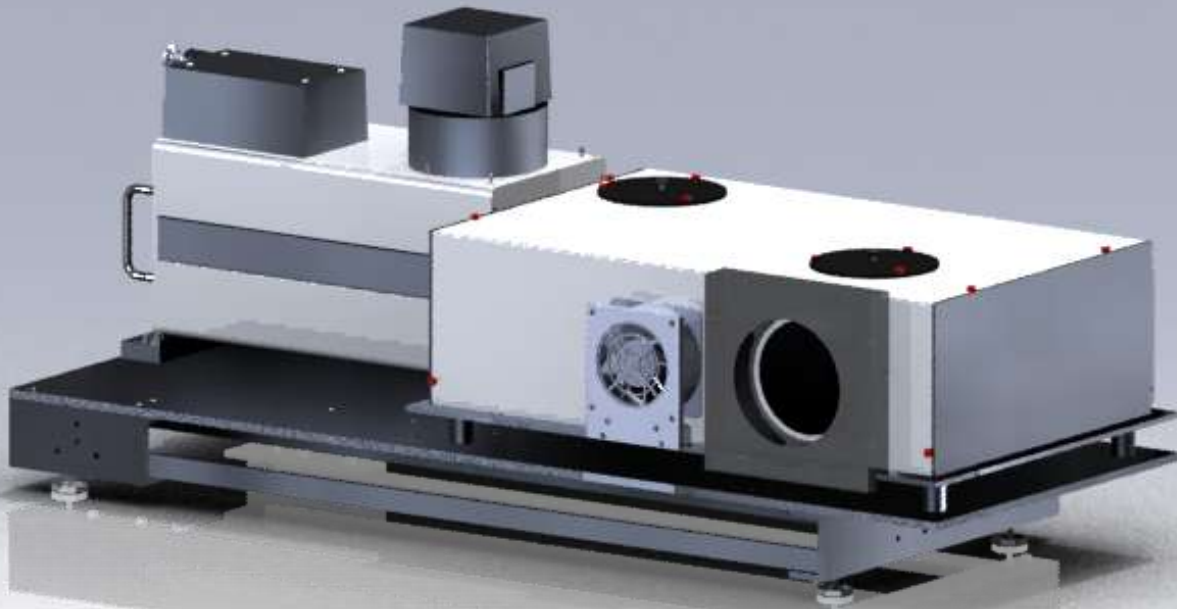




FULLY REFLECTIVE SOLAR SIMULATORS SS0.5K / SS1.0K / SS1.6K / SS2.5K



Features

- Class AAA solar simulators
- Xenon short arc lamp
- Fully reflective optical system
- No chromatic aberration
- A variety of available filters
- Modular design
- Many optional components

