

GENERAL CATALOGUE

MEDICAL LINE



flow-meter™
ENGINEERING REVOLUTION IN MEDICAL TECHNOLOGY

DIAGRAM OF OPTIONS

MATCHING VACUUM REGULATORS, CONNECTIONS, COLLECTION JARS

SUCTION OF FLUIDS		SUCTION OF FLUIDS	64
1	Easy EasyVAC® PLUS DGT vacuum regulator		70
2	Easy EasyVAC® PLUS vacuum regulator		72
3	EASYVAC® vacuum regulator		74
4	Easy EasyAIR® "Venturi system" suction unit		80
5	AV/500 Venturi suction unit		82
6	AV/1000 Venturi suction unit		82
7	VA water manometer		84
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9	Easy EasySAFE® PLUS safety jar		90
10	EASYSAFE® PSU safety jar		92
11	MAK/300 PC small volume collection jar		94
12	MAK/500 PC small volume collection jar		94
13	MAK/300 PC "Antibacteria" small volume collection jar		94
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16	MAK/2000 PC collection jar, direct fitting		96
17	MAK/1000 PC collection jar, direct fitting		96
18	MAK/4000 PC (or PSU) collection jar, pressure lid		96
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21	FLOVAC® disposable container		98
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CONNECTIONS AND ACCESSORIES FOR SUCTION DEVICES			
A	VACUUM AND AIR PROBES WITH THREAD CONNECTION AFNOR NF-S 90-116 · AFNOR NF-S 90-116 · EASYFIX* · UNI 9507 BS 5682 · DIN 13260 · SS 875 24 30 · JIS T 7101 · SANS 1409 · OHMEDA	SUCTION OF FLUIDS	103-154
B	VACUUM AND AIR PROBES WITH HOSE CONNECTION AFNOR NF-S 90-116 EASYFIX* · UNI 9507 · BS 5682 · DIN 13260 SS 875 24 30 · JIS T 7101 · SANS 1409 · OHMEDA	SUCTION OF FLUIDS	104-155
C	RAIL CLAMPING SYSTEMS AND WALL BRACKETS	SUCTION OF FLUIDS	105
ACCESSORIES		ACCESSORIES	152
D	Hose for medical gas (vacuum or medical air)		161

A VACUUM PROBES WITH THREAD CONNECTION

B VACUUM PROBES WITH HOSE CONNECTION

A AIR PROBES WITH THREAD CONNECTION

B AIR PROBES WITH HOSE CONNECTION

C RAIL CLAMPING SYSTEM

D HOSE

C RAIL CLAMPING SYSTEM

D HOSE

Easy 1

Easy 2

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Easy

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C WALL BRACKETS

C WALL BRACKETS

VACUUM REGULATORS

Comparison - Main information

	<p>p. 70</p>  <p>Easy</p>	<p>p. 72</p>  <p>Easy</p>	<p>p. 74</p> 
	EasyVAC® PLUS DGT	EasyVAC® PLUS	EASYVAC®
GAUGE	digital vacuum gauge with settable scale (mbar/hPa or mmHg)	standard control vacuum gauge with double scale (mbar/hPa or mmHg)	standard control vacuum gauge with double scale (mbar/hPa or mmHg)
TYPE	with membrane	with membrane	with membrane
KNOB	adjusting knob with Push&Lock system and soft grip inserts	adjusting knob with Push&Lock system and soft grip inserts	adjusting knob
ON/OFF	quick I/O push switch button	quick I/O push switch button	quick I/O push switch button
			

EASYVAC®

Vacuum regulators

The EASYVAC® continuous suction vacuum regulator is particularly suitable for all medical suction applications in hospitals and nursing homes.

STRUCTURE

The device is made of a strong techno-polymer body, with a quick I/O switch-button, a suction adjustment knob and a control vacuum gauge with three possible end-of-scale choices: -250 mbar, -600 mbar and -1000 mbar. A protective silicone cover prevents gauge damages caused by possible shocks received during transport or use.

