



SOLAR PANEL CLEANER

The Solar Panel Cleaner for tractor attachment incorporates a hydraulic arm with 5 degrees of freedom, modular cylindrical brush, water storage and spray tank for wet cleaning, viewing cameras on the brush and optionally, the tractor, and distance-to-panel measurement sensors.



Cleaning data

Brush size	3 metres	4 metres	5 metres
Layout of the panels	1V o 2H	1V o 2H	1V o 2H
Cleaning area/hour (m2/h)	4500 m/h	6000 m/h	7500 m/h
Driving speed	1,5 km/h	1,5 km/h	1,5 km/h
Controls	Manual	Manual	Manual

Last update: 25 february 2024

*These documents are the exclusive property of Cepillos Sacema, S.L. They may not be reproduced in whole or in part without our written authorisation, nor may they be misused and/or disclosed to third parties.



SOLAR PANEL CLEANER

Characteristics

- Made of carbon steel, ground, primed and painted.
- Hydraulic arm with 5 movements: double slewing ring.
- Water storage tank.
- Does not support weight on the panel.
- The brush absorbs gaps, antennas and panel support elements.
- Viewing cameras.
- Proximity sensors on the brush.
- Cylindrical brushes with technical filament.
- Joystick to control the equipment.
- Attachable to three-point tractor.



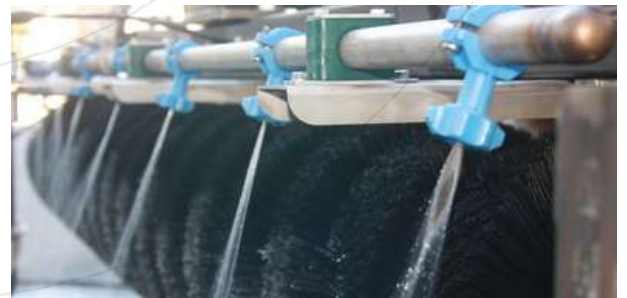
Optional

- Installation of the joystick, screens and electrical box on the tractor.
- Supply of the complete system (brush + arm + tractor + water equipment).
- Three-point stabiliser.
- Calculation of the stability of the system and definition of counterweights and ballasts for the tractor.



To be defined

- Category of the tripod.
- volume of the water tank.
- Working width of the brush.
- Type of tractor, which must ensure that it has working capacity and stability for the cleaning equipment.



