David I Reimplantation Procedure
Implant Technique

Gelweave Valsalva™
Images courtesy of
Professor Duke Cameron
Johns Hopkins Hospital,
Baltimore, USA
Figure 1. Exposure of the aortic root and valve.
Figure 2. Removal of the diseased tissue and isolation of the 3 commissures and 2 coronary buttons.
Figure 3. Placement of sub-annular interrupted sutures.
Figure 4. After selecting the required diameter of graft* the collar is trimmed ensuring that the commissures, when the graft is in position, reach the level of the new sinotubular junction. The graft distal to the skirt is then also trimmed.

*Size the graft according to optimal “sinotubular junction” ... usually 30mm. (Professor Duke Cameron, Surgery of the Thoracic Aorta, Bologna, Italy 2003)
Figure 5. The sub-annular sutures are passed through the graft at the join between the collar and skirt. The graft is then parachuted into position.
Figure 6. The sub-annular sutures are tied and the top of the commissures secured at the level of the new sinotubular junction.
Figure 7. The edges of the commissures are anastomosed to the graft skirt.
**Figure 8.** The first coronary button is anastomosed, in a central position, to the graft skirt using ePTFE as a “buttress”.

*Image courtesy of Professor Duke Cameron, Johns Hopkins Hospital, Baltimore, USA*
Figure 9. The second coronary button is anastomosed to the graft skirt.

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Figure 10. The distal portion of the graft is anastomosed to the ascending aorta.