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Oil Circulated

Rotary Vane Vacuum Pumps

SVO 060 / 100

50 / 85 ℓ /min (50Hz)

60 / 100 ℓ /min (60Hz)

2 mbar



SVO 100

● Reliability

High quality material, quality control according to ISO9001, CE, mark authentication standard, automated machining facility, computer control process, etc. Guarantee standardized and accurate product manufacturing. Where operation of vacuum pump stops during vacuum work in direct coupling operation method of flange type. Check valve is installed at the suction hole in order to prevent reverse-flow.

● Environmentally safe

Air cooling, internal oil recirculation, installed special oil sump for oil mist separator, low vibration and low noise level allows this pump to be used in any environment.

● Easy to service

Compact design, air-cooling and easy maintenance without oil mist separator and can be using long periods. When needed change the oil, do not need to change the other consumption parts.

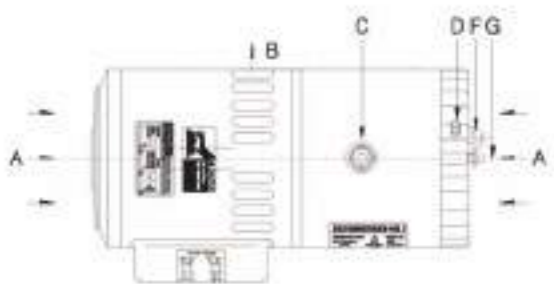
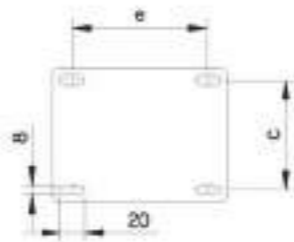
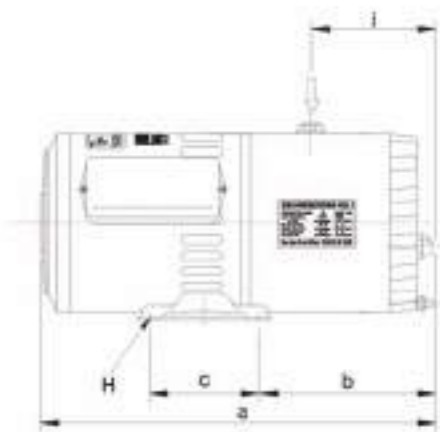
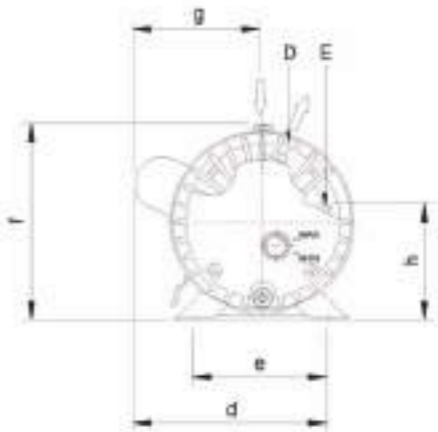
● Miniaturization

This is simple type spindle of flange motor connect pump rotor & cylinder directly and cooling type used with cooling fan. This pump is small size and lightweight. Packing machine, Printing machine, Medical instrument and Vacuum adhesion move, etc.

Rotary Vane Vacuum Pumps

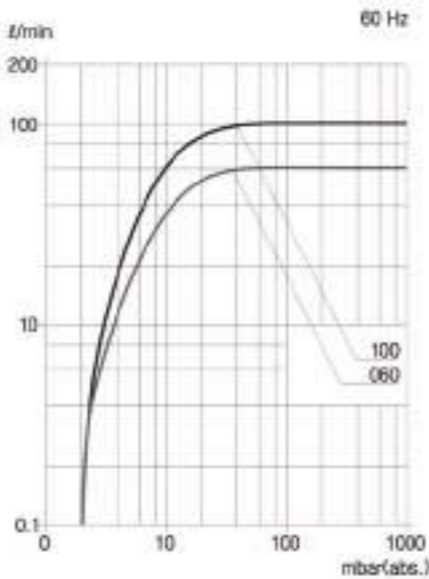
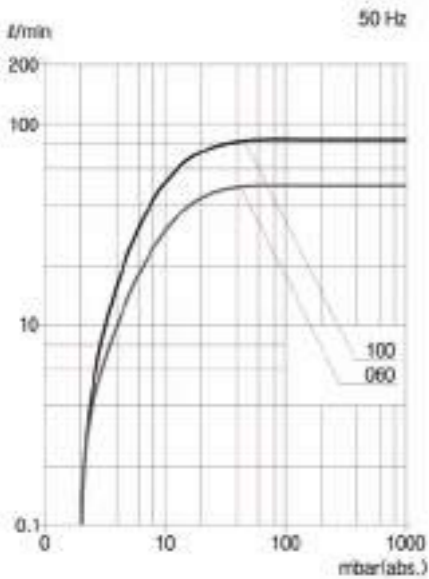
SVO 060 / 100

Technical Data			SVO-060	SVO-100		
Norminal displacement	50Hz	ℓ /min	50	85		
	60Hz	ℓ /min	60	100		
Ultmimate pressure	mbar		2	2		
Motor version(3~)	50Hz	V	Order	Order		
	60Hz	V				
Motor version(1~)	50Hz	V	230	230		
	60Hz	V	220	220		
Nominal motor rating(3~)	kW		–	–		
Nominal motor rating(1~)	kW		0.2	0.25		
Nominal motor speed	50Hz	min ⁻¹	1420	1420		
	60Hz	min ⁻¹	1700	1700		
Sound level	dB(A)		50	52		
Operating temperature (Ambient)	℃		40	40		
Oil filling	liter		0.1	0.1		
Weight approx	50Hz	kg	12	13		
	60Hz	kg				



A	Cooling air entry	
B	Cooling air exit	
C	Inlet flange	PT 1/4"
D	Exhust port	ø 8 hose nipple
E	Oil filling plug	
F	Oil sight glass	
G	Oil drain plug	
H	Pump base	

Model	a	b	c	d	e	f	g	h	i	j	k	l
SVO-060	323	99	90	176	110	153	105	92	92			
SVO-100	336	112	90	176	110	153	105	92	95			



Vacuum Pumps & Compressor

Oil Circulated



MVO 006

Rotary Vane Vacuum Pumps

MVO 006

6.0 m³/hr (50Hz)7.2 m³/hr (60Hz)

2/20 mbar

● Reliability

High quality material, quality control according to ISO9001, CE, mark authentication standard, automated machining facility, computer control process, etc. Guarantee standardized and accurate product manufacturing. Where operation of vacuum pump stops during vacuum work in direct coupling operation method of flange type. Check valve is installed at the suction hole in order to prevent reverse-flow.

● Environmentally safe

Air cooling, internal oil re-circulation, integral oil mist separator for oil-free exhaust air, low vibration and low noise level allows this pump to be used in any environment.

● Easy to service

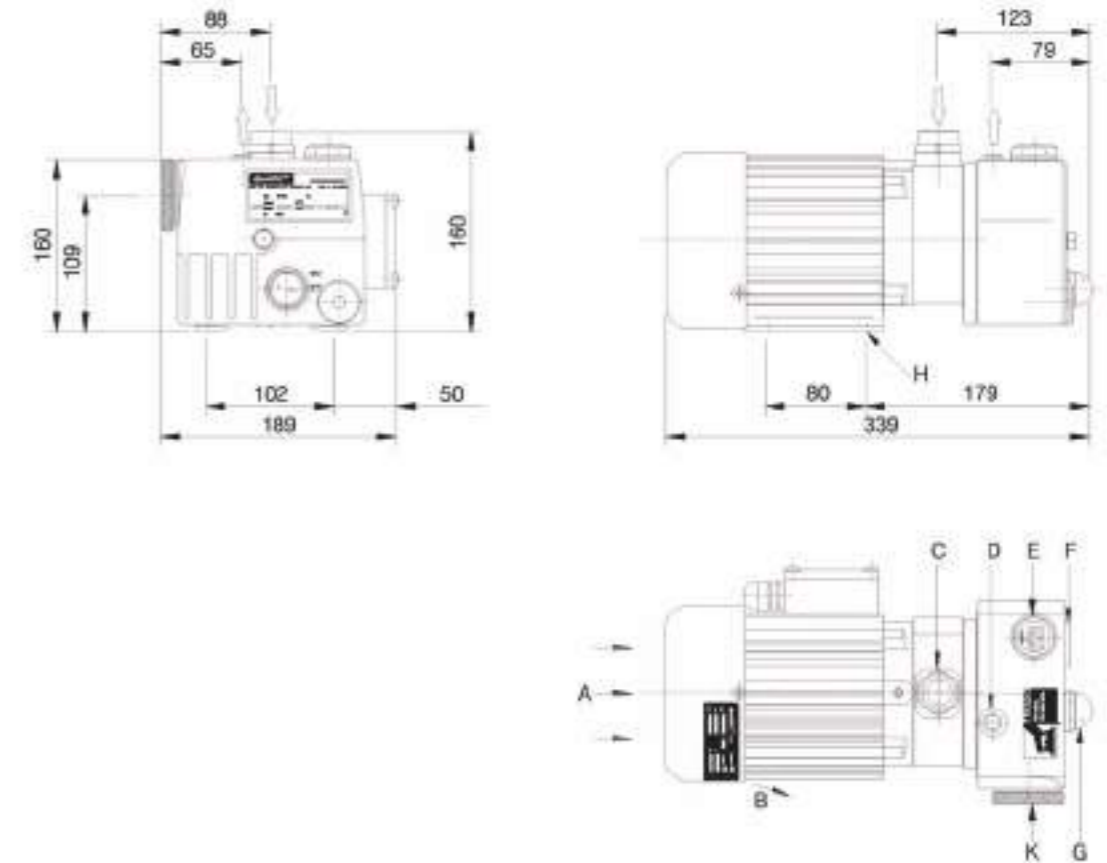
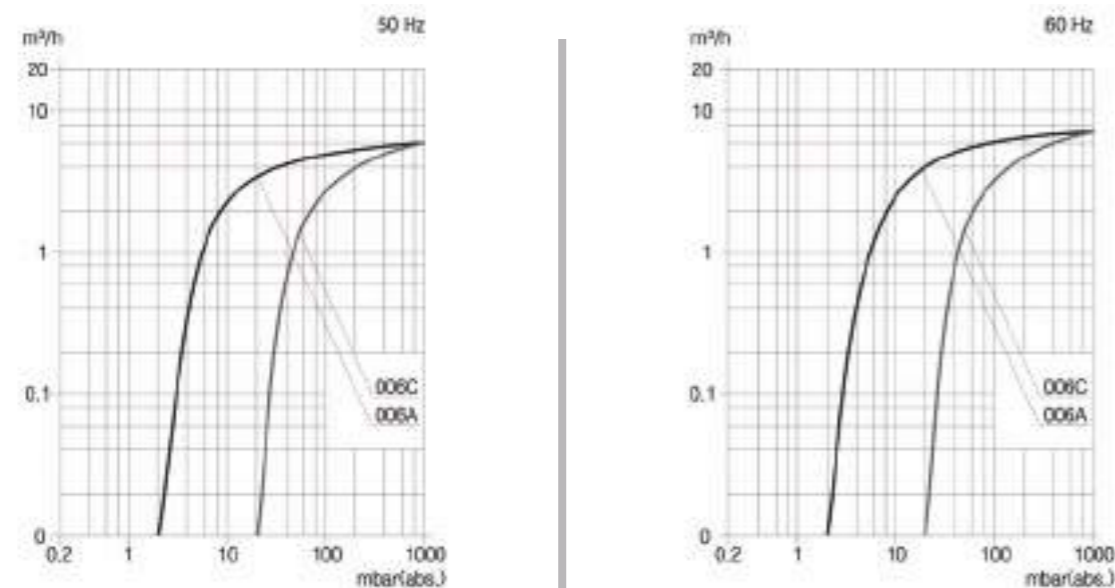
Compact design, air-cooling and easy access allows rapid and simple servicing with long periods services. It is unnecessary to do in the same way for replacing other consumables when oil change is needed.

● Miniaturization

This is simple type spindle of flange motor connect pump rotor & cylinder directly and cooling type used with cooling fan. This pump is small size and lightweight. uses oil for lubrication of rotary part and maintenance of vacuum so that stable and reliable vacuum may be obtained in order to be used for various applications. Vacuum packing machine, Food packing, Laboratory, Medical instrument, Vacuum molding, Vacuum dryer, Vacuum consolidate.

Rotary Vane Vacuum Pumps **MVO 006**

Technical Data			MVO-006			
Norminal displacement	50Hz	m ³ /h	6.0			
	60Hz	m ³ /h	7.2			
Ultimate pressure	A	mbar	2			
	C		20			
Motor version(3~)	50Hz	V	Order			
	60Hz	V				
Motor version(1~)	50Hz	V	230			
	60Hz	V	220			
Nominal motor rating(3~)		kW	—			
Nominal motor rating(1~)		kW	0.35			
Nominal motor speed	50Hz	min ⁻¹	1430			
	60Hz	min ⁻¹	1720			
Sound level		dB(A)	50			
Operating temperature(Ambient)		℃	40			
Oil filling		liter	0.3			
Weight approx	50Hz	kg	12			
	60Hz	kg				



A	Cooling air entry	
B	Cooling air exit	
C	Inlet flange	PT 3/4"
D	Exhaust port	PT 1/4"
E	Oil filling plug	
F	Oil sight glass	
G	Oil drain plug	
H	Pump base	4-M6 Tap (THRU.)
K	Exhaust filter cap	

[illegible]

Oil Circulated



MVO 016

Rotary Vane Vacuum Pumps

MVO 008/016

8.0 / 16 m³/hr (50Hz)9.6 / 19 m³/hr (60Hz)

0.5 / 2 / 20 mbar

● Reliability

High quality material, quality control according to ISO9001, CE, mark authentication standard, automated machining facility, computer control process, etc. Guarantee standardized and accurate product manufacturing. Where operation of vacuum pump stops during vacuum work in direct coupling operation method of flange type. Check valve is installed at the suction hole in order to prevent revers-flow.

● Environmentally safe

Air cooling, internal oil re-circulation, integral oil mist separator for oil-free exhaust air, low vibration and low noise level allows this pump to be used in any environment.

● Easy to service

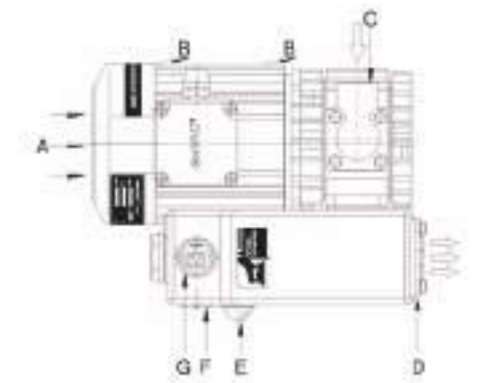
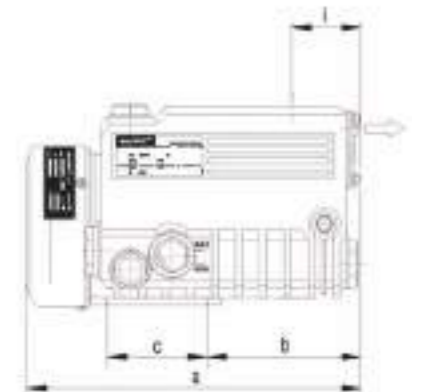
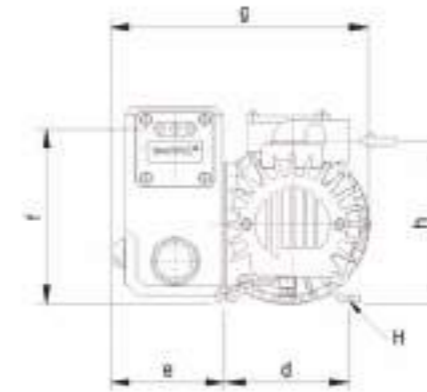
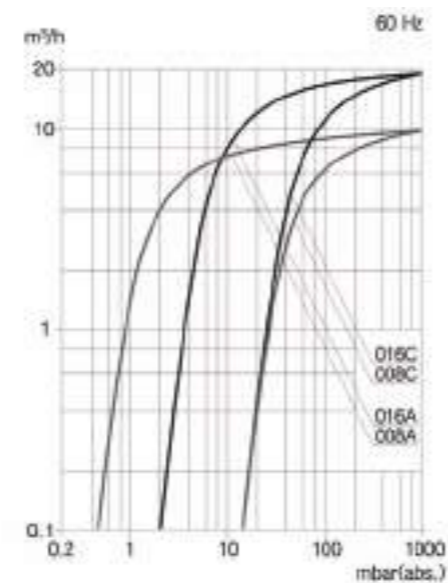
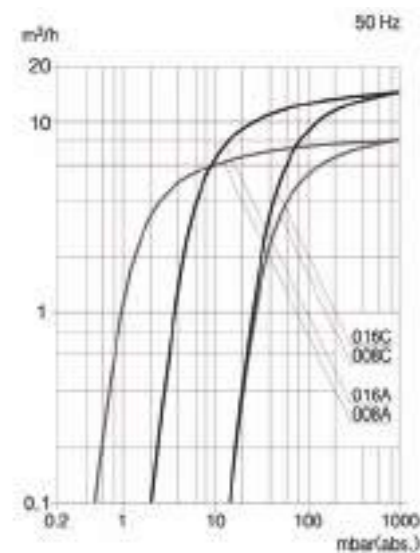
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● Miniaturization

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Rotary Vane Vacuum Pumps **MVO 008/016**

Technical Data						
Norminal displacement	50Hz	m³/h	8.0	16		
	60Hz	m³/h	9.6	19		
Ultimate pressure	A	mbar	0.5	2		
	C		20	20		
Motor version (3~)	50Hz	V	Order	Order		
	60Hz	V				
Motor version (1~)	50Hz	V	230	230		
	60Hz	V	220	220		
Nominal motor rating (3~)		kW	—	—		
Nominal motor rating (1~)		kW	0.37	0.55		
Nominal motor speed	50Hz	min ⁻¹	1430	3000		
	60Hz	min ⁻¹	1720	3600		
Sound level		dB (A)	59	60		
Operating temperature (Ambient)		°C	40	40		
Oil filling		liter	0.3	0.3		
Weight approx	50Hz	kg	18	18		
	60Hz	kg				



A	Cooling air entry	
B	Cooling air exit	
C	Inlet flange	PT 1/2"
D	Exhaust port	
E	Oil filling plug	
F	Oil sight glass	
G	Oil drain plug	
H	Pump base	4-M6 (THRU.)