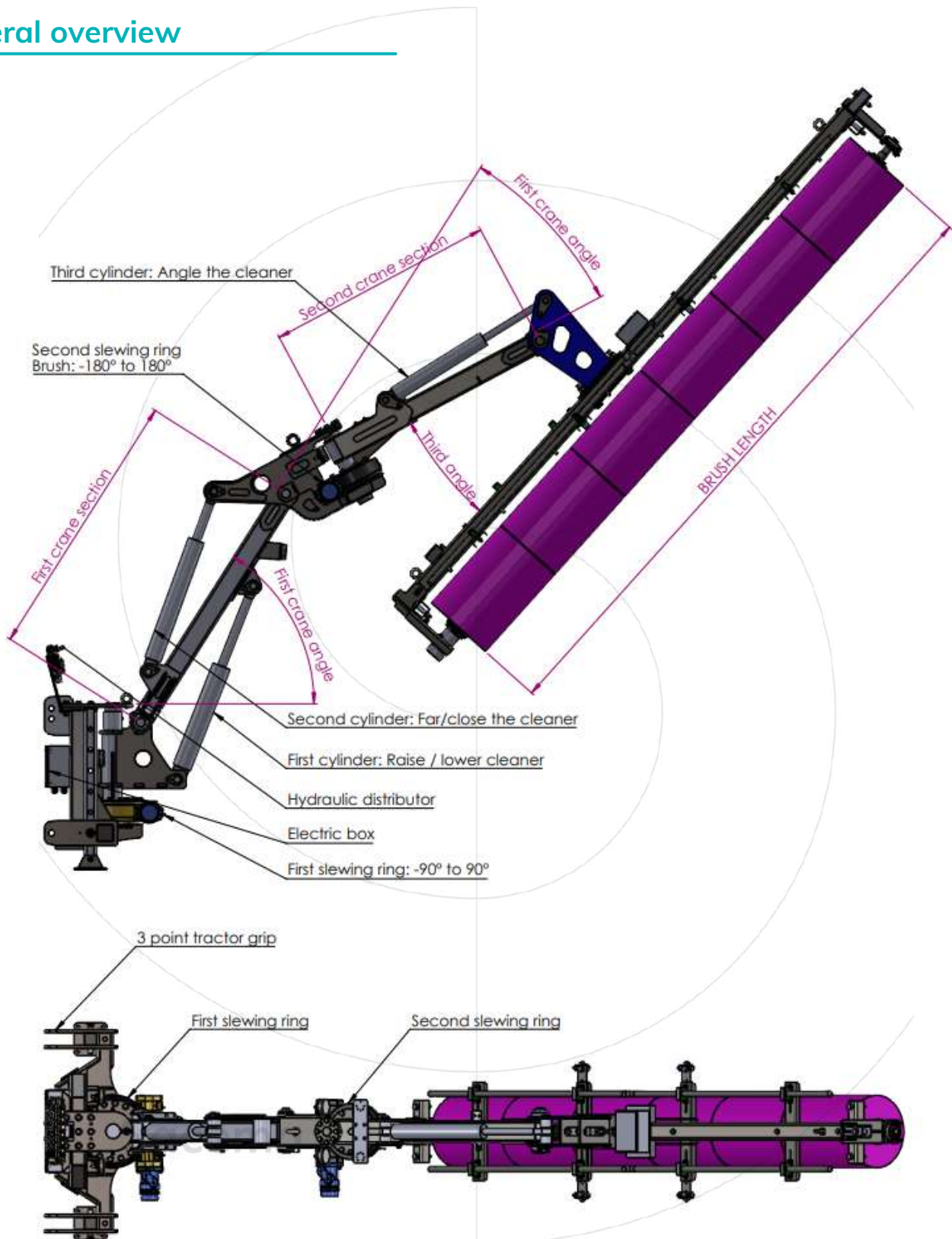
Last update: 25 february 2024

*These documents are the exclusive property of Cepillos Sacema, S.L. They may not be reproduced in whole or in part without our written authorisation, nor may they be misused and/or disclosed to third parties.



SOLAR PANEL CLEANER

General overview



Last update: 25 february 2024

*These documents are the exclusive property of Cepillos Sacema, S.L. They may not be reproduced in whole or in part without our written authorisation, nor may they be misused and/or disclosed to third parties.



SOLAR PANEL CLEANER

General overview



- Support wheels for resting position and transport.
- Remove castors for cleaning.

Sacema

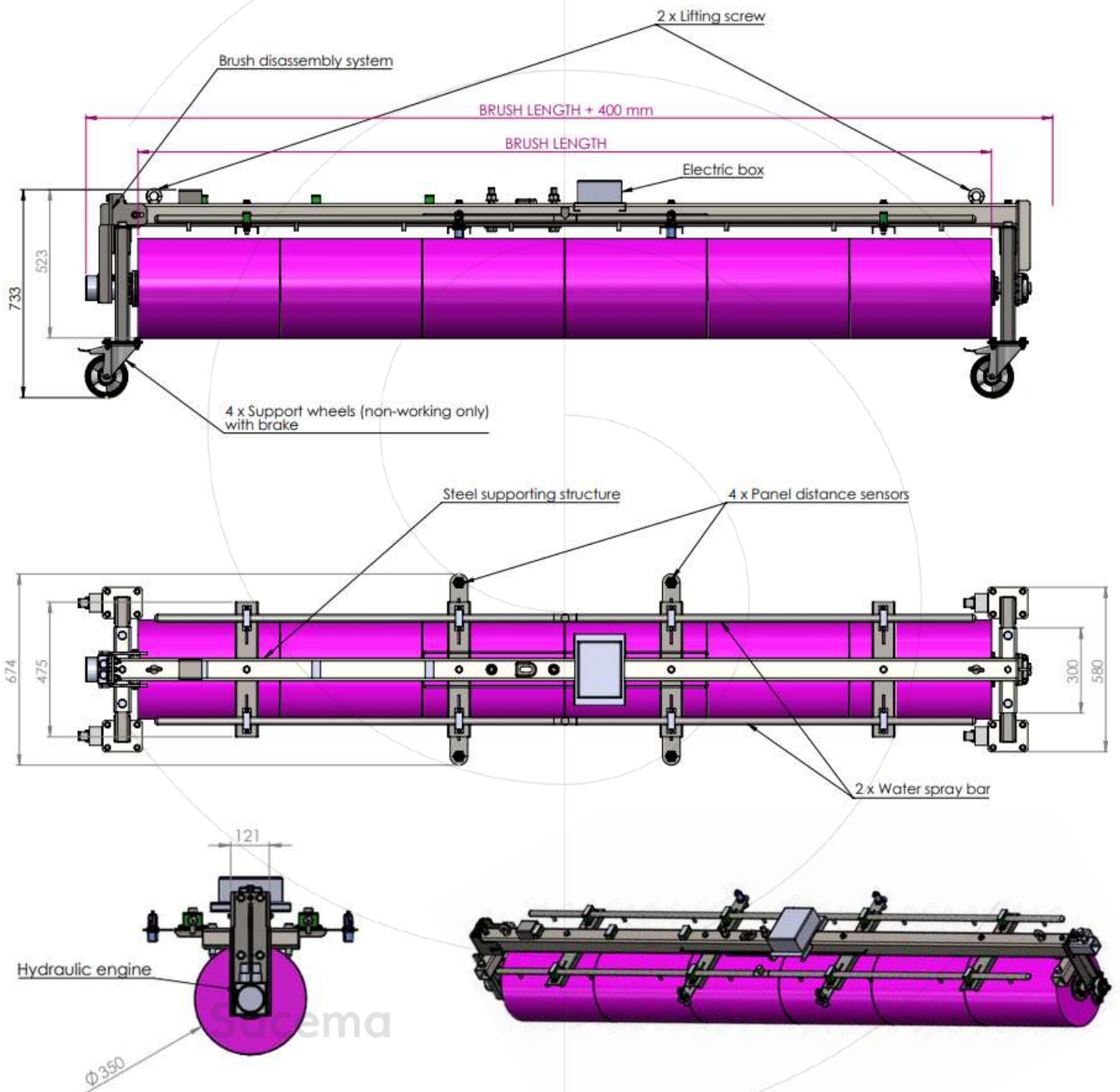
Last update: 25 february 2024

*These documents are the exclusive property of Cepillos Sacema, S.L. They may not be reproduced in whole or in part without our written authorisation, nor may they be misused and/or disclosed to third parties.



