

UNICARRIERS[®]

FORKLIFT

Center Control Walkie /
Rider Pallet Truck
24 Volt AC-Powered
6,000 & 8,000 lbs. Capacities



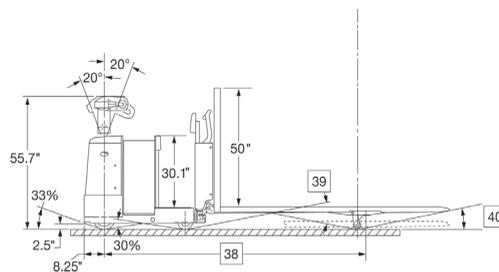
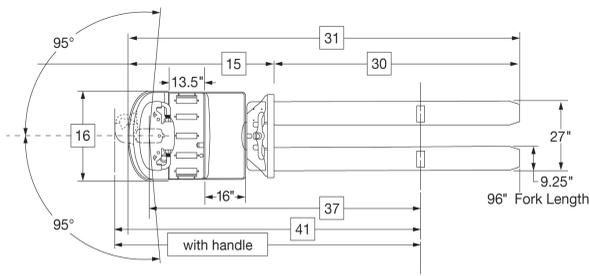
MAIN TRUCK SPECIFICATIONS

CHARACTERISTICS	1			UniCarriers	UniCarriers	
	2			SPX60B	SPX80B	
	3			SPXT2W3G60V	SPXT2W3G80V	
CHARACTERISTICS	4	Rated Load Capacity	Equally Distributed Load	lb (kg)	6000 (2720) / 8000 (3630)	
	5	Power Type	Electric		24v / 24v	
	6	Operator Type	Stand-up, Center Control		Walkie / Rider / Walkie / Rider	
CHARACTERISTICS	7	Tire Type	Drive tire		Solid Rubber / Solid Rubber	
	8		Caster Wheels		Poly / Poly	
	9		Load Wheels		Dyalon [®] A Poly / Dyalon [®] A Poly	
CHARACTERISTICS	10	Wheels	Drive/caster/load	(x=driven)	1x / 2 / 2 / 1x / 2 / 2	
	FORKS	11	Fork Size	Outside spread	in (mm)	27 (685) / 27 (685)
		12	Fork Height	Raised position	in (mm)	9.25 (235) / 9.25 (235)
13			Lowered position	in (mm)	3.25 (82.5) / 3.25 (82.5)	
FORKS	14	Individual Fork Width		in (mm)	9.25 (235) / 9.25 (235)	
	DIMENSIONS	15	Head Length	Forks raised	in (mm)	56.9 (1445) / 56.9 (1445)
		16	Width	Chassis	in (mm)	35.1 (890) / 35.1 (890)
17		Tires / Wheels	Drive tire - diameter x width	in (mm)	10 x 5 (255 x 125) / 10 x 5 (255 x 125)	
DIMENSIONS	18		Caster wheels - diameter x width	in (mm)	6 x 3 (150 x 75) / 6 x 3 (150 x 75)	
	19		Load wheels - diameter x width	in (mm)	3.25 x 6 (85 x 150) / 3.25 x 6 (85 x 150)	
	SPEED	20	Speed - Travel	No load	mph (kph)	9.0 (14.5) / 9.0 (14.5)
21			Full load	mph (kph)	7.2 (11.6) / 6.2 (10.0)	
22		Speed - Lift / Lower	No load	sec.	3.0 / 4.7 / 3.0 / 4.7	
SPEED	23		Full load	sec.	4.2 / 4.4 / 4.6 / 4.3	
	BATTERY	24	Compartment Size*	Length x Width x Height	in (mm)	33.2 x 13.5 x 31.6 (840 x 340 x 800)
		25	Amp Hr Capacity	Max (6-hr)	Ah	840 / 840
26		Weight	Min / Max	lb (kg)	855 / 1550 (390 / 700) / 855 / 1550 (390 / 700)	
27		Lead Length	Position "B"	in (mm)	20 (508) / 20 (508)	
28		Connector		type	SB-175 Red / SB-175 Red	
29		Battery Roller (Option)	Height from floor (forks lowered)	in (mm)	7.05 (180) / 7.05 (180)	