[illegible]

Vacuum Pumps & Compressor

Oil Circulated

Rotary Vane Vacuum Pumps

MVO 010/020

10 / 20 m³/hr (50Hz)12 / 24 m³/hr (60Hz)

0.5 / 2 / 20 mbar



MVO 020

● Reliability

High quality material, quality control according to ISO9001, CE, mark authentication standard, automated machining facility, computer control process, etc. Guarantee standardized and accurate product manufacturing. Where operation of vacuum pump stops during vacuum work in direct coupling operation method of flange type. Check valve is installed at the suction hole in order to prevent revers-flow.

● Environmentally safe

Air cooling, internal oil re-circulation, integral oil mist separator for oil-free exhaust air, low vibration and low noise level allows this pump to be used in any environment.

● Easy to service

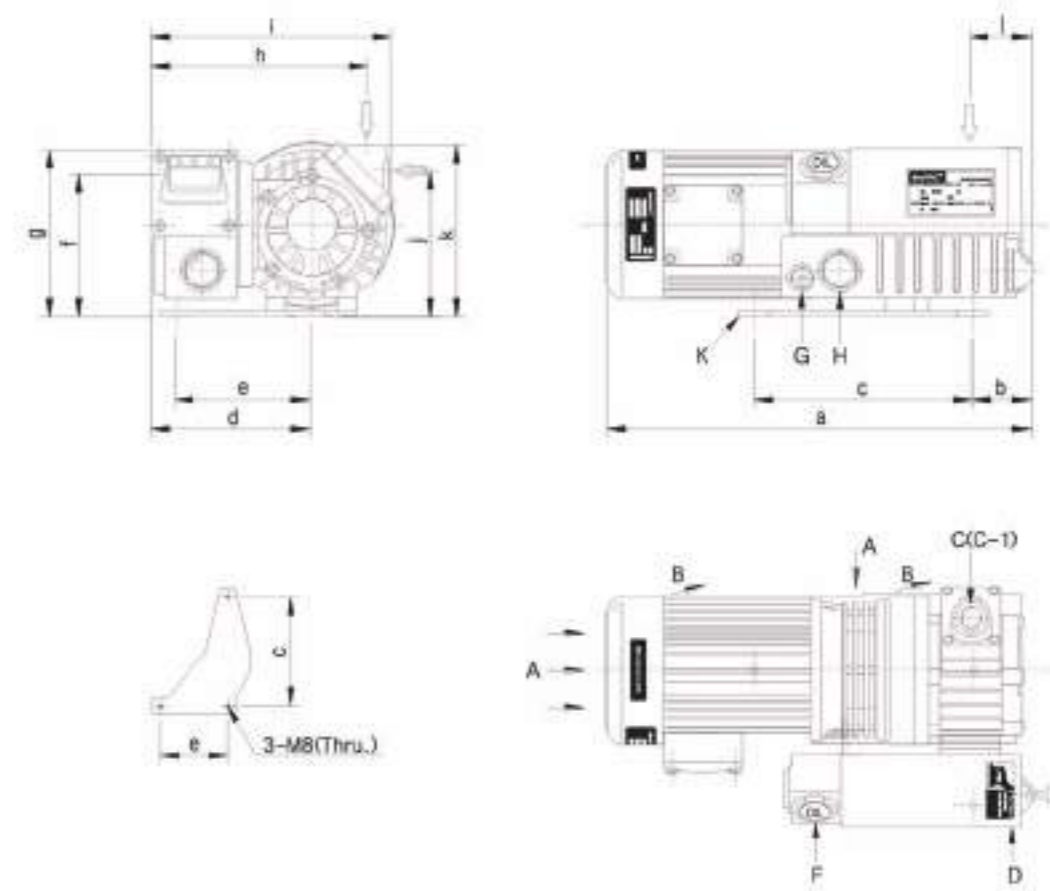
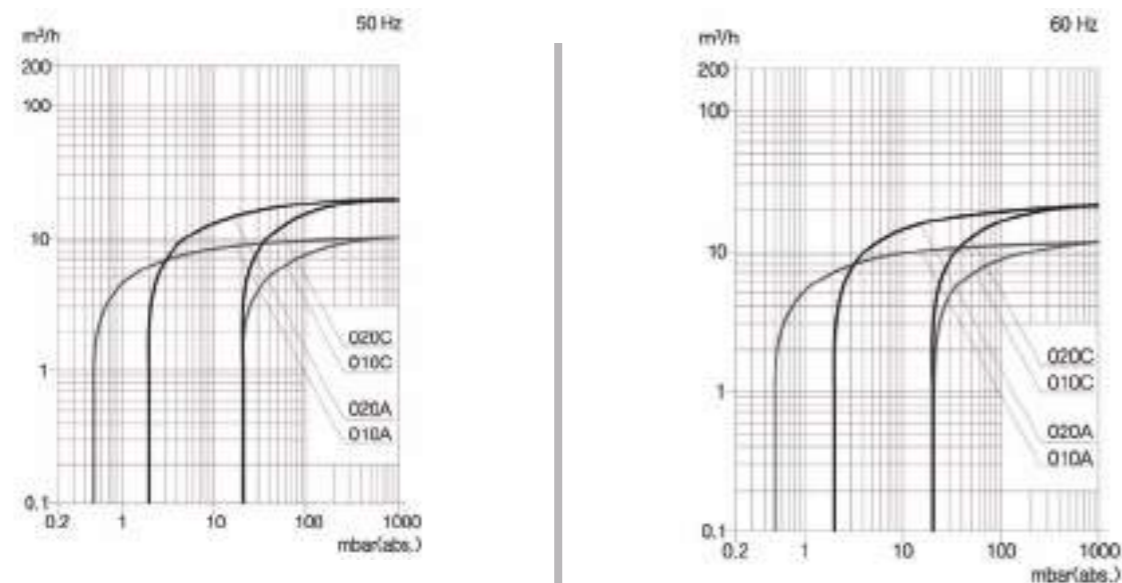
Compact design, air-cooling and easy access allows rapid and simple servicing with long periods between services. It is unnecessary to do in the same way for replacing other consumables when oil change is needed. This pump is coupling direct type for used flange motor for international specification. Easy maintenance caused by reduced weight & electric consumption.

● Application range

This type of vacuum pump uses oil for lubrication of rotary part and maintenance of vacuum may be obtained in order to be use for various applications. Vacuum packing machine, Food packing, Laboratory, Medical instrument, Vacuum molding, Vacuum dryer, Vacuum consolidate.

Rotary Vane Vacuum Pumps **MVO 010/020**

Technical Data			MVO-010	MVO-020		
Normal displacement	50Hz	m ³ /h	10	20		
	60Hz	m ³ /h	12	24		
Ultimate pressure	A	mbar	0.5	2		
	C		20	20		
Motor version (3~)	50Hz	V	230/400	230/400		
	60Hz	V	220/380	220/380		
Motor version (1~)	50Hz	V	230	230		
	60Hz	V	220	220		
Nominal motor rating (3~)	kW		0.42	0.75		
Nominal motor rating (1~)	kW		0.55	0.95		
Nominal motor speed	50Hz	min ⁻¹	1420	2850		
	60Hz	min ⁻¹	1700	3420		
Sound level	dB(A)		58	61		
Operating temperature (Ambient)	℃		40	40		
Oil filling	liter		0.4	0.4		
Weight approx	50Hz	kg	20	20		
	60Hz	kg				



A	Cooling air entry	
B	Cooling air exit	
C	Inlet flange	PT 1/2"
C-1	Inlet flange	PT 1/4"
D	Exhaust port	PT 1/2"
F	Oil filling plug	
G	Oil drain plug	
H	Oil sight glass	
K	Pump base	3-M8 (THRU.)

[illegible]

Vacuum Pumps & Compressor

Oil Circulated

Rotary Vane Vacuum Pumps

MVO 030/040

30 / 40 m³/hr (50Hz)36 / 48 m³/hr (60Hz)

0.5/20 mbar



MVO 040

● Reliability

High quality material, quality control according to ISO9001, CE, mark authentication standard, automated machining facility, computer control process, etc. Guarantee standardized and accurate product manufacturing. Where operation of vacuum pump stops during vacuum work in direct coupling operation method of flange type. Check valve is installed at the suction hole in order to prevent reverse-flow.

● Environmentally safe

Air cooling, internal oil re-circulation, integral oil mist separator for oil-free exhaust air, low vibration and low noise level allows this pump to be used in any environment.

● Easy to service

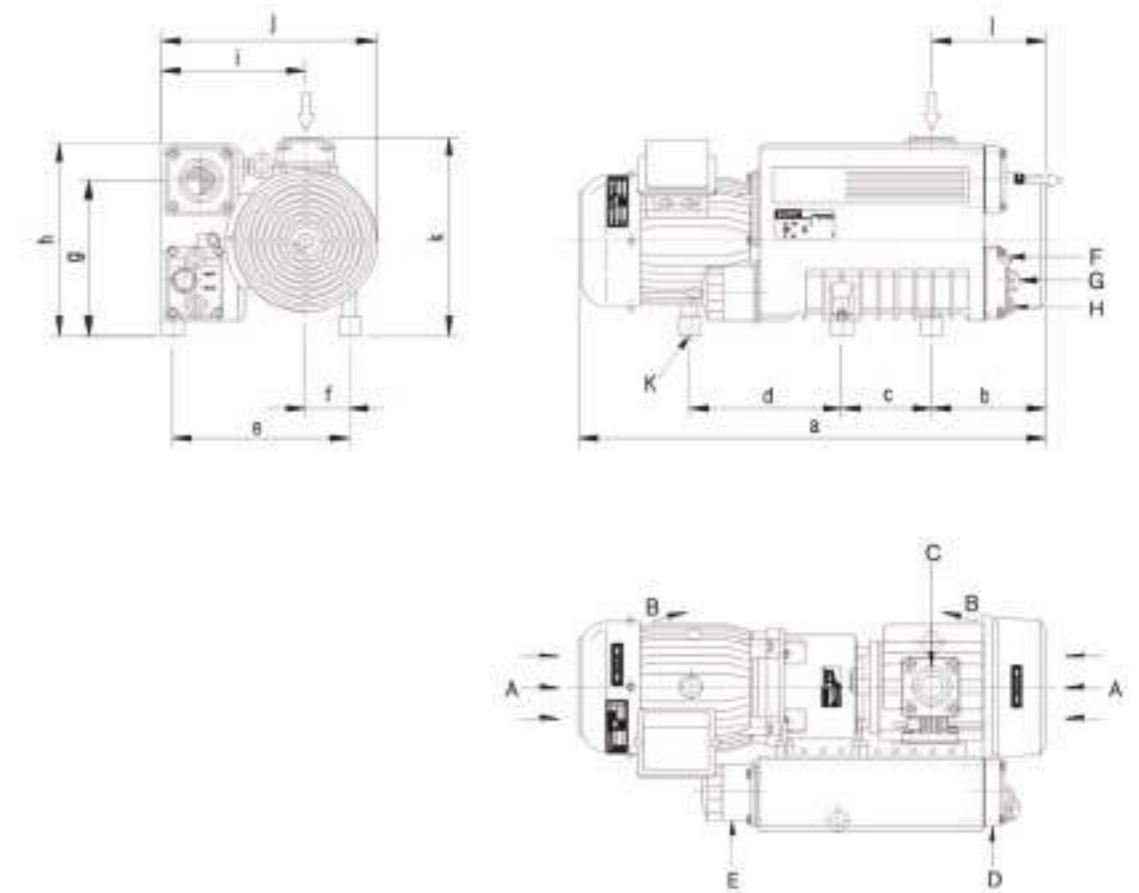
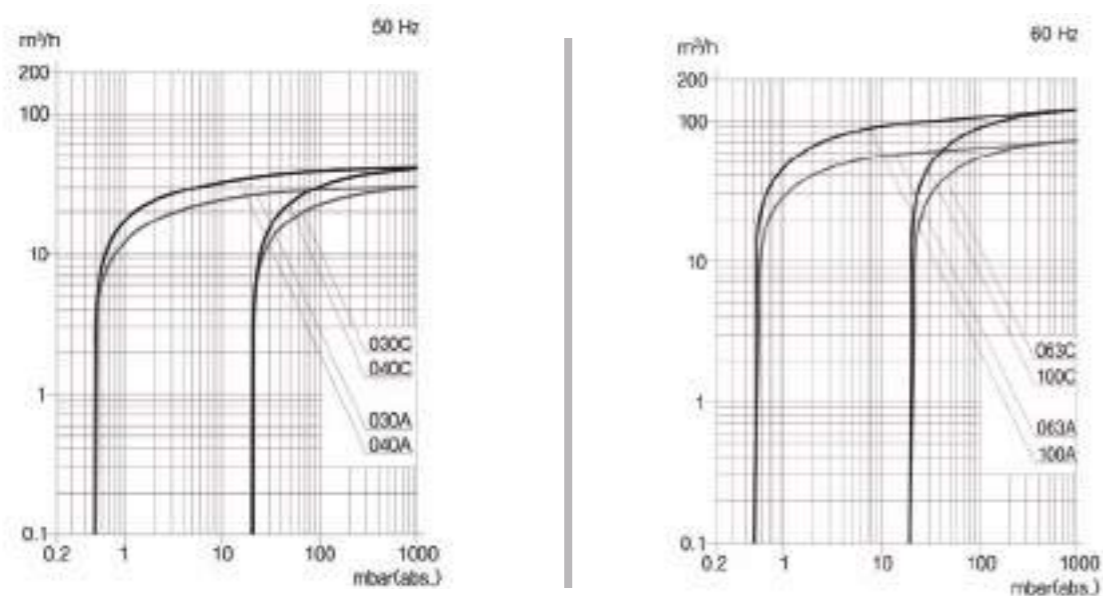
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● Application range

This type of vacuum pump uses oil for lubrication of rotary part and maintenance of vacuum may be obtained in order to be used for various applications. Vacuum packing machine, Food packing, Laboratory, Medical instrument, Vacuum molding, Vacuum dryer, Vacuum consolidate.

Rotary Vane Vacuum Pumps **MVO 030/040**

Technical Data			MVO-030	MVO-040		
Norminal displacement	50Hz	m³/h	30	40		
	60Hz	m³/h	36	48		
Ultimate pressure	A	mbar	0.5	0.5		
	C		20	20		
Motor version (3~)	50Hz	V	230/400	230/400		
	60Hz	V	220/380	220/380		
Motor version (1~)	50Hz	V	230	-		
	60Hz	V	220			
Nominal motor rating (3~)	kW		1.5	1.5		
Nominal motor rating (1~)	kW		2.0	-		
Nominal motor speed	50Hz	min ⁻¹	1420	1420		
	60Hz	min ⁻¹	1700	1700		
Sound level	dB (A)		64	67		
Water vapour tolerance max	mbar		40	40		
Water vapour capacity	ℓ /h		0.9	0.9		
Operating temperature (Ambient)	°C		40	40		
Oil filling	liter		1	1		
Weight approx	50Hz	kg	34	38		
	60Hz	kg				



A	Cooling air entry	
B	Cooling air exit	
C	Inlet flange	PT 1¼"
D	Exhaust port	PT 1¼"
E	Oil filter	
F	Oil filling plug	
G	Oil sight glass	
H	Oil drain plug	
K	Rubber foot	3-M8 (DP 10)

[illegible]

Vacuum Pumps & Compressor

Oil Circulated

Rotary Vane Vacuum Pumps

MVO 063/100

63 / 100 m³/hr (50Hz)76 / 120 m³/hr (60Hz)

0.5/20 mbar



MVO 100

● Reliability

High quality material, quality control according to ISO9001, CE, mark authentication standard, automated machining facility, computer control process, etc. Guarantee standardized and accurate product manufacturing. Where operation of vacuum pump stops during vacuum work in direct coupling operation method of flange type. Check valve is installed at the suction hole in order to prevent reverse-flow.

