

Oil Sealed Vacuum Pumps

TRIVAC

Rotary Vane Vacuum Pumps

SOGEVAC

Rotary Vane Vacuum Pumps

VACUBE

Screw Vacuum Pumps

210.00.02

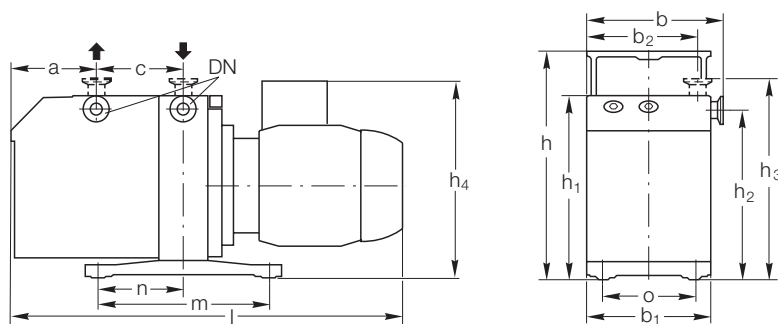
Excerpt from the Leybold Vacuum Full Line Catalog (Edition 03/2020)

Catalog Part Oil Sealed Vacuum Pumps

TRIVAC D 4 B and D 8 B



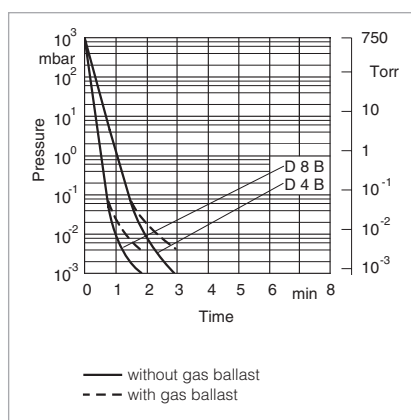
TRIVAC D 4 B (left) and TRIVAC D 8 B (right)



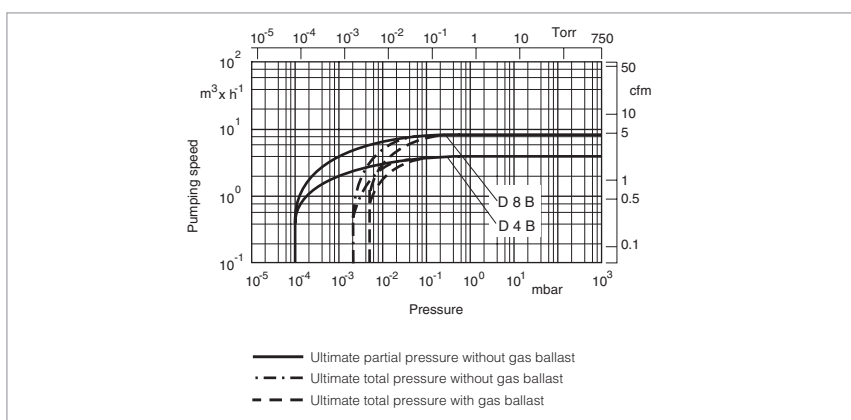
Type	DN	a	b	b ₁	b ₂	c	h	h ₁	h ₂	h ₃	h ₄ ¹⁾	l ¹⁾	m	n	o	
D 4 B (Part No. 112 45)	16 KF	mm	75	162	147	132	100	265	215	200	230	234	441	198	99	108
		in.	2.95	6.38	5.79	5.23	3.94	10.43	8.46	7.87	9.06	9.21	17.36	7.80	3.90	4.25
D 8 B (Part No. 112 55)	16 KF	mm	100	162	147	132	100	265	215	200	230	234	465	198	99	108
		in.	3.94	6.38	5.79	5.23	3.94	10.43	8.46	7.87	9.06	9.21	18.31	7.80	3.90	4.25

¹⁾ For dimensions h₄ and l for further part numbers, see paragraph "Motor Dependent Data for the TRIVAC B, BCS and BCS-PFPE"

Dimensional drawing for the TRIVAC D 4 B and D 8 B



Pump-down characteristics of a 10 l vessel at 50 Hz



Pumping speed characteristics at 50 Hz (60 Hz curves at the end of the chapter)

Technical Data

TRIVAC D 4 B
two-stage

TRIVAC D 8 B
two-stage

		50 Hz	60 Hz	50 Hz	60 Hz
Nominal pumping speed ¹⁾	m ³ /h (cfm)	4.8 (2.8)	5.8 (3.4)	9.7 (5.7)	11.6 (6.9)
Pumping speed ¹⁾	m ³ /h (cfm)	4.2 (2.5)	5.0 (3.0)	8.5 (5)	10.2 (6)
Ultimate partial pressure without gas ballast ¹⁾	mbar (Torr)	10 ⁻⁴ (0.75 x 10 ⁻⁴)	10 ⁻⁴ (0.75 x 10 ⁻⁴)	10 ⁻⁴ (0.75 x 10 ⁻⁴)	10 ⁻⁴ (0.75 x 10 ⁻⁴)
Ultimate total pressure without gas ballast ¹⁾	mbar (Torr)	< 2 x 10 ⁻³ (< 1.5 x 10 ⁻³)	< 2 x 10 ⁻³ (< 1.5 x 10 ⁻³)	< 2 x 10 ⁻³ (< 1.5 x 10 ⁻³)	< 2 x 10 ⁻³ (< 1.5 x 10 ⁻³)
Ultimate total pressure with gas ballast ¹⁾	mbar (Torr)	< 5 x 10 ⁻³ (< 3.8 x 10 ⁻³)	< 5 x 10 ⁻³ (< 3.8 x 10 ⁻³)	< 5 x 10 ⁻³ (< 3.8 x 10 ⁻³)	< 5 x 10 ⁻³ (< 3.8 x 10 ⁻³)
Water vapor tolerance ¹⁾	mbar (Torr)	30.0 (22.5)	30.0 (22.5)	25.0 (18.8)	25.0 (18.8)
Water vapor capacity	g/h (lbs/h)	95 (0.209)	110 (0.243)	160 (0.353)	190 (0.419)
Oil filling, min. / max.	l (qt)	0.3 / 0.8 (0.3 / 0.85)	0.3 / 0.8 (0.3 / 0.85)	0.3 / 0.9 (0.3 / 0.95)	0.3 / 0.9 (0.3 / 0.95)
Noise level ²⁾ to DIN 45 635, without / with gas ballast	dB(A)	50 / 52	50 / 52	50 / 52	50 / 52
Admissible ambient temperature	°C (°F)	+12 to +40 (+54 to +104)	+12 to +40 (+54 to +104)	+12 to +40 (+54 to +104)	+12 to +40 (+54 to +104)
Motor rating ²⁾	W (HP)	370 (0.50)	370 (0.50)	370 (0.50)	370 (0.50)
Nominal speed	rpm	1500	1800	1500	1800
Type of protection	IP	3)	3)	3)	3)
Weight ²⁾	kg (lbs)	17.9 (39.4)	17.9 (39.4)	18.9 (41.6)	18.9 (46.7)
Connections, Intake and Exhaust	DN	16 KF	16 KF	16 KF	16 KF

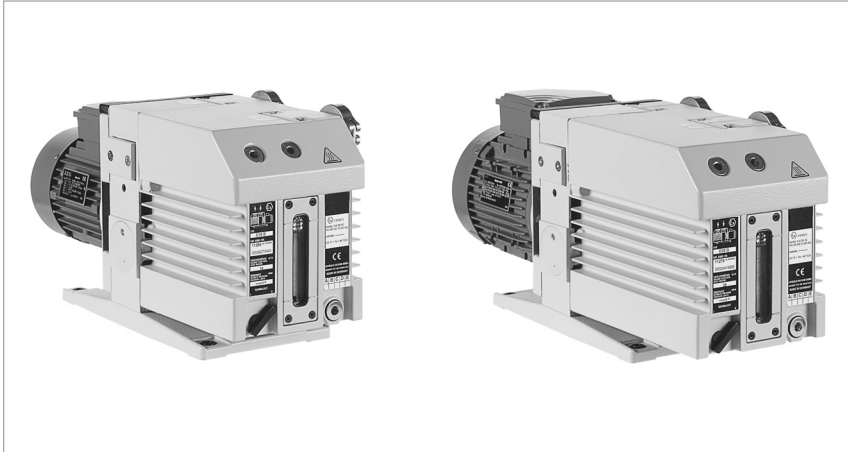
¹⁾ To DIN 28 400 and following numbers

²⁾ Motor rating and noise levels for the pumps with AC motor 50 Hz.

