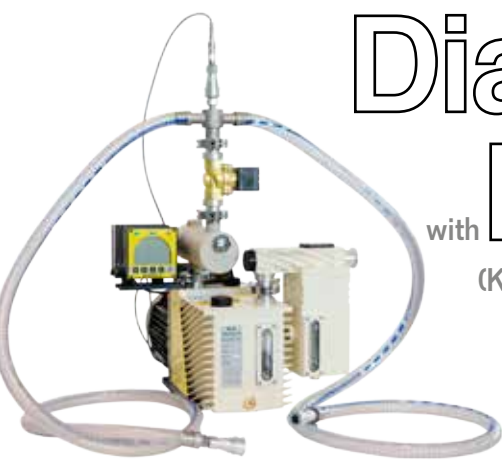


Diagnovac

The highly flexible pumping groups

Diagnovac has been designed to meet the requirements of pre-evacuation and drying phase for refrigerant units in production lines either fixed or mobile carousels. Various models are available depending on the required pump (all the **Vacsound** and **Modular** models can be fitted in the **Diagnovac**), the number of inlets (one for **Diagnovac 1**, two for **Diagnovac2**) and the required supply voltage 3-phase. **Diagnovac** can be supplied with the VG402 vacuum gauge to perform vacuum cycle (**Diagnovac 1VG** with one inlet, **Diagnovac 2VG** with two inlet) that lasts until the evacuation time or the set point.



Diagnovac Vg

Pre-evacuation and leak detection unit for one refrigerant unit

with **KVT**
(Kit Vacuum Test)

The latest addition to **Galileo TP**'s growing family of pre-evacuation units for the refrigeration and air conditioning industry.

The system performs leak detection with the pressure rise method, using an interception valve (Vacuum Interception Valve) and a **VG402** vacuum gauge connected to a PIRANI device (pressure sensor) on a single refrigeration circuit. The LCD screen will feature the results of the cycle, if the vacuum is better than the programmed set point, a "Pass" message will be displayed.



Vacuum K

Pre-evacuation and leak detection unit for up to four refrigerant units

Performs:

- **EVACUATION**
- **VACUUM STABILIZATION**
- **PRESSURE RISE TEST**

Simultaneously or independently up to four different refrigeration circuits.

To increase the production rate and enhance the vacuum reached the evacuation can be done, upon user's selection, "in sequence" or in a "rotating" mood. In particular the Rotating evacuation® method allows major time savings when it is necessary to evacuate 2 or more circuits at the same time and still reach a deep vacuum level.

Is a production unit part of the **GALILEO PROCESS QUALITY SYSTEM®** which thanks to the GEDA software allows a flexible and complete management of all the production data unit.

