

# Company

PVR continues the production of oil lubricated vacuum pumps which began in the Sixties, with the aid of new technologies, as requested from the market. The experience built in over 50 years, the development of new products, the modern production lines and a trained staff allow us to supply reliable and innovative products.



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Provide trusted & advanced technologies

## Rotary Lobe Vacuum Pumps **HV - HV/BP** Series



## Service

PVR guarantees a qualified advice for every inquiry thanks to its skilled technical/sales office that supports every project.

The Service Department assists and advises our customers with scheduled servicing qualified overhauls and spare parts promptly delivered.



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# HV Series

## Vacuum blowers

Vacuum blowers HV Series have been designed for conveying air and neutral gases and are especially used in industrial high vacuum technology. With its extended range of models, a nominal capacity from 180 m3/h to 97.000 m3/h is covered. The pressure ranges from 10-3 mbar up to approx. 200 mbar abs.

### Applications

- Packaging machines
- Vacuum chambers
- Thermoforming machines
- De-aeration tunnels
- Freezing chambers
- Dryers
- Oil decontamination
- Chemical processes
- Degassing materials
- Drying medicinal products
- Solvent recovery systems
- Distillation systems
- Drying transformer systems
- Lamps and bulbs
- Semiconductors
- Solar panels
- LCD panels
- Motor/transformer impregnation process



GMa 13.f7 HV

- Autoclaves
- Leak detectors
- Laboratories
- Thermoforming packaging machines
- Metallizing
- Heat treatments
- Central vacuum systems

### HV Special Series

#### Roots pumps for Atex environments, with canned motor

Vacuum pumps HV Series as well as vacuum pumps with canned motor CM series have been approved according to directive 2014/34/EU and certified for Atex Zone 0 (inside), temperature class T3 (200°C). They are certified for zone 1 outside, temperature class T4 (135°C).



GM 25 CM-Y

Motor/transformer impregnation process		GMa 10.0 HV	GMa 10.1 HV	GMa 10.2 HV	GMa 11.3 HV	GMa 11.4 HV	GMa 12.5 HV	GMa 12.6 HV	GMa 13.f7 HV	GMa 13.8 HV	GMb 14.9 HV	GMb 15.10 HV	GMb 15.11 HV	GMb 16.f13 HV	GMb 16.13 HV	GMb 17.15 HV
Nominal pumping speed	50 Hz	180	250	365	500	750	1000	1430	2000	2900	3900	5600	7500	8150	9750	16000
	60 Hz	250	300	450	600	900	1200	1700	2400	3450	4700	6700	9000	9800	11700	18825
Max admissible differential pressure	mbar	130	140	130	140	130	130	130	110	100	80	80	80	75	75	60
Motor power	kW	0,75	1.1	1.5	2.2	3	4	5.5	7.5	11	11	15	18.5	18.5	22	30
Motor speed	50 Hz	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	1500	1500	1500
	60 Hz	3600	3600	3600	3600	3600	3600	3600	3600	3600	3600	3600	3600	1800	1800	1800

All the models are available in the version GLa/ GLb with horizontal flow

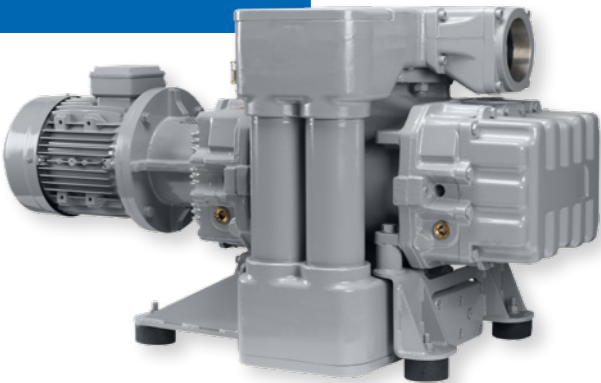
# HV/BP Series

## Roots vacuum pumps with bypass valve

Roots vacuum pumps HV/BP Series complete with bypass valve are mainly used coupled to a backing pump to speed up pumping down times and to achieve vacuum level up to 0.02 mbar abs. The bypass valve allows to start the Roots pump at the same time as the backing pump, protecting the Roots pump from any operation at high overpressure.

### Applications

- Packaging machines
- Vacuum chambers
- Thermoforming machines
- De-aeration tunnels
- Freezing chambers
- Dryers
- Oil decontamination
- Chemical processes
- Degassing materials
- Drying medicinal products
- Motor/transformer impregnation process
- Solvent recovery systems
- Distillation systems
- Drying transformer systems
- Lamps and bulbs
- Solar panels



GMa 13.f7 HV/BP

- LCD panels
- Autoclaves
- Leak detectors
- Laboratories
- Thermoforming packaging machines
- Metallizing
- Heat treatments
- Central vacuum systems

			GMa 11.3 HV/BP	GMa 11.4 HV/BP	GMa 12.5 HV/BP	GMa 12.6 HV/BP	GMa 13.f7 HV/BP	GMa 13.8 HV/BP
Nominal pumping speed	m³/h	50 Hz	500	730	1000	1400	2000	2840
		60 Hz	600	880	1200	1700	2420	3420
Ultimate pressure (abs)*	mbar		≤2x10 <sup>-2</sup>	≤2x10 <sup>-2</sup>	≤2x10 <sup>-2</sup>	≤2x10 <sup>-2</sup>	≤2x10 <sup>-2</sup>	≤2x10 <sup>-2</sup>
Motor power	kW	50 Hz	1.5	2.2	3	4	5.5	7.5
		60 Hz	2.2	3	4	5.5	7.5	11
Motor speed	min <sup>-1</sup>	50 Hz	3000	3000	3000	3000	3000	3000
		60 Hz	3600	3600	3600	3600	3600	3600
Noise level	dB(A)	50 Hz	71	71	72	72	75	75
		60 Hz	72	72	73	73	76	76
Weight	kg	50 Hz	178	184	232	295	387	513
		60 Hz	184	189	246	317	410	526

\* Final vacuum is the vacuum achieved by coupling a Roots pump to a "PVR" manufactured vacuum pump

# Variable Frequency Drive

Roots vacuum pumps equipped with inverter offer the following advantages: high performance (increased capacity), flexible use, competitive costs, low power consumption, possibility of revamping on already existing plants.



Inverter