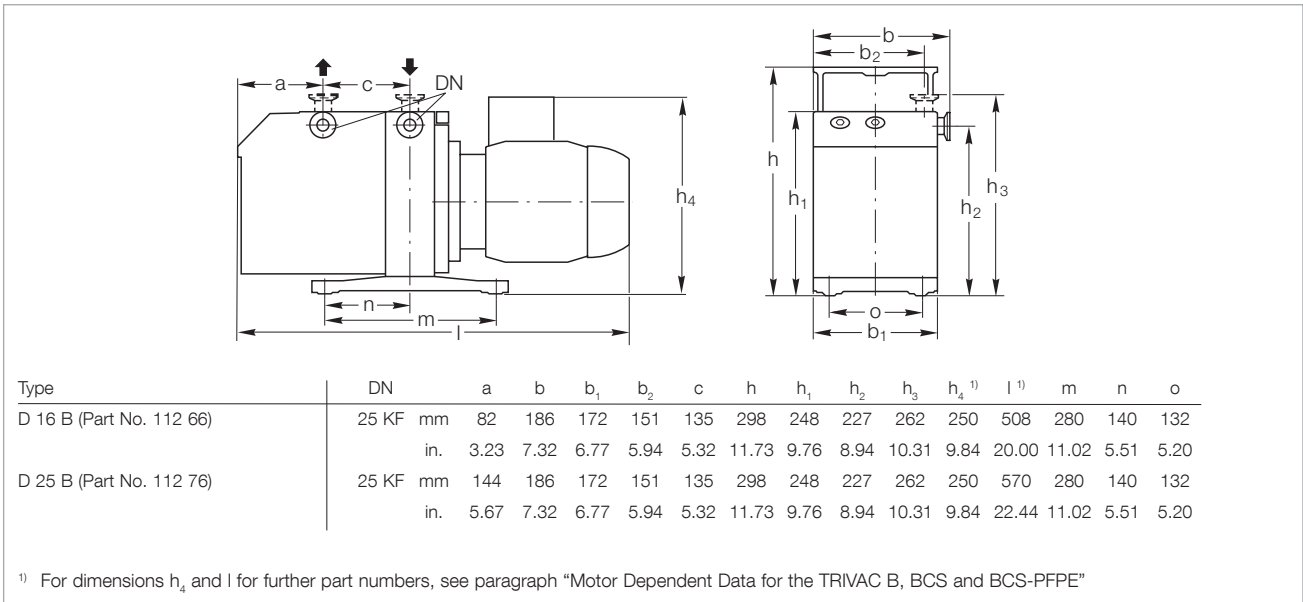
Any data that deviate from the above for pumps with other motors, and other motor-dependent data are given in chapter "Products", paragraph "Motor Dependent Data for the TRIVAC B, BCS and BCS-PFPE"

³⁾ See paragraph "Motor Dependent Data for the TRIVAC B, BCS and BCS-PFPE"

TRIVAC D 16 B and D 25 B



TRIVAC D 16 B (left) and TRIVAC D 25 B (right)



Dimensional drawing for the TRIVAC D 16 and D 25 B

Technical Data

TRIVAC D 16 B

TRIVAC D 25 B

two-stage

two-stage

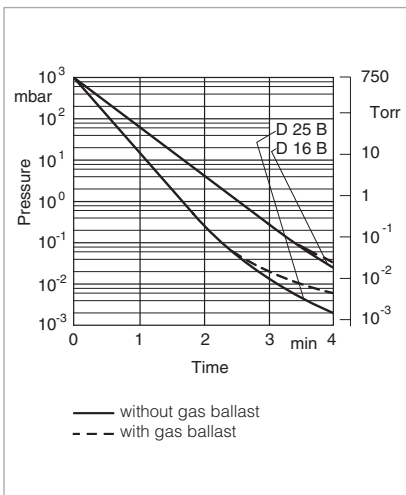
		50 Hz	60 Hz	50 Hz	60 Hz
Nominal pumping speed ¹⁾	m ³ /h (cfm)	18.9 (11.1)	22.7 (13.4)	29.5 (17.4)	35.4 (20.9)
Pumping speed ¹⁾	m ³ /h (cfm)	16.5 (9.7)	19.8 (11.7)	25.7 (15.1)	30.8 (18.2)
Ultimate partial pressure without gas ballast ¹⁾	mbar (Torr)	10 ⁻⁴ (0.75 x 10 ⁻³)	10 ⁻⁴ (0.75 x 10 ⁻³)	10 ⁻⁴ (0.75 x 10 ⁻³)	10 ⁻⁴ (0.75 x 10 ⁻³)
Ultimate total pressure without gas ballast ¹⁾	mbar (Torr)	< 2 x 10 ⁻³ (< 1.5 x 10 ⁻³)	< 2 x 10 ⁻³ (< 1.5 x 10 ⁻³)	< 2 x 10 ⁻³ (< 1.5 x 10 ⁻³)	< 2 x 10 ⁻³ (< 1.5 x 10 ⁻³)
Ultimate total pressure with gas ballast ¹⁾	mbar (Torr)	< 5 x 10 ⁻³ (< 3.8 x 10 ⁻³)	< 5 x 10 ⁻³ (< 3.8 x 10 ⁻³)	< 5 x 10 ⁻³ (< 3.8 x 10 ⁻³)	< 5 x 10 ⁻³ (< 3.8 x 10 ⁻³)
Water vapor tolerance ¹⁾	mbar (Torr)	25.0 (18.8)	25.0 (18.8)	25.0 (18.8)	25.0 (18.8)
Water vapor capacity	g/h (lbs/h)	305 (0.672)	370 (0.816)	480 (1.058)	570 (1.257)
Oil filling, min. / max.	l (qt)	0.5 / 1.0 (0.5 / 1.1)	0.5 / 1.0 (0.5 / 1.1)	0.6 / 1.4 (0.6 / 1.5)	0.6 / 1.4 (0.6 / 1.5)
Noise level ²⁾ to DIN 45 635, without / with gas ballast	dB(A)	54 / 56	54 / 56	54 / 56	54 / 56
Admissible ambient temperature	°C (°F)	+12 to +40 (+54 to +104)	+12 to +40 (+54 to +104)	+12 to +40 (+54 to +104)	+12 to +40 (+54 to +104)
Motor rating ²⁾	W (HP)	550 – 750 (0.75 – 1.0)	550 – 750 (0.75 – 1.0)	750 (1)	750 (1)
Nominal speed	rpm	1500	1800	1500	1800
Type of protection	IP	³⁾	³⁾	³⁾	³⁾
Weight ²⁾	kg (lbs)	28 (61.7)	28 (61.7)	32.3 (71.2)	32.3 (71.2)
Connections, Intake and Exhaust	DN	25 KF	25 KF	25 KF	25 KF

¹⁾ To DIN 28 400 and following numbers

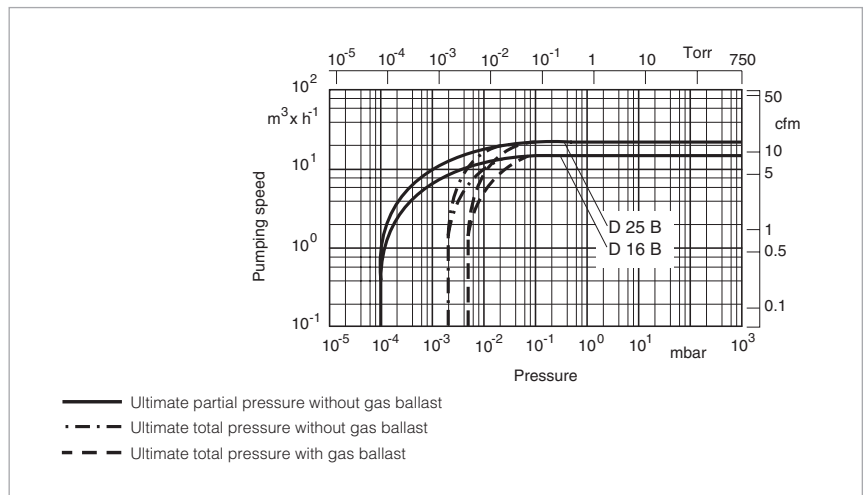
²⁾ Motor rating and noise levels for the pumps with AC motor 50 Hz.

