

# PAL<sup>®</sup> System

Power-Assisted Liposuction

**MICROAIRE<sup>®</sup>**  
*For Surgery. For Life.<sup>™</sup>*

Power-Assisted Liposuction System

# Compare PAL to Traditional Liposuction

## Fast

Clinical studies comparing the PAL system to manual liposuction found that PAL aspirates 31% more volume per minute leading to a 35% reduction in procedure time.<sup>1</sup>

## Precise

PAL is proven to reduce surgeon fatigue by 49%, offering a safer and more precise procedure. These benefits result in superior outcomes and faster healing and recovery rates for patients.<sup>1</sup>

## Viable

The quality of PAL-harvested adipocytes has been shown to be similar to those harvested by manual liposuction; and PAL produces higher yields of loosely adherent stem cells, which may improve graft retention.<sup>2,3,4</sup>

Before

After

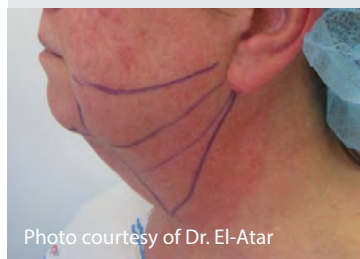


Photo courtesy of Dr. El-Atar



Photo courtesy of David Kaufman, MD



Photo courtesy of Dr. El-Atar

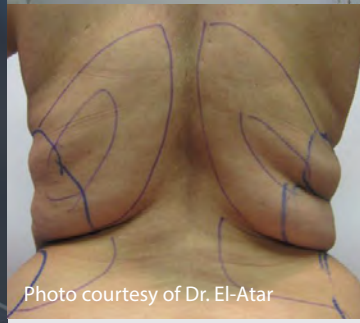


Photo courtesy of Dr. El-Atar



*"It's dramatic how much better patients feel, how much more effectively we can treat them, how much more satisfied they are, and how far superior the results are compared to [traditional liposuction]."*

- Dr. Gerhard Sattler

# PAL<sup>®</sup> Power-Assisted Liposuction System

## PAL Powered Handpiece | PAL-650

The PAL-650 from MicroAire<sup>®</sup> is a powerful, precision instrument designed for small- or large-volume fat extraction, body contouring and fat harvesting.

PAL's smooth reciprocating cannulas glide through tissue, reducing the amount of physical effort required during liposuction, thus reducing O.R. time.<sup>1</sup>

Reciprocation increases control, helping the surgeon gently guide the cannula with greater accuracy, even through dense fibrous tissue. The result is a faster procedure, less fatigue and more precise outcomes.<sup>1</sup>



## PAL Cannulas

Small variations in the number of ports, as well as their size and location on the cannula, can have a significant impact on performance and outcomes. MicroAire has developed several port configurations based on clinical studies and surgeon feedback.



See the complete listing of PAL Cannulas in the PAL Cannula Brochure online at [www.microaire.com](http://www.microaire.com).



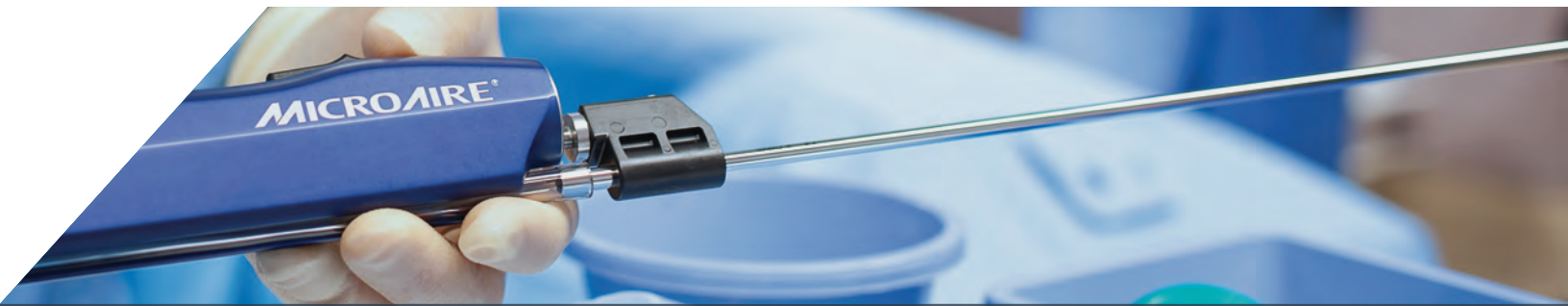
Simple touch-screen interface

### MicroAire Standard Electric Console | 5020

Weight	14 lbs (6.35 kg)
Height	6" (15.24 cm)
Footprint	12"x 14" (30.48 cm x 35.56 cm)
Electrical	300 W, 100-240 V, 50/60 Hz