SOLAR PANEL CLEANER

Brush structure with supports



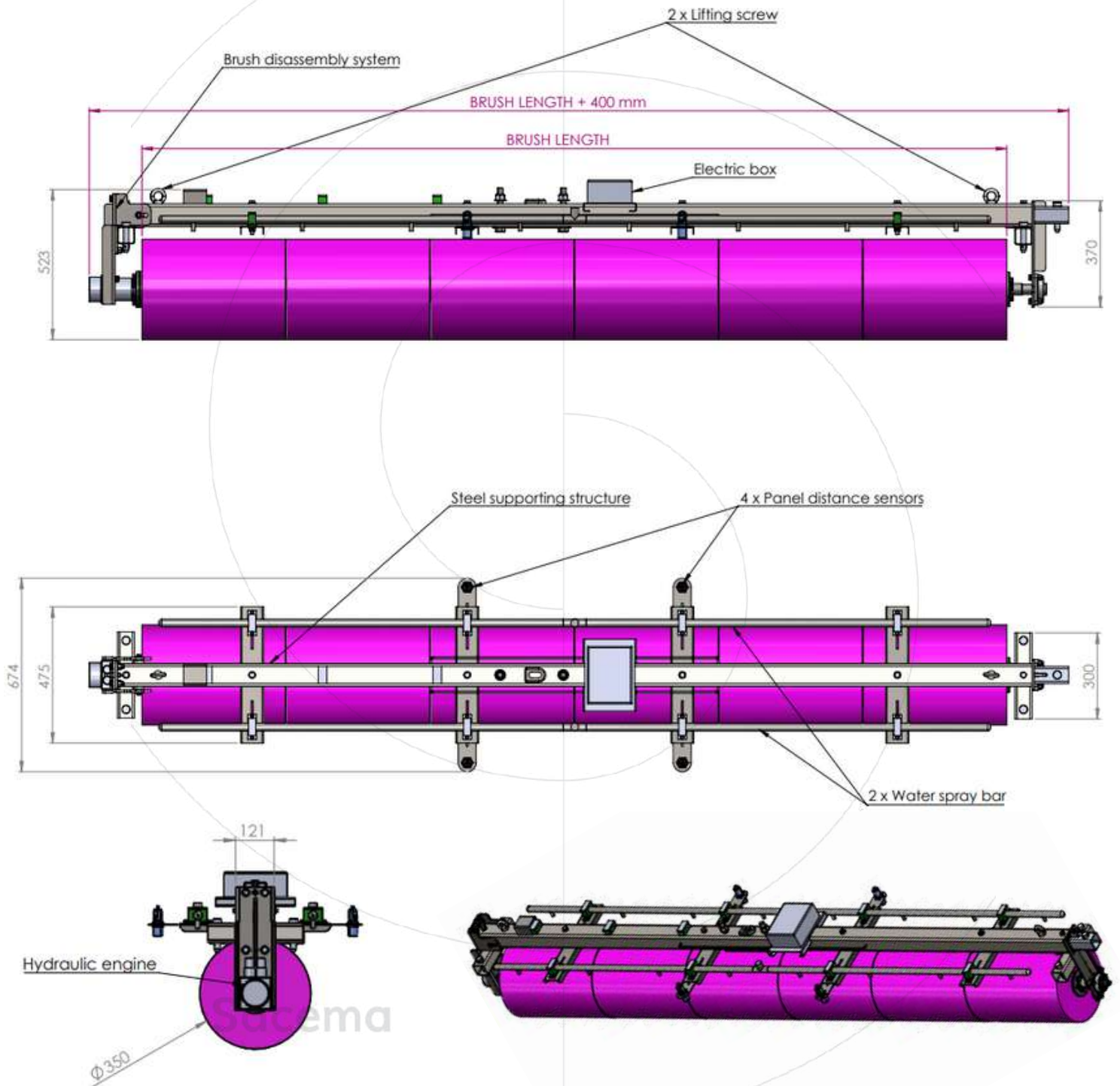
Last update: 25 february 2024

*These documents are the exclusive property of Cepillos Sacema, S.L. They may not be reproduced in whole or in part without our written authorisation, nor may they be misused and/or disclosed to third parties.