Any data that deviate from the above for pumps with other motors, and other motor-dependent data are given in chapter "Products", paragraph "Motor Dependent Data for the TRIVAC B, BCS and BCS-PFPE"

³⁾ See paragraph "Motor Dependent Data for the TRIVAC B, BCS and BCS-PFPE"

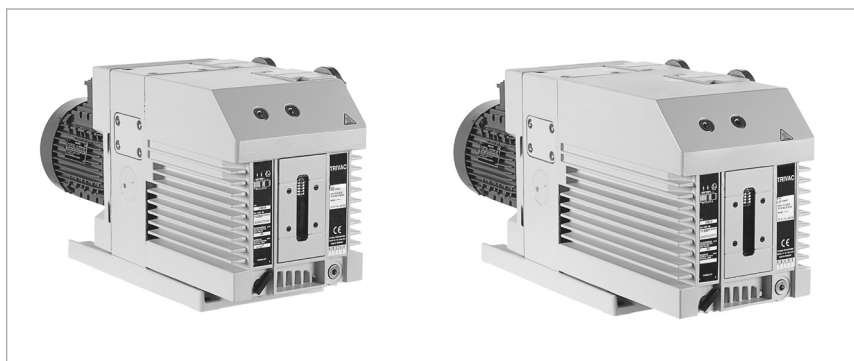


Pump-down characteristics of a 100 l vessel at 50 Hz

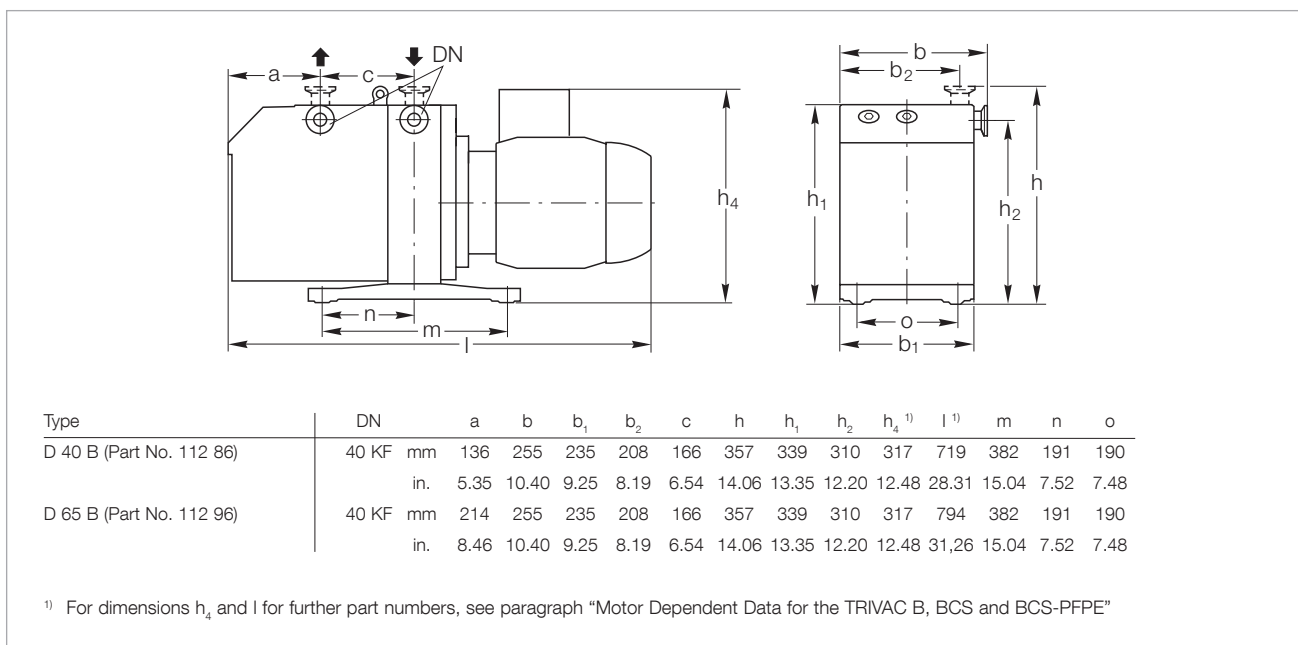


Pumping speed characteristics at 50 Hz (60 Hz curves at the end of the chapter)

TRIVAC D 40 B and D 65 B



TRIVAC D 40 B (left) and TRIVAC D 65 B (right)



Dimensional drawing for the TRIVAC D 40 and D 65 B

Technical Data

TRIVAC D 40 B

TRIVAC D 65 B

two-stage

two-stage

50 Hz

60 Hz

50 Hz

60 Hz

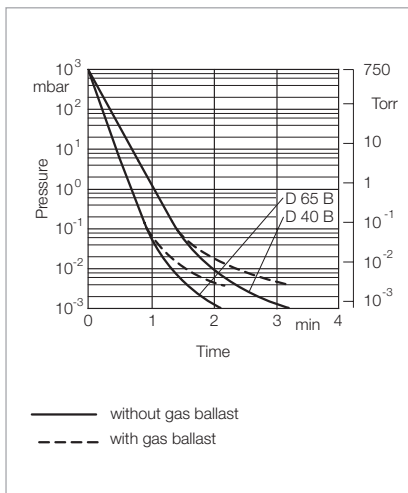
		50 Hz	60 Hz	50 Hz	60 Hz
Nominal pumping speed ¹⁾	m ³ /h (cfm)	46 (27)	55 (32.5)	75 (44)	90 (53)
Pumping speed ¹⁾	m ³ /h (cfm)	40 (24)	48 (28)	65 (38)	78 (46)
Ultimate partial pressure without gas ballast ¹⁾	mbar (Torr)	10 ⁻⁴ (0.75 x 10 ⁻⁴)	10 ⁻⁴ (0.75 x 10 ⁻⁴)	10 ⁻⁴ (0.75 x 10 ⁻⁴)	10 ⁻⁴ (0.75 x 10 ⁻⁴)
Ultimate total pressure without gas ballast ¹⁾	mbar (Torr)	< 2 x 10 ⁻³ (< 1.5 x 10 ⁻³)	< 2 x 10 ⁻³ (< 1.5 x 10 ⁻³)	< 2 x 10 ⁻³ (< 1.5 x 10 ⁻³)	< 2 x 10 ⁻³ (< 1.5 x 10 ⁻³)
Ultimate total pressure with gas ballast ¹⁾	mbar (Torr)	< 5 x 10 ⁻³ (< 3.8 x 10 ⁻³)	< 5 x 10 ⁻³ (< 3.8 x 10 ⁻³)	< 5 x 10 ⁻³ (< 3.8 x 10 ⁻³)	< 5 x 10 ⁻³ (< 3.8 x 10 ⁻³)
Water vapor tolerance ¹⁾	mbar (Torr)	40 (30)	40 (30)	40 (30)	40 (30)
Water vapor capacity	g/h (lbs/h)	1185 (2.612)	1420 (3.131)	1925 (4.244)	2310 (5.093)
Oil filling, min. / max.	l (qt)	1.7 / 2.6 (1.8 / 2.7)	1.7 / 2.6 (1.8 / 2.7)	2.0 / 3.3 (2.1 / 3.5)	2.0 / 3.3 (2.1 / 3.5)
Noise level ²⁾ to DIN 45 635, without / with gas ballast	dB(A)	57 / 59	57 / 59	57 / 59	57 / 59
Admissible ambient temperature	°C (°F)	+12 to +40 (+54 to +104)	+12 to +40 (+54 to +104)	+12 to +40 (+54 to +104)	+12 to +40 (+54 to +104)
Motor rating ²⁾	W (HP)	2200 (3.0)	2200 (3.0)	2200 (3.0)	2200 (3.0)
Nominal speed	rpm	1420	1710	1420	1710
Type of protection	IP	³⁾	³⁾	³⁾	³⁾
Weight ²⁾	kg (lbs)	75.3 (166)	75.3 (166)	84.5 (186.3)	84.5 (186.3)
Connections, Intake and Exhaust	DN	40 KF	40 KF	40 KF	40 KF