*Battery compartment size with optional rollers and side gates: 30.9 x 13.5 x 31.6 (785 x 345 x 805)

DIMENSIONS

SPX60B / SPX80B



SPX(E) Series SPECIFICATIONS



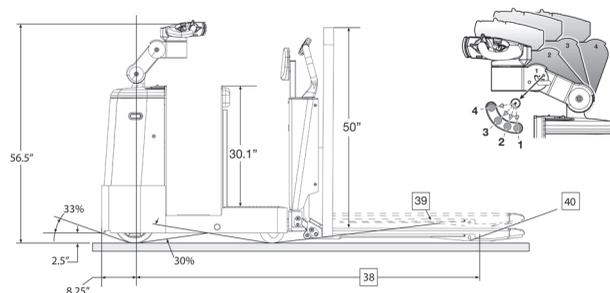
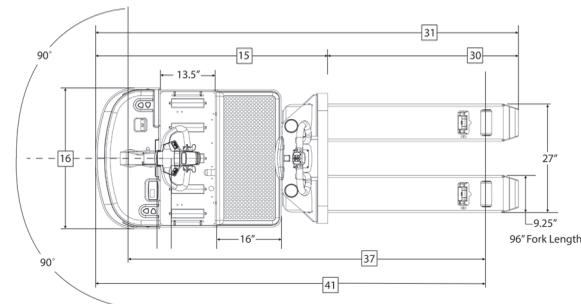
MAIN TRUCK SPECIFICATIONS

CHARACTERISTICS	1			UniCarriers	UniCarriers
	2			SPXE60	SPXE80
	3			SPXE2W3G60BV	SPXE2W3G80BV
4	Rated Load Capacity	Equally Distributed Load	lb (kg)	6000 (2720)	8000 (3630)
5	Power Type	Electric		24v	24v
6	Operator Type	Stand-up, Center Control		Walkie / Rider	Walkie / Rider
7	Tire Type	Drive tire		Solid Rubber	Solid Rubber
8		Caster Wheels		Poly	Poly
9		Load Wheels		Dyalon® A Poly	Dyalon® A Poly
10	Wheels	Drive/caster/load	(x=driven)	1x / 2 / 2	1x / 2 / 2
11	Fork Size	Outside spread	in (mm)	27 (685)	27 (685)
12	Fork Height	Raised position	in (mm)	9.25 (235)	9.25 (235)
13		Lowered position	in (mm)	3.25 (82.5)	3.25 (82.5)
14	Individual Fork Width		in (mm)	9.25 (235)	9.25 (235)
15	Head Length	Forks raised	in (mm)	56.9 (1445)	56.9 (1445)
16	Width	Chassis	in (mm)	35.1 (890)	35.1 (890)
17	Tires / Wheels	Drive tire - diameter x width	in (mm)	10 x 5 (255 x 125)	10 x 5 (255 x 125)
18		Caster wheels - diameter x width	in (mm)	6 x 3 (150 x 75)	6 x 3 (150 x 75)
19		Load wheels - diameter x width	in (mm)	3.25 x 6 (85 x 150)	3.25 x 6 (85 x 150)
20	Speed - Travel	No load	mph (kph)	9.0 (14.5)	9.0 (14.5)
21		Full load	mph (kph)	7.2 (11.6)	6.2 (10.0)
22	Speed - Lift / Lower	No load	sec.	3.0 / 4.7	3.0 / 4.7
23		Full load	sec.	4.2 / 4.4	4.6 / 4.3
24	Compartment Size*	Length x Width x Height	in (mm)	33.2 x 13.5 x 31.6 (840 x 340 x 800)	
25	Amp Hr Capacity	Max (6-hr)	Ah	840	840
26	Weight	Min / Max	lb (kg)	855 / 1550 (390 / 700)	855 / 1550 (390 / 700)
27	Lead Length	Position "B"	in (mm)	20 (508)	20 (508)
28	Connector		type	SB-175 Red	SB-175 Red
29	Battery Roller (Option)	Height from floor (forks lowered)	in (mm)	7.05 (180)	7.05 (180)

