



REGENERATIVE ENERGIEN · STEFFEN BANK
SOLAR · SERVICE · SUPPORT.

RALOS.step

Maintenance is wise and necessary!



In order to ensure the performance guaranteed by the module manufacturer, regular maintenance and care of the photovoltaic system is specifically prescribed.

Optimally maintained systems also avoid a loss of resources and ensure the desired maximum effectiveness.

Consequently, maintenance and cleaning work is indispensable, useful and necessary. Solar modules may, however, according to the manufacturer not be punctually loaded.

Entering the modules, often encountered by fitters and installers during roof work, causes inevitable damage and forfeits any warranty claims!

Therefore, cell cracks (microcracks) for example in the wavern favor the emergence of hotspots and destroyed glass surfaces insulation errors (Riso).

The **RALOS.step** enables safe, accident-free and non-destructive working on photovoltaic modules!

Fast and effective to your destination... !



RALOS.step!
Rolling all over..!

The **RALOS.step** allows all service and maintenance work on all PV systems with a roof inclination of up to 25 degrees. With it, framed modules and frameless modules can be walked on safely starting from a surface load capacity of 5,400 KN / m² according to type approval IEC 61215.



Applications:

- Visual control of the plant
- Visual inspection of rack system and substructure
- secure module replacement
- Work on electrical components such as DC cabling, equipotential bonding, GAK, MC-4 plugs and connectors
- Support for large area cleaning with robots (safe working under controlle)



Further advantages of **RALOS.step**:



- Can be used without great effort
- No moving of the riser
- No moving of the scaffolding
- Little need for space
- Low weight
- Easy transport
- Easy handling
- Significant saving of time and costs
- Extreme flexibility on the PV system

Ralos.step significantly reduces the cost of use and risk.


RALOS.step is used for visual inspection, manual cleaning, special cleaning, assistance for large area cleaning e.g. Robot, Maintenance work on the electrical system, cpl. Replacement of individual modules - example description normal exchange - Dismantling of all underlying modules - risk

Very short amortization period of only **2-4 jobs!**

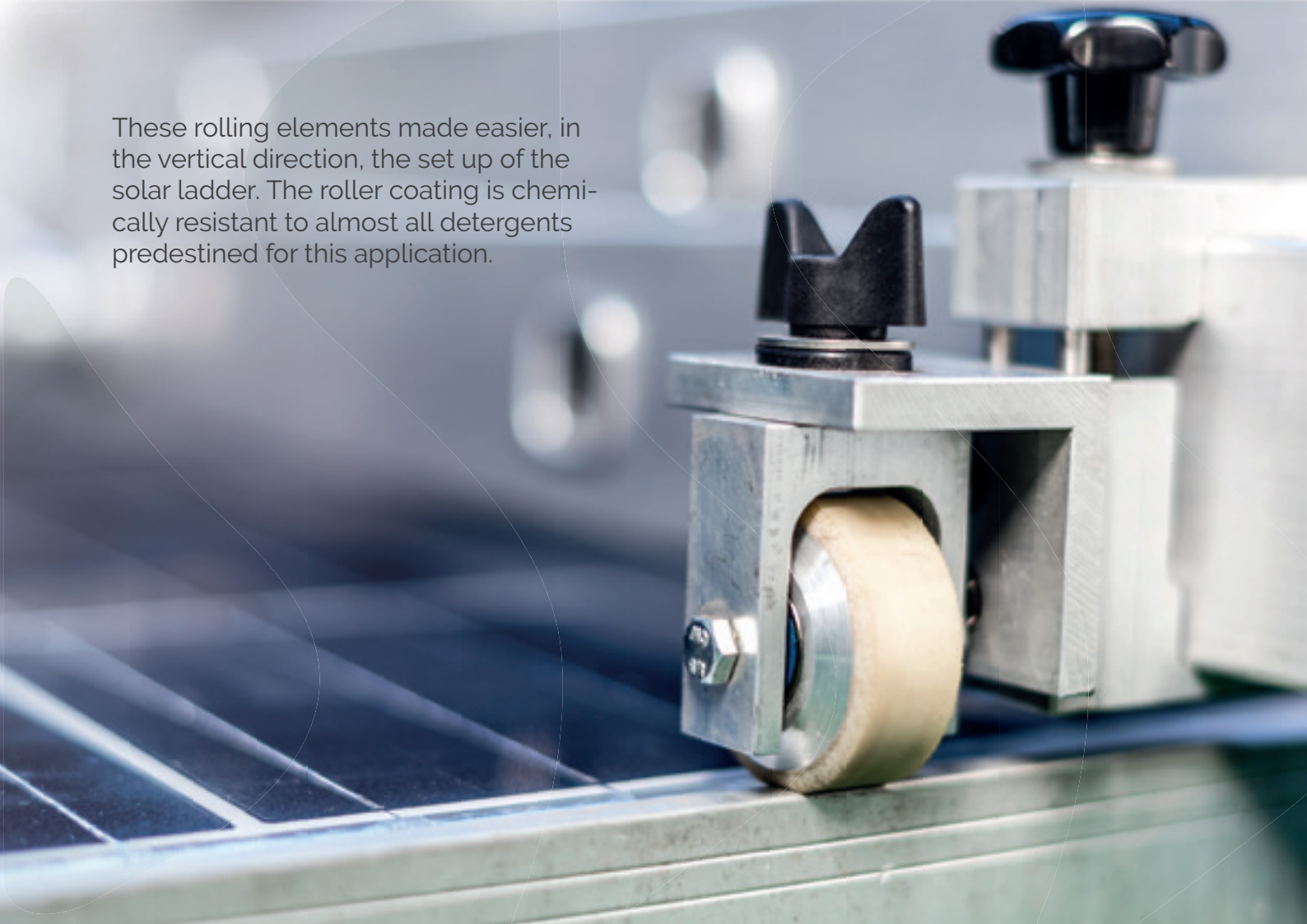




The rolling elements serve to guide the solar conductors on the frame of the upper row of modules. The strap also secures the **RALOS**.step against slipping.



