



EXU Technical Data

Low lift pallet truck

EXU 16

EXU 18

EXU 20

EXU 22

EXU-H 18

EXU-H 20



This specification sheet to VDI Guidelines 2198 only gives the technical figures for the standard truck.
Different tyres, other masts, additional equipment etc. could give different figures.

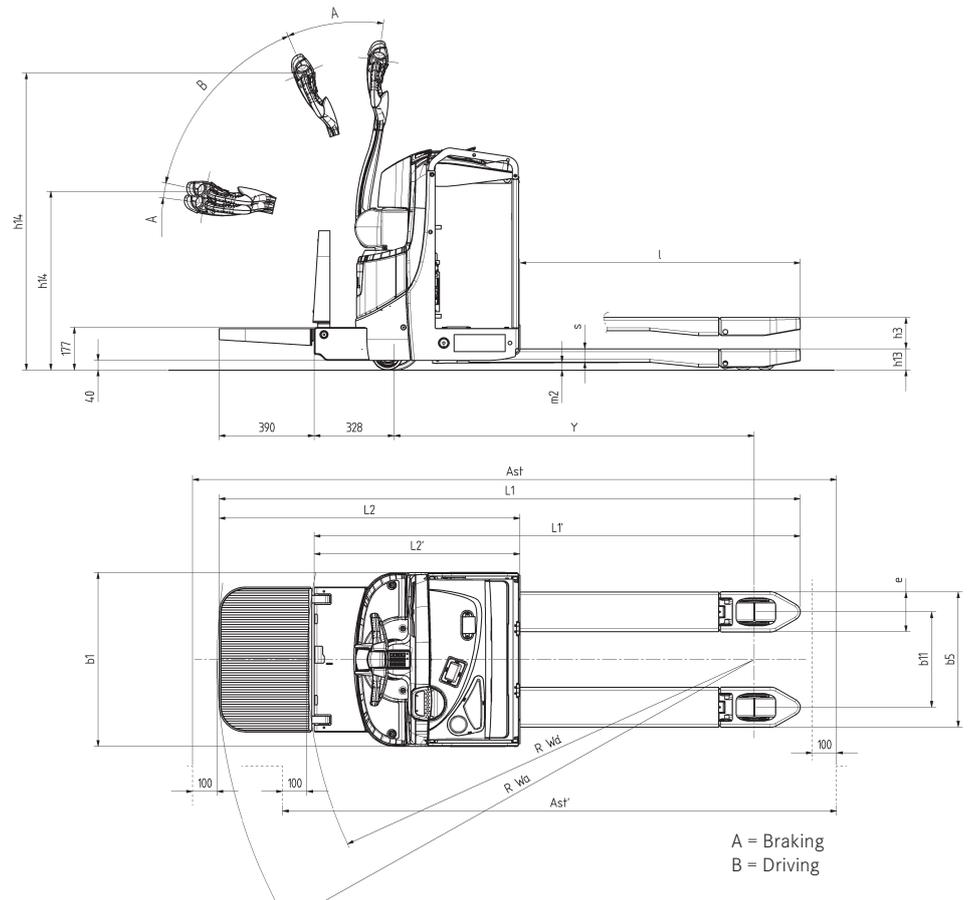
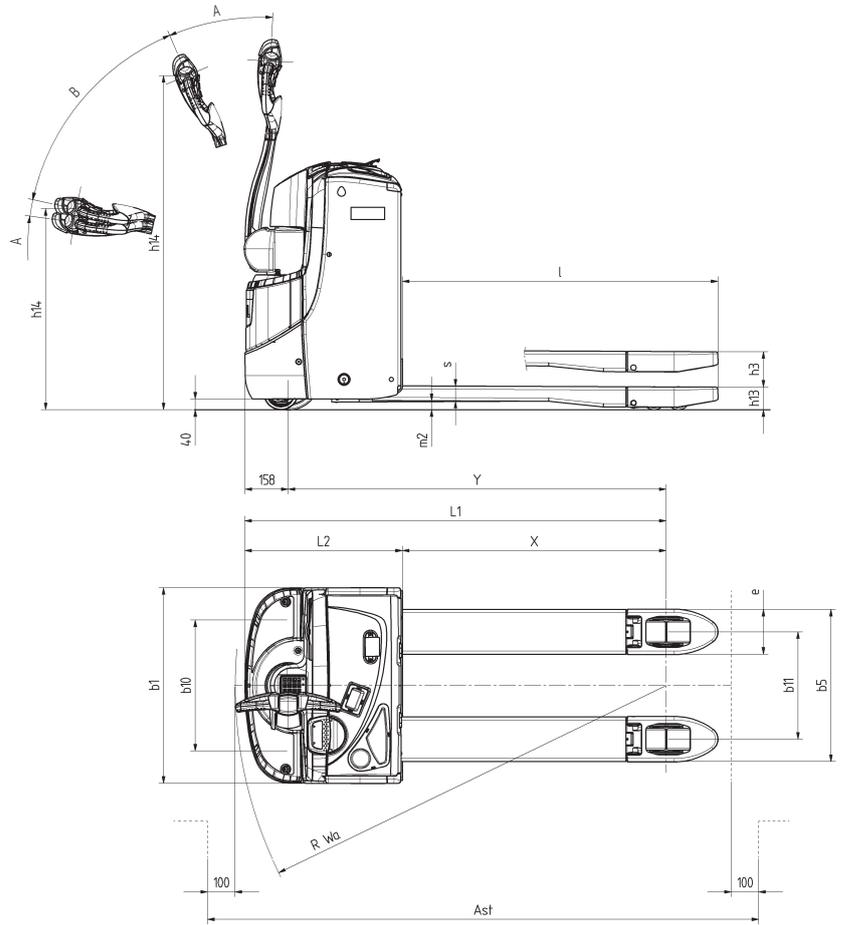
Characteristics	1.1	Manufacturer				STILL	STILL
	1.2	Manufacturer's model designation				EXU 16	EXU 18
	1.3	Power supply (electric. diesel. petrol. gas. mains electric)				Electric	Electric
	1.4	Type of control (hand. pedestrian. stand-on. rider seated. order picker)				Pedestrian	Pedestrian
	1.5	Capacity/load		Q	kg	1600	1800
Weight	1.6	Nominal load centre		c	mm	600	600
	1.8	Load distance	Initial lift up/down	x	mm	962/895.5	962/895.5
	1.9	Wheelbase	Initial lift up/down	y	mm	1304/1237.5	1304/1237.5
Wheels, Tyres	2.1	Weight (incl. battery)			kg	421	421
	2.2	Axle loadings laden	drive end/load end		kg	684/1337	711/1510
	2.3	Axle loadings unladen	drive end/load end		kg	327/94	327/94
	3.1	Tyres (rubber. pneumatic. polyurethane)				Polyurethane	Polyurethane
	3.2	Tyre size	drive end		mm	ø 230 x 75	ø 230 x 75
	3.3	Tyre size	load end		mm	ø 85 x 110	ø 85 x 85
	3.4	Castor wheels (size)	drive end		mm	ø 125 x 40	ø 125 x 40
Dimensions	3.5	Wheels. number (x=drive wheel)	drive end/load end			1x + 2/2	1x + 2/4
	3.6	Track width	drive end	b ₁₀	mm	482	482
	3.7	Track width	load end	b ₁₁	mm	395	395
	4.4	Lift height		h ₃	mm	125	125
