



Cut 1



Cut 2



Cut 1



No 2nd Cut



TDC cutter

Continuous open aspiration port. Constant aspiration flow, independent of cut rate.

Classic cutter

Duty cycle controlled aspiration port. Higher speed, lower aspiration flow.

Two Dimensional Cutter (TDC)

Up to 16,000 cpm*



**Prof. Fanis Pavlidis, TDC cutter developer (DORC/Pavlidis)
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“TDC simplifies vitrectomy. Combined with the VTI pump of the EVA in vacuum or flow mode, TDC maximizes the efficiency and the reduced turbulence increases shaving safety.”

Flow Efficiency

Due to the inner pipe hole, aspiration remains constant now without dropouts during duty cycle time like in older, simple hole cutters. Flow increased by more than 70% in all gauge size cutters 23-27G.**

Control

TDC effectively doubles the 8000 cuts per minute up to 16,000 cpm cutting the vitreous during shaving in smaller particles, thus reducing traction. The cutter remains permanently open due to the inner hole of the inner pipe, and vitreous is continuously attracted into the cutter without pulsation, because the port is never closed. This reduces pulsatile traction of the retina in shaving mode. In combination with the Flow Mode of the VTI pump (EVA), detached retinas can now be shaved in a controlled manner.

Cutting Efficiency

Vitreous with higher viscosity, Hemorrhages, Floaters, PVR, and even dropped lens particles can be easier removed even with the 27G TDC cutter. Permanent attraction and opening of the TDC cutter port eliminates unwanted material release.

Fast 27G Vitrectomy

Flow and cutting efficiency of the TDC cutter allows for performing 27G vitrectomy in a short, acceptable time.

*The TDC cutter has a cut speed of up to 8000 cpm and is designed to facilitate cutting tissue on the return of each stroke of the vitrectome, effectively doubling the cut speed.

** Pavlidis M. Two-Dimensional Cutting (TDC) Vitrectome: In Vitro Flow Assessment and Prospective Clinical Study Evaluating Core Vitrectomy Efficiency versus Standard Vitrectome. J Ophthalmol.

2016;2016:3849316.