

R&D Equipment



All-in-one solution for solar concentration
research and development

www.solatom.com

Solar field








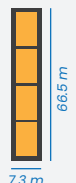
SOLATOM's **FLT** linear Fresnel collector brings modular solar fields perfect for small pilot plants and demonstration projects

- Aperture area from 26.4 m²
- Peak power of 0.5 kW/m²
- Modular and transportable. Ideal for temporary projects
- Ultra-lightweight (25 kg/m²), suitable for both ground and rooftop
- No foundations required
- Certified under ISO 9806 and wind tunnel tested



2 Tandem in 1+1 Layout

Available solar field size and layout configuration:

	1 Master	1 Tandem	2 Tandem		3 Tandem		4 Tandem		>4T
Peak power - kW*	13	40	79		119		158		Available upon request
Mirror area - m²	26.4	79.2	158.4		237.6		316.8		
Layout	1M	1	1 + 1	2	2 + 1	3	2 + 2	4	
Footprint - m²	61.3	121.2	232.4	244.5	348	365	469	485.4	
Dimensions									

* Reference conditions: DNI=900 W/m², T_{in}=150°C, T_{out}=180°C, T_{amb}=30°C, θ_{trans}=15°, θ_{long}=0° and vacuum absorbers

Solar field transportation

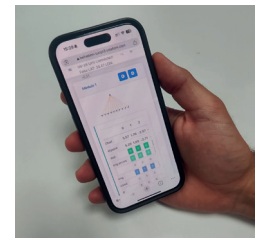


One pre-assembled tandem in truck or standard shipping container 40"

Remote control

Remote control of the solar field from a mobile phone

Real-time status of all tracking devices



Solar field add-ons

Solar field deployment

The FLT modules are shipped pre-assembled for customer deployment, with SOLATOM commissioning remotely.

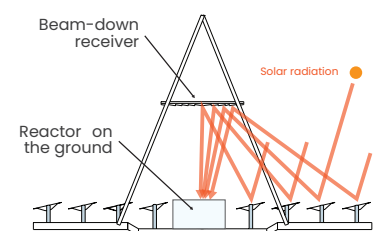
It is also possible to ask SOLATOM for **on-site deployment** as an add-on.

Beam-down system

Beam-down system for applications where the **receiver is located at ground level**. It is recommended for use with reactors or worm-type receivers/belt receivers.

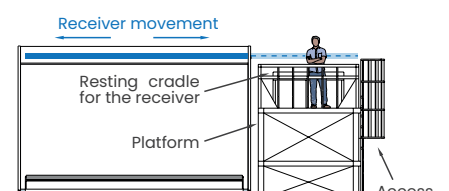
The beam-down system's orientation is adjustable to achieve **different flux distributions at the receiver aperture**.

The beam-down system requires the removal of two rows of mirrors, reducing the aperture area by 20%.



Receiver-level platform

Scaffold-type platform for performing receiver-level testing. This system is recommended when testing with different types of receivers or performing receiver-level measurements are required.

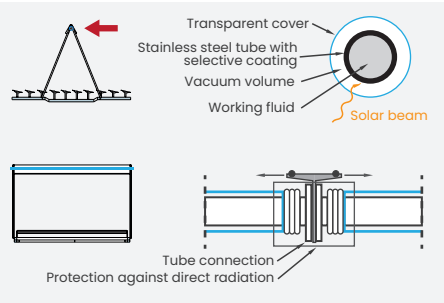


Receiver system

Range of interchangeable receiver systems for all types of applications

Vacuum absorber tubes

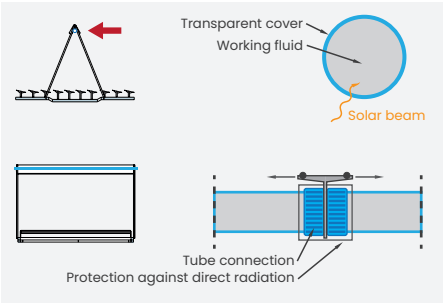
High vacuum absorber tube for high temperature thermal applications (<350°C)



Connection between absorber tubes

Transparent tubular receivers

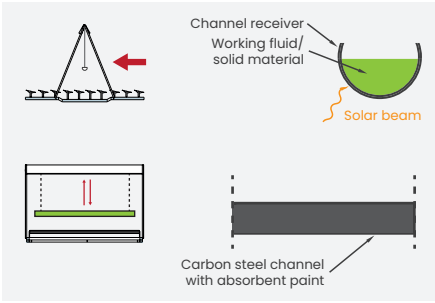
Transparent borosilicate tubing for photochemical and nanomaterial applications up to 70°C



Transparent receiver in operation

Channel receiver with hoisting system

Channel receiver with hoisting system for static testing of semi-solid materials



Channel receiver with hoisting system

Hydraulic units



Selection of pre-assembled hydraulic units on skids for high-temperature thermal applications with different fluids

Process	Standard operation	Dimensions
Pressurized hot water	Fluid : Water T _{op} : 150 °C P _{op} : 5 bar	
Direct steam generation	Fluid : water-steam T _{op} : 165 °C P _{op} : 6 bar	
Indirect steam generation	Fluid : water/steam T _{op} : 165 °C P _{op} : 6 bar	
Hot air	Fluid : Air T _{op} : 300 °C P _{op} : 1 bar	
Thermal oil		Available from 2026

For all units: Standard domestic single-phase 220 VAC power supply (3-phase available on request). Includes control cabinet with SCADA. Trans-portable in a shipping container. Outdoor mounting. Weather station. Requires vacuum absorbers. Solar field connection piping not included.

Hot air inlet (charge)
Hot air outlet (discharge)

Additional volume available for PCM

Volume for solid materials testing

Cold air outlet (loading)
Cold air inlet (discharging)

The diagram shows a vertical cylindrical chamber. At the top, a red pipe enters and turns downward, labeled 'Hot air inlet (charge)'. A red arrow points down from this inlet. Near the top of the chamber, there is a blue horizontal band labeled 'Additional volume available for PCM'. Below this is an orange horizontal band labeled 'Volume for solid materials testing'. At the bottom of the chamber, a blue pipe exits and turns to the right, labeled 'Cold air outlet (loading)'. A blue arrow points up from this outlet, labeled 'Cold air inlet (discharging)'.

Volume for solid material => 1.5 m³
Volume for PCM material => 0.135 m³

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Prices valid until December 2025 (in euros)

Solar field

1 Master	1 Tandem	2 Tandem	3 Tandem	4 Tandem

The diagram shows a 4x4 grid with columns labeled 1 Master, 1 Tandem, 2 Tandem, 3 Tandem, and 4 Tandem. A red circle is in the top-right cell of the 3 Tandem column, with a red line extending downwards through the center of the grid to a second red circle in the 3 Tandem column of the bottom section.

We are up to the challenge!



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