● Environmentally safe

Air cooling, internal oil re-circulation, integral oil mist separator for oil-free exhaust air, low vibration and low noise level allows this pump to be used in any environment.

● Easy to service

Compact design, air-cooling and easy access allows rapid and simple servicing with long periods between services. It is unnecessary to do in the same way for replacing other consumables when oil change is needed. This pump is coupling direct type for used flange motor for international specification. Easy maintenance caused by reduced weight & electric consumption.

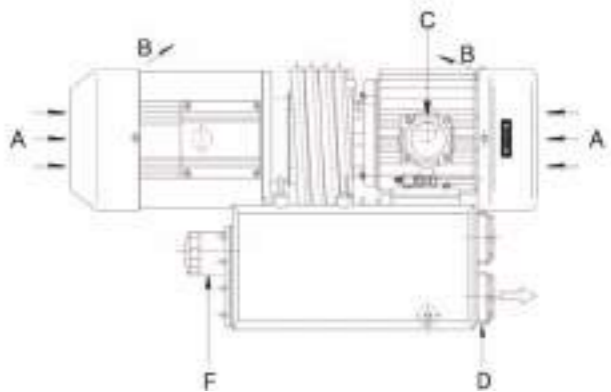
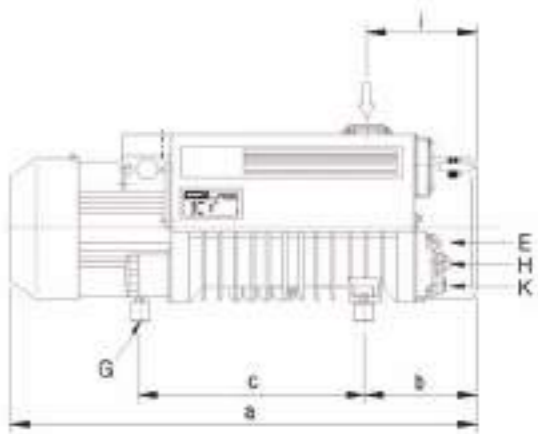
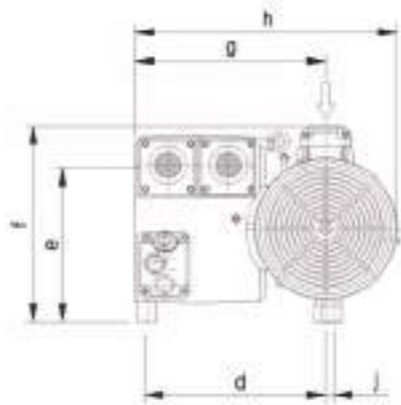
● Application range

This type of vacuum pump uses oil for lubrication of rotary part and maintenance of vacuum may be obtained in order to be used for various applications. Vacuum packing machine, Food packing, Laboratory, Medical instrument, Vacuum molding, Vacuum dryer, Vacuum consolidate.

Rotary Vane Vacuum Pumps

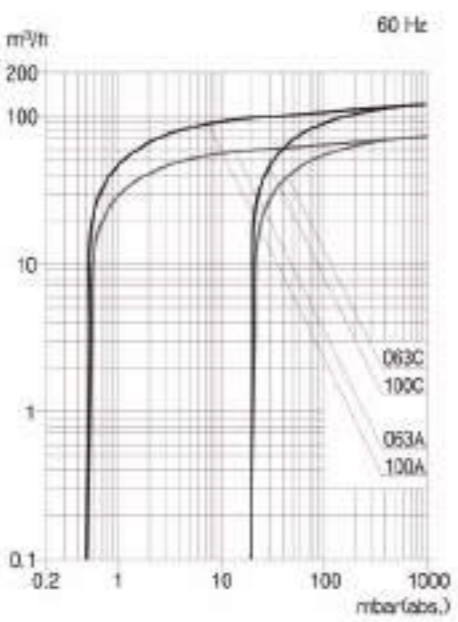
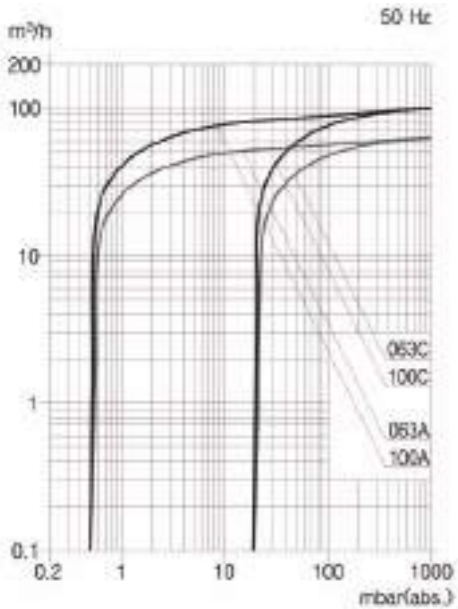
MVO 063/100

Technical Data		MVO-063	MVO-100		
Norminal displacement	50Hz m³/h	63	100		
	60Hz m³/h	76	120		
Ultimate presssure	A mbar	0.5	0.5		
	C mbar	20	20		
Motor version(3~)	50Hz V	230/400	230/400		
	60Hz V	220/380	220/380		
Motor version(1~)	50Hz V	Order	Order		
	60Hz V				
Nominal motor rating(3~)	kW	2.2	3.0		
		2.55	3.45		
Nominal motor rating(1~)	kW	-	-		
Nominal motor speed	50Hz min ⁻¹	1420	1420		
	60Hz min ⁻¹	1700	1700		
Sound level	dB(A)	68	70		
Water vapourtolerance max	mbar	40	40		
Water vapour capacity	ℓ /h	1.8	2.8		
Operating temperature(Ambient)	°C	40	40		
Oil filling	liter	2	2		
Weight approx	50Hz kg	64	75		
	60Hz kg				



A B C D E F G H	Cooling air entry	
	Cooling air exit	
	Inlet flange	PT 1¼"
	Exhust port	PT 1¼"
	Oil filling plug	
	Oil filter	
	Rubber foot	3-M8 (DP 10)
	Oil sight glass	
	Oil drain plug	

Model	a	b	c	d	e	f	g	h	i	j	k	l
MVO-063	672	152	324	281	238	298	292	410	173	10		
MVO-100	722	177	349	281	238	298	292	410	173	10		



Oil Circulated

Rotary Vane Vacuum Pumps

MVO 160/200/250/300

160 / 200 / 250 / 300 m³/hr (50Hz)192 / 240 / 300 / 360 m³/hr (60Hz)

0.5/20 mbar



MVO 160

● Reliability

High quality material, quality control according to ISO9001, CE, mark authentication standard, automated machining facility, computer control process, etc. Guarantee standardized and accurate product manufacturing. Where operation of vacuum pump stops during vacuum work in direct coupling operation method of flange type. Check valve is installed at the suction hole in order to prevent revers-flow.

● Environmentally safe

Air cooling, internal oil re-circulation, integral oil mist separator for oil-free exhaust air, low vibration and low noise level allows this pump to be used in any environment.

● Easy to service

Compact design, air-cooling and easy access allows rapid and simple servicing with long periods between services. It is unnecessary to do in the same way for replacing other consumables when oil change is needed. This pump is coupling direct type for used flange motor for international specification. Easy maintenance caused by reduced weight & electric consumption.

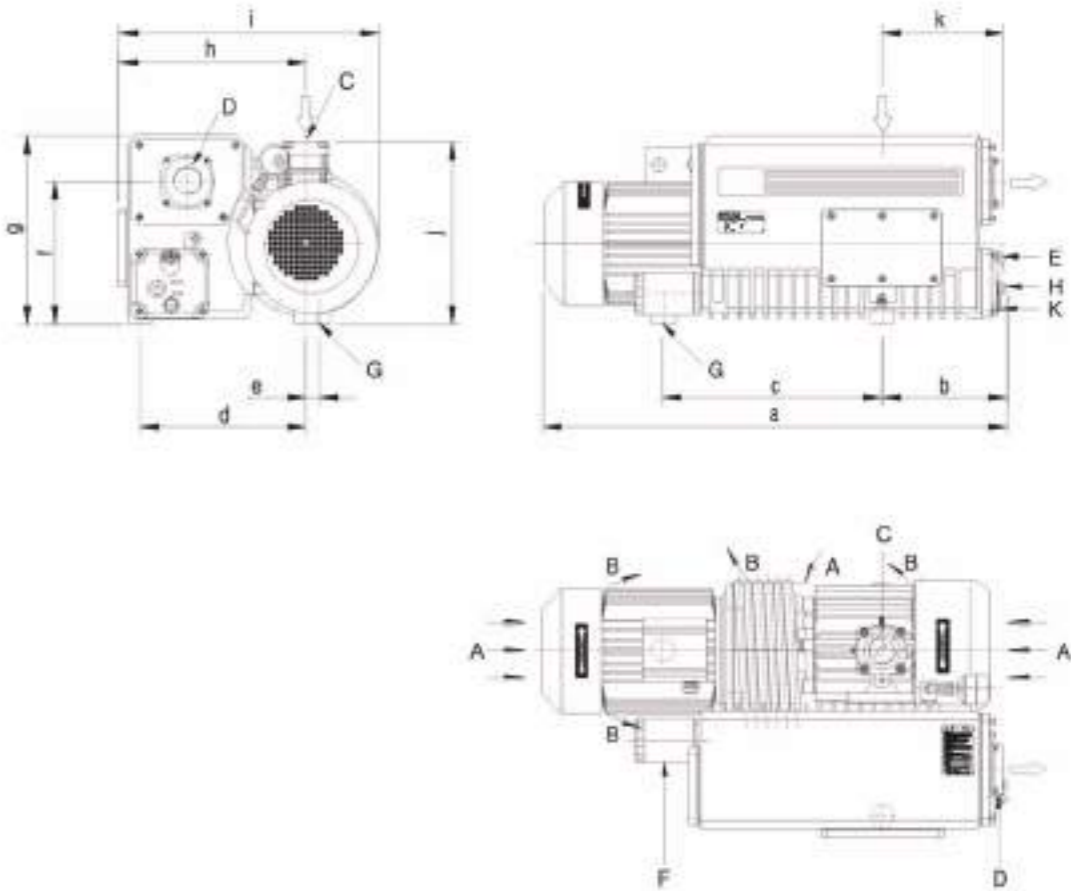
● Miniaturization

This type of vacuum pump uses oil for lubrication of rotary part and maintenance of vacuum may be obtained in order to be use for various applications. Vacuum packing machine, Food packing, Laboratory, Medical instrument, Vacuum molding, Vacuum dryer, Vacuum consolidate.

Rotary Vane Vacuum Pumps

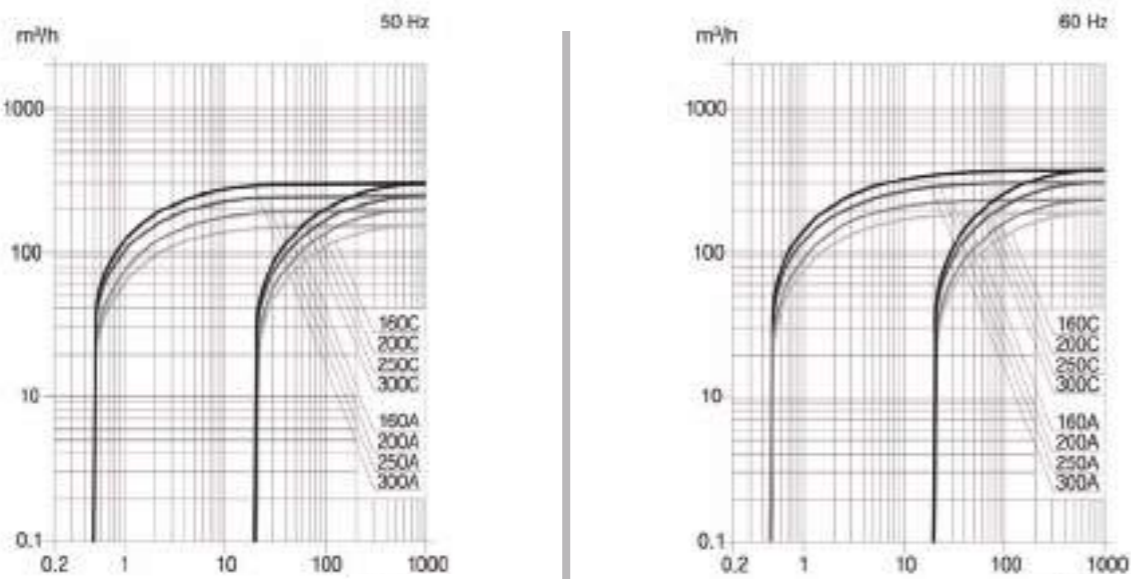
MVO 160/200/250/300

Technical Data		MVO-160	MVO-200	MVO-250	MVO-300
Norminal displacement	50Hz m³/h	160	200	250	300
	60Hz m³/h	190	240	300	360
Ultimate pressure	A mbar	0.5	0.5	0.5	0.5
	C mbar	20	20	20	20
Motor version(3~)	50Hz V	230/400	230/400	230/400	230/400
	60Hz V	220/380	220/380	220/380	220/380
Motor version(1~)	50Hz V	-	-	-	-
	60Hz V	-	-	-	-
Nominal motor rating	50Hz kW	5.5	5.5	7.5	7.5
	60Hz kW	5.5	5.5	7.5	7.5
Nominal motor speed	50Hz min ⁻¹	1455	1455	1455	1455
	60Hz min ⁻¹	1755	1755	1755	1755
Sound level	50Hz dB(A)	70	72	72	74
	60Hz dB(A)	72	74	74	76
Water vapourtolerance max	mbar	40	40	40	40
Water vapour capacity	ℓ /h	7.6	9.6	12	14
Operating temperature (Ambient)	°C	80	80	85	85
Oil filling	liter	7	7	7	7
Weight approx	50Hz kg	174	185	202	218
	60Hz kg				



A	Cooling air entry	
A	Cooling air exit	
B	Inlet flange	PT 2" / NPT 2"
C	Exhaust port	PT 2" / NPT 2"
D	Oil filling plug	
E	Oil filter	
F	Rubber foot	3-M10 (DP 7)
G	Oil sight glass	
H	Oil drain cap	

Model	a	b	c	d	e	f	g	h	i	j	k	l
MVO-160	916	286	410	365	29	325	429	411	570	416	286	
MVO-200	916	286	410	365	29	325	429	411	570	416	286	
MVO-250	1030	286	504	365	29	325	429	411	570	416	286	
MVO-300	1178	333	485	365	31	339	490	432	605	431	333	



Oil Circulated



MVO 630

Rotary Vane Vacuum Pumps

MVO 400/630

400 / 630 m³/hr (50Hz)480 / 760 m³/hr (60Hz)

0.5/20 mbar

● Reliability

High quality material, quality control according to ISO9001, CE, mark authentication standard, automated machining facility, computer control process, etc. Guarantee standardized and accurate product manufacturing. Where operation of vacuum pump stops during vacuum work in direct coupling operation method of flange type. Check valve is installed at the suction hole in order to prevent reverse-flow.

● Environmentally safe

Air cooling, internal oil re-circulation, integral oil mist separator for oil-free exhaust air, low vibration and low noise level allows this pump to be used in any environment.

