



Ophthalmic Surgical System

fortasTM CV-30000



THE ART OF EYE CARE

Fortas™

CV-30000 OPHTHALMIC SURGICAL SYSTEM

The CV-30000 provides complete support for Cataract and Vitreoretinal surgery with four features that enhance usability:

Essential Components

Fortas Pump

Advanced peristaltic pump

Advanced Cassette System

Phaco and vit cassettes with optimal fluid system

Phaco Innovation

VIS

Optimal pulse control for Phacoemulsification

APS-Plus

The next generation of Auto Pulse System

Cut Control

High Speed Vitreous Cutter

Enhanced vitreoretinal surgery with 5,000 cuts / min

Pro-Pedal Mode

Smart software control of vacuum pressure, flow rate, and cutting rate

User Friendly

Navigation Mode

Surgeon friendly navigation

Sequential Mode

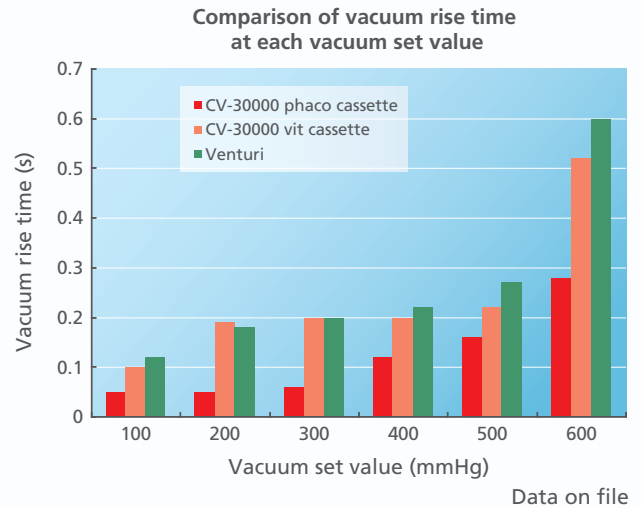
Memory of surgical sequences



Fortas Pump

■ New peristaltic pump

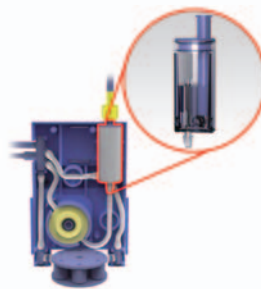
The refined pump achieves vacuum rise at shorter times than the venturi pump with use of a CV-30000 phaco cassette and provides secure nucleus retentivity of a phaco tip and enhanced followability. It achieves vacuum rise at similar times as the venturi pump with use of a CV-30000 vit cassette and provides quick vacuum response during vitreoretinal surgery.



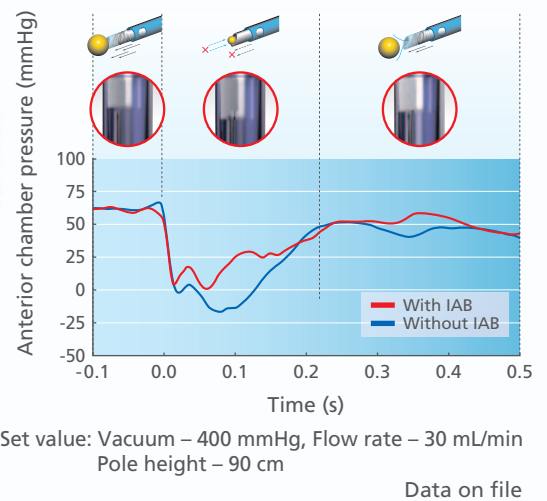
Advanced Cassette System

■ Phaco cassette

The phaco cassette incorporates the unique Irrigation Assist Bottle (IAB) to improve anterior chamber stability. The IAB contains irrigation solution and air. When the occlusion breaks, the air in IAB expands and enables the surge reduction with instant increase of irrigation flow into anterior chamber.

