VMX-1020A
Automatic CO2 insufflator

CT COLONOGRAPHY
OPTICAL COLONOSCOPY
INTUSSUSCEPTION
VIRTUAL ENTEROSCOPY

“superior patient comfort”
“superior safety”
“optimal distension without the need for antispasmodic medicine”
VMX-1020A FEATURES

CT Colonography
Virtual Enteroscopy
Optical Colonoscopy
Intussusception Reduction

First CO₂ "multi-procedures" insufflator

CO₂ cylinders or central supply source
Adjustable heating system 18°C-47°C

CO₂ mode: First insufflator in the world with Steady Pressure Colonoscopy insufflation

First insufflator in the world with PACS interface remote technical support through VPN

CTC mode: "Unblock" Key and Colon preparation adaptation

PATENT PENDING

CTC and Intussusception set with effluents removal
Optional remote touch panel remote control
Admin kit for combined examination for Small Intestine and Colon

PATENTED

PATENTED
VIMAP Technologies features always years ahead...

VMX-1000A (year 2006)

- The electronic release of over pressure.
- The display of the actual flow.
- The high pressure mode for difficult cases.
- 35 mmHg mode vs 25 mmHg.
- Max flow adjustable from 1/l/min to 4/l/min.
- A soft catheter, a long catheters, 50cc balloon vs 25cc.
- The possibility to adjust the maximum flow rate for specific cases.

VMX-1020A (year 2015)

- Patented new heating system with constant temperature.
- at the patient and adjustable 18°C-47°C.
- Multi-purpose insufflator capable of 4 procedures.
- LAN (network) integrated insufflator.
- Steady pressure colonoscopy insufflation.
- Touch panel for remote control through Lan or Bluetooth.
- VPN Remote access for support, updates, preventive support.
- Faecal Tagging assist feature.
- Custom interface and graphical interface.
- Automatic decrease of the amount of liters when the machine releases the over pressure.
- Integrated barcode checking of the administration set status.
- PACS interface.
- The history all insufflations in memory.
- Insufflation of small intestine and colon (introduced in 2011 on VMX-1010A).
- User defined protocols.

VMX-1010A (year 2009)

- A special external release mechanism to prevent contamination.
- The warming of CO₂ prior to insufflation.
- An intuitive LCD screen.
- An easy to use control for intuitive setup.
- Double pressure sensor for added safety.
- History of last 10 insufflations in memory.
- Progressive flow to have a constant distension of colon and minimize spasms.
- Automatic calibration of the machine at each start-up.
- Indicator that shows when patient is fully insufflated.

UNMATCHED SAFETY FEATURES

- Multiple mechanical safety valves limiting at 3.5 bar and 2.5 bars entrance pressure in the insufflator.
- Multiple mechanical safety valve releasing pressure at 150 mmHg and 65 mmHg operating without power.
- Multiple safety electrovalve, one for virtual colonoscopy and one for optical colonoscopy and intussusception.
- Special feature that assures a constant pressure and constant temperature of the CO₂.
- The system offers fast, instantaneous and progressive release of over pressure through a proportional electronic valve and a second high release valve for high overpressure (contractions or change of position of the patient).
- Administration sets with 2 hydrophobic, anti-bacterial and anti-virus properties to protect the machine even in case of overflowing of effluents reaching the first filter.
- Permanent automatic monitoring of the machine and of the calibration and warning messages sent to service support in case of deviation of a calibration or of a component performance: Machine will be have a preventive intervention before being out of order.
- For added safety, the VMX-1020A has a built in multiple pressure sensors with constant electronic monitoring.
- The VMX-1020A maintains history of all insufflations in memory.

VIMAP TECHNOLOGIES
**TECHNICAL SPECIFICATIONS**

**Pneumatics:**
- CO₂ gas supply system: (US 7/16” connector).
- Maximum permitted pressure in the cabin by mechanical valve: 65 mmHg to 120 mmHg according to the operating mode selected + 2 independent over pressure release valves electronically controlled.
- Maximum flow without loss of head (to the nearest deciliter): 4L/min to 10L/min according to the operating mode.
- Pressure release: 0 to 120 mmHg to an accuracy of 1 mmHg according to operating mode selected.

**Interface:**
- Touch panel monitor 15-inch LCD with 5 wire resistive touch pannel usable with medical gloves.
- Screen showing: immediate flow, intra-cavity pressure, blow-off pressure, temperature of the CO₂, total volume of CO₂ used and low levels in the cylinder, operating mode, user protocol.

**Power supplies:**
- Types of power supply: 100-240 V AC 50-60 Hz.
- Protection by fuses: 6.3 A – 250V time-lag fuses – UR.
- Power used: 300 VA.

**Mechanics:**
- Dimensions including cart, capsule: L=49 cm, D=55 cm, H=164 cm.
- Total weight including cart and panel PC: 65 kg.

**Operating, transportation, Storage:**
- Transport and storage relative humidity range: 20% to 85%.
- Operating temperature range: +10°C / +40°C.
- Operating relative humidity range: 30 to 75%.
- Transport and storage temperature range: +5°C / +50°C.
- Operating, transport and storage atmospheric pressure range: 700 hPa to 1060 hPa.

**Standards:**
- Electrical protection: class 1 type BF.
- Conforms to European directive 93/42/CEE on medical devices: class IIa.
- Conforms to standard IEC 60 601–1.
- Not protected against water (IPX0).
- Not adapted for use in the presence of a flammable anaesthetic mixture with air, oxygen or nitrous oxide.

**Ocillary equipment:**
- Main power cable.

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**ORDERING INFORMATION**

**Insufflator references:**
- VMX-1020A capsule alone. Not included: cart, high pressure flexible hose, power supply cable: VMX-1020A
- High pressure tube type C (DIN 477-1 N°6 218x1/4”): REGH-KIT001
- High pressure tube CGP940 (PIN Index): REGH-KIT002
- High pressure tube W27x2 – ISO5145: REGH-KIT003
- Remote touch panel 15” LCD monitor usable with medical gloves (5 wire resistive touch panel) to control remotely the VMX-1020A: REM-XXXXA
- Pedal with single foot switch: FSW-1P-A
- Pedal with triple foot switch: FSW-3P-A

**Administration sets references for VMX-1020A:**
- Box of 24 administration sets for virtual colonoscopy, intravenous, patented system with 3 way catheters system for removing of effluents during insufflation: AS-3W-H-R35A/24
- Box of 72 administration sets for optical colonoscopy, connection to endoscopes (luer lock connector): AS-H-600/72
- Box of 18 500ml container for collecting of effluents for optical colonoscopy: AS-CONT-500/18
- Box of 12 administration sets for virtual enteroscopy: AS-SI-H-R35A/12

**PACS Interface module for VMX-1020A:**
- PACS interface software module sending insufflation data to PACS: PACS-1020A

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**VIMAP Technologies**

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**DISTRIBUTOR**

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