Duckworth & Kent Ltd.
titanium surgical instrument manufacturer

Instruments for Femtosecond Laser

DK Stein Utility Forceps

Gulani LASIK Marker

R J Mackool™ Femtosecond Laser Speculum

DK Femto Flap Lifter and Retreatment Spatula

Including LASIK & LASEK
**LASIK Specula, Open Blades / Solid Blades**

- Open blades, one open one solid
- Single piece construction
- Angled to rest temporally

**Tutton Speculum, Open Blades**

- Open blades
- Single piece construction
- Angled to rest temporally

**Markomanolakis Aspirating Speculum**

- Open blades
- Angled to rest temporally
- Adjustable aspirating port, can be increased in length by 4.0mm

**Williams Adjustable LASIK Specula**

- Open blades
- Angled to rest temporally & nasally
- Adjustable with thumb screw

Designed to achieve maximum comfortable exposure of eye for suction ring placement to allow microkeratome to be easily positioned on the pivot post without obstruction during LASIK surgery. Lengthened speculum blades accommodate microkeratome. Simplicity and elegance of design allows

**Horn Adjustable Femtosecond Laser Speculum**

- Open blades
- Angled to rest temporally
- Adjustable with thumb screw
- Suitable for Femtosecond Laser machine
- Can be used for manual cataract surgery and LASIK

The Horn Adjustable Femtosecond Laser Speculum has been designed with curved blades to allow clearance for docking devices, allowing exposure centrally without stretching the lids laterally, providing optimal exposure as well as patient comfort.

Key features of the Bates LASIK Speculum: 1) Enables excellent exposure for LASIK or LASEK and allows, in particular, easy placement of the microkeratome. 2) Gives excellent retraction of the lower lid and of redundant lid tissue 3) Lower lid is protected from any inadvertent cuts from the microkeratome blade.
New Temporal Speculum designed by Dr Cionni for the LenSx® Laser

- Ideal for surgeon performing anterior segment procedures from a temporal approach
- Nasal placement frees temporal aspect to provide total access to temporal limbus
- Self-locking mechanism ideal for topical anaesthesia since it prevents speculum from closing during procedure when patient blinks or squeezes, blades 15.5mm wide
- Open piece design, without telescoping or sliding arms, prevents speculum from “sticking or hanging up” after repeated use

Placed into palpebral fissure with locking mechanism situated nasally. Thumb plates are pressed together to open and capture lids. Crossing arms lock at four positions to accommodate various size palpebral fissures. Pressing thumb plates further releases locking mechanism, allowing surgeon easy removal of speculum. Releasable without opening to fullest extension, providing comfortable removal even in patients with small palpebral fissures.
Markers

9-850 Pallikaris LASIK Blade Marker

- Flat handle, length 106.0mm

Marks 10.0mm x 240° with central line from centre to 1.5mm beyond the diameter and line 90° to that line, 2.5mm below.

9-853 Bennett Thornton LASIK Marker

- Lowest profile with eight radial elements and non-radial element
- Round handle, length 126.5mm

Useful in realigning flap after repositioning following LASIK. Misalignment in any portion of flap can be readily seen since elements are at right angles to flap edges. The additional non radial element is useful in the event of a free flap. This position permits surgeon to properly orient flap and prevent flap from being laid upside down. Overall length of elements ensures flap edges will be included in the mark regardless of flap size. Open centre with pointer ensure simple and accurate marking on cornea, 45° angulation of head allows for ease and comfort in use.

