



## Wondering Whether GGR Group Vacuum Lifters Can Weather The Weather?

### HAND-HELD VACUUM CUPS

Most hand-held vacuum cups have a temperature rating of -12°C to 49°C. If the temperature goes below -12°C, the pump's U-cup is more likely to leak, making it difficult to maintain adequate vacuum under the pad. Also, the pad itself becomes very stiff in extremely cold weather, decreasing its ability to conform to load surfaces.

Temperatures above 49°C pose a few problems for vacuum cups as well. The grease that lubricates and seals the plunger can start to liquefy and leak, while the U-cup and pad become soft and lack the rigidity they need for proper function. Also, the rubber in the pad will begin to "cook" and age much quicker at temperatures over 49°C.

### BELOW-THE-HOOK VACUUM LIFTERS

Vacuum lifters supplied by GGR Group have different temperature ratings, depending on the power system they use: Most lifters that are powered by a DC pump have a temperature rating of 0°C to 40°C, and most of those powered by an AC pump have temperature rating of 0°C to 38°C.

Lifters powered by compressed air (venturi pumps) are usually rated at -18°C to 49°C). When a DC-powered pump is operated in temperatures lower than the rated minimum, the diaphragm in the pump (which is made of rubber) becomes stiff and no longer works properly. Also, the DC battery will actually lose capacity as the temperature drops, just like the battery in your car. Some AC-powered lifters also have a diaphragm in them, so cold temperatures will affect them in a similar way. Cold is also a factor with air-powered units, due to condensation and potential freezing in air lines, which results in diminished pump efficiency.



When temperatures rise above 40°C, the pumps and other components on all electrically powered lifters can over heat and stop working all together.

### IN GENERAL

Another thing to keep in mind for both vacuum cups and vacuum lifters is that leaving them attached to loads for extended periods of time can result in leaching or marking of load surfaces. The presence of heat and direct sunlight increases the chances of this happening. For this reason, remove vacuum cups from load surfaces whenever they are not in use.

In addition, all vacuum pads (whether on vacuum cups or vacuum lifters) that are used outdoors need to be replaced periodically, due to inevitable aging caused partly by UV exposure. To make your vacuum pads last to their full potential, do not store vacuum lifters outside and avoid leaving vacuum products outside longer than necessary,

These are some general guidelines to follow when it comes to using your vacuum pad or vacuum lifter in extreme temperatures, and the reasons behind them. However, individual products can be rated differently from the information given above, so check your instructions to be certain of your vacuum cup or lifter's temperature rating.