	2800	2900	2800	2900	3000	3100	3200	3300	3400	3500	3600	3700	3800
	Free lift	h_2	mm	1172	1237	1272	1422	1472	1522	1622	1672	1722	1822	1922	2022	2122	2022	2122	2222	2322	2422	2522	2622	2722	2822	2922	3022
	Lift	h_3	mm	4032	4222	4332	4782	4932	5082	5382	5532	5682	5982	6282	6482	6782	6582	6882	7182	7482	7782	8082	8382	8682	8982	9282	9582
	Height, mast extended	h_4	mm	5143	5333	5443	5893	6043	6193	6493	6643	6793	7093	7393	7593	7893	7693	7993	8293	8593	8893	9193	9493	9793	10093	10393	10693
	Maximum storage height		mm	3900	4090	4200	4650	4800	4950	5250	5400	5550	5850	6150	6350	6650	6450	6750	7050	7350	7650	7950	8250	8550	8850	9150	9450

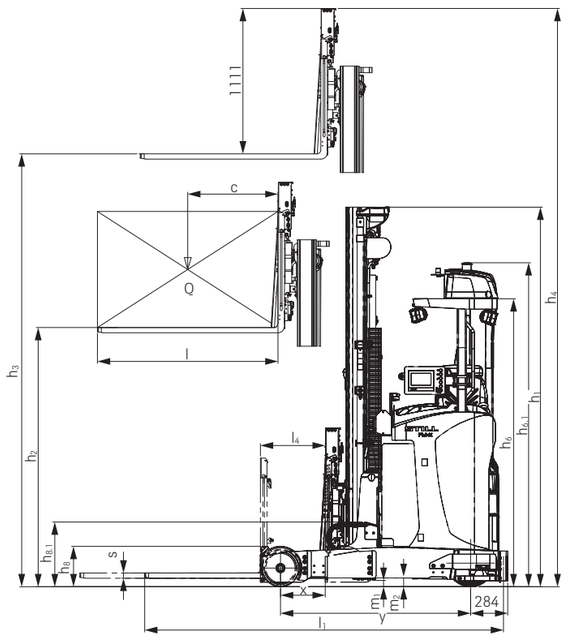
				FM-X 20 iGo																								
Triplex mast	Height, mast lowered	h_1	mm	1950	2015	2050	2200	2250	2300	2400	2450	2500	2600	2700	2800	2900	3000	3100	3200	3300	3400	3450	3500	3600	3700	3800	3900
	Free lift	h_2	mm	1162	1227	1262	1412	1462	1512	1612	1662	1712	1812	1912	2012	2112	2212	2312	2412	2512	2612	2662	2712	2812	2912	3012	3112
	Lift	h_3	mm	3862	4052	4162	4612	4762	4912	5212	5362	5512	5812	6112	6412	6712	6982	7282	7582	7782	8082	8232	8382	8682	8982	9282	9582
	Height, mast extended	h_4	mm	4973	5163	5273	5723	5873	6023	6323	6473	6623	6923	7223	7523	7823	8093	8393	8693	8893	9193	9343	9493	9793	10093	10393	10693
	Maximum storage height		mm	3730	3920	4030	4480	4630	4780	5080	5230	5380	5680	5980	6280	6580	6850	7150	7450	7650	7950	8100	8250	8550	8850	9150	9450

				FM-X 25 iGo																								
Triplex mast	Height, mast lowered	h_1	mm	1950	2015	2050	2200	2250	2300	2400	2450	2500	2600	2700	2800	2900	3000	3100	3200	3300	3400	3450	3500	3600	3700	3800	3900
	Free lift	h_2	mm	1110	1175	1210	1360	1410	1460	1560	1610	1660	1760	1860	1960	2060	2160	2260	2360	2460	2560	2610	2660	2760	2860	2960	3060
	Lift	h_3	mm	3862	4052	4162	4612	4762	4912	5212	5362	5512	5812	6112	6412	6712	6982	7282	7582	7782	8082	8232	8382	8682	8982	9282	9582
	Height, mast extended	h_4	mm	4973	5163	5273	5723	5873	6023	6323	6473	6623	6923	7223	7523	7823	8093	8393	8693	8893	9193	9343	9493	9793	10093	10393	10693
	Maximum storage height		mm	3730	3920	4030	4480	4630	4780	5080	5230	5380	5680	5980	6280	6580	6850	7150	7450	7650	7950	8100	8250	8550	8850	9150	9450

