

Vacuum pumps



- 1_Oil-Lubricated Rotary Vane Vacuum Pumps ORV
- 2_Rotary vane pumps RVT
- 3_Piston pumps VP
- 4_Liquid ring pump LRX and LRM



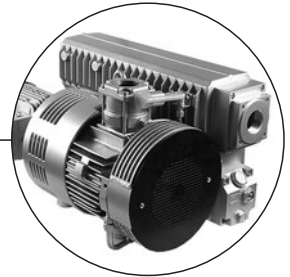
INECO®

**Air and Vacuum
Components**

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1_Oil-Lubricated Rotary Vane Vacuum Pumps ORV

- > Oil-Lubricated Rotary Vane Vacuum Pumps ORV
ORV 08, ORV 10, ORV 16, ORV 20, ORV 25, ORV 40, ORV 63, ORV 100,
ORV 160, ORV 200, ORV 250, ORV 300, ORV 630



2_Rotary vane pumps RVT

- > Rotary vane pumps RVT 4-4, RVT 4-8
- > Rotary vane pumps RVT 4-10, RVT 4-16, RVT 4-25, RVT 4-40
- > Rotary vane pumps
RVT 3-60, RVT 3-80, RVT 3-100, RVT 3-140, RVT 3-160



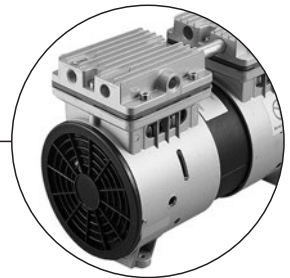
3_Piston pumps VP

Models of the standard pump

- > Models VP 25D, VP 40, VP 90S, VP 120S, VP 120P
- > Models VP 200P, VP 200S, VP 400P, VP 400S
- Laboratory models
- > Models VP LABV 10, VP LABV 20, VP LABV 30
- > Models VP LABV 150P, VP LABV 250P, VP LABV 150S, VP LABV 250S

Vacuum systems

- > Models VPV



4_Liquid ring pump LRX and LRM

- > Models
LRX 2060, LRX 2061, LRX 2070, LRX 2071,
LRX 5110, LRX 5111, LRX 5121, LRX 5131, LRX 5161,
LRX 6100, LRX 6111, LRX 6121, LRX 6131, LRX 6161
- > Models
LRM 25, LRM 50, LRM 95, LRM 130,
LRM 255, LRM 325, LRM 455

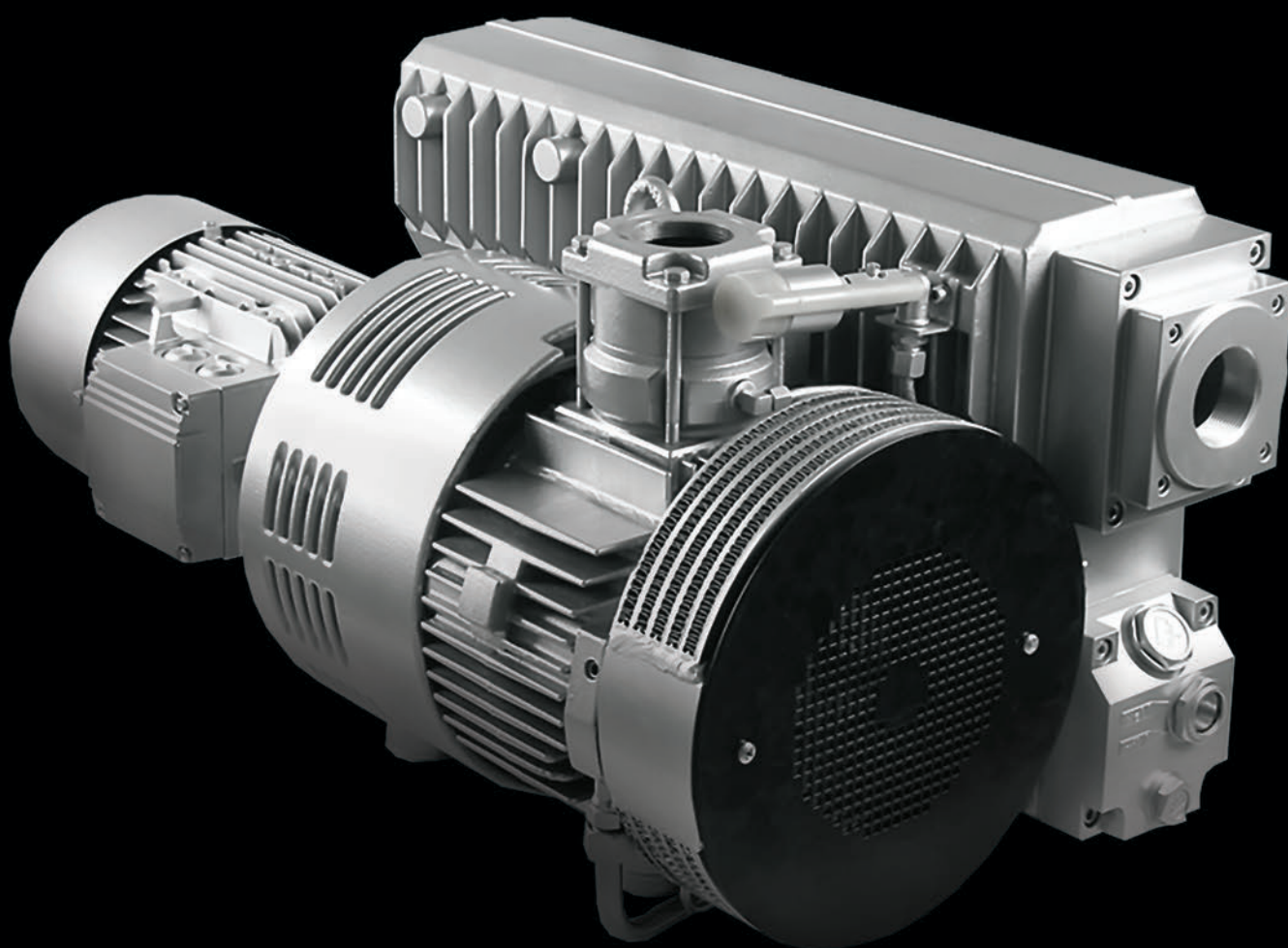


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Oil-Lubricated Rotary Vane Vacuum Pumps ORV

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1_ORV



1

Oil-Lubricated Rotary Vane Vacuum Pumps ORV

Principle:

The principle of operation of the Oil rotary vane vacuum pump is based on the rotating lamellas. Rotor (2) is situated excentric on the top in the cylindrical stator (1), so rotor is almost touching the stator. The lamellas (4) are pushed towards the wall of the stator by centrifugal force. Between two lamellas and stator it comes to the volume change of the compression chambers (7) by stator rotation, due to this fact the gas is sucked.

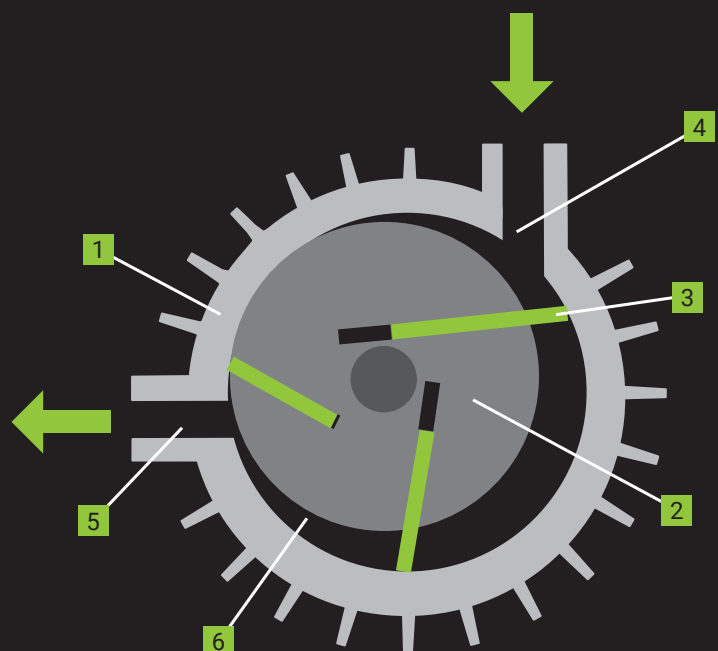
The oil in the pump serves as a lubricant for the internal parts and seals the fins against the stator, helping to achieve a higher vacuum.

Advantages:

- > Compact and delivered easy to install
- > Low maintenance and wear, thanks to optimal shaft speeds
- > Low noise and vibration levels
- > Quiet, cool operation
- > Environmentally Friendly
- > Long vane life
- > Minimal maintenance
- > Continuous duty rated

Application:

- > Packaging
- > Degassing
- > Pneumatic Conveying
- > Drying Processes
- > Holding and Lifting Goods
- > Distillation
- > Evacuation
- > Removal
- > Coating



- 1) Stator
- 2) Rotor
- 3) Carbon lamellas
- 4) Input
- 5) Output
- 6) Compression chamber

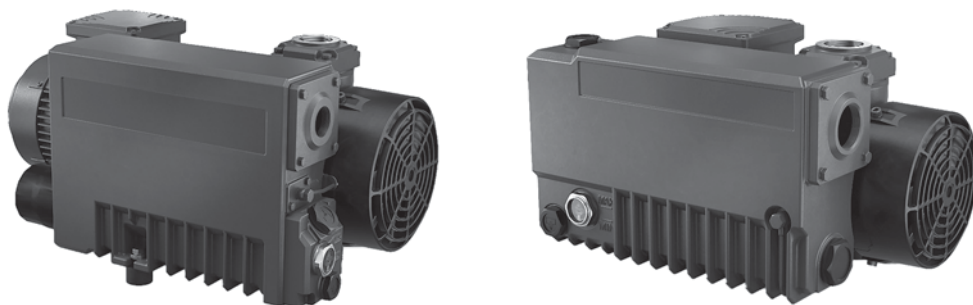
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Oil-Lubricated Rotary Vane Vacuum Pumps ORV

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Oil-Lubricated Rotary Vane Vacuum Pumps ORV