● Easy to service

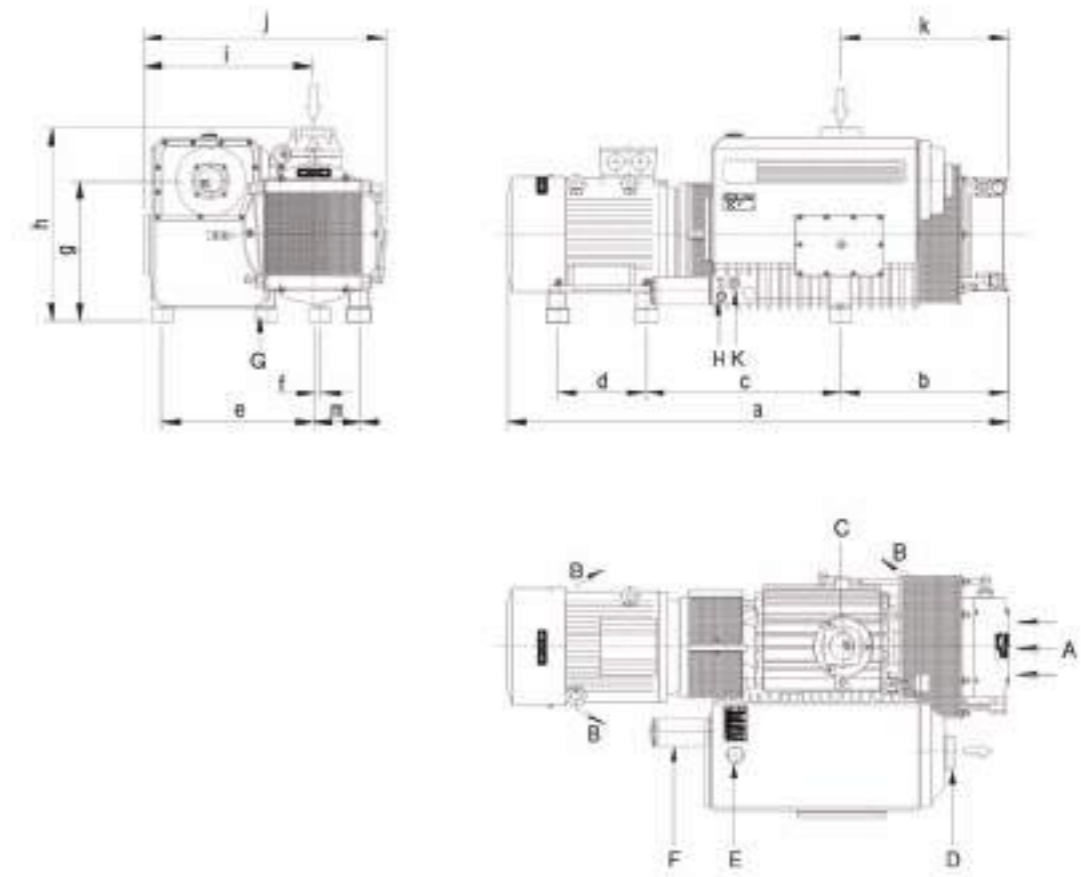
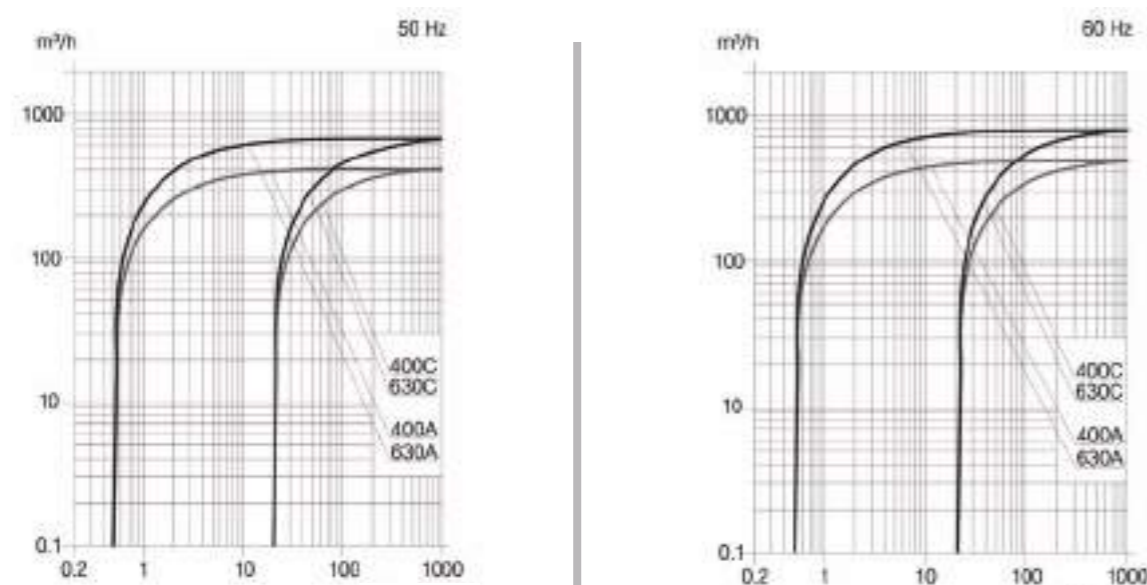
Compact design, air-cooling and easy access allows rapid and simple servicing with long periods between services. It is unnecessary to do in the same way for replacing other consumables when oil change is needed. This pump is coupling direct type for used flange motor for international specification. Easy maintenance caused by reduced weight & electric consumption.

● Application range

This type of vacuum pump uses oil for lubrication of rotary part and maintenance of vacuum may be obtained in order to be used for various applications. Vacuum packing machine, Food packing, Laboratory, Medical instrument, Vacuum molding, Vacuum dryer, Vacuum consolidate.

Rotary Vane Vacuum Pumps **MVO 400/630**

Technical Data			MVO-400	MVO-630		
Norminal displacement	50Hz	m³/h	400	630		
	60Hz	m³/h	480	760		
Ultimate pressure	A	mbar	0.5	0.5		
	C		20	20		
Motor version (3~)	50Hz	V	400/690	400/690		
	60Hz	V	Order	Order		
Motor version (1~)	50Hz	V	-	-		
	60Hz	V				
Nominal motor rating	50Hz	kW	11	15		
	60Hz		15	18.5		
Nominal motor speed	50Hz	min ⁻¹	1000	1000		
	60Hz	min ⁻¹	1200	1200		
Sound level	50Hz	dB (A)	70	72		
	60Hz	dB (A)	72	74		
Water vapourtolerance max		mbar	40	40		
Water vapour capacity		ℓ /h	19	30		
Operating temperature (Ambient)		°C	40	40		
Oil filling		liter	13	15		
Weight approx	50Hz	kg	550	670		
	60Hz	kg				



A	Cooling air entry	
B	Cooling air exit	
C	Inlet flange	PT 3" / NPT 3"
D	Exhaust port	PT 3" / NPT 3"
E	Oil filling plug	
F	Oil filter	
G	Rubber foot	6-M12 (DP 10)
H	Oil drain plug	
K	Oil sight glass	

[illegible]

Oil Flooded

Rotary Vane Vacuum Pumps

MOT /140

116 l/min (50Hz)

140 l/min (60Hz)

 5×10^{-2} Torr

MOT 140

● Reliability

High quality material, quality control according to ISO9001, CE, mark authentication standard, automated machining facility, computer control process, etc. Guarantee standardized and accurate product manufacturing. Where operation of vacuum pump stops during vacuum work in direct coupling operation method of flange type. Check valve is installed at the suction hole in order to prevent reverse-flow.

● Environmentally safe

Air cooling, internal oil re-circulation, integral oil mist separator for oil-free exhaust air, low vibration and low noise level allows this pump to be used in any environment.

● Easy to service

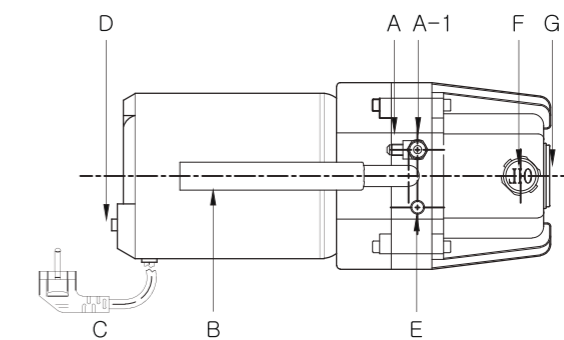
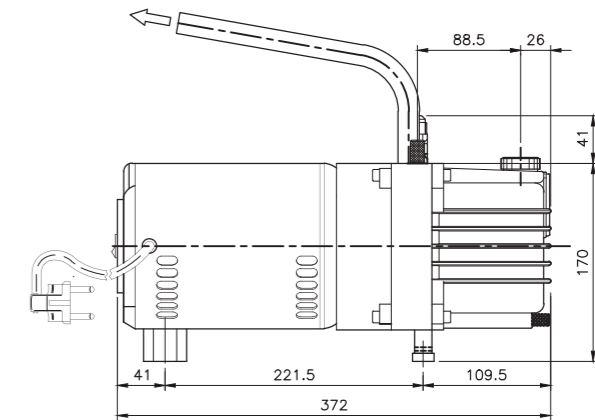
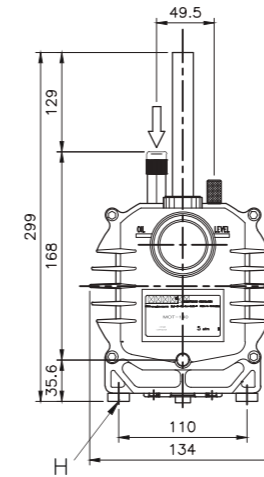
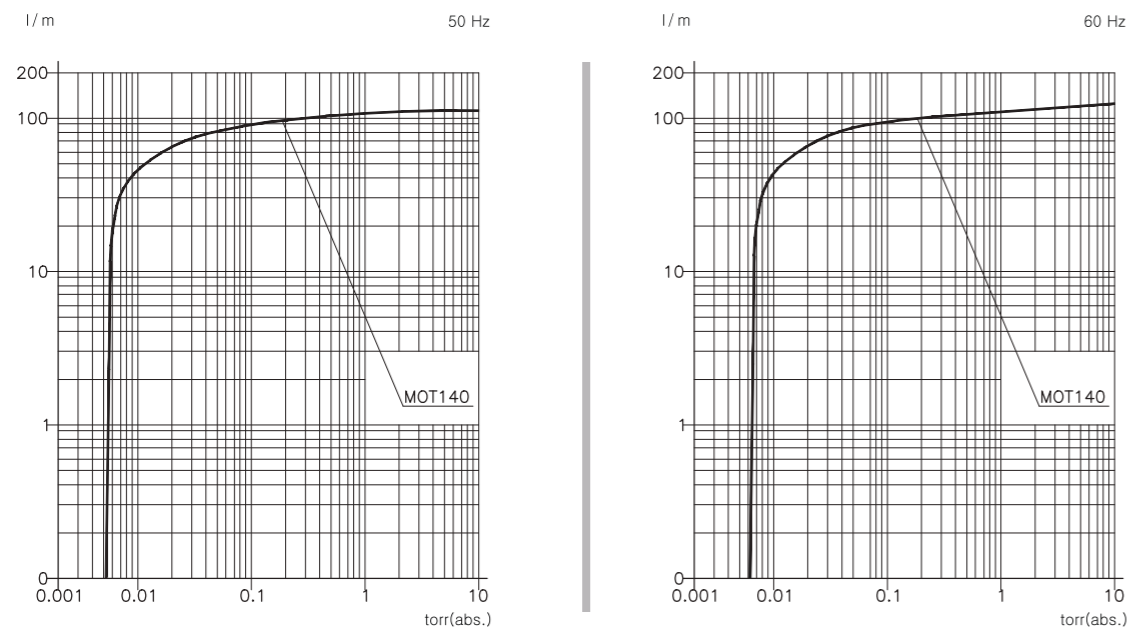
Compact design, air-cooling and easy maintenance without oil mist separator and can be using long periods. When needed change the oil, do not need to change the other consumption parts.

● Application range

This product is developed for the vacuum operation prior to the refrigerant exchange of a car, a home and an industrial air conditioner. In consideration of the convenience of mobility and usage, a handle, operation switch and power connection cable are installed on the product and the vacuum pump and the motor are integral-manufactured. It is a small-sized and light-weighted product as to use and carry easily. Air conditioner refrigerant gas injection purpose, lab

Rotary Vane Vacuum Pumps **MOT 140**

Technical Data			MOT-140			
Normal displacement	50Hz	ℓ /min	116			
	60Hz	ℓ /min	140			
Ultimate pressure	Gas Ballast Close	Torr	5x10 ⁻³			
	Gas Ballast Open		5x10 ⁻²			
Motor version(3~)	50Hz	V	-			
	60Hz	V				
Motor version(1~)	50Hz	V	230			
	60Hz	V	220			
Nominal motor rating(3~)	kW		-			
Nominal motor rating(1~)	kW		0.4			
Nominal motor speed	50Hz	min ⁻¹	1430			
	60Hz	min ⁻¹	1725			
Sound level	dB(A)		35			
Operating temperature(Ambient)	℃		7~40			
Oil filling	liter		0.6			
Weight approx	50Hz	kg	14.7			
	60Hz	kg				



A	Inlet flange	7/16-20 UNF
A-1	Inlet flange	5/8-18 UNF
B	Handle & Exhaust	
C	Lead wire	2M
D	Switch	
E	Gas ballast	
F	Oil filling cap	
G	Oil drain cap	
H	Rubber foot	

[illegible]

Dry Running

Rotary Vane Vacuum Pumps

SML 030/060

25 / 50 ℓ /min (50Hz)

30 / 60 ℓ /min (60Hz)

550~600mmHg



SML 060

● Reliability

Hight quality material , quality control according to ISO9001, CE, mark authentication standard, automated machining facility, computer control process, etc. Guarantee standardized and accurate product manufacturing.

● Enviromentally safe

Air cooling , low vibration and low noise level, filter of draw out allows this pump to be used for vacuum and compression in any environment without using oil.

● Easy to service

Compact design, air cooling and easy access allows rapid and simple sevicig with long periods with service. This pump is easy to change the carbon vane of main part designed with easy to assembly and disassembly. So, this pump is available using long period.

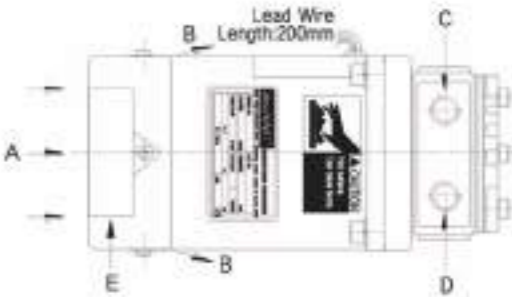
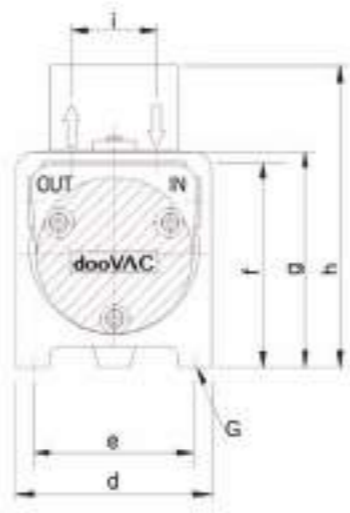
● Miniaturization

This is simple type that spindle of flange motor connect pump rotor & cylinder directly and cooling type used with cooling fan, This pump is small size and lightweight. Packing machine, Printing Machine, Medical instrument and vacuum adhesion move, etc.

Rotary Vane Vacuum Pumps

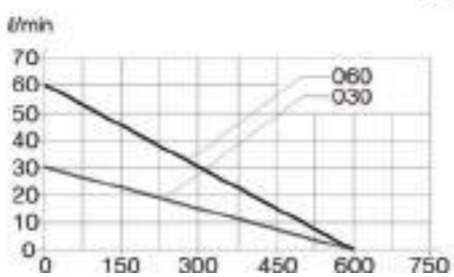
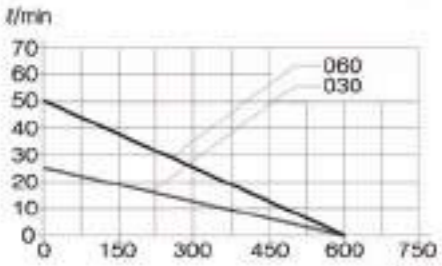
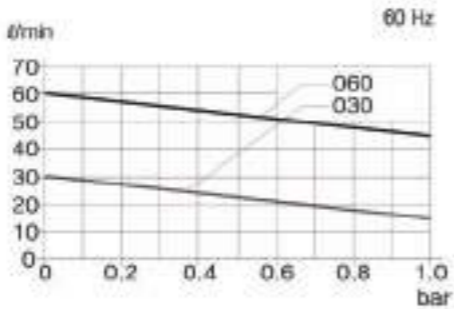
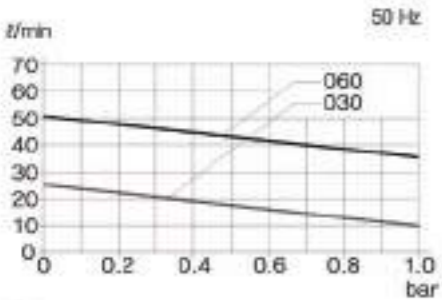
SML 030/060

Technical Data		SML-030	SML-060		
Norminal displacement	50Hz ℓ /min	25	50		
	60Hz ℓ /min	30	60		
Ultimate pressure	50Hz mmHg	550~600	550~600		
	60Hz				
Ultimate pressure	50Hz bar	1.0	1.0		
	60Hz				
Motor version(3~)	50Hz V	-	-		
	60Hz V				
Motor version(1~)	50Hz V	230	230		
	60Hz V	220	220		
Nominal motor rating(3~)	W	-	-		
Nominal motor rating(1~)	W	40	40		
Nominal motor speed	50Hz min ⁻¹	1420	2600		
	60Hz min ⁻¹	1700	3200		
Sound level	dB(A)	58	58		
Operating temperature(Ambient)	℃	40	40		
Weight approx	50Hz kg	7.0	7.0		
	60Hz kg				



A	Cooling air entry	
B	Cooling air exit	
C	Inlet flange	PT 1/4"
D	Exhust port	PT 1/4"
E	Condenser	
F	Rubber foot	
G	Pump base	2-M6 (DP.8)
-	-	

Model	a	b	c	d	e	f	g	h	i	j	k	l
SML-030	197	52	119	91	76	96	101	141	40	31		
SML-060	197	52	119	91	76	96	101	141	40	31		



Dry Running

Rotary Vane Vacuum Pumps

SML 120/140

120 ℓ /min (50Hz)

140 ℓ /min (60Hz)

660mmHg



SML 140

● Reliability

High quality material , quality control according to ISO9001, CE, mark authentication standard, automated machining facility, computer control process, etc. Guarantee standardized and accurate product manufacturing.

