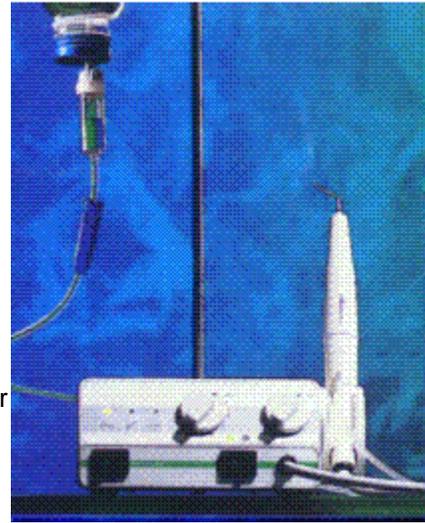


55-08 Suprasson P-Max Ultrasonic Scaler (Project 97-08) (9/98)

The Suprasson P-Max (piezoelectric) Ultrasonic Scaler has been designed by its manufacturer for scaling, endodontic, and periodontal treatment. It is equipped to deliver both dental unit water and sterile water/solutions for irrigation. The metal-bodied unit is compact and features a detachable handpiece constructed of autoclavable plastic, titanium, and steel. The P-Max allows for sterile irrigation via an external pump and disposable irrigation lines. The irrigation line is fed from a sterile source and is routed through the Steripump on the back of the unit. The Steripump is a cassette-style peristaltic pump that provides full flow rate control and unidirectional flow of irrigation fluids. From the pump, the irrigation line travels externally to the Sterijoint, which is a connector located between the detachable handpiece and handpiece cord. This autoclavable piece ensures the sterility of the solution delivered through the handpiece to the patient's mouth. Dental unit water is fed through the rear of the ultrasonic unit and is transported within the handpiece hose for scaling when sterile water is not required. Because the P-Max is indicated for scaling, endodontic, and periodontic use, there are a variety of specialized tips available for each application. The tips screw onto the handpiece and moderately tightened with a corresponding wrench that is supplied with the unit. The control panel features an on/off switch, power adjustment knob, pump/stop/solenoid selector switch with indicator, spray adjustment knob, and range selection membrane touch pad with lighted indicators. A dual-switch foot control is used to provide three functions. The right switch triggers the ultrasonic action of the unit. The left switch activates the maximum pump flow that is set from the control panel. Simultaneous action of both switches yields both ultrasonic action and irrigation. The unit measures 2.8 inches high by 10 inches long by 6.64 inches wide and has a shipping weight of 9.5 pounds. The Suprasson P-Max Ultrasonic Scaler is configured for 85 to 264 volts, 50/60 Hz, and is CE marked.



Manufacturer:

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ZI du Phare
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(33) 56 47 85 52 FAX

Source:

American Medical and Dental Corporation
1236 Brace Rd, Unit B
Cherry Hill, NJ 08034
(609) 429-8297
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Suggested Retail Price:

\$2,399.00 Includes dual switch foot control, three irrigation lines and rubber stoppers, detachable power cord, glass irrigation bottle with holder, support bracket and hanger for irrigation bottle, Sterijoint, autoclavable handpiece, S1 or S10 tip, and universal tip wrench.

Government Price:

\$1,999.00 Same as above.

ADVANTAGES:

- + Delivers dental unit or sterile water.
- + Lightweight, portable unit.
- + Features three modes; endodontic, periodontal, and prophylaxis.
- + Easy to clean and disinfect.
- + Autoclavable handpiece.
- + Uses disposable tubing for sterile delivery, eliminating possible waterline contamination.
- + Touch pad sealed for ease of disinfection.
- + Five-year warranty on unit, two-years on autoclavable handpiece.
- + CE marked, IEC 601 electrical certification.

DISADVANTAGES:

- Foot control is not sealed from liquids.
- Unit (as provided) did not meet AFI 44-201 and 44-203 (NFPA 99-7, UL 544, IEC 601) electrical safety standards for ground resistance and case leakage for electrical items in patient care areas.
- Operation, installation, and maintenance manuals lacked detailed schematics and were difficult to follow.
- Unit not hardwired and lacks a hospital-grade safety plug.
- Found by evaluators to be unsuitable for periodontal use due to a lack of power. - Unit is priced higher than other ultrasonic units.

SUMMARY AND CONCLUSIONS:

The Suprasson P-Max Ultrasonic Scaler is purported to be well suited for periodontal, endodontic, and prophylaxis treatment, but failed to meet a number of military specifications for medical equipment. The delivery of sterile irrigating solution to the working field was found to be the primary benefit of this unit. Endodontic providers liked the P-Max because of its light weight, portability, and overall effectiveness. The clinical evaluators also found the unit easy to clean and maintain. All of the endodontic clinical evaluators rated the P-Max as "Excellent." Periodontal evaluators disliked the scaler because of a lack of power, and rated the P-Max as "Poor" and "Unsatisfactory." Changing of ultrasonic tips and files was determined to be labor intensive by both groups, especially during patient treatment. The evaluation unit tested by DIS did not meet AFI 44-201 and 44-203 (NFPA 99-7, UL 544, IEC 601) electrical safety standards for ground resistance and case leakage for use in patient care areas. In addition, it lacked a suitable hospital-grade safety plug. DIS received written correspondence from the manufacturer prior to the publication of this report that all discrepancies have been corrected concerning the electrical safety standards. The manufacturer claims additional changes to the manufacturing process and guarantees that all government orders will come with a sealed foot control and hospital-grade safety plug. However, DIS has not confirmed the changes with in-house testing. The **Suprasson P-Max** Ultrasonic Scaler, as provided to DIS for evaluation, is rated **Marginal** for use by the federal dental services.