

# GRABO

THE WORLD'S  
FIRST  
PORTABLE  
ELECTRIC  
VACUUM



**Nemo**  
POWER TOOLS

NG-14.8-2Li

## **Functional Description and Specifications**

### **Intended Use**

The Nemo GRABO is a fully portable electric vacuum lifting device, intended to lift, move, and place everything from tiles and drywall to furniture and large appliances.

The GRABO features up to 375 lbs ( 170kg ) 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

### Nemo GRABO

Battery voltage	14.8V Li-ion
Battery cell specification	2.6Ah
Rated power	16W
Dimensions	11.7 x 7.1 x 4.5" (297 x 181 x 115mm)
Net weight (with battery)	3.3lbs (1.5kg)
Working temperature	0°C - 60°C (32°F - 140°F)
Working time (full charge)	1.5 hours

### Max Lifting Force

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

### Pressure to perpendicular lifting force conversion

For a more accurate estimation, check the pressure gauge on your GRABO 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	375 lbf / 170kgf
-0.6	281 lbf / 128kgf
-0.4	187 lbf / 85 kgf
-0.2	94 lbf / 43 kgf
-0.1	46 lbf / 21 kgf

### **Battery Charger**

Model	XVE-1680150
Charging output voltage	DC16.8V 1.5A
Charging input voltage	100V-240VAC 50/60Hz 1.5A max

## 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 Safety

- ◆ The GRABO 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'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 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.

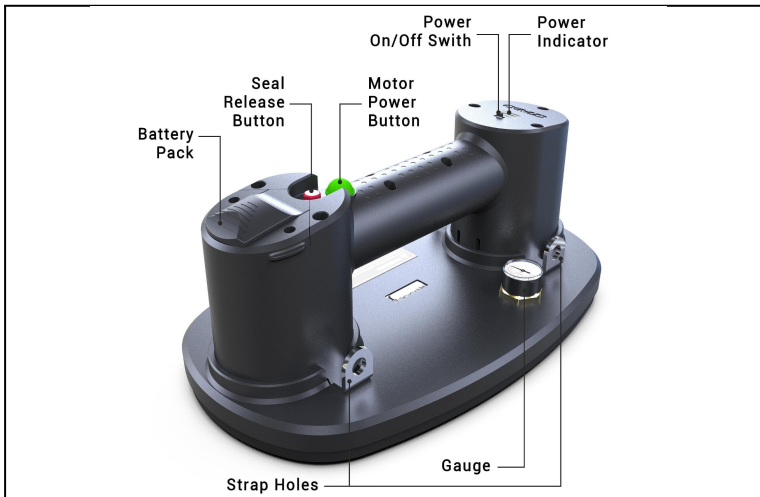
- ◆ Before use, always check the battery charger, cable, and plug. If you detect defects, do not use the battery charger. Never open the battery charger. Instead, have it opened and repaired only by qualified personnel who will use original spare parts.



**Warning:** Keep away from flammable objects while charging.

## Getting Started with the GRABO

Your Nemo GRABO includes the following main components:



### Connecting a Strap to the GRABO

1. Locate the four holes around the handle of the GRABO. 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.
2. Gently press the new rubber foam seal into position, ensuring that it fits snugly and securely.

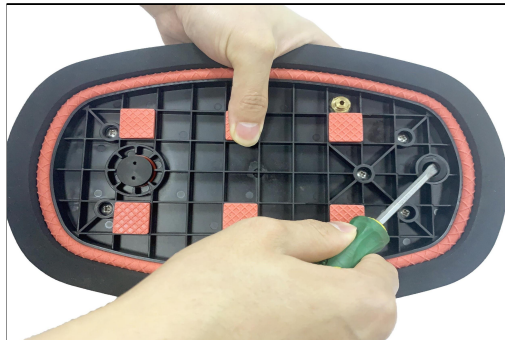


### Replacing the filter

1. Turn the GRABO 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, slide it forward, away from the body of the GRABO to release it, and then lift it up and out of the battery compartment.
- ◆ To replace the battery pack in the GRABO, insert it into the battery compartment, then slide it back, toward the body of the GRABO, 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 for the first time. When the batteries are fully charged, which takes approximately two hours from empty, the GRABO motor can run for up to 1.5 hours.



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



**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**

1. Slide the power switch to the left, to the ON position, to power on the GRABO. The power indicator below the power switch lights up to show you the amount of charge you have available. The power indicator will flash if the battery is low and needs to be charged before the GRABO can be used.



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

2. Position the GRABO flush against the surface of the item you want to lift.
3. Press the green button to turn on the motor and create a seal to the surface of the item you want to lift. The seal is created within a second.
  - ◆ When lifting smooth materials such as glass, smooth tiles, and marble, you can press the green button again to switch off the motor once the seal is created, and the suction will remain for a maximum of one hour.
  - ◆ When lifting slightly porous materials such as wood, timber, drywall, concrete, or cardboard, ensure the GRABO motor remains on while lifting.
4. When you are done, press the red button to break the seal and release the item.

## Troubleshooting

If you have any questions about operating or troubleshooting the GRABO, visit the FAQ and troubleshooting sections at [www.GRABO.com](http://www.GRABO.com)

## **Maintenance**

### **Servicing the GRABO**

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



**Caution:** Under no circumstances should the GRABO 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 invalidates the manufacturer warranty.

### **Transporting the GRABO**

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.

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**

At the end of its lifecycle, the GRABO, 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**  
**[www.GRABO.com](http://www.GRABO.com)**