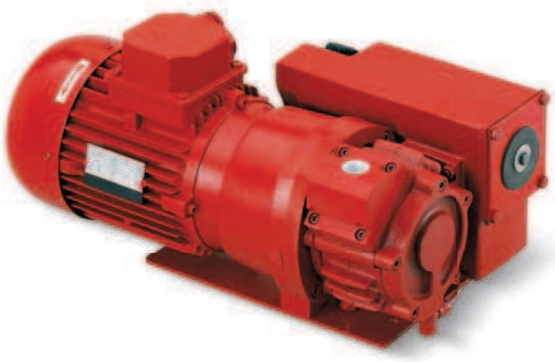
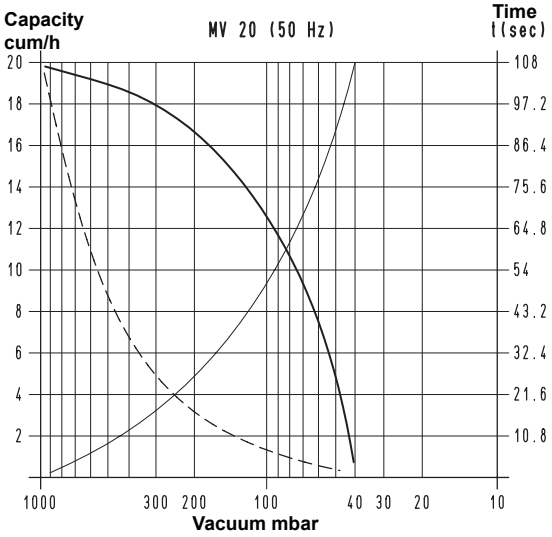
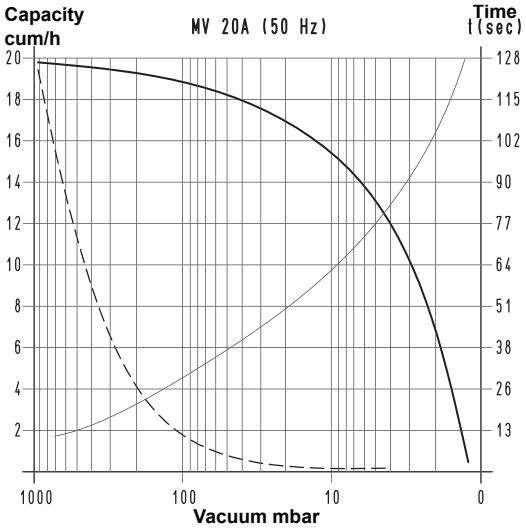
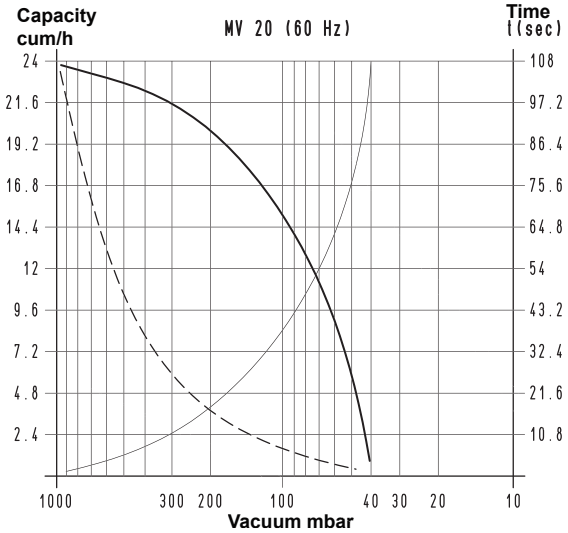
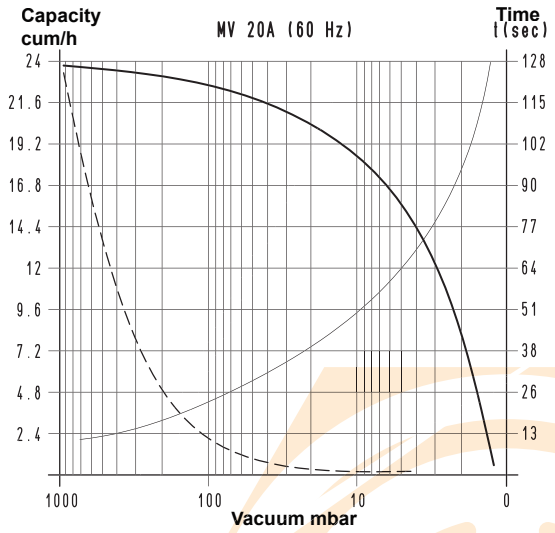


The single-stage oil-bath vane vacuum pumps of the MV series are activated by a standard electric motor coupled together via an elastic transmission joint. A centrifugal fan cantilevered-fitted onto the pump shaft guarantees the right airflow for cooling the pump unit (forced surface cooling).
A large oil recovery tank with built-in microfibre deoiling cartridges, located on the pump exhaust, serves as a silencer and as a fume collector.
The oil contained in the system lubricates, cools and seals the rotating and the fixed parts of the pumps.
The standard check valve on the suction inlet is integral part of the pumps. Upon request, a filtre for trapping possible impurities can also be provided. Pumps included between the MV 20 and the MV 100 are set for the installation of a gas ballast valve (upon request) which allows for a high compatibility to water vapour. In the other pumps, starting from MV 160R up to MV 300R, the built-in gas ballast valve is a standard.
The features described above associated with a strong and compact construction make the pumps of the MV series suitable for continuous and intense use.









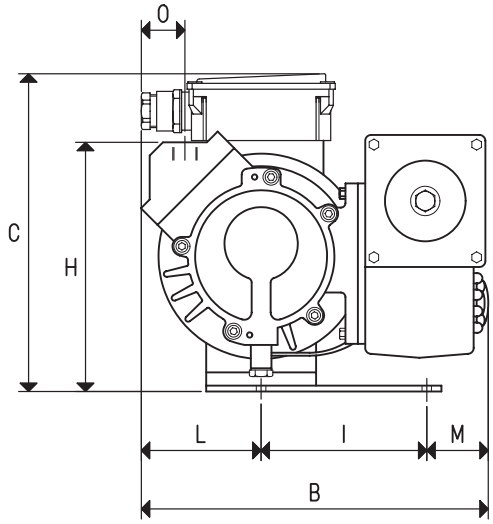
To calculate the emptying time of a volume V_1, apply the formula $t_1 = \frac{t \times V_1}{100}$

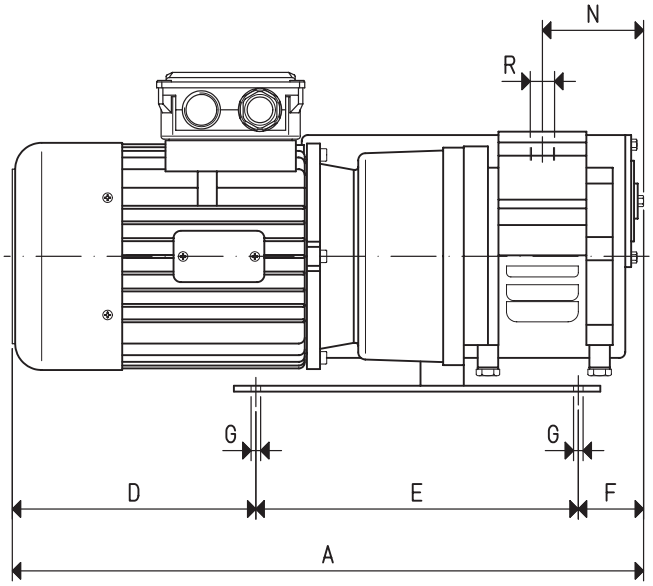
——— Curve regarding capacity (referring to the suction pressure)
– – – Curve regarding capacity (referring to a 1013 bar pressure)
——— Curve regarding the emptying of a 100-litre volume

V_1 : Volume to be emptied
t_1 : Time to be calculated (sec)
t : Time obtained in the table (sec)