● Environmentally safe

Air cooling , low vibration and low noise level, filter of draw out allows this pump to be used for vacuum and compression in any environment without using oil.

● Easy to service

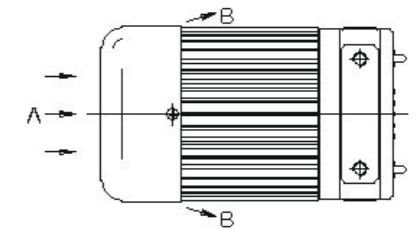
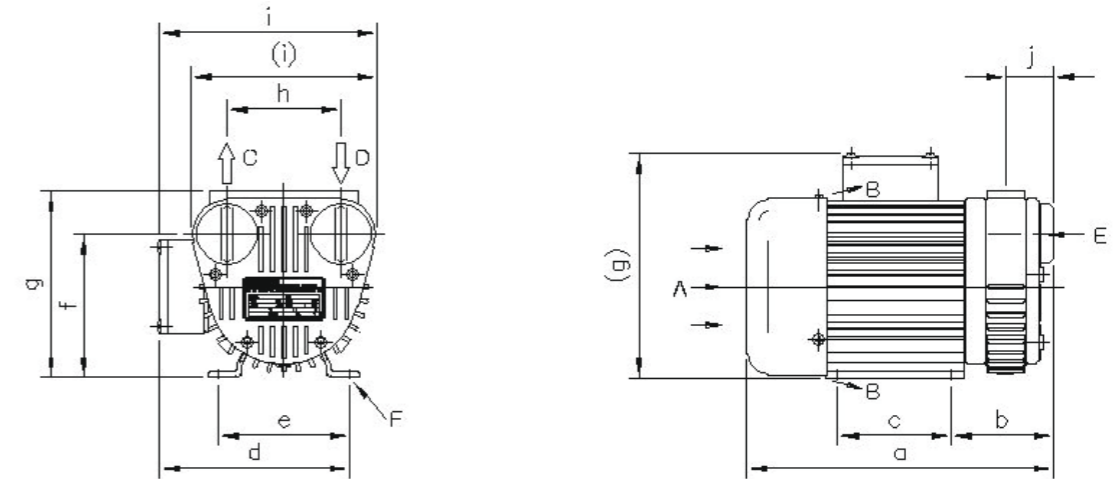
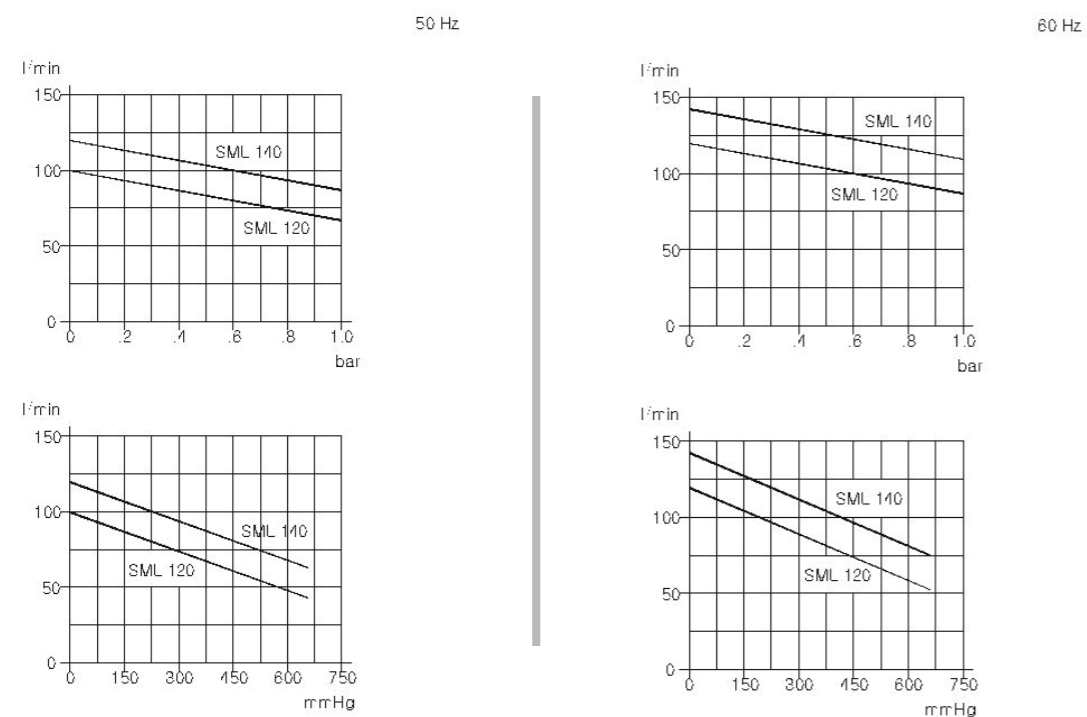
Compact design, air cooling and easy access allows rapid and simple servicing with long periods with service. This pump is easy to change the carbon vane of main part designed with easy to assembly and disassembly. So, this pump is available using long period.

● Miniaturization

This is simple type that spindle of flange motor connect pump rotor & cylinder directly and cooling type used with cooling fan, This pump is small size and lightweight. Packing machine, Printing Machine, Medical instrument and vacuum adhesion move, etc.

Rotary Vane Vacuum Pumps SML 120/140

Technical Data			SML-120	SML-140		
Norminal displacement	50Hz	ℓ /min	100	120		
	60Hz	ℓ /min	120	140		
Ultmimate pressure	50Hz	mmHg	680	680		
	60Hz					
Ultmimate pressure	50Hz	bar	1.0	1.0		
	60Hz					
Motor version(3~)	50Hz	V	—	—		
	60Hz	V				
Motor version(1~)	50Hz	V	230	230		
	60Hz	V	220	220		
Nominal motor rating(3~)		kW	—	—		
Nominal motor rating(1~)		kW	0.12	0.25		
Nominal motor speed	50Hz	min ⁻¹	3000	1425		
	60Hz	min ⁻¹	3600	1725		
Sound level		dB(A)	58	58		
Operating temperature(Ambient)		℃	40	40		
Weight approx	50Hz	kg	9	13.5		
	60Hz	kg				



Marked “()” SML-120 only

A	Cooling air entry
B	Cooling air exit
C	Exhaust port
D	Inlet flange
E	Inlet & Exhaust filter
F	Pump base
-	-
-	-

[illegible]

Dry Running

Rotary Vane Vacuum Pumps

SML 280

235 l /min (50Hz)

280 l /min (60Hz)

660mmHg



SML 280

● Reliability

Hight quality material ,quality control according to ISO9001, CE, mark authentication standard, automated machining facility, computer control process, etc. Guarantee standardized and accurate product manufacturing.

● Enviromentally safe

Air cooling , low vibration and low noise level, filter of draw out allows this pump to be used for vacuum and compression in any environment without using oil.

● Easy to service

Compact design, air cooling and easy access allows rapid and simple sevicig with long periods with service. This pump is easy to change the carbon vane of main part designed with easy to assembly and disassembly. So, this pump is available using long period.

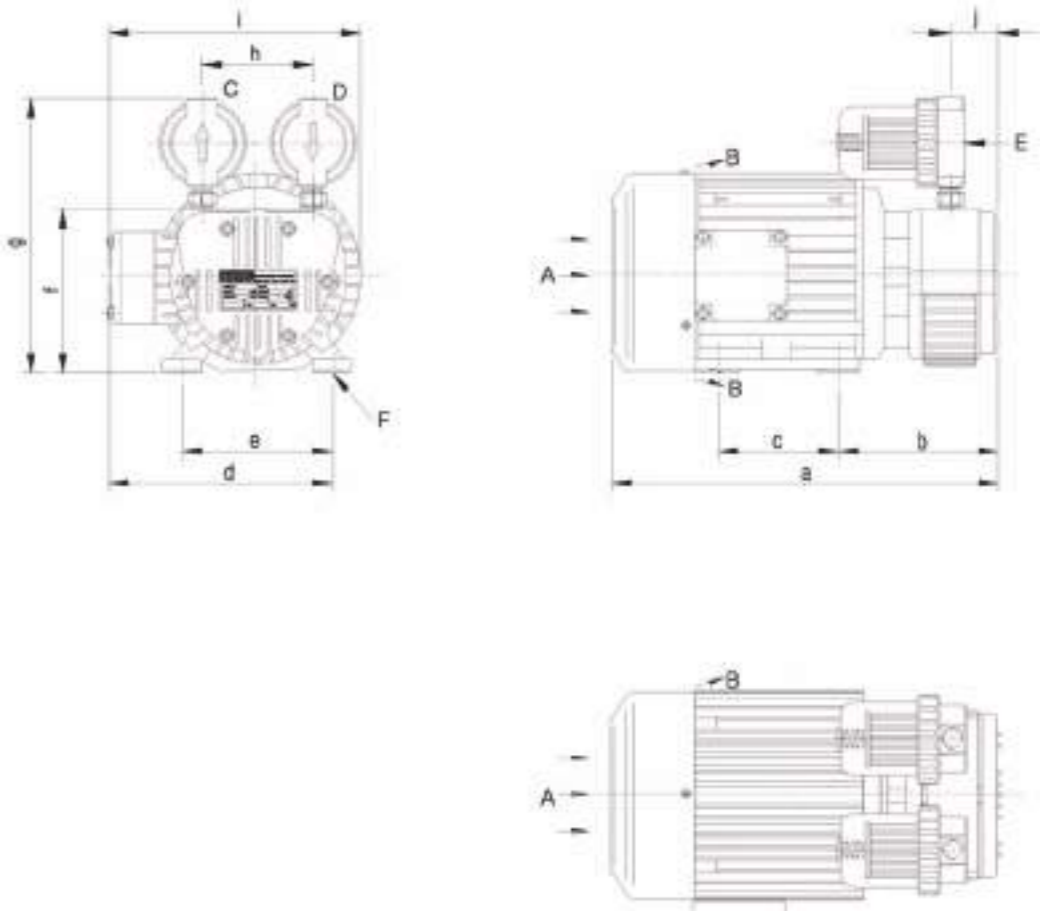
● Miniaturization

This is simple type that spindle of flange motor connect pump rotor & cylinder directly and cooling type used with cooling fan, This pump is small size and lightweight. Packing machine, Printing Machine, Medical instrument and vacuum adhesion move, etc.

Rotary Vane Vacuum Pumps

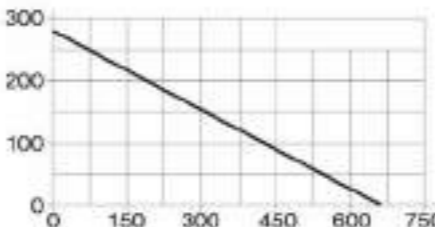
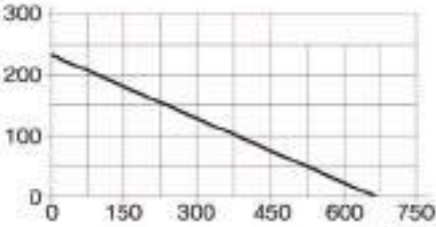
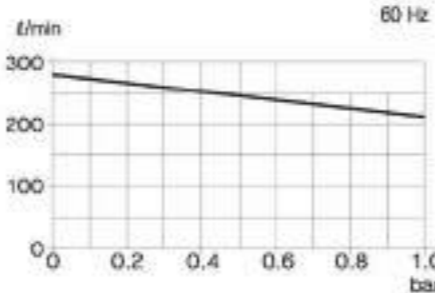
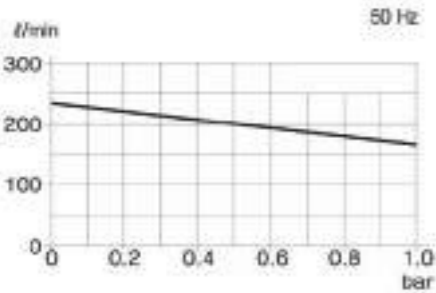
SML 280

Technical Data		SML-280			
Norminal displacement	50Hz ℓ /min	235			
	60Hz ℓ /min	280			
Ultimate pressure	50Hz mmHg	660			
	60Hz				
Ultimate pressure	50Hz bar	1.0			
	60Hz				
Motor version (3~)	50Hz V	230/400			
	60Hz V	220/380			
Motor version (1~)	50Hz V	230			
	60Hz V	220			
Nominal motor rating (3~)	kW	0.55			
Nominal motor rating (1~)	kW	0.55			
Nominal motor speed	50Hz min ⁻¹	1425			
	60Hz min ⁻¹	1725			
Sound level	dB(A)	68			
Operating temperature(Ambient)	°C	40			
Weight approx	50Hz kg	25.5			
	60Hz kg				



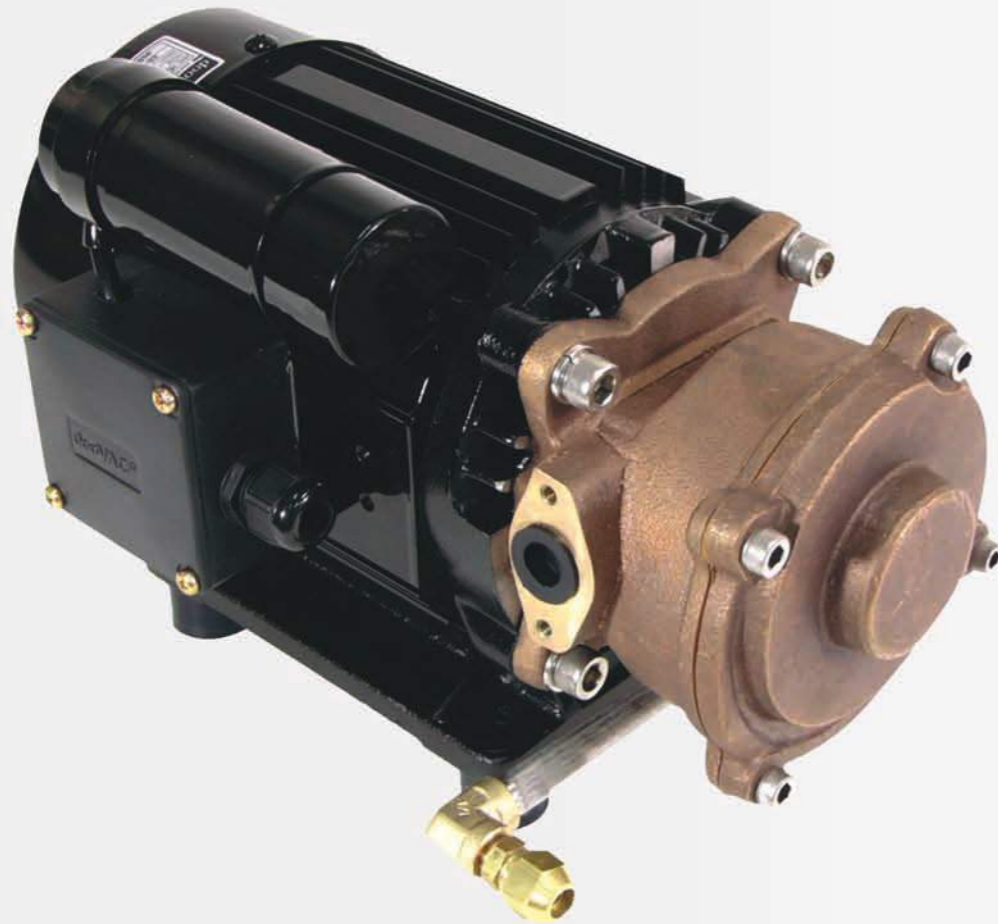
A	Cooling air entry	
B	Cooling air exit	
C	Exhaust port	
D	Inlet flange	
E	Inlet & Exhaust filter	
F	Pump base	
-	-	
-	-	

Model	a	b	c	d	e	f	g	h	i	j	k	l
SML-280	320	135	100	185.5	125	135.5	227.5	91.5	208	40	3/8"	3/8"



Vacuum Pumps & Compressor

Water Sealed



DWV 400

Liquid Ring Vacuum Pumps

DWV 400

335 ℓ /min (50Hz)

400 ℓ /min (60Hz)

680 mmHg

● Reliability

High quality material ,quality control according to ISO9001, CE, mark authentication standard, automated machining facility, computer control process, etc. Guarantee standardized and accurate product manufacturing.

● Environmentally safe

Air-cooling , low vibration and low noise level, using mechanical seal in order to stop leak of water allows this pump to be used in any environment.

