SENAMED
Teknik ve Tıbbi Sistemler San. ve Tic. A.Ş.



MEDVAC
Medical Vacuum Systems

MEDVAC Systems provide a reliable and continuous source of **negative pressure** for medical suction applications across healthcare facilities. Designed as complete, centralized systems, they support controlled vacuum supply for operating theatres, intensive care units, emergency rooms, and patient care areas.

MEDVAC Systems are designed in a modular way to meet different capacity and installation requirements. **Modular Stack Mount** configurations can be supplied as modular or field-separable systems, providing **flexibility for transportation, installation, and future system requirements.**

MEDVAC Systems are available in **double, triple, or quadruple** configurations and can be designed as vertical or tank-mounted systems to meet standards, capacity, and space requirements.



Medical Vacuum Systems

At the heart of the MEDVAC system, multiple vacuum pumps operate in parallel under the control of a central panel, providing synchronized operation and balanced working times across the units.

The generated vacuum is temporarily stored in the vacuum tank, which acts as a buffer to support stable system operation.

From the vacuum tank, the airflow passes through vacuum filters that help remove bacteribura and airborne contaminants before reaching the vacuum line.

Modular Design
Adaptable to specific project requirements.

Flexible Configuration
Configured for required capacity and pump quantity.

Vertical or Tank-Mounted
Suitable for different installation conditions.

Centralized Control
Managed through a central control panel.

Equal Aging
Balanced operating hours.



GP Series – Vacuum Pump

The GP Series is a range of oil-lubricated rotary vane vacuum pumps designed for reliable vacuum generation in medical vacuum systems.

Air-cooled operation, oil mist separation, oil filtration, and integrated non-return protection support stable and efficient performance.

GP Series vacuum pumps can be integrated into MEDVAC medical vacuum systems in single or multi-pump configurations, with different capacities available to suit specific project requirements.

Air-Cooled Operation
Air-cooled design for effective heat management.

Oil Mist Separation
Helps prevent oil carryover into the exhaust air.

Non-Return Protection
Prevents positive pressure from entering the line.

Flexible Configurations
Double, triple or quadruple arrangements.

Capacity Options
11–300 m^3/h capacity range.

Features	Unit	Pump Type – 50 Hz							
		GP 11	GP 21	GP 45E	GP 65E	GP 100E	GP 160	GP 210K	GP 300E
Flow Rate	m^3/h	11	21	45	65	100	160	200	300
Ultimate Vacuum	mbar	10	10	5	5	5	10	10	5
Noise Level without gas ballast	db (A)	59	62	58	58	66	67	69	70
Ultimate Vacuum with gas ballast	mbar	14	14	9	9	9	14	14	9
Max water vapour quantity acceptable with gas ballast	kg/h	0,1	0,3	0,3	1	1,7	5,4	5,4	5,7
Standard Voltage	V	230/400	230/400	230/400	230/400	230/400	230/400	230/400	230/400
Motor Power	kW	0,55	0,75	1,5	1,5	2,2	4	4	7,5
R.P.M	g/1'	1450	2800	1450	1450	1450	1450	1450	1450
Weight with oil	kg	19	20	41	47	80	138	160	200
Oil Quantity	L	0,5	0,5	2,5	2,5	3,5/5	3/4	4/7	4/6,5
Inlet Connection		½" GAS	½" GAS	1"GAS	1"GAS	1¼" GAS	2" GAS	2" GAS	2" GAS
Outlet Connection		1" GAS	1" GAS	1¼" GAS	1¼" GAS	1½" GAS	2" GAS	2" GAS	2" GAS
Pump Dimensions (W × D × H)	mm	436×234 h: 233	436×234 h: 233	532×310 h: 264	570×310 h: 264	749×400 h: 283	815×502 h: 380	841×502 h: 380	974×507 h: 410
Features	**Unit**	**Pump Type – 60 Hz**							
Flow Rate	m^3/h	13	25	54	78	120	192	240	360
Ultimate Vacuum	mbar	10	10	5	5	5	10	10	5
Noise Level without gas ballast	db (A)	61	64	60	60	70	71	73	74
Ultimate Vacuum with gas ballast	mbar	14	14	9	9	9	14	14	9
Max water vapour quantity acceptable with gas ballast	kg/h	0,3	0,7	0,7	1,2	2	7,4	7,4	8,5
Standard Voltage	V	460	460	460	460	460	460	460	460
Motor Power	kW	0,75	1,1	1,5	1,8	3	5,5	5,5	8,5
R.P.M	g/1'	1750	3400	1750	1750	1750	1750	1750	1750
Weight with oil	kg	19	20	41	47	80	138	160	200
Oil Quantity	L	0,5	0,5	2,5	2,5	3,5/5	3/4	4/7	4/6,5
Inlet Connection		½" GAS	½" GAS	1"GAS	1"GAS	1¼" GAS	2" GAS	2" GAS	2" GAS
Outlet Connection		1" GAS	1" GAS	1¼" GAS	1¼" GAS	1½" GAS	2" GAS	2" GAS	2" GAS
Pump Dimensions (W × D × H)	mm	436×234 h: 233	436×234 h: 233	532×310 h: 264	570×310 h: 264	749×400 h: 283	815×502 h: 380	841×502 h: 380	974×507 h: 410

