

# A revolution, not an evolution.



**Infusion Level Guard**  
A warning appears when the level of infusion liquid is low

**Sensory Information Assistance**  
- Voice Information Assistance  
- Text2Speech  
- LED Information Assistance

**Usability**  
Fast set-up of the operating room, thanks to the rotatable display, central braking system and wireless power supply.

**Triple Pump Fluidics**  
- IOP Control Pump infusion  
- Peristaltic Pump aspiration  
- Clean Venturi aspiration

**Instruments**  
- Efficient Sinus Phaco  
- Vitrectomy pneumatic  
- Diathermy

**Easy Connectivity**  
Bluetooth, Wi-Fi, NFC, Easy Charge

**Ease of Use**  
Simple, clear and well laid out. You see only the information you currently require.

**Video-Inlay 2 Display**  
Microscope images transmitted to display through Wi-Fi.

**Lean Cassette System**  
- Automatic Slot-In-System  
- Multi Sensor System, which enables Express-Priming  
- Cassette handle which simplifies the insertion of cassettes

**Tray**  
The tray can be clipped on to the left or right side of the device, and the height position is freely selectable.

**Easy Move**  
A fully charged battery lasts for up to 20 surgeries. Thanks to the integrated air compressor, external pneumatic tubes are unnecessary.

**Foot pedal**  
Wireless, dual linear, four rocker switches, freely programmable, simple charging process.

## Technical Data

<b>Phacoemulsification</b>	Handpiece type	Piezoelectric
	Application part	BF
	Frequency	38 .. 41 kHz
	Signal form	Sine wave
	Power	25 W ± 5 W at 1100 Ω and 100 % performance
	Stroke	0 .. 90 µm by ± 20 %
<b>Irrigation</b>	Gravity	Automatic infusion pole
	Active infusion	With separate peristaltic pump (IOP Control Pump)
<b>Aspiration</b>	Peristaltic	Flow 0 .. 60 ml/min Vacuum 0 .. 650 mmHg
	Clean Venturi	Vacuum and patient's eye fluids are separated by a foil to avoid contamination Vacuum 0 .. 650 mmHg, variable rise time: 0 .. 10 s
	Reflux	15 ml/min
	Diathermy	Type
<b>Diathermy</b>	Handpiece type	Bipolar forceps, bipolar pencil
	Application part	BF
	Frequency	500 kHz
	Power	Continuous 0 .. 10 W at 50 Ω
<b>Vitrectomy</b>	Modulation	Pulse 3 ms; pause 30 ms
	Handpiece type	Guillotine cutter
<b>Vitrectomy</b>	Cutting rate	30 .. 2000 cuts/min
	Cutting mode	Linear proportional, fixed
	Compressor	Integrated compressor (external compressor optional)
	Pressure	25 PSI (1.7 bar)
<b>Foot pedal</b>	Type	Wireless, dual linear, heel pressure (reflux) 4 rocker switches (up/down)
	Easy Move	Switch between gliding / fixation
	Illumination	When Easy Move is activated
	Battery	Fully charged battery lasts for up to 50 surgeries Inductive charging station on the device
	Status display	Traffic light system displays charging status and errors
	Wireless standard	Bluetooth LE
<b>Dimension</b>	Cable link	CAN-Bus
	Device	59 x 49 x 164 cm (w/o tray)
	Weight	65 kg (w/o battery)
	Battery weight	4.7 kg (per battery, 2 required)
<b>Graphical user interface</b>	Foot pedal weight	5.0 kg
	Screen size	19", TFT, IPS, LED Backlight
	Languages	English, Deutsch, Français, Italiano, Español
	Max. no. of surgeons	50
<b>Electrical specifications</b>	Max. no. of surgery settings	150
	Frequency	50 .. 60 Hz
	Supply voltage	100 .. 240VAC
	Power consumption	Max. 250 VA (w/o battery charge); max. 500 VA (with battery charge)
	Fuse	2 pieces 8A, 250 V
	Duty time	Continuous operation with power supply cable Fully charged battery lasts for up to 20 surgeries
<b>External air supply</b>	Optional	4 .. 10 bar, 10 l/min, oil free

[www.sophi.info](http://www.sophi.info)

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**This**  
Think in System

This AG  
Widnauerstrasse 1  
9435 Heerbrugg, Switzerland  
T: +41 71 544 08 70  
F: +41 71 544 10 86  
info@thisag.ch  
www.thisag.ch

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# New perspective.

