

Maximum picking performance

Powerful motor

jetPILOT multifunctional steering wheel

Individually adjustable workstation



ECE 310

Low level order picker with ergonomic lift (1,000 kg)

The ECE 310 combines maximum picking performance with optimum energy efficiency and first-class operator comfort. The basis for this is the combination of high technical performance with a number of ergonomic advantages.

Various options packages and the load/steer angle-dependent curveCONTROL assistance system (optional), fully exploit the strengths of the ECE 310: dynamic acceleration, safe cornering and high maximum speed, always ensuring best possible energy utilisation.

With its ergonomic lift, the ECE 310 is able to lift loads of up to 1000 kg to an ergonomic height of up to 840 mm so that the operator can conveniently deposit the goods at the "right" height.

Users also benefit from a perfect workplace for comfortable order picking due to the easily accessible controls and accessory parts. The central operator position with its patented

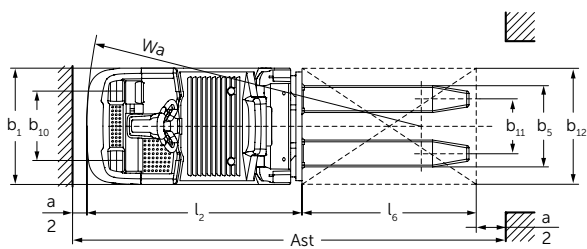
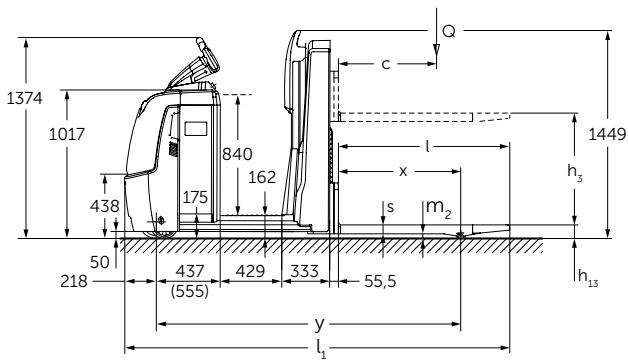
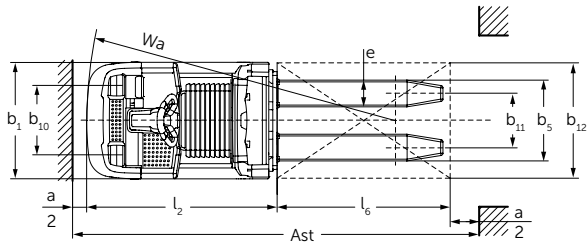
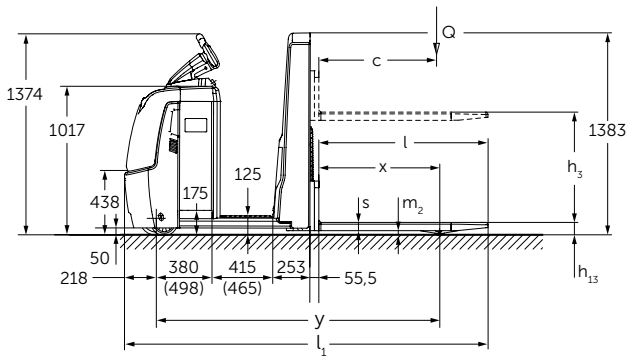
jetPILOT also enables intuitive and convenient operation as in a car.

For optimised picking processes with high performance requirements, we offer semi-automatic control of the ECE via a radio control unit, the easyPILOT. This enables the operator to move the truck to the next picking location without having to climb aboard and drive it. This not only saves unnecessary walking but also increases the picking performance significantly, especially when travelling short distances. Efficiency is further enhanced by driveNAVIGATION, the optional WMS connection for our ECE with easyPILOT.

The ECE 310 actively helps to raise productivity in the warehouse. In addition to impressive speed and acceleration values, along with the best energy consumption values on the market, the comprehensive options catalogue and the easyPILOT system provide the ideal basis for efficient and ergonomic working.