3D drawings available at www.vuototecnica.net

OIL-BATH VACUUM PUMPS
MV 20 AND MV 20A



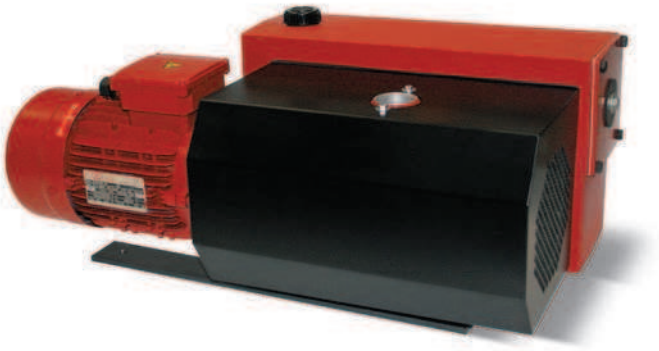


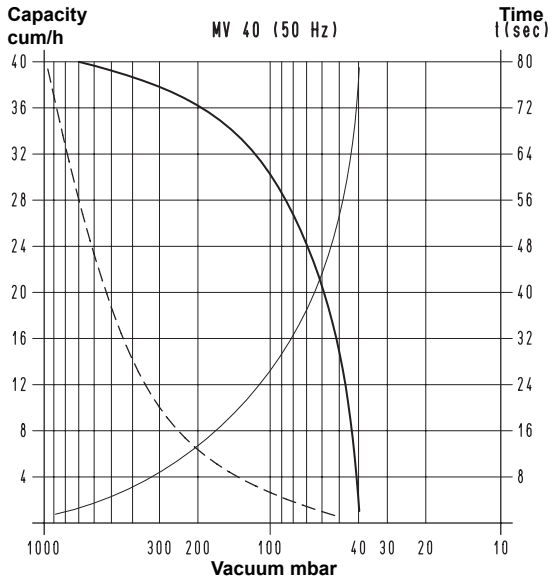
Art.		MV 20		MV 20A	
Frequency		50Hz	60Hz	50Hz	60Hz
Capacity	m^3/h	20.0	24.0	20.0	24.0
Final pressure	mbar abs.	40		0.7	
Motor execution	3~	230/400±10%	275/480±10%	230/400±10%	275/480±10%
Volt	1~	230±10%		230±10%	
Motor power	3~	0.75	0.90	0.75	0.90
Kw	1~	0.75	0.90	0.75	0.90
Motor protection	IP	55		55	
Rotation speed	rev/min^{-1}	2800	3350	2800	3350
Motor shape		B14		B14	
Motor size		80		80	
Noise level	dB(A)	64	66	64	66
Max. weight	3~	21.5		21.5	
Kg	1~	22.0		22.0	
A		425		425	
B		235		235	
C		215		215	
D		145		145	
E		220		220	
F		60		60	
G	Ø	6.5		6.5	
H		170		170	
I		113		113	
L		82		82	
M		40		40	
N		60		60	
O		30		30	
R	Ø gas	G1/2"		G1/2"	
Accessories and spare parts					
Oil load	l	0.70		0.70	
Synthetic oil	VT OIL	ISO 68		ISO 68	
Deoiling cartridge	art.	00 MV 20 11		00 MV 20 11	
3 vanes	art.	00 MV 20 10		00 MV 20 10	
Sealing kit	art.	00 KIT MV 20		00 KIT MV 20	
Check valve	art.	Built-in		Built-in	
Suction filtre	art.	FC 20		FC 20	
Ballast valve	art.	VZ 01		VZ 01	

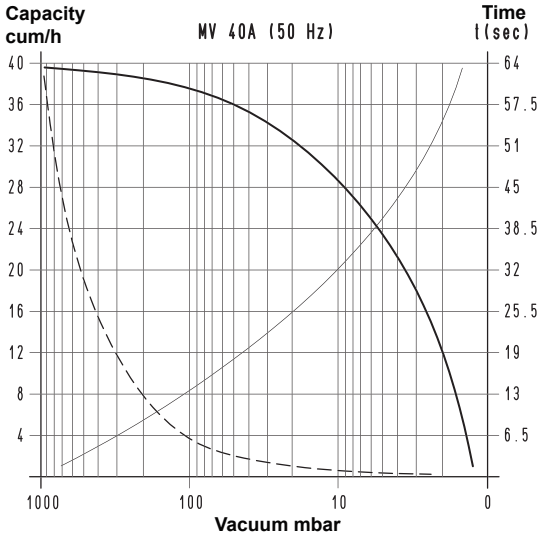
Note: The pump will be supplied with single-phase electric motor by adding the letter M to the article (E.g.: MV 20 M).

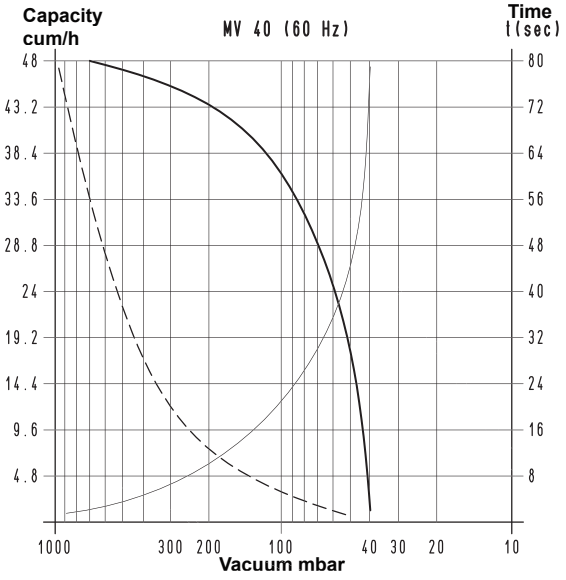
3D drawings available at **www.vuototecnica.net**

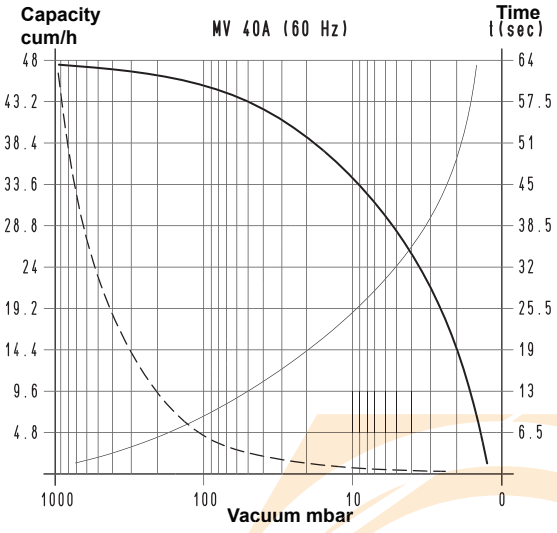
Conversion ratio: inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ cfm= cum/h x 0.588; inch Hg= mbar x 0.0295; psi= bar (g) x 14.6











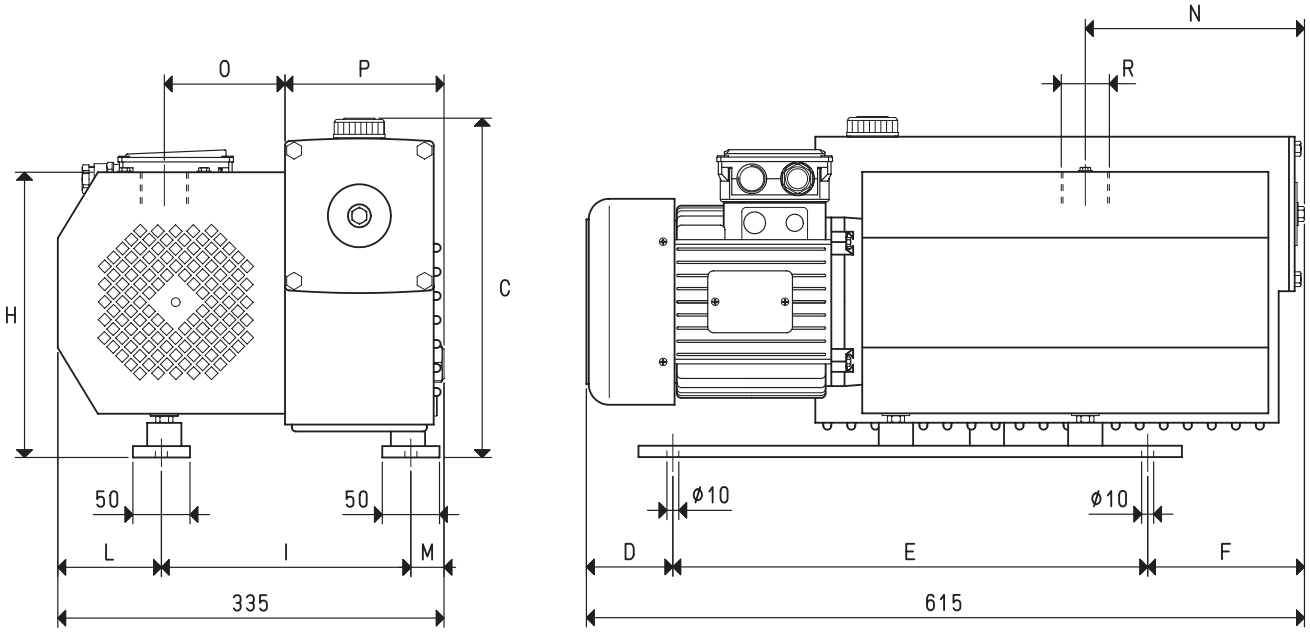
To calculate the emptying time of a volume V_1, apply the formula $t_1 = \frac{t \times V_1}{100}$

