

MULTI-STAGE, MULTI-FUNCTION AND MODULAR INTERMEDIATE VACUUM MODULES SERIES MI

Intermediate modules are non-independent multi-stage and multi-function vacuum generators to be assembled to the generators of the GVMM range.

Their thickness and weight are reduced to the maximum compared to their suction capacity and they have been designed to be enclosed between the lid and the base of the GVMM vacuum generator and fixed with screws. The internal connections for the compressed air supply allow communication between them and the basic generator, with no need for external manifolds.

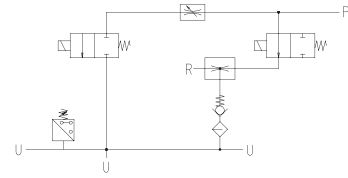
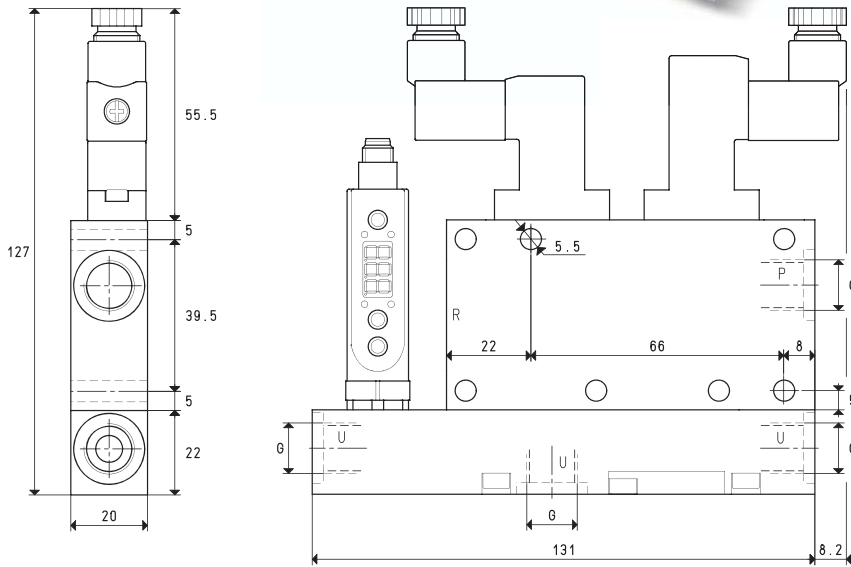
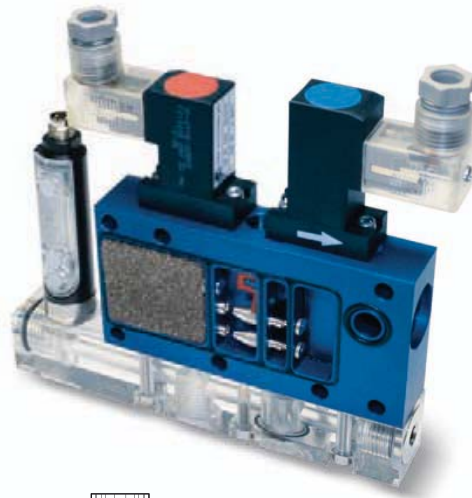
This way, each module becomes an independent vacuum unit that can control an entire vacuum system.

They can be ordered in the desired amount and capacity, either already assembled onto the GVMM multi-function vacuum generator, or separately, to be assembled to the GVMM generator previously installed onto the machine. In this case, we suggest ordering a screw kit suitable for the number of modules to be assembled.

MI intermediate vacuum modules are made up of the same elements that compose GVMM generators, except for the lid. They operate and they are used as the GVMM multi-function vacuum generator onto which they are assembled.