SOLAR PANEL CLEANER

Brush structure with supports



Last update: 25 february 2024

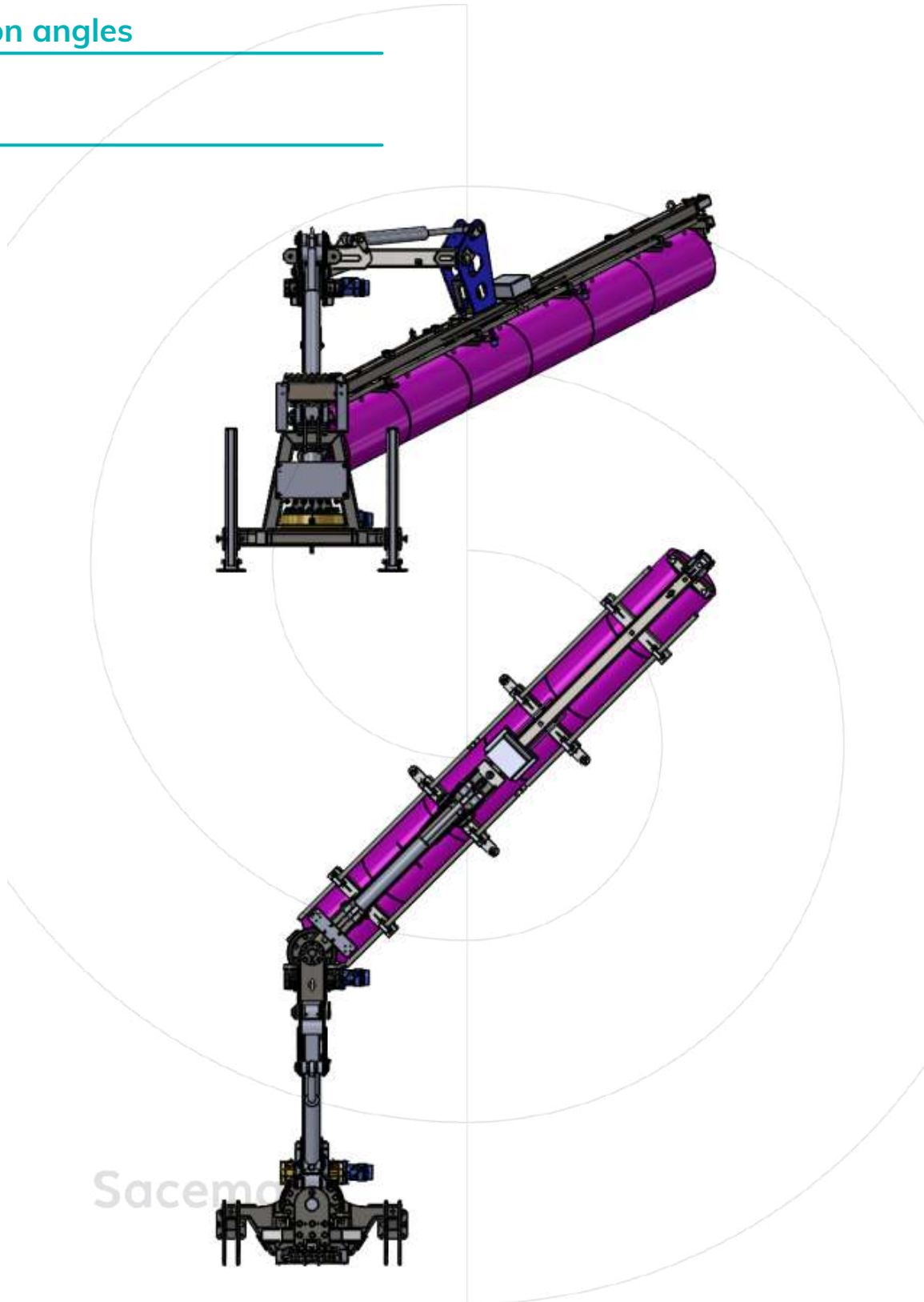
*These documents are the exclusive property of Cepillos Sacema, S.L. They may not be reproduced in whole or in part without our written authorisation, nor may they be misused and/or disclosed to third parties.



SOLAR PANEL CLEANER

Rotation angles

0 + 45°



Last update: 25 february 2024

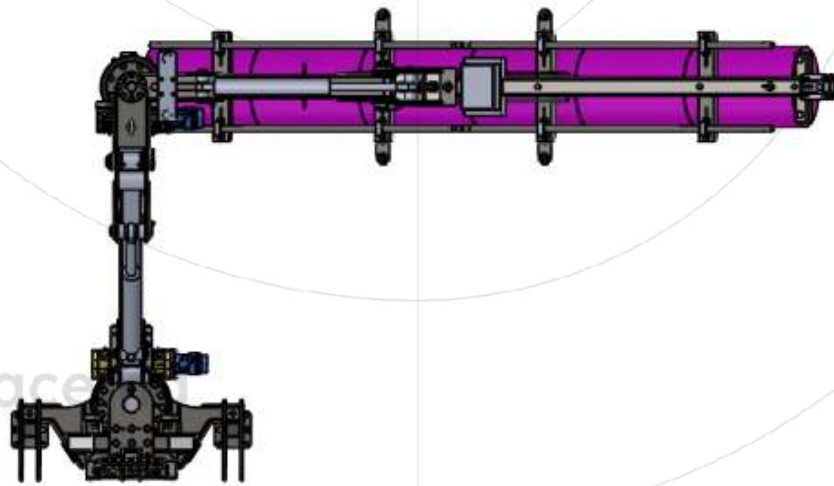
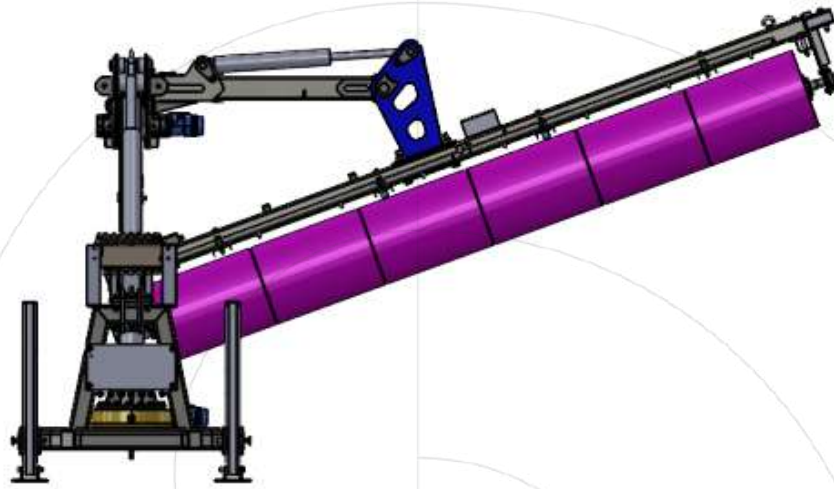
*These documents are the exclusive property of Cepillos Sacema, S.L. They may not be reproduced in whole or in part without our written authorisation, nor may they be misused and/or disclosed to third parties.