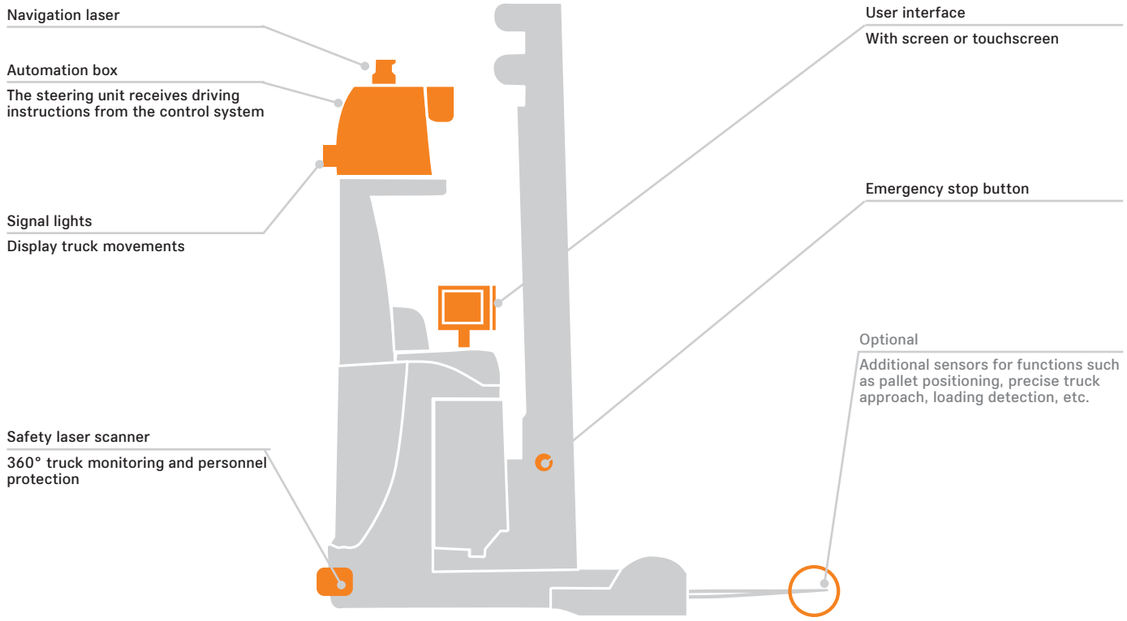
Technical Drawings



Top view FM-X iGo



Side view FM-X iGo



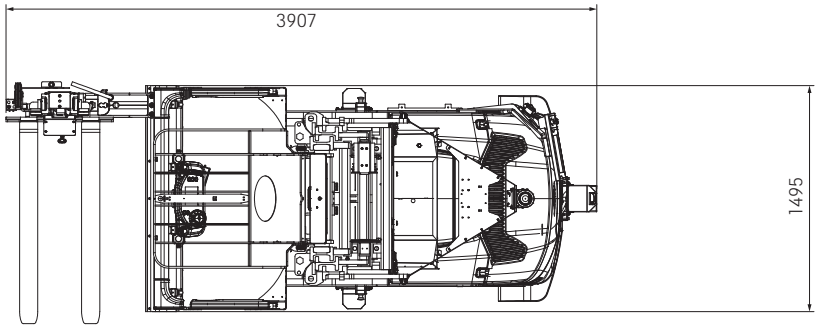
Advantages of automated reach trucks

Automated reach trucks such as the FM-X iGo are a real asset for wide-aisle and block storage both horizontally and vertically. The FM-X iGo is characterised by optimal safety and reliability for driverless transport over long distances. It also offers decisive advantages for transport tasks that require high levels of precision in challenging conditions: The automated handling improves efficiency and process reliability – for example, when storing or removing heavy loads at great heights or fully automated shuttle systems. Automated reach trucks are therefore the perfect solution for current and future intralogistical challenges. The following safety features are integrated: a safety laser scanner that detects people and objects in the path of travel; visual and acoustic warning systems (e. g. when changing direction of travel); and several emergency stop buttons that can be used to bring the forklift truck to an immediate standstill.