INTERMEDIATE VACUUM MODULES MI 3 and MI 7



P=COMPRESSED AIR CONNECTION R=EXHAUST U=VACUUM CONNECTION

Art.		MI 3			MI 7	
Quantity of sucked air	cum/h	2.6	2.8	3.0	5.5	6.4
Max. vacuum level	-KPa	64	85	85	60	85
Final pressure	mbar abs.	360	150	150	400	150
Supply pressure	bar (g)	3	4	5	3	4
Air consumption	NI/s	0.6	0.7	0.8	0.9	1.1
Max. quantity of blown air at 5 bar (g)	l/min			128		128
Supply solenoid valve position	NO/NC			NO		NO
Electric absorption	W			2		2
Ejection solenoid valve position	NC			NC		NC
Electric absorption	W			4		4
Supply voltage	V			24DC		24DC
Vacuum switch output				PNP		PNP
Class of protection	IP			65		65
Working temperature	°C			-10 / +60		-10 / +60
Noise level	dB(A)			66		70
Weight	g			380		380
G	∅			G1/4"		G1/4"

Note: To order the generator: with supply solenoid valve NC, please indicate the code MI .. NC;
without the digital vacuum switch, please indicate the code MI .. SV.

Note: All the vacuum data indicated in the table are valid at the normal atmospheric pressure of 1013 mbar and are obtained with a constant supply pressure.

3D drawings available at www.vuototecnica.net

8.52

Conversion ratio: inch = $\frac{\text{mm}}{25.4}$; pounds = $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$

GAS-NPT thread adapters available at page 1.117

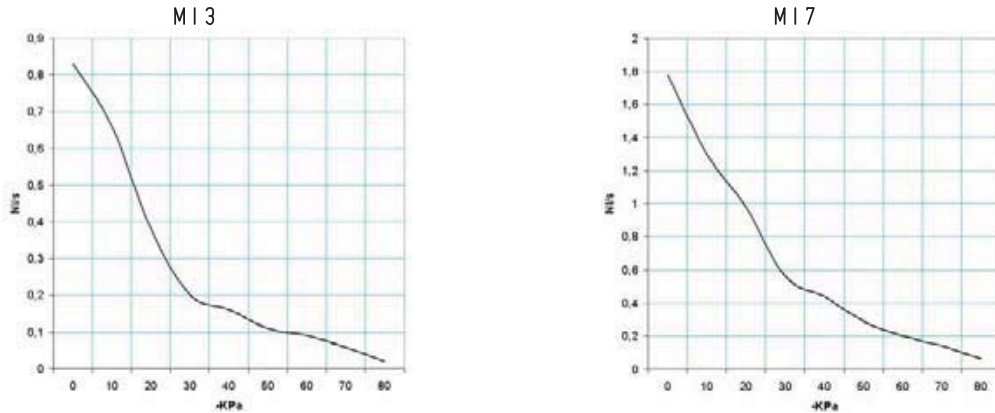


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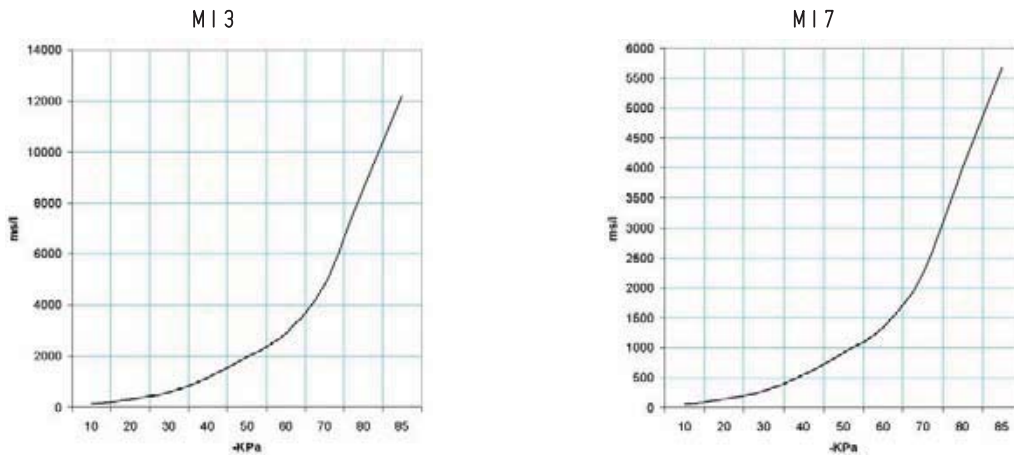
INTERMEDIATE VACUUM MODULES MI 3 and MI 7

