DRY VACUUM PUMPS VTS 10/FG, 15/FG and 20/FG
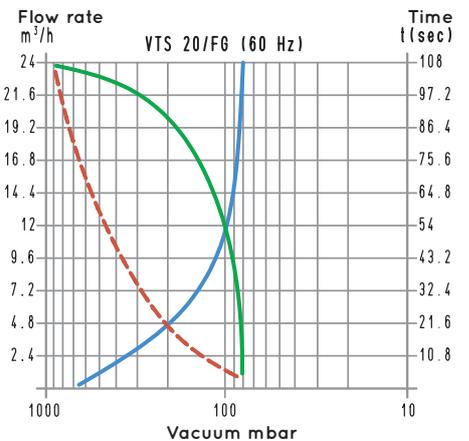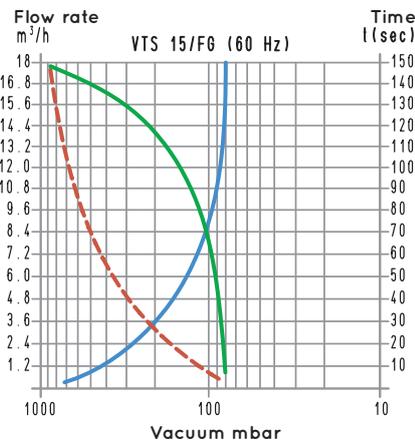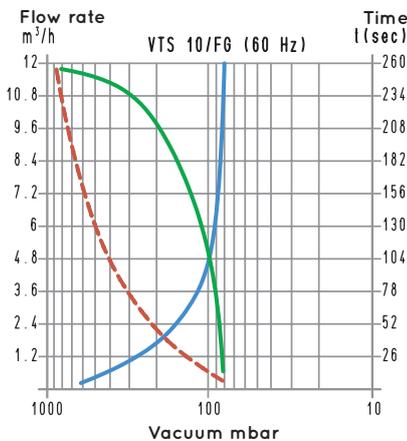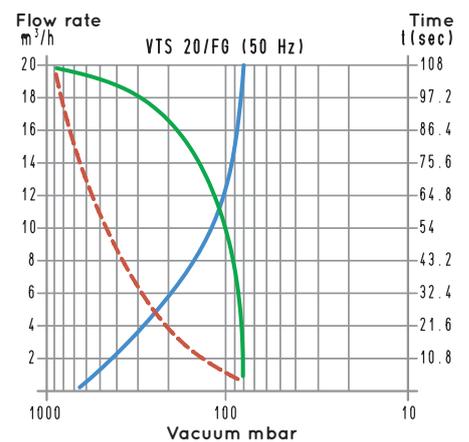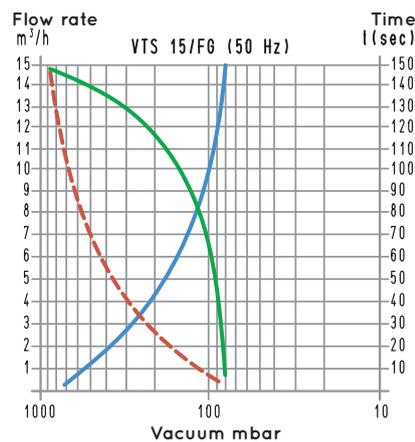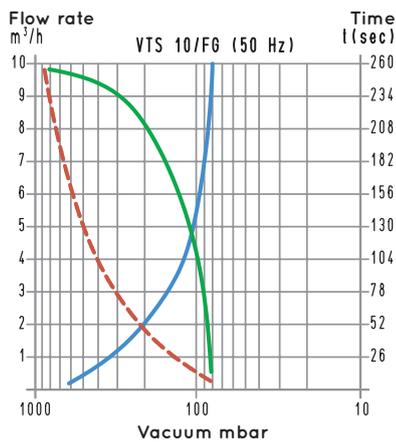
These lubrication-free rotary vane vacuum pumps have a suction flow rate of 10, 15 and 20 m³/h. The particular shape of the working chamber and the special graphite, with which the locking flanges and vanes are made, allow these pumps to operate with no lubrication. The pump rotor is cantilevered-fitted on the motor shaft and supported by independent bearings housed in the two pump flanges. The pump and the electric motor are, therefore, two independent units and fixed onto a special support and connected to each other via an elastic transmission joint.
All this allows using standard electric motors, in the shapes and sizes indicated in the table.
The pump is surface cooled. Heat is dispersed from the outer surface, suitably finned, by means of a radial fan placed between motor and pump.
A filter that functions as a silencer is installed on the suction inlet. We strongly recommend installing a filter on the suction inlet against possible impurities. These pumps are not recommended when the fluid to be sucked contains water or oil vapours or condensations. Also this range of pumps can be supplied with single-phase electric motors.