	4.9	Height of tiller in drive position	mini/maxi	h ₁₄	mm	740/1250	740/1250
	4.15	Forks height lowered		h ₁₃	mm	85	85
	4.19	Overall length		l ₁	mm	1650	1650
	4.20	Length to front face of forks		l ₂	mm	500	500
	4.21	Overall width		b ₁	mm	720	720
	4.22	Forks dimensions		s/e/l	mm	55/165/1150	55/165/1150
Performances	4.25	Forks external width		b ₅	mm	520/560/680	520/560/680
	4.32	Floor clearance. centre of wheelbase	Initial lift up/down	m ₂	mm	30/155	30/155
	4.34	Working aisle width for pallets 800 x 1200 lengthwise (b ₁₂ x l ₆)	Initial lift up/down	A _{st}	mm	1954/1954	1954/1954
	4.35	Outer turning radius	Initial lift up/down	W _a	mm	1516/1450	1516/1450
	5.1	Traveling speed	laden/unladen		km/h	6.00/6.00	6.00/6.00
	5.2	Lifting speed/time	laden/unladen		m/s	0.040/0.060	0.040/0.060
	5.3	Lowering speed/time	laden/unladen		m/s	0.071/0.065	0.071/0.065
Electric motors	5.8	Max. gradeability laden	laden/unladen		%	14/24	13/24
	5.9	Acceleration time (over 10 m)	laden/unladen		s	7.58/6.50	7.65/6.50
	5.10	Service brakes				electromagnetic	electromagnetic
	6.1	Drive motor. rating S2 = 60 min			kW	1.2	1.2
Others	6.2	Lift motor. rating at S3 = 15%			kW	1	1
	6.3	Battery to IEC 254-2; A. B. C. no				BS	BS
	6.4	Battery voltage. capacity K _s			V/Ah	24/150	24/150
	6.5	Battery weight ± 5% (dependant on manufacturer)			kg	141	141
	6.6	Energy consumption according to VDI cycle			kWh/h	0.38	0.38
	8.1	Drive control				3-phase pulse control	3-phase pulse control
	8.4	Noise peak at operator's ears			dB (A)	68.7	68.7