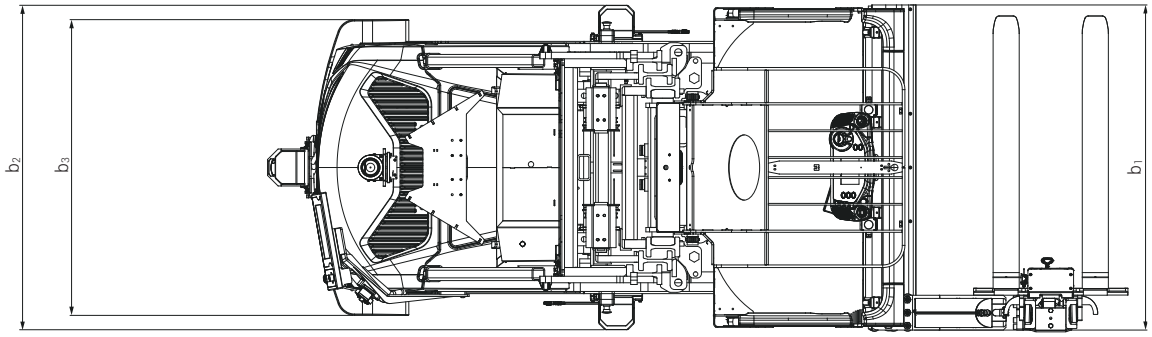
Features	1.1	Manufacturer				STILL	STILL	STILL
	1.2	Manufacturer's type designation				**MX-X iGo with turret head**	**MX-X iGo with turret head**	**MX-X iGo with telescopic fork unit**
	1.3	Drive				Electric	Electric	Electric
	1.4	Operation				Manual/automated	Manual/automated	Manual/automated
	1.5	Rated capacity/rated load		Q	kg	1400	1400	1100
	1.6	Load centre distance		c	mm	605	605	605
	1.9	Wheel base		y	mm	2068	2212	2136
Weights	2.1	Service weight (incl. battery)			kg	9190	11863	10287
	2.2	Axle load, laden	drive end/load end		kg	2880/7559	3906/9207	3240/8097
	2.3	Axle load, unladen	drive end/load end		kg	3595/5444	4602/7110	3946/6191
Tyres/chassis	3.1	Tyres				Polyurethane	Polyurethane	Polyurethane
	3.2	Tyre size	drive end			406/170	406/170	406/170
	3.3	Tyre size	load end			370/160	370/160	370/160
	3.5	Number of wheels (x = driven)	drive end/load end			1x/2	1x/2	1x/2
	3.6	Track width	drive end/load end	b_{10}/b_{11}	mm	1345/0	1395/0	1245/0
Dimensions	4.2	Height	mast lowered	h_1	mm	3400	5900	6400
	4.3	Free lift		h_2	mm	2150	4650	-
	4.4	Lift		h_3	mm	6350	12850	10000
		Maximum storage height			mm	7800	14000	11350
	4.5	Height	mast extended	h_4	mm	8950	15450	12555
	4.7	Height of overhead guard (cabin)		h_6	mm	2555	2555	2555
	4.8	Seat height relating to SIP/stand height		h_7	mm	460	460	460
	4.15	Fork height	lowered	h_{13}	mm	60	60	460
	4.19	Overall length		l_1	mm	4041	4185	4334
	4.21	Overall width		b_1/b_2	mm	1160/1550	1160/1600	1160/1450
	4.22	Fork dimensions DIN ISO 2331		s/e/l	mm	50/120/1210	50/120/1200	65/174/1200
	4.24	Fork carriage width		b_3	mm	710	710	830
	4.25	Distance between fork arms	min./max.	b_5	mm	470/640	470/641	545/545
	4.29	Shift, sideways		b_7	mm	1365	1385	1395
	4.31	Ground clearance, laden, below mast		m_1	mm	40	40	40
	4.32	Ground clearance, centre of wheel base		m_2	mm	87	87	87
	4.34.2	Aisle width for pallets 800 x 1200 lengthways		A_{st}	mm	1800	1800	1500
	4.35	Turning radius		W_a	mm	2333	2477	2401
	4.38	Distance fork pivot point		l_8	mm	1053	1053	1303
	4.39	Length of shift carriage		A	mm	480	480	-
	4.40	Width of shift frame		B	mm	1495	1540	-
	4.41	Width of shift carriage		F	mm	287	297	-
	4.42	Transfer aisle width	min.	Au	mm	6000	6000	6000
	4.44	Clearance cabin entrance			mm	412	412	412
	4.45	Clearance inside cabin			mm	2000	2000	2000
Performance data	5.1	Travel speed	(depending on the safety concept)		m/s	1.2/2.0/3.0	1.2/2.0/3.0	1.2/2.0/3.0
	5.1.1	Travel speed backwards	(depending on the safety concept)		m/s	1.2/2.0/3.0	1.2/2.0/3.0	1.2/2.0/3.0
	5.2	Lifting speed	laden/unladen		m/s	0.45/0.45	0.35/0.35	0.35/0.35
	5.3	Lowering speed	laden/unladen		m/s	0.45/0.45	0.35/0.35	0.35/0.35
	5.9	Acceleration time	laden/unladen		m/s^2	0.4/0.4	0.4/0.4	0.4/0.4
	5.10	Service brake				Regenerative	Regenerative	Regenerative
Electric engine	6.1	Drive motor rating S2 = 60 min			kW	7.0	7.0	7.0
	6.2	Lift motor rating S3 = 15%			kW	24.0	24.0	24.0
	6.3	Battery according to DIN 43531/35/36 A, B, C, no				5PzS	6PzS	5PzS
	6.4	Battery voltage/nominal capacity K_5			V/Ah	80/775	80/840	80/700
	6.5	Battery weight (depending on manufacturer ±5%)			kg	1863	2178	1863