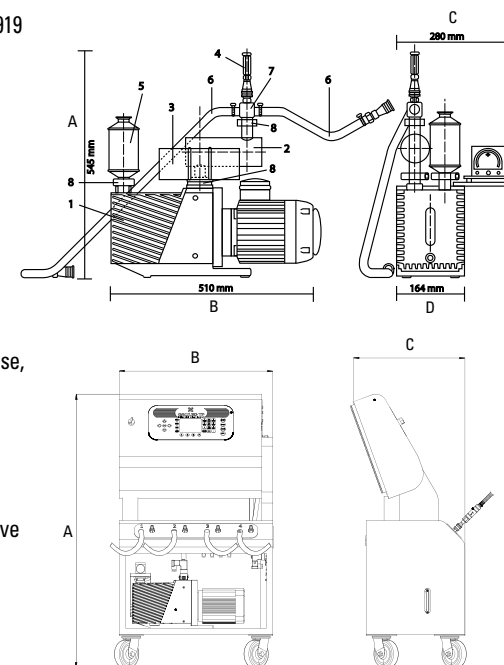


Vacuum

Technical data sheet

DIAGNOVAC 1/2	DIAGNOVAC VG 1/2	DIAGNOVAC VG 1/2 + KVT	VACUUM K	
Pumping group composition	Pumping group composition	Pumping group composition	Weight	90 kg
1 Dual stage rotary vane vacuum pump (es: D18, D28)	1 Dual stage rotary vane vacuum pump (es: D18, D28)	1 Dual stage rotary vane vacuum pump (es: D18, D28)	Voltage supply	Δ200 ÷240/Y 380 ÷ 415 V 50 Hz 3 Ph Δ200 ÷240/Y 460 V 60 Hz 3 Ph
2 Condensate separator NW25	2 Condensate separator NW25	2 Condensate separator NW25	Power consumption	850 W a 50 Hz, 1000W 60 Hz
3 Outlet filter NW25 Type A (or high efficiency Type B oil mist filter NW25)	3 Outlet filter NW25 Type A (or high efficiency Type B oil mist filter NW25)	3 Outlet filter NW25 Type A (or high efficiency Type B oil mist filter NW25)	N° of connecting pipes	4
4 PVC hoses L=2,0 m (one or two) With 1/4 " female quick coupler type Hansen®	4 PVC hoses L=2,0 m (one or two) With 1/4 " female quick coupler type Hansen®	4 PVC hoses L=2,0 m (one or two) With 1/4 " female quick coupler type Hansen®	Length of each pipe	2.5 m
5 Vacuum fittings reducing Tee for n.° 1 hose, (reducing cross for n.° 2 hoses)	3 Vacuum gauge VG402 115/230V 50÷60Hz 1ph	3 Vacuum gauge VG402 115/230V 50÷60Hz 1ph	Pipe quick coupler Pump	1/4"Hansen® female type double stage, 28 m3/h (other on request)
6 Clamping and centering rings with OR	4 Pirani vacuum head OG919 with 1/4 " female quick coupler type Hansen®	4 Pirani vacuum head OG919 with 1/4 " female quick coupler type Hansen®	Data Visualization	LCD graphic display 4.8" 320x240 (text 16 lines x 40 characters)
	5 Outlet filter NW25 (or high efficiency oil mist filter NW25)	5 Outlet filter NW25 (or high efficiency oil mist filter NW25)	Interfaces	RS232 RS232 RS485 Ethernet
	6 PVC hoses L=2,0 m (one or two) With 1/4 " female quick coupler type Hansen®	6 PVC hoses L=2,0 m (one or two) With 1/4 " female quick coupler type Hansen®	Noise level	< 68 dB (A)
	7 Vacuum fittings reducing Tee for n.° 1 hose, (reducing cross for n.° 2 hoses)	7 Vacuum fittings reducing Tee for n.° 1 hose, (reducing cross for n.° 2 hoses)	Compressed air supply	600 - 800 kPa (6 - 8 bar)
	8 Clamping and centering rings with OR	8 Clamping and centering rings with OR	Dimension	450 x 700 x 1200 mm
		9 Vacuum interception valve (VIV) 24 Vac max 8 W The total dimension A with VIV is 710 mm		

Final vacuum of the systems: 7 Pa



Alterations reserved
09/2015

creative solutions for customer's success

Vacuum line

Vacuum pumps
and pre-evacuating units

GALILEO TP
PROCESS EQUIPMENT

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GALILEO TP
PROCESS EQUIPMENT

Vacuum

Increase your productivity with absolute accuracy.
Even in dangerous environments

Since 1940 Galileo's Vacuum Pump line has provided top quality and cost effective vacuum pumps for both industrial and scientific applications! Galileo's dual stage rotary vane pumps are available in two different series:

Vacsound

Multi-purpose line for up to 28 m³/h (22 cfm) applications



Modular

For wider pumping applications 80 m³/h



Our pumps feature a special anti-suck back device that isolates the vacuum systems, when the pump is stopped, preventing any contamination of the product while being processed.

quality raw materials for enhanced service life. Each pump is leak tested with Helium and is equipped with high flow gas ballasts to increase the performances when operating with condensable gases or water vapor.

A built-in trap limits the amount of oil that reaches the exhaust port.

The temperature is kept constant in every section of the pump thanks to a streamlined forced ventilation and lubrication system, which results in achieving better performances, maintenance downtime and cost reduction. The items are manufactured with high precision tooling machines and high

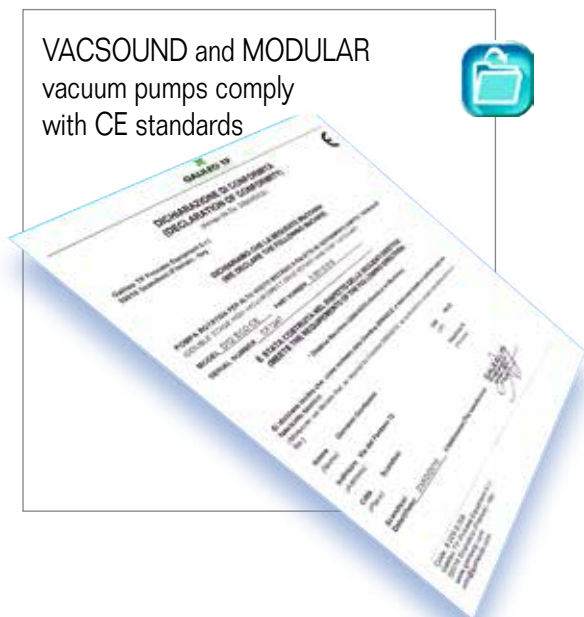
Each Galileo pump can be supplied with a wide range of fittings and accessories such as outlet filters, including high-efficiency type with oil vapor recovery.