¹⁾ To DIN 28 400 and following numbers

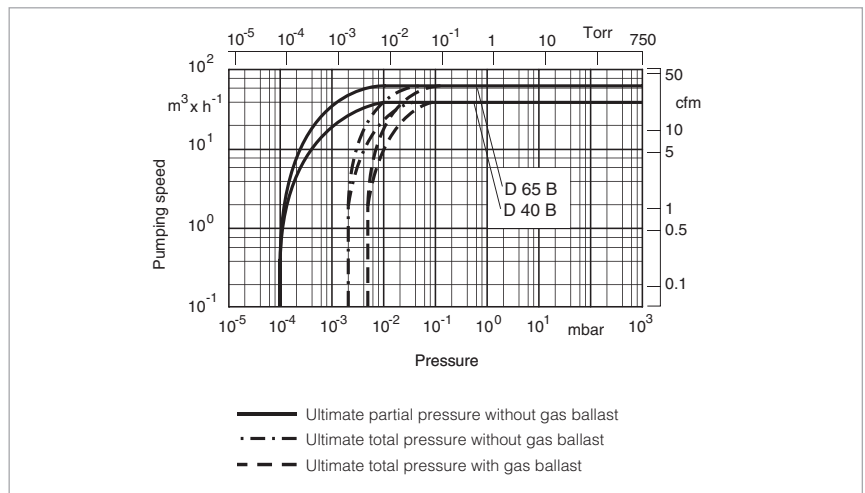
²⁾ Motor rating and noise levels for the pumps with AC motor 50 Hz.

Any data that deviate from the above for pumps with other motors, and other motor-dependent data are given in chapter "Products", paragraph "Motor Dependent Data for the TRIVAC B, BCS and BCS-PFPE"

³⁾ See paragraph "Motor Dependent Data for the TRIVAC B, BCS and BCS-PFPE"

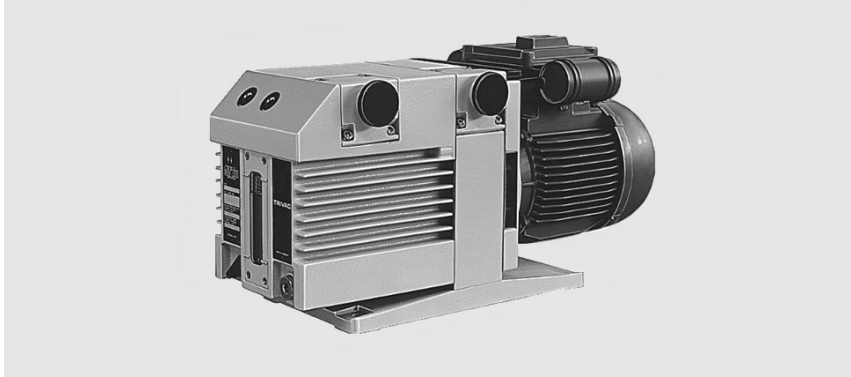


Pump-down characteristics of a 100 l vessel at 50 Hz

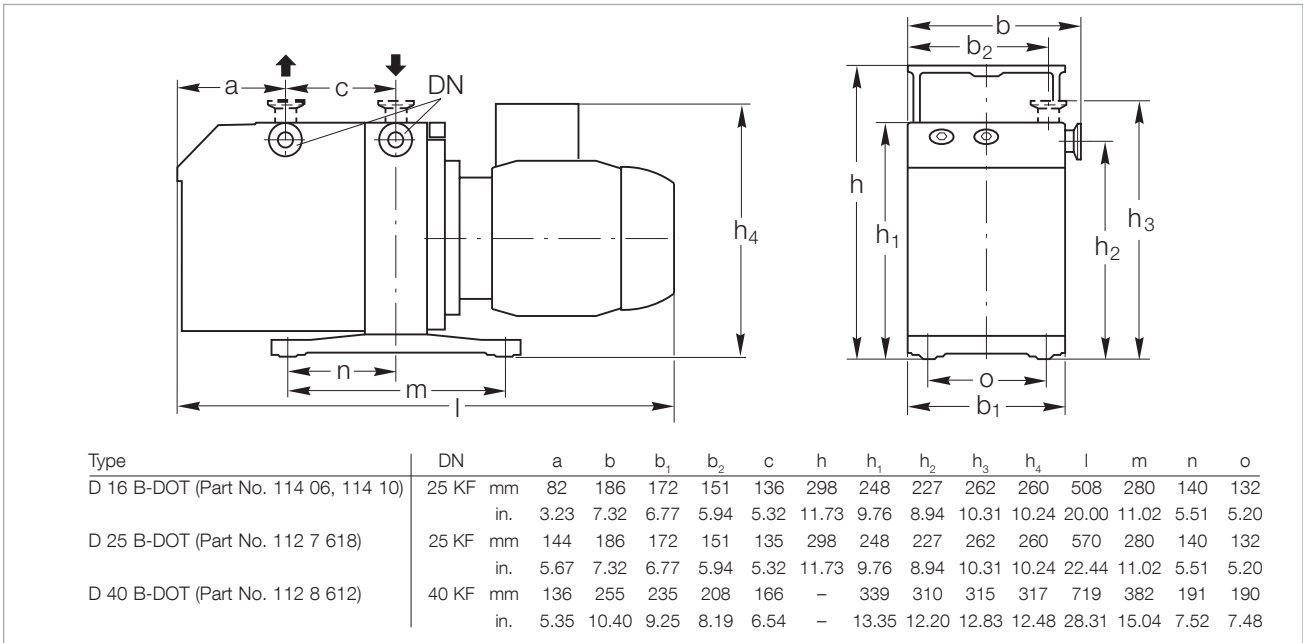


Pumping speed characteristics at 50 Hz (60 Hz curves at the end of the chapter)

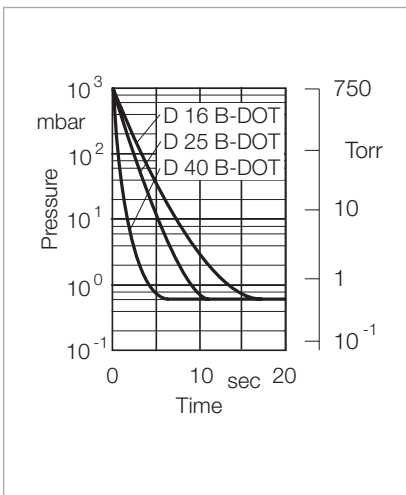
TRIVAC D 16 B-DOT to D 40 B-DOT



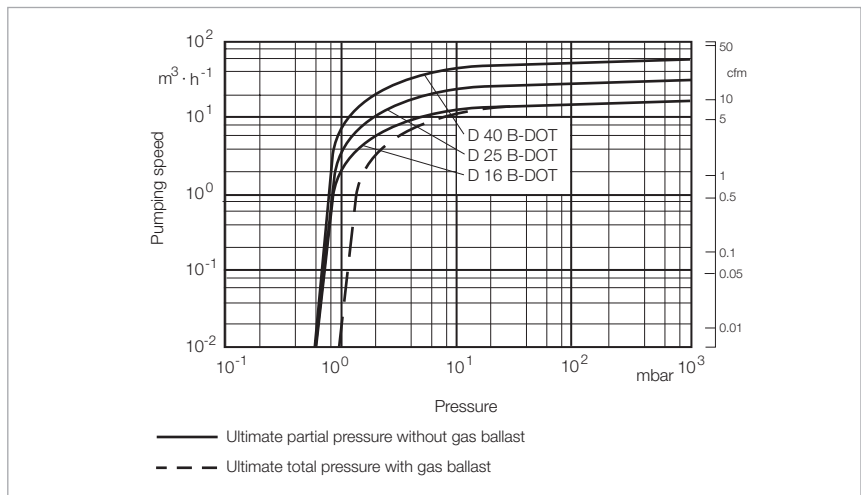
TRIVAC D 16 B-DOT



Dimensional drawing for the TRIVAC D B-DOT pumps



Pump-down characteristics of a 10 l vessel at 50 Hz



Pumping speed characteristics at 50 Hz (60 Hz curves at the end of the chapter)

