

PRODUCT INSERT

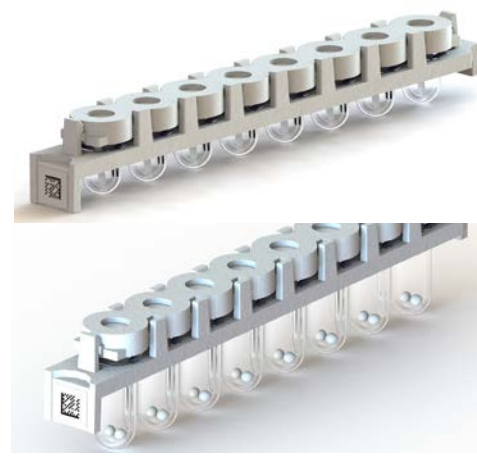


TITLE: Covaris 8 microTUBE Strip V2

Check our website for current protocols at <http://covaris.com/resources/>

Operating Limits and Conditions:

Temperature (Water bath)	4°C min – 25°C max	
Peak Incident Power	ME220: 75 W maximum	
	E-Series: 200 W maximum	
	LE220: 450 W maximum ⁽¹⁾	
Water level (FILL/RUN)	ME220:	Automatic
	E-Series:	Level 6 for microTUBE-15
		Level -2 for microTUBE-50
	L-Series:	Level 4 for microTUBE-15 Level -2 for microTUBE-50
Centrifuge	300 RCF maximum	



⁽¹⁾ As the Covaris LE220 processes multiple samples at a time, its PIP is distributed across microTUBEs and the power received by an individual microTUBE stays within the 200 W limit.

Ordering Information:

Name	Part Number
8 microTUBE-15 AFA Beads Strip V2 (12)	520159
8 microTUBE-15 AFA Beads Strip V2 Case (120)	520162
8 microTUBE-15 AFA Beads H Slit Strip V2 (12)	520241
8 microTUBE-15 AFA Beads H Slit Strip V2 Case (120)	520244
8 microTUBE-50 AFA Fiber Strip V2 (12)	520174
8 microTUBE-50 AFA Fiber Strip V2 Case (120)	520175
8 microTUBE-50 AFA Fiber H Slit Strip V2 (12)	520240
8 microTUBE-50 AFA Fiber H Slit Strip V2 Case (120)	520243

Product Name	8 microTUBE-15 AFA Beads Strip V2	8 microTUBE-50 AFA Fiber Strip V2
Part Number	520159 & 520241	520174 & 520240
Compatible volume	15 µl	55 µl
ME220	Rack 8 microTUBE Strip V2 PN 500518 and Waveguide PN 500526	
E220	Rack 12 Place 8 microTUBE Strip V2 <i>PN500444</i>	Rack 12 Place 8 microTUBE Strip V2 <i>PN500444</i> Intensifier PN 500141
E220 plate definition	"E220_500444 Rack 12 Place 8 microTUBE-15 Strip V2 -1.5mm offset"	"E220_500444 Rack 12 Place 8 microTUBE-50 Strip V2 -10mm offset"
E220 evolution	Rack E220e 8 microTUBE Strip V2 <i>PN 500437</i>	Rack E220e 8 microTUBE Strip V2 <i>PN 500437</i> Intensifier PN 500141
E220 evolution plate definition	"500437 E220e 8 microTUBE-15 Strip V2 -1.58mm offset"	"500437 E220e 8 microTUBE-50 Strip V2 -10mm offset"
LE220	Rack-LV 12 Place 8 microTUBE-15 V2 <i>PN500445</i>	Rack-XT 12 Place 8 microTUBE V2 <i>PN500485</i>
LE220 plate definition	"LE220_500445 Rack-LV 12 Place 8 microTUBE-15 Strip V2 -4mm offset.plt"	"LE220_500485 Rack-XT 12 Place 8 microTUBE-50 Strip V2 -12mm offset.plt"

NOTE: Use of this product requires a Well Plate Definition. If a plate definition is not present on your system or the plate definition does not correspond with your instrument part number, contact Covaris Technical Support (TechSupport@covaris.com) with your system serial number. A well plate definition will be provided.

In this package:

- Ready-to-use 8 microTUBE Strip V2 (12)

Notes:

- Complies with the ANSI/SBS-4 standard for 96 well microplates
- Designed for use with automated 1, 8, and 96 channel pipettes
- The 8 microTUBE Strip is not recommended for sample storage
- Recommended instructions are subject to change without notice

Revision History:

Part Number	Revision	Date	Description of change
010283	F	8/16	Addition of 8 microTUBE-50 AFA Fiber Strip V2 to Covaris E-series
010283	G	2/17	Addition of 8 microTUBE-15 AFA Beads H Slit Strip V2 & 8 microTUBE-50 AFA Fiber H Slit Strip V2
010283	H	Oct 2018	Correct typo on page 3 and change email/website from covarisinc to covaris.