Performance table



Type	Nominal pumping speed (m³/h)	Ultimate pressure ABS (mbar)	Nominal motor rating (kW)	Nominal motor speed (min⁻¹)	Noise level (ISO 2151) (dB)	Oil capacity (l)	Weight approx.. (kg)	Dimesions (L x W x H) (mm)	Blower connection (inner thread)
Three-phase									
ORV 08	8	2	0,37	2800	60	0,25	11	330 x 165 x 152	G 3/8"
ORV 10	10	2	0,55	2800	69	0,30	18	340 x 210 x 205	G 1/2"
ORV 16	16	2	0,55	2800	69	0,30	18	340 x 210 x 205	G 1/2"
ORV 20	20	2	0,75	3000	66	0,45	20	338 x 232 x 220	G 3/4"
ORV 25	25	2	0,75	2800	64	0,50	20	405 x 253 x 210	G 3/4"
ORV 40	40	0,1	1,1	1500	65	1	38	640 x 285 x 262	G 1 1/4"
ORV 63	63	0,1	1,5	1500	67	2	55	635 x 406 x 289	G 1 1/4"
ORV 100	100	0,1	2,2	1500	67	2	73	736 x 406 x 289	G 1 1/4"
ORV 160	160	0,1	4,0	1500	70	5	140	854 x 492 x 411	G 2"
ORV 200	200	0,1	4,0	1500	72	5	140	854 x 492 x 411	G 2"
ORV 250	250	0,1	5,5	1500	72	6,50	190	1000 x 581 x 410	G 2"
ORV 300	300	0,1	7,5	1500	74	6,50	190	1075 x 565 x 421	G 2"
ORV 630	630	0,1	15	1000	77	15	700	1723 x 912 x 726	G 3"
Single-phase									
ORV 08-1	8	2	0,55	2800	60	0,25	11	330 x 165 x 152	G 3/8"
ORV 10-1	10	2	0,75	2800	69	0,30	18	340 x 210 x 205	G 1/2"
ORV 16-1	16	2	0,75	2800	69	0,30	18	340 x 210 x 205	G 1/2"
ORV 20-1	20	2	0,75	3000	66	0,45	20	338 x 232 x 220	G 3/4"
ORV 25-1	25	2	0,9	2800	64	0,5	25	405 x 253 x 210	G 3/4"

* Please request 60 Hz data



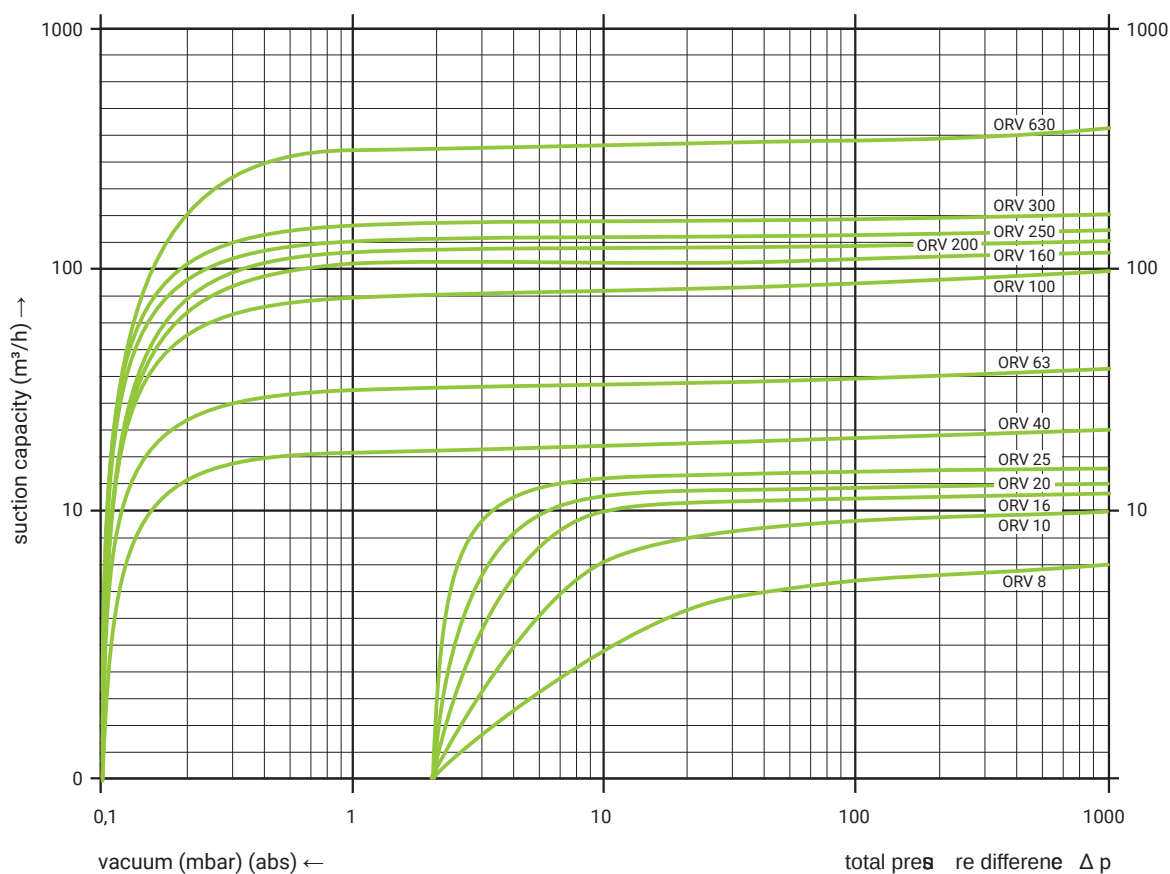
ORV vacuum pumps conform to the
European Community's Machinery
Directive (CE).

Oil-Lubricated Rotary Vane Vacuum Pumps ORV

Performance curves / Vacuum

Operating curves (50 Hz)

Performance curves are defined for the air transportation with the temperature 15°C set for the suction by the atmospheric pressure 1013 mbar with the permissible deviation +/-10%. Total pressure difference is valid for the temperature of the suction air and the ambient operating temperature 25°C.

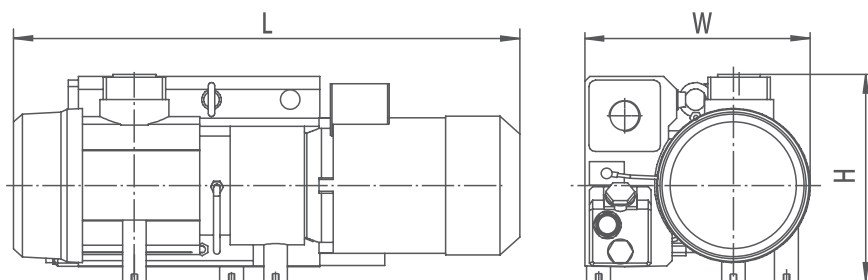


* Please request 60 Hz data

Oil-Lubricated Rotary Vane Vacuum Pumps ORV

Dimensions

Type	L (mm)	W (mm)	H (mm)	Blower connection (inner thread)
ORV 08	330	165	152	G 3/8"
ORV 10	340	210	205	G 1/2"
ORV 16	340	210	205	G 1/2"
ORV 20	338	232	220	G 3/4"
ORV 25	405	253	210	G 3/4"
ORV 40	640	285	262	G 1¼"
ORV 63	635	406	289	G 1¼"
ORV 100	736	406	289	G 1¼"
ORV 160	854	492	411	G 2"
ORV 200	854	492	411	G 2"
ORV 250	1000	581	410	G 2"
ORV 300	1075	565	421	G 2"
ORV 630	1723	912	726	G 3"



2

Rotary vane pumps RVT

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1_RVT



2

Rotary vane pumps RVT

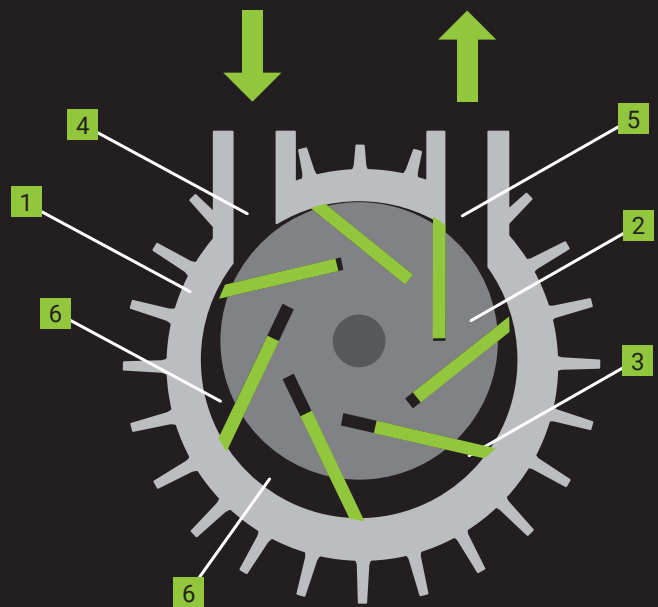
Rotary vane vacuum pumps are suitable for use in the area of heavy vacuum and pressure. They can be used for the evacuation and transport of air or dry gases which are not toxic, aggressive or explosive. They represent the simplest and most suitable system wherever you need a precise source of vacuum without additions. They are applicable for sucking off in the small closed systems.

Principle:

The principle of operation of the rotary vane vacuum pump is based on the rotating lamellas. Rotor (2) is situated excentric on the top in the cylindrical stator (1), so rotor is almost touching the stator. The lamellas (4) are pushed towards the wall of the stator by centrifugal force. Between two lamellas and stator it comes to the volume change of the compression chambers (7) by stator rotation, due to this fact the gas is sucked.

