

# Product Portfolio



# INDUSTRIAL LOGISTICS

Lean Logistics for Industrial Manufacturing

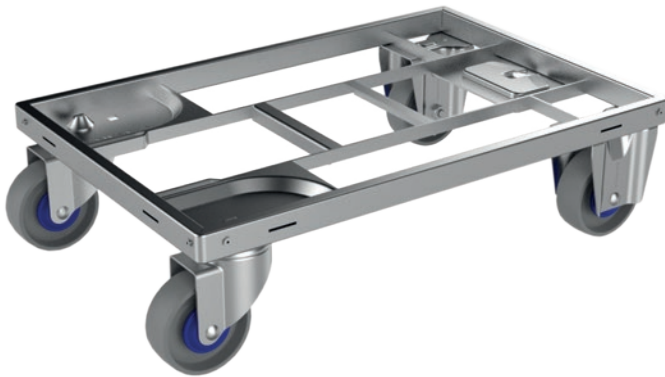
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# Lean Dolly Type I



| TECHNICAL SPECIFICATION                 |                                                   |
|-----------------------------------------|---------------------------------------------------|
| External dimensions                     | 24" x 15" or 24" x 22.5"                          |
| Tare weight with CPD wheels, no corners | 14.5 lbs                                          |
| Wheel size                              | 4" wheels                                         |
| Wheel configuration                     | 2 fixed & 2 swivel                                |
| Wheel material                          | CPD, rubber or PU                                 |
| Working capacity                        |                                                   |
| - CPD – standard and ESD                | 550 lbs                                           |
| - Rubber – standard and ESD             | 550 lbs                                           |
| - PU – standard and ESD                 | 550 lbs                                           |
| Surface treatment                       | Blue zinc plated acc. to EN-ISO2081               |
| Safe stacking                           | up to 15 units (77")                              |
| Compatibility with Lean Adaptor Pallets | Next Generation (HADP10030, HADP10032, HADP10045) |

## OPTIONS

- Total brake on 1 or 2 swivel wheels
- RFID & Tracking compatibility
- Corner supports
- ESD compatibility

## ALSO AVAILABLE IN ISO- AND US-DIMENSIONS

- 24" x 22.5"
- 24" x 15"
- 24" x 22.5"

## DESIGNED TO CARRY SLC'S AND TRAYS

- 24" x 22.5"
- 24" x 15"
- 12" x 15"

## ACCESSORIES

- Ergonomic handle
- Strapping device
- Oil dripping pan



Watch  
the video

# Lean Dolly Type II



# Lean Dolly Type V



| TECHNICAL SPECIFICATION                 | LEAN DOLLY TYPE II                                | LEAN DOLLY TYPE V                                 |
|-----------------------------------------|---------------------------------------------------|---------------------------------------------------|
| External dimensions                     | 24" x 15" or 24" x 22.5"                          | 24" x 15" or 24" x 22.5"                          |
| Tare weight with CPD wheels, no corners | 15.5 lbs                                          | 16.5 lbs                                          |
| Wheel size                              | 4" wheels                                         | 4" wheels                                         |
| Wheel configuration                     | 4 swivel                                          | 4 swivel                                          |
| Wheel material                          | CPD, rubber or PU                                 | CPD, rubber or PU                                 |
| Working capacity:                       |                                                   |                                                   |
| - CPD – standard and ESD                | 550 lbs                                           | 550 lbs                                           |
| - Rubber – standard and ESD             | 550 lbs                                           | 550 lbs                                           |
| - PU – standard and ESD                 | 550 lbs                                           | 550 lbs                                           |
| Surface treatment                       | Blue zinc plated acc. to EN-ISO2081               | Blue zinc plated acc. to EN-ISO2081               |
| Safe stacking                           | up to 15 units (77")                              | up to 15 units (77")                              |
| Compatibility with Lean Adaptor Pallets | Next Generation (HADP10030, HADP10032, HADP10045) | Next Generation (HADP10030, HADP10032, HADP10045) |

## OPTIONS

- Total brake on 1 or 2 swivel wheels
- RFID & Tracking compatibility
- Corner supports
- ESD compatibility

## ALSO AVAILABLE IN ISO- AND US-DIMENSIONS

- 24" x 22.5"
- 24" x 15"
- 24" x 22.5"

## DESIGNED TO CARRY SLC'S AND TRAYS

- 24" x 22.5"
- 24" x 15"
- 12" x 15"

## ACCESSORIES

- Ergonomic handle
- Strapping device
- Oil dripping pan



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## Benefits

- Improve work flow
- Reduce handling costs
- Enable reduction of stock level
- Reduce need for floor space
- Improve ergonomics
- Fast and safe truck loading

## Lean Dolly Type VII



With sliding draw bar system



| TECHNICAL SPECIFICATION                 |                                                   |
|-----------------------------------------|---------------------------------------------------|
| External dimensions                     | 24" x 15" or 24" x 22.5"                          |
| Tare weight with CPD wheels, no corners | 15.5 lbs                                          |
| Wheel size                              | 4" wheels                                         |
| Wheel configuration                     | 2 fixed & 2 swivel                                |
| Wheel material                          | CPD, rubber or PU                                 |
| Maximum Load Capacity:                  |                                                   |
| - CPD – standard and ESD                | 550 lbs                                           |
| - Rubber – standard and ESD             | 550 lbs                                           |
| - PU – standard and ESD                 | 550 lbs                                           |
| Working capacity in tugger train        | 2200 lbs                                          |
| Max amount per tugger train             | 7–8 units                                         |
| Surface treatment                       | Blue zinc plated acc. to EN-ISO2081               |
| Safe stacking                           | up to 15 units (1955 mm)                          |
| Compatibility with Lean Adaptor Pallets | Next Generation (HADP10030, HADP10032, HADP10045) |
| Recommended max speed                   | 4 mph                                             |