Please note: This is a sample configuration. Depending on the use of the truck, the values may differ.

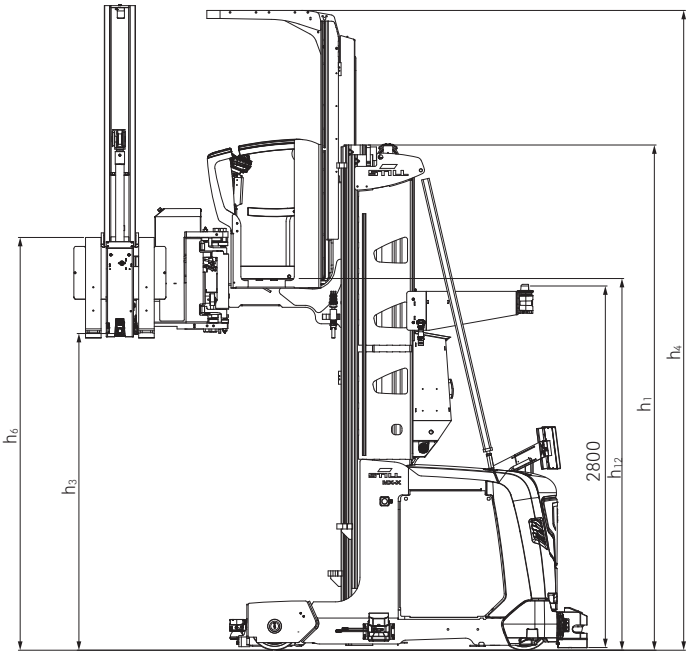
This specification sheet, which conforms to VDI guideline 2198, provides the technical values for the standard equipment only.
Different tyres, other masts, additional equipment, etc. may produce different values.