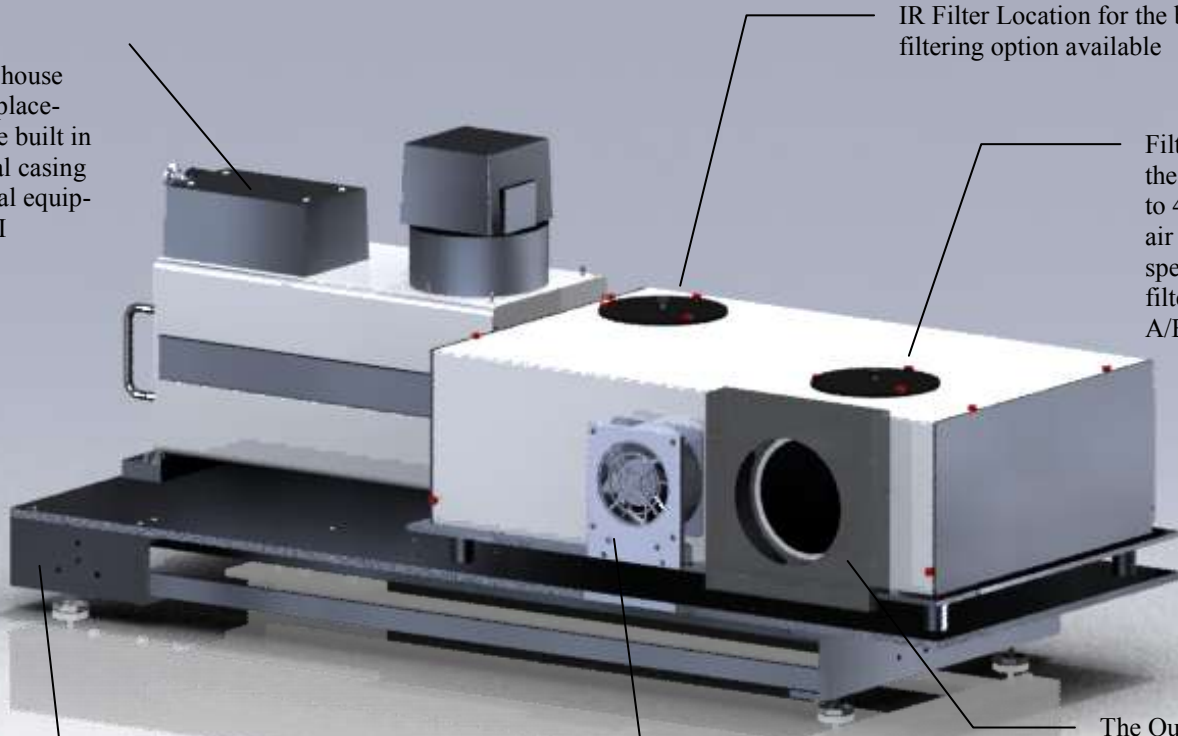
Applications

- Photovoltaic testing
- Exposure testing
- Light bleaching
- High UV tests



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The modularly designed lamp house makes lamp replacement easy. The built in ignite and metal casing protects external equipment from EMI



IR Filter Location for the best IR filtering option available

Filter Drawer allows the user to stack up to 4 filters including air mass filters or specific bandpass filters such as UV A/B and C filters.

Brackets for optional mounting let you integrate Sciencetech solar simulators into your custom application

The air cooled beam homogenizer and lamp house extends the system lifetime protecting your investment

The Output mounting flange allows you to attach various beam direction and filtering options

Sciencetech manufactures four high power versions of Class AAA fully reflective solar simulators. Sciencetech's proprietary fully reflective design uses metal coated mirrors and passes the whole spectrum, no compromise. This is a distinct advantage over refractive based systems that are limited by the properties of the transparent material used

SCIENCETECH



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FULLY REFLECTIVE SOLAR SIMULATORS

SS0.5K / SS1.0K / SS1.6K / SS2.5K

NON-UNIFORMITY

Item Number	Model #	Class A Target Diameters (cm)			Class B Target Diameters (cm)		
		1 Sun	0.5 Sun	2 Sun	1 Sun	0.5 Sun	2 Sun
165-9002	SS0.5kW	7.5	12.4	6.3	9	15	7.5
165-9001	SS1kW	12.7	18	8.9	15	21.5	10.5
165-9007	SS1.6kW	16.0	22.6	11.2	20	27	13.5
165-9008	SS2.5kW	20.3	28.7	14.2	24	34	17

SPECTRAL MATCH

Range (nm)	ASTM AM 1.5G	Sciencetech FRSS AM 1.5G	ASTM AM 0	Sciencetech FRSS AM 0	< ± 25% of Stand- ard?
300-400			8.0%	7.3%	
400-500	18.40%	21.81%	16.4%	17.7%	pass
500-600	19.90%	20.65%	16.3%	17.0%	pass
600-700	18.40%	17.81%	13.9%	14.1%	pass
700-800	14.90%	13.00%	11.2%	10.5%	pass
800-900	12.50%	11.00%	9.0%	9.2%	pass
900-1100	15.90%	15.73%	13.1%	14.0%	pass
1100-1400			12.2%	10.2%	

TECHNICAL SPECIFICATIONS

Collimation Angle (+- degrees)	3
Typical Power Output (mW/cm ²) (at target)	100
Uniformity	<2%
Uniformity Classification	A (ASTM E927-05)
Temporal Instability	<2%
Temporal Instability Classification	A (ASTM E927-05)
Spectral Match	See table
Spectral Match Classification	A (ASTM E927-05)
Working Distance ** (cm)	Depends on model
Lamp Power Requirements	500-2.5kW
Line Regulation Requirement *	0.01%



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SS0.5K / SS1.0K / SS1.6K / SS2.5K