### OPTIONS

- Total brake on 1 or 2 swivel wheels
- RFID & Tracking compatibility
- Corner supports
- Stealth version sliding tow system
- ESD compatibility

### ALSO AVAILABLE IN ISO AND US-DIMENSIONS

- 24" x 15", 24" x 22.5"

### DESIGNED TO CARRY SLC'S AND TRAYS

- 24" x 22.5"
- 24" x 15"
- 12" x 15"

### ACCESSORIES

- Ergonomic handle
- Strapping device
- Oil dripping pan

For more details about the use of the Lean products please contact K.Hartwall



Watch the video

# Lean Dolly Type VIIC with Elevated Deck



| TECHNICAL SPECIFICATION                 |                                                   |
|-----------------------------------------|---------------------------------------------------|
| External dimensions                     | 24" x 15" or 24" x 22.5"                          |
| Tare weight with CPD wheels, no corners | 39.5 lbs                                          |
| Wheel size                              | 4" wheels                                         |
| Wheel configuration                     | 2 fixed & 2 swivel                                |
| Wheel material                          | CPD, rubber or PU                                 |
| Maximum Load Capacity:                  |                                                   |
| - CPD – standard and ESD                | 155 lbs                                           |
| - Rubber – standard and ESD             | 155 lbs                                           |
| - PU – standard and ESD                 | 155 lbs                                           |
| Working capacity in tugger train        | 2200 lbs                                          |
| Max amount per tugger train             | 7–8 units                                         |
| Surface treatment                       | Blue zinc plated acc. to EN-ISO2081               |
| Safe stacking                           | up to 3 units (77")                               |
| Compatibility with Lean Adaptor Pallets | Next Generation (HADP10030, HADP10032, HADP10045) |
| Recommended max speed                   | 3 mph                                             |

### OPTIONS

- Total brake on 1 or 2 swivel wheels
- RFID & Tracking compatibility
- ESD compatibility

### ALSO AVAILABLE IN EURO-DIMENSIONS

- 600 x 400 mm

### DESIGNED TO CARRY SLC'S AND TRAYS

- 24" x 22.5"
- 24" x 15"
- 12" x 15"

### ACCESSORIES

- Ergonomic handle
- Oil dripping pan

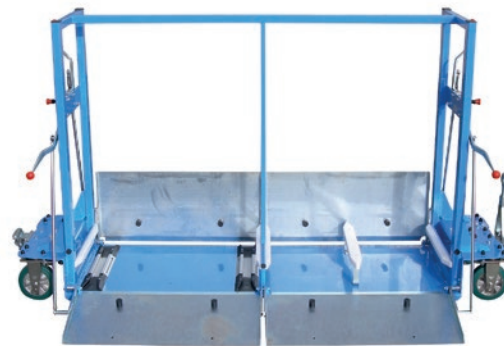


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# Lean Taxiliner



3 Bay Version



4 Bay Version



| TECHNICAL SPECIFICATION       | 3 Bay Version     | 4 Bay version     |
|-------------------------------|-------------------|-------------------|
| External dimensions           | 80" x 56" x 28.5" | 98" x 56" x 28.5" |
| Length including the draw bar | 100"              | 118"              |
| Space between dividers        | 16"               | 16"               |
| Working capacity              | 1650"             | 1650"             |
| Tare weight                   | 474 lbs           | 622 lbs           |
| Maximum towing load           | 4960 lbs          | 4960 lbs          |
| Maximum speed                 | 9 mph             | 7.5 mph           |
| Min. turning circle           | 150"              | 171"              |
| Ramp elevation for dollies    | 2.8"              | 3"                |
| Ground clearance              | 1.5"              | 1.5"              |
| Steering system SpurTrak™     | All wheel Steer   | All wheel Steer   |
| Surface treatment             | Powder coating    | Powder coating    |

COMPATIBLE WITH ALL LEAN PALLET SIZE DOLLIES AND LEAN SHELF WAGON.

