



# Duckworth & Kent

## Ophthalmic Titanium Surgical Instruments

### Daya Lamellar Keratoplasty Set for DSEK and DALK

Titanium Instruments

Duckworth and Kent have in collaboration with Sheraz Daya, developed a series of instruments for both Anterior and Lamellar Surgery. We present a simple and affordable kit of instruments for Donor Preparation for Descemet's Scraping Endothelial Keratoplasty (**DSEK**) and Deep Anterior Lamellar Keratoplasty (**DALK**). These instruments can be used on a whole globe or an artificial anterior chamber block.

**DONOR PREPARATION:**

The **Daya Lamellar Separator Forceps** are available in either reverse action (ref: **2-280**) or scissors action style (ref: **2-280-1**) and used for lamellar dissection. For DSEK donor preparation, a micrometer knife set at 350 to 400 microns (depending on corneal thickness) is used to make a 4mm limbal incision on the donor. The sharp end of the **Daya Lamellar Spear** (ref: **6-604**) is used to dissect a deep pocket to allow entry of the Lamellar Forceps. The tissue is then dissected by the separating or spreading action of the forceps and usually very easy to accomplish in a preserved corneal donor. The forceps in their closed state can be used in the same fashion as a conventional lamellar dissecting spatula. The lamellar dissecting end of the Daya Lamellar Spear can be used in conjunction with the Separators to accomplish complete dissection. Once the donor is dissected, it is removed from the block taking care not to damage the endothelial surface. The donor is then punched using a conventional Donor Punch.

**RECIPIENT PREPARATION:**

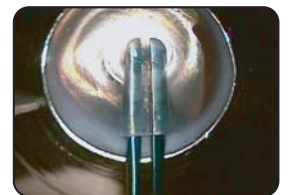
Once the donor disc has been created, the recipient eye can be prepared. 3 to 4 paracenteses are performed at the limbus. Aqueous is exchanged for Trypan Blue and allowed to remain in the anterior chamber for 30 to 60 seconds. This is then removed and exchanged for Balance Salt Solution. An AC chamber maintainer is inserted through one of the paracenteses incisions and fluid entry controlled using the foot pedal. A donor trephine (9.0mm if possible) is marked using Gentian Violet and used to mark the epithelial surface of the cornea. A 2.75mm limbal incision is made and the **Daya Descemet's Scraper** (ref: **6-257**) is used to score and scrape Descemet's membrane, commencing diagonally opposite the incision and using the trephine mark as a guide. Descemet's membrane is gradually peeled off and removed from the eye. The limbal wound is then enlarged to 5mm.

**IMPLANTATION OF POSTERIOR LAMELLAR DONOR DISC:**

A minimal amount of Healon® is placed on the endothelial surface and the posterior lamellar tissue is then over-folded and grasped using the **Daya Donor Disc Forceps** (ref: **2-2-788**) which are used to introduce the donor into the prepared recipient (see right). Air is injected under the donor allowing the donor to unfold and become opposed to the posterior stroma of the recipient cornea. The **Daya DSEK manipulators** (ref: **6-254 & 6-255**) are used through the paracentesis incisions to position the graft centrally. The manipulators have a sharp point enabling the surgeon to grasp the anterior or stromal portion of the Donor Disc. Air is left in the anterior chamber and the pupil is dilated to prevent pupil block. The patient is then checked one hour after surgery to ensure the donor disc is in position and that the intraocular pressure is not abnormally high.



Daya Lamellar Spear (6-604) used to dissect a pocket.



Daya Lamellar Separator Forceps (2-280-1) used to complete dissection.



