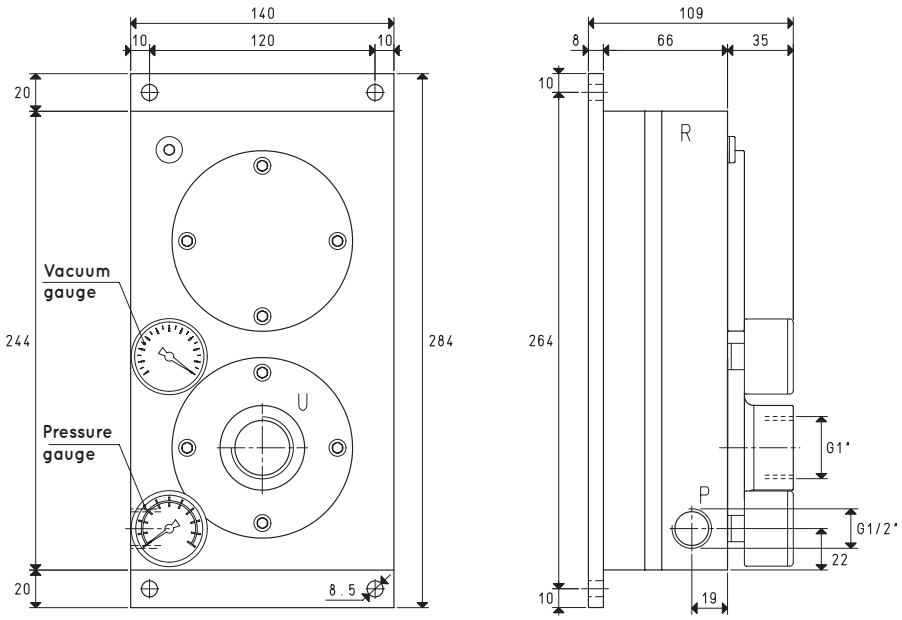
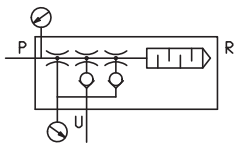
MULTI-STAGE VACUUM GENERATORS PVP 40 M / MLP ÷ PVP 300 M / MLP

Created to be assembled on OCTOPUS gripping systems, this series of generators is available with suction capacities between 24 and 320 m³/h. The supply pressure goes from 4-6 bar for M items and from 1-3 bar for MLP items. Level of vacuum and flow rate can be adjusted according to the supply air pressure. Characterised by their new generation of ejectors, boasting an excellent ratio between the quantity of air consumed and that suctioned, benefiting operational consumption. The silencers are built into all generators. They are fully made with anodised aluminium, with stainless steel ejectors and screws. EPDM or FKM seals and reed valves upon request. Low maintenance and simple scheduled filter cleaning.





P=COMPRESSED AIR CONNECTION R=EXHAUST U=VACUUM CONNECTION

Item		PVP 40 M			PVP 70 M			PVP 100 M		
Intake air flow rate	m³/h	36	39	42	65	73	80	88	98	108
Maximum level of vacuum	-KPa	65	82	90	65	82	90	65	82	90
Final pressure	abs. mbar	350	180	100	350	180	100	350	180	100
Supply pressure	bar	4	5	6	4	5	6	4	5	6
Optimal supply pressure	bar			6			6			6
Air consumption	Nl/s	2.3	2.7	3.2	4.9	5.7	6.6	7.2	8.5	9.8
Temperature of use	°C			-20 / +80			-20 / +80			-20 / +80
Noise level at optimal supply pressure	dB(A)			67			68			70
Weight	Kg			4.2			4.2			4.2

Item		PVP 40 MLP			PVP 70 MLP			PVP 100 MLP		
Intake air flow rate	m³/h	24	35	41	41	56	73	50	80	95
Maximum level of vacuum	-KPa	30	64	88	30	64	88	30	64	88
Final pressure	abs. mbar	700	360	120	700	360	120	700	360	120
Supply pressure	bar	1	2	3	1	2	3	1	2	3
Optimal supply pressure	bar			3			3			3
Air consumption	Nl/s	2.4	3.4	4.4	4.6	7.0	8.9	6.7	10.2	13.3
Temperature of use	°C			-20 / +80			-20 / +80			-20 / +80
Noise level at optimal supply pressure	dB(A)			70			72			75
Weight	Kg			4.2			4.2			4.2

Spare parts		PVP 40 M / MLP	PVP 70 M / MLP	PVP 100 M / MLP
Sealing kit and reed valves	item	00 KIT PVP 40 M	00 KIT PVP 70 M	00 KIT PVP 100 M
Exhaust silencer	item	00 15 110	00 15 110	00 15 110
Silencer on nozzles	item	00 15 111	00 15 111	00 15 111
Vacuum gauge	item	09 03 15	09 03 15	09 03 15
Pressure gauge	item	09 03 25	09 03 25	09 03 25

