

thermo scientific



# Solaris 2000 and 4000 Series Orbital Shakers

The evolution of shaking. A revolution in productivity.

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# Thermo Scientific™ Solaris™ 2000 and 4000 Orbital Shakers

A new standard for reliability  
and technical innovation.

As your sample preparation demands accelerate, you expect more from your lab equipment. Exceptional reliability is a top priority for orbital shakers –followed by flexible features with advanced programming that save you time and allow you to focus on your work. Solaris Orbital Shakers accelerate the evolution of shaking by bringing it all together:

- Exceptional reliability with heavy-duty drive mechanism
- Flexible application support to obtain the most value
- User programmability for easy set up and reproducibility
- Compact footprint designed to fit on your bench-top
- Connectivity for easy monitoring
- Industry-leading warranty for peace of mind

Solaris Orbital Shakers help make life in the lab  
a little smoother each day.

# Raising the bar in shaker performance

Solaris Orbital Shakers set a new standard for reliability and technical innovation. Ruggedly built for demanding use, they combine a new ergonomic design with key feature enhancements that help save you time, protect your process and drive your science forward.

Our triple eccentric drive mechanism is built upon proven technology to easily support heavy loads. The belt is maintenance-free and engineered to last the life of the shaker, and the shaker mechanism itself comes with a 10-year warranty.

Available in two convenient sizes for your benchtop, Solaris Orbital Shakers offer a variety of platforms plus associated flask clamps and tube racks to support virtually any capacity you require. These shakers can operate in microbiological incubators, environmental chambers, or refrigerators to meet a wide range of application requirements.



**Choose from a variety of platforms to meet any application challenge.**



Solaris 2000 18x18



Solaris 2000 18x24



Solaris 4000 18x30



Solaris 4000 24x36

# Efficient operation

## Advanced user interface with powerful user programming

Users can quickly and securely program Solaris Orbital Shakers, storing unique routines and setpoints for future reuse. This built-in efficiency helps save time while optimizing shaker resources.

The only touch screen user interface in its class is easy to read and simple to operate. The full-color touchscreen display allows you to clearly view speed and runtimes concurrently, even from a distance. It also offers historical monitoring of alerts, alarms and interaction logs to provide greater security and reproducibility for your work. With Solaris Orbital Shakers, you can set, run and monitor vital statistics each with a touch on the screen. Graphing capabilities allow you to monitor the history of your run.



Users can conveniently program speed and time on the Solaris Orbital Shakers, optimizing shaker resources and enabling consistency across runtime operations.



**The large, bright user interface lets you easily monitor setpoints and status conditions from across the lab.**

## Connect effortlessly in the Cloud

Keeping close watch on your valuable solutions 24/7 from anywhere is about to get easier. Soon, your Solaris Orbital Shakers will be able to Cloud-connect to other key Thermo Scientific equipment including incubators and environmental chambers. With Solaris Orbital Shakers, you'll be ready to grow with us as we revolutionize integrated laboratory equipment.

Using mobile tools, you will be able to connect to your cloud-enabled Solaris Orbital Shakers from the Cloud to monitor setpoints and performance. Please contact your VWR representative for availability.

# Designed for easy maintenance

## Easy shaker maintenance simplifies your day

Solaris Orbital Shakers offer easy-to-remove platforms that make cleaning fast and easy. Featuring rounded corners, you can clean the unit quickly and completely with confidence. The sleek design that enables low maintenance also protects the motor and drive mechanism for longer service life.

Building on more than 40 years of experience in shaker technology, Solaris Orbital Shakers are designed in Germany and manufactured in the United States, to deliver worry-free performance you can rely on. A full 10-year warranty is offered for the drive mechanism, plus a 5-year warranty on parts, and a two-year warranty on labor.

**Solaris Orbital Shakers are designed with rounded corners, and platforms are removable for easy cleaning.**



## Your compact, versatile, *quiet* benchtop companion

Solaris Orbital Shakers feature a small footprint that help save valuable benchtop space. Engineered to perform with a reduced noise level in a wide range of environments, units operate in a temperature range of 5°C to +40°C and humidity conditions from 20 to 80% non-condensing.

- Solaris 2000 Series shakers ship with a 12 x 14 inch (30.5 x 35.6 cm) universal platform
- Solaris 4000 Series shakers ship with a 18 x 30 inch (76.2 x 45.7 cm) universal platform
- Additional platform sizes and dual stacks are also available.