Nominal Rack Dimensions:

Overall Rack height (top of tubes)	19.0 mm above mounting plane
Tube center-to-center spacing	9.0 mm (SBS standard pattern)
<i>Tube depth:</i>	
8 microTUBE-50 Strip	7.0 mm (bottom is 12.0 mm above mounting plane)
8 microTUBE-15 Strip	15.0 mm (bottom is 4.0 mm above mounting plane)
Interior clearance diameter	3.0 mm (maximum tip diameter 15 mm from end)

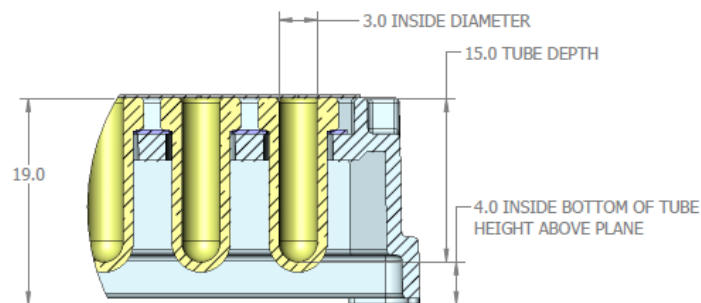


Figure - Dimensional drawing of 8 microTUBE-15 Strip PN 520159 in Rack PN 500444

NOTE: Store in a cool, dry place before use.

Recommended Pipette Tips:

To avoid binding against the tube interior when fully inserted into the microTUBE, use pipette tips that maintain a diameter no greater than 3 mm within 15 mm of their dispensing end. For easy pipetting of sample in a single step, we recommend using pipette tips with ribs (e.g., Hamilton 250 µl Ribbed Tip or Agilent Bravo 250 µl Tip). Otherwise, up to two pipetting steps with 50 µl tips may be necessary.

NOTE: 8 microTUBE H Slit Strip V2 have been optimized for compatibility with a broad range of pipette tips and are recommended for automated use.

Instructions for Use:

The 8 microTUBE Strip V2 is a ready-to-use sample processing device. The specially-designed glass tubes are optimized for use with Covaris Adaptive Focused Acoustics™ (AFA). Each strip is manufactured with an easy-to-pierce, pre-slit septum that prevents cross-contamination.

In order to ensure proper sample processing, the recommended sample volumes should be used. A narrow tip is recommended. If the tip diameter is too large for the 3 millimeter interior tube diameter, 50 µl tips may be used. The 8 microTUBE Strip V2 is designed for automation -- allowing multiple pipette heads to simultaneously pierce the septa; however, it may also be used with manual pipettes.

CAUTION: In automated liquid handling systems, friction between the 96 pipettes and septum may cause the Rack to lift off of the deck as pipettes are raised. A hold-down clamp for SBS plates is recommended.

Recommended Sequence for Automated Use:

1. Load required number of 8 microTUBE Strip V2 in processing rack

2. Fill the tubes:

Aspirate sample and dispense through the split septa. If the recommended sample and tube volume are nearly identical, you will need to take care that the pipette tip does not displace the sample as it is loaded. To avoid fluid displacement and bubble formation either, 1) extract the tip as the sample is dispensed, or 2) dispense slowly with the tip located just below the top of the tube.

3. Treat samples:

The rack is now ready to be processed in the Covaris Focused-ultrasonicator. Check our website for current protocols at <http://covaris.com/resources/>

4. Sample Aspiration:

After processing, the samples are ready to be aspirated. Samples should be aspirated as soon as is practical after treatment. Do not use the 8 microTUBE Strip for long term storage. Be careful not to displace the sample by inserting the tip directly to the bottom of the microTUBE. Air must also be allowed to enter the tube during sample withdrawal. Carefully pierce the septum and aspirate as you lower the tip into the tube, maintaining contact with the fluid to avoid aspirating air. You may have to raise the tip once or twice during aspiration to allow the tube to vent.

5. Centrifugation:

If necessary centrifugation is permitted (up to 300 g (RCF)). This is about 1200 RPM in a benchtop centrifuge with a swinging bucket rotor.

Removing or Installing the Intensifier (Covaris PN 500141) from an E-Series System

The 500141 Intensifier is a small inverted stainless steel cone centered over the E-Series transducer by four stainless steel wires. The wires are held in place by a black plastic ring pressed into the transducer well.

If an AFA protocol requires “no Intensifier”, please *remove the Intensifier* using the following steps:

1. Empty the water bath. Start the E-Series and SonoLab software.
2. Wait for the homing sequence to complete (the transducer will be lowered with the rack holder at its home position, allowing easy access to the Intensifier).
3. Grasp opposite sides of plastic ring and gently pull the entire assembly out of the transducer well. Do not pull on the steel cone or the wires. The ring is a friction fit into the well – no hardware is used to hold it in place.



The 500141 Intensifier (left) shown installed in the E System transducer well and (right) removed.

Note the “UP” marking at the center of the Intensifier.

If a protocol requires the Intensifier to be present, simply reverse this process:

1. Align the black plastic ring with the perimeter of the transducer well. Note that the flat side of the center cone (marked UP) should be facing up and away from the transducer.
2. Gently press each section of the ring into the well until the ring is seated uniformly in contact with the transducer, with approximately 2 mm of the ring evenly exposed above the transducer assembly. Do not press on the cone or wires. The rotation of the ring relative to the transducer assembly is not important.
3. Refill the tank. Degas and chill the water before proceeding.

Technical Assistance

- By telephone (+1 781-932-3959) during the hours of 9:00am to 5:00pm, Monday through Friday, United States Eastern Standard Time (EST) or Greenwich Mean Time (GMT) minus 05:00 hours
- By e-mail at techsupport@covaris.com