● Easy to service

Structure is simple with air-cooling type, use of anti- corrosive material, no consumables. This pump is can be using long period to easy maintenance.

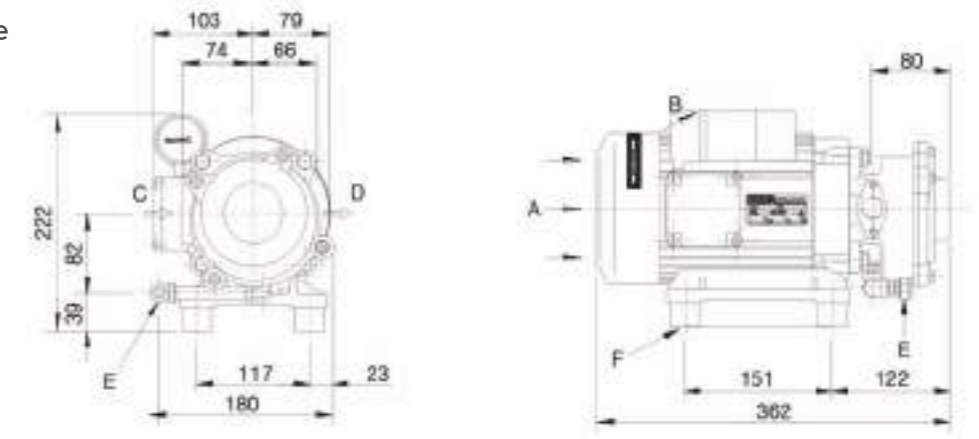
● Miniaturization

This is simple type that spindle of flange motor connect pump impeller & cylinder directly and cooling type used with cooling fan. This pump is small size and lightweight. Packing machine, Medical steam sterilizer, Vacuum concentrate machine, Vacuum dryer.

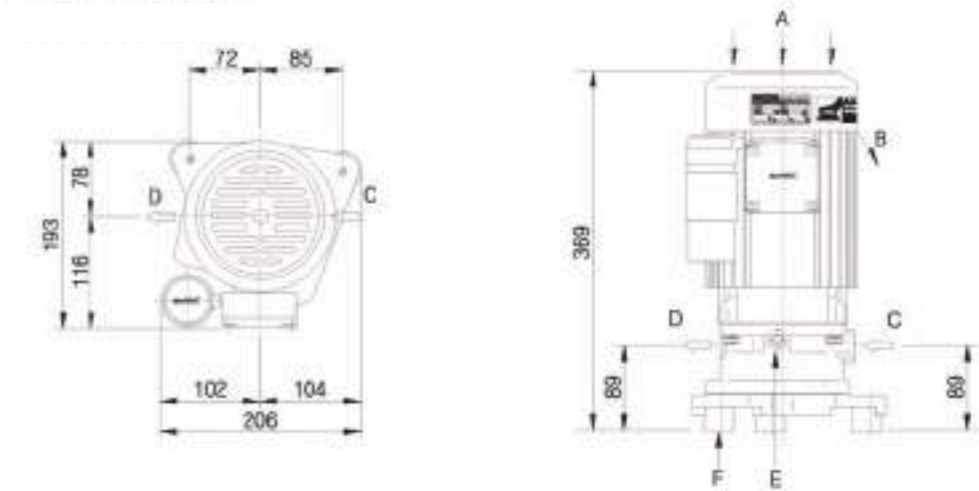
Liquid Ring Vacuum Pumps DWV 400

Technical Data		DWV-400			
Norminal displacement	50Hz ℓ /min	335			
	60Hz ℓ /min	400			
Ultimate pressure	mmHg	680			
Motor version (3~)	50Hz V	230/400			
	60Hz V	220/380			
Motor version (1~)	50Hz V	230			
	60Hz V	220			
Nominal motor rating (3~)	kW	0.55			
Nominal motor rating (1~)	kW	0.55			
Nominal motor speed	50Hz min ⁻¹	2850			
	60Hz min ⁻¹	3430			
Sound level	dB(A)	62			
Operating temperature (Ambient)	℃	40			
Sealing water	ℓ /min	1.9			
Weight approx	50Hz kg	20			
	60Hz kg				

Horizontal Type

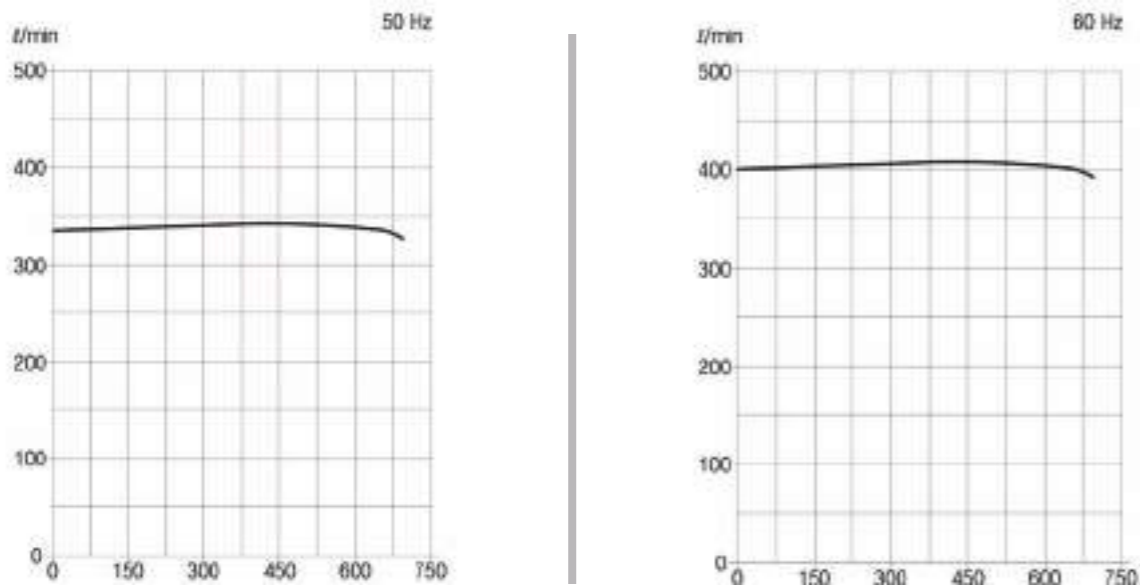


Vertical Type



A	Cooling air entry	
B	Cooling air exit	
C	Inlet flange	PT 1/2"
D	Exhust port	PT 1/2"
E	Water supply line	3/8" Flare nipple or PT 1/4"
F	RUBber foot	3~4-M8 (DP 10)
-	-	
-	-	

Model	a	b	c	d	e	f	g	h	i	j	k	l



Water Sealed



DWV 15H

Liquid Ring Vacuum Pumps

DWV 550/10H/15H/27H

460/835/1250/2250 ℓ /min (50Hz)

550/1000/1500/2700 ℓ /min (60Hz)

730 mmHg

● Reliability

Hight quality material , quality control according to ISO9001, CE, mark authentication standard, automated machining facility, computer control process, etc. Guarantee standardized and accurate product manufacturing.

● Enviromentally safe

Air-cooling , low vibration and low noise level, using mechanical seal in order to stop leak of water allows this pump to be used in any environment.

● Easy to service

Structure is simple with air-cooling type, use of anti- corrosive material, no comsumables. This pump is can be using long period to easy maintenance.

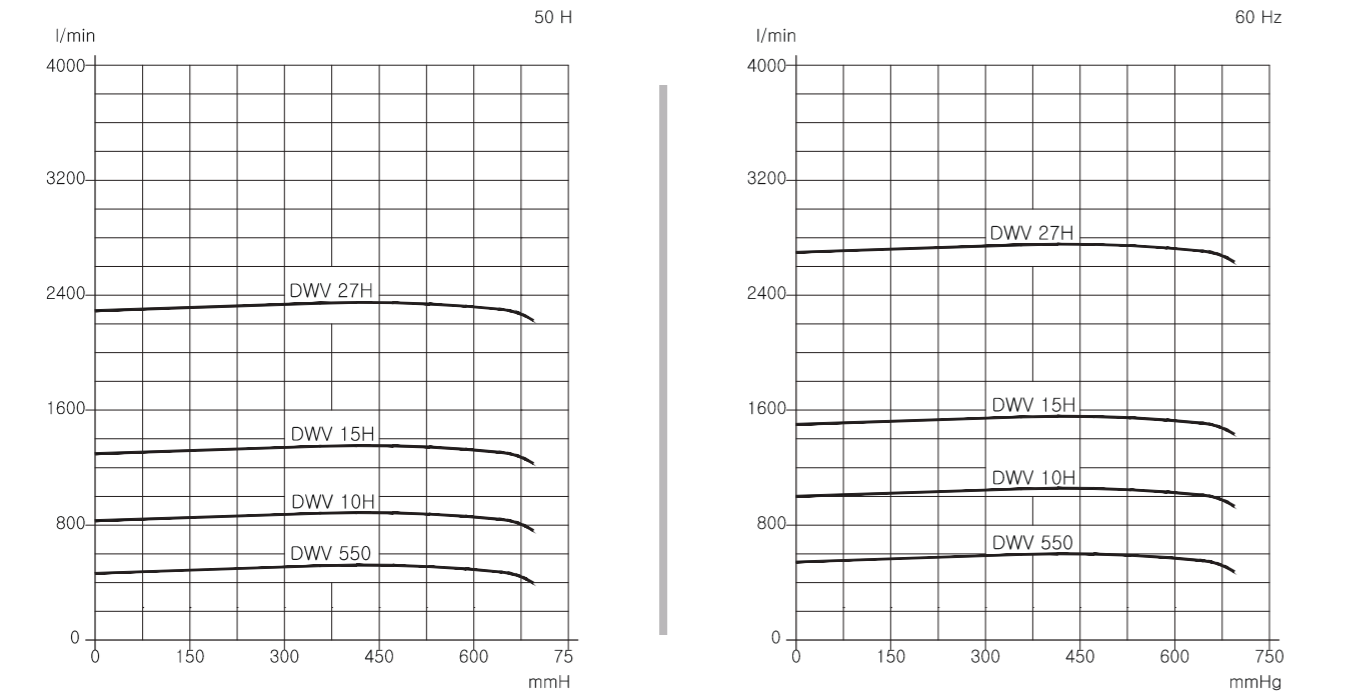
● Miniaturization

This is simple type that spindle of flange motor connect pump impeller & cylinder directly and cooling type used with cooling fan. This pump is small size and lightweight. Packing machine, Medical steam sterilizer, Vacuum concentrate machine, Vacuum dryer.

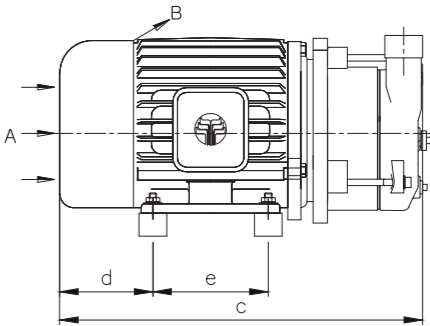
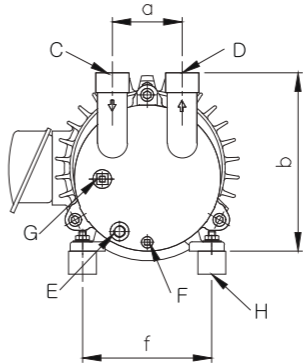
Liquid Ring Vacuum Pumps

DWV 550/10H/15H/27H

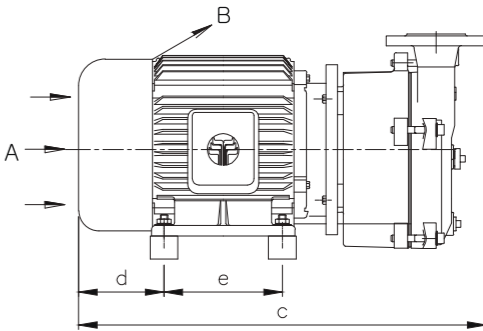
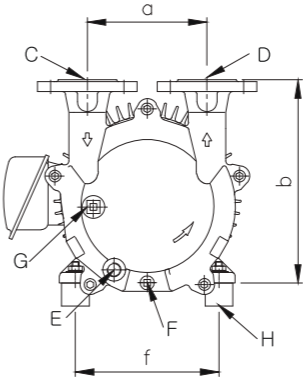
Technical Data			DWV-550	DWV-10H	DWV-15H	DWV-27H		
Norminal displacement	50Hz	ℓ /min	460	835	1250	2250		
	60Hz	ℓ /min	550	1000	1500	2700		
Ultimate pressure	mmHg		730	730	730	730		
Motor version(3~)	50Hz	V	230/400	230/400	230/400	230/400		
	60Hz	V	220/380	220/380	220/380	220/380		
Motor version(1~)	50Hz	V	—	—	—	—		
	60Hz	V						
Nominal motor rating(3~)	kW		1.5	2.2	3.7	5.5		
Nominal motor rating(1~)	kW		—	—	—	—		
Nominal motor speed	50Hz	min ⁻¹	2850	2850	1700	1700		
	60Hz	min ⁻¹	3430	3430	1420	1420		
Sound level	dB(A)		65	65	70	70		
Standard cooling water temperature	℃		15	15	15	15		
Operating temperature(Ambient)	℃		40	40	40	40		
Water requirements	ℓ /min		8	10	16	20		
Weight approx	50Hz	kg	28	28	65	86		
	60Hz	kg						



DWV – 550/10H



DWV – 15H/27H



A	Cooling air entry
B	Cooling air exit
C	Inlet flange
D	Exhaust port
E	Service liquid connection
F	Drian
-	-
-	-

Model	a	b	c	d	e	f	g	h
DWV-550	110	220	410	56	125	140	8A	M8 Nut / DP10
DWV-10H	110	220	425	56	125	140	8A	M8 Nut / DP10
DWV-15H	180	330	530	70	140	190	8A	M10 Nut / DP10
DWV-27H	180	350	620	89	140	216	8A	M10 Nut / DP10

Vacuum Pumps & Compressor

Water Sealed

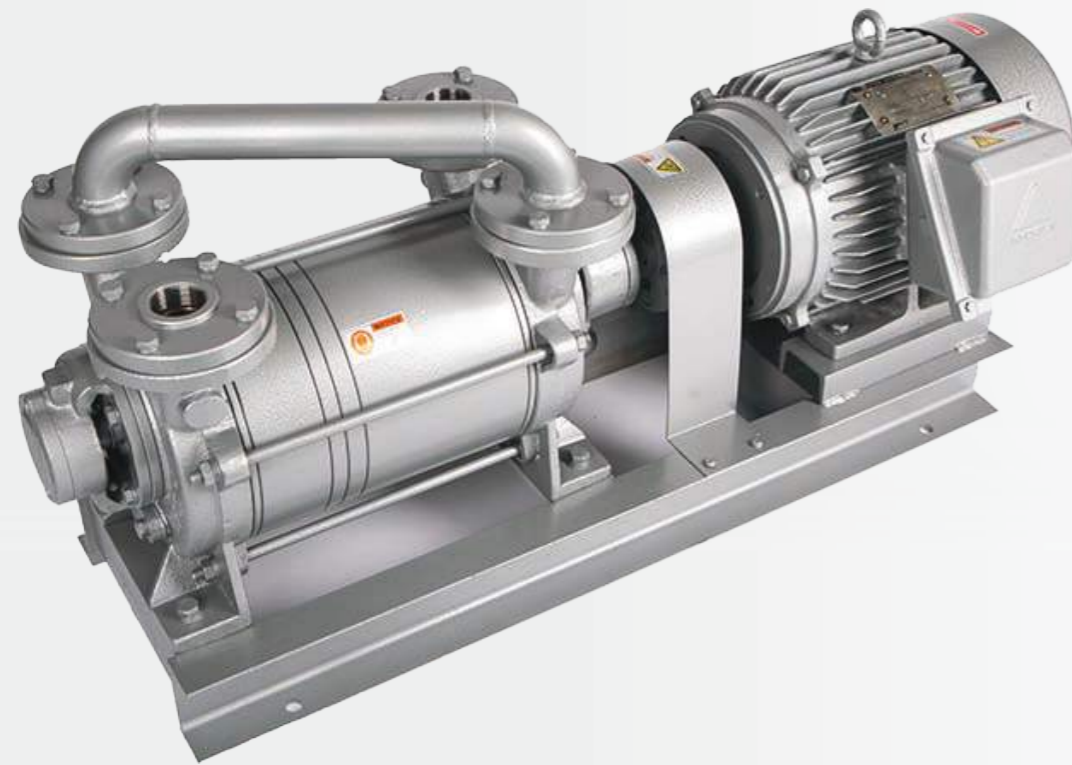
Liquid Ring Vacuum Pumps

DWX 850/15H/25H/30H/40H/55H 70H/80H/10S/12S/20S/28S

710~23500 ℓ /min (50Hz)

810~28000 ℓ /min (60Hz)

730 mmHg



DWX-Series

● Reliability

Hight quality material ,quality control according to ISO9001, CE, mark authentication standard, automated machining facility, computer control process, etc. Guarantee standardized and accurate product manufacturing.