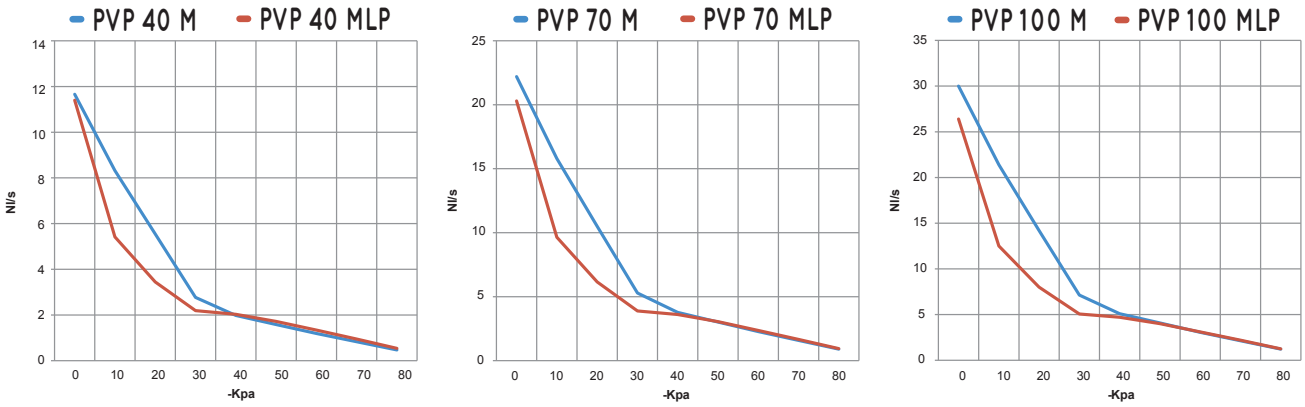
Note: All vacuum values indicated in the table are valid at the normal atmospheric pressure of 1013 mbar and obtained with a constant supply pressure.
Add the letters ES to the article for a generator supplied complete with an ES energy saving device (example: PVP 40 M ES).
Vacuum generator supply must be carried out with non-lubricated compressed air, 5 micron filtration, in accordance with standard **ISO 8573-1 class 4**.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

Adapters for GAS - NPT threading available on page 1.134

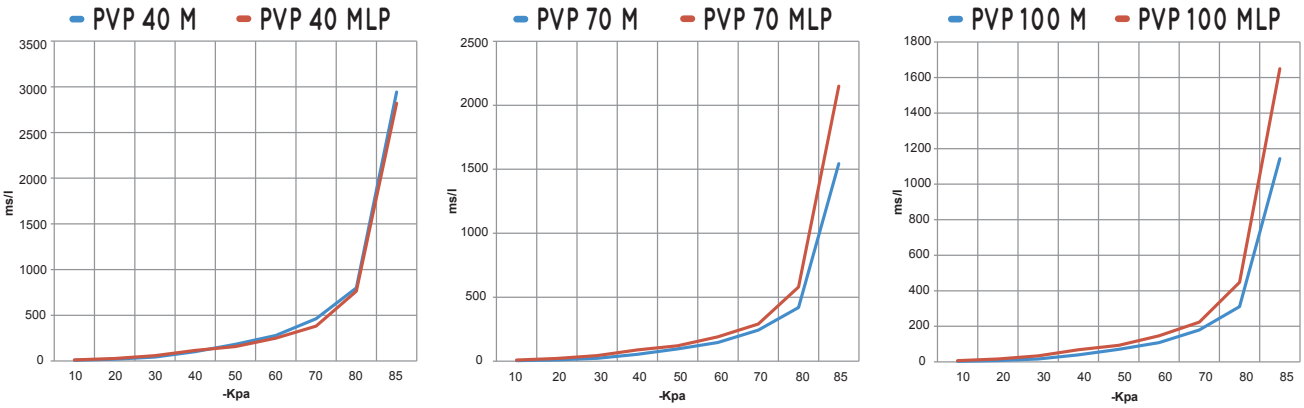
MULTI-STAGE VACUUM GENERATORS PVP 40 M / MLP, PVP 70 M / MLP and PVP 100 M / MLP

Air flow rate (Nl/s) at different levels of vacuums (-KPa) at optimal supply pressure