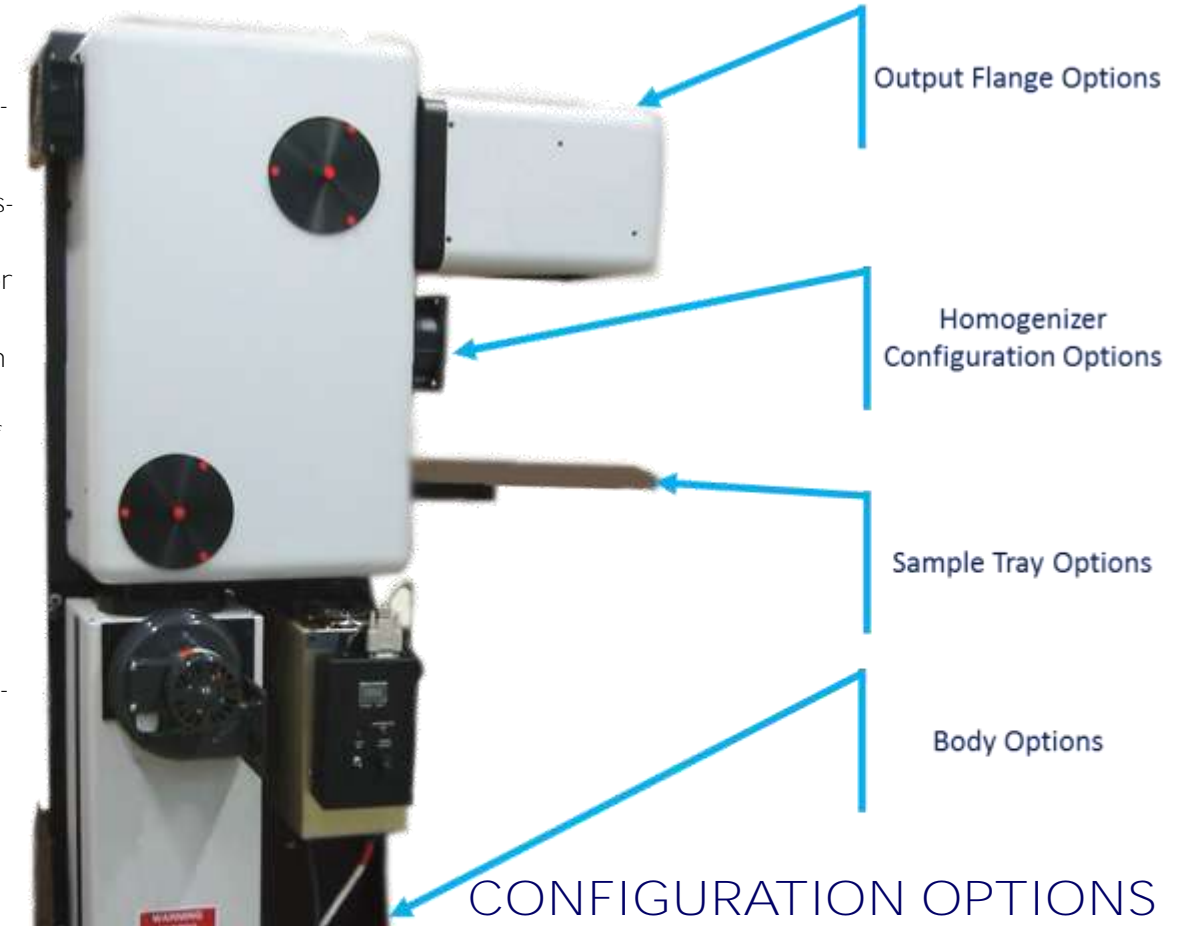
Sciencetechs fully reflective solar simulators can be configured to suite your requirements.

The homogenizer can be customized to include a computer controllable shutter, or a variable focus option that lets you position the uniform plane at different working distances from the output of the simulator *.

Numerous filtering options are available. Some filter options are added to the beam line through the built in filter drawer. Other filtering options require the addition of a beam turning filter holder.

A range of solar cell chucks with options such as vacuum clamps, thermoelectric or water cooling, micropositioners as well as complete IV testing software and hardware are also available.

The SS0.5k through SS1.6k models can be mounted on a vertical stand for downward facing operation. Note that the SS2.5k model must be



CONFIGURATION OPTIONS

Homogenizer Configuration Options	
(SSES) High Power Computer Controlled Shutter	165-8005
(SSVF-SS) Variable Focus	165-8011
Homogenizer output window (G1 Quartz) for sealed homogenizer option	Contact
Homogenizer output window (Si-UV) for sealed homogenizer option	Contact
Output Flange Options	
(CTBT-SS) Beam turning mirror	165-8018
(CTBT-RF) Turning mirror with removable filters	165-8034
Body Options	
(BASE-SS) Base assembly for vertical stand	165-8030
(BASE-SS-ROLL) Solar simulator base assembly with castors	165-8047
Sample Tray Options	
(SAMP-STD) Standard solar simulator sample plate and clamp assembly	165-9006
A range of solar cell chucks and sample cooling and holding accessories are available	Browse chucks
Complete Package Options	
(DFS-SS) Downward facing stand package for SS0.5-1.6k simulators. (Includes CTBT-SS, BASE-SS and SAMP-STD).	160-8016
(DFS-2.5SS) Downward facing stand package for SS2.5k.	165-8050