——— Curve regarding capacity (referring to the suction pressure)
– – – Curve regarding capacity (referring to a 1013 bar pressure)
——— Curve regarding the emptying of a 100-litre volume

V_1 : Volume to be emptied
t_1 : Time to be calculated (sec)
t : Time obtained in the table (sec)

3D drawings available at www.vuototecnica.net

OIL-BATH VACUUM PUMPS
MV 40 AND MV 40A

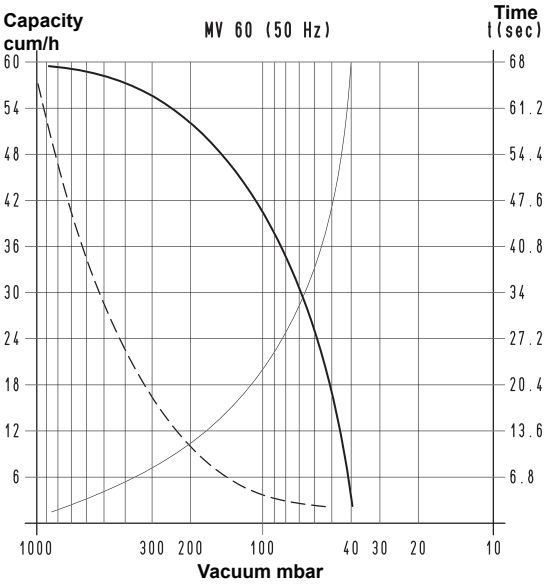


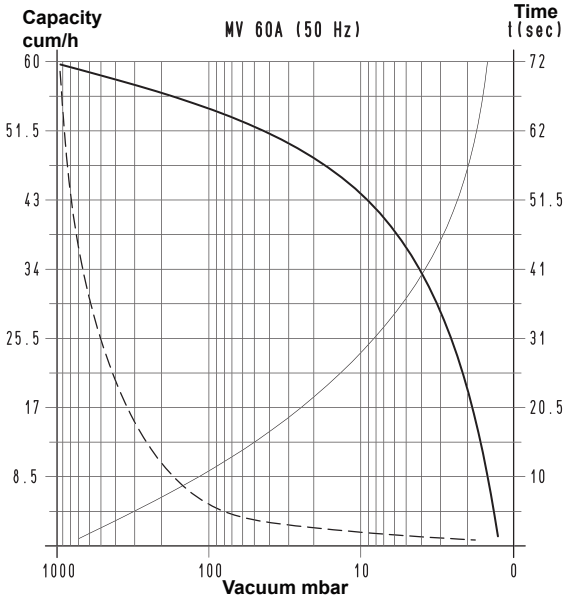
Art.		MV 40		MV 40A	
Frequency		50Hz	60Hz	50Hz	60Hz
Capacity	m^3/h	40.0	48.0	40.0	48.0
Final pressure	mbar abs.	40		0.7	
Motor execution	3~	230/400±10%	275/480±10%	230/400±10%	275/480±10%
Volt					
Motor power	3~	1.10	1.35	1.10	1.35
Kw					
Motor protection	IP	55		55	
Rotation speed	rev/min^{-1}	1450	1740	1450	1740
Motor shape		B14		B14	
Motor size		90		90	
Noise level	dB(A)	66	68	66	68
Max. weight	3~	45.0		45.0	
Kg					
C		295		295	
D		63		63	
E		415		415	
F		137		137	
H		245		245	
I		210		210	
L		91		91	
M		34		34	
N		188		188	
O		100		100	
P		140		140	
R	Ø gas	G1"1/4		G1"1/4	
Accessories and spare parts					
Oil load	l	2.00		2.00	
Synthetic oil	VT OIL	ISO 68		ISO 68	
Deoiling cartridge	art.	00 MV 40 50		00 MV 40 50	
3 vanes	art.	00 MV 40 10		00 MV 40 10	
Sealing kit	art.	00 KIT MV 40		00 KIT MV 40	
Check valve	art.	Built-in		Built-in	
Suction filtre	art.	FC 35		FC 35	
Ballast valve	art.	VZ 02		VZ 02	

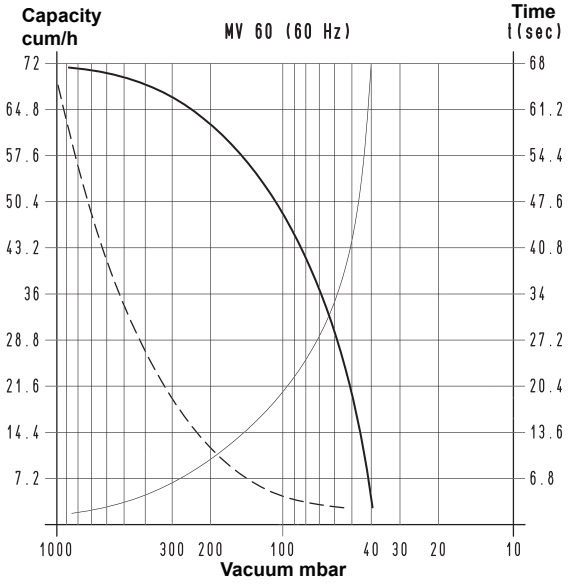
3D drawings available at **www.vuototecnica.net**

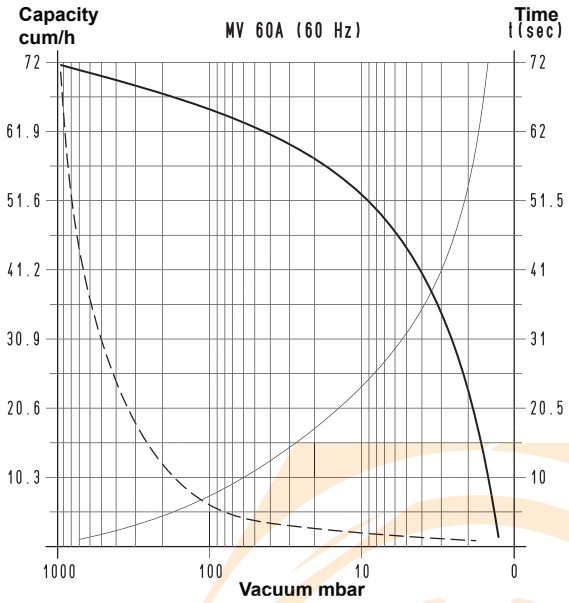
Conversion ratio: inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ cfm= cum/h x 0.588; inch Hg= mbar x 0.0295; psi= bar (g) x 14.6











