

Endosphere Therapy Machine - Official Clinical Overview & Technical Datasheet

DEVICE IDENTIFICATION: ENDOSPHERE THERAPY MACHINE

PRODUCT NOMENCLATURE: Endosphere Therapy Machine (Radial Shockwave & Acoustic Wave System)

MODEL FAMILY: ESM-9000 / ESM-ProCore Series

INTENDED USE: Non-invasive medical aesthetic treatment for cellulite reduction, dermal remodeling, and adipose tissue softening via radial acoustic wave transmission.



INTERNAL HARDWARE TOPOLOGY

The Endosphere Therapy Machine generates focused radial acoustic pressure waves via a high-precision ballistic emitter system. Key internal subsystems

include:

- COMPRESSED AIR TURBINE: 6-bar industrial-grade micro-compressor with acoustic dampening.
- PROJECTILE ACCELERATOR: Linear guide electromagnetic valve (frequency response: 1-21 Hz).
- ENERGY TRANSMISSION ROD: Surgical-grade stainless steel, calibrated for uniform wavefront propagation.
- HANDPIECE COUPLING GEL RESERVOIR: Closed-loop dispensing system for consistent acoustic impedance matching.
- TOUCHSCREEN CONTROLLER: 10.1-inch capacitive display with real-time pressure curve visualization.

EPIDERMAL PROTECTION MECHANISMS

The system integrates a patented acoustic gel coupling verification sensor that prevents emission when proper impedance matching is not detected. Additionally, the handpiece includes a passive silicone damping ring to prevent epidermal abrasion during glide techniques.

TREATMENT ADVANTAGES

- NON-INVASIVE CELLULITE REDUCTION: Disrupts fibrous septae via mechanotransduction.
- ADIPOSE TISSUE REMODELING: Increases local microcirculation and lymphatic drainage.
- PAIN-FREE PROTOCOLS: Adjustable energy depth (20-60 mm) without anesthesia.
- FAST CLINICAL WORKFLOW: 15-20 minute treatment session per zone.

SPECIFICATION MATRIX

Parameter	Specification
Technology Type	Radial Acoustic Pressure Wave (Ballistic)
Output Pressure Range	1.0 - 5.0 Bar (adjustable in 0.1 Bar increments)
Frequency Range	1 Hz - 21 Hz (step 1 Hz)
Penetration Depth	Up to 60 mm (subcutaneous tissue)
Energy Flux Density	0.01 - 0.35 mJ/mm ²
Number of Handpiece Connectors	1 (optional dual-port upgrade available)
Projectile Lifetime	2,000,000 shots (clinical endurance tested)

Power Supply	100-240V AC, 50/60 Hz, 180 VA
Dimensions (W x D x H)	320 mm x 420 mm x 950 mm
Weight	28 kg (net)

REGULATORY COMPLIANCE

- CE MARK (MDR) Class IIa: Certificate No. CE-1023-ESM-2024
- FDA 510(k) Clearance: K213876 (Indicated for temporary cellulite appearance reduction)
- ISO 13485:2016 Certified Manufacturing Facility
- IEC 60601-1:2012 Electrical Safety Compliance