### DESIGNED TO CARRY

- 600 x 400 mm and 600 x 800 mm dollies
- Also ISO and US sized dollies

### BENEFITS

- Ideal for logistic flows where the sequence cannot be controlled
- Reduce handling costs
- Enables the delivery of multiple article numbers in one delivery sequence
- Improve ergonomics
- Fast and safe internal transport
- Excellent tracking and steering stability

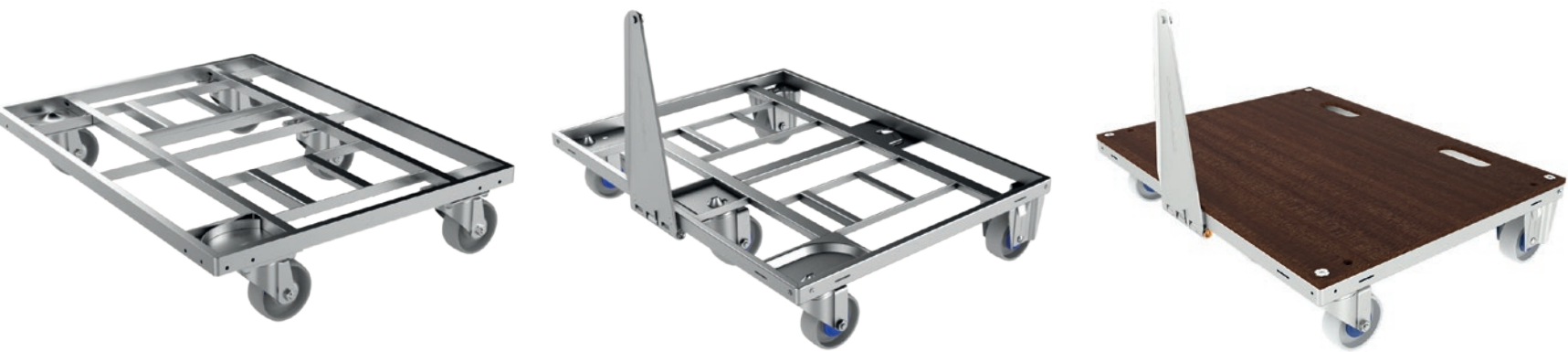
### OPTIONS

- Non-slip feature for the ramps
- Double locking device
- Additional floor guidance
- ESD compatibility
- RFID & Tracking compatibility



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the video

# Lean Dolly 600 x 800 mm



| TECHNICAL SPECIFICATION                 |                                                   |
|-----------------------------------------|---------------------------------------------------|
| External dimensions                     | 600 x 806 x 158 (495) mm                          |
| Tare weight with CPD wheels             | 26.5 lbs                                          |
| Wheel size                              | 4" wheels                                         |
| Wheel configuration                     | 2 fixed & 3 swivel or 5 swivel                    |
| Wheel material                          | CPD, rubber or PU                                 |
| Maximum Load Capacity:                  |                                                   |
| - CPD – standard and ESD                | 1100 lbs                                          |
| - Rubber – standard and ESD             | 1100 lbs                                          |
| - PU – standard and ESD                 | 1100 lbs                                          |
| Working capacity in tugger train        | 3530 lbs                                          |
| Max amount per tugger train             | 5–6 units                                         |
| Surface treatment                       | Blue zinc plated acc. to EN-ISO2081               |
| Safe stacking                           | up to 15 units (77")<br>with towing arm 91"       |
| Compatibility with Lean Adaptor Pallets | Next Generation (HADP10030, HADP10032, HADP10045) |
| Recommended max speed                   | 4 mph                                             |

OPTIONS

- Total brake on 1 or 2 swivel wheels
- RFID & Tracking compatibility
- Corner supports
- Draw bar
- ESD compatibility

ALSO AVAILABLE IN ISO-DIMENSIONS

- 600 x 1000 mm

DESIGNED TO CARRY SLC'S AND TRAYS

- 24" x 22.5"
- 24" x 15"
- 12" x 15"

ACCESSORIES

- Strapping device
- Multipurpose plywood deck



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# Lean Dolly 1200 x 800 mm



| TECHNICAL SPECIFICATION                 |                                                   |
|-----------------------------------------|---------------------------------------------------|
| External dimensions                     | 1212 x 800 x 162 (502) mm                         |
| Tare weight with CPD wheels             | 42 lbs                                            |
| Wheel size                              | 4" wheels                                         |
| Wheel configuration                     | 2 fixed & 4-5 swivel                              |
| Wheel material                          | CPD, rubber or PU                                 |
| Maximum Load Capacity:                  |                                                   |
| - CPD – standard and ESD                | 4 swivel 661 lbs    5 swivel 1102 lbs             |
| - Rubber – standard and ESD             | 4 swivel 661 lbs    5 swivel 1102 lbs             |
| - PU – standard and ESD                 | 4 swivel 661 lbs    5 swivel 1102 lbs             |
| Working capacity in tugger train        | 3527 lbs                                          |
| Max amount per tugger train             | 5–6 units                                         |
| Surface treatment                       | Blue zinc plated acc. to EN-ISO2081               |
| Safe stacking                           | up to 15 units (77")<br>with towing arm 7.5 ft    |
| Compatibility with Lean Adaptor Pallets | Next Generation (HADP10030, HADP10032, HADP10045) |
| Recommended max speed                   | 3.7 mph                                           |

OPTIONS

- Total brake on 1 or 2 swivel wheels
- RFID & Tracking compatibility
- Corner supports
- Draw bar
- ESD compatibility

DESIGNED TO CARRY SLC'S AND TRAYS

- 3 stacks of 800 x 400 mm
- 4 stack of 600 x 400 mm
- 8 stacks of 300 x 400 mm
- Pallets, foldable cages and stillages