9-854R LASIK Marker

- Lowest profile with three radial elements and two non-radial elements
- Round handle, length 98mm

9-855 Gulani LASIK Marker

- 3.5mm and 4.0mm intersecting circles
- Round handle, length 119.0mm

Double circle marker (3.5mm and 4.0mm) provides pre-determined landmark (four reference points of two intersecting circles) for corneal flap replacement following excimer laser ablation of stromal bed in LASIK. Configuration of arcs of intersecting circles allows correct side-up placement of corneal flap.
**DK Epithelial Trephine with Trephine Guide and Alcohol Chamber**
(allow separately)

- Trephine creates a 300° incision into the epithelium
- Flat on knurled depicts the hinge of the epithelium flap
- Trephine height 20.0mm

**DK Epithelial Trephine**

<table>
<thead>
<tr>
<th>Incision Size</th>
<th>DK Epithelial Trephine code</th>
<th>DK Trephine Guide &amp; Alcohol Chamber code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ø8.0mm</td>
<td>6-924</td>
<td>6-944</td>
</tr>
<tr>
<td>Ø8.5mm</td>
<td>6-925</td>
<td>6-945</td>
</tr>
<tr>
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<td>Ø9.5mm</td>
<td>6-927</td>
<td>6-947</td>
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<td>6-949</td>
</tr>
<tr>
<td>Ø11.0mm</td>
<td>6-930</td>
<td>6-950</td>
</tr>
</tbody>
</table>

**Bates Trephine Guide and Alcohol Chamber with Fixation**
(allow separately)

- Low profile alcohol chamber, height 4.0mm
- Internal diameter 0.5mm larger than incision
- Designed as a guide for the DK Epithelial Trephine (see above)
- Round handle, length 125.0mm

**Bates Trephine Guide and Alcohol Chamber with Fixation**

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Ø8.0mm</td>
<td>6-924</td>
<td>6-944-1</td>
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<td>Ø8.5mm</td>
<td>6-925</td>
<td>6-945-1</td>
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<td>Ø9.0mm</td>
<td>6-926</td>
<td>6-946-1</td>
</tr>
<tr>
<td>Ø9.5mm</td>
<td>6-927</td>
<td>6-947-1</td>
</tr>
</tbody>
</table>
Guidance notes only

Example 1

1. Centre alcohol chamber onto eye
2. Place the trephine into the alcohol chamber. The flat on the knurl of the trephine signifies the location of the hinge of the epithelium flap. Apply enough downward pressure with a slight twist in order to cut the tissue of the epithelium.
3. Soak up the excess alcohol.
4. Place the trephine into the alcohol chamber. The flat on the knurl of the trephine signifies the location of the hinge of the epithelium flap. Apply enough downward pressure with a slight twist in order to cut the tissue of the epithelium.

Example 2

1. Centre alcohol chamber onto eye
2. Place the trephine into the alcohol chamber. The flat on the knurl of the trephine signifies the location of the hinge of the epithelium flap. Apply enough downward pressure with a slight twist in order to cut the tissue of the epithelium.
3. Apply alcohol mixture into the chamber, covering the epithelium, and leave for the required time to soften the epithelium.
4. Soak up the excess alcohol.

Continuation after example 1 or 2

5. Remove the alcohol chamber, then using the 6-865 or 6-865-1, lift the edges around the incision of the epithelial flap.
6. Once the edges are raised, use the 6-866 (shown) or the 6-867 to separate and lift the epithelium.
7. Apply Laser.
8. Following the application of the laser, use the spatula (6-103-1) to replace and smooth the epithelial flap.
**6-071 Scott Femto Chop**

- Curved, smooth round tip
- Tip to angle length 10mm
- 0.45 constant diameter shaft to reduce leakage
- Round handle, length 120mm

Designed for the lens that has been femtosecond laser treated and is being removed with zero or little ultrasound power. Scott Femto Chop Technique and Scott Endolenticular Viscodissection involve segmenting the lens along the femto segment treatment lines and then using the curve of the tip to manipulate the segments into the central anterior chamber. The curve also avoids inadvertent damage to the capsule. While removing the segments, the curve of the chop is placed in close proximity to the phaco tip and protects the tip from contact with the capsule. The shaft of the chop is a consistent diameter and helps control fluid egress, helping stabilize the chamber.

**6-870 Buratto LASIK Oval Spatula**

- 1.3mm curved blade
- 35° angled curved shaft, tip to angle length 10.5mm
- Round handle, length 122.0mm

Designed to raise flap during LASIK.