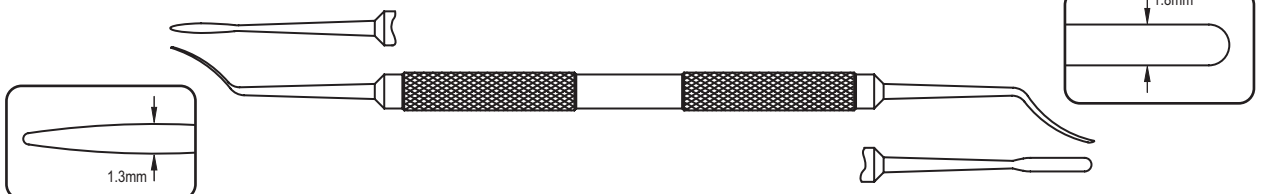
Daya Descemet's Scraper (6-257) used to score and scrape Descemet's membrane.



Daya Donor Disc Forceps (2-2-788) used to introduce the donor.

**6-604**

**Daya Lamellar Spear**



- 1.3mm to 0.25mm width curved spear blade
- Sharp edges at the very tip for creating pocket
- 35° angled curved shaft, tip to angle length 10.5mm
- Round handle, length 124mm

- 1.8mm width curved dissecting blade
- Blade thickness, 0.5mm sharp edges for dissecting
- 35° angled curved shaft, tip to angle length 10.5mm

**2-280**

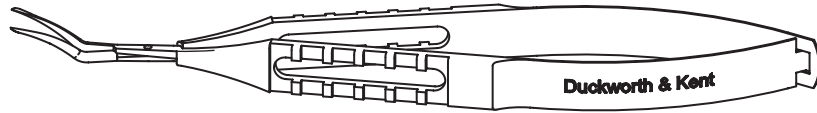
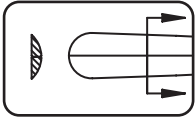
**Daya Lamellar Separator Forceps (Reverse action style handle)**



- Blades closed at rest and tips open when forceps are squeezed
- Tip end to pivot box length 11.0mm
- 45° angled shafts
- Reverse action style handle, length 97.5mm

## 2-280-1

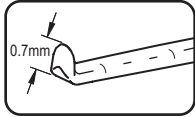
### Daya Lamellar Separator Forceps (Scissor action style handle)



- Blades open at rest and tips close when forceps are squeezed
- Tip end to curve length 11.0mm
- 30° angled shafts
- Standard scissor action style handle, length 105.5mm

## 6-257

### Daya Descemet's Scraper

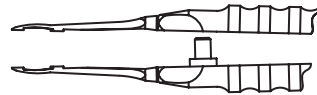
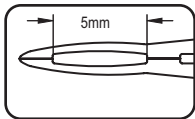


- Sharp edges around tip
- Tip width 0.5mm, height 0.7mm
- 45° angled shaft, tip to angle length 14mm
- Round handle, length 124mm

The Daya Descemet's Scraper has a sharp paddle tip that is angled up from the shaft to scrap the Descemet's membrane under the cornea. The long 14mm shaft allows the tip to go all the way across the cornea easily.

## 2-2-788

### Daya Donor Disc Forceps

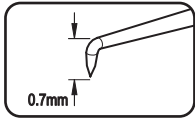


- Two 1.75mm textured grasping platforms
- 5.0mm gap between platforms
- 40° angled tips, tip to angle length 13mm
- New style round handle, length 115mm

The forceps are used to grasp the folded donor disc. The two textured platforms hold the tissue at the edge and the space between prevents the tissue from being crushed protecting the endothelium.

## 6-254

### Daya DSEK Manipulator Hook



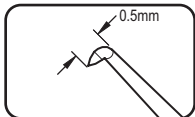
- Sharp pointed tip,
- Tip length 0.7mm, diameter 0.2mm

- Straight shafts
- Round handle, length 121mm

The Daya DSEK Manipulator Hooks are used as a pair to push and pull the donor disk through the paracentesis. The straight shaft allows for a universal tip orientation, as there is sometimes a need to use the tip in the reverse position (tip pointing upwards).

## 6-255

### Daya DSEK Angled Manipulator Hook



- Sharp pointed tip
- Tip length 0.5mm, diameter 0.2mm

- 45° angled shaft, tip to angle length 5.0mm
- Round handle, length 120mm

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