This special tread of the rollers has excellent damping properties and absorbs dirt particles up to a grain size of approx. 3 mm when rolling over, without damaging the module.



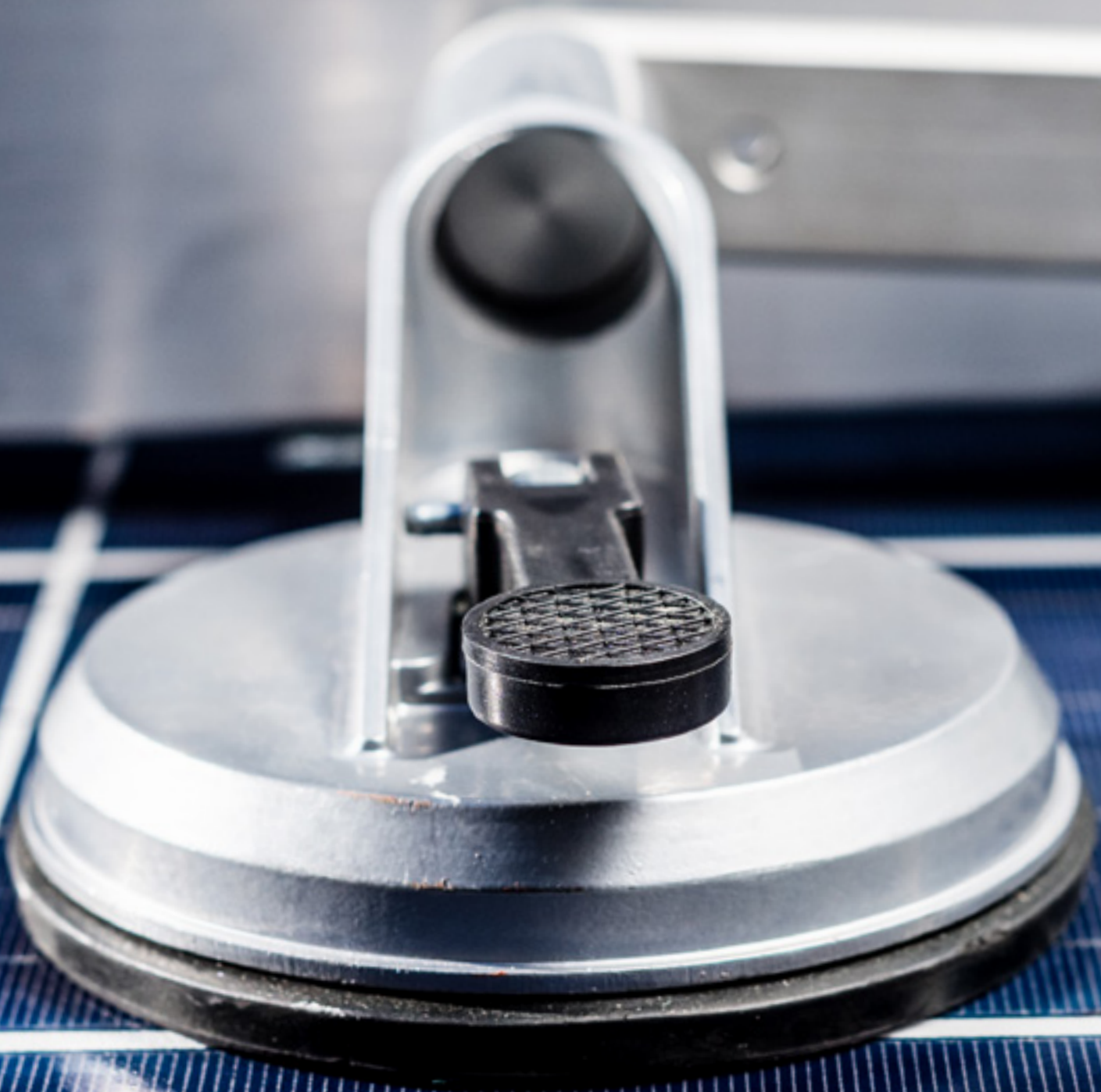
These rolling elements made easier, in the vertical direction, the set up of the solar ladder. The roller coating is chemically resistant to almost all detergents predestined for this application.



Turned 90 °, these rollers serve to absorb the weight of the service force, while the Solar ladder **RALOS.step** moves smoothly under load over the solar field.



In this suction element, a vacuum is generated by means of a lever, which fixes the working position and at the same time prevents a rolling on or lifting up of the Solar ladder **RALOS.step**.





Ample accessories:

- Work platform Workboard
- Stepboard
- Railing Stephandle
- Additional rolling elements
- Additional fixing elements

Certified tools for certified users

The RALOS.shoe may only be used with personal protective equipment (PPE) according to the appropriate security and accident prevention regulations.

The solar ladder is available in different sizes.

Technical data:

Dimensions (2x8 rungs): ca. 245 cm x 60 cm x 22 cm (LxWxH)

Extension length: 410cm

Weight approx.: 15 kg

Load Capacity: 100 kg

Tested at a roof pitch of up to 60 degrees



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