Controls two PAL handpieces at once

PAL is the most widely used and *preferred* alternative to manual liposuction.<sup>5</sup>



Less Bruising and Swelling<sup>1</sup>

Reduced Surgeon Fatigue<sup>1</sup>

Faster Procedure and Patient Recovery<sup>1</sup>

Proven Cell Viability<sup>2,3,4</sup>



## PAL Accessories

### PAL LipoTower® (USA Only) | ASP-1021

- Powerful surgical cart used for tumescent liposuction
- Strong, reliable pumps for both infiltration and aspiration
- Touchscreen interface and optional integrated PAL control system
- The only UL®-listed liposuction cart on the market

Vacuum Pump	Dual 1/4-Horsepower, Rotary Vane
Vacuum Flow Rate	3.0 SCFM (0.08 m3/min)
Vacuum Pressure	0–29 in/Hg (0–736 mm/Hg) at Sea Level
Infiltration Pump	Peristaltic
Infiltration Flow Rate	50–600 ml/min
Weight	185 lbs (84 kg)
Height	4' (1.2 m) pole down 7' (2.1 m) pole extended
Footprint	2' x 2' (0.6 m x 0.6 m)
Electrical	120 V, 60 Hz (UL-Listed)



### LipoFilter®

#### Gravity-Decant Fat Processing System |

ASP-CAN-2S (Includes 60cc Toomey Syringe)

ASP-CAN-NT (Syringe Not Included)

- Three-liter fat harvesting and separation system
- Large-volume decanting and washing
- No centrifuge needed
- Works with any lipo system
- Sterile-packed, single-use



### PAL Wand | PAL-730

- Ergonomic manual handpiece for sensitive areas (such as the neck and back)
- Compatible with all PAL cannulas

# Ordering Information

## PAL Component Part Numbers

<b>PAL-650</b>	PAL Powered Handpiece
<b>5006-PAL</b>	PAL Cable (for use with the 5020 console)
<b>5020</b>	PAL Electric Console

## PAL Accessories Part Numbers

<b>CAP-600E</b>	PAL Washer Disinfectant Cap
<b>PAL-730</b>	PAL Wand Manual Handpiece
<b>PAL-1200</b>	PAL 12 ft (3.66 m) Aspiration Tubing (5PK)
<b>ASP-1021</b>	LipoTower® (USA only)
<b>ASP-CAN-2S</b>	LipoFilter® (Toomey Syringe Included)
<b>ASP-CAN-NT</b>	LipoFilter® (Syringe Not Included)
<b>ASP-ADP-2</b>	Adapter — Toomey-to-Luer Syringe
<b>ASP-ADP-3</b>	Adapter — Toomey-to-Luer Needle

Learn more about our products, including PAL Cannulas, LipoFilter and the LipoTower, on [www.microaire.com](http://www.microaire.com).

To order, call toll free **800·722·0822**

1. Katz BE, Bruck MC, Coleman WP. The Benefits of Powered Liposuction Versus Traditional Liposuction: A Paired Comparison Analysis. 2001. *Dermatol Surg*; 27:863-967.
2. Keck M, Kober J, Riedl O, Kitzinger HB, Wolf S, Stulnig TM, Zeyda M, Gugerell A. Power Assisted Liposuction to Obtain Adipose-derived Stem Cells: Impact on Viability and Differentiation to Adipocytes in Comparison to Manual Aspiration. *J Plast Reconstr Aesthet Surg*. 2014 Jan;67(1):e1-8. doi: 10.1016/j.bjps.2013.08.019. Epub 2013 Sep 3.
3. Cytori Commissioned Study, Evaluation of MicroAire Tissue Collection Method on Adipose Tissue and ADRCs. 2011.
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5. Ahmad J, Eaves FF 3rd, Rohrich RJ, Kenkel JM. The American Society for Aesthetic Plastic Surgery (ASAPS) Survey: Current Trends in Liposuction. *Aesthet Surg J*. 2011 Feb;31(2):214-24. doi: 10.1177/1090820X10395508.

**MICROAIRE®**  
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Berkshire Hathaway  
Company