Air capacity (NI/s) at different vacuum levels (-Kpa)



Generator art.	Supply press. bar (g)	Air consumption NI/s	Air capacity (NI/s) at different vacuum levels (-KPa)										Max. vacuum level -KPa
			0	10	20	30	40	50	60	70	80	85	
MI 3	5.0	0.8	0.83	0.66	0.38	0.20	0.16	0.11	0.09	0.06	0.02	85	
MI 7	5.0	1.3	1.78	1.30	0.98	0.56	0.44	0.29	0.20	0.14	0.06	85	

Evacuation time (ms/l = s/m³) at different vacuum levels (-Kpa)



Generator art.	Supply press. bar (g)	Air consumption NI/s	Evacuation time (ms/l = s/m ³) at different vacuum levels (-KPa)										Max. vacuum level -KPa
			10	20	30	40	50	60	70	80	85	85	
MI 3	5.0	0.8	128	294	592	1167	1978	2889	4824	8588	12195	85	
MI 7	5.0	1.3	59	137	275	543	921	1344	2245	3997	5676	85	

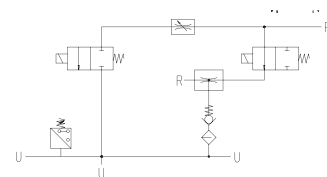
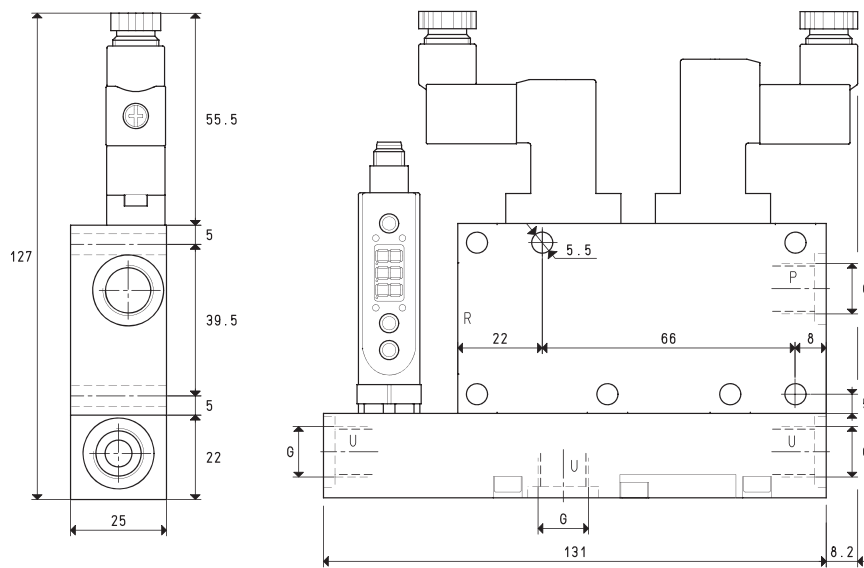
ACCESSORIES AND SPARE PARTS UPON REQUEST

Art.	MI 3	MI 7
Sealing kit and reed valve	art. 00 KIT MI 3	art. 00 KIT MI 7
Electric connection cable with axial connector for vacuum switch	art.	00 12 20
Electric connection cable with radial connector for vacuum switch	art.	00 12 21
Electric connection cable set with built-in energy	art.	00 15 202
Saving device NO and connectors	art.	00 15 203
Electric connection cable set with built-in energy	art.	12 10 10
Saving device NC and connectors	art.	00 15 176
Digital vacuum switch	art.	00 15 175
Supply solenoid valve NO	art.	
Supply solenoid valve NC	art.	