Technical Data

**TRIVAC D 16 B-DOT
two-stage**

		50 Hz	60 Hz
Nominal pumping speed ¹⁾	m ³ /h (cfm)	18.9 (11.1)	22.7 (13.4)
Pumping speed ¹⁾	m ³ /h (cfm)	16.5 (9.7)	19.8 (11.7)
Ultimate total pressure without gas ballast ¹⁾	mbar (Torr)	< 6 x 10 ⁻¹ (< 4.5 x 10 ⁻¹)	< 6 x 10 ⁻¹ (< 4.5 x 10 ⁻¹)
Ultimate total pressure with gas ballast ¹⁾	mbar (Torr)	< 9 x 10 ⁻¹ (< 6.75 x 10 ⁻¹)	< 9 x 10 ⁻¹ (< 6.75 x 10 ⁻¹)
Water vapor tolerance ¹⁾	mbar (Torr)	25.0 (18.8)	25.0 (18.8)
Water vapor capacity	g/h (lbs/h)	305 (0.672)	370 (0.816)
Brake fluid filling, min. / max.	l (qt)	0.45 / 1.0 (0.5 / 1.1)	0.45 / 1.0 (0.5 / 1.1)
Noise level ²⁾ to DIN 45 635, without / with gas ballast	dB(A)	54 / 56	54 / 56
Admissible ambient temperature	°C (°F)	+12 to +40 (+54 to +104)	+12 to +40 (+54 to +104)
Motor rating	W (HP)	550 (0.75)	550 (0.75)
Nominal speed	rpm	1500	1800
Type of protection	IP	²⁾	²⁾
Weight ²⁾	kg (lbs)	28.2 (62.2)	28.2 (62.2)
Connections, Intake and Exhaust	DN	25 KF	25 KF

¹⁾ To DIN 28 400 and following numbers

²⁾ See paragraph "Motor Dependent Data for the TRIVAC B, BCS and BCS-PFPE"

Ordering Information

**TRIVAC D 16 B-DOT
two-stage**

	Part No.
TRIVAC B-DOT with 3-phase motor 200 – 240 V (200 V IE3) / 380 – 400 V (380 – 400 V IE3), 50 Hz / 200 – 240 (208 – 240 V IE3) / 380 – 480 V (416 – 480 V IE3), 60 Hz	114 06 114 10 (with limit switch system LSS 16-25)
AF 16-25 DOT exhaust filter	124 16
AK DOT condensate trap	110 78
Seal kit DOT	200 39 059

Technical Data

TRIVAC D 25 B-DOT
two-stage

		50 Hz	60 Hz
Nominal pumping speed ¹⁾	m ³ /h (cfm)	29.5 (17.4)	35.4 (20.9)
Pumping speed ¹⁾	m ³ /h (cfm)	25.7 (17.4)	30.8 (18.2)
Ultimate total pressure without gas ballast ¹⁾	mbar (Torr)	< 6 x 10 ⁻¹ (< 4.5 x 10 ⁻¹)	< 6 x 10 ⁻¹ (< 4.5 x 10 ⁻¹)
Ultimate total pressure with gas ballast ¹⁾	mbar (Torr)	< 9 x 10 ⁻¹ (< 6.75 x 10 ⁻¹)	< 9 x 10 ⁻¹ (< 6.75 x 10 ⁻¹)
Water vapor tolerance ¹⁾	mbar (Torr)	25.0 (18.8)	25.0 (18.8)
Water vapor capacity	g/h (lbs/h)	480 (1.058)	570 (1.257)
Brake fluid filling, min. / max.	l (qt)	0.6 / 1.4 (6.3 / 1.5)	0.6 / 1.4 (6.3 / 1.5)
Noise level ²⁾ to DIN 45 635, without / with gas ballast	dB(A)	54 / 56	54 / 56
Admissible ambient temperature	°C (°F)	+12 to +40 (+54 to +104)	+12 to +40 (+54 to +104)
Motor rating	W (HP)	550 (0.75)	550 (0.75)
Nominal speed	rpm	1500	1800
Type of protection	IP	²⁾	²⁾
Weight ²⁾	kg (lbs)	32.5 (71.7)	32.5 (71.7))
Connections, Intake and Exhaust	DN	25 KF	25 KF

¹⁾ To DIN 28 400 and following numbers

²⁾ See paragraph "Motor Dependent Data for the TRIVAC B, BCS and BCS-PFPE"

Ordering Information

TRIVAC D 25 B-DOT
two-stage

	Part No.
TRIVAC B-DOT with 3-phase motor 200 – 240 V (200 V IE3) / 380 – 400 V (380 – 400 V IE3), 50 Hz / 200 – 240 (208 – 240 V IE3) / 380 – 480 V (416 – 480 IE3), 60 Hz	112 76 18
200 – 346 V (IE3 Japan), 50 Hz / 200 – 380 V (IE3 Japan), 60 Hz	112 76 18J
AF 16-25 DOT exhaust filter	124 16
AK DOT condensate trap	110 78
Seal kit DOT	200 39 059

Technical Data

**TRIVAC D 40 B-DOT
two-stage**

		50 Hz	60 Hz
Nominal pumping speed ¹⁾	m ³ /h (cfm)	46.0 (27.0)	55.0 (32.5)
Pumping speed ¹⁾	m ³ /h (cfm)	40.0 (24.0)	48.0 (28.0)
Ultimate total pressure without gas ballast ¹⁾	mbar (Torr)	< 6 x 10 ⁻¹ (< 4.5 x 10 ⁻¹)	< 6 x 10 ⁻¹ (< 4.5 x 10 ⁻¹)
Ultimate total pressure with gas ballast ¹⁾	mbar (Torr)	< 9 x 10 ⁻¹ (< 6.75 x 10 ⁻¹)	< 9 x 10 ⁻¹ (< 6.75 x 10 ⁻¹)
Water vapor tolerance ¹⁾	mbar (Torr)	40 (30)	40 (30)
Water vapor capacity	g/h (lbs/h)	1185 (2.612)	1420 (3.130)
Brake fluid filling, min. / max.	l (qt)	1.7 / 2.6 (1.8 / 2.7)	1.7 / 2.6 (1.8 / 2.7)
Noise level ²⁾ to DIN 45 635, without / with gas ballast	dB(A)	57 / 59	57 / 59
Admissible ambient temperature	°C (°F)	+12 to +40 (+54 to +104)	+12 to +40 (+54 to +104)
Motor rating	W (HP)	2200 (3.0)	2200 (3.0)
Nominal speed	rpm	1500	1800
Type of protection	IP	²⁾	²⁾
Weight ²⁾	kg (lbs)	75.8 (167)	75.8 (167)
Connections, Intake and Exhaust	DN	40 KF	40 KF

¹⁾ To DIN 28 400 and following numbers

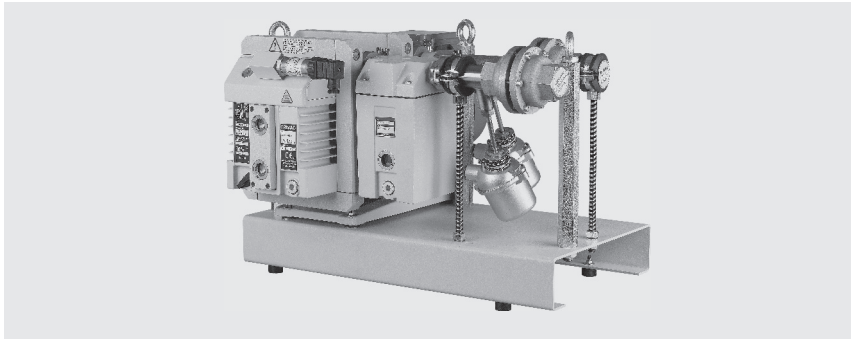
²⁾ See paragraph "Motor Dependent Data for the TRIVAC B, BCS and BCS-PFPE"