**6-870-1 Buratto LASIK Oval Spatula**

- 1.3mm curved blade
- 60° angled curved shaft, tip to angle length 10.5mm
- Round handle, length 119.0mm

Designed to raise flap during LASIK.

**6-858 Stevens Femto Flap Lifter**

- Thin curved blade, 1.3mm wide with sharp edges
- 45° angled curved shaft, tip to angle length 10.5mm
- Round handle, length 122mm

**6-859 Stevens Femto Flap Lifter, narrow tip**

- Thin curved blade with narrow pointed tip, 1.3mm wide, sharp edges
- 45° angled curved shaft, tip to angle length 10.5mm
- Round handle, length 122mm

The curved design of the Stevens Femto Flap Lifter glides smoothly to raise the flap, whilst the sharp edges are used to separate the adhesions under the flap that are left after the femtosecond laser.
### 6-606 Ogawa Lamellar Dissector

- 2.5mm sharp edge tip
- 65° angled curved blade, tip to angle length 13.5mm

#### View on Arrow

- Round handle, length 114.0mm

For use in lamellar corneal procedures. Sharp tip creates dissectors with slightly rounded sides maintain single dissection plane. Curved blade minimizes distortion of cornea during dissection.

### 6-607 Morlet Lamellar Knife / Dissector

- 0.1mm x 1.5mm sharp edges
- 0.35mm x 2.0mm curved

- Angled shafts 12.0mm tip to curve, tip to angle length 3.0mm
- Round handle, length 110.0mm

### 6-608 DK Scleral Pocket Knife

- 1.0mm x 1.0mm oval round blade, blade thickness 0.1mm
- 45° angled shaft, tip to angle length 3.0mm
- Round handle, length 118.0mm

### 6-609 Barrett Lamellar Dissector / Knife

- 4.0mm round blunt edge
- 55° angled shaft, tip to angle length 6.0mm

#### Dissector

- Round handle, length 110.0mm

#### Knife

- 2.0mm sharp rounded tip
- 55° angled shaft, tip to angle length 6.0mm
- Barrett balanced set handle, length 121.0mm

### 6-856-1 S.Antonio Femto Spatula

- 0.5mm spatula
- Smooth shaft slightly curved shaft with tapered tip

- 45° angled shaft, tip to angle length 10mm
- Round handle, length 125mm
6-857 Stevens Femto Rim Lifter

- Sharp bullet shaped tip, 0.5mm long
- 45° angled shaft, tip to angle length 10.0mm
- Round handle, length 118mm
The sharp tip of the Stevens Femto Rim Lifter is used after the femto second laser to sweep along the rim to delineate and open the flap.

6-848 Krokchings Femto Incision Opening Spatula

(A) Femto Spatula (A)
- Fine flat tip, 0.5mm width
- 4mm slightly curved spatula blade
- Opens primary and secondary femto created incisions

(B) Femto Spatula (B)
- 4mm slightly curved spatula blade
- Fine point, 0.5mm wide x 0.5mm 90° angled tip
- Opens limbal relaxing incisions (LRI)
- Round handle, length 119mm

6-850 Cionni Femto Spatula and Nucleus Divider

- Fine point, 0.5mm width
- 3mm spatula blade
- Opens primary and secondary femto created incisions

- Blade 1.6mm x 0.8mm
- Used for pushing and pulling the iris or anterior capsule edge
- Round handle, length 131mm

6-855 DK Femto Flap Lifter and Retreatment Spatula

- 0.4mm diameter, smooth polished surface
- Curved shaft, 12.0mm length

- 0.15mm tip diameter, rounded end
- Smooth polished surface
- Angle tip, length to angle 3.0mm
- Round handle, length 123mm

6-855-1 DK Femto Flap Lifter and Retreatment Spatula - Bullet Shaped Tip

- 0.4mm diameter, smooth polished surface
- Curved shaft, 12.0mm length

- 0.15mm tip diameter, bullet shaped tip
- Smooth polished surface
- Angle tip, length to angle 3.0mm
- Round handle, length 123mm
**6-856 Femto Laser Spatula**