The EASYVAC® vacuum regulators are also designed, through a threaded connection, for connecting directly or indirectly to the normal collection containers for suctioned fluids or for direct connection to the EASYSAFE® safety jar, through a specific quick release integrated connection.

The extreme rationality and simplicity, combined with the sophisticated technical execution, allow both operators and patients to appreciate the safety and reliability of this medical device.

Main information



EASYVAC® has a vacuum control gauge with double scale and it is available in three possible end of scale choices.

Related products



Safety jars
from p. 89



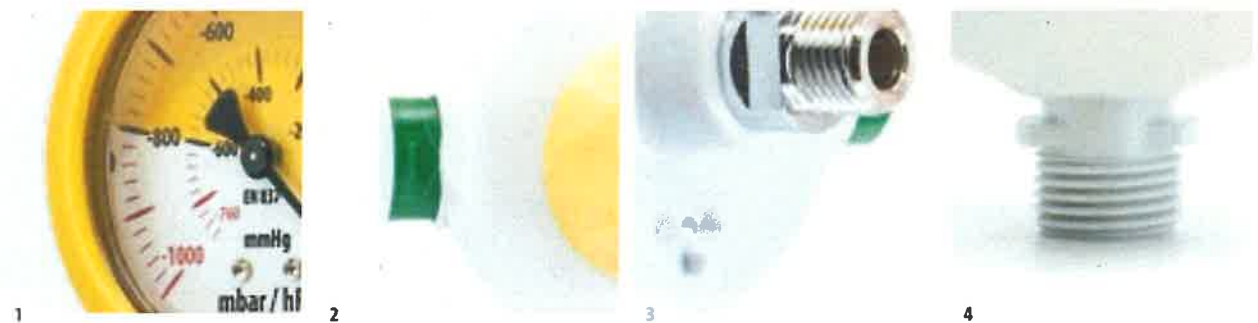
Collection jars
from p. 96



Probes
and Accessories
from p. 103













	EASYVAC® 250	EASYVAC® 600	EASYVAC® 1000
SIZES (LxWxH)	103x92x170 mm		
WEIGHT	0.42 Kg	0.37 Kg	0.37 Kg
MAXIMUM SUCTION RATE	50 L/min. ±5 L/min. at -220 mbar	72 L/min. ±5 L/min. at -550 mbar	105 L/min. ±5 L/min. at -950 mbar
MAXIMUM ADJUSTABLE DEPRESSION	-220 mbar ±20 mbar	-550 mbar ±20 mbar	-950 mbar
VALVE PROTECTING AGAINST EXCESSIVE NEGATIVE PRESSURES	preset with anti-clogging system	preset with anti-clogging system	N/A
MAXIMUM SUPPLY DEPRESSION	-950 mbar		
SUCTION ADJUSTING SYSTEM	with membrane		
STANDARD VACUUM SUPPLY CONNECTION	ISO G. 1/4" M.		
OUTLET CONNECTION	ISO G. 1/2" M. + quick release system for EASYSAFE® or EasySAFE® plus safety jar connection		
I/O SWITCH	quick push button type		

- 1 **Vacuum gauge** with colored sectors and double scale (mbar/hPa or mmHg), for easy reading of set vacuum values. Silicone cover and anti shock support
- 2 **Quick I/O push switch-button.**
- 3 De-pressure excess safety valve (for **EASYVAC® 250** and **EASYVAC® 600** only) with anti-clogging system.
- 4 Vacuum outlet G. 1/2" threaded connection integrated with quick-release connection for **EasySAFE® plus** or **EASYSAFE®** safety jar.