3D drawings available at www.vuototecnica.net



INTERMEDIATE VACUUM MODULES MI 10 and MI 14



P=COMPRESSED AIR CONNECTION R=EXHAUST U=VACUUM CONNECTION

Art.		MI 10			MI 14		
Quantity of sucked air	cum/h	7.5	8.3	9.1	10.1	11.1	12.1
Max. vacuum level	-KPa	60	80	85	60	80	85
Final pressure	mbar abs.	400	200	150	400	200	150
Supply pressure	bar (g)	3	4	5	3	4	5
Air consumption	NI/s	1.1	1.4	1.7	1.4	1.7	2.1
Max. quantity of blown air at 5 bar (g)	l/min			128			128
Supply solenoid valve position	NO/NC			NO			NO
Electric absorption	W			2			2
Ejection solenoid valve position	NC			NC			NC
Electric absorption	W			4			4
Supply voltage	V			24DC			24DC
Vacuum switch output				PNP			PNP
Class of protection	IP			65			65
Working temperature	°C			-10 / +60			-10 / +60
Noise level	dB(A)			70			72
Weight	g			410			410
G	∅			G1/4"			G1/4"

Note: To order the generator: with supply solenoid valve NC, please indicate the code MI .. NC;
without the digital vacuum switch, please indicate the code MI .. SV.

Note: All the vacuum data indicated in the table are valid at the normal atmospheric pressure of 1013 mbar and are obtained with a constant supply pressure.

3D drawings available at www.vuototecnica.net

8.54

Conversion ratio: inch = $\frac{\text{mm}}{25.4}$, pounds = $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$

GAS-NPT thread adapters available at page 1.117

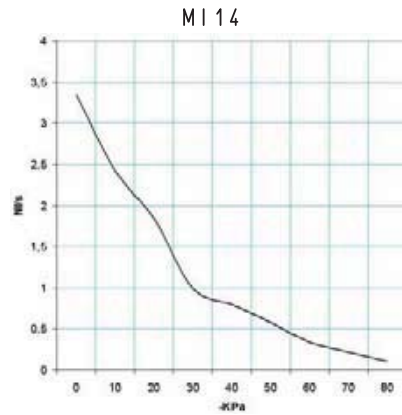
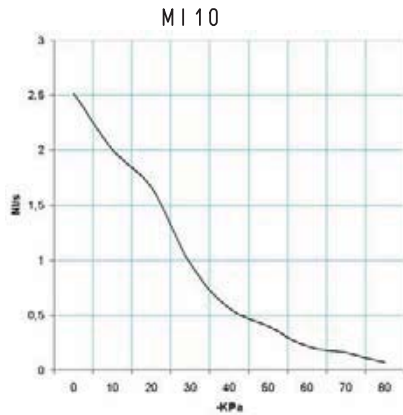


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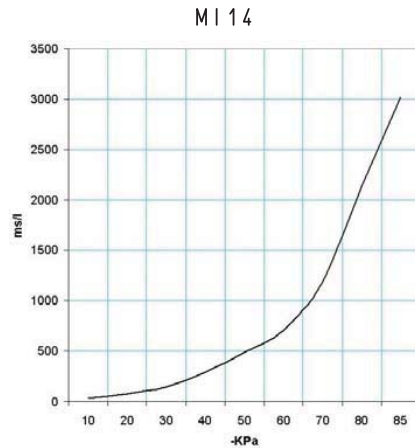
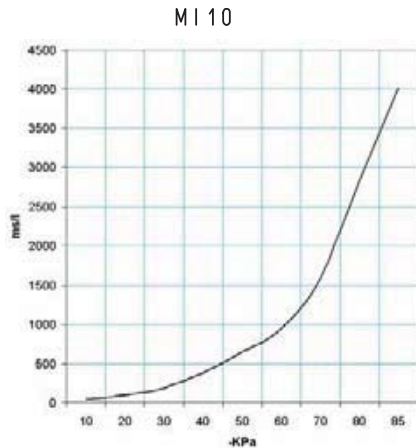
INTERMEDIATE VACUUM MODULES MI 10 and MI 14