Optional hinged platform (rider/pedestrian)

	1.2	Manufacturer's model designation				EXU 20	EXU 22
	1.4	Type of control (hand, pedestrian, stand-on, rider seated, order picker)				Rider	Rider
	2.1	Weight (incl. battery)			kg	585	654
	2.2	Axle loadings laden	drive end/load end		kg	896/1689	942/1711
	2.3	Axle loadings unladen	drive end/load end		kg	460/125	516/137
	4.9	Height of tiller in drive position	mini/maxi	h ₁₄	mm	740/1250	740/1250
	4.19	Overall length	Platform rider/pedestrian	l ₁	mm	1895/2285	1970/2360
	4.20	Length to front face of forks	Platform rider/pedestrian	l ₂	mm	745/1135	820/1210
	4.34	Working aisle width for pallets 800 x 1200 lengthwise (b ₁₂ x l ₆)	Platform rider/pedestrian	A _{st}	mm	2177/2545	2251/2619
	4.35	Outer turning radius/Initial lift down	Platform rider/pedestrian	W _a	mm	1738/2107	1812/2181
		Outer turning radius/Initial lift up	Platform rider/pedestrian	W _a	mm	1673/2041	1747/2115
	5.1	Traveling speed	laden/unladen		km/h	6.00/6.00	6.00/6.00

This specification sheet to VDI Guidelines 2198 only gives the technical figures for the standard truck.
Different tyres, other masts, additional equipment etc. could give different figures.

