

61-28 Midwest XGT High-Speed Handpiece (Project 99-27) (1/01)

The Midwest XGT™ fiberoptic high-speed handpiece was designed to be lightweight with a compact head for improved access to restricted areas of the mouth. It features the exclusive ComforTouch™ design that purportedly provides better balance and is more comfortable, reducing hand fatigue. The fiberoptics, which has been changed, fuses over 1000 fiberoptic strands into a solid glass rod that is claimed to provide considerably brighter light and longer durability than Midwest's previous



fiberoptic technology. For the first time, the company offers a coupler-based 360-degree swivel and quick-disconnect. Two different couplers are available to fit existing five-hole fiberoptic or six-pin fiberoptic tubing. The XGT™ handpiece is equipped with an anti-retraction valve on the water tube to prevent backflow of contaminated fluids into the handpiece. The handpiece can be heat sterilized by autoclave and only requires lubrication prior to sterilization. The handpiece (including coupler) is 13.8 cm long and weighs 3.3 ounces. The handpiece head diameter and length are

10.5 mm and 13 mm, respectively. The distance from the back of the handpiece to the tip of a standard 19-mm-long bur is 22 mm (i.e., interocclusal clearance). The handpiece is warranted against defects in materials and workmanship for twelve months. The fiberoptics carry a 5-year warranty.

Manufacturer:

Dentsply/Midwest
901 West Oakton Street
Des Plaines, IL 60018-1884
(800) 800-2888
(847) 640-4800
(847) 640-4858 FAX
www.midwestdental.com

Suggested Retail Prices:

XGT Handpiece \$850.00
5-Hole Coupler \$200.00
6-Pin Coupler \$250.00

Government Prices:

XGT Handpiece \$459.00
5-Hole Coupler \$108.00
6-Pin Coupler \$135.00

ADVANTAGES:

- + Excellent longevity following repeated use/sterilization.
- + Adequate power (10.6 watts).
- + Improved fiberoptics.
- + Anti-retraction valve in water tube.
- + 360-degree swivel coupler enhances ease of positioning and use.
- + Push-button bur release.
- + Small head size and visibility angle improves visibility and access.
- + Turbine is field replaceable which reduces down time.
- + Only requires lubrication before sterilization, enhancing infection control.
- + Five-year warranty on fiberoptics.

DISADVANTAGES:

- Fiberoptics lost 45% of transmission over 1000 use/sterilizations

SUMMARY AND CONCLUSIONS:

The Midwest XGT™ fiberoptic high-speed handpiece represents the first substantial new handpiece design by Midwest in some time. With the XGT™, Midwest finally offers a true quick-disconnect coupler and 360-degree swivel. Coupled with the push-button bur release, this model is more user friendly than previous Midwest high-speed handpieces. Contrary to evaluations of earlier Midwest models, 100% of the XGT™ test handpieces were functioning after 1000 use/sterilizations. In addition, concentricity was found to be improved over previous Midwest models. The free-running speed was measured and found to be 390,000 RPM at 35 psi, delivering an acceptable 10.6 watts of power. The turbine is field replaceable by authorized federal service dental clinics or can be serviced by Midwest via air express in two business days for essentially the same cost. Although the new fused fiberoptics performed better than those found in older Midwest models, DIS testing found that the handpieces still lost on average 45% of their original light transmission after 1000 use/sterilizations. The noise level of the handpiece was measured at 65.5 decibels, well below the maximum 8-hour, 85-dB(A) exposure limit established by the Occupational Safety and Health Administration (OSHA). Finally, the compact head increases operator visibility and interocclusal access. The **Midwest XGT™** is rated **Recommended** for use by the federal dental services.