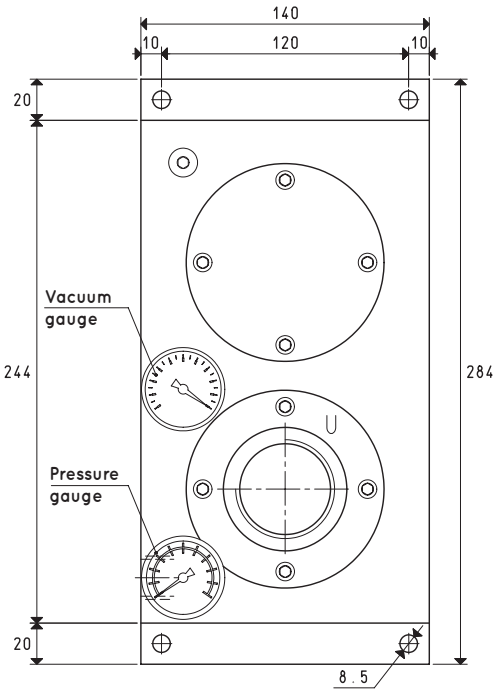
Generator item	Supp. press. bar	Air consumption Nl/s	Air flow rate (Nl/s) at different levels of vacuums (-KPa) at optimal supply pressure									Max vacuum -KPa
			0	10	20	30	40	50	60	70	80	
PVP 40 M	6.0	3.2	11.66	8.32	5.55	2.77	1.98	1.58	1.19	0.83	0.47	90
PVP 70 M	6.0	6.6	22.20	15.80	10.50	5.29	3.77	3.02	2.27	1.58	0.90	90
PVP 100 M	6.0	9.8	30.00	21.40	14.20	7.14	5.10	4.08	3.06	2.14	1.22	90
PVP 40 MLP	3.0	4.4	11.40	5.42	3.45	2.19	2.03	1.72	1.34	0.95	0.54	88
PVP 70 MLP	3.0	8.9	20.30	9.65	6.15	3.88	3.61	3.05	2.36	1.66	0.94	88
PVP 100 MLP	3.0	13.3	26.40	12.50	8.00	5.07	4.70	4.00	3.10	2.20	1.25	88

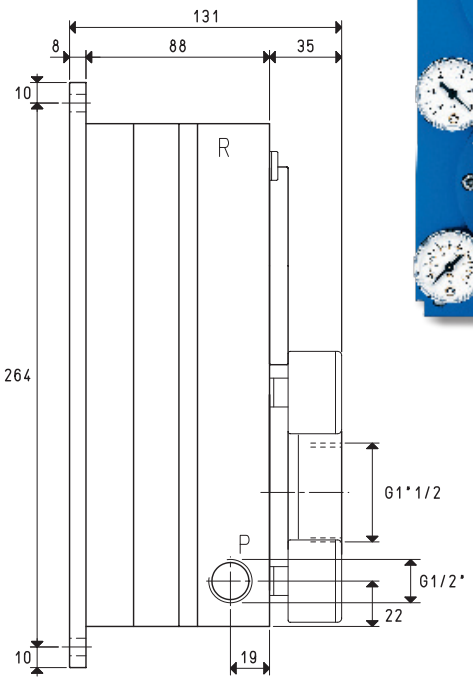
Evacuation rates (ms/l = s/m³) at different levels of vacuums (-KPa) at optimal supply pressure

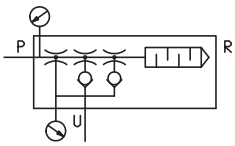


Generator item	Supp. press. bar	Air consumption Nl/s	Evacuation rates (ms/l= s/m³) at different levels of vacuums (-KPa) at optimal supply pressure									Max vacuum -KPa
			10	20	30	40	50	60	70	80	85	
PVP 40 M	6.0	3.2	7.7	19.2	42.3	101.6	182.0	278.4	462.3	799.8	2943	90
PVP 70 M	6.0	6.6	4.0	10.1	22.2	53.3	95.5	146.1	242.6	419.7	1544	90
PVP 100 M	6.0	9.8	3.0	7.4	16.4	39.5	70.7	108.2	179.6	310.8	1144	90
PVP 40 MLP	3.0	4.4	12.0	28.0	58.0	116.0	158.0	250.0	382.0	764.0	2820	88
PVP 70 MLP	3.0	8.9	9.0	21.0	44.0	88.0	120.0	190.0	290.0	580.0	2150	88
PVP 100 MLP	3.0	13.3	7.0	16.0	34.0	68.0	93.0	147.0	224.0	448.0	1650	88

MULTI-STAGE VACUUM GENERATORS PVP 140 M / MLP, PVP 170 M / MLP and PVP 200 M / MLP







P=COMPRESSED AIR CONNECTION R=EXHAUST U=VACUUM CONNECTION

Item		PVP 140 M			PVP 170 M			PVP 200 M		
Intake air flow rate	m^3/h	125	140	152	150	168	182	170	188	200
Maximum level of vacuum	-KPa	65	82	90	65	82	90	65	82	90
Final pressure	abs. mbar	350	180	100	350	180	100	350	180	100
Supply pressure	bar	4	5	6	4	5	6	4	5	6
Optimal supply pressure	bar			6			6			6
Air consumption	Nl/s	9.6	11.4	13.0	12.1	14.2	16.3	14.2	16.9	19.4
Temperature of use	°C			-20 / +80			-20 / +80			-20 / +80
Noise level at optimal supply pressure	dB(A)			70			71			72
Weight	Kg			5.1			5.1			5.1