Ordering Information

**TRIVAC D 40 B-DOT
two-stage**

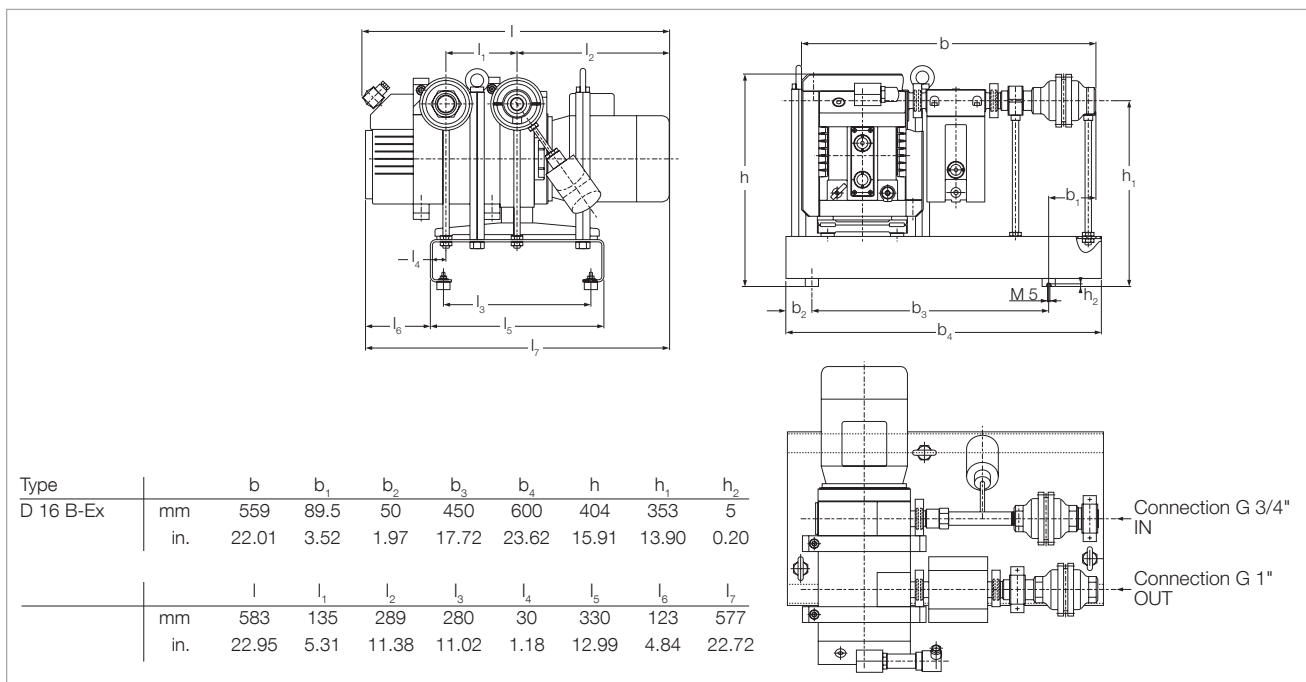
	Part No.
TRIVAC B-DOT with 3-phase motor 200 – 240 V (200 V IE3) / 380 – 400 V (380 – 400 V IE3), 50 Hz / 200 – 240 (208 – 240 V IE3) / 380 – 480 V (416 – 480 V IE3), 60 Hz	112 86 12
AF 40-65 DOT exhaust filter	101 15
AK DOT condensate trap	upon request
Seal kit DOT	200 39 707

TRIVAC D 16 B-Ex (Explosion Protected and Pressure Burst Resistant)

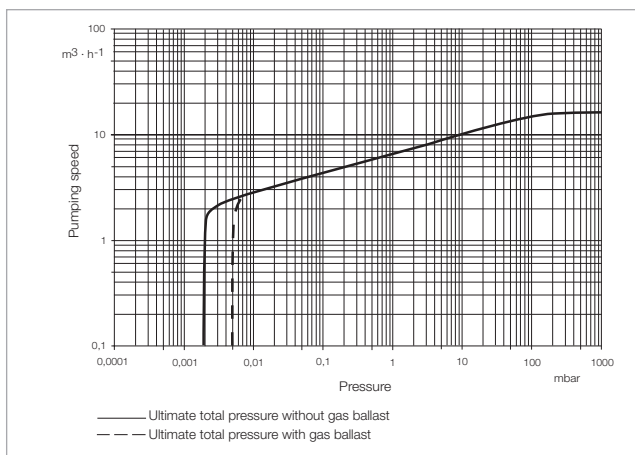


ATEX
Category 1 inside and 2 outside

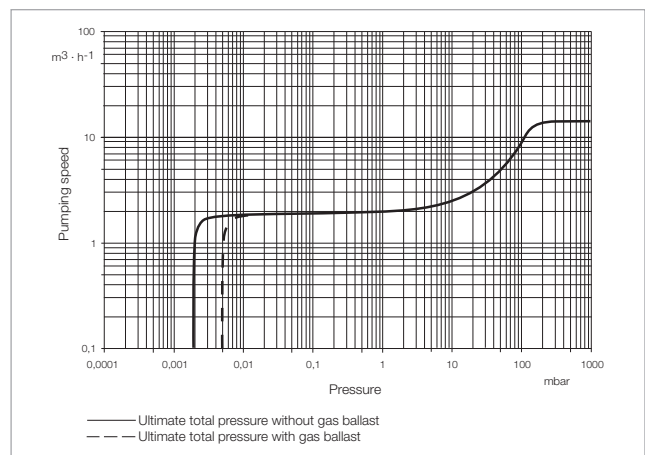
TRIVAC D 16 B-Ex



Dimensional drawing for the TRIVAC D 16 B-Ex (explosion protected and pressure burst resistant)



Pumping speed characteristics of TRIVAC D 16 B-Ex [IIB3 T4] (Part No. 140 091)



Pumping speed characteristics of TRIVAC D 16 B-Ex [IIC T4] (Part No. 140 092)

Technical Data

TRIVAC D 16 B-Ex



(Explosion Protected and Pressure Burst Resistant) Two-Stage

Nominal pumping speed ¹⁾	m ³ /h (cfm)	18.9 (11.1)
Pumping speed ¹⁾ (for Part No. 140 091 / 140 092) ¹⁾	m ³ /h (cfm)	16 / 15 (9.4/8.8)
Ultimate partial pressure without gas ballast ¹⁾	mbar (Torr)	1 x 10 ⁻⁴ (< 0.75 x 10 ⁻³)
Ultimate total pressure with gas ballast ¹⁾	mbar (Torr)	< 5 x 10 ⁻³ (< 3.8 x 10 ⁻³)
Water vapor tolerance ¹⁾	mbar (Torr)	25 (18.8)
Water vapor capacity	g/h (lbs/h)	305 (0.672)
Oil filling, min. / max.	l (qt)	0.55 / 1.3 (0.58 / 1.4)
Motor		3~, 230 V / 400 V, 50 Hz, Ex e II T4
Type of protection	IP	54
Maximum gas inlet temperature	°C (°F)	60 (140)
Highest permissible pressure in the oil box	mbar (Torr)	1500 (1125)
Ambient temperature (t _a)	°C (°F)	+12 to +40 (+46 to +104)
Maximum surface temperature	°C (°F)	135 (275)
Max. Inlet pressure	mbar (Torr)	Atmospheric pressure
Weight (complete system)	kg (lbs)	72 (159)
Materials (materials in contact with the gas)		Steel, hardened steel, spring steel, stainless steel, zinc, aluminium and aluminium alloys, grey cast iron 25, FKM, felt, glass, silicone, polyamide
Connections		
Intake side	Inside thread	G 3/4"
Pressure side	Inside thread	G 1"

Ordering Information

TRIVAC D 16 B-Ex

(Explosion Protected and Pressure Burst Resistant) Two-Stage

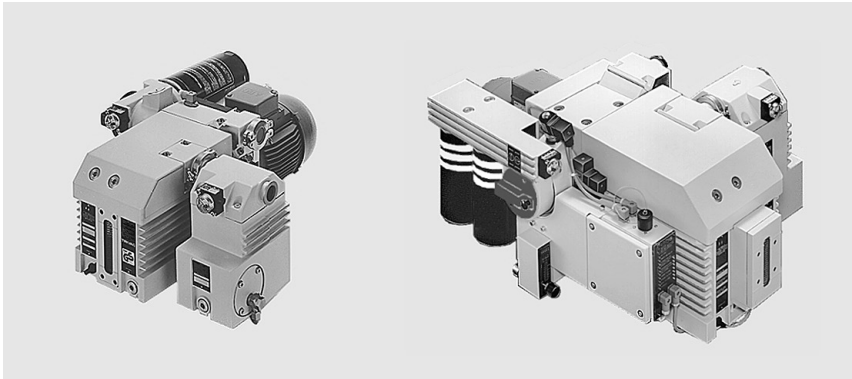
	Part No.
TRIVAC D 16 B-Ex IIB3 T4 in accordance with 94/9/EC [ II inside: 1G IIB3 T4 outside: 2G IIB T4 (12 °C < t _a < 40 °C) X EC Type Examination Certificate: IBExU03ATEX1017 X]	140 091
TRIVAC D 16 B-Ex IIC T4 ²⁾ in accordance with 94/9/EC [ II inside: 1G IIC (no C ₂ H ₂ , CS ₂) T4 outside: 2G IIC T4 (12 °C < t _a < 40 °C) X EC Type Examination Certificate: IBExU03ATEX1016 X]	140 092 ²⁾

