

OPERATION MANUAL

LOW-PROFILE LIFT TABLES

NPS · NPSU · UHS SERIES



NPS SERIES

Low profile with ramp



NPSU SERIES

Ultra low profile



UHS SERIES

U-shaped for pallets

CAPACITY RANGE

500 to 2,000 kg

LOWERED HEIGHT

From only 25 mm

INSTALLATION

On the floor - no pit required

CONTROL

24 V control box with emergency stop

Read this manual completely before installation or first use. Installation, electrical connection, commissioning, operation and maintenance may only be carried out by trained and authorised personnel.

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ABOUT THIS DOCUMENT

These instructions apply to DELACCO NPS (low-profile with loading ramp), NPSU (ultra-low-profile with loading ramp) and UHS (U-shaped pallet handling) stationary electric-hydraulic lift tables with rated capacities from 500 to 2,000 kg. They have been prepared from the supplied technical documentation and adapted to DELACCO model designations. The identification plate, project-specific drawings and documentation delivered with the unit take precedence if the supplied version differs.

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WARNING

Indicates a potentially hazardous situation that may cause serious injury.

OWNER RESPONSIBILITY

Ensure the manual is available to operators, installers and service personnel, and record all inspections and repairs.

CAUTION

Indicates a risk of equipment damage or unsafe operation.

TRANSFER OF OWNERSHIP

Pass this manual and all project-specific documentation to the next owner or user.

! Document priority

The identification plate, project-specific drawings and electrical/hydraulic diagrams supplied with the delivered unit take precedence over generic information in this manual.

1 DESCRIPTION, INTENDED USE AND CONSTRUCTION

NPS, NPSU and UHS lift tables are intended to lift and lower stable goods within the rated capacity. Thanks to their very low closed height they are installed directly on the finished floor - no pit is required. NPS and NPSU tables are loaded with a hand pallet truck over the standard loading ramp; on UHS tables the pallet truck drives straight into the U-shaped platform. The power pack and the control system are housed in a separate external unit on a pedestal, protected to IP54.

Principal assemblies

- steel load platform (flat with loading ramp on NPS/NPSU, U-shaped on UHS) with aluminium perimeter safety edge and integrated micro-switches
- base frame with single scissor pair and hydraulic cylinder(s)
- external electric-hydraulic power unit on a pedestal, protected to IP54, connected by a high-pressure hose with quick-fit coupling and a control cable
- 24 V control box on the pedestal with UP, DOWN and emergency-stop buttons
- relief valve, compensated flow-control valve and hose-burst valve
- upper limit switch and safety-edge switches
- removable transport lifting eyes; maintenance-free (oilless) pivot bushings

RAISE

The electric motor drives the hydraulic pump and oil is delivered to the cylinder(s).

LOWER

The solenoid and flow-control valves release oil for controlled platform descent.

HOLD

Check and hose-burst protection valves retain the platform when movement stops.

STOP

The emergency stop and the safety edge interrupt movement immediately.

! Intended use

The lift table is designed for goods only. Standing, sitting, climbing or carrying people on the platform is prohibited. Do not modify the table without the manufacturer's written approval and use only designated spare parts.

2 TECHNICAL DATA - NPS MODELS

All dimensions are nominal. Confirm the delivered unit data plate and project drawing before installation.

NPS - low-profile models with loading ramp

Low-profile platform tables with loading ramp. Lowered height of only 85-105 mm, capacities of 1,000-2,000 kg. No floor pit required.



Model	Capacity (kg)	Lowered height (mm)	Raised height (mm)	Platform L x W (mm)	Lift time (s)	Power pack	Net weight (kg)
NPS1001	1000	85	860	1450 x 1140	25	380V/50Hz AC 1.1 kW	357
NPS1002	1000	85	860	1600 x 1140	25	380V/50Hz AC 1.1 kW	364
NPS1003	1000	85	860	1450 x 800	25	380V/50Hz AC 1.1 kW	326
NPS1004	1000	85	860	1600 x 800	25	380V/50Hz AC 1.1 kW	332
NPS1005	1000	85	860	1600 x 1000	25	380V/50Hz AC 1.1 kW	352
NPS1501	1500	105	870	1600 x 800	30	380V/50Hz AC 1.5 kW	367
NPS1502	1500	105	870	1600 x 1000	30	380V/50Hz AC 1.5 kW	401
NPS1503	1500	105	870	1600 x 1200	30	380V/50Hz AC 1.5 kW	415
NPS2001	2000	105	870	1600 x 1200	35	380V/50Hz AC 2.2 kW	419
NPS2002	2000	105	870	1600 x 1000	35	380V/50Hz AC 2.2 kW	405

Standard supply is shown as 380 V / 50 Hz, three phase. Always verify the actual voltage, frequency, motor power and circuit requirements on the delivered unit and electrical diagram.