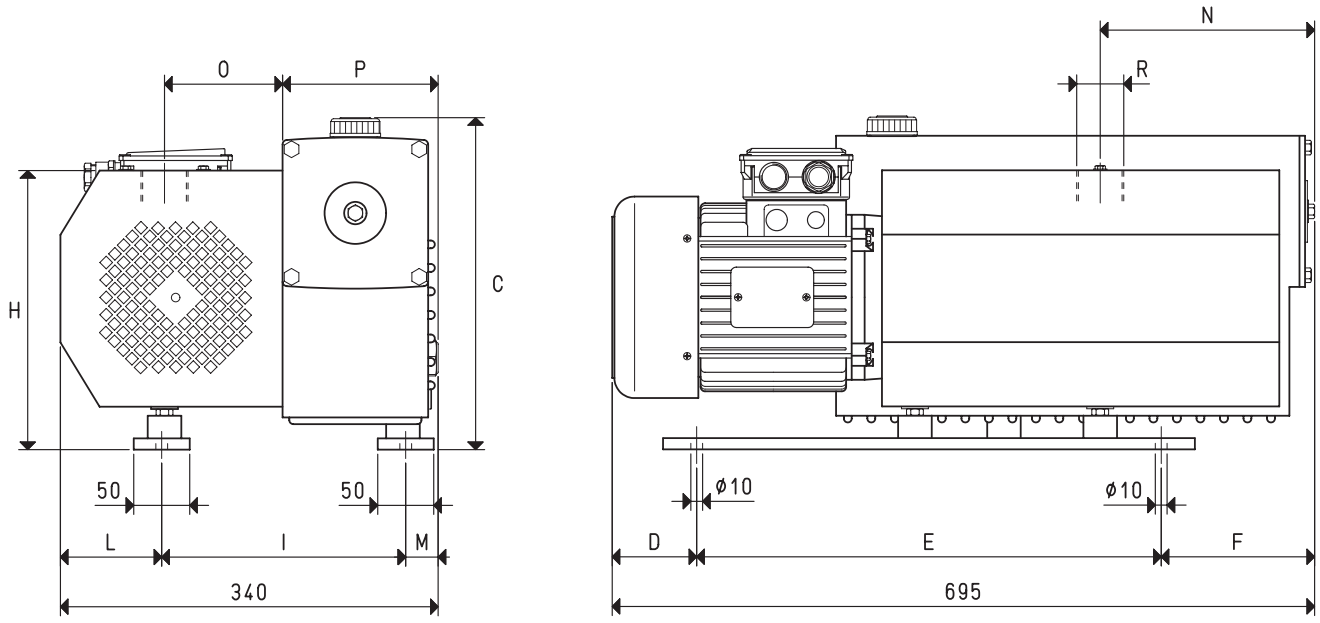
To calculate the emptying time of a volume V_1, apply the formula $t_1 = \frac{t \times V_1}{100}$

——— Curve regarding capacity (referring to the suction pressure)
– – – Curve regarding capacity (referring to a 1013 bar pressure)
——— Curve regarding the emptying of a 100-litre volume

V_1 : Volume to be emptied
t_1 : Time to be calculated (sec)
t : Time obtained in the table (sec)

3D drawings available at www.vuototecnica.net

OIL-BATH VACUUM PUMPS
MV 60 and MV 60A

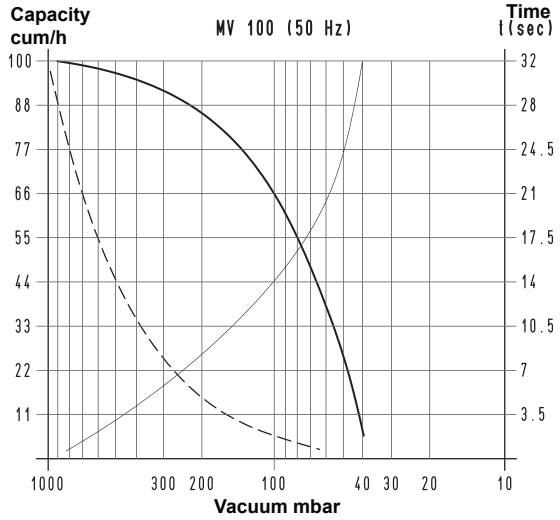


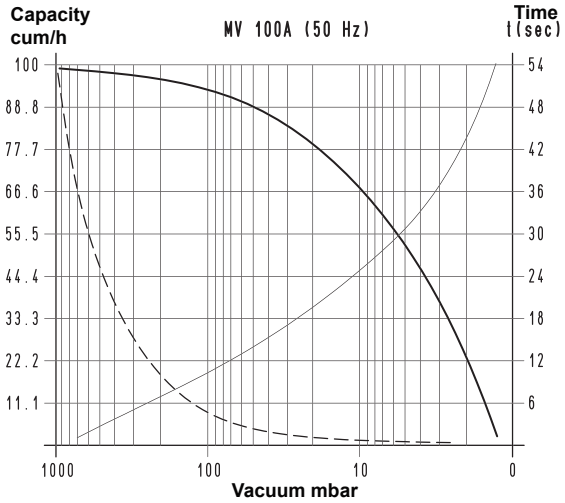
Art.		MV 60		MV 60A	
Frequency		50Hz	60Hz	50Hz	60Hz
Capacity	m^3/h	60.0	72.0	60.0	72.0
Final pressure	mbar abs.	40		0.7	
Motor execution	3~	230/400±10%	275/480±10%	230/400±10%	275/480±10%
Volt					
Motor power	3~	1.50	1.80	1.50	1.80
Kw					
Motor protection	IP	55		55	
Rotation speed	rev/min^{-1}	1450	1740	1450	1740
Motor shape		B14		B14	
Motor size		90		90	
Noise level	dB(A)	68	70	68	70
Max. weight	3~	53.0		53.0	
Kg					
C		300		300	
D		150		150	
E		415		415	
F		130		130	
H		248		248	
I		210		210	
L		100		100	
M		30		30	
N		184		184	
O		100		100	
P		140		140	
R	Ø gas	G1"1/4		G1"1/4	
Accessories and spare parts					
Oil load	l	2.00		2.00	
Synthetic oil	VT OIL	ISO 68		ISO 68	
Deoiling cartridge	art.	00 MV 60 50		00 MV 60 50	
3 vanes	art.	00 MV 60 10		00 MV 60 10	
Sealing kit	art.	00 KIT MV 60		00 KIT MV 60	
Check valve	art.	Built-in		Built-in	
Suction filtre	art.	FC 35		FC 35	
Ballast valve	art.	VZ 02		VZ 02	

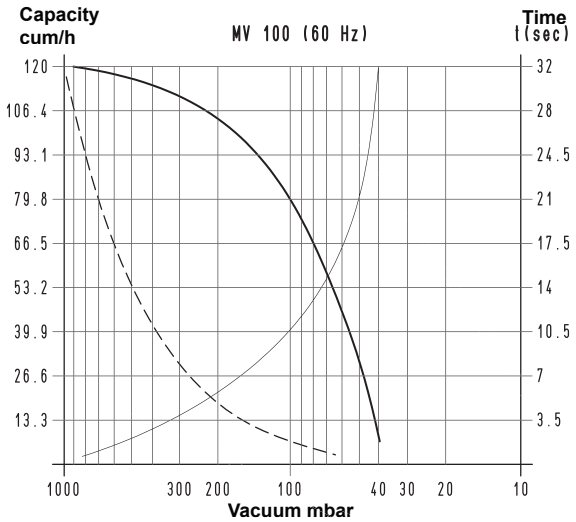
3D drawings available at **www.vuototecnica.net**

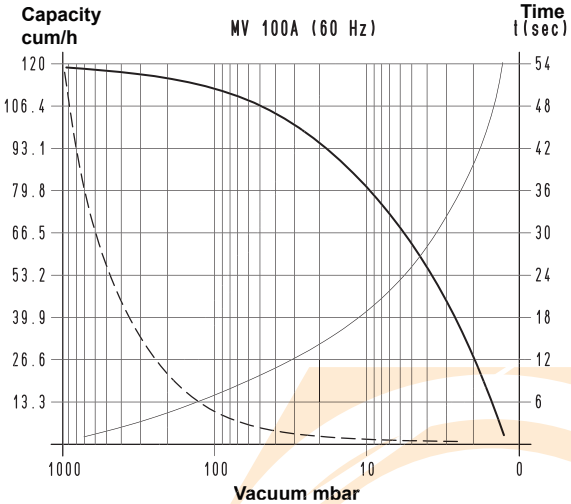
Conversion ratio: inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ cfm= cum/h x 0.588; inch Hg= mbar x 0.0295; psi= bar (g) x 14.6











