

58-21 Pelton & Crane Spirit 2000 Ellipse Dental Unit (Project 98-54) (2/00)

The Pelton & Crane Spirit 2000 Ellipse Dental Unit Model 2120 is an over-the-patient, chair-mounted, dental operating system, which is compatible with the Pelton & Crane Model 2005 chair with ellipse mounting hardware. The control head is capable of supporting up to four air-driven handpieces and has a hinged panel to allow access to handpiece air adjustments, the fiber optic power supply, and to the control block for maintenance. An optional sealed touch pad control that mounts on the control head is available for controlling the dental chair and dental light functions. Other options include: a multi-position die-cast tray holder with stainless tray that provides 360 degrees of positioning, a self-contained water system, a circulating syringe and water heater, and the assistant's telescoping arm that can include high volume evacuation, saliva ejector and air water syringe. An intraoral light system is available and can be configured to accommodate up to three handpieces. The intraoral light system can be ordered in the standard, swivel quick-connect, or ISO-C light source tubing configurations. Right- to left-hand conversion is easily accomplished without tools. The Spirit 2000 is also available with the Continental (ie buggy whip) delivery system as well as a post-mounted utility center that includes a cup filler and a porcelain cuspidor. The unit's painted finish is power coated for durability and its smooth surfaces and rounded corners make cleanup easy. It has a 24-volt power supply that can support optional items such as a dental light, curing light and ultrasonic scaler. The 2000 Ellipse Dental Unit is ETL listed and complies with UL2601-1 and CSA standards. It is available in either 115-Volt or 230-volt AC.

Manufacturer:

Pelton & Crane
11727 Fruehauf Drive
P. O. Box 7800
Charlotte, NC 28241-7800
(800) 659-6560
(704) 588-2126
(704) 588-6543 FAX

Suggested Retail Price:

Spirit 2000 Model 2120 \$4,235.00

Factory options:

- Touch pad control 425.00
- Multi-position tray holder 135.00
- Multi-tap transformer, 300 watts 250.00
- Handpiece intraoral illumination system 820.00
- Additional handpiece control 250.00
- Ellipse assistant's instrumentation 795.00
- Assistant's autoclavable syringe 130.00
- Self-contained water system 115.00
- Circulating syringe and water system 180.00
- LFII Ellipse light on curved post 1900.00

Government Price:

Spirit 2000 Model 2120 Currently being negotiated.

ADVANTAGES:

- + Smooth, rounded aseptic design.
- + Durable power-coated finish.
- + Touch pad control available for the chair and light functions.
- + Has individual handpiece drive air and water adjustments.
- + Easy right-hand to left-hand conversion.
- + Hinged panel allows easy access for air adjustments and control block servicing.

- + Ability to flush an individual handpiece or all the handpieces at the same time.
- + Eight-conductor accessory wire allows field installation of optional devices.

DISADVANTAGES:

- The unit control head is difficult to position because of the stiffness of its mounting.
- The arm that mounts the unit to the chair interferes with the patient's feet when positioning the unit.
- Fiber optic lamp assembly adapter fits loosely in handpiece connection, may be dislodged while removing high-speed handpiece.
- The handpiece pressure gauge is not visible during normal operation.
- Handpiece holders do not securely hold the dental handpieces.
- Lamp intensity on fiber optics is not adjustable.
- The connection of the handpiece foot controller was omitted from the installation instructions.

SUMMARY AND CONCLUSIONS:

The Pelton & Crane Spirit 2000 Ellipse Dental Unit met all of the laboratory testing requirements of ADA Specification #47 and passed all NFPA 99 requirements but did not meet all the requirements of the Medical Procurement Item Description #2. Difficulty in positioning the unit control head along with some operational design problems earned the unit poor ratings from the clinical evaluators. Of the seven evaluators, one awarded it an overall rating of "Good", two rated it "Average", and four rated it "Poor". The **Pelton & Crane Spirit 2000 Ellipse Dental Unit** is rated **Marginal** for use by the federal dental services.

UPDATE For updated information on this product, [click here](#).

59-25 Pelton & Crane Spirit 2000 Ellipse Dental Unit (Improved Version) (Project 99-50)