2 TECHNICAL DATA - NPSU AND UHS MODELS

NPSU - ultra-low-profile models

Ultra-low-profile tables with loading ramp. Lowered height of only 25-35 mm, capacities of 500-1,500 kg, for direct pallet-truck access.



Model	Capacity (kg)	Lowered height (mm)	Raised height (mm)	Platform L x W (mm)	Lift time (s)	Power pack	Net weight (kg)
NPSU500	500	25	800	1270 x 1100	*	380V/50Hz AC *	320
NPSU750	750	25	800	1270 x 1100	*	380V/50Hz AC *	370
NPSU1000	1000	35	800	1270 x 1100	*	380V/50Hz AC *	400
NPSU1500	1500	35	800	1270 x 1100	25-30	380V/50Hz AC 1.5 kW	470

* Lift time and motor power for NPSU500, NPSU750 and NPSU1000 are stated on the data plate of the delivered unit. NPSU1500 external unit pedestal footprint: 1515 x 1715 mm.

UHS - U-shaped pallet handling models

U-shaped low-profile pallet tables. Lowered height of 85-105 mm, capacities of 600-2,000 kg. A pallet truck drives straight into the U - no ramp or pit needed.



Model	Capacity (kg)	Lowered height (mm)	Raised height (mm)	Platform L x W (mm)	Lift time (s)	Power pack	Net weight (kg)
UHS600	600	85	860	1450 x 985	25-35	380V/50Hz AC 0.75 kW	207
UHS1000	1000	85	860	1450 x 1140	25-35	380V/50Hz AC 1.1 kW	280
UHS1500	1500	105	860	1600 x 1180	30-40	380V/50Hz AC 1.5 kW	380
UHS2000	2000	105	860	1500 x 1150	20-25	380V/50Hz AC 2.2 kW	306

UHS motor: 1400 r/min, protection class IP54, insulation class F. Clearance between the two platform forks for pallet-truck access: 585 mm.

3 OPERATING CONDITIONS AND SAFETY INSTRUCTIONS

Operating conditions

- Install and use the lift table on a firm, flat and level floor that can carry the table and its rated load.
- Use in a dry industrial environment. The unit is not waterproof and is not designed for explosive or flammable atmospheres.
- The electrical supply must match the data plate; supply voltage must remain within $\pm 10\%$ of the rated voltage.
- Keep the working area well illuminated and free from obstructions.
- The control position must provide the operator with a clear view of the platform, load and surrounding danger zone.

Safety instructions

- Read and understand the complete manual before installation, operation or maintenance.
- Only trained, qualified and authorised personnel may operate or service the table.
- Check the safety devices before every use and make sure the working area is clear.
- Do not exceed the rated capacity shown on the identification plate; distribute the load according to the load table.
- Keep hands, feet, clothing and objects clear of the scissor mechanism and the area below the platform.
- Never operate the table while a person is below the platform.
- Fit the lifting eye bolts into the frame before working on the table, as instructed.
- Do not adjust the safety valve of the hydraulic unit or the limit and safety-edge switches without authorisation.
- Do not operate a table with any structural deformation - even minor distortion prohibits operation.
- While the platform is moving, do not adjust or reposition the load.

! Crushing hazard

The aluminium safety edge is an additional protective device. It does not replace safe working distances or mechanical securing of the platform during maintenance.

4 LOAD DISTRIBUTION AND PALLET HANDLING

In accordance with EN 1570, the rated capacity applies to the permitted load cases below. Avoid impact loads, side loading, concentrated point loads and loads extending beyond the platform unless the application has been specifically engineered and approved.

- 100% of rated capacity uniformly distributed over the full platform area.
- 50% of rated capacity uniformly distributed over half the platform length.
- 33% of rated capacity uniformly distributed over half the platform width.

Pallet handling

- Lower the platform completely before moving a pallet on or off the table.
- On NPS and NPSU tables, push the pallet truck up the loading ramp and set the pallet down centrally on the platform.
- On UHS tables, drive the pallet truck between the platform forks, lower the pallet onto the platform and withdraw the truck before lifting.
- Position the centre of gravity of the load as close as practical to the platform centre.

AVOID POINT LOADS

Use suitable load-spreading plates where the load has small contact areas.

SECURE THE LOAD

Prevent rolling, sliding, tipping or falling during movement.

AVOID SIDE LOADS

Do not drag or push loads sideways across a raised platform.

NO PARTIAL OVERLOAD

Do not load partially or concentrically beyond the permitted load cases.

! No persons

Never lift or transport people. Do not stand on the platform or use the lift table as an access lift.