¹⁾ To DIN 28 400 and following numbers

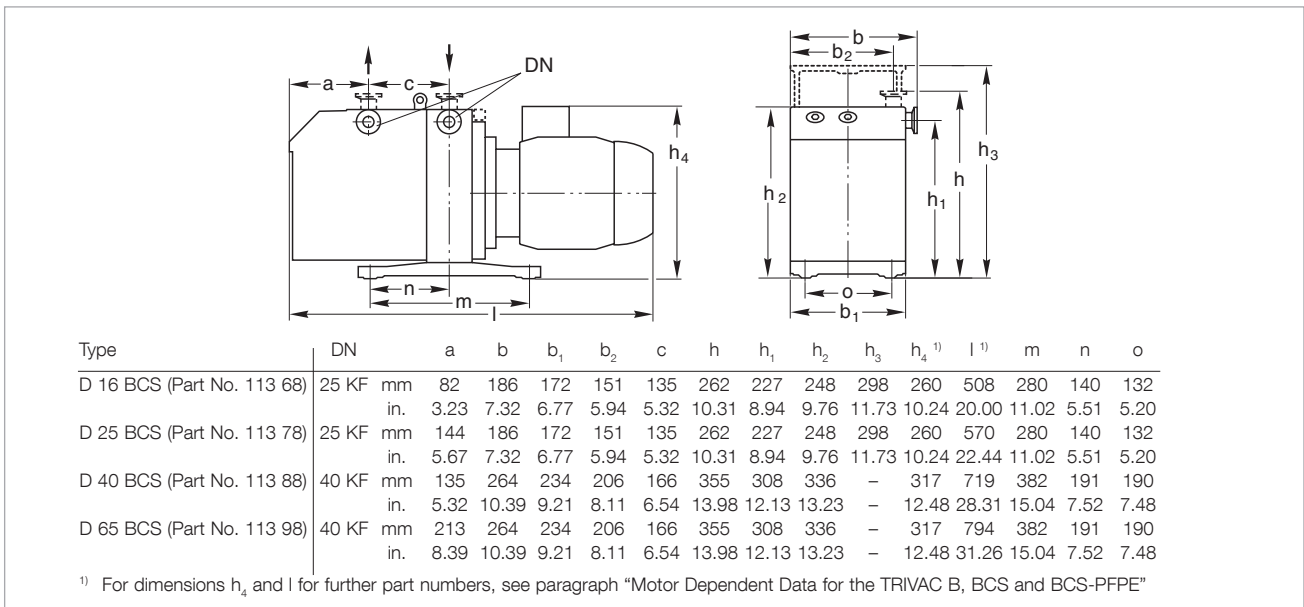
²⁾ with the exception of acetylene and carbon bisulphide

For all enquiries and orders relating to category 1 and 2 ATEX products please exclusively use our ATEX questionnaire. You can find this questionnaire at the end of the full-line catalog together with the fax forms or on the Internet under "www.leybold.com" under Download Documents in the area Documentation.

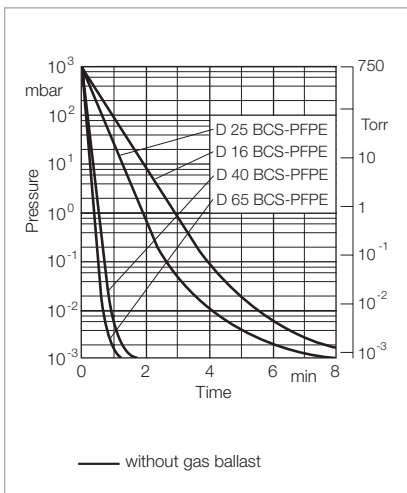
TRIVAC D 16 BCS to D 65 BCS



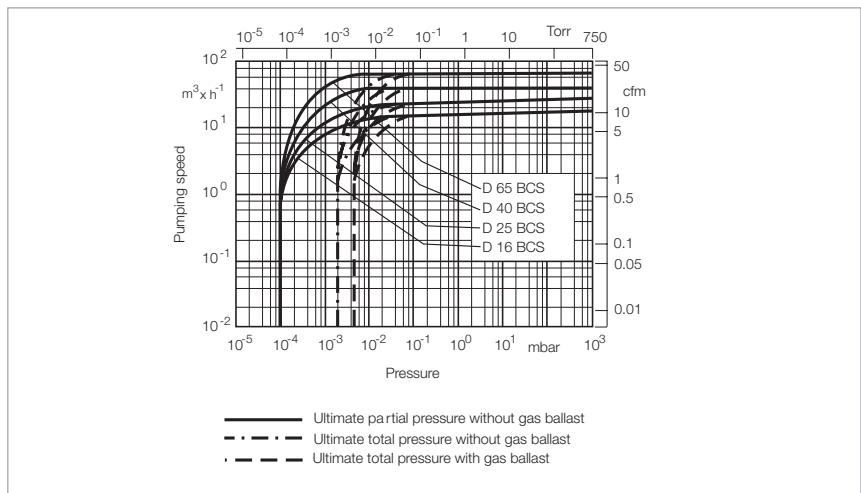
TRIVAC D 25 BCS with ARS and CFS (left)
and TRIVAC D 65 BCS with CFS, ARS, IGS, LSS, EIS – TRIVAC SYSTEM (right)



Dimensional drawing for the TRIVAC D 16 to D 65 BCS



Pump-down characteristics of a 100 l vessel at 50 Hz



Pumping speed characteristics at 50 Hz (60 Hz curves at the end of the chapter)

Technical Data

TRIVAC D 16 BCS
two-stage

TRIVAC D 25 BCS
two-stage

		50 Hz	60 Hz	50 Hz	60 Hz
Nominal pumping speed ¹⁾	m ³ /h (cfm)	18.9 (11.1)	22.7 (13.4)	29.5 (17.4)	35.4 (20.9)
Pumping speed ¹⁾	m ³ /h (cfm)	16.5 (9.7)	19.8 (11.7)	25.7 (15.1)	30.8 (18.2)
Ultimate partial pressure without gas ballast ¹⁾	mbar (Torr)	10 ⁻⁴ (0.75 x 10 ⁻⁴)	10 ⁻⁴ (0.75 x 10 ⁻⁴)	10 ⁻⁴ (0.75 x 10 ⁻⁴)	10 ⁻⁴ (0.75 x 10 ⁻⁴)
Ultimate total pressure without gas ballast ¹⁾	mbar (Torr)	< 2.5 x 10 ⁻³ (< 1.9 x 10 ⁻³)	< 2.5 x 10 ⁻³ (< 1.9 x 10 ⁻³)	< 2.5 x 10 ⁻³ (< 1.9 x 10 ⁻³)	< 2.5 x 10 ⁻³ (< 1.9 x 10 ⁻³)
Ultimate total pressure with gas ballast ¹⁾	mbar (Torr)	< 5 x 10 ⁻³ (< 3.8 x 10 ⁻³)	< 5 x 10 ⁻³ (< 3.8 x 10 ⁻³)	< 5 x 10 ⁻³ (< 3.8 x 10 ⁻³)	< 5 x 10 ⁻³ (< 3.8 x 10 ⁻³)
Water vapor tolerance ¹⁾	mbar (Torr)	25.0 (18.8)	25.0 (18.8)	25.0 (18.8)	25.0 (18.8)
Water vapor capacity	g/h (lbs/h)	305 (0.672)	370 (0.816)	480 (1.058)	570 (1.257)
Oil filling, min. / max.	l (qt)	0.45 / 1.0 (0.5 / 1.1)	0.45 / 1.0 (0.5 / 1.1)	0.6 / 1.4 (0.6 / 1.5)	0.6 / 1.4 (0.6 / 1.5)
Noise level ²⁾ to DIN 45 635, without / with gas ballast	dB(A)	54 / 56	54 / 56	54 / 56	54 / 56
Admissible ambient temperature	°C (°F)	+12 to +40 (+54 to +104)	+12 to +40 (+54 to +104)	+12 to +40 (+54 to +104)	+12 to +40 (+54 to +104)
Motor rating ²⁾	W (HP)	750 (1.0)	750 (1.0)	750 (1.0)	750 (1.0)
Nominal speed	rpm	1500	1800	1500	1800
Type of protection	IP	³⁾	³⁾	³⁾	³⁾
Weight ²⁾	kg (lbs)	28 (61.7)	28 (61.7)	32.3 (71.2)	32.3 (71.2)
Connections, Intake and Exhaust	DN	25 KF	25 KF	25 KF	25 KF

¹⁾ To DIN 28 400 and following numbers

²⁾ Motor rating and noise levels for the pumps with AC motor 50 Hz.