Item		PVP 140 MLP			PVP 170 MLP			PVP 200 MLP		
Intake air flow rate	m^3/h	73	115	138	80	137	165	105	157	190
Maximum level of vacuum	-KPa	30	64	88	30	64	88	30	64	88
Final pressure	abs. mbar	700	360	120	700	360	120	700	360	120
Supply pressure	bar	1	2	3	1	2	3	1	2	3
Optimal supply pressure	bar			3			3			3
Air consumption	Nl/s	8.6	13.3	17.8	10.5	16.3	22.2	12.8	20.0	26.6
Temperature of use	°C			-20 / +80			-20 / +80			-20 / +80
Noise level at optimal supply pressure	dB(A)			75			76			78
Weight	Kg			5.1			5.1			5.1

Spare parts		PVP 140 M / MLP	PVP 170 M / MLP	PVP 200 M / MLP
Sealing kit and reed valves	item	00 KIT PVP 140 M	00 KIT PVP 170 M	00 KIT PVP 200 M
Exhaust silencer	item	00 15 110	00 15 110	00 15 110
Silencer on nozzles	item	N°2 00 15 111	N°2 00 15 111	N°2 00 15 111
Vacuum gauge	item	09 03 15	09 03 15	09 03 15
Pressure gauge	item	09 03 25	09 03 25	09 03 25

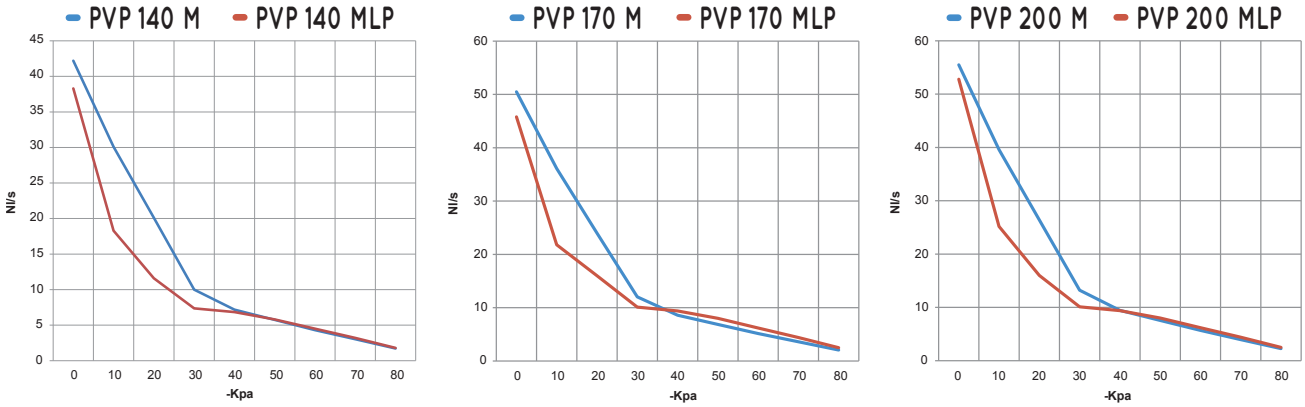
Note: All vacuum values indicated in the table are valid at the normal atmospheric pressure of 1013 mbar and obtained with a constant supply pressure.
Add the letters ES to the article for a generator supplied complete with an ES energy saving device (example: PVP 140 M ES).
Vacuum generator supply must be carried out with non-lubricated compressed air, 5 micron filtration, in accordance with standard **ISO 8573-1 class 4**.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

Adapters for GAS - NPT threading available on page 1.134

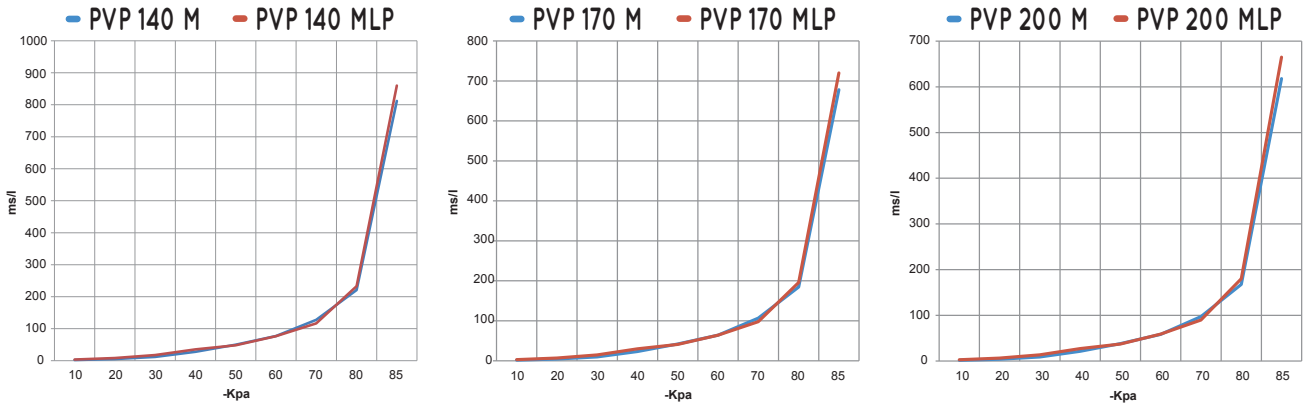
MULTI-STAGE VACUUM GENERATORS PVP 140 M / MLP, PVP 170 M / MLP and PVP 200 M / MLP