SOLAR PANEL CLEANER

Rotation angles

0 + 90°



Last update: 25 february 2024

*These documents are the exclusive property of Cepillos Sacema, S.L. They may not be reproduced in whole or in part without our written authorisation, nor may they be misused and/or disclosed to third parties.



SOLAR PANEL CLEANER

Rotation angles

+ 45° + 45°



Last update: 25 february 2024

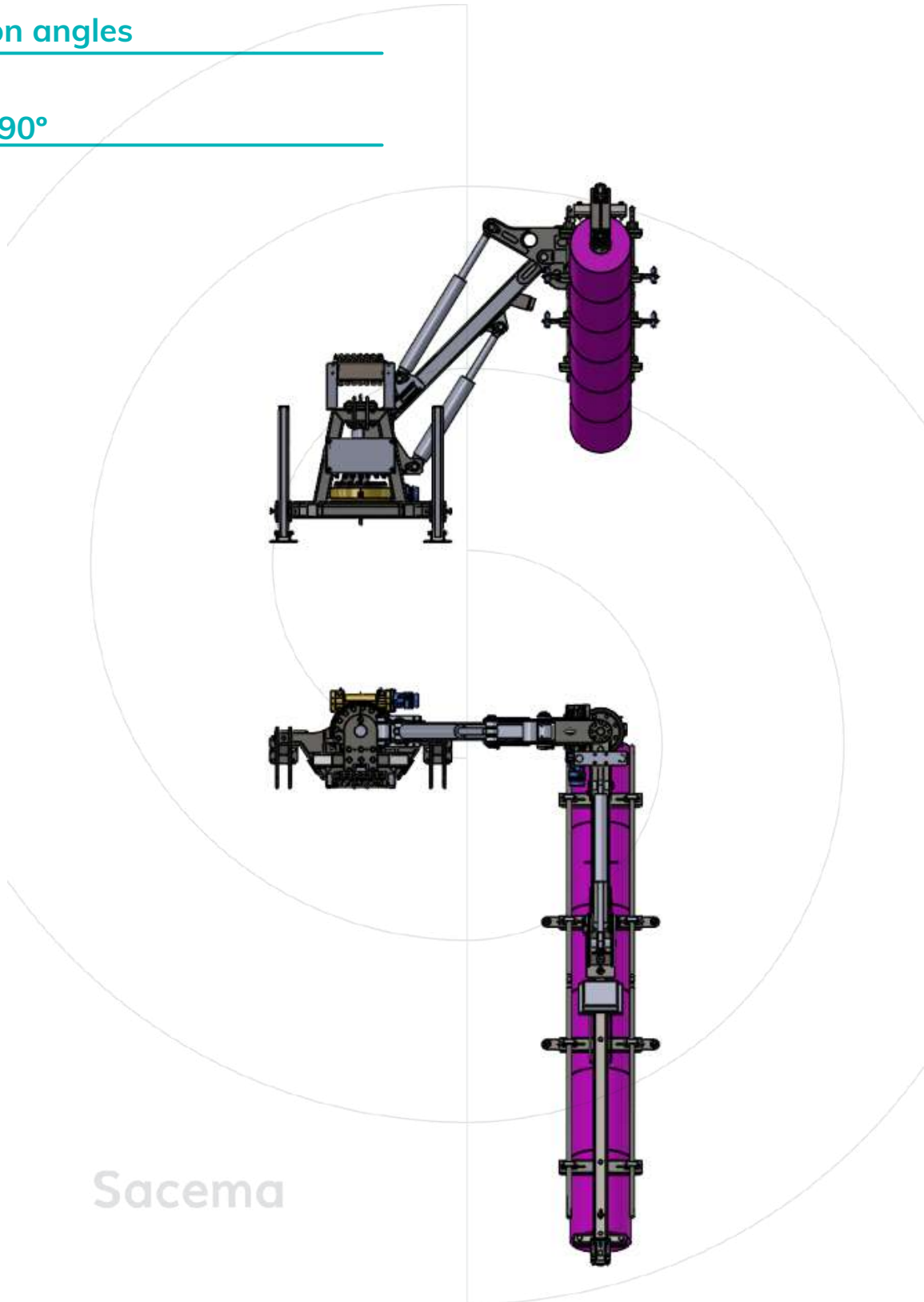
*These documents are the exclusive property of Cepillos Sacema, S.L. They may not be reproduced in whole or in part without our written authorisation, nor may they be misused and/or disclosed to third parties.