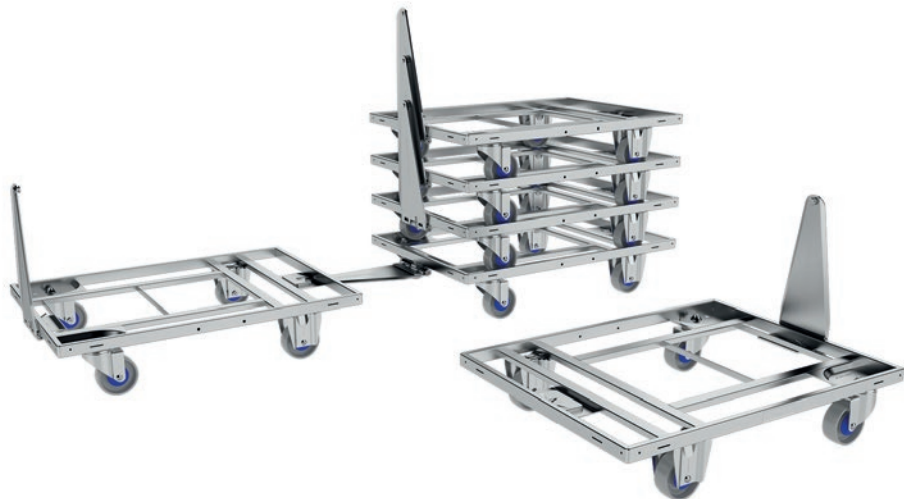
ACCESSORIES

- Strapping device
- Multipurpose plywood deck



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# Lean Dolly 800 x 600 mm



| TECHNICAL SPECIFICATION          |                                                |
|----------------------------------|------------------------------------------------|
| External dimensions              | 800 x 600 x 162 (499) mm                       |
| Tare weight with CPD wheels      | 23 lbs                                         |
| Wheel size                       | 4" wheels                                      |
| Wheel configuration              | 2 fixed and 2 swivel                           |
| Wheel material                   | CPD, rubber or PU                              |
| Maximum Load Capacity:           |                                                |
| - CPD – standard and ESD         | 1102 lbs                                       |
| - Rubber – standard and ESD      | 1102 lbs                                       |
| - PU – standard and ESD          | 1102 lbs                                       |
| Working capacity in tugger train | 3527 lbs                                       |
| Max amount per tugger train      | 5–6 units                                      |
| Surface treatment                | Blue zinc plated acc. to EN-ISO2081            |
| Safe stacking                    | up to 15 units (77")<br>with towing arm 7.5 fl |
| Recommended max speed            | 3.7 mph                                        |

## OPTIONS

- Total brake on 1 or 2 swivel wheels
- RFID & Tracking compatibility
- Corner supports
- Draw bar
- ESD compatibility

## DESIGNED TO CARRY SLC'S AND TRAYS

- 2 stack of 600 x 400 mm
- 4 stacks of 300 x 400 mm
- Pallets and totes

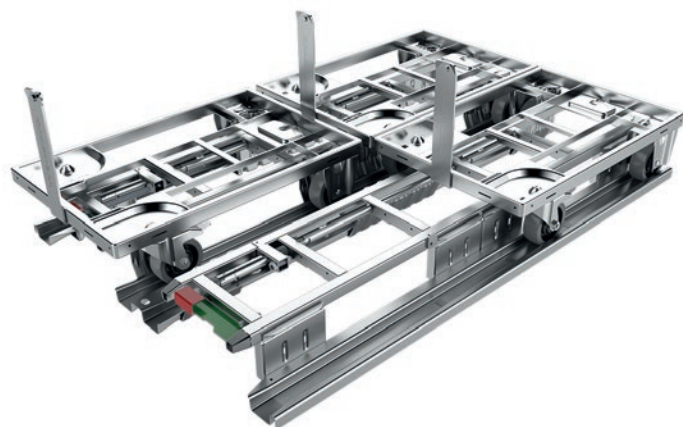
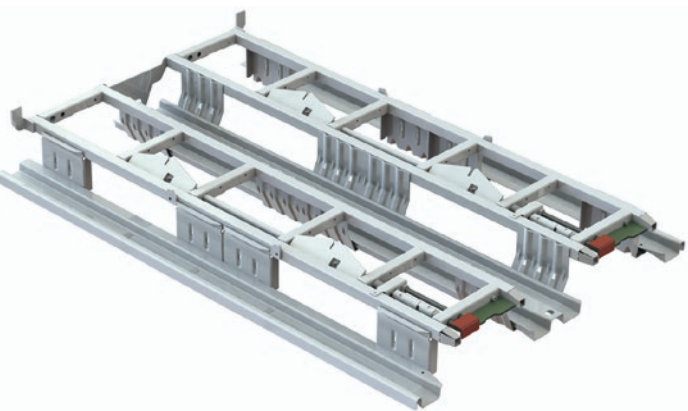
## ACCESSORIES

- Strapping device
- Multipurpose plywood deck



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# Lean Adaptor Pallet



| TECHNICAL SPECIFICATION |                                     |
|-------------------------|-------------------------------------|
| External dimensions     | 48" x 30" or 48" x 45"              |
| Tare weight             | 81.5 lbs                            |
| Working capacity        | 2200 lbs                            |
| Surface treatment       | Blue zinc plated acc. to EN-ISO2081 |
| Safe stacking           |                                     |
| - loaded in transport   | 2 units                             |
| - loaded at warehouse   | 3 units                             |
| - empty                 | 15 units                            |