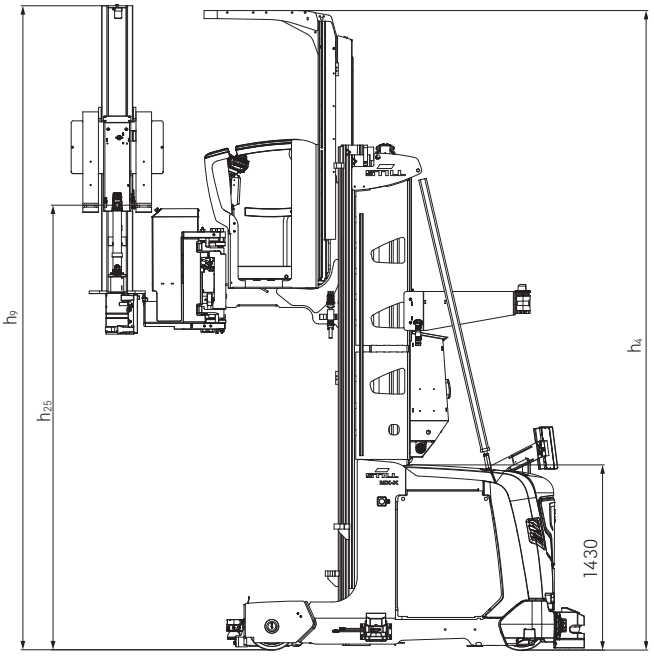
MX-X iGo sytems with turret head
Top view



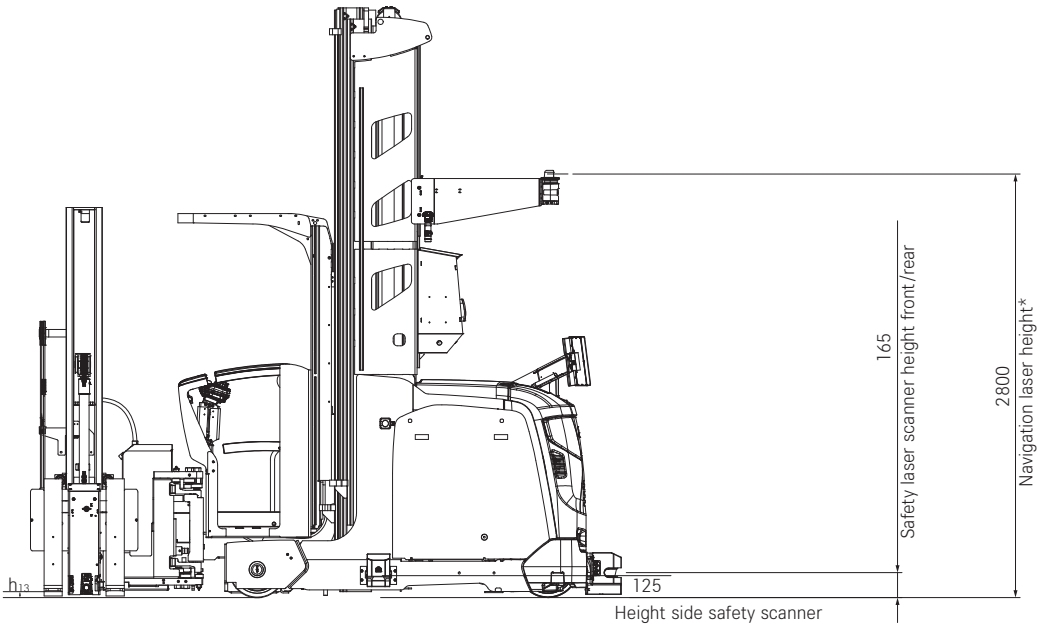
MX-X iGo with turret head and inductive guidance
Top view



MX-X iGo with turret head and inductive guidance
Side view



MX-X iGo with telescopic fork and inductive guidance
Side view



MX-X iGo with turret head
Side view

* project-based value, given as an example

MX-X iGo with turret head (incl. additional lift)