SOLAR PANEL CLEANER

Rotation angles

+90° + 90°



Sacema

Last update: 25 february 2024

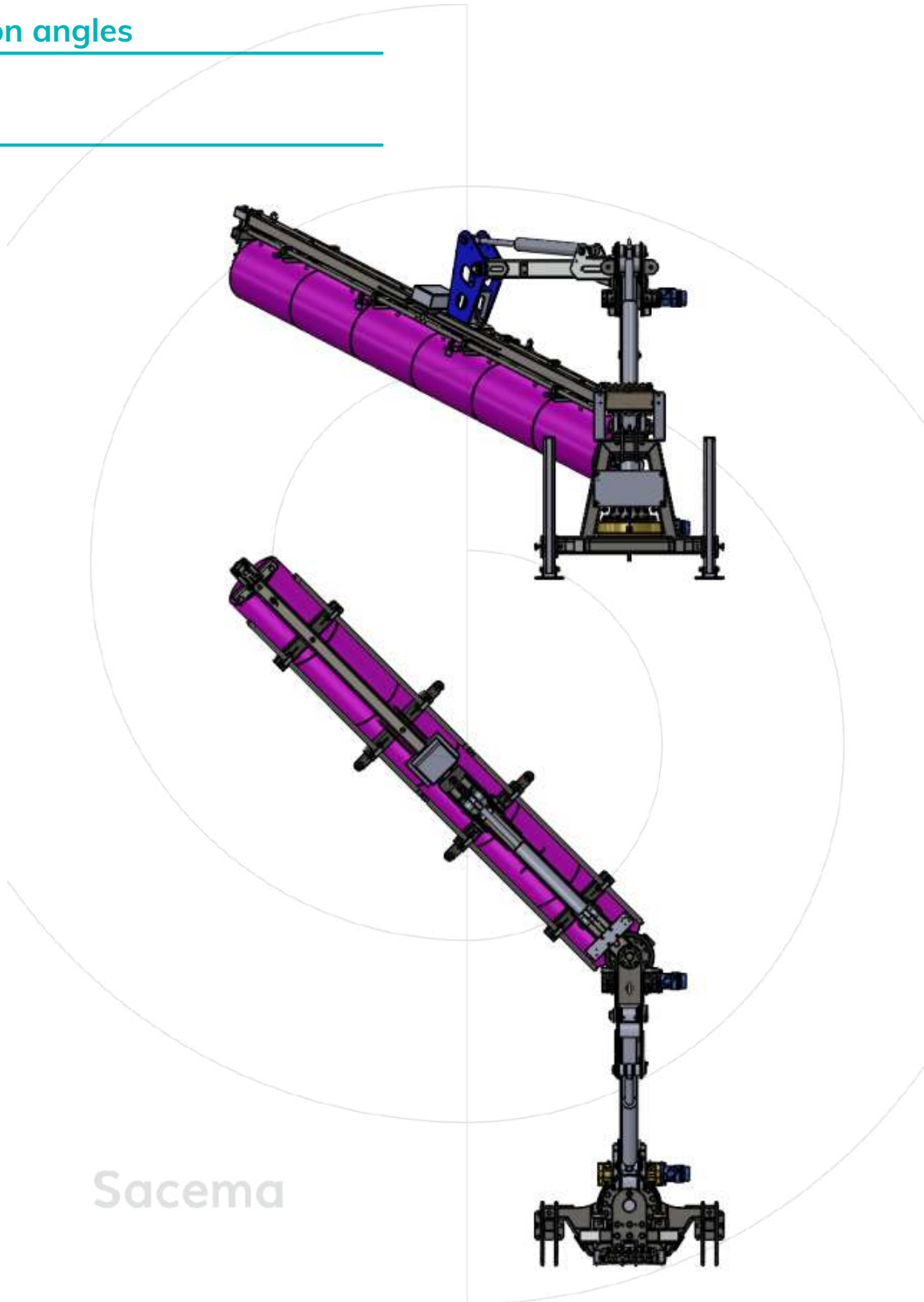
*These documents are the exclusive property of Cepillos Sacema, S.L. They may not be reproduced in whole or in part without our written authorisation, nor may they be misused and/or disclosed to third parties.