*Battery compartment size with optional rollers and side gates: 30.9 x 13.5 x 31.6 (785 x 345 x 805)

DIMENSIONS

SPXE60B / SPXE80B



STANDARD EQUIPMENT - SPX AND SPXE

- 24-volt electrical system
- Brushless AC drive motor
- Brushless AC steer motor ²
- DC pump motor
- Electronic motor controller system with AC inverter
- Digital CAN-bus communications
- Cold storage conditioning (to -20°F / -28°C)
- Programmable performance parameters (requires service handset)
- Four position adjustable steer head with rotary travel speed and directional control ²
- Tilt steerhead (20° Fwd / 20° Rev) ¹
- Fingertip control of electronic lift, lower, and horn buttons
- Hood mounted pick switches ²
- Sidetracker ¹
- Operator compartment padding
- Large operator platform with cushioned mat
- Electric horn
- Multi-function digital indicator
 - Battery discharge indicator with lift interrupt
 - Hour meter gauge: traction, lift, combined traction & lift
 - Fault codes
- On/off key switch
- SB-175 red battery connector
- Rubber drive tire (10" x 5") with string guard
- Heavy-duty, poly caster wheels (6" x 3") with string guards
- Dyalon[®] "A" load wheels: 3¼" x 6" with string guards
- Regenerative braking
- Spring applied/electronically released brake system
- Sealed switches and controller for wet, cooler and freezer applications
- Suction oil filter in hydraulic system
- Motor and controller thermal protection
- Powder-coat paint finish

OPTIONAL EQUIPMENT - SPX AND SPXE

- Multi-function LCD display with:
 - PIN access
 - Selectable performance modes
 - BDI and speedometer
 - On-board diagnostics and troubleshooting
- Magnetic mount convenience tray with stretch wrap holder
- Fork auto-lift function to 2½" height upon release of lower button
- On/off toggle switch*
- Fixed steer head* ¹
- Operator compartment knee pad
- Battery compartment rollers with side gates
- Battery gate interlock switches
- Travel alarm
- Stainless steel axles and linkage pivot pins
- Vulkollan[®] load wheels
- Non-marking rubber, traction treaded rubber or flat poly drive tire options