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Vacuum Receivers

Instead of requiring the pumps to run continuously at maximum capacity for every sudden suction demand, the tank stores a volume of negative pressure. This helps keep suction levels steady across all gas outlets in patient areas.

The automatic drainage system automatically removes condensed liquid accumulated in the tank.

Available in different capacities to meet various system requirements.

Automatic Drainage
Bottom-mounted solenoid valve

Fast Response
Handles sudden demand peaks

Vacuum Stability
Helps maintain stable vacuum levels

Vacuum Reserve
Ensures continuous vacuum

Long-Lasting
Engineered for lasting performance

Material Options
Galvanized or stainless steel

Model	Volume	Pressure	Configuration	Dimensions (mm)		Connection Inlet / Outlet
	L	bar		Diameter	Height	
DHT 100	100	10	VERTICAL	324	1564	G 1"
		15	VERTICAL	324	1564	G 1"
DHT 200	200	10	VERTICAL	450	1618	G 1"
		15	VERTICAL	450	1618	G 1"
DHT 300	300	10	VERTICAL	450	1918	G ¾"
		16,5	VERTICAL	500	1960	G 1"
		40	VERTICAL	450	2012	G 1"
DHT 500	500	10	VERTICAL	642	1980	G 1"
		17	VERTICAL	642	2115	G 1"
		40	VERTICAL	642	2083	G 1 ¼"
DHT 900	900	10	VERTICAL	800	2120	G 1 ½"
DHT 1000	1000	10	VERTICAL	850	2120	G 1 ½"
		17	VERTICAL	850	2292	G 1 ½"
		40	VERTICAL	850	2120	G 1 ½"
DHT 1800	1800	10	VERTICAL	1150	2150	G 2"
		15	VERTICAL	1150	2150	G 2"
DHT 2000	2000	10	VERTICAL	1080	2566	G 2"
		15	VERTICAL	1080	2566	G 2"
		15	VERTICAL	1150	2240	G 2"
DHT 3000	3000	10	VERTICAL	1400	2370	G 2 ½"
		15	VERTICAL	1400	2370	G 2 ½"
DHT 4000	4000	10	VERTICAL	1400	3120	G 3"
		15	VERTICAL	1400	3120	G 3"
DHT 5000	5000	10	VERTICAL	1400	3870	G 3"
		15	VERTICAL	1400	3870	G 3"
DHT 6000	6000	10	VERTICAL	1500	3930	G 3"
		15	VERTICAL	1500	3930	G 3"
DHT 8000	8000	10	VERTICAL	1750	4040	DN100
		15	VERTICAL	1750	4040	DN100
DHT 10000	10000	10	VERTICAL	1900	4100	DN100
		15	VERTICAL	1900	4100	DN100

