

Spirit 1801 Dental Chair (Pelton & Crane) (Project #08-07) (04/09)



The Pelton & Crane Spirit 1801 Dental Chair is a cantilever based hydraulic dental chair with a "Traditional" back design and "Advanced Comfort" plush upholstery intended to provide optimal provider access and comfort for the dental patient. The "Traditional" back design has a wider base with wings that are designed to provide posterior patient arm support. The "Traditional" design is also offered in an "Asepsis" upholstery (Model 1802) which removes several grooves/seams from the upholstery. The chair is available with a "Narrow" back design with both types of upholstery (Models 1803 and 1804). The narrower back design has no wings, but has arm slings which attach from the chair back to the arm rest for patient arm support and stability. Features include a programmable two-position foot switch, double articulating headrest, and swing out arm rests. The chair provides a rotational swivel of 60 degrees with a positive lock rotational brake. The manufacturer states that a cantilever safety plate feature automatically stops the chair from lowering if resistance is encountered. The base of the seat adjusts between 10 – 23.5 inches from the floor. The model 1801 is part of Pelton & Crane's "mid-priced" Spirit 1800 series that replaced their 1500 series models. The 1800 series feature a five-year parts warranty and a one-year warranty on the upholstery. Upholstery material options include Standard or Ultraleather™ with 26 available colors. Pelton & Crane also offers Ergosoothe™ massage technology as an option for their dental chairs. This feature was not evaluated. The dental chair can be ordered as either 115VAC 50/60 HZ or 230VAC 50/60 HZ.



Manufacturer:

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Suggested Retail Price:

\$7,145.00 Pelton & Crane 1801 Dental Chair (footswitch included)

Government Price:

\$4,287.25 Pelton & Crane 1801 Dental Chair (footswitch included)

ADVANTAGES:

- + Less expensive dental chair alternative
- + Double articulating headrest includes one-handed adjustment
- + Stable in all operating positions
- + Easy left-to-right conversion
- + Clinicians stated that patients reported the chair to be comfortable
- + Meets military specifications for dental patient chairs
- + Straightforward assembly
- + Well-written, easy to use instructions/operator's manual
- + Five-year limited warranty

DISADVANTAGES:

- Several evaluators indicated the chair back was too wide and bulky for ideal access

SUMMARY AND CONCLUSIONS:

The Spirit 1801 Dental Chair is esthetic with smooth contours and displayed consistent and reliable function throughout the laboratory evaluation. The chair was easy to assemble and documentation was clear and complete. Overall, the chair was rated satisfactorily during clinical testing, however the "Traditional" design/option of the backrest as tested may be too wide and bulky for some providers. Other Spirit 1800 series options (Models 1803 and 1804), offer a "Narrow" chair back design which eliminates the wider "wings" at the base of the "Traditional" design, which are present to support the back of patient arms when reclined. The "Narrow" model design adds arm slings which attach from the chair back to the arm rest and may be more favorable for dental chairs used for intravenous sedation when the stability of the patient's arm is more important. All clinical evaluators agreed that the length of the chair and upholstery were adequate for patient comfort and all but one agreed that the width of the chair's backrest provided patient comfort. Eight out of ten evaluators said that they would not buy this dental chair for their clinic. However, 50% of the evaluators rated the Pelton & Crane 1801 Chair as "Acceptable" (4/10) or "Excellent" (1/10). Four rated the chair as "Marginal" and one rated the chair "Unacceptable". Comments from those rating the chair more unfavorably centered on accessibility to the patient. Other negative comments were related to dental unit function rather than dental chair function (ease of handpiece placement/removal, easily detachable vacuum hose/three-way syringe holder/housing and assistant utility arm design). While these issues are not directly related to the dental chair, they will be addressed in the evaluation report for the Pelton and Crane 3120 Delivery Unit. They are mentioned in this report to disclose that evaluator ratings of the chair may have been influenced by the concurrent evaluation of the dental unit. **The Pelton & Crane Spirit 1801** dental chair is rated **Acceptable** for use in US Air Force dental facilities.