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FULLY REFLECTIVE SOLAR SIMULATORS

SS0.5K / SS1.0K / SS1.6K / SS2.5K

FILTER OPTIONS

Item Number	Description
Filter Holder	
100-8035	3" filter holder for SS style filters, 2.5mm thick max

Spectral Filters - near 0 degree - 3" filter slot in homogenizer

640-9005	75mm Mesh 34% Neutral Density Filter with Holder
640-9006	75mm Mesh 49% Neutral Density Filter with Holder
640-9007	75mm Mesh 71% Neutral Density Filter with Holder
640-9011	Visible Longpass Filter (400 +/-6nm), with Holder
640-9012	Hot Mirror for UV Applications - 3" Square
640-8005	Pass UV-VIS Block IR - heat absorbing glass
640-8006	Pass VIS-IR block UV A+B - 0 deg option (WG395)
640-8007	Pass UVA-VIS-IR block UV B
640-8010	Pass UV A+B, Block VIS, Block IR - 0 deg filter option
640-8012	Pass UV A+B, Pass Some IR, Block VIS - 0 deg filter option
640-8013	Cut UVB and below, Pass UV A and above 0 deg

Air mass filters - near 0 degree incidence

160-8020	Air Mass AM0 Filter for SS Series Solar (Standard Range)
160-8022	Air Mass AM1.0D Filter for SS Series Solar (Standard Range)
160-8024	Air Mass AM1.5G Filter for SS Series Solar (Standard Range)
160-8026	Air Mass AM1.5D Filter for SS Series Solar (Standard Range)
160-8028	Air Mass AM2.0D Filter for SS Series Solar (Standard Range)

Homogenizer IR Water filter

100-8018	IR Water Filter, 3" Stainless Steel, Fused Silica Windows
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beam turning filters - 45 degree - used with 165-8034

640-8004	Pass VIS, Block UV,IR - CTBT option
640-8008	Pass IR, Block UV Block VIS
640-8011	Pass UVA+B, Bk VIS+IR - CTBT option