## DESIGNED FOR ALL STANDARD LEAN DOLLIES

## OPTIONS

- Non-slip features
- RFID & Tracking compatibility
- ESD compatibility

## ALSO AVAILABLE IN ISO AND US-DIMENSIONS

- 1200 x 1000 mm
- 48" x 30"
- 48" x 45"

## ACCESSORIES

- EasyStrap
- Compatible with industry standard lids



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the video

# Lean Pallet Size Dolly



With 6 wheels  
for 360° spinning

| TECHNICAL SPECIFICATION          |                                                      |
|----------------------------------|------------------------------------------------------|
| External dimensions              | 48" x 45" or 32" x 30"                               |
| Tare weight                      | 170 or 117 lbs                                       |
| Wheel size                       | 6.5" wheels                                          |
| Wheel configuration              | 2 fixed & 2 swivel<br>4 swivel<br>2 fixed & 4 swivel |
| Wheel material                   | PU and CPD                                           |
| Working capacity                 | 2200 lbs                                             |
| Working capacity in tugger train | 7500 lbs                                             |
| Max amount per tugger train      | 6 units                                              |
| Surface treatment                | Blue zinc plated acc. to EN-ISO2081                  |
| Safe stacking                    | up to 6 units (66") with "draw bar" (94")            |
| Recommended max speed            | 4 mph                                                |

COMPATIBLE WITH ALL LEAN DOLLIES, LEAN SHELF WAGON AND TAXILINER.

### OPTIONS

- Available with anti slip material or plywood deck
- Integrated strapping device
- ESD compatibility
- Total brake on 1 or 2 swivel wheels
- RFID & Tracking compatibility
- Corner supports
- 360° spinning on 6 wheels
- Catch for towing one or two lines of Lean dollies
- Wheel spacer
- Forklift guide

### ALSO AVAILABLE IN ISO- AND US-DIMENSIONS

- 1200 x 1000 mm (72 kg)
- 48" x 45" (170 lbs)
- 32" x 30" (117 lbs)

### DESIGNED TO CARRY SLC'S, PALLETS AND BOXES

- Pallet sizes: Euro, ISO & 48" x 45"
- SLC's in Euro, ISO or US boxes
- Pallets and totes



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# Mini Lean Pallet Size Dolly



| TECHNICAL SPECIFICATION          |                                         |
|----------------------------------|-----------------------------------------|
| External dimensions              | 32" x 30"                               |
| Tare weight                      | 121 lbs                                 |
| Wheel size                       | 6.5" mm wheels                          |
| Wheel configuration              | 2 fixed & 2 swivel or 4 swivel          |
| Wheel material                   | PU and CPD                              |
| Working capacity                 | 2200 lbs                                |
| Working capacity in tugger train | 7500 lbs                                |
| Max amount per tugger train      | 6 units                                 |
| Surface treatment                | Blue zinc plated acc. to EN-ISO2081     |
| Safe stacking                    | up to 6 units (66") with draw bar (94") |
| Recommended max speed            | 4 mph                                   |

COMPATIBLE WITH ALL LEAN DOLLIES, LEAN SHELF WAGON AND TAXILINER.

### OPTIONS

- Available with anti slip material or plywood deck
- Integrated strapping device
- ESD compatibility
- Total brake on 1 or 2 swivel wheels
- RFID & Tracking compatibility
- Corner supports
- Catch for towing one or two lines of Lean dollies
- Wheel spacer

### ALSO AVAILABLE IN US-DIMENSIONS

- 32" x 30"

### DESIGNED TO CARRY SLC'S, PALLETS AND BOXES

- Pallet sizes:  
800 x 600 mm or 32" x 30"
- Pallets and totes



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# Lean Pallet Size Dolly with Elevated Deck



| TECHNICAL SPECIFICATION          |                                                      |
|----------------------------------|------------------------------------------------------|
| External dimensions              | 47" x 31" x 24"                                      |
| Tare weight                      | 196 lbs                                              |
| Wheel size                       | 6.5" wheels                                          |
| Wheel configuration              | 2 fixed & 2 swivel<br>4 swivel<br>2 fixed & 4 swivel |
| Wheel material                   | PU and PA                                            |
| Working capacity                 | 2200 lbs                                             |
| Working capacity in tugger train | 4000 kg                                              |
| Max amount per tugger train      | 6 units                                              |
| Surface treatment                | Blue zinc plated acc. to EN-ISO2081                  |
| Safe stacking                    | up to 66" with "handlag" (94")                       |
| Recommended max speed            | 4 mph                                                |

COMPATIBLE WITH ALL LEAN DOLLIES, LEAN SHELF WAGON AND TAXILINER.