COLLECTION AND SAFETY JARS

Comparison - Main information

	p. 90 	p. 92 	p. 94 	p. 96 	p. 96 	p. 96 
	EasySAFE® PLUS	EASYSAFE®	MAK/300&500	MAK/1000	MAK/2000	MAK/4000
MATERIAL	polysulfone	polysulfone	polycarbonate	polycarbonate or polysulfone	polycarbonate or polysulfone	polycarbonate or polysulfone
CAPACITY	50 ml	50 ml	MAK/300 300 ml MAK/500 500 ml	1000 ml	2000 ml	4000 ml
OPTION	-	-	Antibacteria version	-	-	-
LID	presence of soft grip inserts to help the handling and quick 1/12 turn to speed up the opening	screw lid	screw lid for Antibacteria version: lid with housing for filter	screw lid	screw or pressure lid	pressure lid
INLET CONNECTION	quick release snap ring 1/2"F.	quick release snap ring 1/2"F.	polycarbonate nut 1/2"F. for vacuum regulator connection	hose connector diam 8.0-9.2 mm or ISO G. 1/2"F.	hose connector diam 8.0-9.2 mm or ISO G. 1/2"F. (for MAK/2000 screw lid only)	hose connector diam 8.0-9.2 mm
OUTLET CONNECTION	hose connector diam 8.0-9.2 mm with 360° rolling position	hose connector diam 8.0-9.2 mm	hose connector diam 8.0-9.2 mm	hose connector diam 8.0-9.2 mm	hose connector diam 8.0-9.2 mm	hose connector diam 8.0-9.2 mm
						

PRESSURE REGULATORS AND FLOWMETERS, ALL MEDICAL CARE
 EQUIPMENT OF EXCELLENCE
 TECHNICAL FINITE
 EQUIPMENT FINITE

EASYSAFE®

Safety jar

The **EASYSAFE®** safety jar is a medical device designed and manufactured for applications of “high flow and high vacuum”.

STRUCTURE

Designed for use with the **EASYPAC®** vacuum regulators, **EASYSAFE®** is used to protect the equipment and plant upstream, should the overflow valve in the main container not be working properly. Made of a strong and reliable techno-polymer (polysulphone), the **EASYSAFE®** safety jar is autoclavable (134 °C - 18 min.), has an overflow floating valve and a housing designed to fit an antibacterial filter to guarantee the complete suction system protection against contamination.

CAPACITY

This safety jar has a deliberately reduced capacity (approx. 50 ml) so that even a small presence of fluid can immediately activate the floating valve to stop the suction.

Main information



The vacuum hose connector and the quick release connection nut make the **EASYSAFE®** simple and easy to set up and to remove from the **EASYPAC®** vacuum regulator.



The **EASYSAFE®** safety jar is made of polysulfone and fully autoclavable (134 °C - 18 min.).

Related products



Vacuum regulators
from p. 69



Venturi suction units
from p. 79



Collection jars
p. 96

SIZES (LxWxH) 70x90x75 mm

WEIGHT 0.08 Kg

OVERFLOW SYSTEM floating valve

PATIENT CONNECTION hose connector Ø 8.0÷9.2 mm

MAXIMUM APPLICABLE VACUUM VALUE -950 mbar / 5 min.

CAPACITY APPROXIMATELY 50 ml

- 1 **Quick release** lock-unlock nut system.
- 2 **Housing for antibacterial filter**
Ø 50 mm (optional).
- 3 **EASYVAC® -1000 mbar** fitted with **EASYSAFE®** (optional).

EASYVAC® vacuum regulator, p. 74



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Large capacity collection jars

The MAK series large size containers for suctioned liquids are designed and manufactured for “high flow and high vacuum” applications. They have a long history, full of positive praises for their versatility, safety and economy.