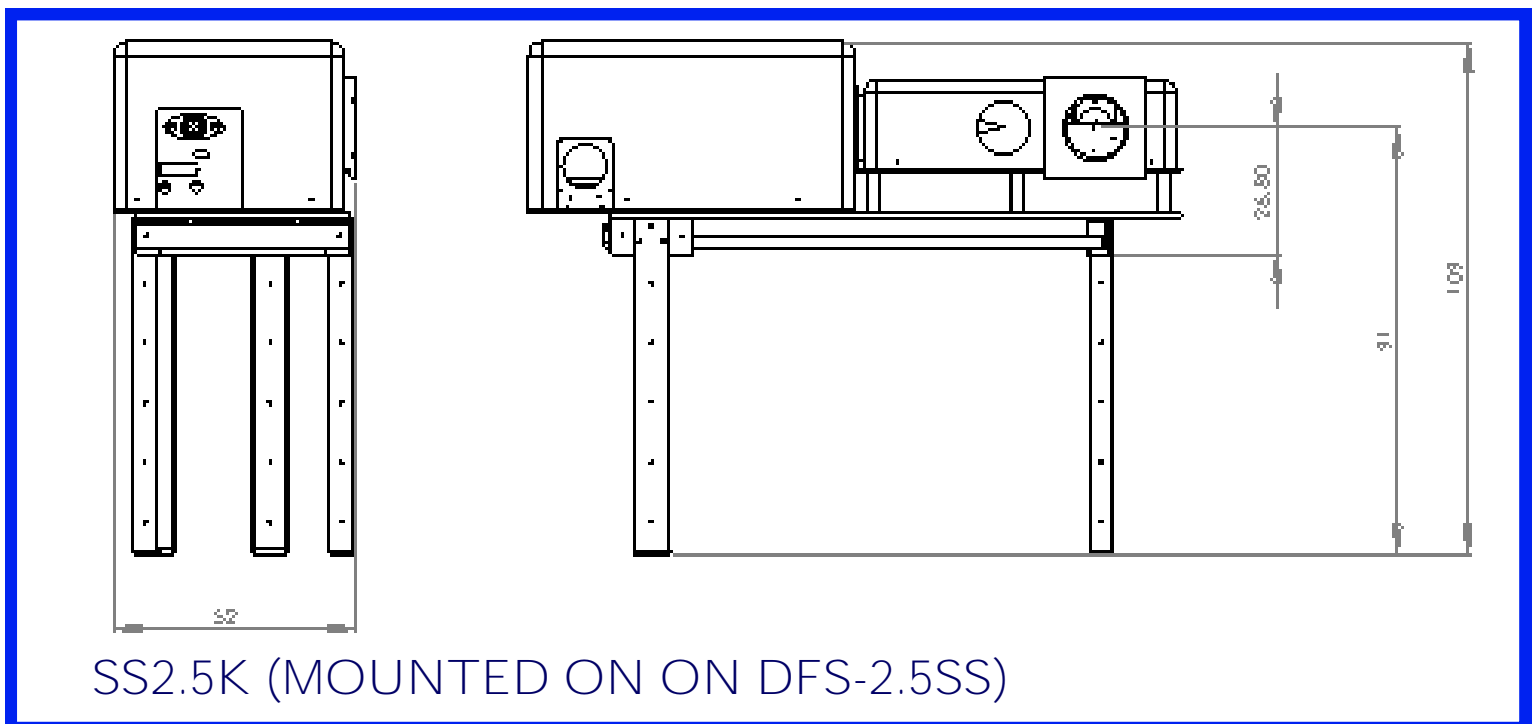
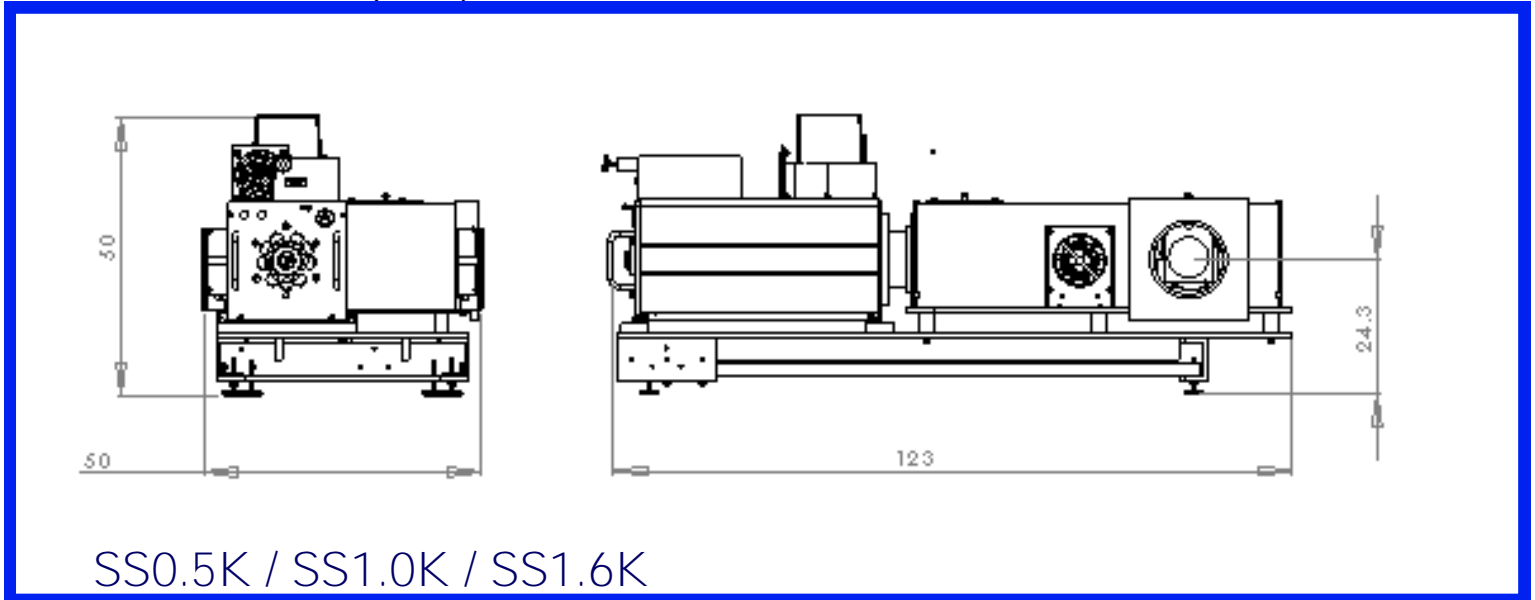
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CONTACT US FOR A QUOTE
 OR
 TO TELL US ABOUT YOUR
 CUSTOM APPLICATION

FULLY REFLECTIVE SOLAR SIMULATORS SS0.5K / SS1.0K / SS1.6K / SS2.5K

DIMENSIONS (CM)



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