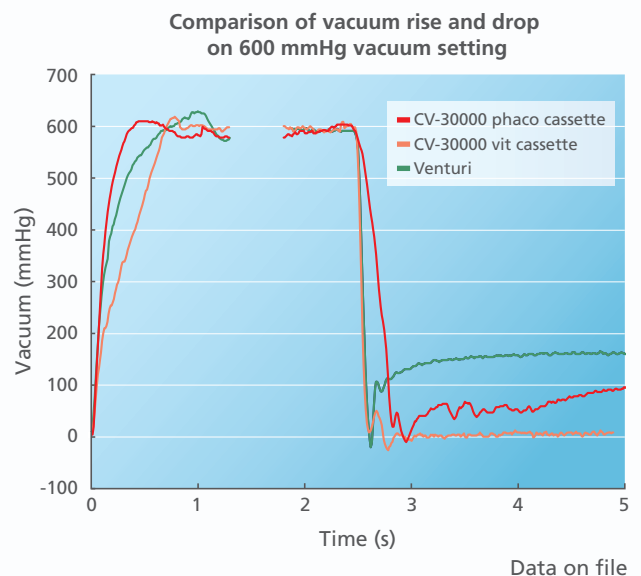


Inside of the cassette



■ Vit cassette (available for type AP)

The new vent system controls the vacuum pressure effectively with reduction of the residual suction.

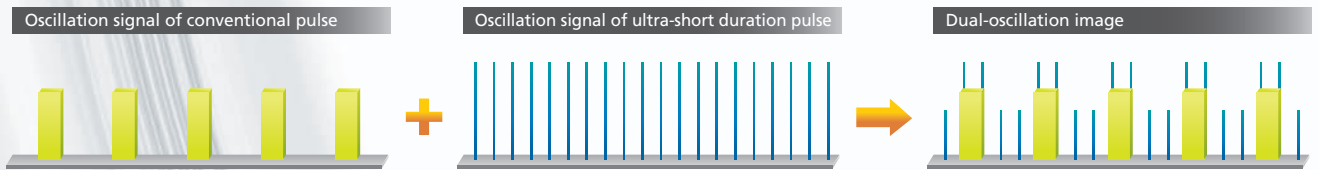
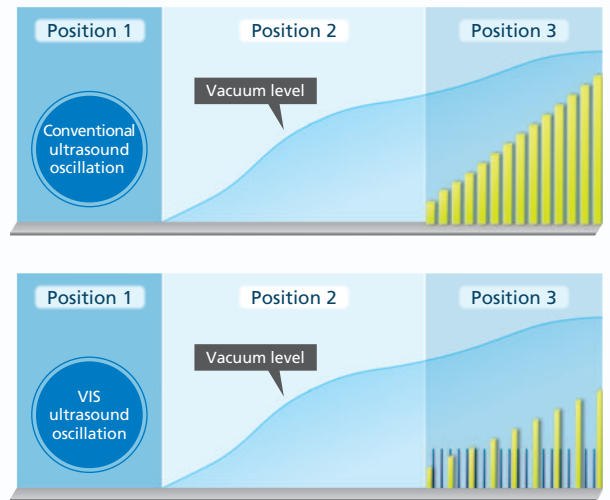


VIS (Variable Intervals and Strokes)

■ Dual-oscillation of conventional pulse and ultra-short duration pulse

The nucleus can be emulsified easily with less energy by using dual-pulse oscillation.

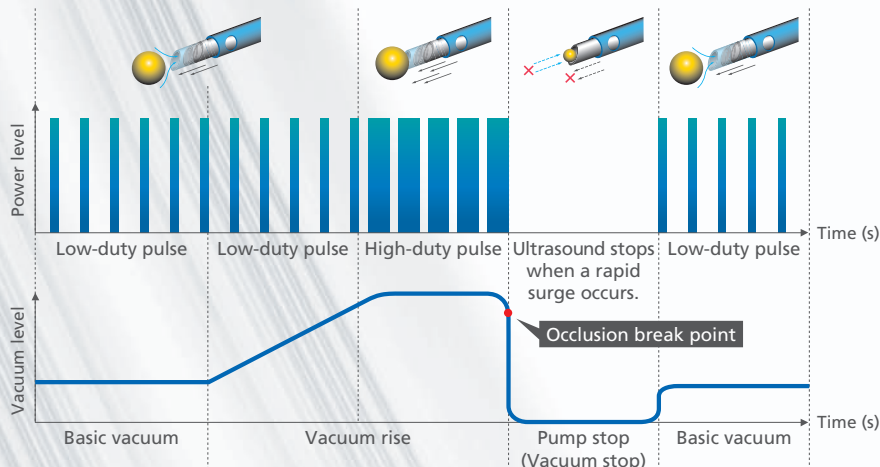
The dual-pulse oscillation provides overlapping and separation of conventional pulse and ultra-short duration pulse. The ultra-short duration pulse can provide high energy or low energy for an extremely short duration. VIS provides numerous customizable oscillation settings.



