MED-LOGICS, INC.

CLB™ Application Principles

The patented Calibrated LASIK Blade (CLB™) design allows the surgeon to offer the patient a CustomFlap™ through the use of six accurate CLB™ options based on the patient's cornea shape. Each CLB™ model is **+/-5 microns** in the critical dimension where other LASIK blades can be **+/-50 microns**.

The flap thickness target table below provides a series of treatment options that include a 100 and a 130 micron head in conjunction with the six CLB™ options. These flap thickness targets are based on an average cornea thickness and moderate k-reading. As a general rule, a thicker cornea will yield a thicker flap and a thinner cornea will yield a thinner flap. This is a result of tissue compression and displacement as the microkeratome head passes over the firm cornea to create the flap. Also, as a smaller impacting factor, a higher k-reading can yield a slightly thicker flap while a lower k-reading can yield a slightly thinner flap.

CustomFlap™ Options

CustomFlap™ Thickness Options (in microns)	− MINUS 30 CLB®	− MINUS 20 CLB®	− MINUS 10 CLB®	o PLANO CLB®	+ PLUS 10 CLB®	+ PLUS 20 CLB®
R100M Head (100 Micron)	70	80	90	100	110	120
R130M Head (130 Micron)	100	110	120	130	140	150

If a patient has a thick cornea (example 600 um) and a steep k-reading (example 47), the surgeon could help compensate for these patient factors by using either a Minus 20 or Minus 30 CLB™ to achieve a thinner flap thickness than if a Plano CLB™ were used. If a surgeon wanted to achieve optimal accuracy, they could create their own CLB™ nomogram for their microkeratome based on corneal thickness and adjust it slightly for each patient based on the patient's k-reading. An example of a detailed nomogram could be as follows:

Corneal Thickness	CLB
<500	Plus 10
501-535	Plano
536-550	Minus 10
551-570	Minus 20
>571	Minus 30

Microkeratome metal heads can vary in accuracy, but the plastic disposable heads can be quite unpredictable. The CLB™ will help the surgeon considerably to achieve a more accurate flap

thickness, but we suggest the surgeon use the Plano CLB™ model with the same head on approximately 30 eyes in order to establish a norm for flap thickness. After the norm is established, the surgeon can start using other CLB™ models having some knowledge as to the accuracy of the head being used. It is also important that the microkeratome be in good working condition. The handpiece performance can degrade over time because the motor(s) may corrode from exposure to BSS entering the handpiece. As the motors experience corrosion, the flaps can become thicker.

We suggest following the microkeratome manufacturer's vacuum ring nomogram. The surgeon can also achieve a more accurate flap thickness between eyes of the same patient by slightly decreasing vacuum on the first eye to compensate for the duller blade edge on the second eye.

It is important to recognize the fact that only MED-LOGICS can provide the accuracy and flap thickness options with a smooth stromal bed.

26061 Merit Circle, Suite 102 • Laguna Hills, CA 92653 USA
Tel: 949.582.3891 • Toll Free: 800.651.2962 • Fax: 949.582.2676
www.mlogics.com