## OPTIONS

- Available with anti-slip material or plywood deck
- Integrated strapping device
- ESD compatibility
- Total brake on 1 or 2 swivel wheels
- RFID & Tracking compatibility
- Corner supports
- 360° spinning on 6 wheels
- Catch for towing one or two lines of Lean dollies
- Wheel spacer
- Forklift guide

## ALSO AVAILABLE IN ISO- AND US-DIMENSIONS

- 1200 x 1000 mm (97 kg)
- 48" x 45" (198 lbs)

## DESIGNED TO CARRY SLC'S, PALLETS AND BOXES

- Pallet sizes: Euro, ISO & 48" x 45"
- SLC's in Euro, ISO or US boxes
- Pallets and totes



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# Lean Shelf Wagon



| TECHNICAL SPECIFICATION         |                                                                                   |
|---------------------------------|-----------------------------------------------------------------------------------|
| External dimensions             | 50" x 32" x 66"                                                                   |
| Tare weight (2 shelves + floor) | 250 lbs                                                                           |
| Wheel size                      | 6.5" wheels                                                                       |
| Wheel configuration             | 2 fixed and 2 swivel                                                              |
| Wheel material                  | PU and CPD                                                                        |
| Surface treatment               | Blue zinc plated acc. to EN-ISO2081                                               |
| Working capacity                | Per Shelf: 330 or 550 lbs ( heavy-duty)<br>Per Unit: 990 or 1765 lbs (heavy-duty) |
| Max amount in tugger trains     | 6 units                                                                           |
| Recommended max speed           | 4 mph                                                                             |

COMPATIBLE WITH ALL LEAN DOLLIES, LEAN SHELF WAGON AND TAXILINER.

## OPTIONS

- ESD compatibility
- Total brake on 1 or 2 swivel wheels
- RFID & Tracking compatibility
- 6 wheel option for 360° spinning
- Catch for towing one or two lines of Lean dollies
- Wheel spacer
- Forklift guide

## DESIGNED TO CARRY SLC'S AND TRAYS AND OTHER BOXES

## ACCESSORIES

- Transport & non-contamination cover



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# Accessories – Wheel Overview

## Ø 4" WHEELS



CPD WHEEL



RUBBER WHEEL



POLYURETHANE WHEEL



ESD RUBBER WHEEL



ESD HYBRID WHEEL  
NON-MARKING



ESD POLYURETHANE  
WHEEL



CLEAN WHEEL

## Ø 6.5 MM WHEELS



POLYURETHANE WHEEL



SOLID WHEEL PA

- All our wheels are equipped with ball bearings to ensure
  - lower rolling resistance
  - lower noise
  - long life span
- Very high load capacity and quality
- The wheels are designed to be used also in a tugger train



# Accessories – Safety and Ergonomics



MULTIPURPOSE DECK  
FOR 600 X 800 MM LEAN DOLLIES

| TECHNICAL SPECIFICATION |                |
|-------------------------|----------------|
| External dimensions     | 23.5" x 31.5"  |
| Material                | Coated plywood |
| Max. load               | 1100 lbs       |
| Supplied                | Ready to use   |

- DESIGN**
- Compatible with 600 x 800 mm Lean dollies
- BENEFITS**
- Provides a close deck for smaller packages
  - Easy to use
  - Equipped with two ergonomic handles



ERGONOMIC HANDLE  
FOR TOWING OF DOLLIES

| TECHNICAL SPECIFICATION |                                 |
|-------------------------|---------------------------------|
| External dimensions     | 18.5" (L) x 16" (W) x 35.5" (H) |
| Surface treatment       | Blue zinc plating               |
| Weight                  | 11 lbs                          |
| Wheel type and size     | CPD 4"                          |
| Supplied                | Ready to use                    |

- DESIGN**
- Both for 600 x 400 mm and 600 x 800 mm Lean dollies
- BENEFITS**
- Ergonomic and safe way to move the dollies



EASY STRAP  
FOR LEAN ADAPTOR PALLET

| TECHNICAL SPECIFICATION |                                                                       |
|-------------------------|-----------------------------------------------------------------------|
| Modular length          | 90" – 150"                                                            |
| Material                | Textile with metal hook                                               |
| Max. load to be tripped | 2200 lbs = max. load to be distributed on one or more Adaptor Pallets |
| Max. load by stacking   | 2200 lbs in total                                                     |
| Supplied                | Ready to use and to be attached to the Adaptor Pallet                 |

- DESIGN**
- Adjustable length
  - Directly attached to the Lean Adaptor Pallet
- BENEFITS**
- Safer transportation
  - Easy to attach
  - Reusable

To be used in connection with the Lean Adaptor Pallet and secure the transported totes.

# Accessories – Dirt Prevention



COVER  
FOR LEAN SHELF WAGON

| TECHNICAL SPECIFICATION |                                                                    |
|-------------------------|--------------------------------------------------------------------|
| External dimensions     | 32" x 49.5" x 66"                                                  |
| Material                | PVC (polyvinyl chloride)                                           |
| Packing                 | Delivered as complete kit for 1 unit                               |
| Supplied                | Delivered ready for use and to be attached to the Lean Shelf Wagon |

Designed for closed transportation of the Lean Shelf Wagon between warehouses or from for example unloading areas outside to inside. The cover is very easy to flip over and open as well as closing.

**DESIGN**

- Access from both long and short sides if needed
- Easy manual handling due to Velcro-closing
- Flip-up and attach sides for less space consuming handling

**BENEFITS**

- Weather protection
- Protection against contamination
- Transport safety under truck transportation
- Internal transport safety
- Easy manual handling
- Space friendly solution



DRIPPING PAN  
FOR 600 X 400 MM LEAN DOLLIES

| TECHNICAL SPECIFICATION |                          |
|-------------------------|--------------------------|
| External dimensions     | 604 x 404 mm             |
| Material                | PVC (Polyvinyl chloride) |
| Supplied                | Ready to use             |

Designed to be placed between the dolly and the transported boxes.