Characteristics	1.1	Manufacturer				STILL	STILL
	1.2	Manufacturer's model designation				EXU 20	EXU 22
	1.3	Power supply (electric. diesel. petrol. gas. mains electric)				Electric	Electric
	1.4	Type of control (hand. pedestrian. stand-on. rider seated. order picker)				Pedestrian	Pedestrian
	1.5	Capacity/load		Q	kg	2000	2200
Weight	1.6	Nominal load centre		c	mm	600	600
	1.8	Load distance	Initial lift up/down	x	mm	962/895.5	962/895.5
	1.9	Wheelbase	Initial lift up/down	y	mm	1379/1312.5	1454/1387.5
Weight	2.1	Weight (incl. battery)			kg	489	582
	2.2	Axle loadings laden	drive end/load end		kg	841/1648	959/1823
	2.3	Axle loadings unladen	drive end/load end		kg	374/115	432/150
Wheels, Tyres	3.1	Tyres (rubber. pneumatic. polyurethane)				Polyurethane	Polyurethane
	3.2	Tyre size	drive end		mm	ø 230 x 75	ø 230 x 75
	3.3	Tyre size	load end		mm	ø 85 x 85	ø 85 x 85
	3.4	Castor wheels (size)	drive end		mm	ø 125 x 40	ø 125 x 40
	3.5	Wheels. number (x=drive wheel)	drive end/load end			1x + 2/4	1x + 2/4
	3.6	Track width	drive end	b ₁₀	mm	482	482
	3.7	Track width	load end	b ₁₁	mm	395	395
Dimensions	4.4	Lift height		h ₃	mm	125	125
	4.9	Height of tiller in drive position	mini/maxi	h ₁₄	mm	740/1250	740/1250
	4.15	Forks height lowered		h ₁₃	mm	85	85
	4.19	Overall length		l ₁	mm	1725	1800
	4.20	Length to front face of forks		l ₂	mm	575	650
	4.21	Overall width		b ₁	mm	720	720
	4.22	Forks dimensions		s/e/l	mm	55/165/1150	55/165/1150
	4.25	Forks external width		b ₅	mm	520/560/680	520/560/680
	4.32	Floor clearance, centre of wheelbase	Initial lift up/down	m ₂	mm	30/155	30/155
	4.34	Working aisle width for pallets 800 x 1200 lengthwise (b ₁₂ x l ₆)	Initial lift up/down	A _{st}	mm	2028/2028	2102/2102
4.35	Outer turning radius	Initial lift up/down	W _a	mm	1590/1524	1664/1598	
Performances	5.1	Traveling speed	laden/unladen		km/h	6.00/6.00	6.00/6.00
	5.2	Lifting speed/time	laden/unladen		m/s	0.040/0.060	0.034/0.043
	5.3	Lowering speed/time	laden/unladen		m/s	0.071/0.065	0.070/0.063
	5.8	Max. gradeability laden	laden/unladen		%	11/24	10/24
	5.9	Acceleration time (over 10 m)	laden/unladen		s	8.04/6.50	8.04/6.50
	5.10	Service brakes				electromagnetic	electromagnetic
Electric motors	6.1	Drive motor. rating S2 = 60 min			kW	1.2	1.2
	6.2	Lift motor. rating at S3 = 15%			kW	1.2	1.4
	6.3	Battery to IEC 254-2; A. B. C. no				2 PzS	3 PzS
	6.4	Battery voltage. capacity K _s			V/Ah	24/250	24/375
	6.5	Battery weight ± 5% (dependant on manufacturer)			kg	212	289
	6.6	Energy consumption according to VDI cycle			kWh/h	0.38	0.38
Others	8.1	Drive control				3-phase pulse control	3-phase pulse control
	8.4	Noise peak at operator's ears			dB (A)	68.7	68.7