STRUCTURE

Jar and lid are made of polycarbonate, and two straight inlet/outlet connectors are integrated into the cover (except in the above mentioned version having direct connection to the vacuum regulator that fits one chrome-plated brass nipple with polycarbonate connecting nut). All containers are equipped with an overflow valve, are supplied with two spare elbow connectors, to set up any possible connection between the jar, the suction line and the patient, and are obviously autoclavable (121 °C - 15 min.). If higher sterilization temperatures are required, a PSU version is also available for the three sizes (134 °C - 18 min.). An external graduated scale gives indications about the level of filling. In conjunction with the various supports and accessories available on request, the **MAK** collection jars grant simplicity in use, versatility and an important operating economy.

Main information



They are available with a capacity of 1000 ml with screw cap, of 2000 ml with screw and pressure lid and 4000 ml with pressure lid. Versions having capacities 1000 ml and 2000 ml can also be supplied, as an option, with a special lid with direct thread connection to the vacuum regulator.

Related products



Vacuum regulators
from p. 69



Venturi suction units
and Water manometers
from p. 79

	MAK/1000	MAK/2000 with screw lid	MAK/2000 with pressure lid	MAK/4000
INNER VOLUME	1000 ml	2000 ml	2000 ml	4000 ml
SIZES (LxWxH)	110x110x235 mm	135x135x285 mm	125x125x285 mm	175x175x310 mm
WEIGHT	0.38 Kg	0.49 Kg	0.49 Kg	0.99 Kg
SUPPLY DEPRESSION	max -950 mbar - 5 min			
OVERFLOW VALVE	floating valve			
INLET CONNECTION	hose connector Ø 8.0÷9.2 mm or ISO G 1/2" F. (for MAK/1000 and MAK/2000 screw lid only)			
OUTLET CONNECTION	hose connector Ø 8.0÷9.2 mm			

1 Screw lid (for MAK/1000 and MAK/2000 only) showing the overflow valve and the removable elbow connectors.

- 2 Pressure lid (MAK/2000 and MAK/4000) with overflow valve and removable elbow connectors.
- 3 Lid version for vacuum regulator direct fitting and elbow connector.
- 4 MAK large capacity collection jars are also available in PSU version.



MAK/1000

MAK/2000

MAK/4000



1



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Probes with thread connection



AFNOR NF-S 90-116
probe, thread
ISO G. 1/4" F.



AFNOR NF-S 90-116
type **EASYFIX**® probe,
thread ISO G. 1/4" F.



UNI 9507 probe,
thread ISO G. 1/4" F.



BS 5682 probe,
thread ISO G. 1/4" F.



DIN 13260 probe,
thread ISO G. 1/4" F.



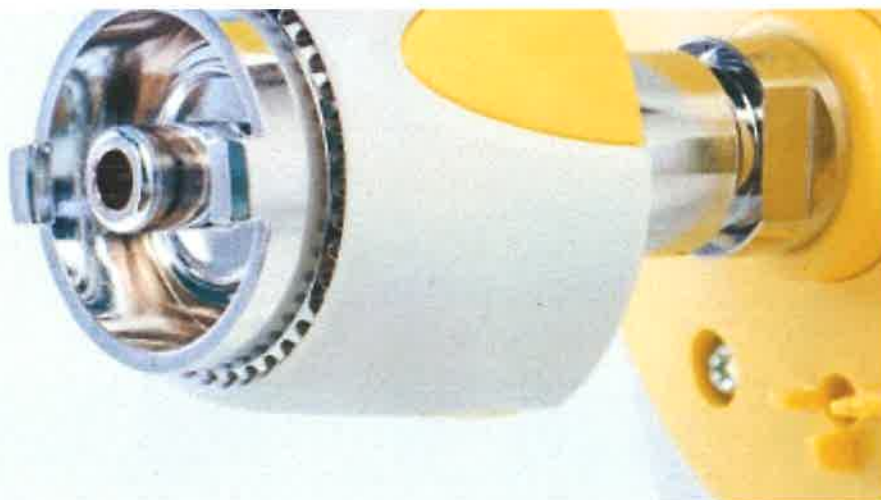
SS 875 24 30 probe,
thread ISO G. 1/4" F.



