

INSTRUCTIONS FOR USE

MICROAIRE®

IMPACTOR REF 2500

Attention: See Instructions for Use. This unit is designed for Continuous Operation with Short-Time Loading.

CLEANING

Connect the air hose to the hand piece to keep soap and water out of the instrument. Scrub the handpiece and air hose with warm water, a brush, and a mild detergent. Scrub vigorously in the crevices. Rinse all items thoroughly with warm water (with the air hose connected). Disconnect the air hose and dry handpiece with a lint free towel and wrap for sterilization.

STERILIZATION

Gravity displacement system:

35 minute exposure @ 270°F (132°C)

8 minute drying cycle

Hi speed pre-vacuum system:

4 minute exposure @ 270°F (132°C)

8 minute drying cycle

Note: Sterilization contamination deposits are a major problem for power instruments. They are caused by minerals, pipe scaling, and boiler feedwater additives, etc. You may need a filter if your instruments acquire a dull film coating and fail to run properly after repeated autoclaving. Call our Customer Service Department for information.

POWER SUPPLY

Compressed nitrogen. The hand piece will run at any pressure between 35-110 p.s.i. Start at a relatively low pressure to gauge the power.

Note: Do not operate the instrument without a blade as that will damage the blade holding mechanism.

SPECIAL CAUTION NOTICE

When using the 2500 Impactor for cranial bone graft harvesting

1. Always examine both an A-P and lateral X-ray to estimate skull thickness. Ten percent of skulls have small areas where the inner and outer table comes together. These should be avoided.
2. Always have the full range of blades depths available. Half the reported perforations have occurred when the appropriate size blade was missing at the time of surgery.
3. Never harvest bone over a cranial suture. Perforations at a suture line can tear the dura because of its attachment at this point.
4. Before harvesting, make a series of parallel saw cuts through the outer table to the appropriate depth. These should be the width of the osteotome blade so that the blunt blade guards rest on the outer table to control the cutting depth, as well as the forward direction of the cut. Also use these saw cuts to inspect the thickness of the outer table before using the osteotome.

BLADE INSERTION

Loosen the locking collar by turning it to the designated **un-locked** position. Insert the blade until it stops. Turn the locking collar to the designated **locked** position. Use only MicroAire 2500 series Impactor blades.

PERIODIC MAINTENANCE

We recommend that the instrument be returned to our factory at 1 year intervals for inspection, lubrication, and replacement for any worn parts. There is no charge for this service during the warranty period.

CAUTION



DO NOT LUBRICATE



DO NOT IMMERSE

1. Return safety slide to "SAFE" after use.
2. Test the instrument at low throttle setting in order to avoid inadvertent excessive cutting.
3. Monitor nose temperature of instrument. Be continually alert for the possibility of overheating. Check the head/nose section at 15-30 second intervals. Retract or protect soft tissue from touching the instrument. Continuous irrigation of the blade tip with sterile water (not saline) is highly recommended. After cutting, do not rest the instrument against soft tissue before checking for heat.
4. If the instrument is used for cranial bone graft harvesting or rhinoplasty, review the special notices on the opposite side of this sheet.

1. Note that the osteotome blade will cut properly only when it is held at exactly the correct angle relative to the graft site. This can be found by undulating the handle (varying the angle). When the angle is too steep, the guards will prevent cutting. When the angle is too shallow, the blade will come up and out of the skull.
2. Note that the osteotome blade guards limit the depth penetration relative to the surface of the outer table. However, it is essential for the surgeon to continually monitor the cutting by feel, sound and visual inspection. A change in tone occurs as the blade approaches the inner table.
3. If heating of the handpiece occurs in harvesting hard adult skull, direct irrigation cooling of the hand piece should be used. If heating continues, discontinue use of the power handpiece and substitute a manual harvesting tool. Use the power handpiece only for the diploic layer.
4. After the harvesting is completed, round off the edges of the donor site with the power osteotome. Then seal the donor site with bone wax to prevent hematoma.

SPECIAL CAUTION NOTICE

When using the 2500 Impactor for Rhinoplasty

1. The air pressure determines the number of times the linear impulse motor impacts the cutting blade. The higher the air pressure, the greater the number of impacts which equates to the more quickly the blade cuts.
2. Proceed carefully and slowly to avoid excessive cutting.
3. Use the fingers of your free hand to palpate the tissue, and feel the blade position and progress of the cutting.
4. Turn off the power while pulling the tool back to prevent over-extending the cut.

2500 Micro Pneumatic Impactor						
Power output, vibration exposure, noise emission value and mass weight information						
Power Output kW - KiloWatts	Vibration Exposure		Noise Emission Value			Mass Weight (kg)
	a_{hv} (m/s ²)	Uncertainty K (m/s ²)	L_{PA} (dB(A))	$L_{C,peak}$ (dB(C))	L_{WA} (dB(A))	
0.04	19.6	1.5	79	-	-	0.27



MICROAIRE®

3590 GRAND FORKS BOULEVARD
 CHARLOTTESVILLE, VA 22911
 Phone: 800-722-0822 or 434-975-8000
 International Phone: +001-434-975-8000
 Order Fax: 800-648-4309 or 434-975-4131
 USA
www.microaire.com



MEDIMARK EUROPE
 11, RUE EMILE ZOLA BP2332
 F-38033 GRENOBLE CEDEX 2
 FRANCE

