

Maximum picking performance with the lowest energy consumption

Most powerful motor for highest throughput efficiency

Intuitive operation via jetPILOT multifunctional steering wheel

Individual options for an optimum workstation

Ergonomic lift for efficient order picking

Optimised picking processes via remote operation easyPILOT (optional)



ECE 310

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

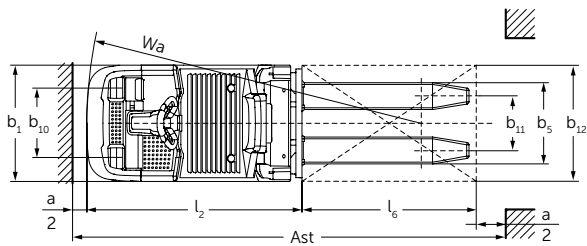
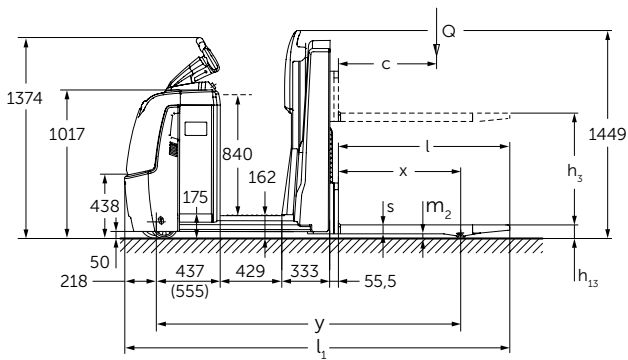
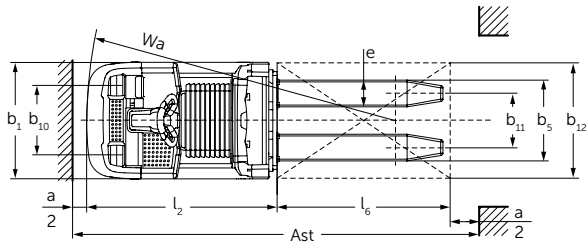
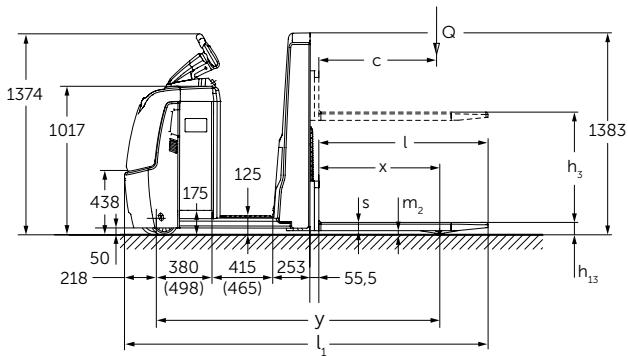
The Jungheinrich ECE 310 combines maximum picking performance with optimum energy efficiency and first-class operator comfort. The basis for this is the combination of high technical performance with a number of ergonomic advantages. Various options packages and the load/steer angle-dependent curveCONTROL assistance system (optional) fully exploit the strengths of the ECE 310: dynamic acceleration, safe cornering and high maximum speed, all the while ensuring best possible energy utilisation.

With 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 thanks to easily accessible controls and accessory parts. The central operator position with its patented jetPILOT multifunction steering wheel also enables intuitive and convenient operation like in a passenger car.