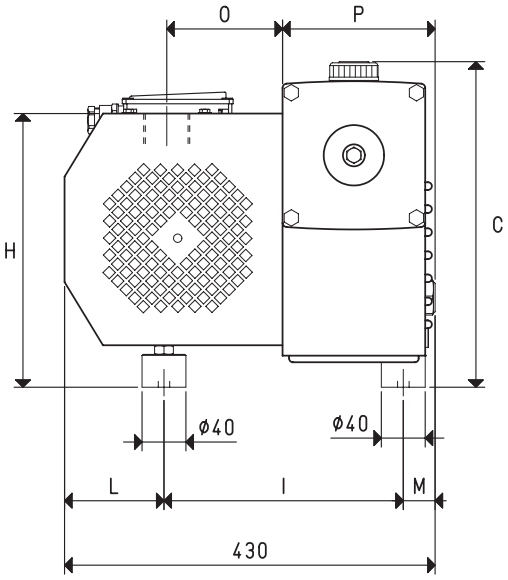
To calculate the emptying time of a volume V_1, apply the formula $t_1 = \frac{t \times V_1}{100}$

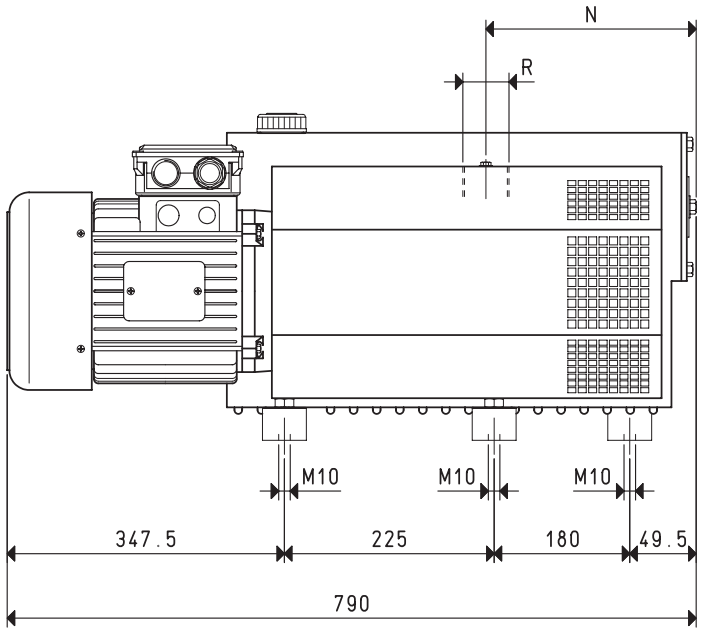
——— Curve regarding capacity (referring to the suction pressure)
– – – Curve regarding capacity (referring to a 1013 bar pressure)
——— Curve regarding the emptying of a 100-litre volume

V_1 : Volume to be emptied
t_1 : Time to be calculated (sec)
t : Time obtained in the table (sec)

3D drawings available at www.vuototecnica.net

OIL-BATH VACUUM PUMPS
MV 100 and MV 100A

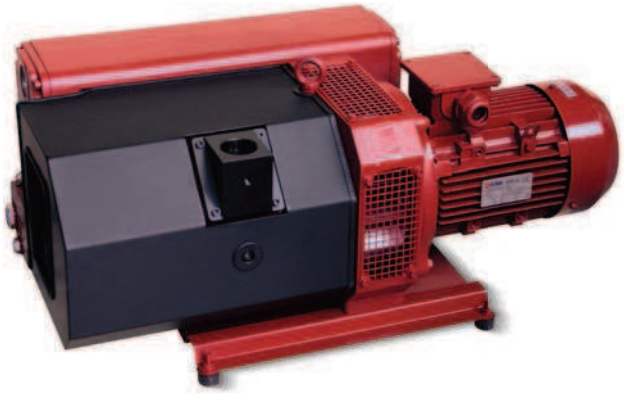


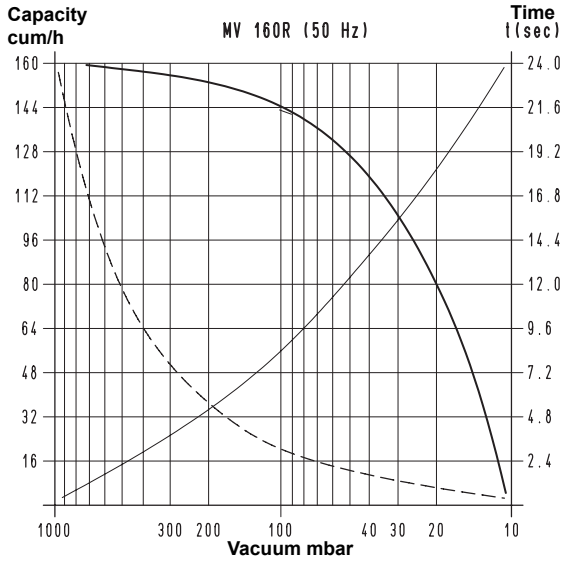


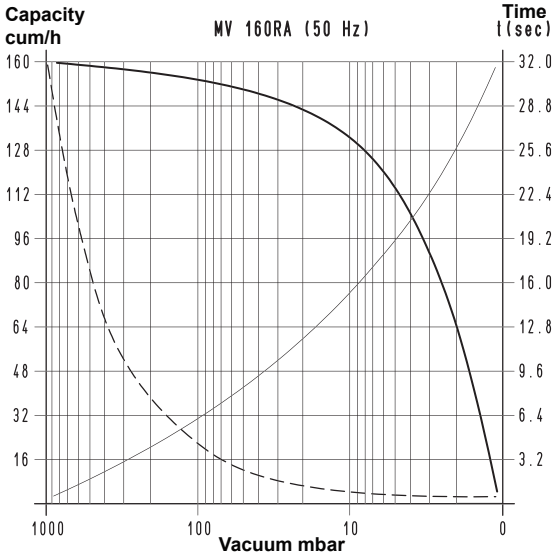
Art.		MV 100		MV 100A	
Frequency		50Hz	60Hz	50Hz	60Hz
Capacity	m^3/h	100.0	120.0	100.0	120.0
Final pressure	mbar abs.	40		0.7	
Motor execution	3~	230/400±10%	275/480±10%	230/400±10%	275/480±10%
Volt					
Motor power	3~	2.20	2.70	2.20	2.70
Kw					
Motor protection	IP	55		55	
Rotation speed	rev/min^{-1}	1450	1740	1450	1740
Motor shape		B14		B14	
Motor size		100		100	
Noise level	dB(A)	68	70	68	70
Max. weight	3~	80.0		80.0	
Kg					
C		330		330	
H		290		290	
I		275		275	
L		115		115	
M		40		40	
N		240		240	
O		130		130	
P		180		180	
R	Ø gas	G1"1/4		G1"1/4	
Accessories and spare parts					
Oil load	l	3.50		3.50	
Synthetic oil	VT OIL	ISO 100		ISO 100	
2 deoiling cartridges	art.	00 MV 100 06		00 MV 100 06	
3 vanes	art.	00 MV 100 10		00 MV 100 10	
Sealing kit	art.	00 KIT MV 100		00 KIT MV 100	
Check valve	art.	Built-in		Built-in	
Suction filtre	art.	FC 35		FC 35	
Ballast valve	art.	VZ 02		VZ 02	

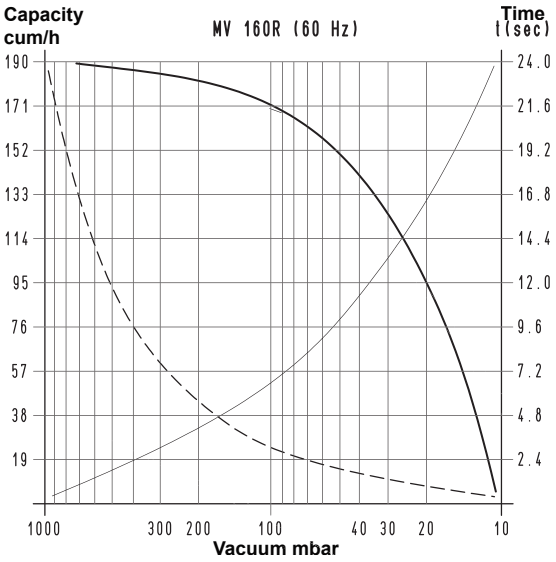
3D drawings available at **www.vuototecnica.net**