APS-Plus (Auto Pulse System-Plus)

■ Efficient control of ultrasound and aspiration pump

Both ultrasound and aspiration pump automatically stop immediately after occlusion breaks to minimize surge. When the phaco tip is occluded, an automatic increase in the pulse duty provides a highly efficient control for phacoemulsification. The change in IOP can be controlled when the occlusion breaks.



High Speed Vitreous Cutter

- Maximum 5,000 cuts / min

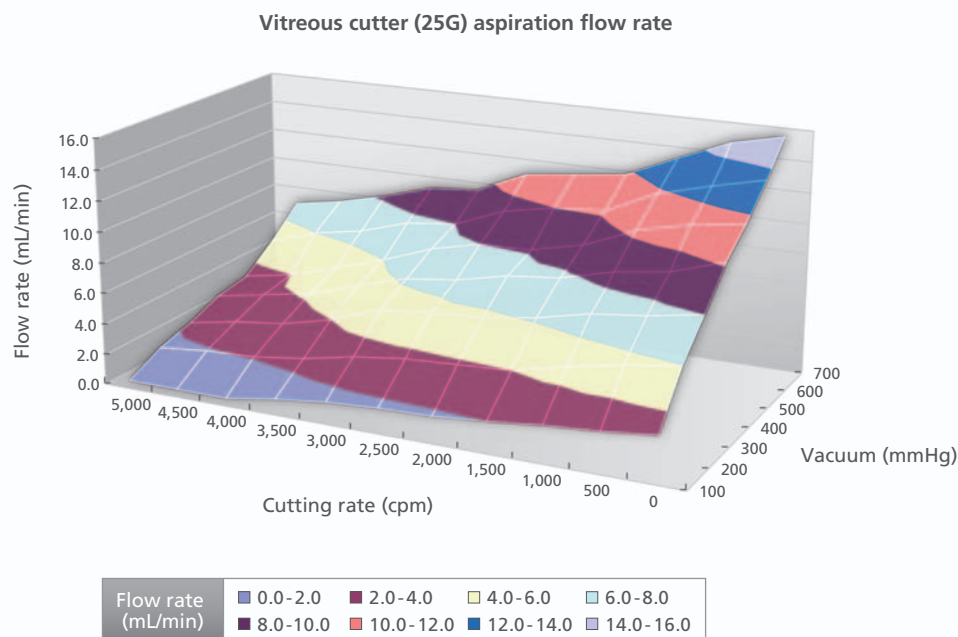
The excision per single cut is decreased with a high speed cutter and it is effective for precise treatment proximal to the retina.



Pro-Pedal Mode

- Desired setting with smart software

Cutting rate, flow rate, and vacuum can be independently controlled and modified in three dimensions. This software improves performance during vitreoretinal surgery and efficiency of vitreous body excisions.



Navigation Mode

- Guidance with pictures for the setup procedure

Navigation screen uses images to aid in the setup procedure for ease of use.



Sequential Mode

- Programming for surgical procedure

Operation modes can be switched using the foot pedal.

Example of the program for combined cataract and vitreoretinal surgery



Multi-functional Foot Pedal

- Enhanced operability with customized foot pedal functions

Foot pedal functions are customizable with up to 8 selectable positions.



Integration with Green Laser

- Efficient operation flow and space-saving

The CV-30000 is equipped with a room to integrate the NIDEK Green Laser GYC-1000. It enables efficient operation flow and effective use space in the operating room.



Optimal Cassette System

■ Separate cassette system for optimal vacuum control

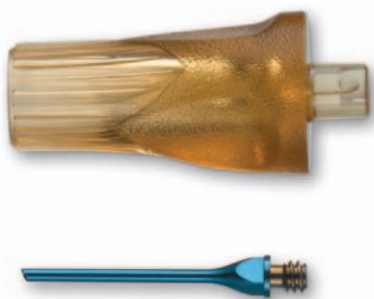
With the use of the separate cassette system for cataract and vitreoretinal surgery, the CV-30000 provides optimal intraoperative vacuum control during the surgery.