Sometimes one must view things from a completely new perspective. This is the idea behind Sophi. We have redefined the requirements of a perfect Phaco-System by focusing on the points of view of the surgeon, the surgical team and all other involved parties. The result is a high-end device which sets new standards.

The concept of Sophi is based on 3 pillars:

## Mobility

Sophi is the first wireless Phaco-System to offer the surgical team high flexibility and mobility. This means ease of handling in the operating room and increased usability.

## Simplicity

Sophi's design is simple and straightforward. The complexity is inside the device, which allows for simple user handling, helps to save time and increases productivity.

## Safety

Sophi opens up new avenues in hygiene and safety. The Clean Venturi and automated Cassette Slot-In-System reduce the risk of contamination. The IOP Control Pump is designed for high chamber stability.

## Efficiency

Altogether, the benefits of Sophi's 3-Pillar-Concept facilitate simpler, safer and faster operating procedures – before, during and after surgery. This significantly increases efficiency and therefore also yields economic benefits.

### MOBILITY

#### Easy Move: The first battery-powered Phaco-System

With Sophi, not only the foot pedal works without cables, but the entire device. It requires neither a power cable nor data cables. Sophi is mobile and it is exactly this mobility which simplifies your work and therefore improves efficiency.

#### Tubeless: Integrated compressor

The compressors for vitrectomy and for Clean Venturi aspiration are also integrated into the device. Therefore, the usual bulky and inflexible tube to the external compressor becomes superfluous.



#### Flexibility: Freedom thanks to mobility

Sophi is incredibly adaptable. The 180° rotatable display and freedom to choose the tray position facilitates setting up the operating room. Moving the device is very simple too: Release Mono-Brake Handle, move Sophi to the desired location, apply the brake – done.

#### Easy Connectivity: Ready for the future

These days a wireless connection of the foot pedal over Bluetooth is standard. However, Sophi can do much more! Sophi enables you to transmit live microscope images to the display over Wi-Fi.



### SIMPLICITY

#### Slim Design

Sophi wins through its slim, reduced design. Nonetheless, everything needed for both ergonomic and safe usage is in place. Clear shapes, high-quality materials and numerous innovative solutions make Sophi a system which sets new benchmarks.

#### Sensory Information Assistance

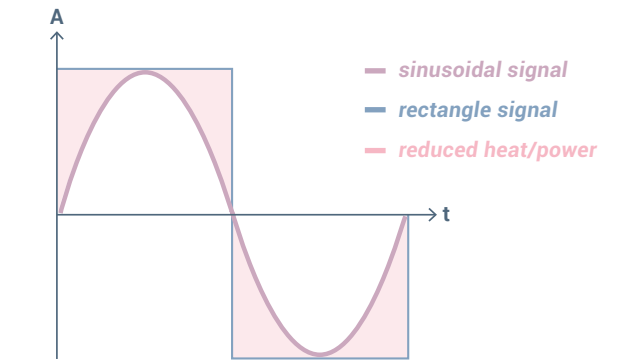
Sophi communicates with you, not only on the display but also verbally with Text2Speech, and visually with color-changing LED projection. All surgical team members receive exactly the information needed to execute their tasks in a focused and efficient manner.

### SAFETY

#### Triple Pump Fluidics

The centerpiece of every Phaco device is the pumping system for stable chamber fluidics, or with regard to Sophi, more precisely: the pumping systems, as Sophi has three combined into one.

1. IOP Control Pump for stable infusion pressure
2. Peristaltic Pump to control the flow and vacuum
3. Clean Venturi Pump which protects against contamination by the patient's eye fluids



#### Efficient Sinus Phaco

The less energy a Phaco handpiece requires, the less heat is projected into the eye. That is why Sophi controls the handpiece with a sinusoidal signal, which considerably reduces the energy needed, thereby protecting the eye.

#### Lean Cassette System

Each detail of Sophi focuses on safety – without compromises. Sophi offers an automatic Cassette Slot-In System which reduces the risk of contact between sterile and unsterile areas during loading.