Air capacity (NI/s) at different vacuum levels (-Kpa)



Generator art.	Supply press. bar (g)	Air consumption NI/s	Air capacity (NI/s) at different vacuum levels (-KPa)										Max. vacuum level -KPa
			0	10	20	30	40	50	60	70	80		
MI 10	5.0	1.7	2.52	2.00	1.66	0.97	0.56	0.40	0.22	0.16	0.07	85	
MI 14	5.0	2.1	3.35	2.42	1.84	0.99	0.80	0.58	0.34	0.22	0.10	85	

Evacuation time (ms/l = s/m³) at different vacuum levels (-Kpa)



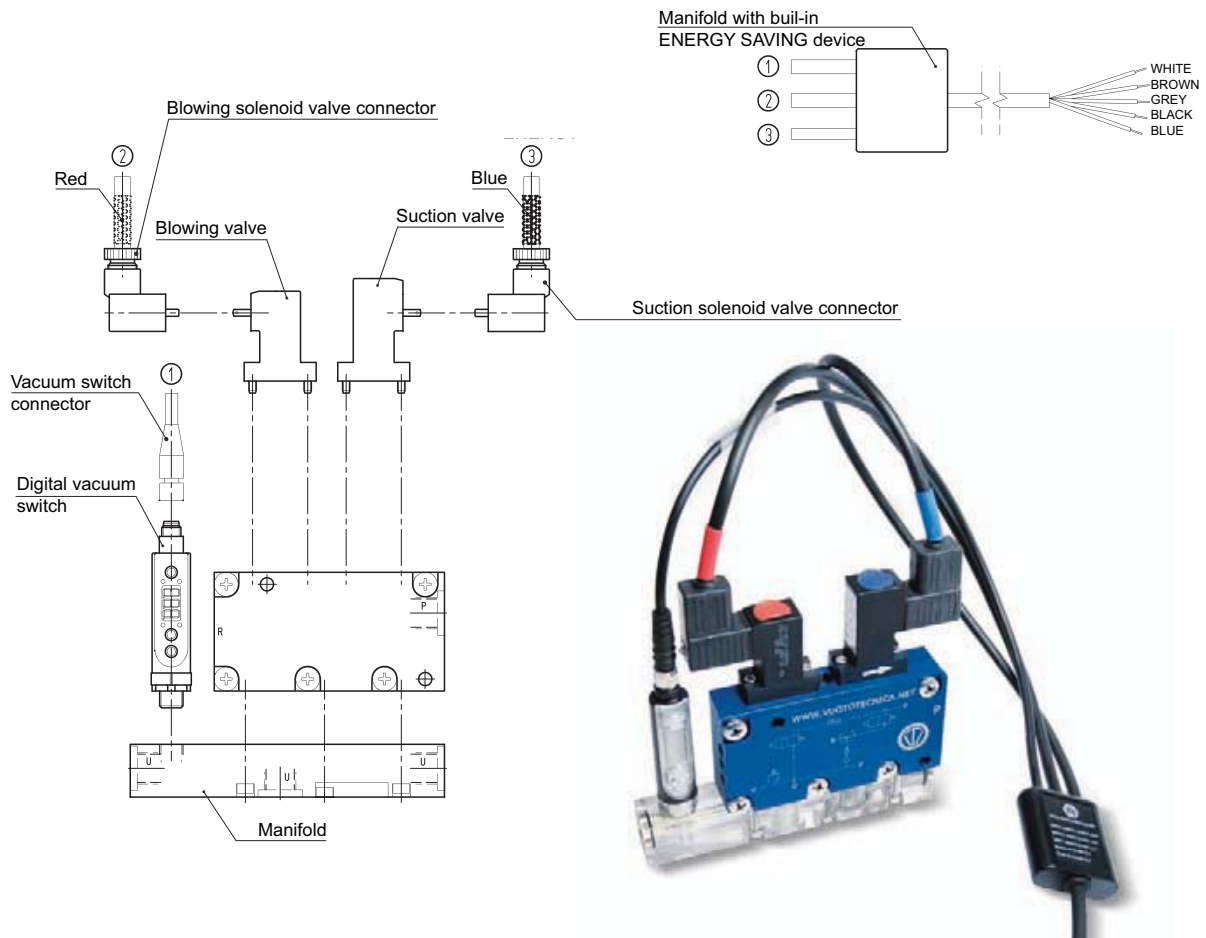
Generator art.	Supply press. bar (g)	Air consumption NI/s	Evacuation time (ms/l = s/m³) at different vacuum levels (-KPa)										Max. vacuum level -KPa
			10	20	30	40	50	60	70	80	85		
MI 10	5.0	1.7	42	97	195	384	651	951	1589	2828	4016	85	
MI 14	5.0	2.1	31	72	146	288	489	714	1193	2124	3016	85	