- 0.5mm spatula
- Smooth shaft slightly curved shaft with blunt tip
- 45° angled shaft, tip to angle length 10mm
- Round handle, length 125mm

**6-103-1 DK Double Ended Spatula (for repositioning epithelial flap)**

- 0.8mm diameter, double ended
- 45° angled shaft, tip to angle length 12.0mm, curved shaft

**6-863 Tutton Double Ended Flat Oval Spatula / Elevator**

- Flat broad oval spatula 5.44mm x 5.14mm x 3.15mm
- Elevator length from angle to tip 12.0mm
- Overall length 126.0mm

This double ended LASIK instrument consists of a spatula and an elevator. The elevator tip can be used to delineate the edge of a previous LASIK corneal flap, whilst the curved design glides smoothly over the stroma to raise the flap. The flat broad oval spatula has a sharp edge which enables both the stromal base of the posterior surface of the flap to be debrided of any epithelial cells.

**6-871 Buratto Double Flap Spatula**

- 4.75mm hemi-disc spatula tips
- 30° angled curved shafts, tip to angle length 11.4mm
- Round handle, length 114.0mm

Designed to protect stromal portion of flap close to hinge.
**6-876 Ogawa LASIK Spatula and Flap Protector**

![Image of spatula and flap protector]

- **Flap protector**
  - 7.5mm x 3.0mm flattened tip
  - 55° angled shaft, tip to angle length 4.0mm

- **Spatula**
  - 0.45mm x 0.8mm oval highly polished tip
  - 55° angled shaft, tip to angle length 10.5mm
  - Round handle, length 115.5mm

Two-in-one instrument decreases instrument tray clutter and keeps flap protector easily accessible. Spatula has tapered tip for ease of insertion under corneal flap. Polished surface on spatula minimizes friction, drag, and distortion of flap. Flap protector has a micro-lip on its tip to allow for additional retraction of flap when needed.

**6-862 Gulani Neumann Hyperopic LASIK Flap Dissector**

![Image of flap dissector]

- Curved sharp edge, 3.0mm wide
- Round handle, length 86.0mm

Used to lift previous corneal flap in cases having undergone Hyperopic LASIK. Angled, curved base glides smoothly along stromal mound whilst top flat surface dissects plane of previous flap.

**6-865 DK LASEK Epithelial Edge Lifter**

![Image of epithelial lifter]

- Hoe-shaped tip, 2.12mm - 0.6mm (width) x 1.85mm (height)
- Round handle, length 120.0mm

**6-865-1 DK LASEK Angled Epithelial Edge Lifter**

![Image of angled epithelial lifter]

- Hoe-shaped tip, 3.52mm - 0.6mm (width) x 1.85mm (height)
- 45° angled shaft, tip to angle length 11.0mm
- Round handle, length 113.5mm

**6-866 DK LASEK Epithelial Separator / Lifter**

![Image of epithelial separator]

- 3.0mm triangular-shaped tip
- 45° angled shaft
- Round handle, length 120mm

Duckworth & Kent - Titanium
2-795 Stein Utility / Flap Lifting Forceps

- Small flat ring tips
- 45° angled shafts, tip to angle length 3.5mm
- Standard handle, length 85.0mm

Designed with shortened, small flat ring tips for removal of contact lens at slit lamp biomicroscope. Useful contact lens removal following PRK and other refractive surgical procedures.

2-798 DK Stein Flap Lifting / Utility Forceps

- Small flat ring tips, inner tip surfaces lightly textured
- 25° angled shafts, tip to angle length 3.5mm
- Standard handle, length 85.0mm

Inner Tip Surfaces Are Textured

8-604 DK LASIK Cannula

- 23 gauge
- 0.2mm diameter hole at tip
- Four 0.4mm diameter holes along side of shaft
- 25° Angled shaft, tip to angle length 8.0mm

For more and current information visit: www.duckworth-and-kent.com