ECE 310



Technical data in line with VDI 2198

				Jungheinrich		
Identification	1.1	Manufacturer (abbreviation)		ECE 310 ²⁾ ECE 310 HP ²⁾		
	1.2	Model		Electric		
	1.3	Drive		Order pickers		
	1.4	Manual, pedestrian, stand-on, seated, order picker operation		1		
	1.5	Load capacity/rated load	Q	t	600	
	1.6	Load centre distance	c	mm	821	
	1.8	Load distance	x	mm	1,925 ³⁾⁵⁾ 2,075 ³⁾⁵⁾	
	1.9	Wheelbase	y	mm		
	Weights	2.1.1	Net weight incl. battery (see row 6.5)		kg	1,084 1,274
2.2		Axle loading, laden front/rear		kg	839 / 1,245 869 / 1,405	
2.3		Axle loading, unladen front/rear		kg	772 / 311 862 / 411	
Wheels / frame	3.1	Tyres		Vulkollan		
	3.2	Tyre size, front		mm	Ø 230 x 78	
	3.3	Tyre size, rear		mm	Ø 75 x 95	
	3.4	Additional wheels (dimensions)		mm	Ø 180 x 65	
	3.5	Wheels, number front/rear (x = driven wheels)		1+1x/2		
	3.6	Tread width, front	b ₁₀	mm	481	
	3.7	Tread width, rear	b ₁₁	mm	339 / 379	
Basic dimensions	4.4	Lift		h ₃	mm	750
	4.9	Height of tiller in drive position min. / max.		h ₁₄	mm	1,374 / 1,418
	4.15	Height, lowered		h ₁₃	mm	90
	4.19	Overall length		l ₁	mm	2,471 ³⁾⁵⁾ 2,621 ³⁾⁵⁾
	4.20	Length to face of forks		l ₂	mm	1,321 ³⁾⁵⁾ 1,471 ³⁾⁵⁾
	4.21	Overall width		b ₁ /b ₂	mm	810
	4.22	Fork dimensions		s/e/l	mm	56 / 185 / 1,150
	4.25	Width across forks		b ₅	mm	520 / 560
	4.32	Ground clearance, centre of wheelbase		m ₂	mm	30
	4.34	Aisle width for pallets 800 x 1200 lengthways		Ast	mm	2,721 ¹⁾³⁾⁵⁾ 2,871 ¹⁾³⁾⁵⁾
4.35	Turning radius		W _a	mm	2,142 ³⁾⁵⁾ 2,292 ³⁾⁵⁾	
Performance data	5.1	Travel speed laden/unladen – Efficiency		km/h	11.5 / 12.5	
		Travel speed laden/unladen – drive θ ecoPLUS		km/h	11.5 / 14	
		Travel speed Remote, laden/unladen		km/h	5 / 5	
	5.2	Lift speed, laden/unladen		m/s	0.17 / 0.33	
	5.3	Lowering speed, laden/unladen		m/s	0.19 / 0.19	
	5.8	Max. gradeability, laden/unladen		%	6 / 15	
5.10	Service brake		regenerative			
Electrics	6.1	Drive motor, output S2 60 min. – efficiency/drivePLUS – drive θ ecoPLUS		kW	2.8 / 3.2	
	6.2	Lift motor, output at S3 10%		kW	1.5	
	6.3	Battery as per DIN 43531/35/36 A, B, C, no		no		
	6.4	Battery voltage/nominal capacity K5		V/Ah	24 / 465 ⁴⁾	
	6.5	Battery weight		kg	370 ⁴⁾	
	6.6	Energy consumption as per 16796 Efficiency/drive θ ecoPLUS		kWh/h	0.4 / 0.47	
		CO- Equivalent as per EN 16796		kg/h	0.2 / 0.3	
	6.7	Throughput efficiency/drivePLUS		t/h	65 / 68 64 / 67	
6.8	Energy consumption at max. throughput efficiency/drivePLUS		kWh/h	1.27 / 1.47		
Misc.	8.1	Type of drive control		AC speedCONTROL		
	8.4	Sound pressure level at operator's ear as per EN 12053		dB (A)	62	
	8.6	Steering		Electric steering		

¹⁾ Diagonal in accordance with VDI = value + 94 mm

²⁾ Values for battery compartment L, standard stand-on platform and fork length = 1150 mm

³⁾ With option for extended operator position = value + 50 mm

⁴⁾ With XL battery compartment: 24 V / 620 Ah / 460 kg

⁵⁾ With XL battery compartment = value + 118 mm

ECE 310



Lateral comfort charging plug for lithium-ion batteries (optional)



Individually adjustable, sprung comfort stand-on platform (optional)



Options bracket with radio data terminal WMT 110 (optional)

Dimensions independent of fork length					
Width across forks	Fork length l	Fork overhang	Overall length l_1 <small>1) 2) 3)</small>	Load distance x	Aisle width A_{st} <small>1) 2) 3)</small>
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
520	1400	579	2721	700	2921
560	1150	329	2471	600	2721
560	1200	379	2521	600	2721

¹⁾With XL battery compartment = value + 118 mm

²⁾With option for extended operator position = value + 50 mm

³⁾With the lifting stand-on platform (HP/HP-LJ) = value + 150 mm

ECE 310



Benefit from the advantages



Easily lifting load section for order picking at an ergonomic height



jetPILOT – the original from Jungheinrich



Lifting and lowering from the backrest



Lifting stand-on platform (HP-LJ) for order picking from the 2nd racking level (optional)

Powerful and efficient drive concept

- Powerful acceleration and high top speed.
- Optional drivePLUS package with highly efficient 3.2 kW motor for even greater drive and acceleration performance.
- Safe cornering speed thanks to load-dependent curveCONTROL (optional).
- Optional driveBecoPLUS package for additional energy saving.

jetPILOT multifunctional steering wheel

- Intuitive and comfortable operation, similar to a car, with safe and secure grip.
- Reduced strain on neck and spinal column when cornering.
- One-handed operation and automatic return of the steering wheel to straight line travel.
- Adjustable to individual body size.