Air flow rate (Nl/s) at different levels of vacuums (-KPa) at optimal supply pressure



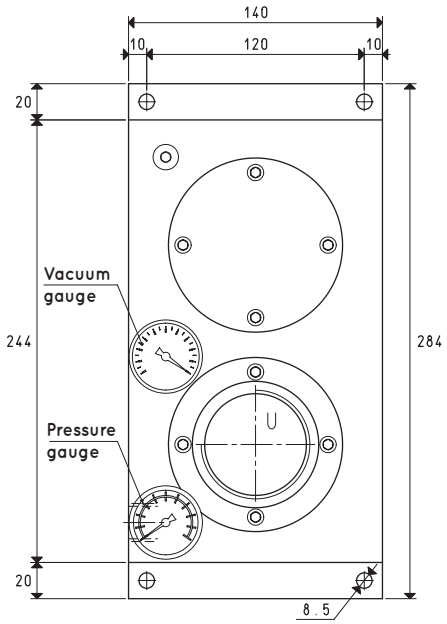
Generator item	Supp. press. bar	Air consumption Nl/s	Air flow rate (Nl/s) at different levels of vacuums (-KPa) at optimal supply pressure									Max vacuum
			0	10	20	30	40	50	60	70	80	-KPa
PVP 140 M	6.0	13.0	42.20	30.10	20.10	10.00	7.18	5.74	4.31	3.02	1.72	90
PVP 170 M	6.0	16.3	50.50	36.10	24.00	12.03	8.59	6.87	5.17	3.61	2.06	90
PVP 200 M	6.0	19.4	55.50	39.60	26.40	13.22	9.44	7.55	5.68	3.97	2.27	90
PVP 140 MLP	3.0	17.8	38.30	18.30	11.60	7.36	6.84	5.80	4.50	3.20	1.80	88
PVP 170 MLP	3.0	22.2	45.80	21.80	13.80	8.81	8.18	6.94	5.39	3.82	2.16	88
PVP 200 MLP	3.0	26.6	52.80	25.20	16.00	10.10	9.40	8.00	6.20	4.40	2.50	88

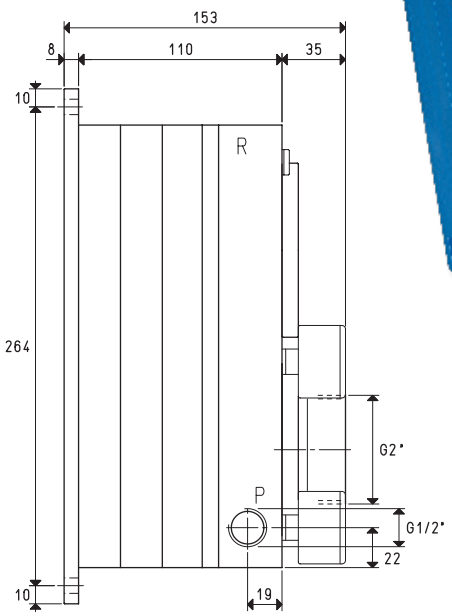
Evacuation rates (ms/l = s/m³) at different levels of vacuums (-KPa) at optimal supply pressure

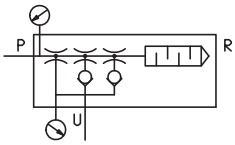


Generator item	Supp. press. bar	Air consumption Nl/s	Evacuation rates (ms/l= s/m³) at different levels of vacuums (-KPa) at optimal supply pressure									Max vacuum
			10	20	30	40	50	60	70	80	85	-KPa
PVP 140 M	6.0	13.0	2.1	5.3	11.7	28.0	50.2	76.9	127.6	220.8	812	90
PVP 170 M	6.0	16.3	1.7	4.4	9.7	23.4	42.0	64.2	106.6	184.5	678	90
PVP 200 M	6.0	19.4	1.6	4.0	8.9	21.3	38.2	58.4	97.0	167.8	618	90
PVP 140 MLP	3.0	17.8	3.6	8.4	17.7	35.4	48.3	76.5	116.8	233.0	860	88
PVP 170 MLP	3.0	22.2	3.0	7.1	14.9	29.9	40.6	64.2	98.0	196.0	720	88
PVP 200 MLP	3.0	26.6	2.8	6.5	13.6	27.3	37.2	58.8	89.7	180.0	665	88