			Telescopic mast									
Height	h_1	mm	2900	3400	3900	4400	4900	5400	5900	6400	6900	7400
Nominal lift	h_3	mm	3200	4200	5200	6200	7200	8200	9000	10000	10800	11800
Maximum storage height in automated mode		mm	4650	5650	6650	7650	8650	9650	10450	11450	12250	13250

			Triplex mast								
Height	h_1	mm	2900	3400	3900	4400	4900	5400	5900	6400	6900
Nominal lift	h_3	mm	5050	6350	7450	8750	10050	11550	12850	14350	15650
Maximum storage height in automated mode		mm	6500	7800	8900	10200	11500	13000	14000	14000	14000

MX-X iGo with telescopic fork unit

			Telescopic mast									
Height	h_1	mm	2900	3400	3900	4400	4900	5400	5900	6400	6900	7400
Nominal lift	h_3	mm	3200	4200	5200	6200	7200	8200	9000	10000	10800	11800
Maximum storage height in automated mode		mm	3550	4550	5550	6550	7550	8550	9350	10350	11150	12150

			Triplex mast								
Height	h_1	mm	2900	3400	3900	4400	4900	5400	5900	6400	6900
Nominal lift	h_3	mm	5050	6350	7450	8750	10050	11550	12850	14350	15650
Maximum storage height in automated mode		mm	5400	6700	7800	9100	10400	11900	13200	14000	14000

Detailed Photos

Excellent operator safety thanks to highly sensitive 360-degree safety laser on the truck

The sensitive navigation laser in the upper area of the truck enables maximum precision, efficiency and safety

Charging contacts in the lower part of the truck enable fully automated charging processes

Eye-catching warning lights for maximum visibility and recognition of the truck

Flexibility to store and retrieve on both sides of the aisle with the help of the turret head

The MX-X iGo is equipped with a telescopic fork for maximum storage density

Advantages of automated very narrow aisle trucks

Maximum performance and safety in the most confined spaces - a given with very narrow aisle trucks such as the MX-X iGo. This truck sets standards wherever the available space is to be used optimally. Its narrow aisle width and automated load cycles up to a height of 14 metres at a load capacity of 1,400 kg enable a particularly high degree of space utilisation as well as top-level handling performance. With absolute precision, maximum safety and stability even at lofty heights, the MX-X iGo is the perfect partner for reliable automated warehouses. Fully automated, the vehicle increases efficiency and minimises the susceptibility to errors when storing and retrieving heavy loads at great heights. Maximum safety is achieved with the following integrated safety features: Safety laser scanners to detect people and objects in the path of travel, optical and acoustic warning devices (e. g. when changing direction) as well as several emergency stop switches to stop the vehicle immediately.

The automated STILL trucks can be easily connected to your own systems, e. g. for warehouse management. Automation kits with standardised components, controls and interfaces turn a series-produced truck into an industrialised AGV (automated guided vehicle). In this context, the following is particularly important to us:

Not every technological innovation is the economically appropriate one for your task. We offer you reliable and scalable solutions for your automation requirements - precisely tailored to your intralogistics.

STILL iGo Automation Solutions
Smart from the start

Maximum safety: Smart safety functions increase transport quality and eliminate risks of accidents and damage to people, vehicles, storage equipment and goods

Outstanding process excellence: Avoiding mispicks and empty runs increases transport quality

Maximum availability: Efficient transport control and IT integration enable optimal fleet utilisation around the clock

Optimum cost-effectiveness and efficiency through individual automation concepts as well as transparent and optimised continuous material flow

iGo

STILL iGo - Automation Solutions

We make automation smart. From flexible plug & play solutions (STILL iGo easy) to highly customised system solutions (STILL iGo systems), scalable STILL iGo covers the entire spectrum of automation. Precisely tailored to your needs.

STILL iGo easy

Our smart plug & play solution STILL iGo easy is the perfect choice for anyone who wants to automate individual logistic transport processes with small fleets. iGo easy is particularly easy and quick to implement thanks to its intuitive user interface and flexibility. And as your needs grow or your processes become more complex, you can always upgrade to iGo systems.