The Pelton & Crane Spirit 2000 Ellipse Dental Unit, Model 2120 (Improved Version) is an over-the-patient, chair-mounted, dental operating system that is compatible with the Pelton & Crane Model 2005 chair with ellipse mounting hardware. **The "Improved" Version of the unit refers to those with a serial number of 1077 or higher.** In a previous evaluation of the Spirit 2000 (DIS 58-21), DIS rated the unit "Marginal." Pelton & Crane has claimed that the deficiencies noted in the original evaluation have been corrected. As a result, DIS agreed to re-evaluate the 2000 to determine its acceptability for use in federal dental facilities. The control head is capable of supporting up to four air-driven handpieces and has a hinged panel to allow access to handpiece air adjustments, the fiber-optic power supply, and to the control block for maintenance. An optional, sealed, touch pad that mounts on the control head is available for controlling the dental chair and dental light. Other options include: a multi-position die-cast tray holder with stainless tray that provides 360 degrees of positioning, a self-contained water system, and a circulating syringe and water heater. An assistant's telescoping arm is also available that can include high volume evacuation, saliva ejector and air/water syringe. A fiber-optic handpiece light system is available and can be configured to accommodate up to three handpieces. The fiber-optic system can be ordered in the standard, swivel quick-connect, or ISO-C light source tubing configurations. Pelton & Crane claims that it is easy to convert the unit from right-hand to left-hand use without tools. The Spirit 2000 is also available with the European-style (i.e., buggy-whip) delivery system as well as a post-mounted utility center that includes a cup filler and a porcelain cuspidor. The unit's painted finish is powder coated for durability and its smooth surfaces and rounded corners are said to make clean-up easy. It has a 24-volt power supply that can support optional items such as a dental light, curing light, air abrasion device, and an ultrasonic scaler. The Spirit 2000 Ellipse Dental Unit is ETL listed and complies with UL2601-1 and CSA standards. It is available in either 115-volt or 230-volt AC.



Manufacturer:

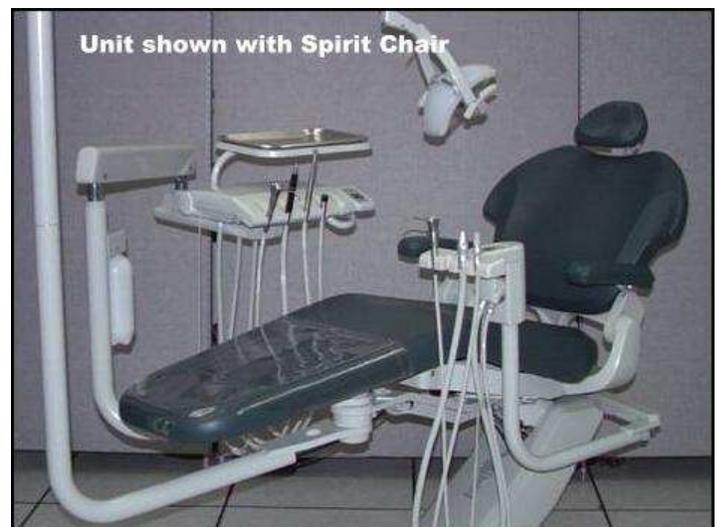
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Suggested Retail Price:

Spirit 2000 Model 2120 \$4,235.00

Factory options:

- Touch pad control \$425.00
- Multi-position tray holder \$135.00
- Multi-tap transformer, 300 watts \$250.00
- Fiber-optic handpiece light system \$820.00
- Additional handpiece control \$250.00
- Ellipse assistant's instrumentation \$795.00
- Assistant's autoclavable syringe \$130.00
- Self-contained water system \$115.00
- Circulating syringe and water system \$180.00
- LFII Ellipse light on curved post \$1900.00



Government Price:

Spirit 2000 Model 2120 Currently being negotiated

ADVANTAGES:

- + Smooth, rounded, aseptic design.
- + Durable powder-coated finish.
- + Unit and assistant touch pad controls (along with a foot control) are available to control the chair and dental light.
- + Features individual handpiece drive-air and water adjustments.
- + Easy to convert from right-hand to left-hand use.
- + Hinged panel allows easy access for adjusting air pressure and servicing the control block.
- + Can flush one handpiece individually or all the handpieces at the same time.
- + Has a quick-release, twist-lock disconnect for removing the air/water syringe.
- + Eight-conductor accessory wire allows field installation of optional devices.
- + Designed with an opening in the control head for the installation of an optional air abrasion unit

DISADVANTAGES:

- Handpiece holder is fabricated from material that grips handpieces too tightly and makes their removal difficult.
- Adapter for fiber-optic lamp assembly fits loosely in the handpiece connection; may be dislodged when removing high-speed handpiece.
- The handpiece pressure gauge is not visible during normal operation.
- Lamp intensity on fiber optics is not adjustable.

SUMMARY AND CONCLUSIONS:

The Pelton & Crane Spirit 2000 Ellipse Dental Unit (Improved Version) met all of the laboratory testing requirements of ADA Specification #47 and NFPA 99 and met most of the checklist items of the Medical Procurement Item Description #2. The dental unit has been upgraded with over a dozen improvements from a previous version that was evaluated by DIS. The upgraded version has new hardware for mounting the dental unit and dental light to the chair that results in better clearance and overall placement of these components. The unit has a new combination air brake and unit assist handle and a features a twist-lock quick release for removing the air/water syringe. A touch pad for controlling the chair and light was added to the assistant's unit along with 360-degree swiveling tubing connectors for the HVAC and saliva ejector. Pelton & Crane has significantly improved the overall quality of this unit. The **Pelton & Crane Spirit 2000 Ellipse Dental Unit ("Improved" Version, i.e., those with a serial number of 1077 or higher)** is rated **Acceptable** for use by the federal dental services.