MULTI-STAGE VACUUM GENERATORS PVP 250 M / MLP and PVP 300 M / MLP







P=COMPRESSED AIR CONNECTION R=EXHAUST U=VACUUM CONNECTION

Item		PVP 250 M			PVP 300 M		
Intake air flow rate	m^3/h	224	252	280	240	290	320
Maximum level of vacuum	-KPa	65	82	90	65	82	90
Final pressure	abs. mbar	350	180	100	350	180	100
Supply pressure	bar	4	5	6	4	5	6
Optimal supply pressure	bar			6			6
Air consumption	Nl/s	17.3	20.7	24.0	20.4	24.8	29.0
Temperature of use	°C			-20 / +80			-20 / +80
Noise level at optimal supply pressure	dB(A)			72			74
Weight	Kg			6.0			6.0

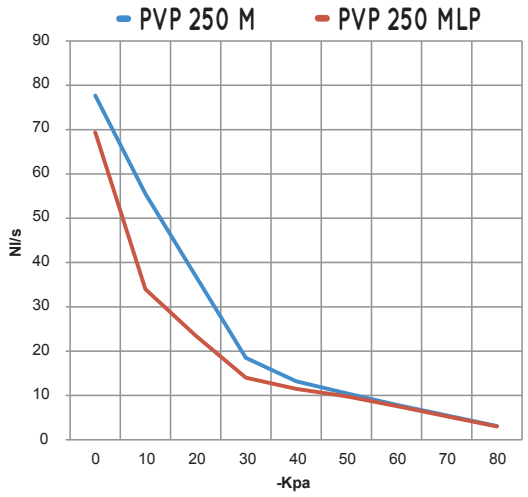
Item		PVP 250 MLP			PVP 300 MLP		
Intake air flow rate	m^3/h	120	185	250	128	210	300
Maximum level of vacuum	-KPa	30	64	88	30	64	88
Final pressure	abs. mbar	700	360	120	700	360	120
Supply pressure	bar	1	2	3	1	2	3
Optimal supply pressure	bar			3			3
Air consumption	Nl/s	16.0	25.0	33.6	19.1	28.8	39.3
Temperature of use	°C			-20 / +80			-20 / +80
Noise level at optimal supply pressure	dB(A)			77			78
Weight	Kg			6.0			6.0

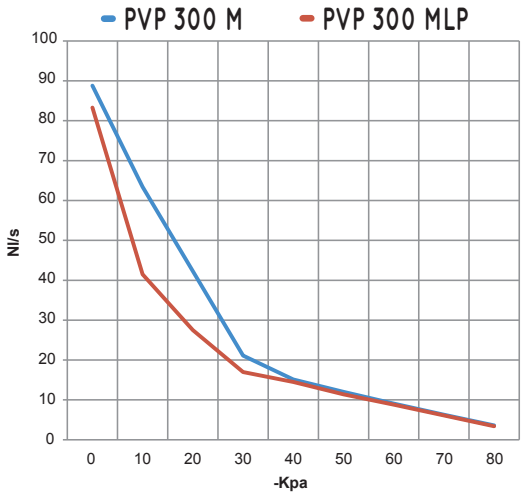
Spare parts		PVP 250 M / MLP	PVP 300 M / MLP
Sealing kit and reed valves	item	00 KIT PVP 250 M	00 KIT PVP 300 M
Exhaust silencer	item	00 15 110	00 15 110
Silencer on nozzles	item	N°3 00 15 111	N°3 00 15 111
Vacuum gauge	item	09 03 15	09 03 15
Pressure gauge	item	09 03 25	09 03 25

Note: All vacuum values indicated in the table are valid at the normal atmospheric pressure of 1013 mbar and obtained with a constant supply pressure.
Add the letters ES to the article for a generator supplied complete with an ES energy saving device (example: PVP 250 M ES).
Vacuum generator supply must be carried out with non-lubricated compressed air, 5 micron filtration, in accordance with standard **ISO 8573-1 class 4**.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ Adapters for GAS - NPT threading available on page 1.134

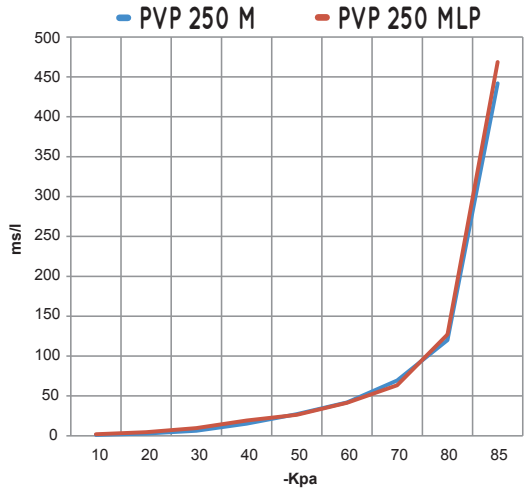
Air flow rate (Nl/s) at different levels of vacuums (-KPa) at optimal supply pressure