JIS T 7101 probe,
thread ISO G. 1/8" M.



SANS 1409 probe,
thread ISO G. 1/4" F.



OHMEDA probe,
thread ISO G. 1/4" F.

PRESSURE REGULATORS AND FLOWMETERS, ALL ACCURACY RANGES
 CIRCUMETAL
 FLOWMETER LIMITED
 TECHNICAL LIMITS
 4000000000

Rail clamping systems

Wall brackets · Catheter containers

Rail clamping systems



ABS clamp bracket for rail 30x10 mm and 50x10 mm, with nipple threaded ISO G. 1/4" F. and hose connector Ø 7.5 mm.



ABS clamp bracket for rail 30x10 mm and 50x10 mm, with slide 25x5 mm, 30x5 mm, 45x5 mm.



Anodized aluminum wedge for OHMEDA rail clamp bracket, with nipple threaded ISO G. 1/4" F. and hose connector Ø 7.5 mm.



Anodized aluminum OHMEDA rail clamp bracket.



Anodized aluminum wedge for OHMEDA rail clamp bracket, with slide 25x5 mm, 30x5 mm or 45x5 mm.

Wall brackets



ABS wall bracket: 25x5 mm, 30x5 mm, 45x5 mm slide.

Catheter containers

flow-meter™ catheter containers are accessories allowing the operators to put down in a hygienic way the suction hose during their activity. They are made with tube of polycarbonate Ø 54 mm by 400 mm length, and they are fully autoclavable (121 °C - 15 min.).

Moreover these containers can be placed in a specific support ring for rail or trolley, in a single or twin construction.



Single and twin construction

Low pressure hose assemblies

EN ISO 5359

The low pressure hose assemblies, meeting the requirements of the Standard EN ISO 5359, are indicated for the use with the following medical gases:

- Oxygen (O₂);
- Medical air (AIR);
- Air for driving surgical tools (AIR-800);
- Vacuum (VAC).

Main information



These flexible hose assemblies can be used in a pressure range from 300 kPa to 1400 kPa for compressed medical gases and from 10 kPa to 100 kPa (absolute pressure) for vacuum.

Here under some examples of suggested uses for the flexible hose assemblies:

- Connection between terminal units and medical equipment (refer to Standards EN ISO 9170-1, EN ISO 80601-2-13 and EN ISO 80601-2-12);
- Connection between a distribution pipeline system and one of its terminal units (refer to Standards EN ISO 7396-1 and EN ISO 11197);
- Connection between two terminal units (refer to Standard EN ISO 7396-1);
- Connection between an emergency supply source and a supply point for the emergency and the maintenance of a distribution pipeline system (refer to Standards EN ISO 10524-1 and EN ISO 7396-1);
- Connection between an emergency supply point and a medical equipment (refer to Standards EN ISO 10524-1, EN ISO 80601-2-13 and EN ISO 80601-2-12).

**COMPRESSED MEDICAL GASES
HOSE SIZES** Ø 11.5x5 mm

VACUUM HOSE SIZES Ø 13.5x6.3 mm

HOSE INNER MATERIAL black EPDM with antistatic treatment

HOSE ARMOUR polyester

HOSE COATING EPDM coloured according to the gas type

**COMPRESSED MEDICAL GASES
WORKING PRESSURES** from 300 kPa to 1400 kPa

VACUUM WORKING PRESSURES from 10 kPa to 100 kPa (absolute pressure)

STANDARD HOSE LENGTHS 1.5 m, 2.5 m, 4.5 m for gases
1.5 m, 2.5 m for vacuum

- 1 Different configurations of probes and outlets and available for all medical gases.
- 2 Unamovable clamping system.



1

2



Hoses for medical gases

Anti-squeezing hoses, according to standard EN ISO 5359, \varnothing 5x11.5 mm for medical compressed gases available in colors white, white-black and blue and \varnothing 6.3x13.5 mm for suction available in colors yellow and green.