

DURABILITY (TURBINE)

Minimum guaranteed 1,250 sterilization cycles. With all the new technology built into this handpiece, one evaluator was hopeful, but somewhat anxious over its long-term durability.

NOISE (DBA)

70 @ 73 psi. Among the quietest we have tested. While our sound meter is not discriminatory and records all sound emitted by the handpiece, the pitch or "shrillness" of the ATC is audibly lower than other air-powered handpieces and should cause less shivers from your patients. Half of the evaluators thought it was quieter than other highsPEEDS while the other half thought it was about the same.

TORQUE

21 watts. Most (60%) of the evaluators thought it cut better than other highsPEEDS, while the other 40% considered it on par with others. An even higher percentage (70%) stated that the ATC didn't lose power when heavy cutting was performed, while the other 30% could not "feel" the increased power as more pressure was applied to the bur.

In addition, 60% of the evaluators did not notice the momentary, turbo-like lag when you first apply pressure to the foot control. After this short hiccup, the handpiece accelerates quickly similar to a turbo-charged engine in a sports car. Of the 40% of the evaluators who noticed the lag, only one commented it was slightly bothersome.

One evaluator stated that the ATC was significantly more powerful than other air-powered highsPEEDS, but another evaluator commented that it was difficult finding a comfortable cutting pressure. Still another evaluator could not feel the difference between the ATC and other, air-powered handpieces and was even able to stall out the bur with heavy pressure. However, the evaluator with the stall-out problem also had water spray problems, indicating again that the performance was probably affected by an installation problem, since we were unable to stall out any of our in-house test units.

MAXIMUM OPERATING SPEED

330,000 rpm

MAXIMUM OPERATING PRESSURE

80 psi

RECOMMENDED OPERATING PRESSURE

73 ± 5 psi

WEIGHT (INCLUDING COUPLER)

3.3oz/93.6g. Middle of the air-powered pack, but much less than even the lightest of the electrics. Most (70%) of the evaluators thought it felt about the same compared to other highsPEEDS, while 20% thought it was lighter and 10% thought it was heavier. One evaluator commented that he considered it too lightweight and wanted it to weigh more.

BALANCE

Very good. Half of the evaluators thought its balance and comfort were on par with other highsPEEDS, 40% felt it had better balance, and 10% did not think it was as balanced and/or comfortable to hold compared to other highsPEEDS. One evaluator commented that it was much better than electrics.

HANDPIECE DIMENSIONS (MM)

Diameter	16.4mm
Length	120.0mm

HEAD DIMENSIONS (MM)

<i>Full-size</i>		<i>Mini</i>	
Diameter	10.7mm	Diameter	10.7mm
Length (w/330 bur)	21.4mm	Length (w/330 bur)	21.3mm

Note: The length of mini head is 19.8mm with a short shank bur.

One evaluator preferred the mini head over the regular one, while another evaluator thought the mini head was still too large.

ANGLE OF THE HEAD

108.5°. Most (67%) of the evaluators considered its angle about the same as other highsPEEDS, 22% thought it was better, and 11% thought it was not as good. One evaluator in particular preferred a more obtuse angle.

MAINTENANCE

Most (90%) evaluators found it about the same as other highsPEEDS when it came to cleaning and lubricating it, while the other 10% considered it easier to perform these procedures. Its satin-like finish is smooth and easy to clean.

REALITY

Strengths Exceptional power that doesn't falter when heavy pressure is applied. Cuts very fast and smoothly with minimal vibration. Makes prepping very efficient. Cuts through gold and hard ceramics easily.

Has a sleek design and the nubs where your fingers hold the handpiece give it a nice tactile feel.

Relatively lightweight and quiet, especially the low pitch. Best-in-class illumination.

BOTTOM LINE Does not possess the unbridled power of an electric, but its inventive engineering has produced a handpiece that is significantly lighter than all electrics and it will outperform conventional air-powered versions assuming its somewhat tricky installation is handled properly.

Weaknesses While the highsPEED/high torque combo was easy to appreciate, the lowsPEED/high torque claim was more difficult to use. Coupler doesn't rotate as easily as some competitive models. Initial system cost is significantly higher than just buying a new highsPEED handpiece. Performance of the system is highly dependent on skill, training, and experience of the installer. At least two evaluators had major installation problems and other evaluators commented that the installer needed to make several visits to get it right.

To become a member of **REALITY**, please visit our Web site at www.realityesthetics.com.

NO COMMERCIALIZATION POLICY

We accept no advertising and are not beholden to any commercial interest. Product evaluations and ratings are intended only to guide our readers to make wise and informed purchases. The unauthorized use of product evaluations and ratings in advertising or for any other commercial purpose is strictly forbidden.

REALITY (ISSN#1041-8253) is an online and print information service from **REALITY** Publishing Company, 11757 Katy Fwy., Suite 210, Houston, TX 77079-1717, U.S.A., 800-544-4999, 281-558-9101, Fax 281-493-1558. A one-year membership includes access to the online database plus nine monthly print issues of **REALITY NOW**. Call for membership and publication rates or access our Web site for enrollment information. Payments by check must be in U.S. funds drawn on a U.S. bank, or by Visa, MasterCard, or American Express. All rights reserved. No part of **REALITY** or **REALITY NOW** may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information storage and retrieval system without the written permission of the Publisher, except where permitted by law. Copyright ©2011 by **REALITY** Publishing Company. GST #898-896-659. POSTMASTER: Send address changes to **REALITY** Publishing Company, 11757 Katy Fwy., Suite 210, Houston, TX 77079-1752.