5 INSTALLATION AND EXTERNAL POWER UNIT

Installation must be performed by competent personnel. Place the table on a firm, flat and level floor - low-profile tables do not require a pit or anchoring into a foundation as standard. Position the external power unit so that the operator has a complete view of the table and load, and route the hydraulic hose and control cable so they are protected from impact, moisture and moving parts.

Mounting the external power unit

- Remove the fixing screw from the housing.
- Fit the vertical pedestal into its seat and fasten it.
- Plug the control cable from the control box into the corresponding seat on the pedestal and tighten it.
- Push the hydraulic hose into the corresponding outlet on the housing and secure it (quick-fit coupling).

FLOOR

Firm, flat and level; adequate for the table, load and pallet-truck traffic.

LOADING SIDE

Keep the ramp side (NPS/NPSU) or the open U side (UHS) clear for the pallet truck.

HOSE AND CABLE

Protect the high-pressure hose and control cable along their whole route.

CONTROL POSITION

The 24 V control box on the pedestal must be freely accessible with a clear view of the platform.

! Verify the delivered unit

Measure the delivered table and confirm the layout drawing before final positioning. Verify that the floor is level and that the hose and cable lengths suit the chosen position of the external unit.

6 COMMISSIONING

- Inspect the delivery for transport damage and verify the model, rated capacity and electrical data.
- Use lifting equipment and slings of adequate capacity; attach only to the designated transport lifting eyes.
- Position the table with the loading side (ramp or open U) towards the pallet-truck route and mount the external power unit as described in section 5.
- Connect the electrical supply and protective earth through a suitable isolator. Electrical work must be carried out by a qualified electrician.
- Check phase rotation. If the motor runs but the table does not rise, isolate the supply and correct the phase sequence.
- Remove the transport eye bolts before operation where the product instructions require their removal.
- Check the operation of the safety edge on all accessible sides of the platform.
- Test the platform without load: UP, DOWN, emergency stop, upper limit switch and the aluminium perimeter safety edge.
- Carry out a controlled load test in accordance with applicable local requirements before putting the table into service.

FUNCTION TEST

Verify UP, DOWN, emergency stop, limit switch and perimeter safety edge.

INSTALLATION CHECK

Confirm level floor, hose/cable protection and clear pallet-truck access.

COMMISSIONING RECORD

Record model, serial number, test results and responsible personnel.

OPERATOR TRAINING

Document handover and operator training before first productive use.

! Electrical safety

Isolate, lock out and verify absence of voltage before opening the electrical enclosure or working on the motor, wiring or controls.

7 OPERATION

Before each cycle

- Confirm that the platform, scissor area and the space above the table are clear.
- Check that the load is stable and correctly distributed.
- Release the emergency stop and switch on the main isolator.

RAISING

Press and hold the UP button; the power unit lifts the platform. Release the button at the required height. The table stops automatically at the upper limit switch.

EMERGENCY STOP

Press the emergency-stop button, or push the aluminium safety frame upward: both stop the movement immediately. Correct the unsafe condition before resetting.

LOWERING

Press and hold the DOWN button; release it to stop. If the aluminium safety edge contacts an obstruction, lowering stops - remove the obstruction, inspect the table and press UP briefly before resuming.

TRANSPORT

If relocation is necessary, transport the table using the transport eye bolts and lifting equipment of adequate capacity.

After operation

- Lower the platform to its closed position whenever the process permits.
- Switch off and isolate the table when it is not in use or before cleaning.
- Report abnormal noise, leakage, damaged labels or defective safety functions before the next use.

! Motor duty

Observe the duty rating on the delivered unit's data plate and allow the motor to cool between intensive lifting cycles.

8 INSPECTION AND MAINTENANCE

Maintenance must be performed by competent personnel with the table unloaded and electrically isolated. Before any intervention, secure the platform with the two eye bolts as instructed to prevent accidental lowering. Never rely on hydraulic pressure to support a raised platform.

Daily checks

- Check warning labels, safety-edge micro-switches and control functions.
- Check for scratches, bending or cracks and confirm that the table runs smoothly.
- Check hydraulic hose, fittings, cylinders and the external power unit for leakage.
- Check vertical movement of the platform and that all nuts and bolts are correctly tightened.
- Listen to the hydraulic system and check the motor surface temperature - always isolate the supply before touching the motor.

Recommended maintenance intervals

- **First 10 operating hours:** replace the hydraulic oil for the first time; check for oil leakage.
- **Every 500 operating hours or 3 months:** check oil level and oil filter, inspect and tighten all connections, check pressure valves for leakage, check the hydraulic cylinder, micro-switches and the overall working state; lubricate all moving mechanical joints.
- **Every 2,000 operating hours or annually:** replace the hydraulic oil, tighten the main structural joints and check axial shafts for wear.
- **After repair:** perform functional and safety tests before return to service.