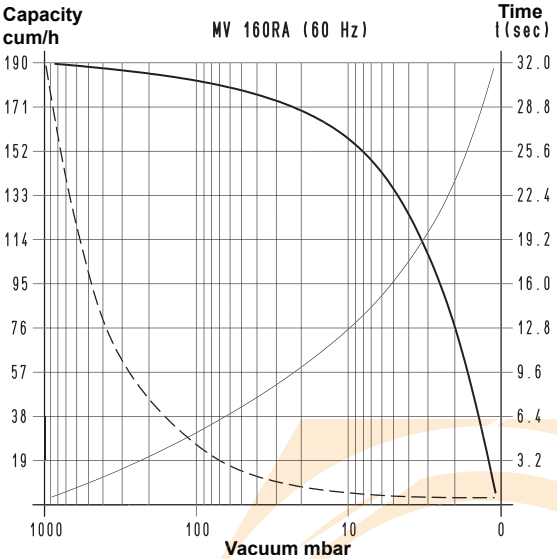
Conversion ratio: inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ cfm= cum/h x 0.588; inch Hg= mbar x 0.0295; psi= bar (g) x 14.6











To calculate the emptying time of a volume V_1, apply the formula $t_1 = \frac{t \times V_1}{100}$

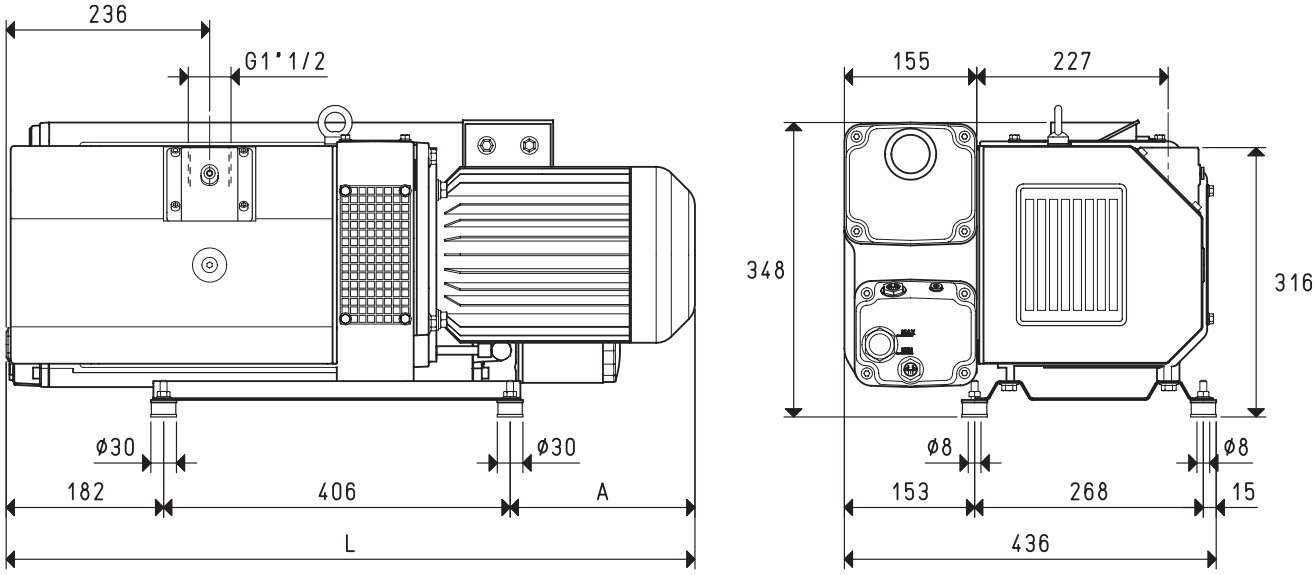
—— Curve regarding capacity (referring to the suction pressure)
– – – Curve regarding capacity (referring to a 1013 bar pressure)
—— Curve regarding the emptying of a 100-litre volume

V_1 : Volume to be emptied
t_1 : Time to be calculated (sec)
t : Time obtained in the table (sec)

7

3D drawings available at www.vuototecnica.net

OIL-BATH VACUUM PUMPS
MV 160R and MV 160RA

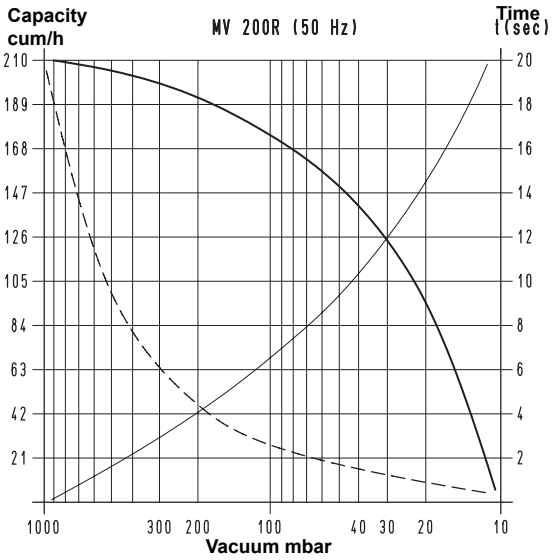


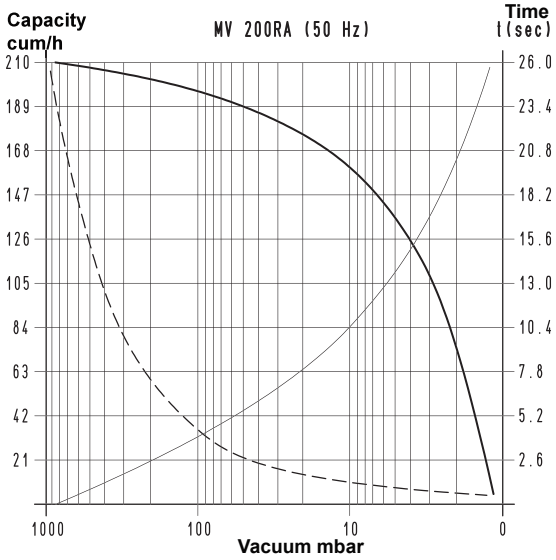
Art.		MV 160R		MV 160RA	
Frequency		50Hz	60Hz	50Hz	60Hz
Capacity	m^3/h	150	180	150	180
Final pressure	mbar abs.	10		0.5	
Motor execution	3~	230/400±10%	275/480±10%	230/400±10%	275/480±10%
Volt					
Motor power	3~	3.0	4.0	3.0	4.0
Kw					
Motor protection	IP	55		55	
Rotation speed	rev/min^{-1}	1500	1800	1500	1800
Motor shape		B5		B5	
Motor size		100		100	
Noise level	dB(A)	71	72	71	72
Max. weight	3~	104	110	104	110
Kg					
A		217	226	217	226
L		805	814	805	814
Accessories and spare parts					
Oil load	l	3.0		3.0	
Synthetic oil	VT OIL	ISO 100		ISO 100	
2 deoiling cartridges	art.	00 MV 160R 06		00 MV 160R 06	
3 vanes	art.	00 MV 160R 10		00 MV 160R 10	
Sealing kit	art.	00 KIT MV 160R		00 KIT MV 160R	
Check valve	art.	Built-in		Built-in	
Oil filtre	art.	00 MV 160R 07		00 MV 160R 07	
Suction filtre	art.	FC 50		FC 50	
Ballast valve	art.	Built-in		Built-in	

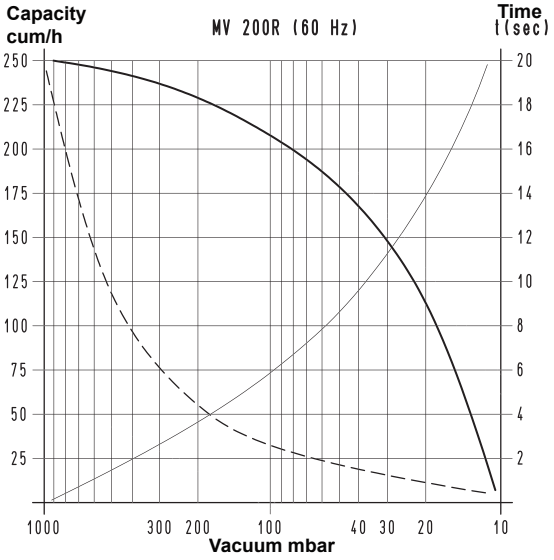
3D drawings available at **www.vuototecnica.net**