Advantages:

- > oil-free operation
- > source of the vacuum without additions
- > compact and reliable construction
- > easy installation and maintenance
- > low weight and dimensions
- > continuous running without vibrations
- > economic operation



- 1) Stator
- 2) Rotor
- 3) Carbon lamellas
- 4) Input
- 5) Output
- 6) Compression chamber

2

Rotary vane pumps RVT

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Rotary vane pumps RVT 4-4, RVT 4-8

Performance table

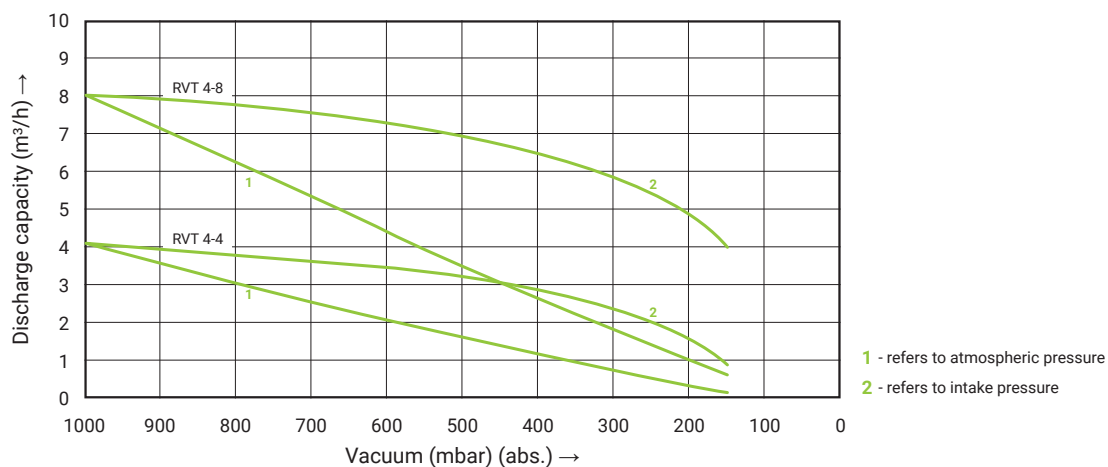


Type	Discharge capacity (m³/h)	Vacuum (mbar) (abs)	Motor (IP55), 50 Hz			RPM (min⁻¹)	Noise level (dB)	Weight (kg)	Dimensions (L x W x H) (mm)	Blower connection (inner thread)
			Power (kW)	Voltage (V)	Current (A)					
Three-phase										
RVT 4-4.3	4,1	150	0,18	230 Δ / 400 Y	1,06 Δ / 0,62 Y	2830	59	7	222 x 156 x 166	G 1/4"
RVT 4-8.3	8	150	0,37	230 Δ / 400 Y	1,91 Δ / 1,10 Y	2830	58	9,5	232 x 156 x 172	G 3/8"
Single-phase										
RVT 4-4.1	4,1	150	0,18	230 Δ / 400 Y	1,55	2800	59	7	222 x 156 x 166	G 1/2"
RVT 4-8.1	8	150	0,37	230 Δ / 400 Y	3,82	2800	58	9,5	452 x 156 x 166	G 3/8"

Performance curves / Vacuum

Operating curves

Performance curves are defined for the air transportation with the temperature 15°C set for the suction by the atmospheric pressure 1013 mbar with the permissible deviation +/-10%. Total pressure difference is valid for the temperature of the suction air and the ambient operating temperature 25°C.



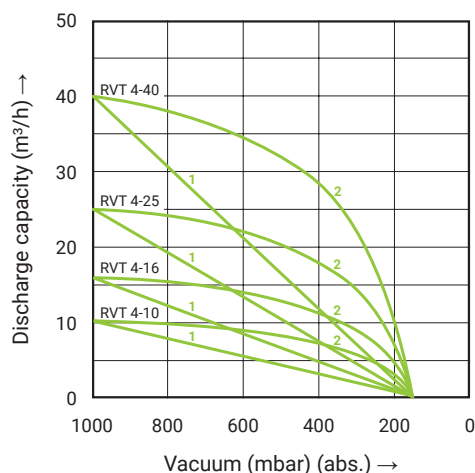
Rotary vane pumps RVT 4-10, RVT 4-16, RVT 4-25, RVT 4-40

Performance table



Type	Discharge capacity (m³/h)	Vacuum (mbar) (abs)	Motor (IP55), 50 Hz			RPM (min⁻¹)	Noise level (dB)	Weight (kg)	Dimensions (L x W x H) (mm)	Blower connection (inner thread)
			Power (kW)	Voltage (V)	Current (A)					
Three-phase										
RVT 4-10.3	10	150	0,37	230 Δ / 400 Y	2,3 Δ / 1,33 Y	1420	60	15	387 x 205 x 198	G 1/2"
RVT 4-16.3	16	150	0,55	230 Δ / 400 Y	2,5 Δ / 1,44 Y	1390	61	22	415 x 225 x 215	G 1/2"
RVT 4-25.3	25	150	0,75	230 Δ / 400 Y	6,0 Δ / 3,5 Y	1430	62	28	465 x 252 x 292	G 3/4"
RVT 4-40.3	40	150	1,25	230 Δ / 400 Y	6,9 Δ / 4,0 Y	1420	67	39	531 x 270 x 305	G 3/4"
Single-phase										
RVT 4-10.1	10	150	0,37	230 Δ / 400 Y	2,8	1410	60	15	387 x 205 x 198	G 1/2"
RVT 4-16.1	16	150	0,55	230 Δ / 400 Y	4,0	1430	61	22	415 x 225 x 215	G 1/2"
RVT 4-25.1	25	150	0,75	230 Δ / 400 Y	5,8	1430	62	28	465 x 252 x 292	G 3/4"
RVT 4-40.1	40	150	1,25	230 Δ / 400 Y	8,35	1420	67	39	531 x 270 x 305	G 3/4"

Performance curves / Vacuum



Operating curves

Performance curves are defined for the air transportation with the temperature 15°C set for the suction by the atmospheric pressure 1013 mbar with the permissible deviation +/-10%. Total pressure difference is valid for the temperature of the suction air and the ambient operating temperature 25°C.

1 - refers to atmospheric pressure
2 - refers to intake pressure

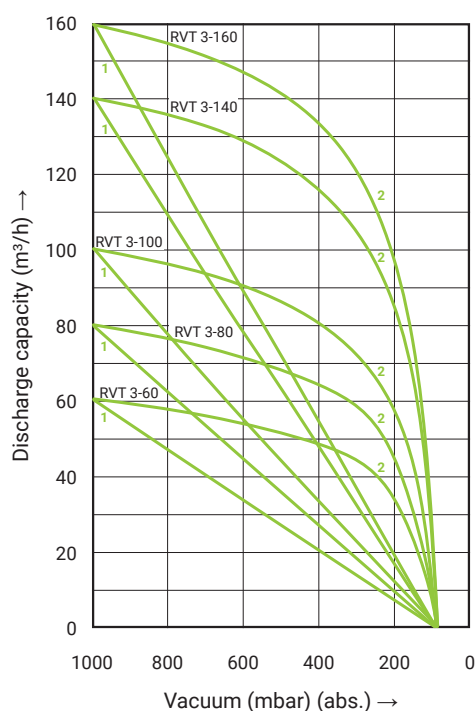
Rotary vane pumps RVT 3-60, RVT 3-80, RVT 3-100, RVT 3-140, RVT 3-160

Performance table



Type	Discharge capacity (m³/h)	Vacuum (mbar) (abs)	Motor (IP55), 50 Hz			RPM (min⁻¹)	Noise level (dB)	Weight (kg)	Dimensions (L x W x H) (mm)	Blower connection (inner thread)
			Power (kW)	Voltage (V)	Current (A)					
Three-phase										
RVT 3-60.3	60	150	2,2	230 Δ / 400 Y	8,1 Δ / 4,8 Y	1430	71	70	729 x 340 x 340	G 1"
RVT 3-80.3	80	150	2,2	230 Δ / 400 Y	8,1 Δ / 4,8 Y	1430	72	70	731 x 340 x 340	G 1"
RVT 3-100.3	100	150	3,0	230 Δ / 400 Y	10,7 Δ / 6,15 Y	1430	75	105	870 x 460 x 382	G 1½"
RVT 3-140.3	140	150	4,0	230 Δ / 400 Y	14,3 Δ / 8,2 Y	1430	76	115	870 x 460 x 382	G 1½"
RVT 3-160.3	160	150	5,5	230 Δ / 400 Y	19,0 Δ / 11,0 Y	1440	76	126	926 x 460 x 382	G 1½"

Performance curves / Vacuum



Operating curves

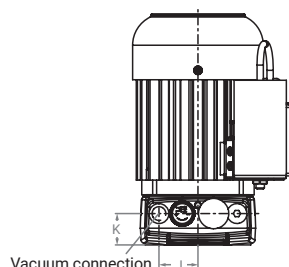
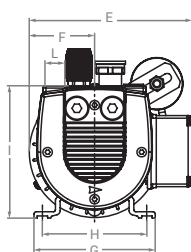
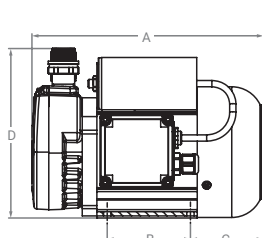
Performance curves are defined for the air transportation with the temperature 15°C set for the suction by the atmospheric pressure 1013 mbar with the permissible deviation +/-10%. Total pressure difference is valid for the temperature of the suction air and the ambient operating temperature 25°C.

- 1 - refers to atmospheric pressure
- 2 - refers to intake pressure

Rotary vane pumps RVT 4-4, RVT 4-8

Dimensions

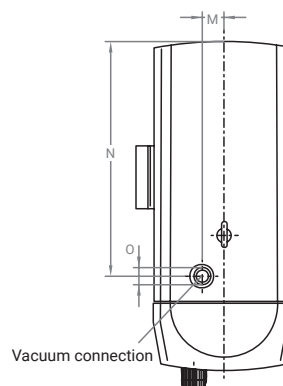
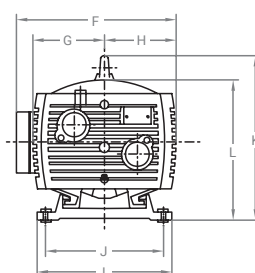
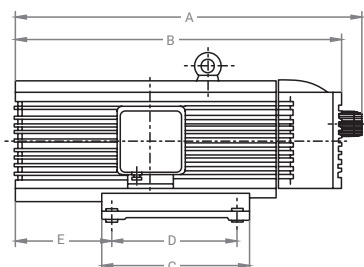
Type	A	B	C	D	E	F	G	H	I	J	K	L
RVT 4-4	222	80	70	166	156	63	116	100	127	37	30	G 1/4"
RVT 4-8.1	252	80	89	166	156	63	116	100	132	40	33	G 3/8"
RVT 4-8.3	232	80	68,6	172	156	63	116	100	132	40	33	G 3/8"



Rotary vane pumps RVT 4-10, RVT 4-16, RVT 4-25, RVT 4-40

Dimensions

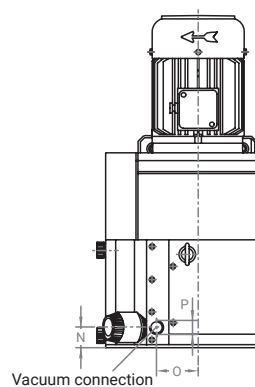
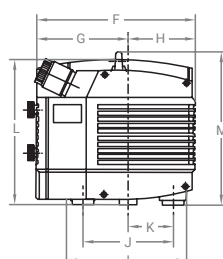
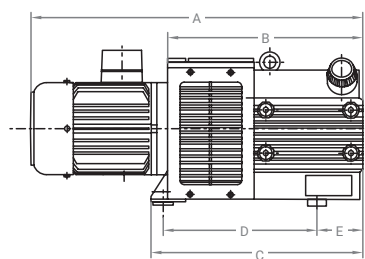
Type	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
RVT 4-10	430	387	244	205	62	205	89	89	156	128	198	189	35	257	G 1/2"
RVT 4-16	450	415	244	205	70	225	102	102	156	128	215	210	35	289	G 1/2"
RVT 4-25	502	465	260	220	97	252	125	125	240	198	292	247	40	300	G 3/4"
RVT 4-40	570	531	260	220	136	270	125	125	240	198	292/305	247	40	362	G 3/4"