*See the Accessories section on page 8 for additional platforms and clamp sizes.*



# The perfect fit for your applications

Solaris Orbital Shakers offer critical flexibility to meet virtually any application requirement. They are specially engineered to support operation inside a range of lab equipment, including environmental chambers, incubators and lab refrigerators\*.

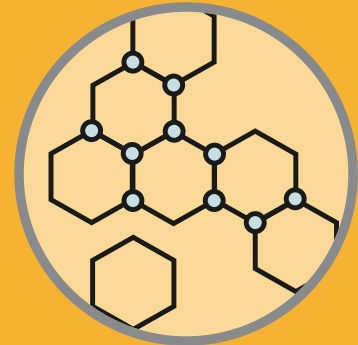
## Molecular biology and biochemistry applications

Solaris Orbital Shakers are your benchtop workhorses, operating in ambient conditions for mixing, staining, hybridization and washing.



## Sensitive microbe and chemical handling

Solaris Orbital Shakers fit easily in a lab refrigerator or cold room environment for agitated stability testing or mixing, in addition to washing and staining sensitive proteins and chemicals.



## Specialized microbe and plant cell culture

When placed on a reinforced shelf inside a microbiological incubator or environmental chamber, Solaris Orbital Shakers are ideal for liquid shaking incubation of microorganisms, as well as insect, algae, plant and fish cells.



\*User is responsible for safe operation of Solaris shakers in combination with any lab equipment

# Ordering and specification tables

Model	VWR Cat. No.	Speed Range	Orbit diameter In. (cm)	Max. load <sup>1</sup> lb. (kg)	Overall dimensions in. (cm) without platform			Electrical Requirements
					L	W	H	
<b>Thermo Scientific Solaris 2000</b>	<b>SK2000 (76311-660)</b>	15 to 525 +/- 1 rpm	1 ( 2.54)	55 (25)	18.5 (46.9)	14.3 (36.4)	5.5 (14.1)	100–240 V, 50 / 60 Hz
<b>Thermo Scientific Solaris 4000</b>	<b>SK4000 (76311-662)</b>	15-525 rpm +/- 1 rpm	1 ( 2.54)	95 (43)	25.5 (64.8)	22.6 (57.3)	7.0 (17.7)	100–240 V, 50 / 60 Hz

Platform	VWR Cat. No.	Supported by:
Thermo Scientific Solaris 12x14 Universal platform	<b>76311-664</b>	Solaris 2000
Thermo Scientific Solaris 12x14 Dual Stack Universal platform	<b>76311-666<sup>2</sup></b>	Solaris 2000
Thermo Scientific Solaris 12x14 Dual Stack Universal platform – upgrade kit (one 12x14 platform, screws, supporting rods)	<b>76311-668<sup>2</sup></b>	Solaris 2000
Thermo Scientific Solaris 18x18 Universal platform	<b>76311-670</b>	Solaris 2000
Thermo Scientific Solaris 18x18 Dual Stack Universal platform	<b>76311-672<sup>2</sup></b>	Solaris 2000
Thermo Scientific Solaris 18x18 Dual Stack Universal platform – upgrade kit (one 18x18 platform, screws, supporting rods)	<b>76311-674<sup>2</sup></b>	Solaris 2000
Thermo Scientific Solaris 18x24 Universal platform	<b>76311-676</b>	Solaris 2000
Thermo Scientific Solaris 18x30 Universal platform	<b>76311-678<sup>2</sup></b>	Solaris 4000
Thermo Scientific Solaris 18x30 Dual Stack Universal platform	<b>76311-680</b>	Solaris 4000
Thermo Scientific Solaris 18x30 Dual Stack Universal platform – upgrade kit (one 18x30 platform, screws, supporting rods)	<b>76311-682<sup>2</sup></b>	Solaris 4000
Thermo Scientific Solaris 36x24 Universal platform	<b>76311-684</b>	Solaris 4000
Clamp spare kit (screws)	<b>76311-686</b>	
Platform spare part kit for SK2000 (platform screws, tool, threadlocker)	<b>76311-688</b>	
Platform spare part kit for SK4000 (platform screws, tool, threadlocker)	<b>76311-690</b>	

<sup>1</sup>Maximum **speed** is dependent on **Load** and platform. Please see the manual for maximum **speed by weight** information.

<sup>2</sup>Please see the manual for additional information on speed and load limitation for dual stack platforms.