Phaco cassette

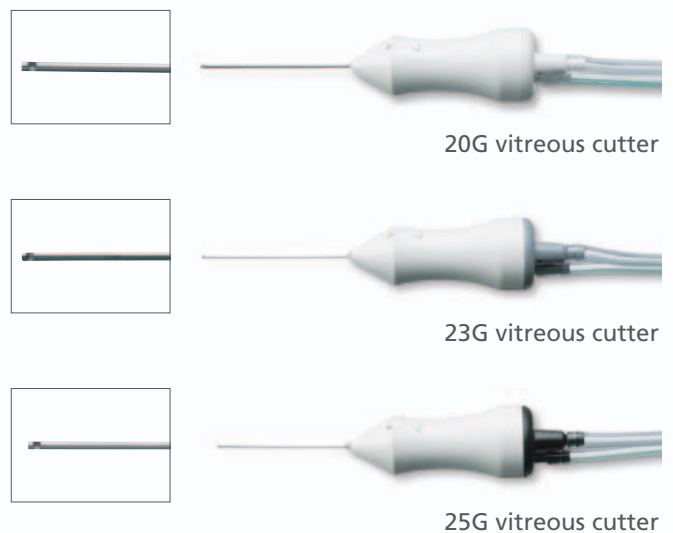
Vit cassette

Variety of Accessories



■ Disposable phaco tip

The CV-30000 comes with a cost effective disposable phaco tip to maintain sterile conditions intraoperatively.



■ Selectable vitreous cutter

The selectable vitreous cutter based on the surgical techniques optimizes the effectiveness of vitreoretinal surgery.

Fortas™ CV-30000 Specifications

Type	AP	A
Application	Cataract / Vitreoretinal surgery	Cataract surgery
Vacuum		
Pump type	Peristaltic pump	Peristaltic pump
Vacuum setting	0 to 700 mmHg	0 to 700 mmHg
Flow rate	0 to 60 mL / min (cataract surgery mode) 0 to 200 mL / min (vitreoretinal surgery mode)	0 to 60 mL / min (cataract surgery mode)
Ultrasound		
Transducer	Piezoelectric	←
Frequency	40 kHz	
Pulse mode	1 to 100 pulses / s	
Diathermy		
Frequency	515 kHz	←
Output	0.5 to 10 W (5 to 100%)	
Vitreous cutter		
Cutting system	Pneumatic driven guillotine system	
Cutting rate	100 to 2,500 cuts / min (with built-in air compressor) 100 to 5,000 cuts / min (with gas as an external drive source)	←
External driven source	Air or nitrogen gas, 550 to 750 kPa	
Intraocular illumination		
Light source	Halogen lamp (12 V / 50 W)	Not available
Output	2 ports	
Air pressure of FGX	10 to 100 mmHg	Not available
Driving pressure of viscosity fluid infusion	100 to 300 kPa	Not available
Intraocular scissors		
Cutting rate	50 to 400 cuts / min	Not available
Driving pressure	140 to 250 kPa	
HID illumination unit (optional)		
Light source	Xenon lamp (75 W)	Not available
Output	1 lamp / 2 ports	
Power supply	AC 100, 115, 230 V 50 / 60 Hz	←
Power consumption	650 VA	450 VA
Dimensions / Mass	512 (W) x 555 (D) x 1,540 (H) mm 115 kg	← 110 kg



Specifications may vary depending on circumstances in each country.
Specifications and design are subject to change without notice.

NIDEK Eye & Health Care
NIDEK CO., LTD.

HEAD OFFICE
34-14 Maehama, Hiroishi
Gamagori, Aichi 443-0038, Japan
Telephone : +81-533-67-6611
Facsimile : +81-533-67-6610
URL : <http://www.nidek.co.jp>
[Manufacturer]

TOKYO OFFICE
(International Div.)
3F Sumitomo Fudosan Hongo Bldg.,
3-22-5 Hongo, Bunkyo-ku, Tokyo
113-0033, Japan
Telephone : +81-3-5844-2641
Facsimile : +81-3-5844-2642
URL : <http://www.nidek.com>

NIDEK INC.
47651 Westinghouse Drive
Fremont, CA 94539, U.S.A.
Telephone : +1-510-226-5700
 : +1-800-223-9044 (US only)
Facsimile : +1-510-226-5750
URL : <http://usa.nidek.com>

NIDEK S.A.
Europarc
13, rue Auguste Perret
94042 Créteil, France
Telephone : +33-1-49 80 97 97
Facsimile : +33-1-49 80 32 08
URL : <http://www.nidek.fr>

NIDEK TECHNOLOGIES Srl
Via dell'Artigianato, 6 / A
35020 Albignasego (Padova), Italy
Telephone : +39 049 8629200 / 8626399
Facsimile : +39 049 8626824
URL : <http://www.nidektechnologies.it>