ACCESSORIES AND SPARE PARTS UPON REQUEST

Art.	MI 10	MI 14
Sealing kit and reed valve	art. 00 KIT MI 10	art. 00 KIT MI 14
Electric connection cable with axial connector for vacuum switch	art.	art. 00 12 20
Electric connection cable with radial connector for vacuum switch	art.	art. 00 12 21
Electric connection cable set with built-in energy	art.	art. 00 15 202
Saving device NO and connectors	art.	art. 00 15 203
Electric connection cable set with built-in energy	art.	art. 12 10 10
Saving device NC and connectors	art.	art. 00 15 176
Digital vacuum switch	art.	art. 00 15 175
Supply solenoid valve NO	art.	
Supply solenoid valve NC	art.	



ACCESSORIES AND SPARE PARTS FOR VACUUM GENERATORS AND MODULES SERIES GVMM and MI



Cable set with built-in energy saving device



3D drawings available at www.vuototecnica.net

Art.	Description
00 15 202	Cable set with built-in energy saving device for connection to : - Digital vacuum switch - Supply solenoid valve NO - Ejection solenoid valve NC Cable length = 5 mt.

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ACCESSORIES AND SPARE PARTS FOR VACUUM GENERATORS AND MODULES SERIE GVMM e MI

Cable set with built-in energy saving device



Art.	Description
00 15 203	Cable set with built-in energy saving device for connection to : - Digital vacuum switch - Supply solenoid valve NC - Ejection solenoid valve NC Cable length= 5 mt.

Connector



Art.	Description
00 15 157	Connector with LED for micro solenoid valve

Cable with axial connector



Art.	Description
00 12 20	Electric connection cable with axial connector, for digital vacuum switch

Cable with radial connector



Art.	Description
00 12 21	Electric connection cable with radial connector, for digital vacuum switch

Digital vacuum switch



Art.	Description
12 10 10	Digital vacuum switch



ACCESSORIES AND SPARE PARTS FOR VACUUM GENERATORS AND MODULES SERIES GVMM e MI

Micro solenoid valve NO



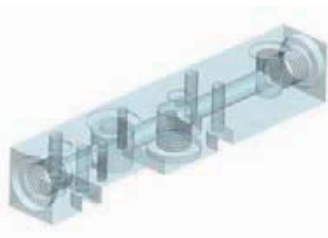
Art.	Description
00 15 176	Supply solenoid valve NO

