



# Company

For 60 years PVR has been a leader providing high quality and reliable vacuum pumps. PVR means primarily trusted and advanced technologies, but also sustainable development for the stakeholders, environmental protection and focus on energy saving. The experience acquired during these years of activities, allows PVR to offer products and services that are always reliable and innovative.



## Machining Division

With a view to verticalization of its processes and increased capacity to provide more services to customers, PVR has had a specialized Machining Division for brass, steel, cast iron, stainless steel, and aluminum components since 2023.

Professionalism, experience, and quality characterise PVR Machining Division in the machining of numerous parts for vacuum pumps and components in the industrial, automotive, petrochemical, hydraulic, and electrical sectors.



## 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 maintenance, qualified overhauls and spare parts ready for delivery.

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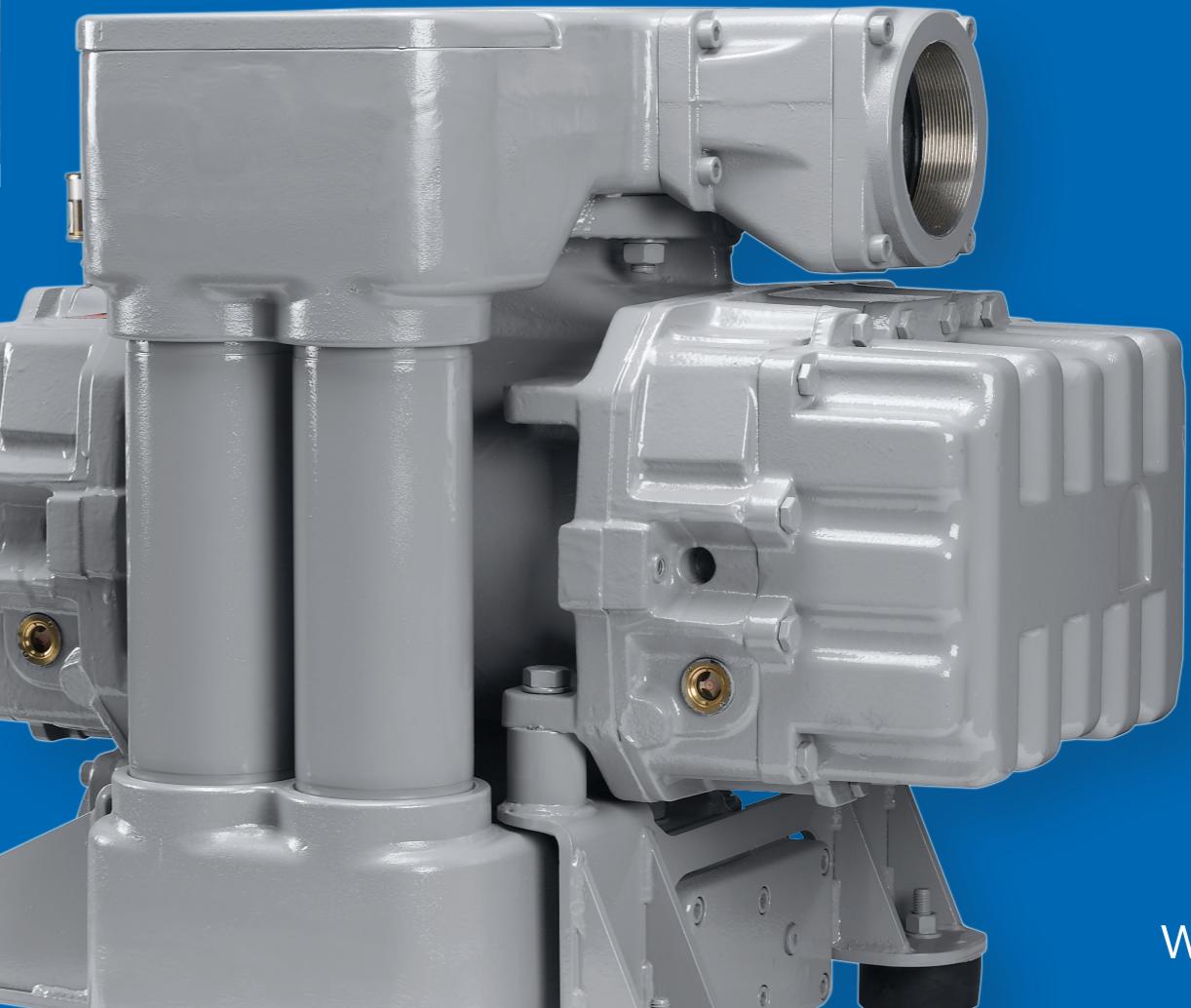
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Provide trusted & advanced technologies