SOLAR PANEL CLEANER

Rotation angles

0 - 45°



Sacema

Last update: 25 february 2024

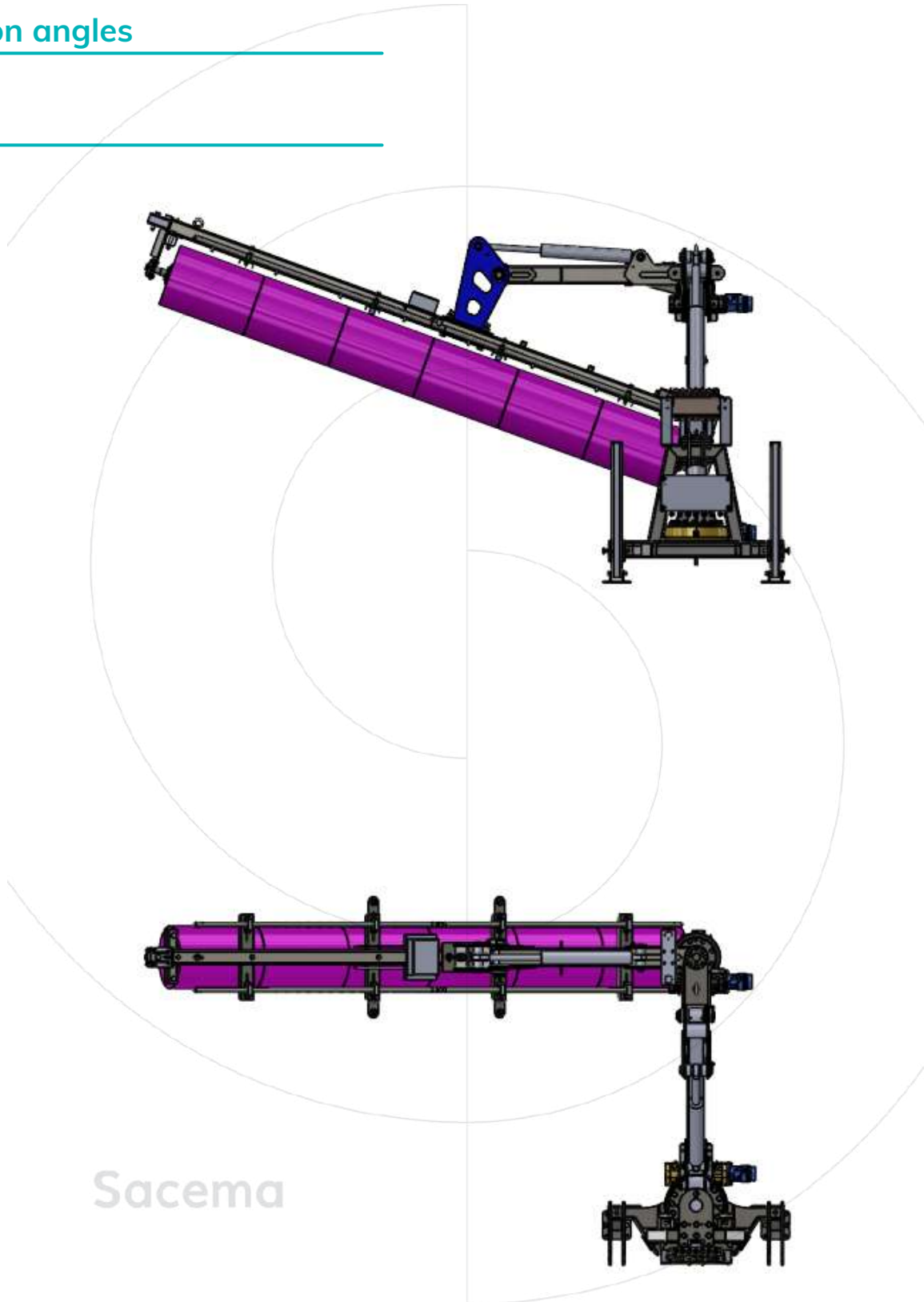
*These documents are the exclusive property of Cepillos Sacema, S.L. They may not be reproduced in whole or in part without our written authorisation, nor may they be misused and/or disclosed to third parties.



SOLAR PANEL CLEANER

Rotation angles

0 - 90°



Sacema

Last update: 25 february 2024

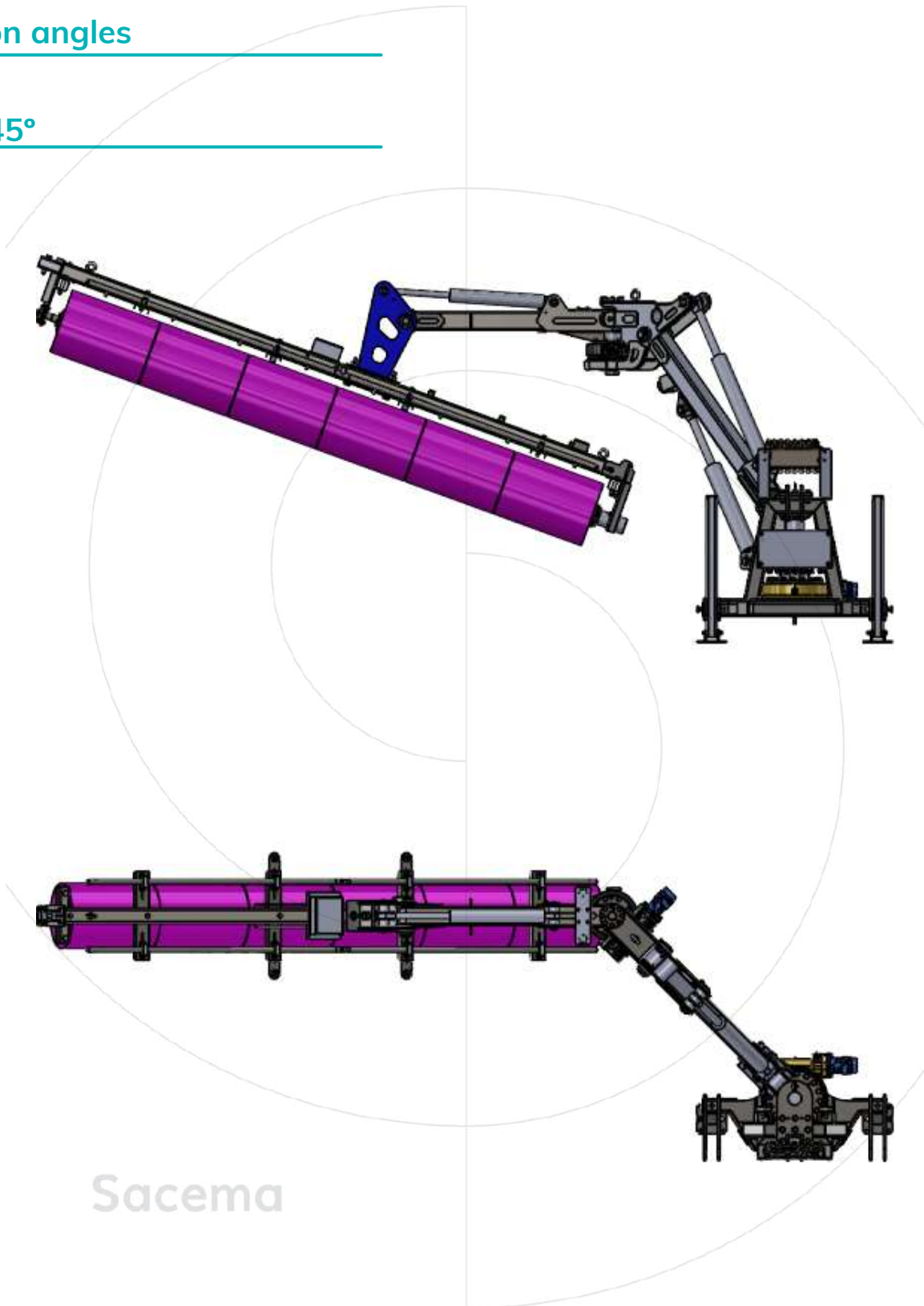
*These documents are the exclusive property of Cepillos Sacema, S.L. They may not be reproduced in whole or in part without our written authorisation, nor may they be misused and/or disclosed to third parties.