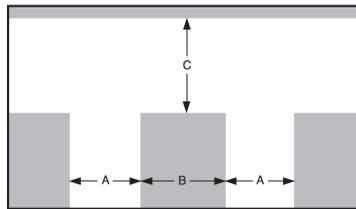
1 - SPX only

2 - SPXE only

** - Available at no charge*

AISLE SPECIFICATIONS

DIMENSIONS				Single Pallet	Double Pallet	
30	Fork Length	Nominal	in (mm)	48 (1,220)	84 (2,135)	96 (2,440)
31		Actual	in (mm)	47.7 (1,210)	83.7 (2,125)	95.7 (2,430)
32	Overall Truck Length		in (mm)	104.9 (2,665)	140.9 (3,580)	152.9 (3,885)
33	Face of Forks to Center	Forks raised	in (mm)	36.4 (925)	56.5 (1,435)	56.5 (1,435)
34	of Load Wheel	Forks Lowered	in (mm)	40.0 (1,015)	60.1 (1,525)	60.1 (1,525)
35	Center of Load Wheel	Forks raised	in (mm)	11.3 (290)	27.2 (690)	39.2 (995)
36	to Tip of Forks	Forks lowered	in (mm)	7.7 (195)	23.6 (605)	35.6 (905)
37	Wheelbase	Forks raised	in (mm)	85.3 (2,165)	106.2 (2,700)	106.2 (2,700)
38		Forks lowered	in (mm)	88.9 (2,260)	109.3 (2,795)	109.3 (2,795)
39	Grade Clearance	Between caster & load wheels	%	57	40	40
40		From load wheel to fork tip	%	70	30	20
41	Turning Radius	Std / With handle at 90° ¹	in (mm)	93.5 / 98.7 (2,375 / 2,510)	114.5 / 119.7 (2,910 / 3,040)	
42	Right Angle Stacking Aisle*	40", 42", 48" Load Width	in (mm)	108 (2,745)	146 (3,710)	158 (4,015)
43	90 Equal intersecting Area*	40" Load Width	in (mm)	78 (1,980)	89 (2,260)	91 (2,315)
44		42" Load Width	in (mm)	79 (2,010)	91 (2,315)	92 (2,340)
45		48" Load Width	in (mm)	82 (2,085)	94 (2,390)	95 (2,415)
46	Truck Weight	No load, without battery	lb (kg)	1,750 (795)	1,895 (860)	1,930 (880)



Intersecting Aisle Requirements

A	B	C
Working Aisle in (mm)	Rack Width ¹ in (mm)	Intersecting Aisle ² in (mm)
96 (2440)	102 (2590)	119 (3015)
102 (2590)	102 (2590)	111 (2810)
108 (2745)	102 (2590)	105 (2650)

¹ Rack width calculated using 48" pallets and additional 6" needed for bracing.
² Minimum required aisle size to make a turn from one adjacent aisle to the next.

*Add 6-8" for ease of operation. Includes 1" clearance on each side of load.

1 - Does not apply to SPXE

Note:

Single Pallet Handling: Size the forks to the exact pallet length. The load wheels will drop in the second opening of the pallet.

Double Pallet Handling: Size the forks to the exact pallet combination length. The load wheels should be specified to drop in the first opening of the second pallet to reduce the turning radius of the truck.

ERGONOMICS & COMFORT

The adjustable steer head combined with a cushioned platform and padded compartment provide an impressive workplace to achieve maximum operator comfort and reduced fatigue resulting in sustained productivity. The steer head is adjustable up and down to four set positions to accommodate a variety of user heights and allow for easy battery removal. The steer head's wide, 190° steering arc for SPX, 180° steering arc for SPXE allows for precise maneuvering in tight spaces with minimal effort.

Ergonomic layout of the truck's control head includes rotary-thumb travel speed controls, which can be operated from either side. Ergonomic placement of lift, lower and horn buttons provides intuitive fingertip control. Soft-touch switches also simplify load lifting and lowering.

Standard hood mounted pick switches allow the operator to work efficiently and advance the truck while walking alongside.

Rubber padded, intermediate handrail features thick tubular construction for greater dependability. Large, sealed buttons provide operator with greater control of fork raise/lower and reverse travel commands, as well as horn functions. It's bolted to the truck frame for faster replacement or repair.

The SPX(E) is designed with a large operator platform. Combined with a compact hood design, operators have several comfortable positions, to reduce fatigue and promote sustained productivity. Soft, cushioned platform mat provides added comfort.

EFFICIENCY & CONTROL

Advanced motor controller/AC inverter electronically distributes power as needed to the AC drive motor or DC pump motor. System offers programmable regenerative neutral braking and proportional plugging. Its AC design eliminates forward and reverse contactors, with electronic travel speed control for precise, efficient performance.

An optional multi-function LCD includes three hour meters and Personal Identification Number (PIN) codes to restrict truck access for greater fleet control. It provides access to customized performance settings and displays a battery discharge indicator with graphic representation of the remaining battery charge. The optional feature also offers on-board diagnostics and troubleshooting without the need for a separate hand tool.