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Vacuum Filters

- **Durable Construction** — High-quality, corrosion-resistant aluminum die-cast housing for reliable performance
- **Corrosion Protection** — Electrostatic powder coating for maximum resistance against outdoor conditions
- **Manual Drain Valve** — Standard manual drain valve supplied with all filter models
- **Oil-Repellent Filter Media** — Borosilicate glass fiber filter media provides high-efficiency oil filtration
- **Differential Pressure Indicator** — Optional indicator for monitoring filter contamination levels



Filter Series	Particle Filtration	Oil Vapor Filtration	Nom. Press. Loss (Clean&Dry)
OF Series	3 micron	–	0.04 bar
PF Series	0.01 micron	0.01 mg/m3	0.08 bar
CF Series	0.01 micron	0.003 mg/m3	0.06 bar

Technical Specifications

Filter Model	Filter Capacity		Conneciton	Operating Temp.		Filter Element		
	m^3/h	L / Min.		Min.	Max.	O	P	C
V014	12	200	1/2”	2 °C	80 °C	EVOF012	EVPF012	EVCF012
V018	16	267	3/4”	2 °C	80 °C	EVOF016	EVPF016	EVCF016
V030	34	567	1”	2 °C	80 °C	EVOF025	EVPF025	EVCF025
V040	50	833	1”	2 °C	80 °C	EVOF036	EVPF036	EVCF036
V060	85	1.417	1 1/2”	2 °C	80 °C	EVOF050	EVPF050	EVCF050
V075	115	1.917	1 1/2”	2 °C	80 °C	EVOF065	EVPF065	EVCF065
V110	135	2.250	1 1/2”	2 °C	80 °C	EVOF100	EVPF100	EVCF100
V160	160	2.667	2”	2 °C	80 °C	EVOF150	EVPF150	EVCF150
V210	200	3.333	2”	2 °C	80 °C	EVOF200	EVPF200	EVCF200
V300	250	4.167	3”	2 °C	80 °C	EVOF300	EVPF300	EVCF300
V400	360	6.000	3”	2 °C	80 °C	EVOF400	EVPF400	EVCF400
V500	490	8.167	3”	2 °C	80 °C	EVOF500	EVPF500	EVCF500

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VC-100 Vacuum Control Panel

The VC-100 is a control panel designed to monitor and manage hospital vacuum systems. It coordinates multiple vacuum pumps for reliable system operation.

It provides centralized access to essential system information and operating parameters through an intuitive display.

Password protection helps prevent unauthorized access, while configurable operating limits and pump changeover settings support controlled and balanced system operation.

Pressure Monitoring
Monitors main line pressure and the pressure difference across the filters.

Pump Monitoring
Displays the operating status, priority, and running hours of each pump.

Adjustable Operating Limits
Defines the pressure thresholds for starting and stopping the pumps according to system requirements.

Equal Aging
Automatically rotates the duty pump after the configured operating period for balanced pump usage.

VC-100 Control & Configuration

- The VC-100 provides centralized control of pump operation through configurable pressure limits, pump priority, and equal aging settings.
- Key settings can be adjusted directly through the control interface according to system requirements, while essential operating parameters are continuously monitored.



General Controls & Indicators	
Engine Status Indicators	Operating status and pump priority; green for duty pump, yellow for standby pump, red for fault.
Main Line Pressure	Displays the vacuum pressure in the main line.
Detail Display	Displays system parameters and provides access to configuration settings.

VC-100 Functions & Settings	
System Settings	Device Language — Multiple language options Modbus Device ID — Device identification for master panel communication Pressure Unit — mbar or mmHg selection Restart — System restart function
Global Settings	Start-Stop Limit — Pump start and stop pressure threshold Slave Start Time — Time delay between pump starts Active Pump Limit — Maximum number of active pumps Equal Aging Period — Duty pump changeover period Filter Alarm — Filter alarm setting
Pump Settings	Pump Status — Active or inactive pump selection Service Interval — Service period setting Operating Hours Reset — Pump operating hour reset
System Faults & Alarms	Pump Fault – No Tank Sensor – No Filter Sensor – Filter Clogged – Pressure Valve Open Phase Sequence Fault

Tank-Mounted System

GP 11, GP 22, and GP 45E vacuum pumps can be configured as tank-mounted systems with vacuum tanks selected according to the pump capacity, providing a compact and space-efficient installation.





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