

# UNDERSTANDING SUCTION EQUIPMENT & POROSITY

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## UNDERSTANDING POROSITY AND HOW IT RELATES TO SUCTION EQUIPMENT

**POROSITY:** The ratio of volume of a void space. Permeable to water, air and/or other fluids. Voids in manufactured stone.

#### **DRYCAST STONE/SLAB**

A stone/slab may look smooth and dense on the surface, but during the manufacturing process it may have created voids/spaces on the inside. This can cause porosity in the stone, allowing air to pass through easily, while not allowing the suction unit to seal properly. Each drycast stone and suction equipment is different, so be sure to test the unit with stones you typically use on a regular basis.

#### **WETCAST / NATURAL STONE/SLAB**

You will typically not have issues with Wetcast or Natural Stone as far as porosity is concerned. Getting a seal on rough surfaces is what to keep an eye on. That said, keep in mind each pad has a thick rubber/foam pad on bottom that is able to compress around the gaps/crevices to create a full seal.

#### **SUCTION OPTIONS:**

- 1. Battery Operated (Natural Stone / Wetcast)
- 2. Electric Run (Drycast & Natural Stone / Wetcast)
- 3. Compressor Run ( w Venturi Drycast & Natural Stone / Wetcast)

#### **COVID TIMES**

We have noticed over the last two seasons (COVID Duration) that there have been sporadic concerns with lifting a few particular stones, whereas in the past all of our units handled them with zero issues. We know our equipment has not changed, so what has? Our best guess is the process in which these stones are manufactured has changed because of the need to get the product out into the field much quicker than in the past. It's just something to be aware of.







# SUCTION EQUIPMENT CHECK LIST

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### OPTIMAS HF200E ELECTRIC SUCTION UNIT GENERAL MAINTENANCE Trouble Shoot / Daily Maintenance For Optimas HF200E

Do <b>not</b> run motor continuously, allow it to cool down <b>orten</b>
Confirm type of stone for lifting prior to equipment being used on site. (ie. 1 week prior)
Scan rubber/foam pad to make sure there are no rips or deformations allowing air to move through, breaking the seal
Confirm the actual pad is not damaged or bent allowing air to seep through
Make sure there is no debris plugging up the suction holes on bottom of pads
Make sure the side vents are not covered or filled with debris
■ Be sure "brake/release wire" has tension
☐ Be sure "brake/release wire" is not interfered with by handles when raising or lowering
Check that the actual pad is not hanging over the side of stone, releasing seal Check that unit is plugged into the wall and no breakers have blown
As a last resort, please know that watering a stone may help to momentarily seal a porous stone and create enough of a seal to finish a project
☐ This unit is not a tank, use common sense
Be sure to check all of these potential issues before calling for service. Thank you.
Customer Name: Customer Signature:
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SEE DEMO VIDEOS: Under SUCTION EQUIPMENT greatnorthhardscape.com/stone-lifting-suction-equipment

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