

REALITY NOW

THE INFORMATION SOURCE FOR ESTHETIC DENTISTRY

SEPTEMBER 2010 NUMBER 218

FirstLook HANDPIECES



Midwest Stylus ATC

Dentsply Professional

www.StylusATC.com

PRICES:

System

\$3,509.00 (includes 2 handpieces, 'control box, coupler, and cords)

Replacement Handpieces

\$1,399.00

WARRANTY:

2 years (handpieces)

3 years (control box, coupler, and tubing)

Highspeed air turbine handpieces have ruled the North American market for many years and, for the most part, they have performed satisfactorily, even though it is well known that air turbine handpieces lose torque when the bur hits the tooth. This power loss experienced by air-powered handpieces has led to the emergence of electric handpieces, which are the standard in Europe and are beginning to take hold in other areas of the world. The electrics have tremendous torque, which tends to increase when the bur hits the tooth so that your cutting power is constant.

However, electric handpieces are significantly heavier than air-powered versions and may not be easily integrated into an existing dental unit. That's where the Midwest Stylus ATC comes in. It is, first and foremost, air-powered and, therefore, looks and feels like the handpiece you may be using right now. As a matter of fact, it only weighs approximately 3.3oz/93.6g, which is right in the middle of the air-powered pack, but much less than even the lightest of the electrics.

The real advantage of the ATC over conventional air-powered handpieces is its coupler and control box. This is where the ATC (Adaptive Torque Control) comes from. As explained by the manufacturer, a sensor in the coupler tells the control box you are about to cut through, for example, a nonprecious metal coping to remove a crown and you need more power. The control box, which is referred to as an electronic "brain", then increases the air pressure that gives the handpiece the turbo boost necessary to cut through the hard metal. For light cutting tasks, the opposite effect is supposed to occur. In addition, the turbine

has been redesigned to handle the higher air pressures. According to the manufacturer, the typical torque rating usually given to air-powered handpieces does not apply to the ATC since the torque is constantly adapting to the procedure being performed such as heavy cutting or fine finishing.

The cream plastic control box measures 4.9in/12.5cm long, 3.9in/10.0cm wide, and 2.0in/5.0cm high. It needs to be mounted somewhere inconspicuous near your dental unit and comes with integral tubing that replaces whatever you are using now. Our unit was mounted on the arm behind our continental-style, dental delivery unit.

The handpiece itself has a contemporary, almost seamless design with numerous shallow dimples to facilitate a positive grip. Otherwise, its stain-like finish is smooth and easy to clean. The water spray for the full-sized version features 4 ports, while the mini head has a 1-port spray. Our preliminary tests verified its power is impressive, with a speed in our veneer prep test that was slightly better than our top performer for air-powered handpieces. Besides this speed, the ATC cuts very smoothly with minimal vibration.

Its light intensity is 12,800 Lux (very high) and its noise was recorded at about 70 dBA, which is among the quietest we have tested. However, our sound meter is not discriminatory and records all sound emitted by the handpiece. On the other hand, the pitch or "shrillness" of the ATC is audibly lower than other air-powered handpieces and should cause less shivers from your patients.

MICHAEL B. MILLER, D.D.S. — President/Editor-in-Chief

INGRID R. CASTELLANOS, C.D. — Vice President/Publisher

EDITORIAL TEAM: David L. Baird, D.D.S., Bellevue, WA; Robert W. Baker, Jr., D.M.D., Ithaca, NY; Joel H. Berg, D.D.S., M.S., Seattle, WA; Raymond L. Bertolotti, Ph.D., D.D.S., San Leandro, CA; Nathan S. Birnbaum, D.D.S., Wellesley, MA; Alan A. Boghosian, D.D.S., Chicago, IL; Mitch A. Condit, D.D.S., Fort Worth, TX; Gerald E. Denehy, D.D.S., M.S., Iowa City, IA; Marvin A. Fier, D.D.S., Pomona, NY; Daniel Fortin, D.M.D., M.S., Montreal, Canada; George A. Freedman, D.D.S., Toronto, Ont., Canada; David S. Hornbrook, D.D.S., San Diego, CA; Shigehisa Inokoshi, D.D.S., Ph.D., Tokyo, Japan; Ronald D. Jackson, D.D.S., Middleburg, VA; Mark E. Jensen, D.D.S., Ph.D., Slidell, LA; Thomas P. Keogh, M.D., D.D.S., Navarra, Spain; Timothy F. Kosinski, M.S., D.D.S., Bingham Farms, MI; Hannu O. Laamanen, D.D.S., M.S., Turku, Finland; Paul Landman, D.D.S., Chicago, IL; Clarence C. Lindquist, D.D.S., Washington, D.C.; Edward Lynch, M.A., B.D.Sc., Ph.D., Coventry, UK; Sandesh Mayekar, M.D.S., Mumbai, India; Steven McCowan, C.D.T., Seattle, WA; Michael K. McGuire, D.D.S., Houston, TX; Carlos Muñoz, D.D.S., M.S., Buffalo, NY; Christopher Pescatore, D.M.D., Danville, CA; Stephen D. Poss, D.D.S., Brentwood, TN; Robert G. Ritter, D.M.D., Juniper, FL; Derry F.M. Rogers, B.D.Sc., Melbourne, Australia; Andrew T. Shannon, D.D.S., Vancouver, BC, Canada; Liviui Sleier, D.M.D., Mayen, Germany; Franklin Toy, B.D.Sc. (Hons), Ph.D., Augusta, GA; Lori Trost, D.D.S., Columbia, IL; Marcos A. Vargas, D.D.S., M.S., Iowa City, IA; Charles Wakefield, D.D.S., Dallas, TX; Thomas G. Wilson, Jr., D.D.S., Dallas, TX; David Winkler, D.D.S., Windsor Berks, England.



A publication member of the
American Association of Dental Editors

The head of the full-sized version (890) measures 10.7mm in diameter and 21.4mm long with a 330 bur, while the mini head (990) measures 10.7mm in diameter and 21.3mm long with a regular shank 330 bur and 19.8mm long with a short shank 330 bur. As we have stated in other, mini head handpiece reviews, these dimensions again demonstrate that there is no advantage to using a mini head handpiece if you are using a conventional shank bur. You can only realize the small head's benefits by using short shank burs.

The overall length and diameter of both versions is 120.0mm and 16.4mm respectively. All dimensions of these handpieces are fairly typical of others in this category.

With its speed, innovative engineering, low pitch and other features, this handpiece looks very promising.

REALITY

Are you also confused about which products to use?



Well, choosing the right products is not child's play.

*Only in **REALITY** can you get:*

Product evaluations—that show which products are best and which you should avoid

Recommendations that are **unbiased** and advertisement-free

25 years of **experience** serving the dental profession

Unique clinical relevancy—the only private research laboratory in the world where dental products used only by dentists are tested only by dentists

REALITY
PUBLISHING CO.

**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 Frwy., 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 ©2010 by **REALITY** Publishing Company. GST #898-896-659. POSTMASTER: Send address changes to **REALITY** Publishing Company, 11757 Katy Frwy., Suite 210, Houston, TX 77079-1752.