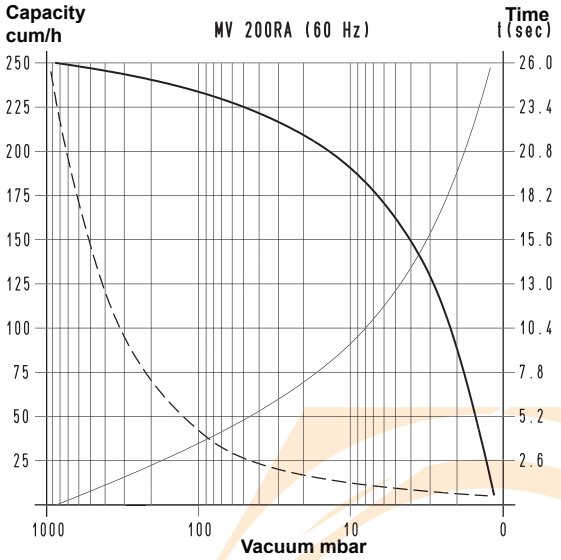
Conversion ratio: inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ cfm= cum/h x 0.588; inch Hg= mbar x 0.0295; psi= bar (g) x 14.6









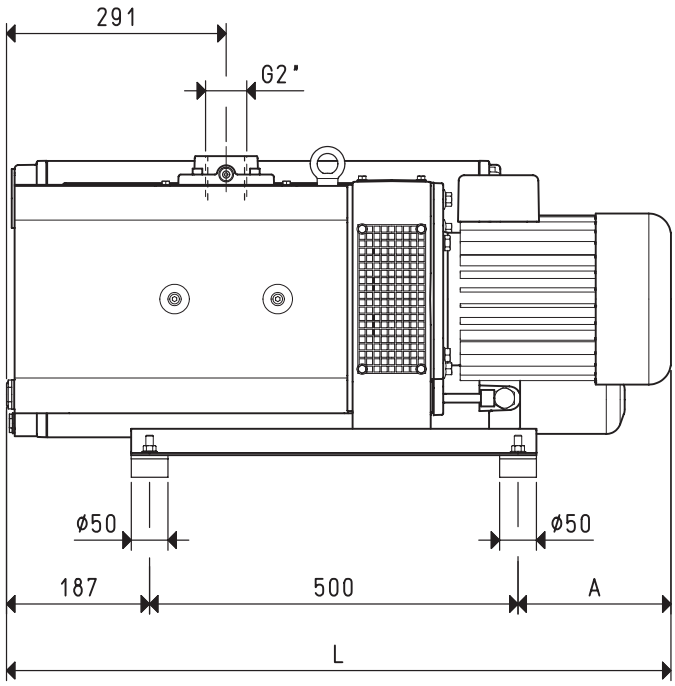


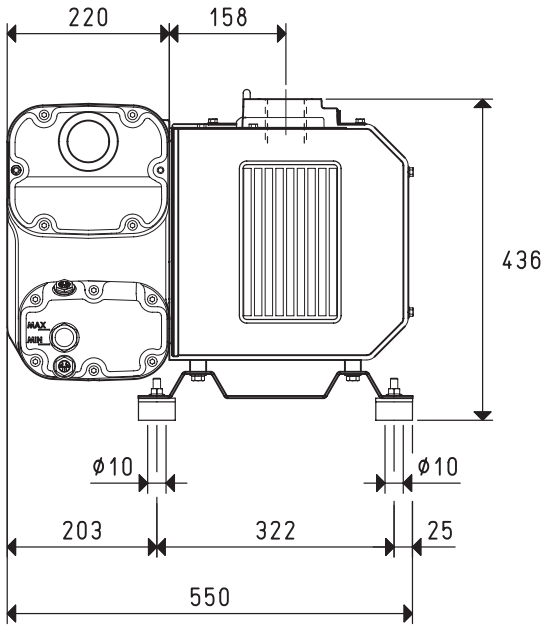
To calculate the emptying time of a volume V_1, apply the formula $t_1 = \frac{t \times V_1}{100}$

——— Curve regarding capacity (referring to the suction pressure)
– – – Curve regarding capacity (referring to a 1013 bar pressure)
——— Curve regarding the emptying of a 100-litre volume

V_1 : Volume to be emptied
t_1 : Time to be calculated (sec)
t : Time obtained in the table (sec)

3D drawings available at www.vuototecnica.net

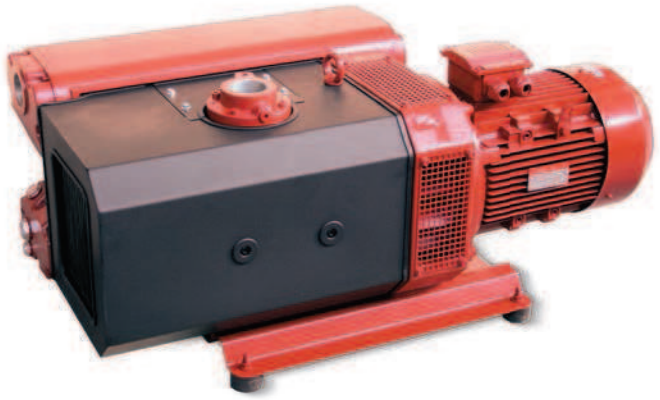


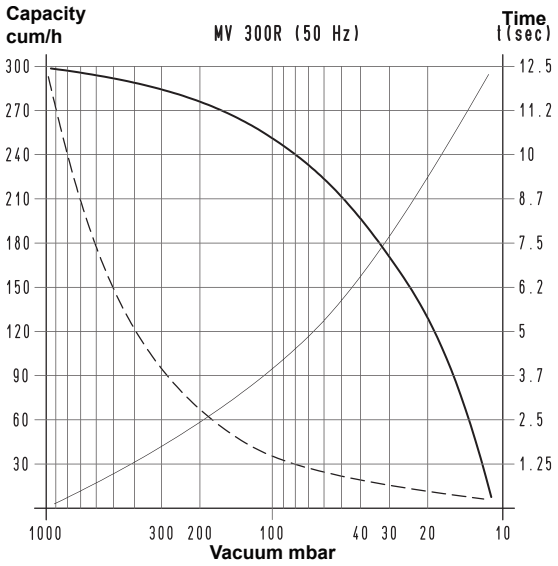


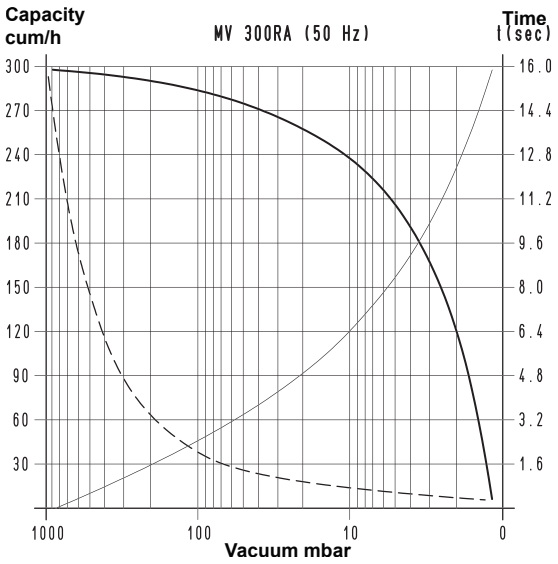
Art.		MV 200R		MV 200RA	
Frequency		50Hz	60Hz	50Hz	60Hz
Capacity	m^3/h	205	245	205	245
Final pressure	mbar abs.	10		0.5	
Motor execution	3~	230/400±10%	275/480±10%	230/400±10%	275/480±10%
Volt					
Motor power	3~	4.0	5.5	4.0	5.5
Kw					
Motor protection	IP	55		55	
Rotation speed	rev/min^{-1}	1500	1800	1500	1800
Motor shape		B5		B5	
Motor size		112		112	
Noise level	dB(A)	70	72	70	72
Max. weight	3~	161	171	161	171
Kg					
A		208	257	208	257
L		895	944	895	944
Accessories and spare parts					
Oil load	l	7.0		7.0	
Synthetic oil	VT OIL	ISO 100		ISO 100	
2 deoiling cartridges	art.	00 MV 200R 50		00 MV 200R 50	
3 vanes	art.	00 MV 200R 10		00 MV 200R 10	
Sealing kit	art.	00 KIT MV 200R		00 KIT MV 200R	
Check valve	art.	Built-in		Built-in	
Oil filtre	art.	00 MV 200R 07		00 MV 200R 07	
Suction filtre	art.	FC 60		FC 60	
Ballast valve	art.	Built-in		Built-in	