● Enviromentally safe

Air-cooling , low vibration and low noise level, using mechanical seal in order to stop leak of water allows this pump to be used in any environment.

● Easy to service

Structure is simple with air-cooling type, use of anti- corrosive material, no consumables. This pump is can be using long period to easy maintenance.

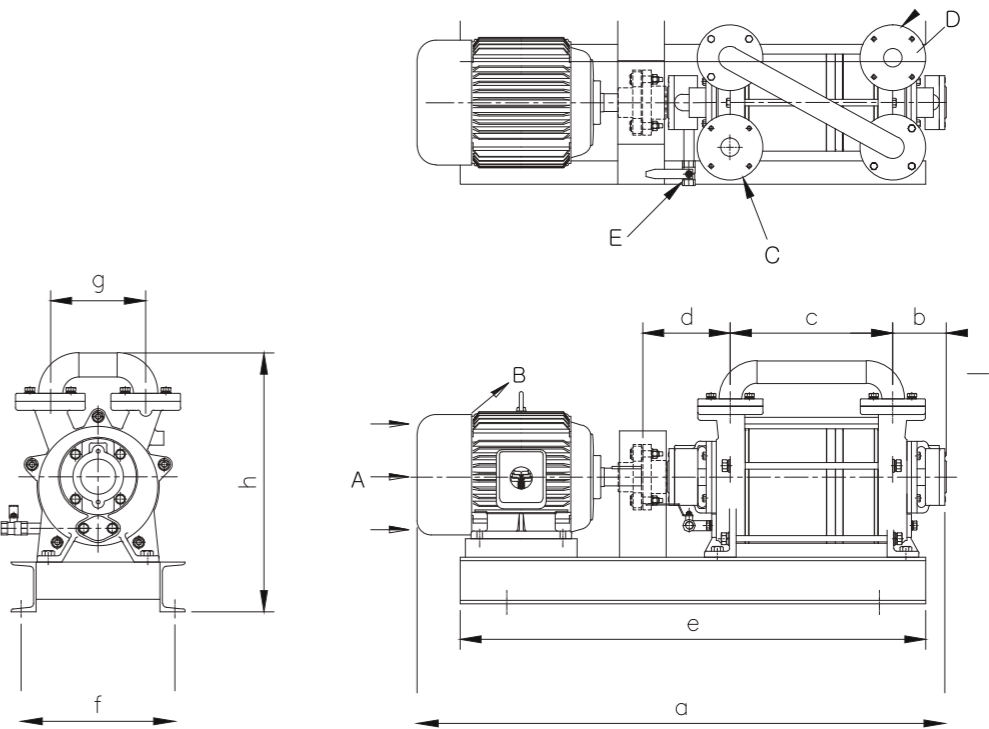
● Miniaturization

This is simple type that spindle of flange motor connect pump impeller & cylinder directly and cooling type used with cooling fan. This pump is small size and lightweight. Packing machine, Medical steam sterilizer, Vacuum concentrate machine, Vacuum dryer.

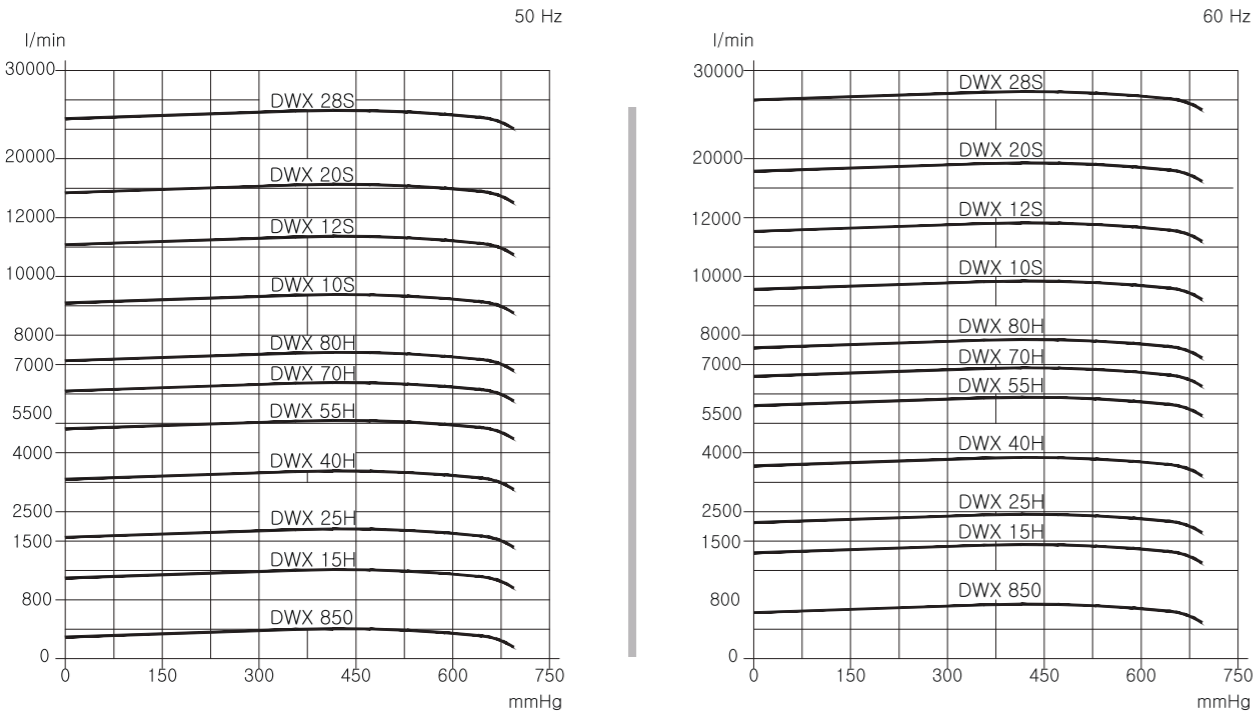
Liquid Ring Vacuum Pumps

DWX 850/15H/25H/30H/40H/55H
70H/80H/10S/12S/20S/28S

Technical Data			DWX 850	DWX 15H	DWX 25H	DWX 30H	DWX 40H	DWX 55H	DWX 70H	DWX 80H	DWX 10S	DWX 12S	DWX 20S	DWX 28S
Norminal displacement	50Hz	ℓ /min	710	1250	2100	2500	3500	4600	5800	6700	8300	16700	16700	23500
	60Hz	ℓ /min	810	2500	2500	3000	4000	5500	7000	8000	10000	20000	20000	28000
Ultimate pressure		mmHg	740											
Motor version (3~)	50Hz	V	230/400											
	60Hz	V	220/380											
Motor version (1~)	50Hz	V	Possible Consultation											
	60Hz	V												
Nominal motor rating (3~)		kW	2.2	3.7	5.5	7.5	11	15	19	22	30	37	55	75
Nominal motor rating (1~)		kW	-	-	-	-	-	-	-	-	-	-	-	-
Nominal motor speed	50Hz	min ⁻¹	1440											
	60Hz	min ⁻¹	1730											
Sound level		dB(A)												
Standard cooling water temperature		℃	15											
Operating temperature (Ambient)		℃	40											
Water requirements		ℓ /min	7	9	10	14	20	30	34	38	42	60	85	95
Weight approx	50Hz	kg	127	157	205	240	326	320	-	-	-	-	-	-
	60Hz	kg												



A	Cooling air entry
B	Cooling air exit
C	Inlet flange
D	Exhaust port
E	Service liquid connection
F	Drian
-	-
-	-



Model	a	b	c	d	e	f	g	h	C	D	
DWX-850	750	100	140	168	720	310		391	40	40	
DWX-15H	910	100	260	165	820	310		391	40	40	
DWX-25H	1020	115	335	190	920	310	192	540	40	40	
DWX-30H	1133	115	345	190	1000	310	192	540	40	40	
DWX-40H	1330	170	335	345	1140	410	230	640	50	50	
DWX-55H	1420	170	380	345	1200	410	230	640	50	50	
DWX-70H	1460	170	420	345	1240	410	230	640	50	50	
DWX-80H	1585	172	449	345	1400	510	308	773	80	80	
DWX-10S	1658	172	499	345	1450	510	308	773	80	80	
DWX-12S	2020	172	675	345	1800	510	350	920	80	80	
DWX-20S	1507	269	820	345	1445	1115	406	995	100	100	
DWX-28S	1507	269	820	345	1445	1115	406	995	100	100	

Oil Circulation

Suction Pump for ENT Medical

ENT 070

60 ℓ /min (50Hz)

70 ℓ /min (60Hz)

700 mmHg



ENT 070

● Reliability

High quality material, quality control according to ISO9001, CE, mark authentication standard, automated machining facility, computer control process, etc. Guarantee standardized and accurate product manufacturing. Where operation of vacuum pump stops during vacuum work in direct coupling operation method of flange type. Check valve is installed at the suction hole in order to prevent reverse-flow.

● Environmentally safe

Air-cooling, internal oil re-circulation, installed special oil sump for oil mist separator, low vibration and low noise level allows this pump to be used in any environment.

● Easy to service

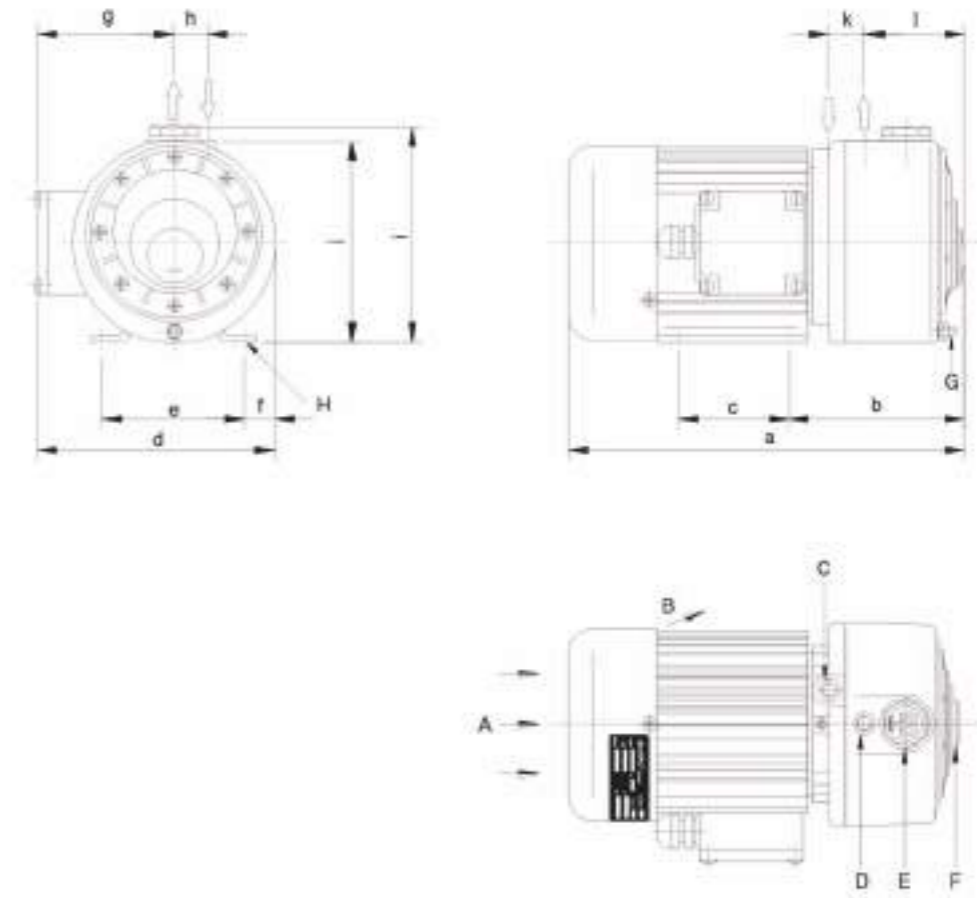
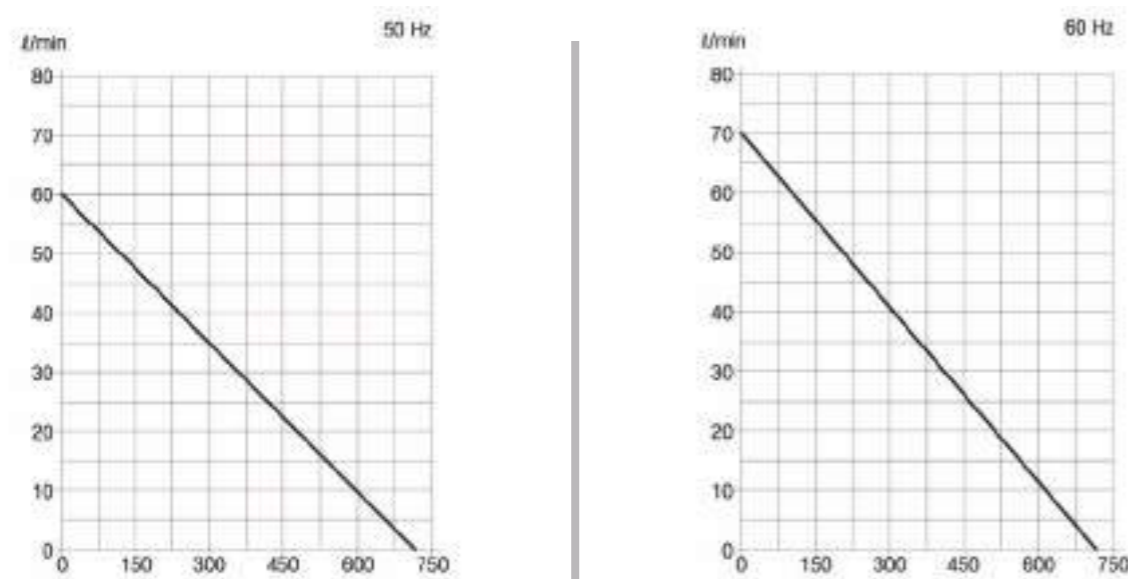
Structure is simple with air-cooling type, use of anti-corrosive material, temperature switch for preventing damage due to overheat. This is specially designed and fabricated so that suction force may be continued without noise with medicine and water contained. And easy control using big sight glass for view inside.

● Miniaturization

This is simple type that spindle of flange motor connect pump impeller & cylinder directly and cooling type used with cooling fan. This pump is small size and lightweight. Uses oil for lubrication of rotary part and maintenance of vacuum so that stable and reliable vacuum may be obtained without anti-corrosive by medicine in-flow. E.N.T., Obstetrics and gynecology, Hospital operating room.

Suction Pump for ENT Medical ENT 070

Technical Data			ENT-070			
Norminal displacement	50Hz	ℓ /min	60			
	60Hz	ℓ /min	70			
Ultimate pressure	50Hz	bar	700			
	60Hz					
Motor version(3~)	50Hz	V	—			
	60Hz	V				
Motor version(1~)	50Hz	V	220			
	60Hz	V	230			
Nominal motor rating(3~)	50Hz	kW	—			
	60Hz					
Nominal motor rating(1~)	50Hz	kW	0,35			
	60Hz					
Nominal motor speed	50Hz	min ⁻¹	1430			
	60Hz	min ⁻¹	1720			
Sound level	dB(A)		52			
			—			
			—			
Operating temperature(Ambient)			℃	40		
Oil filling			liter	0,3		
Weight approx	50Hz	kg	13,5			
	60Hz	kg				



A	Cooling air entry	
B	Cooling air exit	
C	Inlet flange	PT 1/4"
D	Exhaust port	PT 1/4"
E	Oil filling plug	
F	Oil sight glass	
G	Oil drain plug	
H	Pump base	4-M6 (Thru.)

[illegible]

Water Sealed

Suction Pump for Dental Medical

DEN 400 / SD-402

335/670 l /min (50Hz)

400/800 l /min (60Hz)

680 mmHg



SD-402



DEN-400

● Reliability

High quality material, quality control according to ISO9001, CE, mark authentication standard, automated machining facility, computer control process, etc. Guarantee standardized and accurate product manufacturing. Where operation of vacuum pump stops during vacuum work sol-valve is installed at the suction hole in order to prevent reverse-flow.

● Environmentally safe

Air-cooling, internal filter in inlet port for cleaning. Using mechanical seal in order to very silent and stop leak of water allows. This model is available can be using on any environment.