For optimised picking processes with high performance requirements, Jungheinrich offers semi-automatic control of the ECE via a radio control unit in the form of Jungheinrich easyPILOT. This allows the operator to move the truck to the next picking location without having to climb aboard and drive himself. 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 Jungheinrich 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 load with load front/rear		kg	839 / 1,245 869 / 1,405	
2.3		Axle load without load front/rear		kg	772 / 311 862 / 411	
Wheels / frame	3.1	Tyres		Vulkollan		
	3.2	Tyre size, front		mm		
	3.3	Tyre size, rear		Ø 230 x 78		
	3.4	Additional wheels (dimensions)		Ø 75 x 95		
	3.5	Wheels, number front/rear (x = driven wheels)		Ø 180 x 65		
	3.6	Tread width, front		b ₁₀	mm	1+1x/2
	3.7	Tread width, rear		b ₁₁	mm	481 339 / 379
Basic dimensions	4.4	Lift		h ₃ mm		
	4.9	Height of tiller in drive position min. / max.		h ₁₄ mm		
	4.15	Height, lowered		h ₁₃ mm		
	4.19	Overall length		l ₁ mm		
	4.20	Length to face of forks		l ₂ mm		
	4.21	Overall width		b ₁ /b ₂ mm		
	4.22	Fork dimensions		s/e/l mm		
	4.25	Width across forks		b ₅ mm		
	4.32	Ground clearance, centre of wheelbase		m ₂ mm		
	4.34	Aisle width for pallets 800 x 1200 lengthways		Ast mm		
4.35	Turning radius		W _a mm			
Performance data	5.1	Travel speed laden/unladen - Efficiency		km/h		
		Travel speed, laden/unladen - drive@ecoPLUS		km/h		
		Travel speed Remote, laden/unladen		km/h		
	5.2	Lift speed, laden/unladen		m/s		
	5.3	Lowering speed, laden/unladen		m/s		
	5.8	Max. gradeability, laden/unladen		%		
	5.10	Service brake		regenerative		
Electrics	6.1	Drive motor, output S2 60 min. - efficiency/drivePLUS - drive@ecoPLUS		kW		
	6.2	Lift motor rating at S3 10%		kW		
	6.3	Battery as per DIN 43531 /35/36 A, B, C, no		no		
	6.4	Battery voltage/nominal capacity K5		V/Ah		
	6.5	Battery weight		kg		
	6.6	Energy consumption according to VDI cycle efficiency/ drive@ecoPLUS		kWh/h		
	6.7	Throughput efficiency/drivePLUS		t/h		
	6.8	Energy consumption at max. throughput efficiency/ drivePLUS		kWh/h		
Misc.	8.1	Type of drive control		AC speedCONTROL		
	8.4	Sound pressure level at operator's ear as per EN 12053		dB (A)		
	8.6	Steering		Electric steering		

¹⁾ Diagonal in accordance with VDI = value + 200 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

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) = values + 150 mm

ECE 310



Benefit from the advantages



Easily lifting load section for order picking at an ergonomic height



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 option 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 option package for additional energy saving.

Long operating times

Energy-efficient 3-phase AC technology and high battery capacities allow for long operating times:

- Different batteries available from 375-620 Ah.
- Lateral battery exchange for multi-shift applications (optional).

Ideal workplace for maximum picking performance

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

Complete overview provided by central display and setting instrument

- Activation of the truck by EasyAccess via softkey, PIN code or transponder card (optional).
- 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 front spotlight for better visibility in poorly lit halls (optional).
- Floor spot: The risk of collision at blind spots is significantly reduced by a red light spot projected on the floor approximately 3 m in front of the truck (optional).

Lithium ion technology

- High truck availability due to extremely short charging times: After a boost charging time of just 30 minutes, the battery is charged to 50% and after 80 minutes to 100%.
- No battery changing necessary.
- Proof voltage always ensures full power.
- Costs are saved 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.

Additional optional equipment

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

- Various equipment for safe working at the second rack-level.
- Sturdy, universally applicable options bracket, e.g. for radio data transmission components.

ECE 310



More efficient picking processes

- Enhanced picking performance and operator relief thanks to intelligent 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 his hands free for order picking.
- Double and triple taps can be used for different travel distances.
- Routes are individually and freely configurable.

The correct pallet, every time, with easyPILOT

When order picking with multiple pallets or roll containers, direct proximity to the correct rack compartment is of utmost importance:

- 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 belt 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.
- Every radio control unit can be connected to be any ECE – with a 1-to-1 connection established throughout the usage period.

Simple positioning in the racking aisle with easyPILOT

- Two 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 from the rack as set by the operator by stopping 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 laser scanners: optimum protection for toughest applications or in case of collisions.
- Simple retrofitting: with a corresponding preparation, existing ECE trucks can be quickly and easily retrofitted by replacing the panel (optional).
- High availability: all trucks of the ECE product range are available with easyPILOT.

Enhanced efficiency thanks to 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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