Micro solenoid valve NC



Art.	Description
00 15 175	Supply solenoid valve NC

Plexiglass manifolds



Art.	Description
00 15 171	Plexiglass manifold for GVMM - MI 3/7
00 15 188	Plexiglass manifold for GVMM - MI 10/14

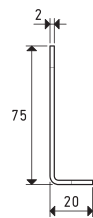
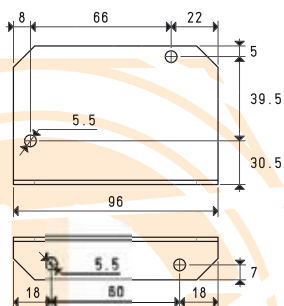
Aluminium manifolds



Art.	Description
00 15 174	Aluminium manifold for GVMM - MI 3/7
00 15 187	Aluminium manifold for GVMM - MI 10/14

Support

3D drawings available at www.vuototecnica.net



Art.	Description
00 15 306	Galvanised sheet metal L-type fixing support

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Conversion ratio: inch = $\frac{\text{mm}}{25.4}$; pounds = $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



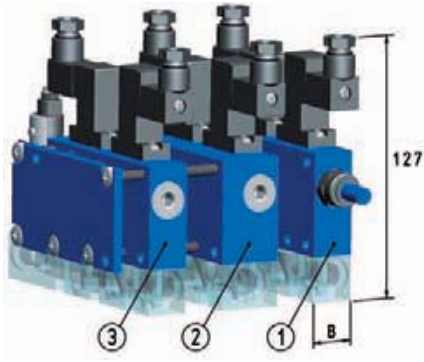
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MODULAR VACUUM SYSTEMS SET-UP

GVMM multi-function vacuum generators can be assembled with one or more intermediate modules, thus forming a modular vacuum system, featuring a compact shape and reduced size and weight.

As a standard, up to 6 vacuum units can be assembled, but using threaded bars instead allows assembling even more.



SET-UP EXAMPLE 1

N°	Art.	B
1	GVMM 3 - 7	20
2	MI 10 - 14	25
3	MI 3 - 7	20

Total length L= 65

Recommended screw kit: Art. 00 KIT GVMM 02

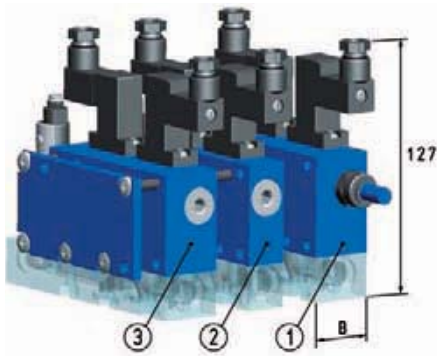
Order example:

n°1 Generator GVMM 3

n°1 Intermediate module MI 10

n°1 Intermediate module MI 3

n°1 stainless steel screw kit 00 KIT GVMM 02



SET-UP EXAMPLE 2

N°	Art.	B
1	GVMM 10 - 14	25
2	MI 3 - 7	20
3	MI 10 - 14	25

Total length L= 70

Recommended screw kit: Art. 00 KIT GVMM 03

Order example:

n°1 Generator GVMM 10

n°1 Intermediate module MI 3

n°1 Intermediate module MI 10

n°1 stainless steel screw kit 00 KIT GVMM 03



STAINLESS STEEL M5 SCREW KIT

Art.	L
00 KIT GVMM 01	45 - 50
00 KIT GVMM 02	60 - 65
00 KIT GVMM 03	70 - 75
00 KIT GVMM 04	80 - 85
00 KIT GVMM 05	90 - 95
00 KIT GVMM 06	100 - 105
00 KIT GVMM 07	110 - 115
00 KIT GVMM 08	120 - 125
00 KIT GVMM 09	130 - 135
00 KIT GVMM 10	140 - 145
00 KIT GVMM 11	150 - 155



3D drawings available at www.vuototecnica.net