VTS 10/FG (50 Hz)

VTS 15/FG (50 Hz)

VTS 20/FG (50 Hz)

VTS 10/FG (60 Hz)

VTS 15/FG (60 Hz)

VTS 20/FG (60 Hz)

To calculate the emptying time of a volume of V_1, use the following formula:

$$t_1 = \frac{t \times V_1}{100}$$

——— Curve relative to the flow rate (referring to the suction pressure)
- - - - Curve relative to the flow rate (referring to a 1013 mbar pressure)
——— Curve regarding the emptying time of a 100-litre volume

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

DRY VACUUM PUMPS VTS 10/FG, 15/FG and 20/FG
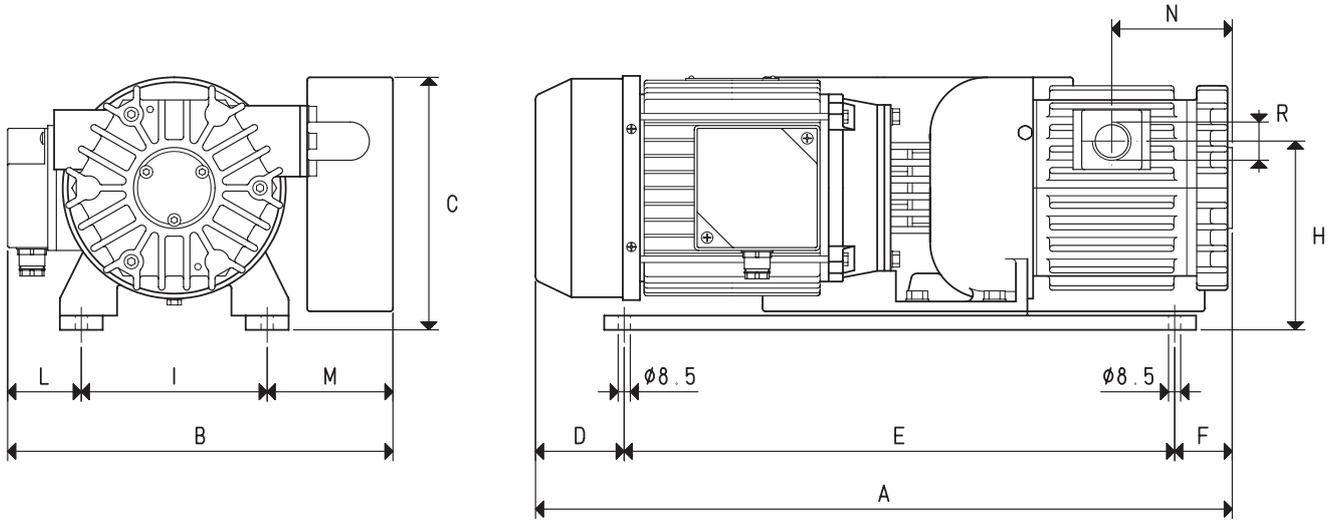
Item			VTS 10/FG		VTS 15/FG		VTS 20/FG	
Frequency			50Hz	60Hz	50Hz	60Hz	50Hz	60Hz
Flow rate		m³/h	10.0	12.0	15.0	18.0	20.0	24.0
Final pressure		mbar abs.	80		80		80	
Motor performance	3~	Volt	230/400±10%	265/460±10%	230/400±10%	265/460±10%	230/400±10%	265/460±10%
	1~	Volt	230±10%		230±10%		230±10%	
Motor power	3~	Kw	0.35	0.40	0.55	0.66	0.55	0.66
	1~	Kw	0.25	0.30	0.55	0.66	0.55	0.66
Motor protection		IP	55		55		55	
Rotation speed		g/min⁻¹	1400	1680	1400	1680	1400	1680
Motor shape			B14		B14		B14	
Motor size			80		80		80	
Noise level		dB(A)	64	66	65	67	65	67
Max weight	3~	Kg	22.0		24.0		27.3	
	1~	Kg	22.4		24.4		27.8	
A			430		450		470	
B			265		265		265	
C			170		170		170	
D			65		65		65	
E			340		340		340	
F			25		45		65	
H			133		133		133	
I			130		130		130	
L			55		55		55	
M			80		80		80	
N			73		83		93	
R		Ø gas	G1/2"		G1/2"		G1/2"	

Accessories and Parts		VTS 10/FG	VTS 15/FG	VTS 20/FG
Graphite vane	item	00 VTS 10FG 10 (N°6)	00 VTS 15FG 10 (N°6)	00 VTS 20FG 10 (N°6)
Front flange complete with graphite disc	item	00 VTS 10FG 17	00 VTS 15FG 17	00 VTS 20FG 17
Rear flange complete with graphite disc	item	00 VTS 10FG 26	00 VTS 15FG 26	00 VTS 20FG 26
Sealing kit	item	00 KIT VTS 10FG	00 KIT VTS 15FG	00 KIT VTS 20FG
Check valve	item	10 03 15	10 03 15	10 03 15
Suction filter	item	FB 20 - FC 20 - FPL 3 - FCL 3 - FIL 3	FB 20 - FC 20 - FPL 3 - FCL 3 - FIL 3	FB 20 - FC 20 - FPL 3 - FCL 3 - FIL 3

Note: Add the letter M to the item for a pump supplied with a single-phase electric motor (Example: VTS 10/FG M).

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)   inch = $\frac{mm}{25.4}$; pounds = $\frac{g}{453.6}$ = $\frac{Kg}{0.4536}$ cfm= m³/h x 0.588; inch Hg= mbar x 0.0295; psi= bar x 14.6