Rotary vane pumps RVT 3-60, RVT 3-80, RVT 3-100, RVT 3-140, RVT 3-160

Dimensions

Type	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
RVT 3-60.3	728,5	401	451	327	93,5	340	189	150	235	190	95	314	340	45	65	G 1"
RVT 3-80.3	731	401	451	327	93,5	340	189	150	235	190	95	314	340	45	65	G 1"
RVT 3-100.3	870	527,5	570	401,5	140	460	225	235	295	245	134	340	382	60	95	G 1 1/2"
RVT 3-140.3	870	527,5	570	401,5	140	460	225	235	295	245	134	340	382	60	95	G 1 1/2"
RVT 3-160.3	925,5	527,5	570	401,5	140	460	225	235	295	245	134	340	382	60	95	G 1 1/2"



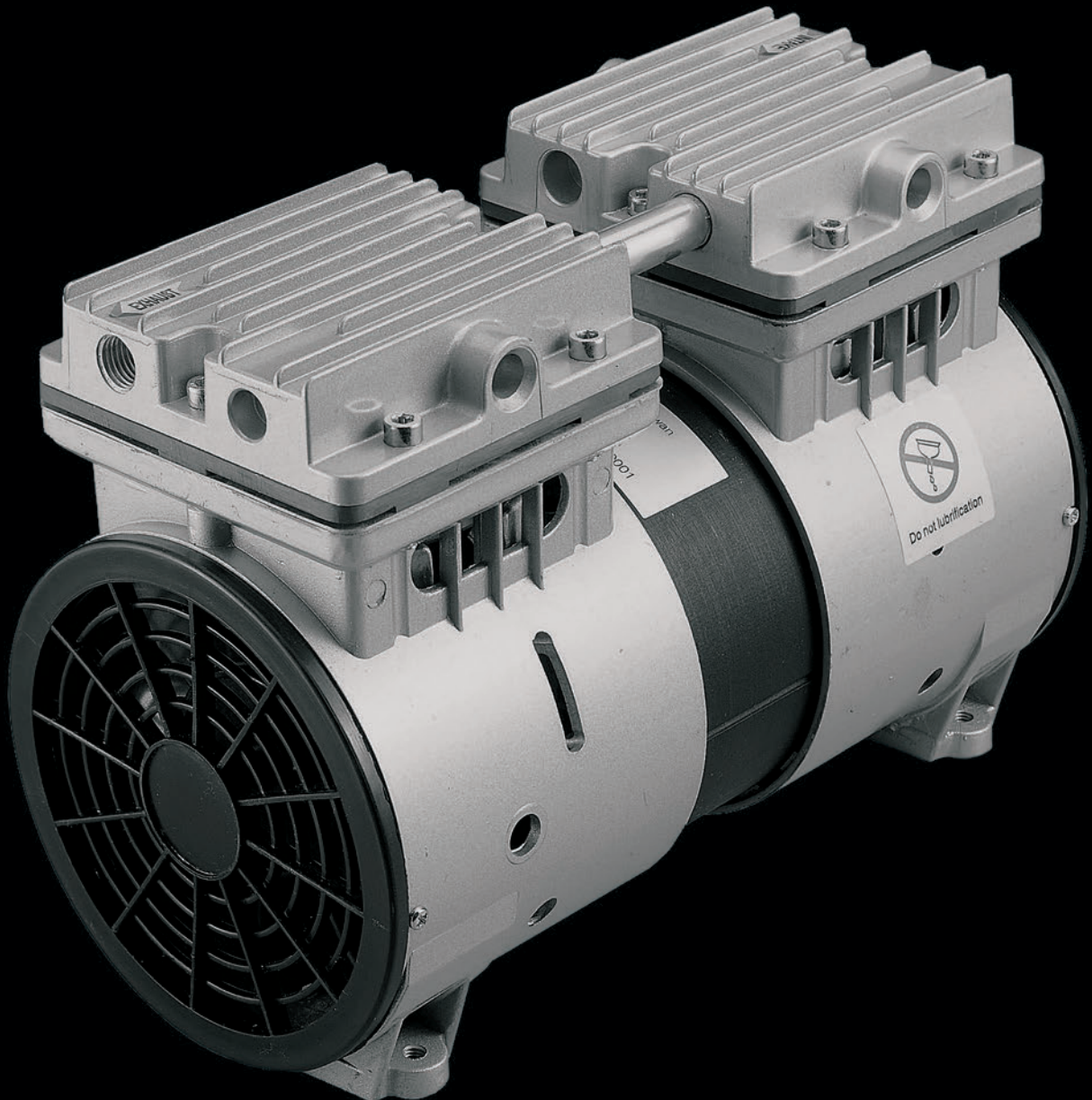
3

Piston pumps VP (Piston vacuum pump)

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3.1_Models of the standard pump

3.1_Laboratory models

3.1_Vacuum systems



3

Piston pumps VP (Piston vacuum pump)

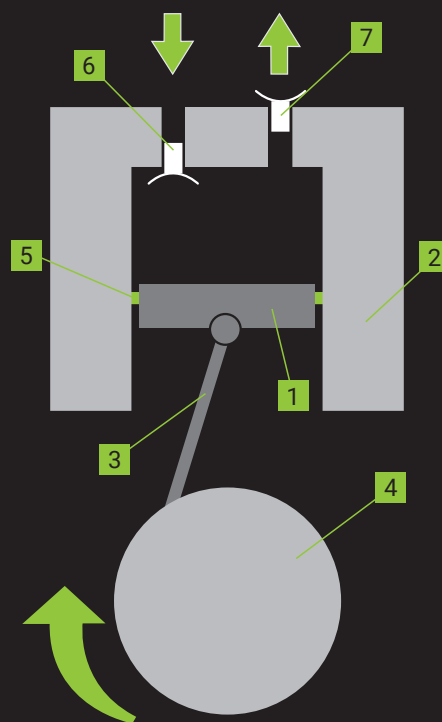
The best attributes of piston and membrane equipment are combined together into the piston vacuum pumps (compressors) - into one small and compact unit. Deeper vacuum can be reached by the series connection of the pistons (for double pistons version). The flow will be increased by parallel connection. Due to the fact that operation of the piston pumps is oil-free, these pumps are suitable for those applications where contamination of the medium by oil mist is undesirable.

Principle:

The basic principle of the piston pumps is based on linear reversible movement of the piston (1) in the cylinder (2). The piston is moving by piston rod (3), which is driven by the crank by force of cam mechanism (4) – conversion of rotary motion to linear. The piston is sealed towards the cylinder by the piston ring (5), which has high thermal conductivity and low friction without need to lubricate it. By movement of the piston in the cylinder downward the air is sucked through a one-way suction valve (6) into the compression chamber. By movement of the piston upwards, the air is pushed away by the one-way exhaust valve (7).

Advantages:

- > Not required operation liquid - oil-free operation
- > The pumps reach deep vacuum
- > Low noisiness
- > Compact construction
- > Low weight
- > Do not contaminate the transported gas
- > Easy installation
- > Low temperature at the pump head
- > Long life-time



3

Piston pumps VP

(Piston vacuum pump)

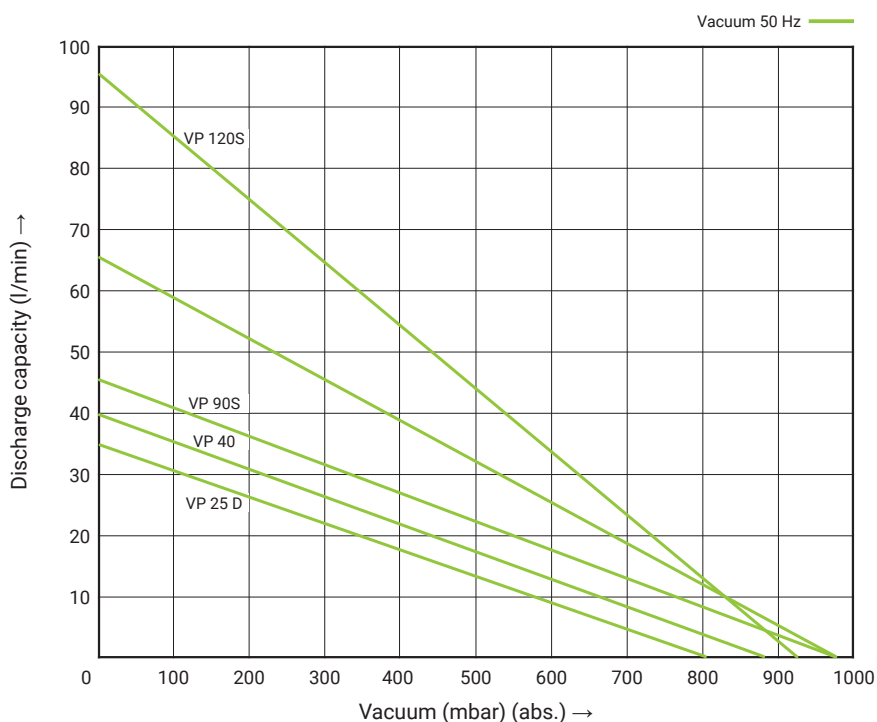
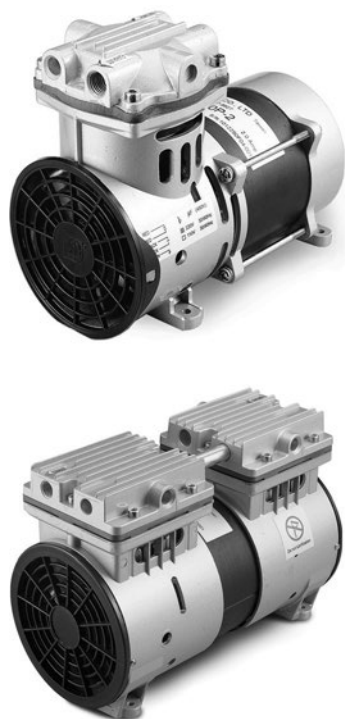
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3.1

