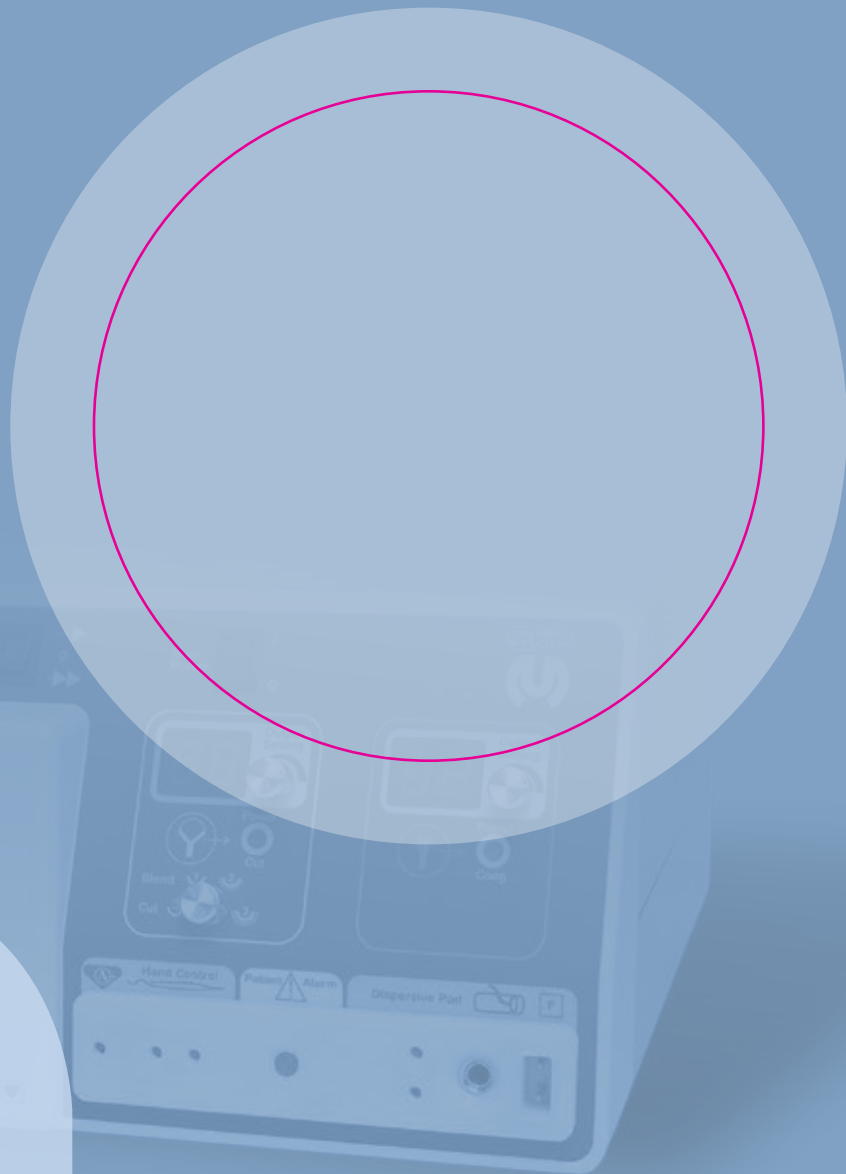


EXCELLENT HISTOPATHOLOGY  
SMALL FOOTPRINT  
PROVEN DURABILITY

The Optimal  
Loop Excision  
*Still* Requires  
**FINESSE<sup>®</sup>**

Introducing the new  
**FINESSE+ SYSTEM**



UTAH MEDICAL PRODUCTS, INC.

FEMCARE



## NEW GENERATION FINESSE+ SYSTEMS DESIGNED FOR SUPERIOR LETZ® RESULTS

*FINESSE+ and FINESSE II+ Systems have been redesigned to meet the rigorous performance and safety standards now required for electrosurgery.*

### Controlled Output Circuitry+

Utah Medical Products, Inc's (UTMD's) electrosurgical experience and research into tissue effects during loop electrosurgery have resulted in an upgrade to system design. FINESSE+ and FINESSE II+ incorporate Controlled Output Circuitry+ to produce a tissue specimen for conclusive histopathology. Controlled Output Circuitry+ is UTMD's advancement of "intelligent cut" circuitry that maintains the output within a prescribed cutting range by continuously monitoring and adjusting the output to produce a specimen with minimal thermal damage at the margins. This also eliminates any need to adjust the output setting when changing loop sizes.

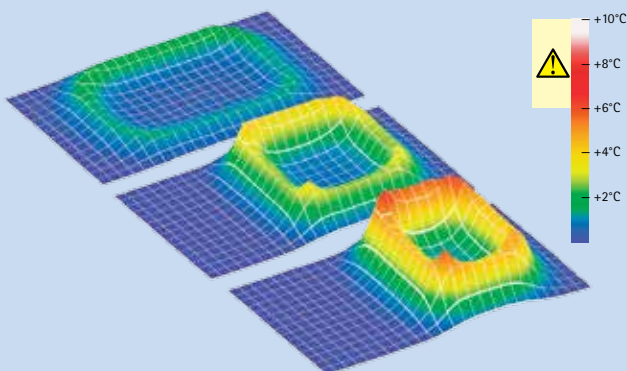
Controlled Output Circuitry+ is a three-tier output delivery and monitoring approach:

**Tier 1:** A microprocessor and specialized electronics continuously monitor the output, adjusting for smooth, char-free cutting.

**Tier 2:** The microprocessor compares the output to mathematically-defined reference curves<sup>1</sup>, and further adjusts the output as necessary to ensure that safe output levels are maintained.

**Tier 3:** In the event that output cannot be adjusted to satisfy the reference curves, output is disabled and an error is displayed.