Recommended hydraulic oil grade: ISO HL32. The pivot bushings are oilless and maintenance-free. Clean or replace the oil filter after prolonged use. Used hydraulic oil must be treated as hazardous waste.

! Safe maintenance

Before any repair or maintenance, disconnect the unit from the electrical supply and mechanically secure the platform. Re-test all functions after the work is completed.

9 HYDRAULIC AND ELECTRICAL SYSTEM

The external power unit comprises the oil tank with filters, motor-driven hydraulic pump, check valve, relief valve, solenoid lowering valve, flow-control valve and damper; hose-burst protection is fitted at the cylinder. The control circuit uses a 24 V transformer supply, contactor/relay logic, UP and DOWN push-buttons, emergency stop, upper limit switch and the safety-edge micro-switches.

LIFTING

Pump supplies oil to the cylinder(s) through the check valve.

LOWERING

Solenoid and flow-control valves provide controlled descent.

HOLDING

Check and hose-burst valves retain the platform position.

PROTECTION

Relief valve limits system pressure in case of overload.

Typical control components: 24 V control transformer (DF30 series), 5 A fuses, bridge rectifier, AC contactor, intermediate relays, lowering solenoid valve (DC 24 V), emergency-stop and UP/DOWN push-buttons, upper limit switch and two safety-edge protection switches. The lower limit switch and the 25 A circuit breaker are provided by the customer. The exact configuration is shown on the electrical diagram supplied with the delivered unit.

! Do not adjust valves without authorisation

Incorrect adjustment can cause overload, uncontrolled lowering, equipment damage or serious injury. Only the diagrams supplied with the delivered table are authoritative for service work.

BEFORE ENERGISING

Check cable routing, terminals, protective earth and enclosure condition.

FUNCTION TEST

Test emergency stop, UP/DOWN buttons, limit switch and safety-edge switches after any electrical work.

PHASE SEQUENCE

If the motor runs but the platform does not rise, isolate the supply before correcting phase rotation.

QUALIFIED PERSONNEL

Only qualified electricians may connect or service the electrical system.

10 TROUBLESHOOTING

Before any intervention: unload the platform, isolate the electrical supply and secure the platform with the two eye bolts to prevent accidental lowering. If a fault cannot be corrected safely using the checks below, stop using the table and contact qualified service personnel.

Fault	Possible cause	Corrective action
Table does not rise while the motor runs normally	Transport eye bolts not removed; incorrect phase sequence; solenoid valve fault; overload	Remove the eye bolts; correct phase sequence; check and repair the valve; reduce load
Table does not rise and motor does not run	Emergency stop engaged; lower limit switch damaged; isolator or fuse open; motor protection tripped	Reset only after checking the cause; replace the limit switch; restore supply; inspect fuses and contactor
Table does not lower	Safety edge activated or its micro-switch damaged; lowering solenoid fault; circuit board fault	Press UP briefly, remove the obstruction and inspect; replace switch; check valve and circuit board
Platform drifts down / scissors pass limit position	Internal leakage in solenoid valve; damaged cylinder seals	Secure the platform mechanically; repair or replace the valve; check and replace seals
Table does not reach full height	Low oil level; upper limit switch incorrectly set or defective; overload	Check for leaks and refill oil (ISO HL32); inspect, adjust or replace the switch; reduce load

IDENTIFICATION

Model, serial number, year of manufacture and rated capacity.

FAULT DESCRIPTION

What happened, when it occurred and whether the fault is repeatable.

OBSERVATIONS

Motor sound, indicator status, oil leakage, unusual movement or damage.

EVIDENCE

Provide clear photographs or video where safe and permitted.

11 TECHNICAL SUPPORT AND QUICK SAFETY REMINDER

RATED LOAD

Never exceed the capacity shown on the identification plate.

LOAD DISTRIBUTION

Centre and distribute the load according to the permitted load cases.

LEVEL FLOOR

Operate only on a firm, flat and level floor.

GOODS ONLY

Never lift or carry people.

DANGER ZONE

Keep clear of the scissor mechanism and area below the platform.

MAINTENANCE

Isolate and mechanically secure the platform before service.

Technical support, service and replacement parts

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When requesting support, provide the DELACCO model, serial number, year of manufacture, rated capacity and a clear description or photograph of the issue.

DELACCO - equipment for safe lifting and material handling

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This manual is based on the supplied technical documentation. The identification plate, electrical/hydraulic diagrams, order confirmation and documentation supplied with the delivered unit take precedence.