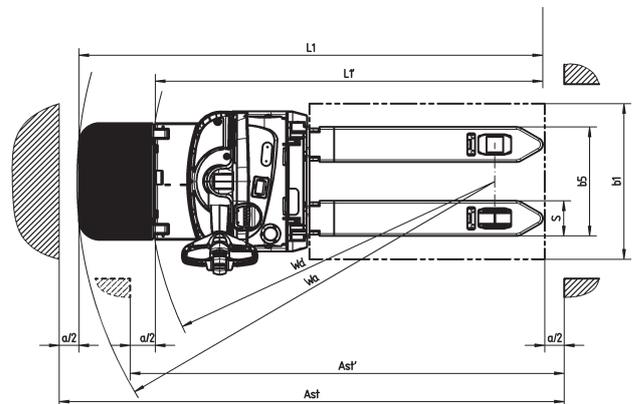
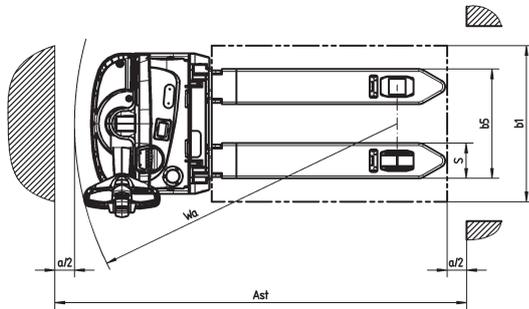
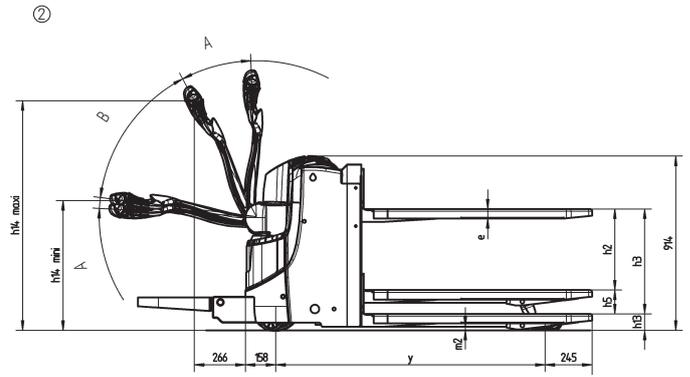
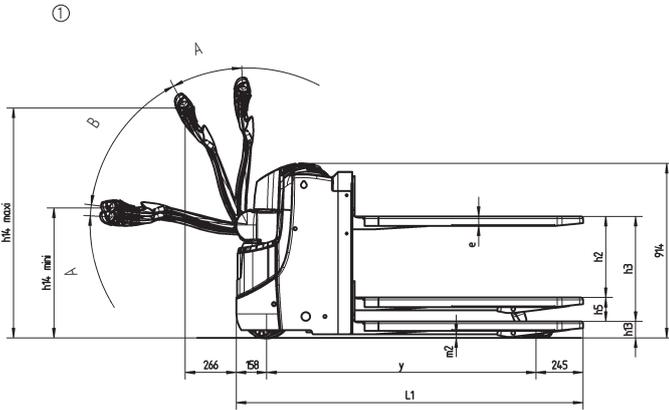


A = Braking
B = Driving

				STILL ①		STILL ①	
Characteristics	1.1	Manufacturer					
	1.2	Manufacturer's model designation			EXU-H 18		EXU-H 20
	1.3	Power supply (electric, diesel, petrol, gas, mains electric)			Electric		Electric
	1.4	Type of control (hand, pedestrian, stand-on, rider seated, order picker)			Pedestrian		Pedestrian
	1.5	Carrying capacity/load	Q	kg	800/1800		800/2000
	1.6	Load centre	c	mm		600	
	1.8	Load distance	x	mm		950/890	
	1.9	Wheelbase	y	mm		1404/1338	
	Weights	2.1	Weight (incl. battery)		kg	558	
2.2		Axle loading laden		kg	822/1539		937/1664
2.3		Axle loading unladen		kg	411/145		458/145
Wheels Chassis	3.1	Tyres					Polyurethane
	3.2	Tyre size	drive end	mm			∅ 230 x 75
	3.3	Tyre size	load end	mm			2x ∅ 85 x 65 (Basic: ∅ 85 x 90)
	3.4	Support roller size		mm			2x ∅ 125 x 40
	3.5	Wheels, number (x = drive wheel)	drive end/load end				1x 2/4
	3.6	Track width	drive end	b ₁₀	mm		482
	3.7	Track width	load end	b ₁₁	mm		380 (340)
Basic dimensions	4.2	Height, mast lowered		h ₁	mm		1370
	4.3	Free lift		h ₂	mm		550
	4.4	Lift		h ₃	mm		675
	4.6	Basic lift		h ₅	mm		125
	4.9	Tiller height in drive position	min./max.	h ₁₄	mm		720/1240
	4.15	Height lowered		h ₁₃	mm		85
	4.19	Overall length unladen		l ₁	mm	1807	1882
	4.20	Length inc. fork back		l ₂	mm	617	692
	4.21	Overall width		b ₁	mm		720
	4.22	Fork dimensions		s/e/l	mm		180/50/1190
	4.25	Overall fork width		b ₅	mm		560 (520)
4.32	Floor clearance, centre of wheelbase		m ₂	mm		20/145	
4.33	Working aisle width - 1000 x 1200 pallet crosswise		A _{st}	mm	2045	2120	
4.34	Working aisle width for pallet 800 x 1200 lengthways (b ₁₂ x l ₆)		A _{st}	mm	2095	2170	
4.35	Turning radius		W _a	mm	1645/1585	1720/1660	
Performance data	5.1	Travel speed	laden/unladen		km/h		6/6
	5.2	Lifting speed/time	laden/unladen		m/s		0.115/0.184
	5.3	Lowering speed/time	laden/unladen		m/s		0.326/0.13
	5.8	max. gradeability kB ₅	laden/unladen		%	12/24	10/24
	5.9	Acceleration time (over 10 m)	laden/unladen		s		8.45/7.1
	5.10	Service brake					electromagnetic
E-Motor	6.1	Drive motor, Rating S2 = 60 min			kW		1.2
	6.2	Hoist motor, Rating at S3 = 15%			kW		1.2
	6.3	Battery to DIN 43531/35/36; A, B, C, no				BS	2 PzS
	6.4	Battery voltage, rated capacity K ₅			V/Ah	24/150	24/250
	6.5	Battery weight ± 5% (dependent on make)			kg	144	191
	6.6	Energy consumption to VDI cycle			kWh/h		0.38
Others	8.1	Drive control					Pulsed three-phase current
	8.4	Sound level, at driver's ear			dB (A)		59