## Solaris Orbital Shakers 2000 and 4000 Accessories

Select a platform and clamp configuration that best meets your application. Whether you require a single vessel type and size to maximize capacity, or mix and match a variety of labware on a single platform, Solaris Orbital Shakers deliver the solution you need. Clamps are purchased separately.


We are continuously expanding our line of clamps and accessory offerings. Visit [vwr.com](http://vwr.com) for more information.

	VWR Cat. No.	12 x 14 Universal platform	18 x 18 Universal platform	18 x 24 Universal platform	18 x 30 Universal platform	36 x 24 Universal platform	12 x14 Dual Stack Universal platform	18 x 18 Dual Stack Universal platform	18 x 30 Dual Stack Universal platform
Microplate / Deep-well plate	<b>490014-162</b>	5	10	14	18	24	8	20	34
10 mL Erlenmeyer	<b>57019-670</b>	72	113	157	203	187	140	226	402
25 mL Erlenmeyer	<b>57019-672</b>	42	64	80	112	187	80	124	220
50 mL Erlenmeyer	<b>57019-674</b>	42	64	80	112	187	80	124	220
125 mL Erlenmeyer	<b>57019-676</b>	15	32	40	46	83	30	52	92
250 mL Erlenmeyer	<b>57019-678</b>	9	16	24	28	40	16	32	56
300 mL Erlenmeyer	<b>57019-680</b>	9	16	20	28	40	16	32	56
500 mL Erlenmeyer	<b>57019-682</b>	9	16	20	28	40	16	32	56
1 L Erlenmeyer	<b>57019-684</b>	4	9	10	14	20	8	16	28
2 L Erlenmeyer	<b>57019-686</b>	3	5	6	6	11	NA	NA	12
4 L Erlenmeyer	<b>57019-688</b>	1	4	4	6	8	NA	NA	NA
6 L Erlenmeyer	<b>57019-690</b>	1	2	2	3	6	NA	NA	NA
2800 mL Fernbach flask	<b>57019-696</b>	1	4	4	6	8	NA	NA	12
Low-form culture flask 2.5 L	<b>57019-692</b>	1	1	2	3	6	NA	NA	6
Flask clamp starter kit, includes (2) 125 mL flask clamps, (4) 250 mL flask clamps, (4) 500 mL flask clamps, (2) 1L flask clamps, (2) 2L flask clamps	<b>97040-488</b>	NA	NA	NA	NA	NA	NA	NA	NA
Adhesive mat 9 x 9 in.	<b>97007-248<sup>1</sup></b>	NA	NA	NA	NA	NA	NA	NA	NA
Adhesive mat 5.5 x 5.5 in.	<b>10753-678</b>	NA	NA	NA	NA	NA	NA	NA	NA
<b>Test tube racks – full size</b>									
10-13 mm, 6 x12 array	<b>80080-552</b>	3	7	10	14	20	6	13	26
14-16 mm, 6 x12 array	<b>80080-556<sup>3</sup></b>	3	4	6	9	12	6	8	16
17-20 mm, 4 x10 array	<b>80080-560</b>	3	5	7	9	15	6	8	18
21-25 mm, 4 x10 array	<b>80080-564</b>	2	3	5	7	9	4	6	13
26-30 mm, 3 x 8 array	<b>80080-558<sup>2</sup></b>	3	4	6	7	10	5	8	13
Microcentrifuge, 1.5 mL., blue, 8 x 12 array	<b>80080-572</b>	3	5	7	9	12	6	9	17
<b>Test tube racks – half size</b>									
10–13 mm, red, 6 x 6 array	<b>80080-554</b>	8	12	15	21	32	14	24	40
14–16 mm, orange, 6 x 6 array	<b>80080-558</b>	5	9	11	14	20	9	17	26
17–20 mm, white, 4 x 5 array	<b>80080-562</b>	7	11	14	18	20	13	21	34
21–25 mm, blue, 4 x 4 array	<b>80080-566</b>	6	9	11	14	22	10	17	25
26–30 mm, green, 3 x 3 array	<b>80080-570<sup>2</sup></b>	6	9	12	15	24	11	18	30
Microcentrifuge, 1.5mL, blue, 4 x 6 array	<b>80080-574</b>	6	10	13	18	24	11	19	34

<sup>1</sup>Can be cut to fit; reusable

<sup>2</sup>Fits 50 mL centrifuge tubes

<sup>3</sup>Fits 15 mL centrifuge tubes



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