Models of the standard pump

Piston pumps VP

Models VP25D, VP 40, VP 90S, VP 120S, VP 120P

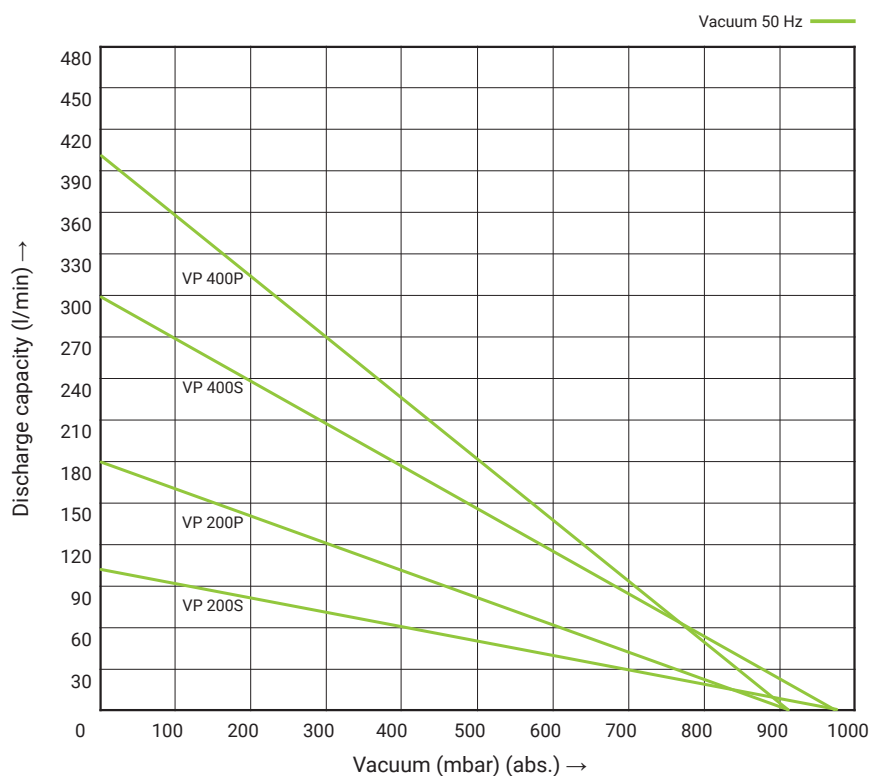


Model	VP 25D	VP 40	VP 90S	VP 120S	VP 120P
Input power	130W	180 W	250 W	300 W	300 W
Noise level	55 dB	58 dB	63 dB	66 dB	66 dB
Weight approx.	3,2 kg	5,2 kg	7,4 kg	7,4 kg	7,4 kg
Exhaust ø	inner thread 1/4"	inner thread 1/4"	inner thread 1/4"	inner thread 1/4"	inner thread 1/4"
Max. Vacuum Rate	800 mbar	880 mbar	987 mbar	987 mbar	907 mbar
Max. Volume Flow	34 L / min	40 L / min	45 L / min	65 L / min	105 L / min
Rated Voltage	230V / 50Hz	230V / 50Hz	230V / 50Hz	230 V / 50Hz	230 V / 50Hz
Thermal protector	135 ± 5% °C	135 ± 5% °C	135 ± 5% °C	135 ± 5% °C	135 ± 5% °C
Cover IP	IP 54	IP 54	IP 54	IP 54	IP 54
Product dimesions L x W x H	175 x 93 x 143 mm	190 x 105 x165 mm	250 x 128 x 176 mm	250 x 128 x 176 mm	250 x 128 x 176 mm
Installation Dimension	114 x 70 mm (M6)	126 x 86,5 mm (M6)	203,5 x 89 mm (M6)	203,5 x 89 mm (M6)	203,5 x 89 mm (M6)

The single phase machines are designed with a +/- 10 % tolerance. Information presented is based on test results from nominal units. Specifications are subject to change without notice.

Piston pumps VP

Models VP 200P, VP 200S, VP 400P, VP 400S



Model	VP 200S	VP 200P	VP 400S	VP 400P
Input power	500 W	500 W	1 kW	1 kW
Noise level	66,5 dB	66 dB	66 dB	66 dB
Weight approx.	10,2 kg	9,2 kg	29 kg	29 kg
Exhaust ø	inner thread 1/4"	inner thread 1/4"	inner thread 1/2"	inner thread 1/2"
Max. Vacuum Rate	987 mbar	907 mbar	987 mbar	907 mbar
Max. Volume Flow	105 L / min	180 L / min	300 L / min	400 L / min
Rated Voltage	230V / 50Hz	230V / 50Hz	230 V / 50Hz	230 V / 50Hz
Thermal protector	145 ± 5% °C	145 ± 5% °C	145 ± 5% °C	145 ± 5% °C
Cover IP	IP 54	IP 54	IP 54	IP 54
Product dimesions L x W x H	270 x 135 x 202 mm	250 x 128 x 203 mm	450 x 350 x 280	450 x 350 x 280 mm
Installation Dimension	225 x 90 mm (M6)	203,5 x 89 mm (M6)	240 x 320 mm (M6)	240 x 320 (M6)

The single phase machines are designed with a +/- 10 % tolerance. Information presented is based on test results from nominal units. Specifications are subject to change without notice.

Accessories for piston pumps VP

manometer for vacuum, filter, valve

Type VFR-A-MPA

 Accessories for piston pumps VP
 VP40, VP90S, VP120S


Type VFR-B-MPA

 Accessories for piston pumps VP
 VP120P, VP200S, VP200P


manometer for vacuum, filter, valve	Model	Product dimensions (mm)	Measuring range	Connection (inner thread)
	VFR-A-MPA	170 x 50 x 40	-1 až 0 MPa	G ¼"
	VFR-B-MPA	200 x 55 x 55	-1 až 0 MPa	G ¼"

3

Piston pumps VP

(Piston vacuum pump)

—

3.2

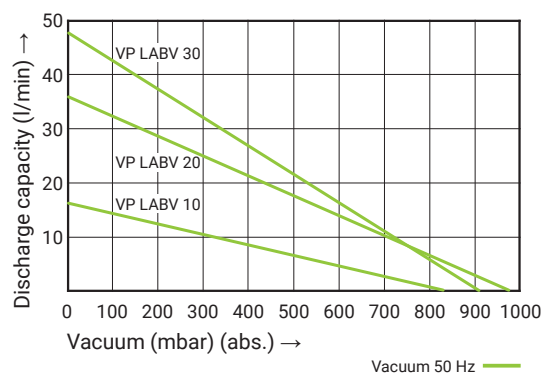
Laboratory models

Piston pumps VP

Models VP LABV 10, VP LABV 20, VP LABV 30

VP LABV 10

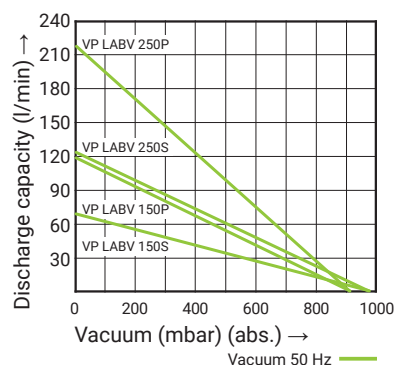
VP LABV 20

VP LABV 30


Model	VP LABV 10	VP LABV 20	VP LABV 30
Input power	60 W	85 W	180 W
Noise level	≤ 58 dB	≤ 55 dB	≤ 65 dB
Weight approx.	5,5 kg	6,8 kg	8,5 kg
Exhaust ø	9 mm	9 mm	9 mm
Max. Vacuum Rate	826 mbar	987 mbar	907 mbar
Max. Volume Flow	16 L / min	36 L / min	48 L / min
Rated Voltage	230V / 50Hz	230V / 50Hz	230 V / 50Hz
Cover IP	IP 54	IP 54	IP 54
Product dimesions L x W x H (mm)	370 x 170 x 256	370 x 170 x 256	370 x 170 x 256

The single phase machines are designed with a +/- 10 % tolerance. Information presented is based on test results from nominal units. Specifications are subject to change without notice.

Models VP LABV 150P, VP LABV 250P, VP LABV 150S, VP LABV 250S



Model	VP LABV 150P	VP LABV 250P	VP LABV 150S	VP LABV 250S
Input power	300 W	560 W	300 W	560 W
Noise level	≤ 66 dB	≤ 66 dB	≤ 66 dB	≤ 67 dB
Weight approx.	11,5 kg	13 kg	11,5 kg	13 kg
Exhaust ø	9 mm	9 mm	9 mm	9 mm
Max. Vacuum Rate	906 mbar	906 mbar	986 mbar	986 mbar
Max. Volume Flow	120 L / min	220 L / min	75 L / min	125 L / min
Rated Voltage	230V / 50Hz	230V / 50Hz	230 V / 50Hz	230 V / 50Hz
Cover IP	IP 54	IP 54	IP 54	IP 54
Product dimesions L x W x H (mm)	340 x 187,4 x 305	340 x 187,4 x 305	340 x 187,4 x 305	340 x 187,4 x 305

The single phase machines are designed with a +/- 10 % tolerance. Information presented is based on test results from nominal units. Specifications are subject to change without notice.

3

Piston pumps VP

(Piston vacuum pump)

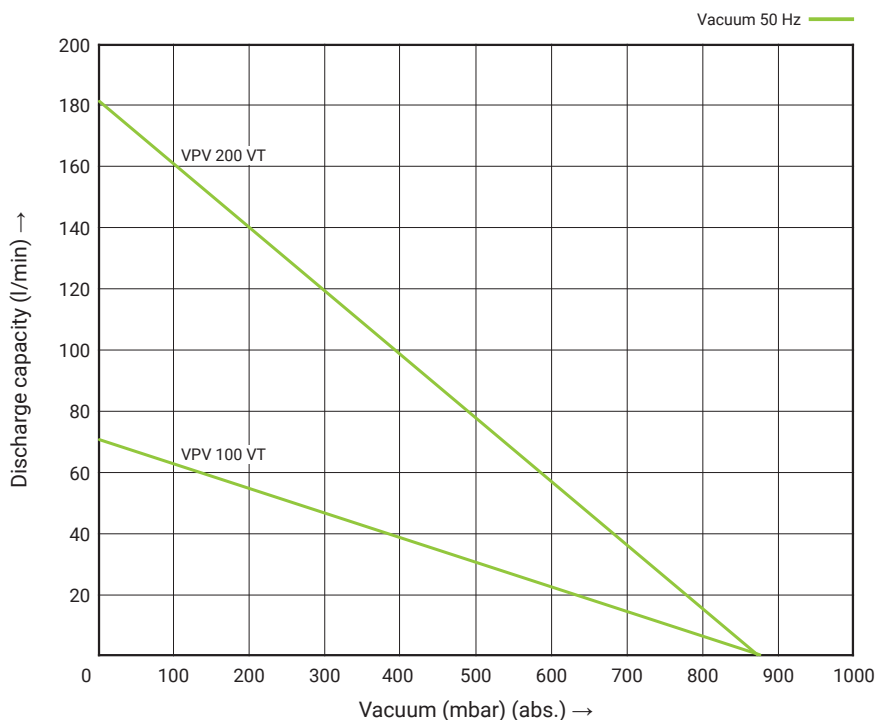
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3.3