Optional hinged platform (rider/pedestrian)

1.2	Manufacturer's model designation				EXU-H 20 ②
1.5	Carrying capacity/load		Q	kg	800/2000
2.1	Unladen weight (incl. battery)			kg	645
2.2	Axle load, laden	Drive side/load side		kg	982/1664
2.3	Axle load, unladen	Drive side/load side		kg	500/145
4.9	Tiller height in driving position	min./max.	h ₁₄	mm	720/1240
4.19	Unladen total length	Pedestrian mode	l ₁	mm	1977
		Stand-on mode	l ₁	mm	2367
4.20	Length including fork backs	Pedestrian mode	l ₂	mm	787
		Stand-on mode	l ₂	mm	1177
4.34	Working aisle width with pallets 800 x 1200 longitudinal (b ₁₂ x l ₆)	Pedestrian mode	A _{st}	mm	2160
		Stand-on mode	A _{st}	mm	2332
4.35	Turning radius		W _a	mm	1760/1700
			W _a	mm	2132/2072
5.1	Travel speed	Laden/unladen		km/h	6,0/6,0



A = Braking
B = Driving

EXU-H

The new EXU-H, based on the EXU low lift truck, possesses a number of advantages and features which make the machine multipurpose:

- Ergonomic fully proportional lift enables a working height of 760 mm.
- Can also be used as an order picker, as a mobile variable-height workbench, for pick-up of empty pallets on initial lift, and for “easy on the back” re-stocking of supermarket shelves.
- An initial lift capacity of up to 2000 kg allows the EXU-H to be used for both loading and unloading.
- The order picking lift has a residual load capacity of 800 kg.
- With the optional Autolift function a sensor detects the load height and automatically sets the lift to the height of the upper edge of the load.

Standard equipment

- Standard fork length 1190 mm (1150 mm option available).
- Fork width 560 mm (520 mm option available).
- DIN A4 writing desk with paper clamp integrated into battery cover.
- 2 optional battery trays available: 150 Ah for EXU-H 18 and 250 Ah for EXU-H 20.
- Tandem load rollers (single as an option).

Options for EXU-H

In addition to all the options available for the standard EXU, the following further options can be fitted to the EXU-H:

- 2 load protection screens 830 mm or 1300 mm high provide greater safety with raised pallets.
- Sprung folding stand-on platform for transport tasks over medium or longer distances (EXU-H 20).
- Autolift: Automatic raising and lowering of the load to ensure an ergonomic working height.
- Adjustable DIN A4 writing desk.