# Accessories – Connecting devices



TOW TRACTOR  
DRAW BAR

| TECHNICAL SPECIFICATION   |                                                                                                  |
|---------------------------|--------------------------------------------------------------------------------------------------|
| Max. load on the draw bar | 13230 lbs                                                                                        |
| Max. load on the pin      | 4400 lbs                                                                                         |
| Compatible with           | 24" x 15"<br>24" x 22.5"<br>32" x 30"<br>48" x 45"<br>Lean Pallet Size Dolly<br>Lean Shelf Wagon |
| Surface treatment         | Blue zinc plated                                                                                 |
| Supplied                  | Assembled ready to mount on the tugger                                                           |

**DESIGN**

For the tractor types:  
Jungheinrich EZS350 and Linde P30/P50.  
It can also be adjusted for other tugger types.

**BENEFITS**

- Enable towing of all Lean dollies in various combinations

**BENEFITS**

- Prevents liquid dripping from boxes on the floor
- Prevents accidents
- The Dolly stays stackable while being attached with the dripping pan



# elephantboard® and Daughter Cart for the LiftLiner®



| TECHNICAL SPECIFICATION ELEPHANTBOARD (4 SHELVES) |                         |
|---------------------------------------------------|-------------------------|
| External dimensions                               | 32" x 57" x 71"         |
| Maximum working capacity                          | 1100–2200 lbs           |
| Shelf material                                    | Rotomoulding plastic    |
| Number of shelves                                 | 1–4                     |
| Distance between shelves                          | 14"                     |
| Tare weight                                       | 143 lbs                 |
| Wheel type                                        | 2 swivel and 2 fixed    |
| Wheel material                                    | Heavy-duty polyurethane |
| Wheel size                                        | 8"                      |
| Surface treatment                                 | Blue Zinc Plated        |
| Amount per LiftLiner                              | 2 units                 |

| TECHNICAL SPECIFICATION DAUGHTER CART |                                     |
|---------------------------------------|-------------------------------------|
| External dimensions                   | 48" x 40" or 48" x 45"              |
| Maximum working capacity              | 2200 lbs                            |
| Wheel type                            | 2 fixed and 2 swivel<br>or 4 swivel |
| Wheel material                        | Polyamide                           |
| Wheel size                            | 8"                                  |
| Surface treatment                     | Blue Zink Plated                    |
| Amount per LiftLiner                  | 2 units                             |

Available in ISO size.

### BENEFITS

- Designed to work seamlessly with the LiftLiner®
- Lower maintenance costs
- Reduce overall operator costs
- Improve workflow efficiency
- Increase ergonomics
- Faster delivery rates – takes seconds to unload



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the video

# Daughter Cart Shelf Wagon



| TECHNICAL SPECIFICATION      |                           |
|------------------------------|---------------------------|
| External dimensions          | 813 x 1280 x 1712 mm      |
| Maximum working capacity     | 750 kg                    |
| Tare weight (3 or 4 shelves) | 87–99 kg                  |
| Wheel type                   | 2 swivel brake + 2 swivel |
| Wheel material               | Polyamide                 |
| Wheel size                   | 200 mm                    |
| Surface treatment            | Blue Zink Plated          |
| Amount per LiftLiner         | 2 units                   |

Available with 1 to 4 shelves and in ISO size.

### BENEFITS

- Improve workflow
- Reduce handling costs
- Enable reduction of stock level
- Reduce need for floor space
- Improve ergonomics
- Fast and safe truck loading
- Optimize vehicle fill

### DESIGNED TO CARRY SLC'S

- 4 crates of 600 x 400 mm per level
- 8 crates of 300 x 400 mm per level

### ACCESSORIES

- Number of shelves (2-5)
- PVC cover
- Self-aligning castors
- Plywood or steel shelves
- Fixed or Removable handle on long side

### OPTIONS

- ESD
- Fixed castors
- Polyurethane wheels



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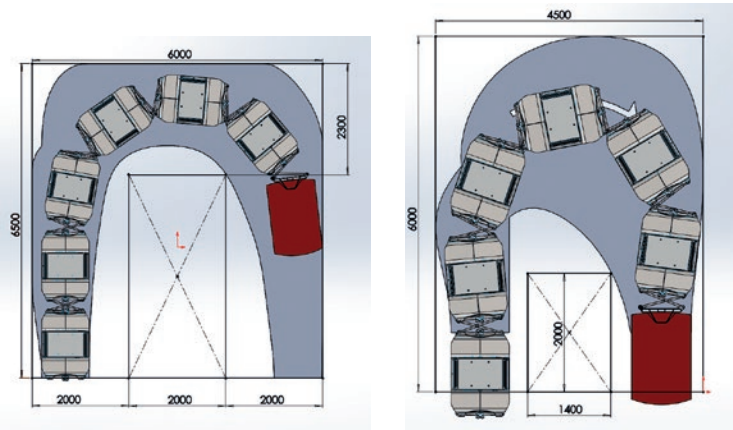


