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 m3/h to 97.000 m3/h is covered.
The pressure ranges from 10-3 mbar up to approx. 200 mbar abs.

VFD
Also available in VFD version
Variable Frequency Drive

TRAVAINI Premier Fluid Systems
PVR VACUUMDESIGN

Applications

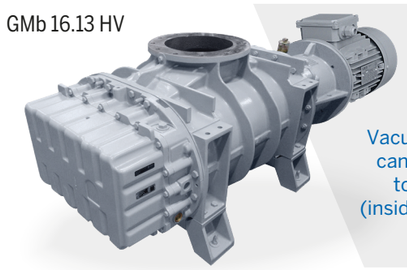
Packaging machines
Vacuum chambers
Thermoforming machines
De-aeration tunnels
Freezing chambers
Dryers
Oil decontamination
Chemical processes

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

GMb 16.13 HV



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).

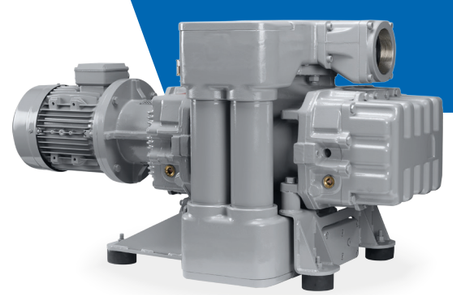
			GMa 10.0 HV	GMa 10.1 HV	GMa 10.2 HV	GMa 11.3 HV	GMa 11.4 HV	GMa 12.5 HV	GMa 12.6 HV	GMa 13.f7 HV	GMa 13.8 HV	GMb 14.9 HV	GMb 15.10 HV	GMb 15.11 HV	GMb 16.f13 HV	GMb 16.13 HV	GMb 17.15 HV
Nominal pumping speed	m^3/h	50 Hz	180	250	365	500	750	1000	1430	2000	2900	3900	5600	7500	8150	9750	16000
		60 Hz	220	300	450	600	900	1200	1700	2400	3450	4700	6700	9000	9800	11700	18825
Δp standard motor power*	mbar	50 Hz / 60 Hz	130	140	130	140	130	130	130	110	90	80	80	80	75	75	35
Standard motor power	kW	50 Hz ~ 3	0,75	1,1	1,5	2,2	3	4	5,5	7,5	11	11	15	18,5	18,5	22	30
		60 Hz ~ 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Motor speed	min^{-1}	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
Dimensions	mm	L x B x H	780x332x264	816x332x264	933x332x264	951x390x320	1100x390x320	1118x440x360	1289x500x360	1276x570x400	1560x570x400	1606x652x500	1629x800x630	1813x800x630	2036x910x710	2204x910x710	2421x930x1000
Total weight	kg	Bareshaft	95	105	125	150	180	230	295	345	485	580	770	840	1350	1400	2300

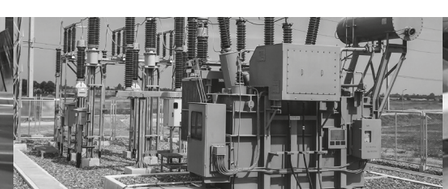
** Variable according to the installed motor power*

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

			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	m^3/h	50 Hz	500	730	1000	1400	2000	2840
		60 Hz	600	880	1200	1700	2400	3420
Ultimate pressure(abs)*	mbar	50 Hz / 60 Hz	≤ 0,02	≤ 0,02	≤ 0,02	≤ 0,02	≤ 0,02	≤ 0,02
Motor power	kW	50 Hz ~ 3	1,5	2,2	3	4	5,5	7,5
		60 Hz ~ 3	2,2	3	4	5,5	7,5	11
Motor speed	min^{-1}	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
Dimensions	mm	L x B x H	928x418x446	1053x443x446	1099x463x496	1220x496x510	1272x550x633	1412x563x633
			953x418x446	1098x443x446	1108x463x496	1277x496x510	1272x550x633	1575x563x633
Weight	kg	50Hz	178	184	232	295	387	513
		60Hz	184	189	246	317	410	526