

55-21 Star 430 SWL Starbright High-Speed Handpiece (Project 96-50) (10/98)

The Star 430 SWL Starbright fiberoptic high-speed handpiece is designed for use in a wide range of dental restorative procedures. The push-button auto-chuck turbine is lube-free and utilizes its Vortex Air Seal to reduce debris contamination of the turbine bearings. The handpiece can be heat sterilized in either an



autoclave or chemiclave. The free running speed is reported to be 430,000 RPM @ 34 psi which was confirmed by DIS testing. The turbine is easily field replaceable to reduce handpiece down time. The handpiece is connected to the dental unit handpiece hose with Star's 360 Quick-Connect Swivel Coupler. The coupler provides easy handpiece interchangeability and 360-degree swivel. The Star handpiece (including coupler) measures 12.4 cm in length and weighs 2.3 ounces. The handpiece head diameter and length measure 11 mm and 14.1 mm respectively. The distance from the back of the handpiece to the tip of a standard 19 mm bur (interocclusal clearance) is 22.2 mm. The handpiece is warranted against defects in materials and workmanship for one year.

Manufacturer:

Star Dental
1816 Colonial Village Lane
Lancaster, PA 17601
(717) 291-1161
(717) 291-9742 FAX

Suggested Retail Prices:

Star 430 SWL Starbright Handpiece \$825.00
Star 430 SWL Starbright Handpiece & 360 Quick Disconnect Swivel \$975.00
Replacement Turbine Cartridge \$299.00
360 Quick Disconnect Swivel \$150.00

Government Prices:

Star 430 SWL Starbright Handpiece \$403.00
Star 430 SWL Starbright Handpiece & 360 Quick Disconnect Swivel \$487.00
Replacement Turbine Cartridge \$179.00
360 Quick Disconnect Swivel \$123.80

ADVANTAGES:

- + 100% of test handpieces were operating at 1,000 simulated clinical use/sterilizations.
- + Better than average power (12.9 watts).
- + Maintained 73% of fiberoptic intensity after 1,000 simulated clinical use/sterilizations.
- + 360-degree swivel coupler.
- + Lube free turbine.
- + Turbine cartridge is field replaceable.
- + Excellent concentricity.
- + Push-button bur release.
- + Turbine warranted for one year.

DISADVANTAGES:

- 29% loss in power at 1,000 simulated clinical use/sterilizations.

SUMMARY AND CONCLUSIONS:

The Star 430 SWL Starbright fiberoptic high-speed handpiece is the only no-lube highspeed handpiece on the market. Its power (12.9 watts) was in the middle third of all handpieces evaluated. The Star 430

SWL maintained 73% of its fiberoptic intensity after 1,000 simulated clinical use/sterilization cycles. Polishing the fiberoptic lenses improved the transmission slightly to 79%. The noise level of the Star 430SWL was measured at 69 decibels. The noise level of all handpieces evaluated ranged from 69 decibels to 77 decibels. One hundred percent of the Star 430 SWL test handpieces functioned after 1,000 simulated clinical use/sterilizations. However, it was the only handpiece to demonstrate power loss yet continue to operate. All other models evaluated generally maintained their original power up to the point of catastrophic bearing failure. Baseline power was maintained through 750 simulated uses and only began to degrade at 1,000 uses. The Star **430SWL Starbright** is rated **Recommended** for use by the federal dental services.