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| TECHNICAL SPECIFICATION                          |                     |  |
|--------------------------------------------------|---------------------|--|
| Standard Daughter Cart Sizes Available           | 32" x 24"           |  |
|                                                  | 32" x 30"           |  |
| *Custom daughter cart sizes available by request | 48" x 32"           |  |
|                                                  | 48" x 40"           |  |
|                                                  | 48" x 45"           |  |
|                                                  | 50" x 50"           |  |
| Ground clearance when down/up                    | 2.4"                |  |
| Tare weight with CPD wheels, no corners          | 39.7 lbs            |  |
| Wheel size                                       | 8" wheels           |  |
| Wheel configuration                              | 2 per mother cart   |  |
| Wheel material                                   | PU                  |  |
| Maximum load capacity per mother cart            | 2200 lbs            |  |
| Tare weight per pair of LiftLiners               | 880 lbs             |  |
| Coupling:                                        |                     |  |
| - Length                                         | 7.9"                |  |
| - Type                                           | Crossbar system     |  |
| Maximum speed                                    | 6 mph               |  |
| Surface treatment                                | Powder coating      |  |
| Time to lift                                     | Less than 3 seconds |  |

**BENEFITS**

- Easy one man operation
- No turnaround needed
- Extremely manoeuvrable
- No additional routing needed
- Safe and high track stability
- Loading/unloading from both sides



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the video

| TECHNICAL SPECIFICATION       |                                                                |
|-------------------------------|----------------------------------------------------------------|
| Payload per loading bay       | 500 kg                                                         |
| Max. train length             | 2 LiftLiner® RC, (8 loading bays)                              |
| Length (1 LiftLiner® RC)      | 4655 mm                                                        |
| Dimensions                    | height 551 mm, width 1024 mm                                   |
| Tare weight (1 LiftLiner® RC) | 760 kg                                                         |
| Tare weight (1 cart)          | 380 kg                                                         |
| Ground clearance              | 40/60 mm                                                       |
| Wheel material                | Radthane® 75 Shore A / , Conducthane® 92 Shore                 |
| Wheel size                    | 160/200 mm                                                     |
| Maximum train speed           | 1 LiftLiner® RC: 10 km/h, 2 LiftLiner® RC: 8 km/h              |
| Aisle width                   | 2500 mm                                                        |
| U-turn 1 pair/2 pairs         | 4500/6000 mm                                                   |
| Shelf circumnavigation        | 6000 mm                                                        |
| S-Curve                       | 3250 mm                                                        |
| 90°-curve                     | 2300 mm                                                        |
| Coupling system               | Crossbar system                                                |
| Load dimensions               | Min. width/length: 600/700 mm<br>Max. width/length: 800/860 mm |

**BENEFITS**

- Transports a wide range of roll containers and dollies
- Very compact and agile design
- Fast and safe loading/unloading from both sides eliminates sequencing
- Carries up to 8 roll containers thus minimizing manual handling
- Enables a forklift free production environment
- Ergonomic, safe and user-friendly
- Accurate tracking
- Innovative rooftop shape, tilting technology and individual programs for easy loading and unloading
- Low maintenance costs
- Streamlines Parcel and Retail operations
- Reduces overall operating costs

MODULAR MOBILE ROBOT SOLUTIONS FOR TRANSPORTING LARGE AND SMALL LOAD CARRIERS

- BENEFITS**
- Compact design
  - Electric free lift
  - 360° safety
  - Natural Feature Based Navigation via LiDAR
  - Long lasting Li-ion battery
  - 3D cameras for machine safety



| TECHNICAL SPECIFICATION          | A-MATE™ FreeLift               | A-MATE™ Counter                | A-MATE™ Lite                    |
|----------------------------------|--------------------------------|--------------------------------|---------------------------------|
| Height                           | 72"                            | 75.3"                          | 75.4"                           |
| Width                            | 31.2"                          | 32.4"                          | 31.5"                           |
| Length                           | 64"                            | 83.8"                          | 49.2"– 53.3" (with 23.6" fork)  |
| Drive concept                    | omnidirectional                | bidirectional                  | omnidirectional                 |
| Max. driving speed               | 3.35 mph                       | 3.35 mph                       | 3.35 mph                        |
| Lifting height                   | 43.3" (max shelf height 29.3") | 43.3" (max shelf height 29.3") | 11.8"                           |
| Load capacity                    | 2200 lbs                       | 2200 lbs                       | 272 lbs                         |
| Fork dimensions DIN ISO 2331     | 22"/180"/47.2"                 | 22"/180"/48.4 "                | 2"/ 3.7"/23.6" (Dolly DOS 1535) |
| Length including back of fork    | 16.8"                          | 35.5"                          | /                               |
| Fork carriage width              | 24.2"                          | 24.2"                          | adjustable (15.4"– 23.6")       |
| Turning radius                   | 86.6"                          | 118"                           | 68.9"                           |
| Ground clearance                 | 0.47"                          | 0.98"                          | 0.98"                           |
| Unit tare weight (incl. battery) | 1763.7 lbs                     | 4409 lbs                       | 2866 lbs                        |



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the video



**KEEP THINGS  
ROLLING WITH  
LEAN LOGISTICS**

COST SAVINGS  
UP TO 40 %

PRODUCTIVITY  
INCREASED BY  
UP TO 55%

3–4 TIMES LESS  
MANUAL HANDLING  
OPERATIONS  
PER TOTE

BETTER  
SAFETY AND  
ERGONOMICS



DAIMLER  
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