### PATIENT SAFETY: PREVENTING PAD SITE BURNS WITH FinCQM



To help prevent skin burns to patients during electrosurgical procedures, the global electrosurgical safety standard mandates a 6°C limit on temperature rise beneath a dispersive pad<sup>3</sup>. Thermography tests certify that the FINESSE+ and FINESSE II+ FinCQM system safely shuts down output well before pad site burns can occur. The top image shows a maximum temperature rise of 2.2°C for a fully attached dispersive pad. As the pad peels laterally away from the patient's skin, the FinCQM system will detect an error condition. In the most extreme condition allowed by FinCQM, the maximum temperature rise detected is 4.4°C (center image). Without FinCQM (bottom), continued pad separation results in significant skin heating, which likely causes a serious patient burn.

### Integrated Smoke Evacuation

The FINESSE+ and FINESSE II+ Systems utilize a design that integrates the electrosurgical generator and smoke evacuation system into a single compact unit. This allows placement in operating areas with limited space. It also allows simultaneous "single switch" activation of both modules by either the handswitch control pen or footswitch.

FINESSE+ and FINESSE II+ use a three-stage filtration system to evacuate and filter the smoke plume produced during electrosurgery. The filtration system includes an activated charcoal filter which adsorbs odorous gases, and two high-efficiency particulate filters which remove solid particles and aerosols, particularly helpful for smaller offices. The system has a minimum efficiency of 99.999% for 0.1 micron particles.

### Dispersive Pad Contact Quality Monitoring (FinCQM™)

UTMD's FinCQM circuit design adjusts to skin type variations and was validated to detect partial pad detachment before a pad site burn can occur. Output is automatically disabled and an error is displayed with separation of approximately 30% of the pad surface<sup>2</sup>.

### Enhanced Logic Integration

Output waveforms and a majority of logic functions are hard-coded into a microprocessor-linked complex programmable logic device (CPLD). Reliability of the FINESSE+ and FINESSE II+ systems is enhanced by minimizing component usage.

## FINESSE+

Finesse+ is a versatile electrosurgical system with variable output and mode controls. Finesse+ provides excellent clinical results for a broad range of procedures, but still excels at yielding the best possible results for LETZ excisions.

Voltage Option: 115 VAC\* 230 VAC\*\*

FIN-110 FIN-220



## FINESSE II+

Finesse II+ is designed to provide intact cervical specimens with clean margins, allowing conclusive histopathology results for LETZ. There are no front panel adjustments necessary, making Finesse II+ operation as effective as possible.

Voltage Option: 115 VAC\* 230 VAC\*\*

FIN2-110 FIN2-220



## AND MORE...

Selection of a Finesse+ or Finesse II+ system is a wise long-term investment:

- UTMD's Finesse systems have been known for excellent longevity.
- Extended warranty program covers all service, maintenance and the free use of loaner systems.

1 ANSI/AAMI/IEC 60601-2-2:2009, §201.12.4.4.101

2 when using a pad certified for the Finesse+/Finesse II+

3 ANSI/AAMI/IEC 60601-2-2:2009, §201.15.101.5; skin temperature rise after 700mA is applied for 60 seconds.

\* North America \*\* Europe, Australia, New Zealand

## COMMON SPECIFICATIONS

**Dimensions:** 14.0" W x 14.7" D x 7.3" H, 24 lbs.  
(35.6cm x 37.3cm x 18.5cm, 11 kg)

### Error Indicators and Safety Interlocks:

CQM System	Unacceptable pad peel Pad contact out of range
Pad Status	Pad not connected to system Pad type mismatch
Output Monitor	Hazardous output power limit Output current limiting circuit
Cross-Key	Simultaneous Cut/Coag activation
Mode Change	Mode change during activation (FINESSE+)
Power Adjust	Control lockout during activation (FINESSE+)

### Dispersive Pads:

**Compatible Types** Auto-detects and displays pad type:  
Dual (CQM) or Standard

**CQM Circuit** Initial threshold detect, with threshold  
auto-adjust with improved contact.  
10-130 ohms operating range

**Activation:** Handswitch, Footswitch

### Standards Compliance:

IEC 60601-1 (3<sup>rd</sup> ed) + 60601-2-2 (5<sup>th</sup> ed) (electromedical safety)  
IEC 60601-1-2 (electromagnetic compatibility)  
230 VAC systems comply with 93/42/EEC + 2007/47/EC  
(EU Medical Device Directive) and are CE Marked

## FINESSE+

### Electrical Output:

Frequency	450kHz
Cut/Blend Power	6-99 Watts @ 500 Ohm load
Cut Mode	Continuous Sinusoid
Blend 1 Mode	Interrupted Sinusoid, 62.5% Duty Cycle
Blend 2 Mode	Interrupted Sinusoid, 50% Duty Cycle
Blend 3 Mode	Interrupted Sinusoid, 37.5% Duty Cycle
Coag Power	6-75 Watts @ 500 Ohm load
Coag Voltage	2,400 Volts zero-to-peak max (open circuit)

### Smoke Evacuation:

Flow Rate	Normal >70 liters/min (2.5 CFM) High >100 liters/min (3.5 CFM)
Efficiency	>99.999% at 0.1 microns

## FINESSE II+

### Electrical Output:

Frequency	450kHz
Cut Power	65 Watts @ 500 Ohm load
Cut Mode	Blended Cut Interrupted Sinusoid, 62.5% Duty Cycle
Coag Power	60 Watts @ 500 Ohm load
Coag Voltage	2,180 Volts zero-to-peak max (open circuit)

### Smoke Evacuation:

Flow Rate	>80 liters/min (2.8 CFM)
Efficiency	>99.999% at 0.1 microns



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FEMCARE



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