Vacuum systems

Piston pumps VP

Models VPV 100VT, VPV 200VT

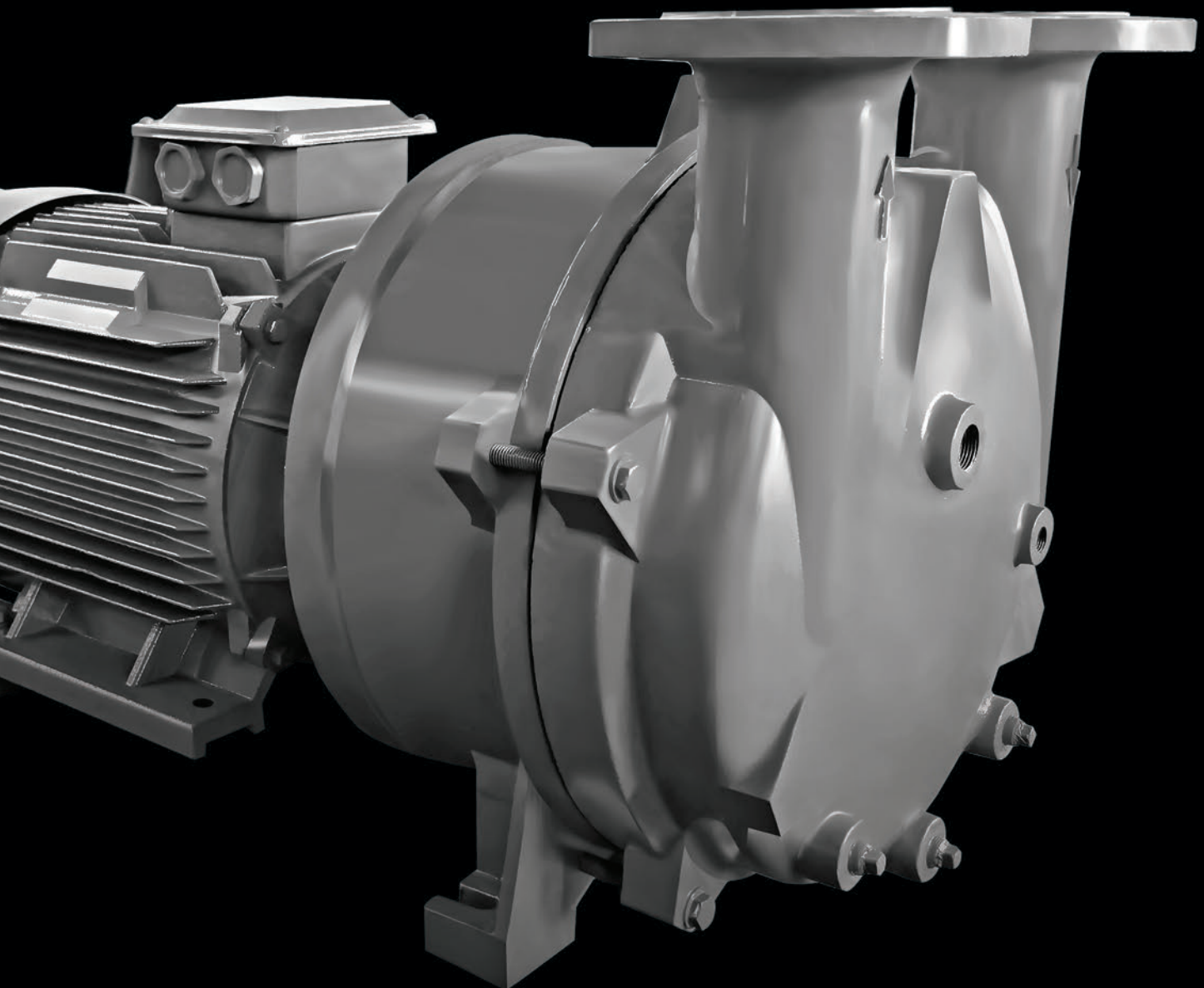


Model	VPV 100VT	VPV 200VT
Input power	250 W	500 W
Noise level	63 dB	63 dB
Weight approx.	19,7 kg	21,5 kg
Exhaust ø	3/8"	3/8"
Max. Vacuum Rate	866 mbar	866 mbar
Max. Volume Flow	75 L / min	180 L / min
Rated Voltage	30 L	30 L
Thermal protector	230V / 50Hz	230V / 50Hz
Cover IP	135 ± 5% °C	135 ± 5% °C
Product dimesions L x W x H	IP 54	IP 54
Installation Dimension	700 x 300 x 550 mm	700 x 300 x 550 mm

The single phase machines are designed with a +/- 10 % tolerance. Information presented is based on test results from nominal units. Specifications are subject to change without notice.

4

Liquid ring pump LRX, LRM



4

Liquid ring pump

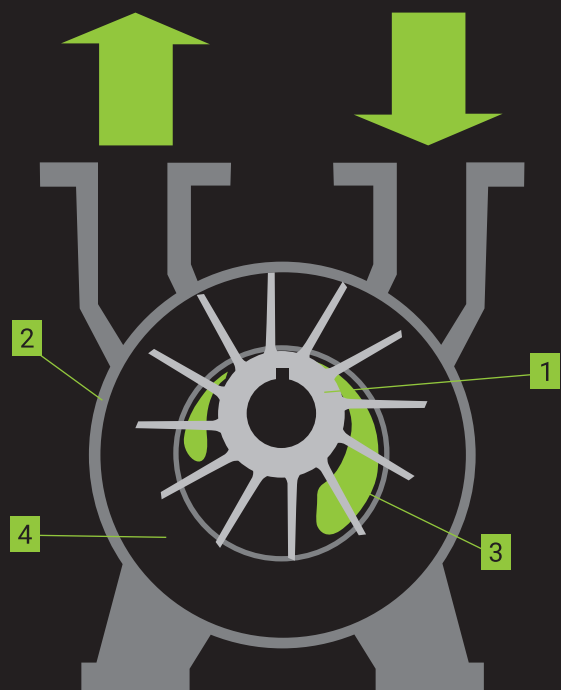
Liquid ring vacuum pumps LRX and LRM are designed primarily for exhaustion of vapors and gases in various industries such as food and chemical industry. They are also used for evaporation, drying and packaging of the goods. Their big advantage is the fact they can evacuate gases with particles of liquid (vapor) as well as medium with a slight mechanical contamination (without abrasive effect).

Principle:

Rotor with fixed blades (1) is rotating in the stator (2), in which is situated eccentrically. Water ring is created from the service liquid (3) by the centrifugal force. The vacuum is formed and the pressure is changed in the compression chambers (4) between the blades and water ring. During the operation, the pump has to be supplied by adequate quantity of service liquid to achieve desired performance. Service liquid is also very useful for cooling of the liquid ring vacuum pump and for receiving possible contamination of sucked gas.

Advantages:

- > Oil-free operation
- > They are suitable for suction of gases and vapors
- > They can reach relatively deep vacuum
- > They are able to work simultaneously with the gas and liquid
- > Anti cavitation protection is ensured by installation of anti-cavitation valve
- > Safe operation with minimal maintenance
- > Smooth running without vibration
- > Economic operation



4

Liquid ring pump

(Liquid ring vacuum pumps)

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4.1

Liquid ring pump LRX

Liquid ring pump LRX

Performance table

Type	Discharge capacity (m³/h)	Vacuum (mbar) (abs)	RPM	Motor (IP55), 50Hz (60Hz*)			Noise level (dB)	Weight (kg)	Max. qty. of liquid in continuous operation (l/h)	Recommended type flowmeter
				Power (kW)	Voltage (V)	Current (A)				
Three-phase										
LRX 2060	27	33	2840	0,81	200-240 Δ / 345-415 Y	3,4	62	37	120	R-1/R
LRX 2061	52	33	2840	1,45	200-240 Δ / 345-415 Y	3,3	65	41	120	R-1/R
LRX 2070	80	33	2860	2,35	200-240 Δ / 345-415 Y	6,5	66	66	150	R-1/R
LRX 2071	110	33	2880	3,85	200-240 Δ / 345-415 Y	8,2	72	85	252	R-1/R
LRX 5110	165	33	1440	4	345 - 415 Δ	8,7	63	120	402	R-1/R
LRX 5111	230	33	1440	5,5	345 - 415 Δ	11,5	68	150	498	R-2/R
LRX 5121	280	33	1440	7,5	345 - 415 Δ	15,4	69	210	600	R-2/R
LRX 5131	400	33	1460	11	345 - 415 Δ	22,6	73	280	900	R-2/R
LRX 5161	500	33	970	15	345 - 415 Δ	31,4	74	390	1200	R-2/R
LRX 6110	165	33	1440	4	345 - 415 Δ	8,7	63	148	402	R-1/R
LRX 6111	230	33	1440	5,5	345 - 415 Δ	11,5	68	196	498	R-2/R
LRX 6121	280	33	1440	7,5	345 - 415 Δ	15,4	69	220	600	R-2/R
LRX 6131	400	33	1460	11	345 - 415 Δ	22,6	73	314	900	R-2/R
LRX 6161	500	33	970	15	345 - 415 Δ	31,4	74	426	1200	R-2/R

Features of the Liquid ring pump LRX series

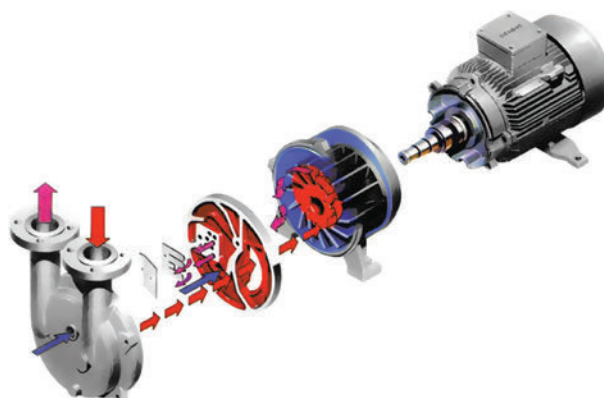
The difference between LRX5 and LRX6:

The performance of LRX5 and LRX6 is the same.

The size of LRX6 is longer.

