

GRABO®

PATENTED

PRO LIFTER 20

THE WORLD'S
FIRST PORTABLE
ELECTRIC
VACUUM LIFTER



NG-Pro-14.8V-2Li

Nemo
POWER TOOLS

Functional Description and Specifications

Intended Use

The GRABO Pro Lifter 20 is a fully portable electric vacuum lifter, intended to lift, move, and place everything from stone pavers to tiles and drywall to furniture and large appliances.

GRABO Pro features an inbuilt pressure sensor with an automatic start/stop pump. When the vacuum in the base of the suction cup reaches -0.65 Bar (-65 kPa), the tool will automatically stop the pump after a 5-second delay. When the vacuum level drops below -0.65 Bar (-65 kPa), it will automatically restart the pump, thereby achieving the required pressure when in use.

The GRABO Pro features up to 170 kg (375 lbs) of grabbing force, and can secure to almost any surface, enabling you to handle unwieldy loads quicker and more safely than ever before, all while minimizing the risk of damage to expensive materials.

Technical Specifications

GRABO Pro Lifter 20

| | |
|---|--|
| Model | NG-Pro-14.8-Li |
| Battery voltage | 14.8V Li-ion |
| Working voltage | DC 14.8V |
| Carry weight Max (on perpendicular hold) | 375 lbs (170kg) |
| Service life | 100000+ times/800h+ |
| Uninterrupted run-time on full battery charge | 1.5h |
| No. of operating runs on a full battery charge | 900 times |
| Net weight (with battery) | 3.50lbs (1.59kg) |
| Working temperature | 0°- 60°C (32°F - 140°F) |
| Electrical protection class | IP52 |
| Vacuum degree | 0.8 Bar (80 kPa) |
| Rated flow | 20 L/min |
| Rated power | 16 W |
| Dimensions | 11.8 x 7.2 x 4.6" (300 x 184 x 118mm) |

Battery Charger

| | |
|---------------------------|---------------------|
| Model | XVE024-1680140 |
| Charging Input voltage | 100V-240VAC 50/60Hz |
| Charging Output voltage | 16.8V DC |
| Approximate charging time | 2h |

Max Lifting Force

| | Perpendicular Hold | Parallel Hold |
|-----------------------|---------------------------|----------------------|
| Glass | 170kgf / 375lbsf | 120kgf / 265lbsf |
| Metal | 110kgf / 242lbsf | 110kgf / 242lbsf |
| Plastic | 100kgf / 220lbsf | 100kgf / 220lbsf |
| Wood | 100kgf / 220lbsf | 65kgf / 143lbsf |
| Ceramic Tile | 170kgf / 375lbsf | 120kgf / 265lbsf |
| Rough Concrete | 80kgf / 176lbsf | 80kgf / 176lbsf |
| Drywall | 75kgf / 165lbsf | 65kgf / 143lbsf |
| Rough Slate | 80kgf / 176lbsf | 80kgf / 176lbsf |

Pressure to perpendicular lifting force conversion

For a more accurate estimation, check the pressure gauge on your GRABO Pro and use the table below to convert pressure values to max lifting force values. (Parallel holding force values can be calculated using the P/P ratio provided above for different materials.)

| Pressure (bar) | Max perpendicular holding force |
|----------------|---------------------------------|
| -0.8 | 170kgf / 375 lbsf |
| -0.6 | 128kgf / 282 lbsf |
| -0.4 | 85kgf / 187 lbsf |
| -0.2 | 43kgf / 95 lbsf |
| -0.1 | 21kgf / 46 lbsf |

Safety Warnings



Warning: Read all safety warnings and instructions, and save them for future reference. Failure to adhere to these warnings can result in serious injury and damage to equipment.

Grabo Pro Safety

- ◆ The GRABO Pro is not designed or intended for climbing or securing people in any way. Using this product for climbing or any other unintended purpose may result in injury or death.
- ◆ If the GRABO Pro 'S sealing force begins to noticeably decrease while the battery is fully charged, check the rubber foam seal for wear and tear or damage. Do not attempt to lift anything with the GRABO Pro until you have replaced the seal.

Rechargeable Battery Safety

- ◆ Use only the battery packs supplied with your power tool.
- ◆ When the batteries are not in use, keep them away from other metal objects like paper clips, coins, keys, nails, and screws, which can make a connection from one terminal to another.
- ◆ Store the batteries within a temperature range of 32°F - 113°F (0°C - 45°C).
- ◆ Do not open the batteries.
- ◆ Protect the batteries against heat, including continuous sun irradiation and fire.
- ◆ When a battery is defective, liquid can escape and come into contact with adjacent components.
- ◆ The battery charger is not waterproof.

