



MICRO  
**SMART**

**THE PERFECT  
SINGLE SURGERY TEAM.**



## POWERFUL SUCTION FOR THE SINGLE SURGERY

Micro Smart is a semi-wet suction system with variable speed suction for one surgery. It is our most powerful suction system yet for a single surgery, and offers many advantages over anything previously available.



## MICRO SMART IS AVAILABLE IN 3 CONFIGURATIONS



With ISO-5.5 amalgam retention



With keypad display (no ISO-5.5)



Basic unit (no ISO-5.5, no keypad display)

### OPTIONS

**Without amalgam retention** – the system can be supplied with or without the keypad display. See right for information on the keypad display and its benefits.

**With amalgam retention** – if amalgam retention is fitted (ISO-5.5) the unit must also be fitted with the keypad display.\*

**For all units** – an acoustic hood for the suction motor is available, which lowers the noise level by up to 2.5 dB(A).



\* This is a requirement so that the level sensor alarm can be given (95% and 100% cup full alarm is displayed on the screen), which is a requirement of the standard for such systems.

### KEYPAD DISPLAY

The keypad display gives you and your technician easy access to information on the operation and running of your Micro Smart, including:

- Running temperatures, including maximum temperature reached
- Vacuum level
- Number of hours the system has run and number of motor starts
- Electrical absorption of the motors
- "Amalgam cup full" warning

Using the keypad display, your technician can adjust settings to your requirements and preference, including things such as maximum pressure settings, preset performance levels and run on times.



# TAILORED SUCTION TO SUIT YOU

**MICRO SMART HAS THE OPTION\* OF USING THREE PRESET PERFORMANCE LEVELS, EACH OF WHICH IS DESIGNED FOR A DIFFERENT APPLICATION OF THE SUCTION.**

By pressing the preset button on the keypad display (which can be mounted in the surgery), the performance level automatically adjusts to the desired preset level.

For example, **when using the HVE tip, requiring high airflow and medium negative pressure**, you would select the second preset (Medium setting), which would provide you with around 300 l/min\*\* at the tip, with a maximum negative pressure of -100 mbar\*\*. This suction level would mean the machine runs relatively quietly, under little load, and consumes comparatively little power. This amount of suction also limits the noise level at the suction tip.



For a demonstration of Micro Smart's preset suction option, please go to [www.singlesurgery.com.au](http://www.singlesurgery.com.au)

**When using a surgical tip, requiring medium airflow and high negative pressure**, you would select the third setting (High setting), which would provide you with around -140 mbar\*\* at the suction tip (and up to -200 mbar\*\* when the tip is occluded). This pressure is ideal for surgical procedures, and considerably stronger than our standard single surgery suction systems.

**When using a saliva ejector, which only requires low airflow and low negative pressure**, the first preset (Low setting) is selected. This provides a suitable level of suction, while allowing the machine to run with a low load, resulting in low electrical consumption and noise level.

Micro Smart is the most powerful suction system we have ever produced for a single surgery. It provides high airflow and high pressure (-210 mbar), meaning it is well suited to both general and surgical procedures.

\* Use of this function is optional, Micro Smart can be set to one performance level (high is recommended) and run continually in that mode, as a traditional system.

\*\* These figures are the result of an in-house test, with Micro Smart connected to 6m of 30mm pipe, 2 metres of 15mm tube, a Cattani no. 11 HVE suction tip and Cattani no. 9 surgical suction tip. The exact performance figures will vary depending on the length and diameter of pipes and tubes.



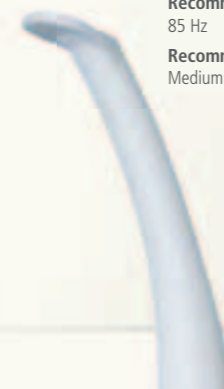
## Low Setting

**Ideal Airflow**  
Low: Approx. 100 l/min  
**Recommended Max. Motor Speed**  
60 Hz  
**Recommended Max. Pressure**  
Low: -70 mBar



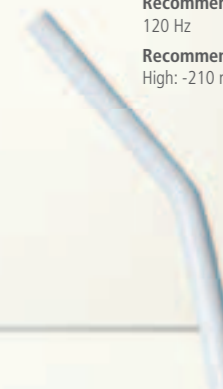
## Medium Setting

**Ideal Airflow**  
High: Approx. 300 l/min  
**Recommended Max. Motor Speed**  
85 Hz  
**Recommended Max. Pressure**  
Medium: -100 mBar



## High Setting

**Ideal Airflow**  
Medium: Approx. 180 l/min  
**Recommended Max. Motor Speed**  
120 Hz  
**Recommended Max. Pressure**  
High: -210 mBar



YOU AND  
MICRO SMART...

THE PERFECT  
SINGLE SURGERY  
TEAM.



You can access further information on Micro Smart at  
[www.singlesurgery.com.au](http://www.singlesurgery.com.au) or [www.singlesurgery.co.nz](http://www.singlesurgery.co.nz)

## AMALGAM RETENTION? SIMPLE



Micro Smart has been created with amalgam retention in mind. The ISO-5.5 Hydrocyclone, designed especially for the Micro Smart, is simple, effective, and reliable.

The ISO-5.5 amalgam retention system is compliant to ISO 11143 and has a rating of 98.9%. The ISO-5.5 can be supplied fitted to your new Micro Smart, or retro-fitted at a later date.

- 98.9% retention rate
- No drives, motors or pumps
- Doesn't increase the overall dimensions of the unit
- Compliant to ISO 11143

The ISO-5.5 separates amalgam particles centrifugally, yet without the need for a pump or motor on the hydrocyclone amalgam separator. Instead, the system harnesses the fluid pressure generated by the Micro Smart centrifugal air-fluid separator to achieve retention. This simple design makes the system robust and reliable.



Micro Smart with  
ISO-5.5 amalgam retention



Micro Smart without  
ISO-5.5 amalgam retention



Amalgam retention cup removal

## TANDEM MICRO SMART - HIGH PERFORMANCE AND BUILT-IN BACK-UP FOR 3 SURGERIES

Two Micro Smarts can be run together to provide suction for three surgeries, providing the clinic with outstanding suction performance and built-in back up.

As the Micro Smart's speed and performance is based on the negative pressure in the suction line, multiple units can work together without needing an extra control panel (as is required in most other tandem systems): the multiple units communicate through sensing the pressure at the same point in the suction line and adjusting their speed to suit.

NB: When two Micro Smarts are used in tandem, both units are permanently set on the High preset, meaning the tailored suction option (use of the different preset suction levels with the touch of a button) cannot be used.



## MICRO SMART TECHNICAL DATA

Model	Micro Smart
Warranty	2 years
Rated current	6.3 A
Suction control	Variable speed suction
Rated kW	1.12 kW
Maximum negative pressure	-210 mbar
Maximum airflow	55 m <sup>3</sup> /hr
Sound level from 60 to 120 Hz*	64 dB(A) to 71 dB(A)
Sound level with suction motor cover (plastic cover) from 60 to 120 Hz**	63 dB(A) to 68.5 dB(A)
Dimensions	Height: 600mm Depth: 380mm Width: 350mm
Weight:	23kg



## ISO-5.5 Hydrocyclone – amalgam retention system

Maximum flow	5.5 l/min
Minimum flow	0.5 l/min
Retention rate	98.9%
Standard	Complies to ISO 11143

\* Sound pressure level tested according to the standard ISO 3746-1979 (E). Parameters: r or d = 1,5 – background noise: 34 dB (A) – instrument Bruel & Kjaer type 2232

\*\* Sound pressure level registered at maximum speed and head.

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