

## Press Release

### **HQ-Metric provides more market transparency** **SCHWIND AMARIS® 750S: Front-Runner in Technology Comparison**

Kleinostheim, Germany, September 2010

SCHWIND has developed a metric to systemize and objectively compare the performance of excimer laser systems offered on the market. The HQ (High Quality)-Metric includes the decisive technological performance attributes and weights them with a scoring equation (see Fig.1). Clinical results were intentionally left out: These are determined by numerous factors which hinder an objective comparison. The index is based on the following technical parameters:

- Pulse rate in Hertz
- Sampling rate of the eye tracker in Hertz
- Number of static and dynamic dimensions of eye tracking
- Beam diameter in millimetres
- Treatment time in seconds per dioptre

Conclusion: The new SCHWIND AMARIS 750S, with a value of 206 points, achieves undisputed – and far ahead of the competing lasers – the top position in the technology comparison (see Fig. 2). It is the only laser that comes close to achieving the currently best attainable value of 218 points, composed of the best scores in each individual category. The median value of all systems offered on the market is 57 points. The SCHWIND AMARIS 750S exceeds this value by far. „The HQ-Metric aims at contributing to look beyond the usual commercial superlatives across the market and to rate the performance of the systems based on objective

parameters and therewith enable more transparency in the market“, comments CEO Rolf Schwind.

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$$HQ - Metric = \left[ \frac{PulseRate \cdot SamplingRate \cdot (StaticDim + DynamicDim)}{BeamDiameter \cdot TreatmentTime} \right]^{\frac{1}{3}}$$

Fig. 1: Scoring equation for calculation of HQ-Metric

|                                   | SCHWIND AMARIS 750S | Median of the Market Systems | Best Achievable Value |
|-----------------------------------|---------------------|------------------------------|-----------------------|
| Pulse Rate (Hz)                   | 750                 | 250                          | 750                   |
| Spot Diameter (mm)                | 0.54                | 0.70                         | 0.54                  |
| Treatment Time (s/D) <sup>1</sup> | 1.5                 | 4.6                          | 1.3                   |
| ET Rate (Hz)                      | 1050                | 400                          | 1050                  |
| Static Dimensions <sup>2</sup>    | 3                   | 3                            | 3                     |
| Dynamic Dimensions <sup>3</sup>   | 6                   | 3                            | 6                     |
| <b>HQ-Metric</b>                  | <b>206</b>          | <b>57</b>                    | <b>218</b>            |

Fig. 2: Individual performance parameters and results of HQ-Metric

<sup>1</sup>Treatment time corresponds to myopic treatments without astigmatism, in 6 mm optical zone, at a vertex distance of 12.5 mm and with maximum fluence values

<sup>2</sup>Static dimensions correspond to the number of registered dimensions from diagnosis (Maximum value 3 = X-pupil, Y-pupil, and static cyclotorsion)

<sup>3</sup>Dynamic dimensions correspond to the number of registered dimensions during ablation (Maximum value 6 = X-pupil, Y-pupil, X-roll, Y-roll, Z-movements, and dynamic cyclotorsion)

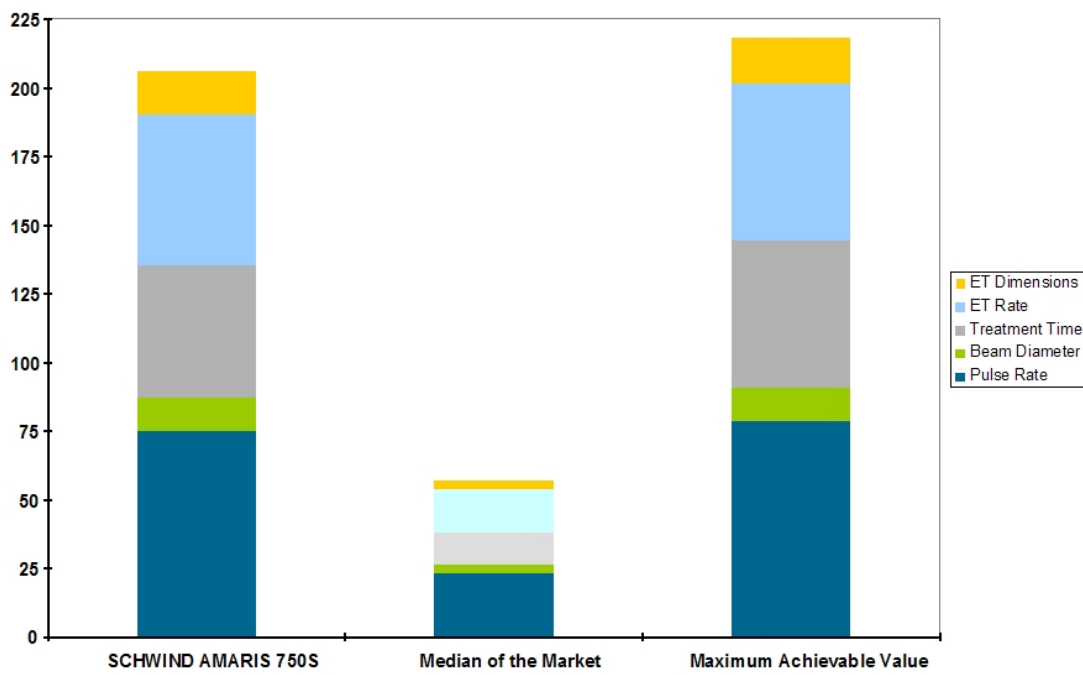


Fig. 3: Ranking - Cumulative weighting of the single performance parameters