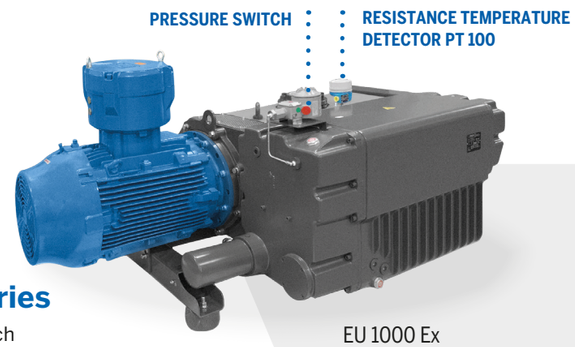
Ex-ATEX Series

Oil lubricated vane vacuum pumps for ATEX environment

PVR has developed a range of vacuum pumps meeting the 2014/34 EU standards, certified for category 2 suitable for zone 1 inside/outside and temperature class T3 (200 °C), in answer to the frequent requests for pumps capable of operating in hazardous environments.



EU 1000 Ex

Applications

Oil decontamination
Chemical processes
Degassing materials
Varnish mixers
Drying medicinal products

Pneumatic conveying plants
Solvent recovery systems
Distillation systems
Drying transformer systems
Motor/transformer impregnation process

Autoclaves
Leak detectors
Laboratories
Water and soil remediation
Central vacuum systems

Accessories

Pressure switch
Inlet filters
Oil level switch
Resistance Temperature Detector PT 100

			EU 45 Ex	EU 65 Ex	EU 105 Ex	EU 160 Ex	EU 300 Ex	EU 650 Ex	EU 1000 Ex	EU 160 Ex HWT	EU 300 F Ex HWT	EU 650 Ex HWT
Nominal pumping speed	m^3/h	50 Hz	48	69	105	152	300	660	1033	152	300	660
		60 Hz	58	83	126	182	360	790	1239	182	360	790
Ultimate pressure (abs.)	mbar	EU	≤ 0,5	≤ 0,5	≤ 0,5	≤ 0,5	≤ 0,5	≤ 0,5	≤ 0,5	≤ 0,8	≤ 0,8	≤ 0,8
		EU/B	≤ 10	≤ 10	≤ 10	≤ 10	≤ 10		≤ 10			
Water vapour tolerance	mbar	50 Hz	30	30	30	30	30	30	30	80	80	40
Water vapour pumping capacity	kg/h	50 Hz	1	1,4	2,2	3	5	15	20	9	13,5	19
		60 Hz	1,3	2	3	4	7	22,5	20	12,3	19	28,5
Noise level	dB(A)	50 Hz	68	69	67	71	71	73	80	71	71	73
		60 Hz	69	70	69	72	73	76	81	72	73	76
Motor power	kW	50 Hz ~ 3	1,1	1,5	3	4	7,5	15	22	4	7,5	15
		60 Hz ~ 3	1,7	2,5	3,5	4,6	7,9	18,5	30	4,6	7,9	18,5
Motor speed	rpm	50 Hz	1500	1500	1500	1500	1500	1000	1000	1500	1500	1000
		60 Hz	1800	1800	1800	1800	1800	1200	1200	1800	1800	1200
Dimensions	L x B x H mm	50 Hz	556x340x284	601x340x284	735x405x334	805x436x348	979x551x436	1436x823x653	1747x946x840	805x436x316	979x551x436	1436x823x653
		60 Hz	581x340x284	641x340x284	735x405x334	814x436x348	1019x551x436	1481x823x653	1877x946x840	814x436x316	1019x551x436	1481x823x653
Total weight	kg	50 Hz ~ 3	52	60	82	104	188	582	960	104	188	582
		60 Hz ~ 3	54	65	86	110	192	612	1180	110	192	612

Ex-Atex vacuum pumps

We are focused on customers' requirements and for this reason our R&D analyses every single project.
Atex pumps are available with special seals and lubricants.
Pumps can be supplied with safety devices such as resistance temperature detector PT 100, pressure switch, inlet filters.

Ex-ATEX pumps are provided in compliance with ISO EN 80076 standard:

(I) II 2G Ex h IIB T3 Gb X
(I) II 3D Ex h IIIC T80°C Dc X
(O) II 2G Ex h IIB T3 Gb X
(O) II 2D Ex h IIIC T150°C Db X

EU 300 Ox

Ox vacuum pumps

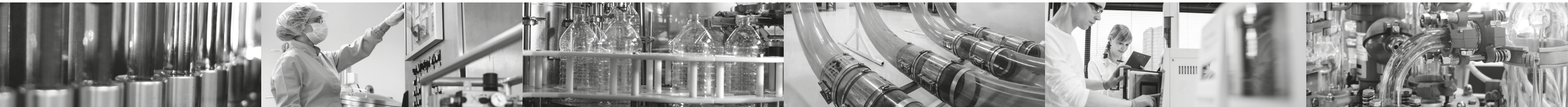
The pump version for Oxgen has been designed for pumping gas with high content of oxygen in a percentage higher than 21%.
A special PFPE-based lubricant must be used, which does not degrade and ensures optimal pump operation.

			PVL 15 Ox	EU 45 Ox	EU 65 Ox	EU 105 Ox	EU 160 Ox	EU 205 Ox	EU 300 Ox	PVL 401 Ox	PVL 541 Ox	EU 650 Ox	EU 1000 Ox
Nominal pumping speed	m^3/h	50 Hz	18	48	69	105	152	207	300	417	553	660	1033
		60 Hz	21	58	83	126	182	248	360	500	663	792	1239
Ultimate pressure (abs)	mbar		≤ 0.5	≤ 0.5	≤ 0.5	≤ 0.5	≤ 0.5	≤ 0.5	≤ 0.5	≤ 0.5	≤ 0.5	≤ 0.5	≤ 0.5
Motor power	kW	50 Hz 60 Hz	0.75	1.5	2.2	3	4	5.5	7.5	11	15	18.5	30

Serie **Ox**

Oil lubricated vane pumps for oxygen

Ox pumps are used in food packaging installations where Oxygen gas is used during the packaging process. The use of materials that are compatible with the pumped gas as well as the use of dedicated PFPE lubricants allow these pumps the handling of gases with high concentration of Oxygen assuring efficient performance and good safety level.

Applications

Packaging machines with modified atmosphere
Vacuum chambers
De-aeration tunnels
Thermoforming packaging machines
Gas bottle filling equipment