Thanks to its versatility, reliability and efficiency, the new EXU low lift pallet truck from STILL offers customers the right solution for every application. Being easy and safe to use for the operator was a focal point in its development, as was the compact build. This allows it to be used even in the tightest spaces, for example, when loading and unloading lorries, in narrow warehouses, or in business operations. Together with a highly energy efficient 3-phase drive and the wide range of options, the EXU is thus the ideal low lift pallet truck for intralogistics tasks in industry, trade and logistics. The EXU is available in capacities of 1600 kg, 1800 kg, 2000 kg and 2200 kg. A hinged platform is also available as an option.

Truck frame

- Rounded contours facilitate the use of the EXU in tight spaces, such as on a lorry or supermarket aisles, for example.
- Good floor clearance with the forks raised allows trouble free negotiation of ramps, also giving good protection to the operator's feet.
- The cover is made of reinforced polypropylene to provide very high durability which, even after an impact, retains its original form.
- Extremely robust forks made from special steel sections with monobloc cast steel fork tips provide the greatest reliability in demanding use. The shape of the fork tips allows optimal entry into all pallets.

Steering

- Easy to use in the tightest spaces thanks to the free running tiller steering.
- When the tiller is released it is brought back automatically into the vertical braking rest position by a gas spring. Here, a gas cylinder provides a damped stop.

Tiller

- An ergonomic arrangement of the controls, suitable for right or left handed operators. The push buttons for the horn, lifting and lowering can also be reached in one handed operation without changing grip. This allows fatigue-free operation.
- The oversized buttons have been designed with indentations and projections to allow the operator to intuitively 'feel' each function even when wearing industrial gloves.
- The arrangement of the buttons ensures the simultaneous use of different controls and functions, such as lifting and driving for example.
- Safety to the operator's hands is increased due to all round hand guards and the rounded frame.
- The switch elements (micro switches) and tiller PCB are sealed to IP 65, and all plug connectors and cable harnesses are protected to IP 54, helping to prevent the ingress of dust and water.
- The ergonomically shaped impact switch in the tiller head eliminates the risk of crushing to the operator, even with the tiller almost vertical. The EXU automatically switches from forward to reverse when the impact switch touches the operator.
- High stability of the tiller head due to the use of glass fibre reinforced polyurethane and a tiller arm made of cast aluminium.

Drive

- Powerful, economical and hence cost saving, thanks to a 1.2 kW 3-phase drive motor.
- Excellent drivability is adaptable to demand thanks to two drive programmes, ECO and BOOST (two positions on the key switch).
- In "ECO" mode (Tortoise button), the motor runs at its normal characteristics, i.e. it draws a lower current and accelerates smoothly up to 4 km/hr. This gives a highly competitive operating period per battery charge.
- In "BOOST" mode (Hare button), the motor runs in a higher power range and offers very high torque and faster acceleration to a higher top speed of 6 km/hr, even when fully laden and regardless of gradient. In this mode, the EXU's available operating period remains the norm for its class, but productivity increases by as much as 25% in comparison.
- A speed sensor connected to the control unit provides soft, stepless acceleration of the EXU up to maximum speed, regardless of the load on the forks.
- The truck automatically brakes when the drive switch is released. When this happens - or when the driver applies the brakes - the AC motor acts as a generator and the kinetic energy which would otherwise be lost is recovered and stored in the battery.
- When stationary on a ramp, or when the drive switch is released, the controller monitors every rolling movement of the truck and prevents uncontrolled rolling back by applying the brake.

Hydraulic system

- A compact 1 to 1.4 kW pump and motor unit allows short lift times - even when fully laden - providing high handling capacity.
- On reaching the maximum lift the pump is automatically shut off, reducing the energy consumption and servicing costs by 10 - 20%, depending on the application. The maximum pressure valve protects the truck from damage caused by overloads.