- ◆ Before use, always check the battery charger, cable, and plug. If you detect defects, do not use the battery charger. Never open the battery charger. Instead, have it opened and repaired only by qualified personnel who will use original spare parts.



Warning: Keep away from flammable objects while charging.

Getting Started with the GRABO Pro

Your GRABO Pro includes the following main components:



Connecting a Strap to the GRABO Pro

A lifting strap can be purchased as a separate accessory.

1. Locate the four holes around the handle of the GRABO Pro. You can connect the strap to any two of these holes.

2. Secure each of the clips at the ends of the strap into a hole.



Replacing the Rubber Foam Seal

1. Remove the rubber foam seal that has become worn or damaged by pulling it out of the GRABO Pro.
2. Gently press the new rubber foam seal into position, ensuring that it fits snugly and securely.



Replacing the filter

1. Turn the GRABO Pro upside down to reveal its suction pad.



2. Using the tip of a screwdriver remove the .75 inch circular plastic keeper and the filter (located underneath the motor).



3. Replace the filter and insert the plastic keeper to secure the filter.



Changing the Battery

- ◆ To remove the battery pack from the GRABO Pro, slide it forward, away from the body of the GRABO Pro to release it, and then lift it up and out of the battery compartment.
- ◆ To replace the battery pack in the GRABO Pro, insert it into the battery compartment, then slide it back, toward the body of the GRABO Pro, to lock it into position.

Charging the Battery

The batteries are supplied partially charged, and must be charged to full capacity before using the GRABO Pro for the first time. When the batteries are fully charged, which takes approximately two hours from empty, the GRABO Pro motor can run for up to 2 hours.



Caution: Only use a battery charger designed for the batteries supplied with your GRABO Pro.



Danger: Ensure that the power supply voltage corresponds with the data on the nameplate of the battery charger.



Danger: Only use the charger in a dry environment. The charger is not waterproof.



Danger: Keep away from flammable objects.

The batteries can be charged at any time without reducing their service life. The battery charger detects the charging condition of the batteries, and charges them with the optimum current. Interrupting the charging procedure does not damage the batteries.

1. Connect the mains plug of the battery charger to an electrical outlet.

2. Connect the charger to the battery.

The battery begins charging as soon as it is connected to the charger, and stops charging as soon as it is full.



Operating the GRABO Pro

1. Slide the power switch to the left, to the ON position, to power on the GRABO Pro. The digital vacuum gauge display lights up to show you the battery charge level in the battery status icon. It is advisable to fully charge the battery before using the GRABO Pro.



Caution: Using the GRABO Pro while the battery is low may result in injury and damage to the materials being lifted.

2. Position the GRABO Pro flush against the surface of the item you want to lift.
3. When the power indicator switches from green to red, the vacuum gauge and the GRABO Pro is in ready mode.
4. Press the green button to turn on the vacuum pump and create a seal to the surface of the item you want to lift. The seal is created within a second.

5. When the vacuum pump reaches the maximum level, the motor will stop automatically. The GRABO Pro is engaged and you can lift the material.
 - ◆ When lifting any material ensure the vacuum pump remains on while lifting.
6. When you are done, press the red button to break the seal and release the item. Press the green button to stop the vacuum pump.
7. Press the measurement unit selector to change the pressure unit measurement from bar to psi and kg to lb.

Troubleshooting

If you have any questions about operating or troubleshooting the GRABO Pro, visit the FAQ and troubleshooting sections at www.GRABO.com

Maintenance

Servicing the GRABO Pro

If your GRABO Pro is damaged or faulty, have it repaired by an authorized service technician.



Caution: Under no circumstances should the Grabo Pro be opened for repairs or any other purpose by anyone other than an after-sales service technician authorized by Nemo Power Tools. Opening the GRABO Pro invalidates the manufacturer warranty.

Transporting the GRABO Pro

The battery pack has effective protection against internal over-pressure and short-circuiting, as well as devices preventing violent rupture and dangerous reverse current flow.

The lithium-equivalent content in the batteries is below applicable limit values. Therefore, the batteries are not subject to national or international regulations pertaining to dangerous mediums, either as individual components or when inserted into a GRABO Pro.

However, the regulations governing dangerous goods may be relevant when transporting several batteries. In this case, it might be necessary to comply with special conditions, such as those governing packaging.

Disposing of the GRABO Pro

At the end of its lifecycle, the GRABO Pro, its accessories, and packaging should be sorted for environmentally friendly recycling.

Do not dispose of the batteries in household waste, fire, or water. Batteries should be collected, recycled, or disposed of in an environmentally friendly manner.

Nemo Power Tools Ltd
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