Perfect workstation for maximum picking performance

- Generous space, even for tall operators.
- Diverse, individualised storage options such as the shrink wrap holder in the front hood.
- Additional cushioned stand-on platform (optional).
- Touch mode in the backrest for faster order picking (optional).

- The 2-inch display provides information about the battery charge status, number of operating hours, travel speed and error codes. It also allows 3 travel programs to be selected via softkey (optional).
- Ergonomic lift for ergonomic order picking by raising the load to a height of up to 840 mm.
- Automatic pallet lowering to the optimum height (optional).

Comfortable and safe order picking

- The hydraulic lifting stand-on platform (HP) is ideal for frequent order picking from the second racking level (optional):
- Safe and rapid raising of the operator up to the height of the battery panel.
 - Operation of platform via foot pedal, leaving hands free for order picking.
 - The jetPILOT can be raised along with the platform (HP-LJ). This allows the truck to be positioned even when the platform is raised (optional).

Rugged construction for the toughest applications

- Impact-resistant steel drive panel.
- High-quality stainless steel skirt raised extra high on the front panel.

Central display and clear instruments for the complete overview

- Activation of the truck by EasyAccess via softkey, PIN code or optional transponder card.

- The 2-inch display provides information on the battery discharge status, number of operating hours, travel speed as well as error codes and offers the option of selecting from three travel programs via softkey (optional).

All the better to see and be seen

- Integrated dayLED daytime running lights for better visibility in poorly lit areas (optional).
- Floor-Spot – significant reduction in the risk of collision in blind spots due to a red dot of light projected onto the floor approx. 3 m in front of the truck (optional).

Additional optional equipment

A comprehensive range of accessories allows for individual tailoring to your requirements:

- Additional accessories for working at the second racking level.
- Sturdy, universally applicable options bracket, e.g. for radio data transmission components.

Lithium-ion technology

- High degree of availability thanks to extremely short charging times.
- No battery exchange required.
- Cost savings due to longer service life and low maintenance compared with lead-acid batteries.
- No charging rooms and ventilation required as there is no build up of gas.
- Longer service life with 5-year Jungheinrich guarantee.

ECE 310



More efficient picking processes

Increase in picking performance and reduced strain on the operator due to flexible switching between different control options:

- Long distances – manual travel and positioning with jetPILOT.
- Medium distances – full concentration on the picking process. The ECE is moved forwards by double-tapping the easyPILOT radio control unit (optional).
- Short distances – positioning at the correct pallet and fine adjustment via the easyPILOT travel buttons or using touch mode on the backrest (optional).

High versatility when order picking with easyPILOT

The travel commands of the easyPILOT are triggered by tapping on an intuitive radio control unit (optional). The operator always has their hands free for picking:

- Double and triple taps are available for different travel distances.
- Routes are individually and freely configurable.

The correct pallet, every time, with easyPILOT

When picking with multiple pallets or roll containers, the immediate proximity to the correct shelf is crucial:

- The ECE stops automatically after a pre-set distance.
- A single tap on the radio control unit immediately stops the truck.

Individual carrying of the easyPILOT radio control unit

- An integrated clip allows the control unit to be attached directly to a belt or trouser pocket.
- The optional belt holder ensures an optimum carrying position.

Simple pairing of the easyPILOT radio control unit

- Rapid and easy connection of the radio control unit to the truck via an NFC interface.
- Each radio control unit can be connected to any ECE. There is a 1-to-1 connection established throughout the usage period.

Simple positioning in the racking aisle with easyPILOT

- 2 laser scanners protect against collisions and are responsible for safe navigation and positioning in the racking aisle.
- The ECE automatically aligns itself with the nearest rack and navigates along the corresponding rack side (optional).
- The ECE automatically maintains the distance to the rack, which the operator specifies by switching off the truck.

Optimum safety for the operator and environment with easyPILOT

The operator has full control over the truck at all times:

- Side-mounted, easily visible signal lights indicate the truck status at all times.

- During remote operation, the DayLEDs flash in addition to the signal lights.
- When objects are encountered in the area in front of the truck, the multi-level collision protection immediately stops the ECE.

Simple retrofitting and high availability of easyPILOT

All remote components of the easyPILOT are located in the drive panel and are thus entirely within the truck geometry:

- Impact-protected position of the laser scanner – optimum protection for toughest applications or in case of collisions.
- Simple retrofitting – with corresponding preparation, existing ECE trucks can be quickly and easily retrofitted by replacing the panel (optional).
- High level of availability – all trucks of the ECE product range are available with easyPILOT.

Increased efficiency with optional WMS connection driveNAVIGATION

- Our logistics interface connects the easyPILOT with your Warehouse Management System (WMS) for increased efficiency and enhanced process reliability in the warehouse.
- The WMS sends the order, which is transferred to the truck via the logistics interface.
- The operator starts the ECE via the double-tap function.
- The ECE automatically stops at the next pick position.

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The German production facilities in Norderstedt, Moosburg and Landsberg are certified. **ISO 9001**
ISO 14001

Jungheinrich fork lift trucks meet European safety requirements.



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