● Easy to service

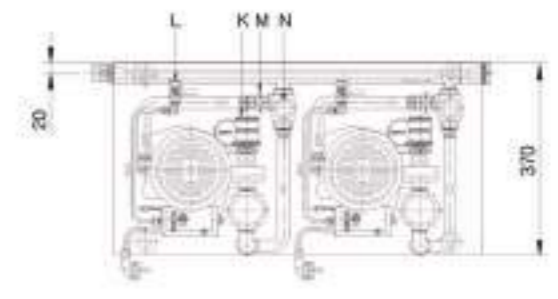
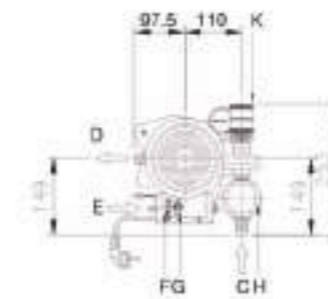
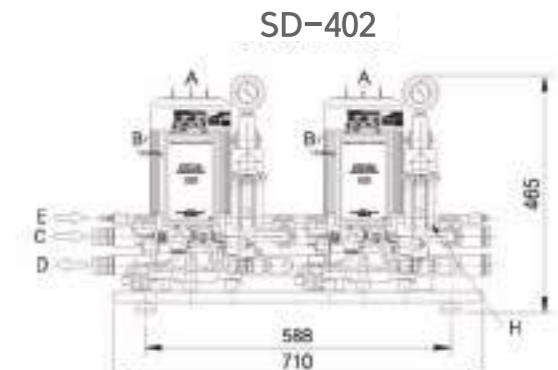
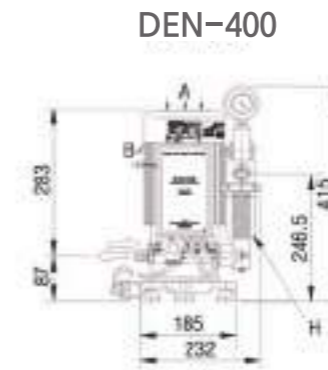
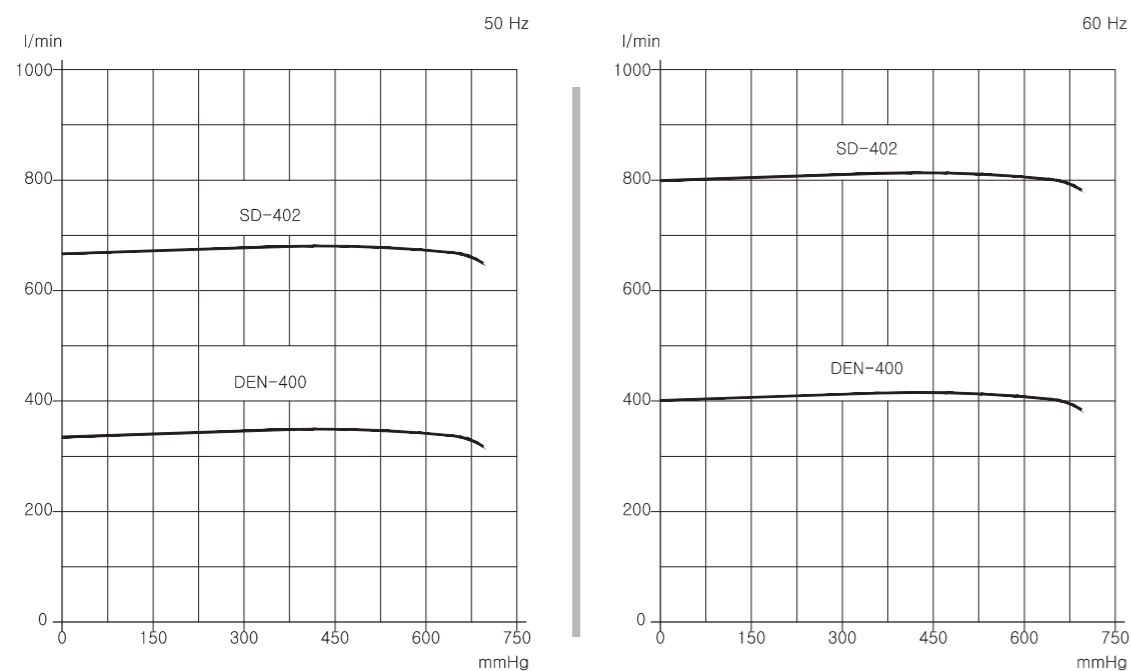
This can be simply used, is easy for maintenance, and can be used for long time, as an integrated type which has simple structure, has air cooling system, uses anti-corrosive material, is furnished with overload interceptor for automatic cleaning, water supply and motor protection, is furnished with temperature switch for preventing damage due to overheat, is furnished with transformer (220V/DC24V) for being operated with DC24V power by considering safety during on and off operation of pump considering safety during on and off operation of pump, and is furnished with sol-valve for saving water.

● Application range

This is simple type that spindle of flange motor connect pump impeller & cylinder directly and cooling type used with cooling fan. This pump is small size and lightweight. These models are suction pump for dental surgery which is specially designed, are fabricated so that 3~4 units chairs may be simultaneously used with DEN-400 pump, because of strong suction force, and are economical and have no trouble by reducing water and electricity usage quantity when being used assembled in a row with SD-400 suction pumps when 4 more unit chairs are simultaneously used.

Suction Pump for Dental Medical DEN 400/SD-402

Technical Data			DEN-400	SD-402		
Norminal displacement	50Hz	ℓ /min	335	670		
	60Hz	ℓ /min	400	800		
Ultmimate pressure	mmHg		680	680		
Motor version(3~)	50Hz	V	—	—		
	60Hz	V				
Motor version(1~)	50Hz	V	230	230		
	60Hz	V	220	220		
Nominal motor rating(3~)	kW		—	—		
Nominal motor rating(1~)	kW		0.95	1.9		
Nominal motor speed	50Hz	min ⁻¹	2850	2850		
	60Hz	min ⁻¹	3430	3430		
Sound level	dB(A)		62	70		
Operating temperature(Ambient)	℃		40	40		
Oil filling	ℓ /min		1.9	3.8		
Weight approx	50Hz	kg	20	48		
	60Hz	kg				



A	Cooling air entry	
A	Cooling air exit	
A	Inlet flange	∅ 25 hose nipple
A	Exhaust port	∅ 25 hose nipple
A	Water supply line	
B	Circuit protector	
C	On/off switch	
D	Line filter	
E	Vacuum relief valve	
F	Water valve	
G	Exhaust line valve	
H	Vacuum check valve	

[illegible]

Vacuum Pumps & Compressor

Oil Circulated



Duplex Type



Simplex Type

Vacuum Tank Systems

Simplex & Duplex

6~630 m³/ hr (50Hz)7.2~760 m³/ hr (60Hz)

20 mbar

● Reliability

High quality material, quality control according to ISO9001, CE, mark authentication standard, automated machining facility, computer control process, etc. Guarantee standardized and accurate product manufacturing. Where operation of vacuum pump stops during vacuum work sol-valve is installed on the top of supplying pipe in order to prevent reverse-flow.

● Environmentally safe

Air cooling, internal oil re-circulation, integral oil mist separator for oil-free exhaust air, low vibration and low noise level allows this pump to be used in any environment.

● Maintenance expense decrease

When Application tank system, using small vacuum pump. it is a saving maintenance cost. Installed vacuum switch, using constant vacuum pressure and stability. It's a long pump life. Using a tank system can reduce initial, maintenance and replacement costs.

● Application range

If your application requires an instantaneous "blast" of high pressure of vacuum, then the reservoir provided by a tank system is essential. Even the largest of pumps has to start at atmospheric pressure and therefore will not be able to give that instantaneous blast of pressure/vacuum.

Special Vacuum Tank System



In order to protect the vacuum pump installed in a wet process (coolant, water, etc.), an auxiliary vacuum container which can separate water and oil is provided to discharge separated fluid without stopping vacuum operation.



In order to protect the vacuum pump installed in a wet process (coolant, water, etc.), a transparent, auxiliary vacuum container which can separate water and oil is provided for visual control.



Vacuum pump and vacuum container are enclosed for better appearance, less noise, and dust (oily dust) exhaustion, suitable for clean rooms and processes such as semiconductor processes.



Movable type integrated with operating switch, vacuum gauge, and various shutdown valves. Economy is implemented since one unit can be used for several equipments which require vacuum.

Vacuum Accessories

Vacuum line filter

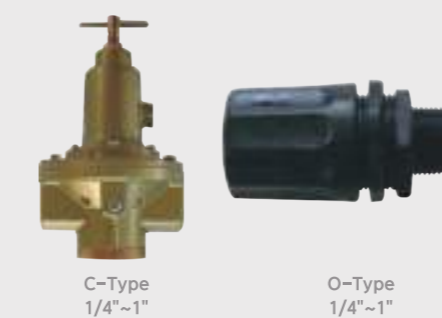


L-Type
1/4"~3"

T-Type
1/2"~3"

Because the vacuum process happens to flow in various substance on characteristic in its operation, it is highly recommended to install the filter in the inhale pipe. The sizes of the filter are categorized upon the pipe's caliber; there are L & T types of 2 structure products.

Vacuum regulator



C-Type
1/4"~1"

O-Type
1/4"~1"

Depending on the operation condition, it is meant to use by adjusting the vacuum pressure and there are two ways of completing that.

- ① Adjusting the pressure for request by destroying (opening) the vacuum pressure: The structure is simple and cheap, however, the maintenance-cost is expensive. (O-Type)
- ② Adjusting the pressure for request by keeping the vacuum pressure: The structure is complicated and very expensive, however, the vacuum pressure is stable and the maintenance-cost is cheap. (C-Type)

Vacuum switch



M-Type

G-Type

It is purposed to operate the relevant equipment and vacuum pump as opening and shutting the switch at the pre-set up vacuum pressure. There are mechanical (M-Type), gauge-type (G-Type), and electronic (E-Type).

Silencer

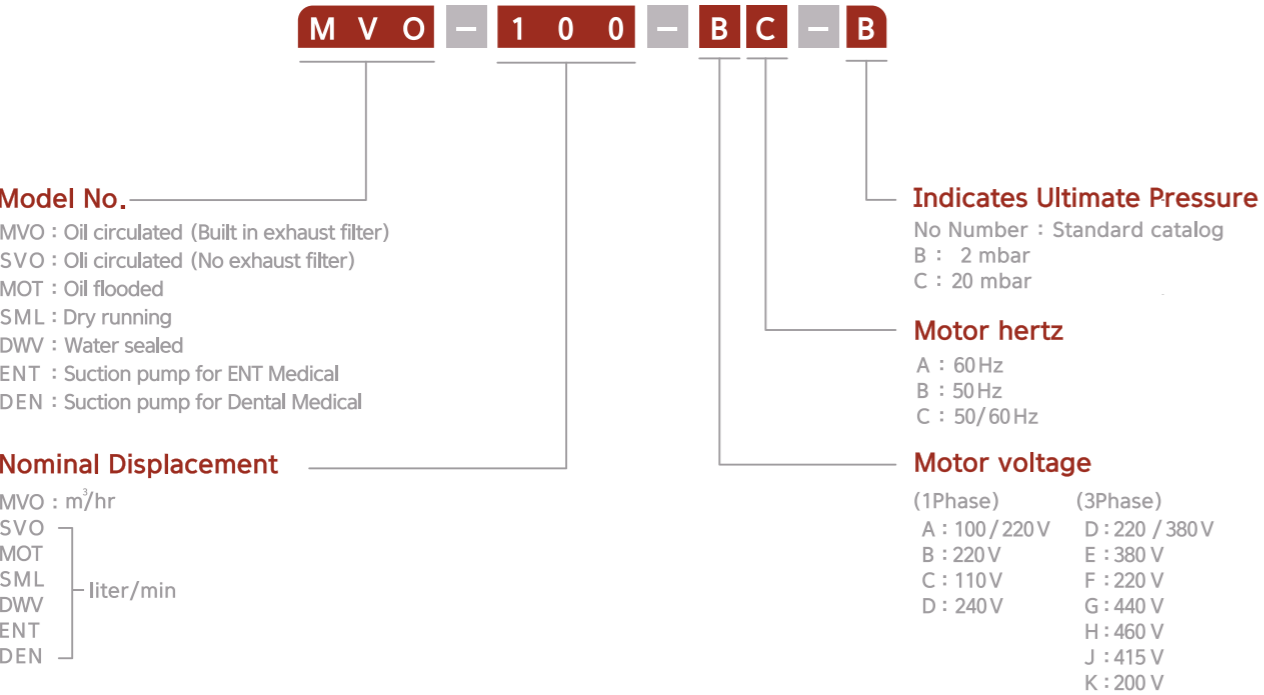


1/4"~1 1/4"

Since a dry running vacuum pump produces a lot of an exhaust noise, it is used to reduce that noise.

Model No. Explation

Model No. Explanation for Vacuum Pumps & Compressors



Conversion Table

Vacuum / Pressure	mbar (hpa)	bar	Pa (Nm ⁻²)	kPa	atm	kgf cm ⁻² (at)
1 mbar (hpa)	1	1x10 ⁻³	10 ²	0.1	9,869x10 ⁻⁴	1,02x10 ⁻³
1 bar	10 ³	1	1x10 ⁵	100	0.987	1,02
1 Pa (Nm ⁻²)	0.01	1x10 ⁻⁵	1	0.001	9,869x10 ⁻⁶	1,02x10 ⁻⁵
1 kPa	10	0,01	10 ³	1	9,869x10 ⁻³	1,02x10 ⁻²
1 atm	1,013x10 ³	1,013	1,013x10 ⁵	1,013x10 ²	1	1,033
1 kgf cm ⁻² (at)	9,807x10 ²	0,981	9,807x10 ⁴	98,07	0,968	1
1 mm H ₂ O	9,807x10 ⁻²	9,807x10 ⁻⁵	9,807	9,807x10 ⁻³	9,677x10 ⁻⁵	10 ⁻⁴
1 Torr (mmHg)	1,333	1,333x10 ⁻³	1,333x10 ²	1,333x10 ⁻¹	1,316x10 ⁻³	1,36x10 ⁻⁵
1 micron	1,333x10 ⁻³	1,333x10 ⁻⁶	1,333x10 ⁻¹	1,333x10 ⁻⁴	1,316x10 ⁻⁶	1,36x10 ⁻³
1 in Hg	33,86	3,386X10 ⁻²	3,386X10 ³	3,386	3,342x10 ⁻²	3,453x10 ⁻⁶
1 in H ₂ O	2,491	2,491x10 ⁻³	2,491x10 ²	2,491	2,458x10 ⁻³	2.54x10 ⁻²
1 lbf in ⁻² (psi)	68,95	6,895x10 ⁻²	6,895x10 ³	6,895	6,805x10 ⁻²	7.03x10 ⁻³

Vacuum / Pressure	Mm H ₂ O	Torr (mmHg)	micron	in Hg	in H ₂ O	lbf in ⁻² (psi)
1 mbar (hpa)	10,197	0,75	750	2,953x10 ⁻²	0,402	1,45x10 ⁻²
1 bar	1,02x10 ⁴	7,5X10 ²	7,5X10 ⁵	29,53	4,015x10 ²	14,5
1 Pa (Nm ⁻²)	0,102	7,5X10 ⁻³	7,5	2,953x10 ⁻⁴	4,015x10 ⁻³	1,45x10 ⁻⁴
1 kPa	1,02x10 ²	7,5	7,5x10 ³	0,295	4.015	0,145,
1 atm	1,033x10 ³	7,6X10 ²	7,6X10 ⁵	29,92	4,068x10 ²	14,7
1 kgf cm ⁻² (at)	10 ⁴	7,356X10 ²	7,356X10 ⁵	28,96	3,973x10 ²	14,22
1 mm H ₂ O	1	7,354X10 ⁻²	73,54	2,896x10 ⁻³	3,394x10 ⁻²	1,42x10 ⁻³
1 Torr (mmHg)	13,59	1	10 ³	3,937x10 ⁻²	0,535	1,934x10 ⁻²
1 micron	1,359X10 ⁻²	10 ⁻³	1	3,937x10 ⁻⁵	5,35x10 ⁻⁵	1,934x10 ⁻⁵
1 in Hg	3,45X10 ⁻²	25,4	25,4x10 ⁴	1	13,6	0,491
1 in H ₂ O	25,4	1,868	1,868x10 ³	7,356x10 ⁻²	1	3,613x10 ⁻²
1 lbf in ⁻² (psi)	7,03X10 ²	51,71	5,171x10 ⁴	2,036	27,68	1

Vacuum Conversion

Absolute pressure P 9mbar abs.) can be converted to and from pressure difference Δp (inches Hg) based on atmospheric pressure of 1013 mbar abs. (=760Torr = 29.92 Inches Hg abs.) Using the following formulae:
29.92 – 2,2953x10–2 x p (mbar abs.) = Δp (inches Hg)
1013 – 33.86 x Δp (inches Hg) = p (mbar abs.)

Capacity	m³/h	m³/min	m³/s	ℓ /min	cfm (ft³ min ⁻¹)	gal/min
1 m³/h	1	1,667x10 ⁻²	2,778x10 ⁻⁴	16,67	0,588	4,403
1 m³/min	60	1	1,667x10 ⁻²	10 ³	35,28	2,642x10 ²
1 m³/s	3600	60	1	6x10 ⁴	2,117x10 ³	1.585x10 ⁻²
1 ℓ /min	6x10 ⁻²	10 ⁻³	1,667x10 ⁻⁵	1	3,528x10 ⁻²	0,264
1 cfm (ft³ min ⁻¹)	1,699	2,832x10 ⁻²	4,72x10 ⁻⁴	28.32	1	7,481
1 gal/min	0,227	0,378	6,306x10 ⁻⁵	3,784	0,133	1