 Oil mist filter

Type B
metal Type
high efficiency 25KF



Type C
metal Type
high efficiency 40KF



Technical data sheet

VACSOUND						MODULAR
	Hz	Units	D12	D18	D28	D80
Displacement	50	l/min	240	350	510	1342
	60	l/min	290	420	610	1610
	60	cfm/min	10.2	14.5	21.5	57
Pumping speed*	50	m3/h	11.6	17.4	26	73
Ultimate partial pressure		mbar	10 ⁻⁴	10 ⁻⁴	10 ⁻⁴	10 ⁻⁴
Ultimate total pressure		mbar	2x10 ⁻³	2x10 ⁻³	2x10 ⁻³	2x10 ⁻³
Water vapor tolerance		mbar	20	30	30	20
Water vapor capacity		g/h	160	350	550	1000
Oil capacity min./max		l	0.25/0.6	0.5/1	0.5/1	3.5/4.5
Motor power 3(ph)	50	kW	0.37	0.75	0.75	2.2
	60	kW	0.45	0.90	0.90	2.6
Motor power 1(ph)		50/60	0.45/0.55	0.45/0.55	0.75/0.90	0.75/0.90
Weight (3ph)		kg	19.5	30	30	102
		kg	25	36	36	
Connection ports (in-out)		DN	25KF	25KF	25KF	40KF

*According to PNEUROP 6602

VACSOUND

	Units	A	B	C	H	L	M	N	P	R	W
D12	mm	30	30	35	212	445	244,5	104	105	205	134
D18	mm	40	40	40	242	510	261	130	100	230	164
D28	mm	40	40	40	242	510	261	130	100	230	164

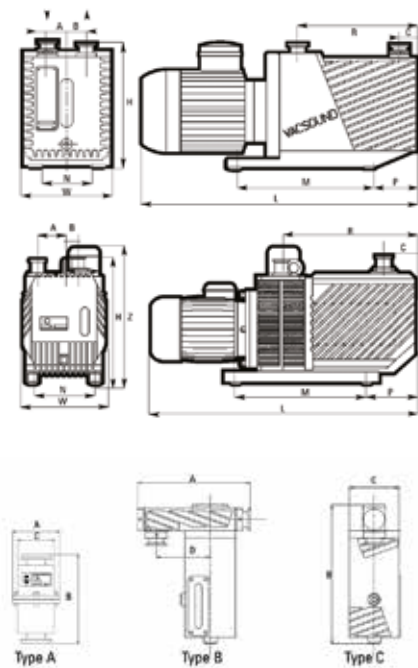
Valid for 3 ph motors

MODULAR

	Units	A	B	C	H	L	M	N	P	R	W	Z
D80	mm	75	40	95	375	800	380	210	160	390	255	450

OIL MIST FILTER

		Units	TypeA	TypeB	TypeC
Connection port		DN	25KF	25KF	40KF
Weight		Kg	0.16	2.12	4.3
Dimension	A	mm	70	210	420
	B	mm	132	257	496
	C	mm	55	93	185
	D	mm	-	100	200



Vg 402

The vacuum gauge

Technical data sheet		
Compatible sensor	Units	Pirani OG914, Pirani OG919, Pirani Active head TPR280, Strain Gauge 4÷20 mA up to 160 bar
Measuring Channels	Nr.	2 independent
Units of pressure measurement		Pa, mbar, µHg
Digital readout	digit	5
Analog readout		50 dot circular bargraph
Analogical display scale		Logarithmic
Dimension	mm (inch)	96x96x205 (3.78 x 3.78 x 8)
Weight	Kg (lbs)	2 (4.4)
Single phase power supply	Vac	115/230 ± 10%
Power supply frequency	Hz	50/60 ± 2%
Maximum absorbed power	VA	40
Maximum working humidity		50% at 40 °C or 90% at 20 °C
Working temperature	°C(°F)	0 ÷ 50 (32 ÷ 122)
Storage temperature	°C(°F)	-20 ÷ 70 (-4 ÷ 158)
Serial channels	Nr.	2 (full duplex RS232C, half duplex RS485)
Relay signals		LOW set-point , NO, max 60V / 2.5A HIGH set-point, NO, max 60V / 2.5A
Vacuum valve output		24VAC max 10VA
Display updating rate	s	0,3

(Alterations reserved)

The **VG402** vacuum gauge has the capability of measuring either vacuum (down to 10^{-3} mbar) or pressure (up to 160 bar), depending on the sensor that is installed (see technical data).

selected using the small touch panel located on the front of the instrument. Can be easily programmed with the front touch panel or via PC with the serial protocol RS232.

The **VG402** can simultaneously read pressure or vacuum from 2 independent channel (A and B). **VG402** displays the pressure read on channel A, B or alternatively displays the most accurate read by merging the 2 channels.

Can be integrated with our RECDATA TJ to manage one or more VG in a carousel line and display vacuum curve, report, cycle.

A blue LED on the front panel indicates when the **VG402** is correctly linked with RECDATA TJ.

The VG402 Features:

A backlight LCD display with both digital and analog readout measures the pressure.

Three different units of measure can be

Two leds (red and green) on the front panel indicates when the HIGH or LOW limits are met either during the rising or descending phase.

On the rear panel, 2 relays HIGH and LOW with N.O. contacts are activated when the relevant set-points have been reached. The **VG402** vacuum gauge can operate in one of three modes:

Set Point: standard working mode, the **VG402** acts as a measurement instrument

Time: the vacuum must be reached in a selected time

Pressure Rise Test: when the LOW set point is reached, the interception valve is closed and the rise curve monitored*

* A control voltage (24vac J 10W) is available to power a Vacuum Interception Valve.