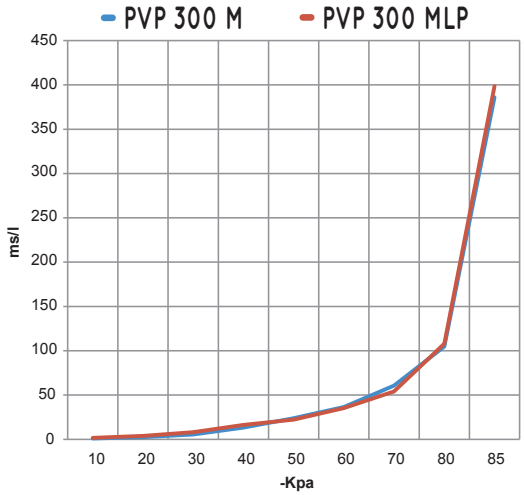




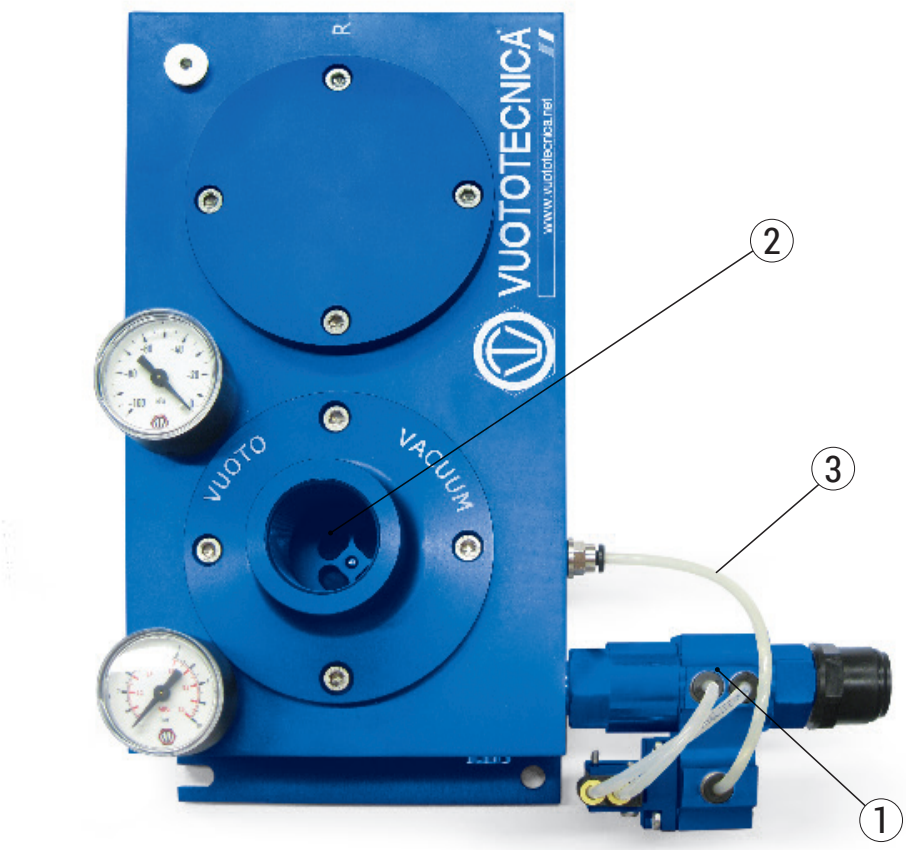
Generator item	Supp. press. bar	Air consumption Nl/s	Air flow rate (Nl/s) at different levels of vacuums (-KPa) at optimal supply pressure									Max vacuum -KPa
			0	10	20	30	40	50	60	70	80	
PVP 250 M	6.0	24.0	77.7	55.5	37.0	18.5	13.2	10.5	7.9	5.5	3.1	90
PVP 300 M	6.0	29.0	88.8	63.4	42.3	21.1	15.1	12.0	9.1	6.3	3.6	90
PVP 250 MLP	3.0	33.6	69.4	34.0	23.5	14.0	11.5	9.8	7.6	5.3	3.0	88
PVP 300 MLP	3.0	39.3	83.3	41.5	27.5	17.0	14.5	11.4	8.8	6.1	3.4	88

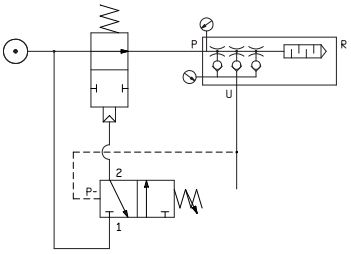
Evacuation rates (ms/l = s/m³) at different levels of vacuums (-KPa) at optimal supply pressure