STILL iGo systems

Do you already have complex or interlinked logistics processes and want to automate them individually? Then iGo systems is the perfect solution for you. The highly customisable system enables vehicles to be controlled in perfectly synchronised interaction and integrated into comprehensive logistics processes - scalable from individual vehicles to entire fleets.

The 'Simply Efficient' factors: Performance attributes as a measure of economic efficiency

Simply easy

- With iGo systems vehicles, additional vehicles can be added at any time so as to expand transportation capacity

Simply powerful

- Software-based transport controls enable optimal fleet utilisation, whilst guaranteeing a high level of process reliability, traffic management, visualisation of truck movements, battery charge status monitoring and reduced error rates – the flow of materials and information is always reliable and mapped comprehensively and transparently

Simply safe

- iGo systems vehicles improve transport quality and eliminate the risk of injury and damage to people, trucks, warehouse equipment and goods thanks to smart safety functions

Simply flexible

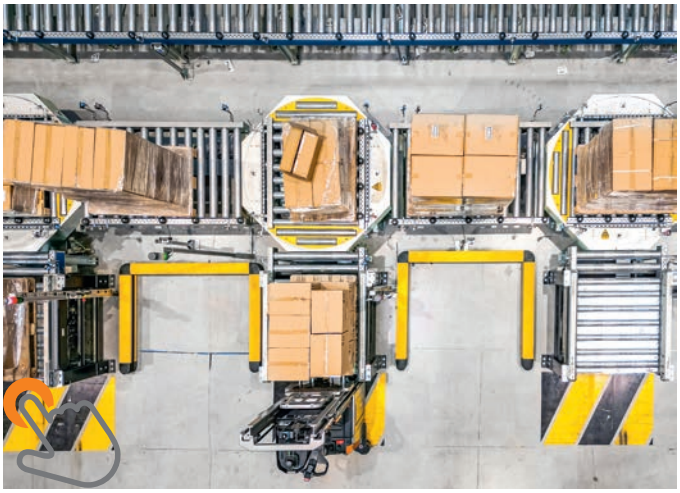
- iGo systems trucks can also be operated manually if required: This increases flexibility, safeguards process and material flow and enables easy access to goods

Simply connected

- Different iGo systems trucks can be combined with one another, as well as with manual transport systems and stationary automation systems

Customised and flexible: An automated materials warehouse for Vetter

The pharmaceutical supplier Vetter entrusted the automation experts at STILL with the planning and implementation of the logistics processes at its new, automated materials warehouse. With great success: all storage processes are fully automated within a pioneering complete system consisting of a racking system with 16,200 storage locations, MX-X iGo very narrow aisle trucks with the STILL iGo pilot navigation assistance system, and EXV iGo high lift pallet trucks. A future-proof and flexible solution for maximum occupational safety and business resilience in times of acute skills shortages.



Focus on safety: STILL automates processes at Leroy Merlin

With the aim of maximum occupational safety, STILL implemented a comprehensive automation project in the central warehouse of the French retail giant Leroy Merlin. The complex overall system covers around half of the 72,000 square metre warehouse and includes almost 30 automated guided vehicles, more than half of which are automated EXV iGo high lift pallet trucks. Working in perfect synchronisation with MX-X iGo very narrow aisle trucks, they process and pick around 70,000 parcels a day – error-free, accident-free and future-proof.

A milestone in smart intralogistics: The distribution centre of chemical group Kuraray

At the logistics centre of the international chemical company Kuraray, STILL implemented a smart material flow concept consisting of semi-automated shuttles and automated FM-X iGo reach trucks in a channel rack warehouse with more than 3,300 storage locations. The project has been encouragingly successful in terms of system availability, flexibility, increased efficiency and optimised use of space.

Our service offerings for your automated systems:

We do not compromise when it comes to the availability of your intralogistics systems. This does of course also apply to your automated systems. Whether hardware or software, maintenance or repair, we tailor our services according to your individual requirements and those of your system. This allows you to concentrate fully on your business without downtimes, waiting periods or spare parts bottlenecks. Our service technicians are highly qualified, equally as dedicated, and available 365 days a year to assist you.
Availability. Reliability. Speed.