Because LRX5 don't have the couplings between pumps and motors. The pump is installed with the same shaft with motor.

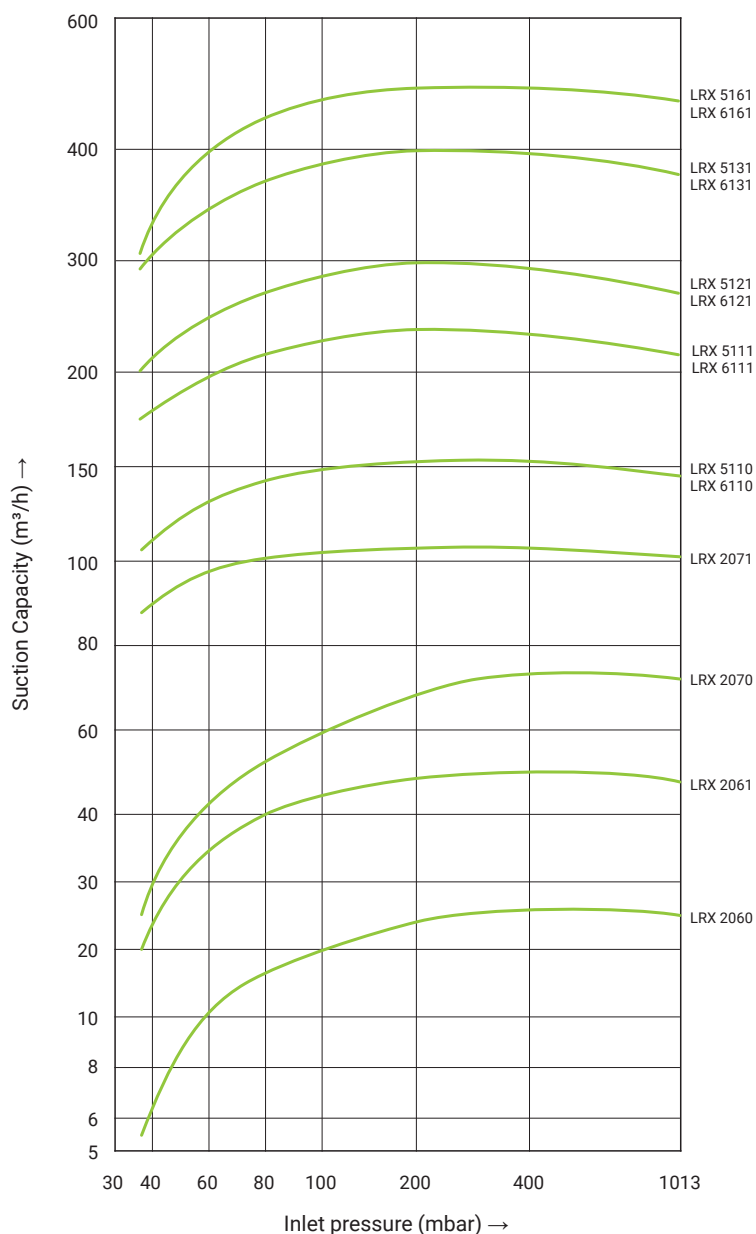
The pump shaft and motor shaft is connected by coupling for LRX6. So the materials of pump shaft can be SS304 or other ones. And can be installed with Explosion-Proof Motor.



* Please request 60 Hz data

Liquid ring pump LRX

Performance curves

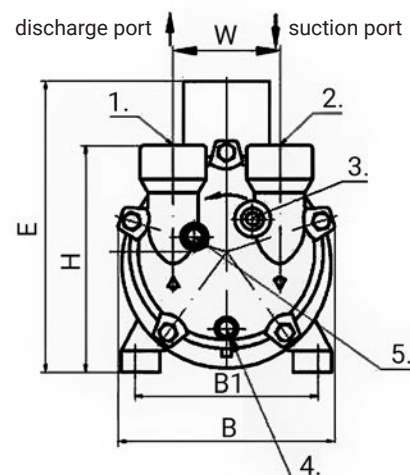
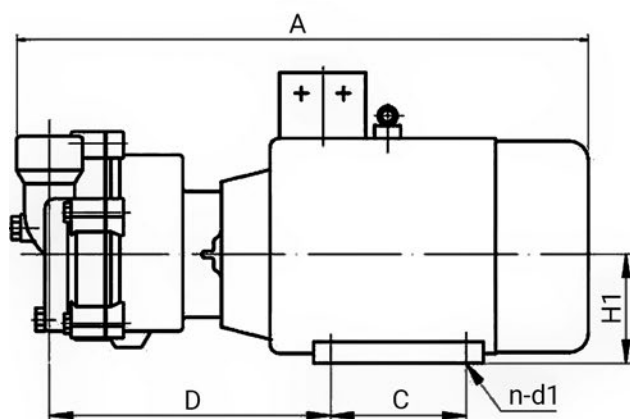


Suction capacity and power consumption depending on inlet pressure.

The Characteristics are applicable for compression of 20°C dry air from inlet pressure to atmospheric pressure (1013 mbar) for nominal speed and drive with three phase motors. Ring liquid is water at 15°C. The tolerance of suction capacity is -10% and of the power consumption +10%. With different operating conditions performance characteristics change.

Liquid ring pump LRX

LRX 2 Series - Dimensions



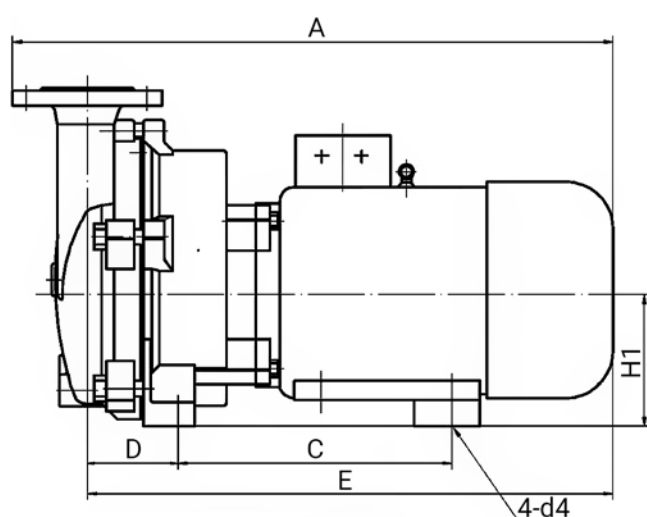
1. discharge port
2. suction port
3. water supply
4. water outlet
5. anti-cavitation protection port

Type	A (mm)	B (mm)	B1 (mm)	C (mm)	D (mm)	E (mm)	H (mm)	H1 (mm)	W (mm)
LRX 2060	450	186	140	100	203	250	196	90	110
LRX 2061	475	186	140	100	223	250	196	90	110
LRX 2070	565	224	160	100	260	270	222	100	110
LRX 2071	590	224	160	100	260	300	222	112	110

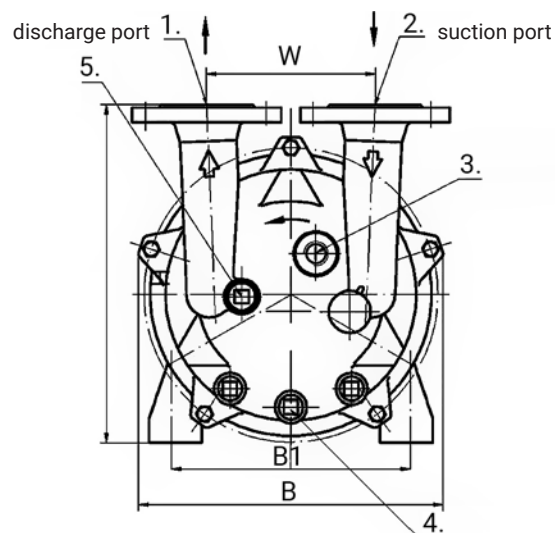
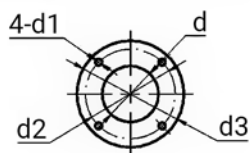
Type	n	d1	1.	2.	3.	4.	5.
LRX 2060	4	10	G1"	G1"	G 3/8"	G 1/4"	G 3/8"
LRX 2061	4	10	G1"	G1"	G 3/8"	G 1/4"	G 3/8"
LRX 2070	4	12	G 1 1/2"	G 1 1/2"	G 3/8"	G 1/4"	G 3/8"
LRX 2071	4	12	G 1 1/2"	G 1 1/2"	G 3/8"	G 1/4"	G 3/8"

Liquid ring pump LRX

LRX 5 Series - Dimensions



suction and discharge port flange



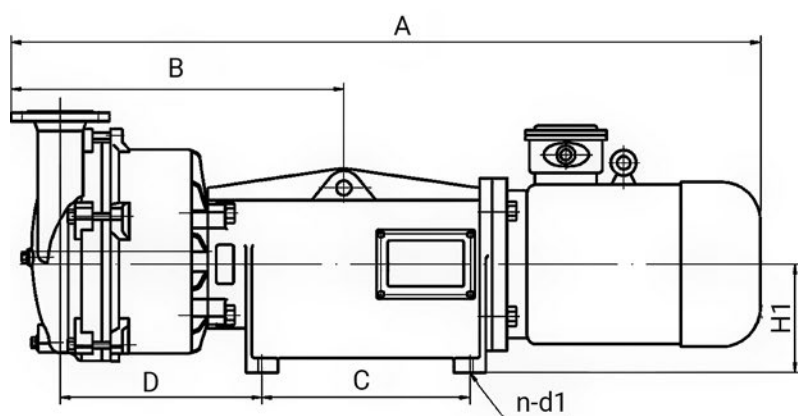
1. discharge port
2. suction port
3. water supply
4. water outlet
5. anti-cavitation protection port

Type	A (mm)	B (mm)	B1 (mm)	C (mm)	D (mm)	E (mm)	H (mm)	H1 (mm)	W (mm)
LRX 5110	647	325	255	340	97	567	360	140	180
LRX 5111	669	325	265	340	106	589	371	150	180
LRX 5121	772	347	265	420	96	681	385	150	200
LRX 5131	850	377	300	475	103	759	427	175	200
LRX 5161	1060	479	370	570	137	960	521	210	250

