

Front-Runner in Technology Comparison

HQ-Metric Provides More Market Transparency

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.

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 there-with enable more transparency in the market“, comments CEO Rolf Schwind.

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

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) ¹	1.5	4.6	1.3
ET Rate (Hz)	1050	400	1050
Static Dimensions ²	3	3	3
Dynamic Dimensions ³	6	3	6
HQ-Metric	206	57	218

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

¹ 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
² Static dimensions correspond to the number of registered dimensions from diagnosis (Maximum value 3 = X-pupil, Y-pupil, and static cyclotorsion)
³ 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)

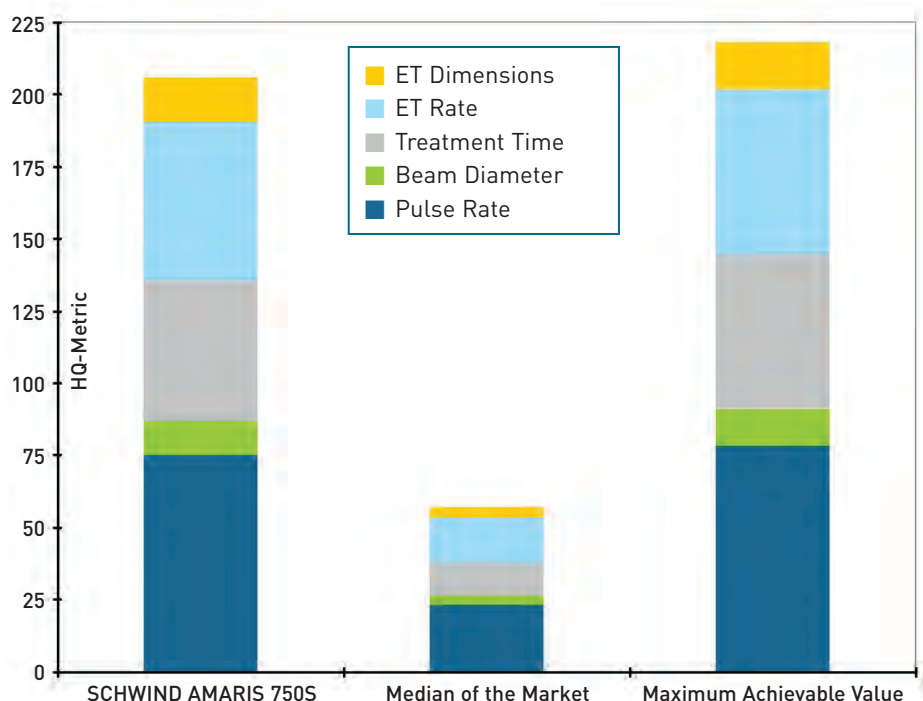


Fig. 3: Ranking – Cumulative weighting of the single performance parameters