iGo systems Technical Data
The fully automated logistics process

EXV iGo systems

Li-Ion INSIDE

first in intralogistics

EXV iGo systems Automated High Lift Pallet Truck
We drive automated vehicles

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 16 iGo systems**
	1.3	Drive				Electric
	1.4	Operation				Hybrid
	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	See mast table
	4.3	Free lift		h_2	mm	See mast table
	4.4	Lift		h_3	mm	See mast table
	4.5	Height, mast extended		h_4	mm	See mast table
	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		km/h	7.2/7.2
	5.2	Lifting speed	laden/unladen		m/s	0.16/0.30
	5.3	Lowering speed	laden/unladen		m/s	0.40/0.35
	5.8	Max. gradeability kB 5	laden/unladen		%	3/3
	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]
	6.7	Turnover output in relation to VDI cycle			t/h	37 [3]
Misc.	8.1	Drive control				AC control
	8.4	Sound pressure level at driver's seat			dB(A)	<66

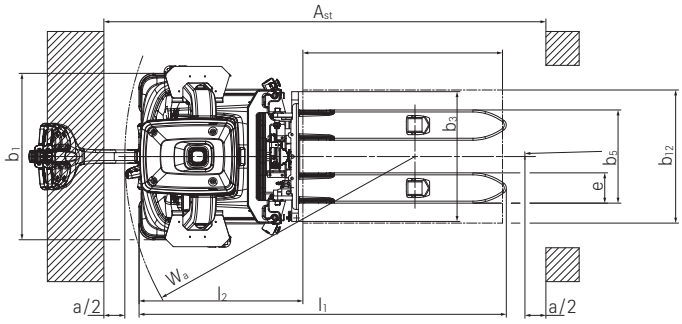
[1] +75 mm with 4PzS battery
[2] Minimum aisle width A_{st} with reduced speed
[3] At a nominal capacity of 1600 kg

Mast Tables

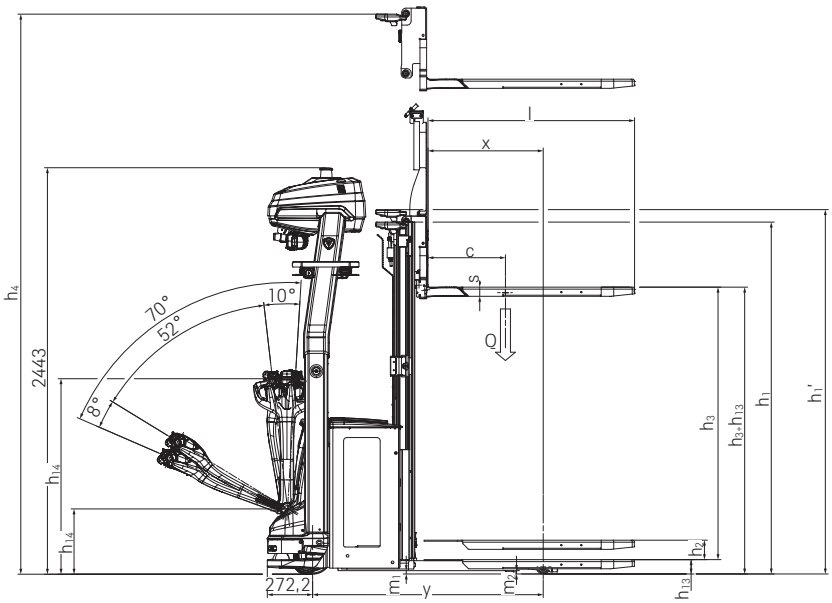
				Telescopic mast		
EXV 16 iGo systems	Height	h_1	mm	1915	2115	2365
	Mast height with activated free lift (h_3 = 150 mm)	h_1'	mm	1990	2190	2640
	Free lift [1]	h_2	mm	150	150	150
	Lift	h_3	mm	2844	3244	3744
	Height, mast extended	h_4	mm	3364	3764	4264
	Maximum storage height [2]	h	mm	2780	3180	3680

