



# NASAL INVESTIGATION

Rhinometer & Rhinomanometer



**Rhinometers and Rhinomanometers allow non-invasive nasal examination using a sound pulse technique and flow/pressure measurements, with analysis provided by accompanying software.**

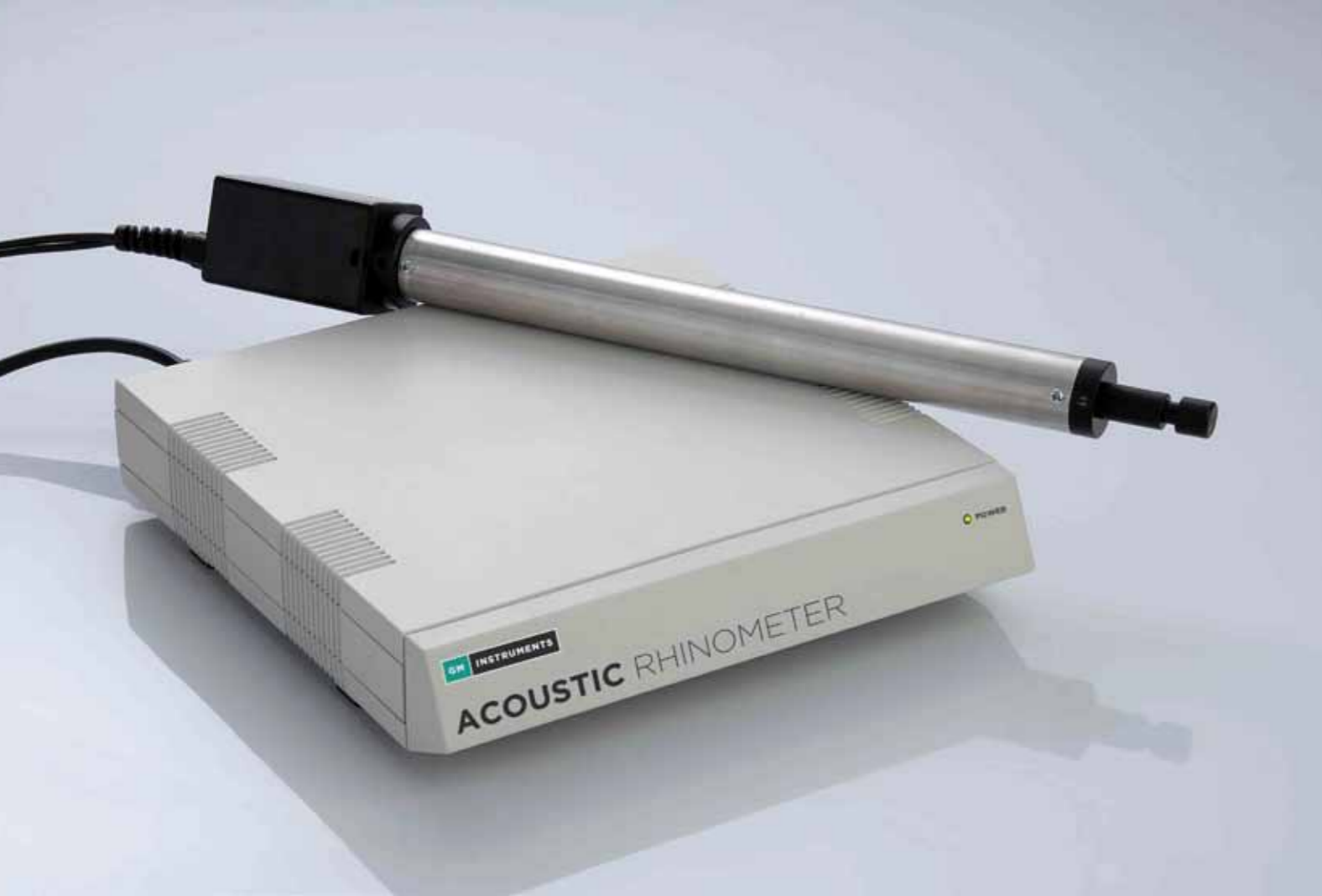
Supplied separately or linked together they provide a thorough nasal cavity examination facility.

- Examination of nasal structure (Rhinometer)
- Examination of nasal function (Rhinomanometer)
- Pre/post comparisons and percentage change calculations
- Complies with International Measurement and Safety Standards

**GM INSTRUMENTS**

# ACOUSTIC RHINOMETER

A1 Clinical/Research



## The A1 Acoustic Rhinometer allows a very rapid and non-invasive examination of the nasal cavity using a sound pulse technique.

Reflections of the sound pulse, produced by changes in the cross sectional area within the nose are processed by a PC to provide a plot of area, as a function of distance, into the nose. Numerical information such as the area at certain distances, and volumes between certain points in the nose, can also be presented.