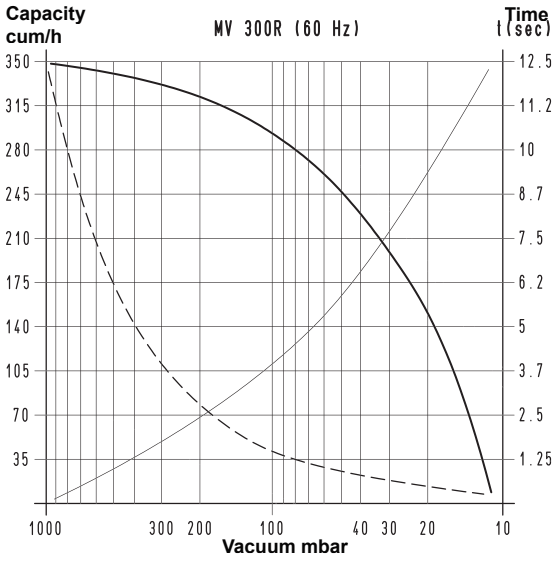
3D drawings available at **www.vuototecnica.net**

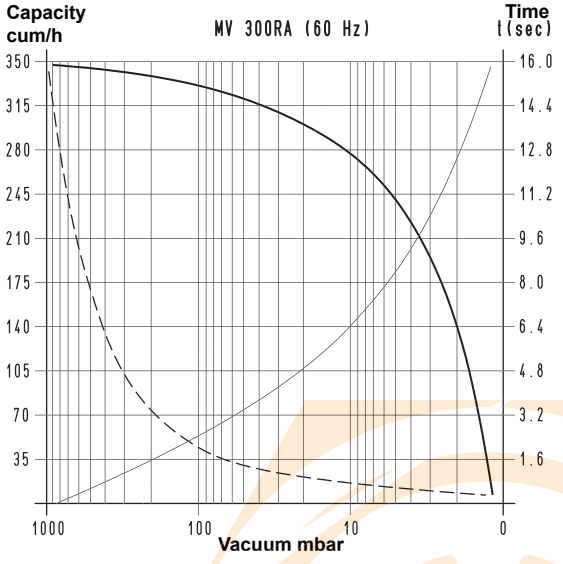
Conversion ratio: inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ cfm= cum/h x 0.588; inch Hg= mbar x 0.0295; psi= bar (g) x 14.6











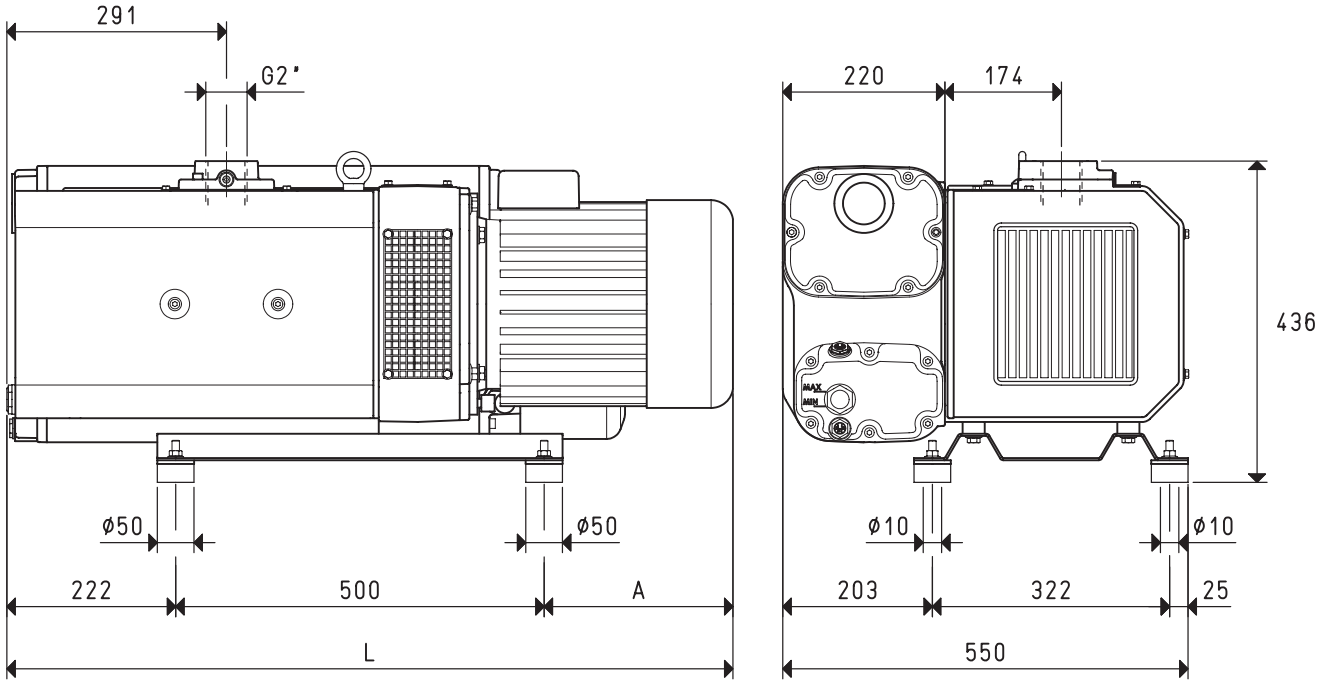
To calculate the emptying time of a volume V_1, apply the formula $t_1 = \frac{t \times V_1}{100}$

——— Curve regarding capacity (referring to the suction pressure)
– – – Curve regarding capacity (referring to a 1013 bar pressure)
——— Curve regarding the emptying of a 100-litre volume

V_1 : Volume to be emptied
t_1 : Time to be calculated (sec)
t : Time obtained in the table (sec)

3D drawings available at www.vuototecnica.net

OIL-BATH VACUUM PUMPS
MV 300R and MV 300RA



Art.		MV 300R		MV300RA	
Frequency		50Hz	60Hz	50Hz	60Hz
Capacity	m^3/h	300	350	300	350
Final pressure	mbar abs.	10		0.5	
Motor execution	3~	400/650±10%	480/828±10%	400/650±10%	480/828±10%
Volt					
Motor power	3~	5.5	7.5	5.5	7.5
Kw					
Motor protection	IP	55		55	
Rotation speed	rev/min^{-1}	1500	1800	1500	1800
Motor shape		B5		B5	
Motor size		112		112	
Noise level	dB(A)	71	73	71	73
Max. weight	3~	188	192	188	192
Kg					
A		257		297	
L		979		1019	
Accessories and spare parts					
Oil load	l	7.0		7.0	
Synthetic oil	VT OIL	ISO 100		ISO 100	
3 deoiling cartridges	art.	00 MV 300R 50		00 MV 300R 50	
3 vanes	art.	00 MV 300R 10		00 MV 300R 10	
Sealing kit	art.	00 KIT MV 300R		00 KIT MV 300R	
Check valve	art.	Built-in		Built-in	
Oil filtre	art.	00 MV 300R 07		00 MV 300R 07	
Suction filtre	art.	FC 60		FC 60	
Ballast valve	art.	Built-in		Built-in	

3D drawings available at **www.vuototecnica.net**

Conversion ratio: inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6} = \frac{Kg}{0.4536}$ cfm= cum/h x 0.588; inch Hg= mbar x 0.0295; psi= bar (g) x 14.6