EFFICIENT PERFORMANCE & GREATER UPTIME

Heavy-duty 5.2 Hp, brushless, three phase AC drive motor, provides high power and torque to handle tough applications. Motor delivers peak performance throughout the battery range. Longer run times per battery charge are achieved by using less energy per cycle.

SPX(E) includes an IP65 rated sealed controller. Sealed switches and logic boards allow operation in multiple environments including coolers, wet rooms and freezers down to -20°F (-28.9°C).

Digital CAN communication between the controller and control handle uses just four wires in the control handle harness to send multiple signals. Hall Effect speed and acceleration control sensor simplifies maintenance and limits downtime due to its non-contact design with fewer moving parts, and no mechanical wiping action, potentiometers, or heaters. Elimination of directional and lift contactors combined with enhanced thermal capabilities mean optimum performance and minimal downtime.

Electrical braking system uses regenerative motor torque prior to disc brake actuation, for less component wear and longer life. The spring-applied/electronically released disc brake system eliminates the need for adjustments. Brake actuation occurs when the handle is in the upper and lower braking range.

RUGGED FORK ASSEMBLY

Forks are 9¼" wide, constructed from ¼" plate steel, and designed with a reinforced tip for extra durability. Tapered ¼" steel fork slides facilitate pallet entry and exit without the use of entry rollers or discs. Various lengths available for both double and single pallet fork options. All come with a standard 27" wide fork spread.

Steel push rods are constructed from 1½" x 1½" solid bar stock to absorb high impact shocks caused by dock boards and dock plates and never need replacing. Push-type design achieves full 6" of lift without tie rods extending beyond the fork plane, preventing the possibility of damage and reducing maintenance costs.

Tie rods are positively aligned and pinned, so no field adjustments are required. Full-length, angle iron reinforcements enhance strength to reduce torsion, for increased durability and longer life. Each fork extends under the battery box for greater strength.

DURABLE DESIGNS

Exclusive articulated frame design with 5-point suspension incorporates drive wheel and swivel caster wheels that are separate from the rear load bearing frame, permitting smooth, independent movement of rear frame and chassis, resulting in easier negotiating over dock plates and uneven floors.

The SPX(E) Series is manufactured with a rugged frame for tough applications. Powder coat paint, inside and out, delivers a durable, high gloss, scratch resistant finish. Heavy-duty integrated lift system (DC motor, lift pump and fluid reservoir) includes a check valve and flow regulator. Lift limit switch is not needed since the controller cuts the pump. Return line filtering protects the system against environmental contaminants. A quiet, spiral beveled gear drive system with sealed ball bearings provides solid performance with low steer effort.

LOWER OPERATING COSTS

Brushless AC drive motor uses fewer components and requires less maintenance for lower operating costs. Easily accessible, rotation sensing encoder is externally mounted on the drive motor for simplified replacement. Motor and controller feature thermal protection system to slow or shut down truck in response to high temperatures.

Unique steer race and enclosed frame design help keep major components (such as drive motor, controller and hydraulic system) free from debris kicked up by the drive tire for less maintenance and longer life.

Belt driven electrical power steering requires less maintenance cost over a chain driven system. By using a belt drive, this enables less frequent service intervals compared to a chain driven system. The belt is checked and adjusted with a simple, single bolt tensioning mechanism, requiring no lubrication or additional cleaning. (SPXE Only)

One-piece cover with two-bolt removal makes access to the drive unit, and major components quick and easy. Five nut removal of the drive tire simplifies replacement when needed. All lubrication fittings are easily accessible with the truck upright and the battery in place.

Optional auto-lift feature ensures forks are automatically at maximum lift height during operation, providing ample clearance to reduce pallet and or load carry component damage.

Electrical braking system uses regenerative motor torque prior to disc brake actuation, for less component wear and longer life. The spring-applied/electronically released disc brake system eliminates the need for adjustments.

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