Brake system

- The braking is supplied by two independent systems:
- Soft braking with energy recovery which is activated by releasing the butterfly switch or by plugging (different braking characteristics will apply depending on the drive mode selected, i.e. "Hare" or "Tortoise").
 - The totally encapsulated electromagnetic disc brake system acts as both a safety braking system and as a parking brake. The braking takes place automatically with the tiller in the horizontal or vertical position (dead man brake).

Battery

- The drive control and resulting low energy requirement allows the use of compact batteries with a lower capacity – even for longer use applications.
- Three different battery trays are available to take batteries (wet, low-maintenance or maintenance free) with capacities from 24 V/150 Ah to 24 V/375 Ah, in order to optimally match the truck to the application.
- The batteries are easily accessible and can be changed using a hoist.
- Side battery changing is available as an option for all models with tray 2 PzS.

Support rollers

- For demanding applications – such as driving on ramps – the centrally driven EXU has extremely robust support castors.
- These can be easily and quickly adjusted from above.

Load rollers

- Tandem rollers as standard (except for EXU 16 with single rollers).
- Greased axles with lubricating facilities are also available for use in damp environments.

Drive wheel

- Polyurethane as standard.
- The particularly large dimensions (ø 230 x 75 mm) guarantee excellent traction for every application, however hard.

Standard equipment

- Fork lengths of 800 mm, 1000 mm, 1150 mm, 1200 mm, 1400 mm or 1600 mm (others on request). For the EXU 20, lengths of 1800 mm and 2400 mm are also available.
- Fork widths of 520 mm, 560 mm or 680 mm.
- 3 position switch with 2 drive modes (“Hare”/“Tortoise”).
- Combi instrument for battery state of charge with integral hoist cut out and work hour meter.
- Integral storage compartments designed for pens, drinks, DIN A4 documents, etc.
- Writing surface with integral paper clip.

OPTISPEED 3.0

- With the latest development of the AC Controller in combination with a redundant angle sensor in the tiller, STILL has incorporated an innovative, ergonomic, safe function.
- The speed will automatically be adjusted to suit the angle at which the tiller is held, thus slow travel is possible with the tiller vertical, making manoeuvring in the tightest space very easy and safe and also making it practically impossible to drive over your feet even in the tightest of spaces.

Optional

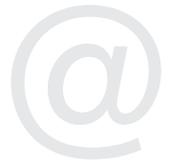
- Load backrest 1700 mm high.
- Sprung, hinged stand-on platform on the EXU 20.
- Different versions of the drive wheel for optimal traction and clean floors (solid rubber, non-marking, etc.).
- Axles with greasing provision for damp environments.
- Integral on-board charger compatible with all battery capacities.
- Cold store version down to minus 35 ° C.
- Unique modular accessory system thanks to multi-function bracket.
- Adjustable A4 writing surface.
- Access control by a PIN code entry.
- Noise-minimised version (“Piek” certified) for particularly quiet use, for example in city centres.
- STILL FleetManager™ with access authorisation (using PIN, chip or card), accident detection and data transfer.

Safety

- Trucks comply with the EC guideline 2006/42 and carry the CE symbol.
- STILL is certified to ISO 9001.

STILL EXU pedestrian low lift pallet truck

- A wide range of variants and options for different intralogistics tasks.
- 2 driving programmes, ECO and BOOST, for optimised economy or maximum power.
- Tiller grip optimised for right and left handed operatives, Enclosure Class IP 65.
- OPTISPEED control of the speed dependent on the tiller angle, for high operating safety.
- Compact build for efficient working in narrow spaces.
- Robust fork tips in cast steel with optimised shape for easy pallet pick up.
- Practical, easily reached storage compartments.



Your contact

STILL GmbH
Berzeliusstraße 10
D-22113 Hamburg
Telephone: +49 (0)40/73 39-20 00
Telefax: +49 (0)40/73 39-20 01
info@still.de

For further information please visit:
www.still.eu

STILL Materials Handling Ltd.
Aston Way, Leyland
Lancashire PR26 7UX
Telephone: +44 (0)1772 644300
Telefax: +44 (0)1772 644303
info@still.co.uk

For further information please visit:
www.still.co.uk