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

EXV iGo systems Automated High Lift Pallet Truck
Technical Drawings

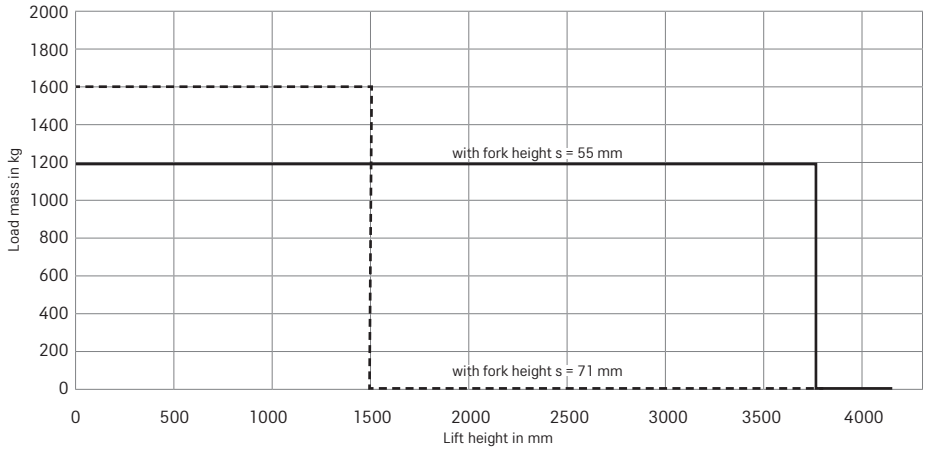


Top view EXV iGo systems



Side view EXV iGo systems

Basic Load Capacities



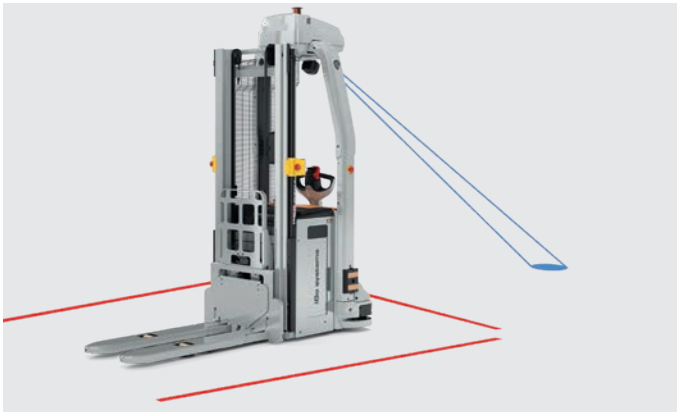
1. This diagram shows the loads and shelf heights for which the automated truck can transport, store and retrieve loads safely, reliably and consistently.

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.

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

The entire charging process of the EXV iGo system 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



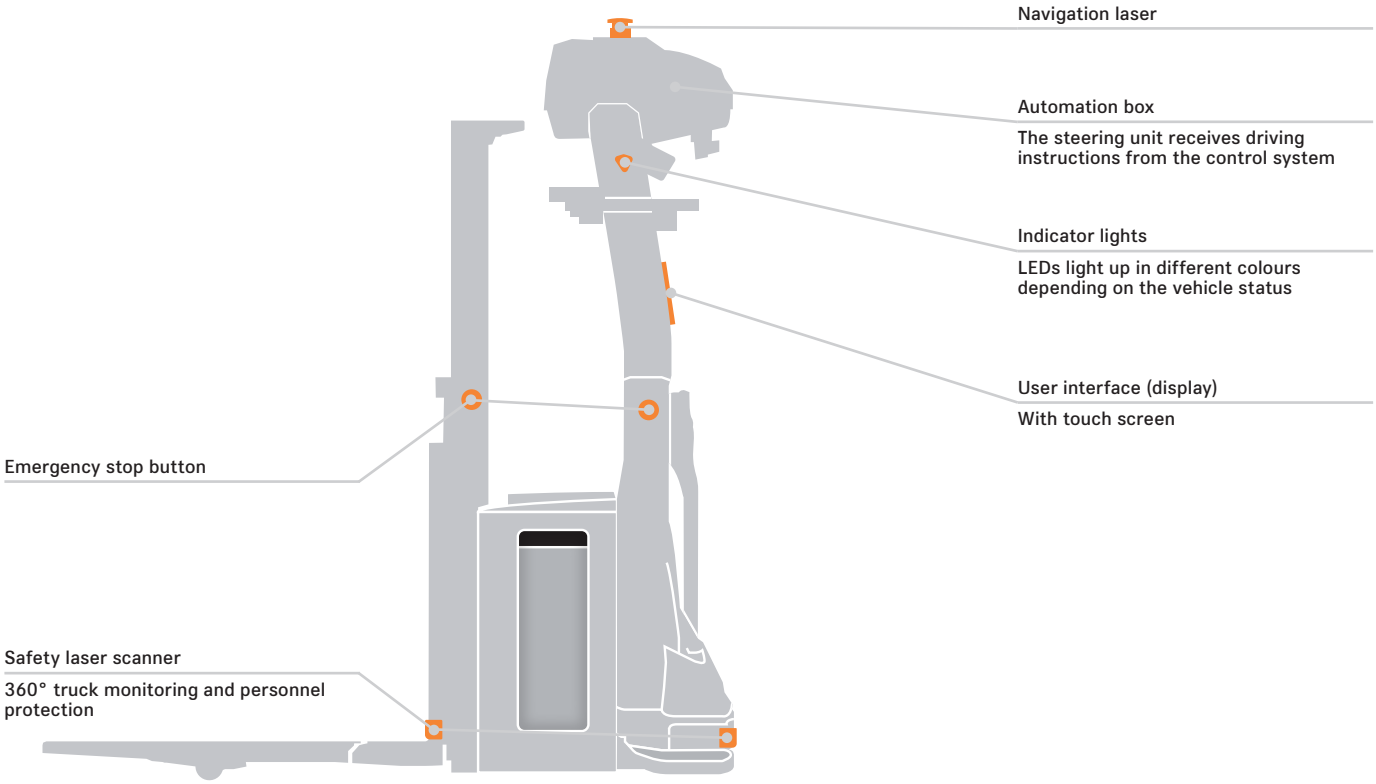
Eye-catching warning lights for high visibility and recognition of the truck

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 systems 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 systems 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 7.2 km/h. 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 systems 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.