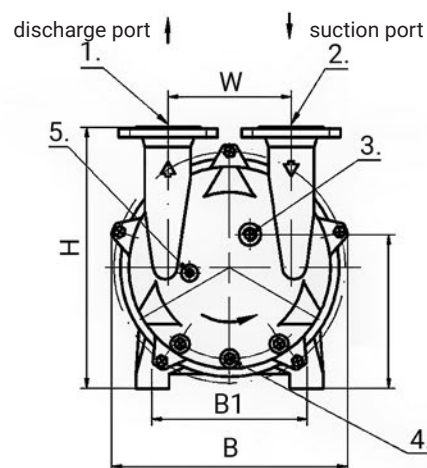
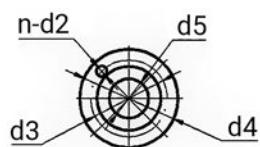
Type	d	d1	d2	d3	d4	3.	4.	5.
LRX 5110	50	19	123	160	13	G 1/2"	G 3/8"	G 3/8"
LRX 5111	50	19	123	160	14	G 1/2"	G 3/8"	G 3/8"
LRX 5121	65	19	145	182	14	G 3/4"	G 3/8"	G 3/8"
LRX 5131	65	19	145	182	14	G 3/4"	G 3/8"	G 3/8"
LRX 5161	80	22	156	200	14	G 3/4"	G 3/4"	G 3/8"

Liquid ring pump LRX

LRX 6 Series - Dimensions



suction and discharge port flange



1. discharge port
2. suction port
3. water supply
4. water outlet
5. anti-cavitation protection port

Type	A (mm)	B (mm)	B1 (mm)	C (mm)	D (mm)	H (mm)	H1 (mm)	W (mm)
LRX 6110	1043	340	252	248	281	383	163	180
LRX 6111	1216	340	290	325	332	406	185	180
LRX 6121	1264	382	290	325	349	420	185	200
LRX 6131	1455	390	316	417	351	531	220	200
LRX 6161	1615	480	316	417	409	521	220	200
Type	d1	d2	d3	d4	d5	3.	4.	5.
LRX 6110	13	19	123	160	50	G 1/2"	G 3/8"	G 3/8"
LRX 6111	14	19	123	160	50	G 1/2"	G 3/8"	G 3/8"
LRX 6121	14	19	145	182	65	G 3/4"	G 3/8"	G 3/8"
LRX 6131	14	19	145	182	65	G 3/4"	G 3/8"	G 3/8"
LRX 6161	14	22	156	200	80	G 3/4"	G 3/4"	G 3/8"

4

Liquid ring pump

(Liquid ring vacuum pumps)

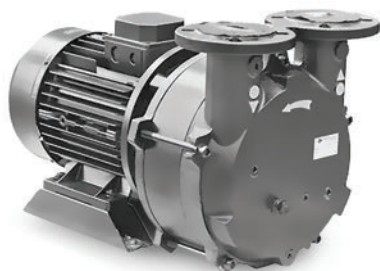
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4.2

Liquid ring pump LRM

Liquid ring pump LRM

Performance table



Type	Frequency (Hz)	RPM	Discharge capacity (m³/h)	Vacuum (mbar) (abs)	Motor (IP55)			Noise level (dB)	Weight (kg)
					Power (kW)	Voltage (V)	Current (A)		
Three-phase									
LRM 25	50	2850	25	33	0,75	200-240 Δ / 345-415 Y	1,76 Y	68	18
LRM 50	50	2850	45	33	1,5	200-240 Δ / 345-415 Y	3,13 Y	68	23
LRM 95	50	1450	75	33	2,2	200-240 Δ / 345-415 Y	4,83 Y	65	56
LRM 130	50	1450	120	33	4,0	200-240 Δ / 345-415 Y	8,15 Δ	65	73
LRM 255	50	1450	180	33	5,5	200-240 Δ / 345-415 Y	11,0 Δ	65	100
LRM 325	50	1450	300	33	7,5	200-240 Δ / 345-415 Y	15,0 Δ	72	132
LRM 455	50	1450	400	33	11,0	200-240 Δ / 345-415 Y	21,2 Δ	72	205

Type	Max. qty. of liquid in conti- nuous operation (l/h)	Max. qty. of liquid in discontinuous operation (l/h)	Recommended type flowmeter	Measuring range of flowmeter (l/h)
Three-phase				
LRM 25	500	600	R-2/R	80 - 800
LRM 50	600	720	R-2/R	80 - 800
LRM 95	1700	2000	R/3	200 - 3000
LRM 130	1800	2200	R/3	200 - 3000
LRM 255	3000	3600	R/3	200 - 3000
LRM 325	3200	3900	R/3	200 - 3000
LRM 455	3800	4600	R/4	500 - 6000


 Flowmeter
R-2/R

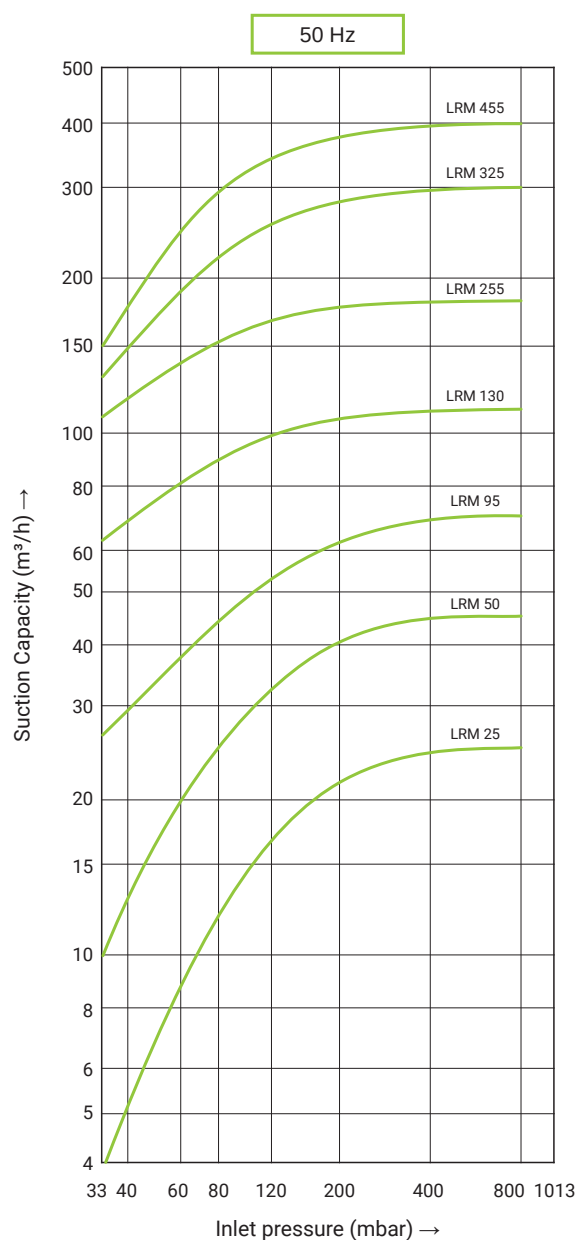
 Flowmeter
R/3, R/4

Liquid ring pump LRM

Performance curves

Suction capacity and power consumption depending on inlet pressure.

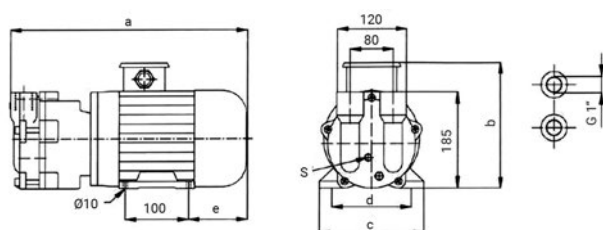
The Characteristics are applicable for compression of 20°C dry air from inlet pressure to atmospheric pressure (1013 mbar) for nominal speed and drive with three phase motors. Ring liquid is water at 15°C . The tolerance of suction capacity is -10% and of the power consumption +10%. With different operating conditions performance characteristics change.



Liquid ring pump LRM

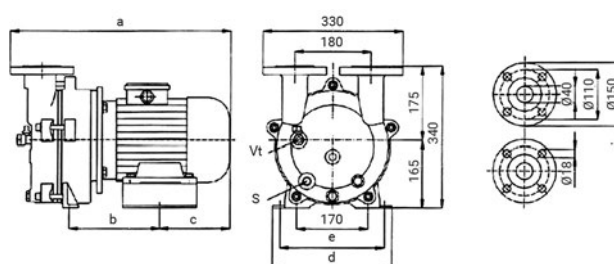
Dimensions

LRM 25 / LRM 50



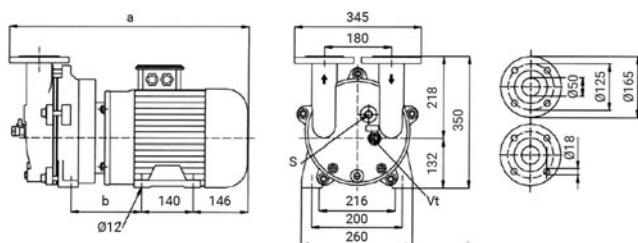
Type	a (mm)	b (mm)	c (mm)	d (mm)	e (mm)	S	Weight (kg)
LRM 25	365	200	160	125	88	G 1/4"	18
LRM 50	405	215	180	140	102	G 1/4"	23

LRM 95 / LRM 130



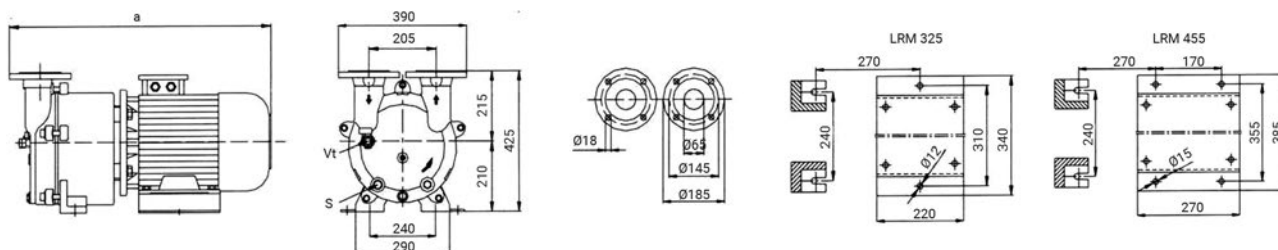
Type	a (mm)	b (mm)	c (mm)	d (mm)	e (mm)	S	Vt	Weight (kg)
LRM 95	520	165	185	285	255	G 1/2"	G 1/4"	55
LRM 130	405	215	180	140	102	G 1/2"	G 1/4"	23

LRM 255



Type	a (mm)	b (mm)	S	Vt	Weight (kg)
LRM 255	680	215	G 1/2"	G 1/4"	98

LRM 325 / LRM 455



Type	a (mm)	S	Vt	Weight (kg)
LRM 325	720	G 3/4"	G 1/2"	132
LRM 455	840	G 3/4"	G 1/2"	193



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**Air and Vacuum
Components**

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Notes

Place for your notes



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