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



[www.pvr.it](http://www.pvr.it)

# HV Series

## Roots pumps for high vacuum

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 m<sup>3</sup>/h to 97.000 m<sup>3</sup>/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  
Autoclaves  
Leak detectors

Laboratories  
Thermoforming packaging machines  
Metallizing  
Heat treatments  
Central vacuum systems



### HV EX Special Series

#### Roots pumps for Atex environments

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).

		<b>GMa 10.0 HV</b>	<b>GMa 10.1 HV</b>	<b>GMa 10.2 HV</b>	<b>GMa 11.3 HV</b>	<b>GMa 11.4 HV</b>	<b>GMa 12.5 HV</b>	
<b>Nominal pumping speed</b>	m <sup>3</sup> /h	50 Hz	180	250	365	500	750	
		60 Hz	220	300	450	600	900	
<b>Δp standard motor power*</b>	mbar	50 Hz	130	140	130	140	130	
		60 Hz	-	-	-	-	-	
<b>Standard motor power</b>	kW	50 Hz ~ 3	0,75	1,1	1,5	2,2	3	
		60 Hz ~ 3	-	-	-	-	-	
<b>Motor speed</b>	min <sup>-1</sup>	50 Hz	3000	3000	3000	3000	3000	
		60 Hz	3600	3600	3600	3600	3600	
<b>Dimensions</b>	mm	L x B x H	780x332x264	816x332x264	933x332x264	951x390x320	1100x390x320	1118x440x360
<b>Total weight</b>	kg	Bareshaft	95	105	125	150	180	230

\* Variable according to the installed motor power

		<b>GMa 11.3 HV/BP</b>	<b>GMa 11.4 HV/BP</b>	<b>GMa 12.5 HV/BP</b>	<b>GMa 12.6 HV/BP</b>	<b>GMa 13.f7 HV/BP</b>	<b>GMa 13.8 HV/BP</b>
<b>Nominal pumping speed</b>	m <sup>3</sup> /h	50 Hz	500	730	1000	1400	2000
		60 Hz	600	880	1200	1700	2400
<b>Ultimate pressure(abs)*</b>	mbar	50 Hz	≤ 0,02	≤ 0,02	≤ 0,02	≤ 0,02	≤ 0,02
		60 Hz	-	-	-	-	-
<b>Motor power</b>	kW	50 Hz ~ 3	1,5	2,2	3	4	5,5
		60 Hz ~ 3	2,2	3	4	5,5	7,5
<b>Motor speed</b>	min <sup>-1</sup>	50 Hz	3000	3000	3000	3000	3000
		60 Hz	3600	3600	3600	3600	3600
<b>Noise level</b>	dB(A)	50 Hz	71	71	72	72	75
		60 Hz	72	72	73	73	76
<b>Dimensions</b>	mm	L x B x H	928x418x446	1053x443x446	1099x463x496	1220x496x510	1272x550x633
			953x418x446	1098x443x446	1108x463x496	1277x496x510	1272x550x633
<b>Weight</b>	kg	50Hz	178	184	232	295	387
		60Hz	184	189	246	317	410

# 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.



GMa 13.f7 HV/BP



Also available in VFD version  
Variable Frequency Drive

