

Clad Boy Vacuum Lifting for Kingspan PowerPanels



Why PowerPanels are handled differently

Kingspan PowerPanels are a composite insulated panel with preinstalled solar PV modules fitted to the outer face. That combination is unique in the industry, and it means the panel has to be lifted and worked on differently from a standard composite panel.

The panel **MUST NOT** be allowed to bend or flex too much during installation. Excess flex can damage the PV modules, and in some cases can pop a module out of the clips holding it in place.

Chain sets: supplied on every PowerPanel job

On a standard composite panel, it's normal for the suction pads and extension bars on a Clad Boy vacuum lifter to bow slightly, following the natural flex of the panel as it's lifted. That's how the machine is designed to work.

On a PowerPanel, that same bowing can flex the panel enough to damage or dislodge the PV modules on top of it, especially on longer panels. The chain set sits between the Clad Boy and the crane hook, keeping the suction pads level instead of following the bow, keeping the panel flatter through the lift.

Chain sets are supplied on every PowerPanel job with 3 or more solar modules, regardless of panel length. Longer panels bow more, so it matters even more as panels get longer.

PV module spacing is NOT the same on every panel

The layout of the PV modules on a PowerPanel changes from job to job, depending on:

- Roof orientation
- Roof pitch / slope
- Shading across the roof through the day
- Geographical location

There is always a minimum of 300mm spacing between PV modules. There is no maximum, and no typical or standard spacing either. It varies project to project and panel to panel.

Suction pads can only be placed on the composite panel, never on the glass PV modules.

CLAD BOY CB4



Why a PowerPanel Clad Boy setup costs more

Because the PV layout varies so much, the suction pads used on a PowerPanel Clad Boy are smaller and bespoke to the job, rather than the standard pads used on other composite panels. Bespoke pads cost more to supply, and mapping each panel from the drawings takes real time. A PowerPanel Clad Boy setup is usually priced higher than a standard one to reflect that.



Before we set up your Clad Boy: we need the Kingspan drawings

For every PowerPanel enquiry, we ask contractors to send the drawings supplied by Kingspan for that specific roof. We use these to:

- Physically map out the Clad Boy configuration for that panel
- Confirm the suction pads land in the gaps between PV modules, not on the glass
- Make sure the lift is balanced, so the machine doesn't put uneven strain through the panel or the modules

This setup is specific to your project. Please use the equipment exactly as configured and supplied, with the correct suction pads, so the machine lifts in a balanced way.

Handling cautions: protect the glass during landing and release

The two moments with the highest risk of damage are:

- Landing the Clad Boy onto the panel face
- Releasing suction and moving the Clad Boy away once the panel is in place

In both cases, the metal suction pads **MUST NOT** make contact with the PV modules. We have seen instances where this has happened and a PV module has been smashed as a result.

Damage to a PV module caused by suction pads striking the glass is the contractor's responsibility, and the contractor will be liable for the cost of replacement.

TAKE EXTRA CARE AND GO SLOWLY AT THESE TWO POINTS IN PARTICULAR.

Walk boards for working on PowerPanel roofs

Once a PowerPanel is fixed in place, installers need to walk across it to fit the next panel along. Standing directly on the PV modules risks the same kind of damage as an incorrectly placed suction pad.

To prevent this, we stock and hire Kingspan / Easi-Dec walk boards: a custom-designed product built to sit over the PV modules so contractors have somewhere safe to stand and work.

- Available in three sizes: long, standard and short
- The combination and layout of boards is project-specific
- As with the Clad Boy setup, we use the Kingspan roof drawings to determine the sequence and positioning of the boards for your job



Training before your PowerPanel lift

We highly recommend that operators complete Clad Boy training before using the equipment to lift Kingspan PowerPanels. This helps ensure your team understands how to set up and operate the Clad Boy safely and correctly.

We offer a choice of training options:

- On-site training – delivered at your premises or site
- In-house training – practical training at our Gilberdyke facility
- Online training – complete the Clad Boy CB4 operator course remotely

Training is chargeable except for in-house training. Please contact us for current course options and pricing.

PLEASE NOTE: Online training covers the safe operation of the Clad Boy CB4 and is not PowerPanel-specific. The additional PowerPanel handling requirements and project-specific configuration detailed in this guide must also be followed.

Quick checklist before your PowerPanel job

- ☐ Send us the Kingspan drawings for the roof as early as possible
- ☐ Confirm panel lengths, so the Clad Boy and chain set are sized correctly
- ☐ Confirm whether you need walk boards, and how many boards the roof requires
- ☐ Brief your team: suction pads go on the composite panel only, never on the glass
- ☐ Brief your team: take care when landing and releasing the Clad Boy, to avoid pad contact with the PV modules
- ☐ Use only the suction pads and equipment supplied and configured for this specific job
- ☐ Complete Clad Boy CB4 operator training

This guide covers the key handling points for Kingspan PowerPanels. If anything about your roof, panel lengths, or PV layout is unclear, get in touch before starting the lift.



✉ hire@vaclifting.co.uk

☎ +44 (0)370 741 7600

📍 Gateway to Humberside Trading Estate,
Gilberdyke, Brough, HU15 2TD

4Cladding
Services

VACLIFTING.CO.UK