SOLAR PANEL CLEANER

Rotation angles

-45° - 45°



Sacema

Last update: 25 february 2024

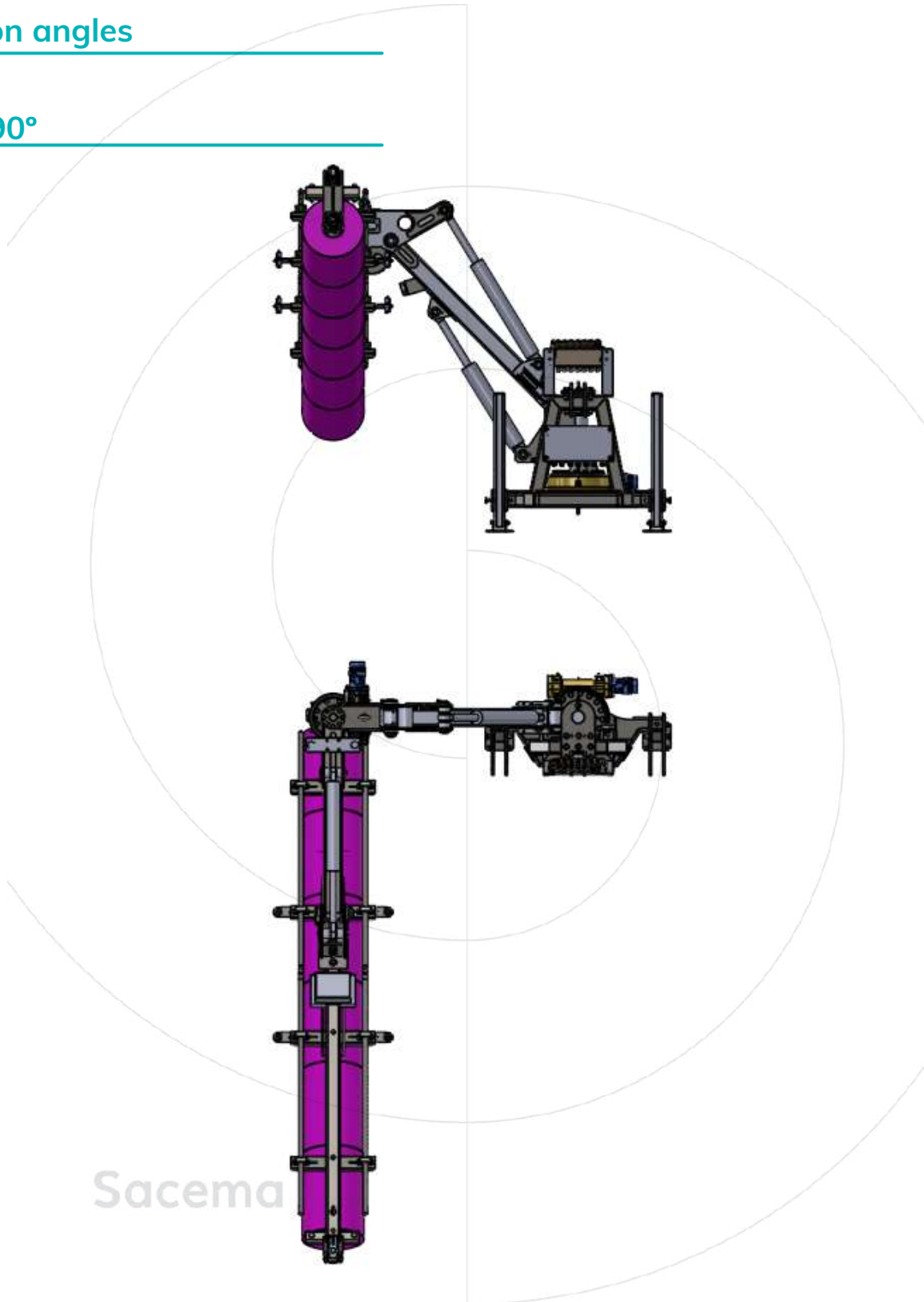
*These documents are the exclusive property of Cepillos Sacema, S.L. They may not be reproduced in whole or in part without our written authorisation, nor may they be misused and/or disclosed to third parties.



SOLAR PANEL CLEANER

Rotation angles

-90° - 90°



Sacema

Last update: 25 february 2024

*These documents are the exclusive property of Cepillos Sacema, S.L. They may not be reproduced in whole or in part without our written authorisation, nor may they be misused and/or disclosed to third parties.