Two versions of the system are available to provide facilities tailored to particular applications which include:

- **Surgical pre/post comparisons**
- **Nasal symmetry assesment**
- **Allergen challenge recording**
- **Sleep studies**
- **Quantifying changes due to Surgery, Decongestants and Medication**

The **Clinical** model provides a patient database, software calibration, colour selection facility for screen and printout, patient record screen editing, adjustable scale setting, calculation of the first two minimum areas, the distance at which minimas were found, the volume between any three distances, and user defined printout headings. A starter pack of consumables is also supplied.

The **Clinical Research** model provides all that the Clinical model does, but with the addition of:

- **Result validation facility**
- **System performance checking/adjustment tools**
- **Data export facilities**
- **Capability of adding additional sound tubes**

# RHINOMANOMETER

NR6 Clinical/ Research



## The NR6 Rhinomanometer calculates nasal airway resistance by measuring nasal flow and the pressure producing that flow.

Active anterior or posterior rhinomanometry, using either the Broms or standard techniques can be performed. Results are calculated using the four phase system approved by the International Standardisation Committee.

In addition NR6 can calculate and display either the Roher coefficients or the Broms angle relating to the resultant curves, and for anterior measurements there is a diagnostic mode, which looks for nasal valve collapse.

Two versions of the instrument are available, the NR6 Clinical and the NR6 Clinical Research - the difference between them being software facilities, plus the addition of a Rhinocal calibration checking unit with the Research model.

The NR6 **Clinical** model provides:

- **Starter pack of consumables**
- **Individual patient database**
- **Adjustable reference/threshold points**
- **Graphical comparison, display and printout**

The **Clinical Research** model provides all that the Clinical model does, but with the addition of:

- **Result validation facility**
- **Effective resistance & Vertex resistance calculation**
- **Raw data multi-format export**
- **Rhinocal for rapid calibration check**

Software (Naris) is available to link A1 and NR6.

# NASAL INVESTIGATION

Rhinometer & Rhinomanometer



ACOUSTIC RHINOMETER A1	CLINICAL	CLINICAL RESEARCH	
<b>Distance Range:</b>	Standard Sound Tube	12cm	12cm
	Optional Small Animal Sound Tube	5cm	5cm
	Optional Child Sound Tube	10cm	10cm
<b>Area Range:</b>	Standard Sound Tube	0.1 - 20cm <sup>2</sup>	0.1 - 20cm <sup>2</sup>
	Optional Small Animal Sound Tube	0.001 - 0.3cm <sup>2</sup>	0.001 - 0.3cm <sup>2</sup>
	Optional Child Sound Tube	0.01 - 5cm <sup>2</sup>	0.01 - 5cm <sup>2</sup>
<b>Volume Accuracy:</b>	Distance 0-5cm	2%	2%
	5cm - end	5%	5%
<b>Information Reported</b>	Standard Software	2x min areas, 3x volumes	2x min areas, 3x volumes
	Multiple Report	NO	YES Volumes + Areas
	Data Export Facility	NO	YES
<b>Size:</b>		27x6x28cm	27x6x28cm
<b>Weight:</b>		2kg	2kg
<b>CE Mark Class:</b>		IIa	IIa
<b>Complies with Standardisation Committee recommendations:</b>		YES	YES
<b>"Best practise" batch facility:</b>		NO	YES
<b>Electrical Safety:</b>		BS EN 60601	BS EN 60601

RHINOMANOMETER NR6	CLINICAL	CLINICAL RESEARCH	
<b>Pressure Range:</b>	800pa	800pa	
<b>Flow Range:</b>	800cc/sec	800cc/sec	
<b>Accuracy:</b>	2%	2%	
<b>Size:</b>	27x6x28cm	27x6x28cm	
<b>Weight:</b>	2kg	2kg	
<b>Electrical Safety:</b>	BS EN 60601	BS EN 60601	
<b>CE Mark Class:</b>	Class I	Class I	
<b>Measurements:</b>	Active Anterior Resistance	YES	YES
	Vertex Resistance	NO	YES
	Active Posterior Resistance	YES	YES
	Effective Resistance	NO	YES
	Standard/Broms/Rohrer Calculations	YES	YES
<b>Complies with Standardisation Committee recommendations:</b>	YES	YES	
<b>"Best practise" batch facility:</b>	NO	YES	
<b>Data exporting software:</b>	NO	YES	

Full product details and specifications can be found on our website. Please contact us to discuss optional features and expansion tailored to your requirements.



GM Instruments Ltd,  
Unit 6 Ashgrove Road,  
Kilwinning KA13 6PU,  
Scotland, UK

E: [enquiries@gm-instruments.com](mailto:enquiries@gm-instruments.com)  
T: +44 (0) 1294 554 664  
F: +44 (0) 1294 551 154  
[www.gm-instruments.com](http://www.gm-instruments.com)

Local Distributer