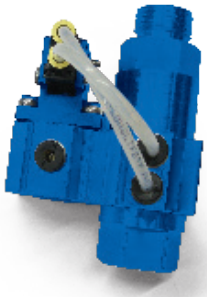
Generator item	Supp. press. bar	Air consumption Nl/s	Evacuation rates (ms/l= s/m³) at different levels of vacuums (-KPa) at optimal supply pressure									Max vacuum -KPa
			10	20	30	40	50	60	70	80	85	
PVP 250 M	6.0	24.0	1.1	2.9	6.4	15.2	27.3	41.8	69.3	119.9	442.0	90
PVP 300 M	6.0	29.0	1.0	2.5	5.5	13.3	23.8	36.5	60.6	104.9	386.0	90
PVP 250 MLP	3.0	33.6	2.0	4.6	9.6	19.3	26.3	41.5	63.5	127.0	468.7	88
PVP 300 MLP	3.0	39.3	1.7	3.9	8.2	16.4	22.3	35.3	54.0	108.0	398.5	88





COMPLETE KIT FOR ENERGY SAVING DEVICE ES

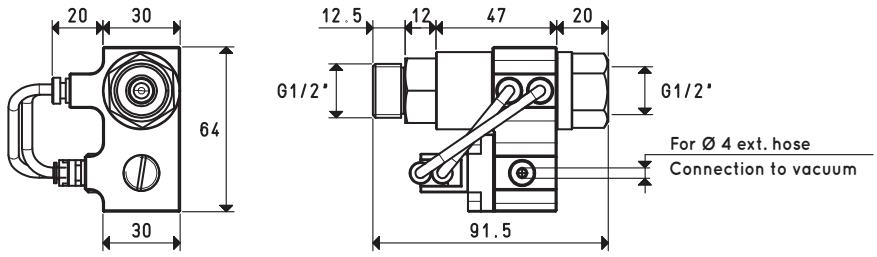
The three components described above make up an energy saving kit for the compressed air supply ES (Energy Saving System). In fact, the ES device acts directly on the generator, making it operate only within the preset vacuum values, thus limiting compressed air supply consumption; all this entails considerable energy savings.
This kit has been designed for the PVP 40 - 300 M/MLP series of generators.

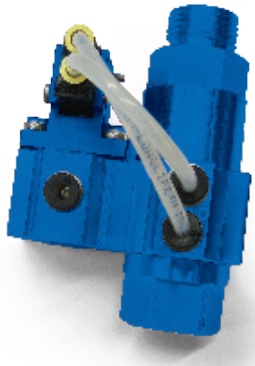


Item	For generator item	Weight g
ES 06	PVP 40 ÷ 300 M/MLP	380

① - COAXIAL SHUTTER SERVO-CONTROLLED SUPPLY VALVE

This is an innovative valve with coaxial shutter, pneumatically driven by the integrated vacuum switch on it, able to intercept the compressed air supply to the vacuum generator, with operating pressures between 1.5 and 7 bar. The vacuum switch has the task of removing and returning a pneumatic signal when a preset and adjustable level of vacuum is reached.
The pressure differential existing between the set maximum value and that of restoring the signal at rest is not adjustable and is equal to about 100 mbar.
The pneumatic vacuum switch, acting on the coaxial shutter supply valve automatically maintains the maximum and minimum level of vacuum within the differential value.

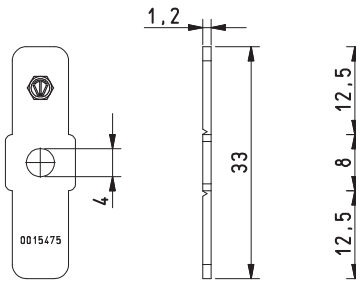




Item	For generator item	Sealing kit item	Weight g
07 03 71	PVP 40 ÷ 300 M/MLP	00 KIT 07 03 71	355

② - REED VALVE KIT FOR CHECK DEVICE ON VACUUM GENERATORS

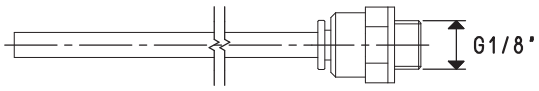
This reed valve kit, specifically designed to be integrated on PVP 40 - 300 M/MLP vacuum generators, has the task of preventing the return of atmospheric air into the vacuum system (tanks, autoclaves, intake systems depression, vacuum cups, etc.), when the generator stops, guaranteeing the seal and maintaining the level of vacuum reached in use.



Item	For generator item	No. pc.	Weight g
00 KIT TRASM-MR	PVP 40 ÷ 300 M/MLP	3	8

③ - FLEXIBLE TUBE FOR CONNECTION TO VACUUM

This flexible tube is fitted on one end with a 1/8 "quick-fit coupling, to be screwed onto one of the two vacuum generator connections reserved for the vacuum gauge, while the other free end is inserted into the fitting installed on the pneumatic vacuum switch. The task of this tube is to continuously monitor the value of the level of vacuum reached in use and to transmit it to the vacuum switch.



Item	For supply valve item	Weight g
00 15 496	07 03 71 - 07 04 71	10

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity) inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$

Adapters for GAS - NPT threading available on page 1.134