Any data that deviate from the above for pumps with other motors, and other motor-dependent data are given in chapter "Products", paragraph "Motor Dependent Data for the TRIVAC B, BCS and BCS-PFPE"

³⁾ See paragraph "Motor Dependent Data for the TRIVAC B, BCS and BCS-PFPE"

Technical Data

TRIVAC D 40 BCS
two-stage

TRIVAC D 65 BCS
two-stage

		50 Hz	60 Hz	50 Hz	60 Hz
Nominal pumping speed ¹⁾	m ³ /h (cfm)	46 (27)	55 (32.5)	75 (44)	90 (53)
Pumping speed ¹⁾	m ³ /h (cfm)	40 (24)	48 (28)	65 (38)	78 (46)
Ultimate partial pressure without gas ballast ¹⁾	mbar (Torr)	10 ⁻⁴ (0.75 x 10 ⁻⁴)	10 ⁻⁴ (0.75 x 10 ⁻⁴)	10 ⁻⁴ (0.75 x 10 ⁻⁴)	10 ⁻⁴ (0.75 x 10 ⁻⁴)
Ultimate total pressure without gas ballast ¹⁾	mbar (Torr)	< 2 x 10 ⁻³ (< 1.5 x 10 ⁻³)	< 2 x 10 ⁻³ (< 1.5 x 10 ⁻³)	< 2 x 10 ⁻³ (< 1.5 x 10 ⁻³)	< 2 x 10 ⁻³ (< 1.5 x 10 ⁻³)
Ultimate total pressure with gas ballast ¹⁾	mbar (Torr)	< 5 x 10 ⁻³ (< 3.8 x 10 ⁻³)	< 5 x 10 ⁻³ (< 3.8 x 10 ⁻³)	< 5 x 10 ⁻³ (< 3.8 x 10 ⁻³)	< 5 x 10 ⁻³ (< 3.8 x 10 ⁻³)
Water vapor tolerance ¹⁾	mbar (Torr)	40 (30)	40 (30)	40 (30)	40 (30)
Water vapor capacity	g/h (lbs/h)	1185 (2.612)	1420 (3.131)	1925 (4.244)	2310 (5.093)
Oil filling, min. / max.	l (qt)	1.7 / 2.6 (1.8 / 2.7)	1.7 / 2.6 (1.8 / 2.7)	2.0 / 3.3 (2.1 / 3.5)	2.0 / 3.3 (2.1 / 3.5)
Noise level ²⁾ to DIN 45 635, without / with gas ballast	dB(A)	57 / 59	57 / 59	57 / 59	57 / 59
Admissible ambient temperature	°C (°F)	+12 to +40 (+54 to +104)	+12 to +40 (+54 to +104)	+12 to +40 (+54 to +104)	+12 to +40 (+54 to +104)
Motor rating ²⁾	W (HP)	2200 (3.0)	2200 (3.0)	2200 (3.0)	2200 (3.0)
Nominal speed	rpm	1500	1800	1500	1800
Type of protection	IP	³⁾	³⁾	³⁾	³⁾
Weight ²⁾	kg (lbs)	75.3 (166)	75.3 (166)	84.5 (186.3)	84.5 (186.3)
Connections, Intake and Exhaust	DN	40 KF	40 KF	40 KF	40 KF

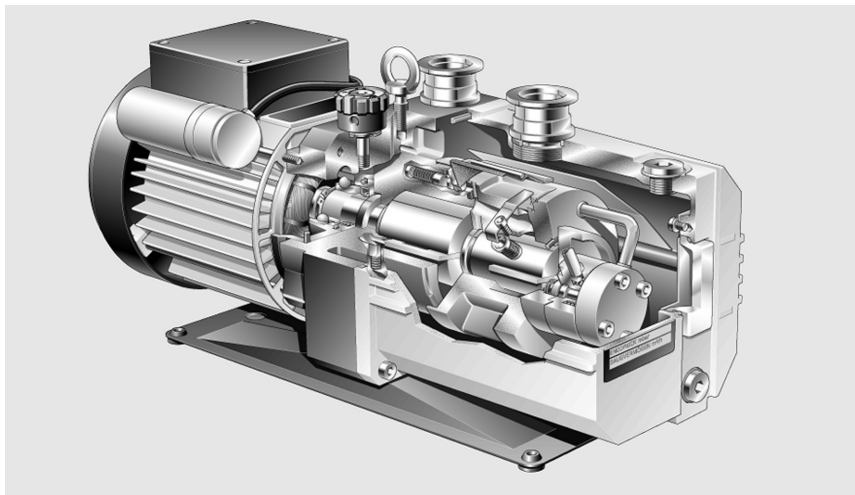
¹⁾ To DIN 28 400 and following numbers

²⁾ Motor rating and noise levels for the pumps with AC motor 50 Hz.

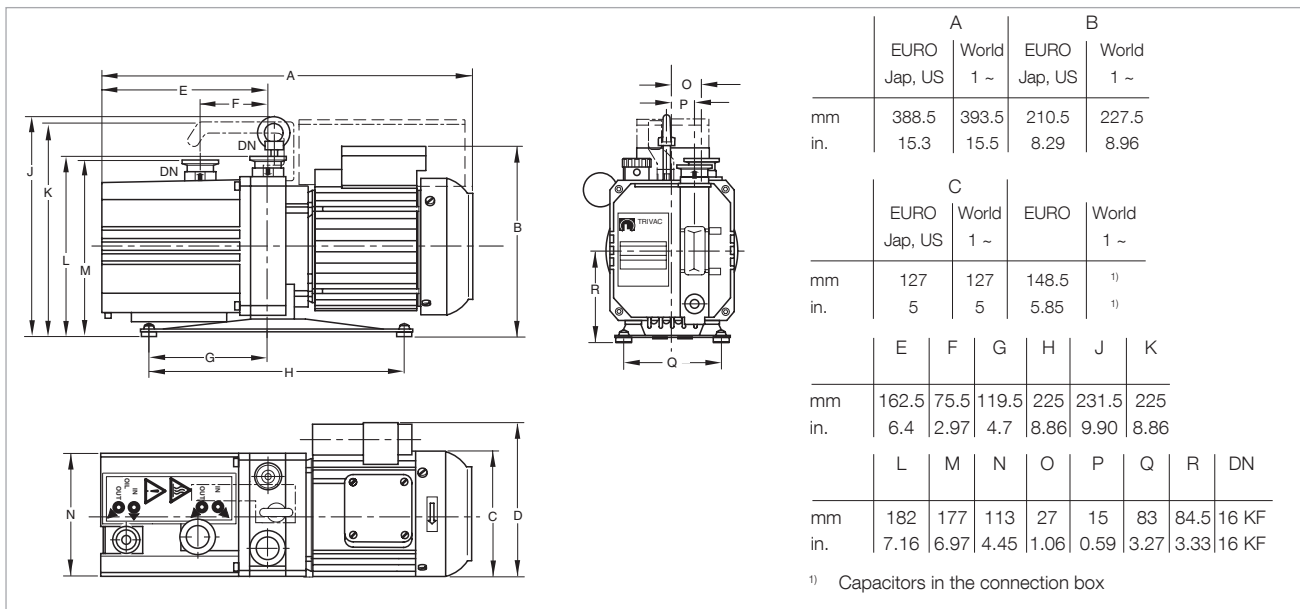
Any data that deviate from the above for pumps with other motors, and other motor-dependent data are given in chapter "Products", paragraph "Motor Dependent Data for the TRIVAC B, BCS and BCS-PFPE"

³⁾ See paragraph "Motor Dependent Data for the TRIVAC B, BCS and BCS-PFPE"

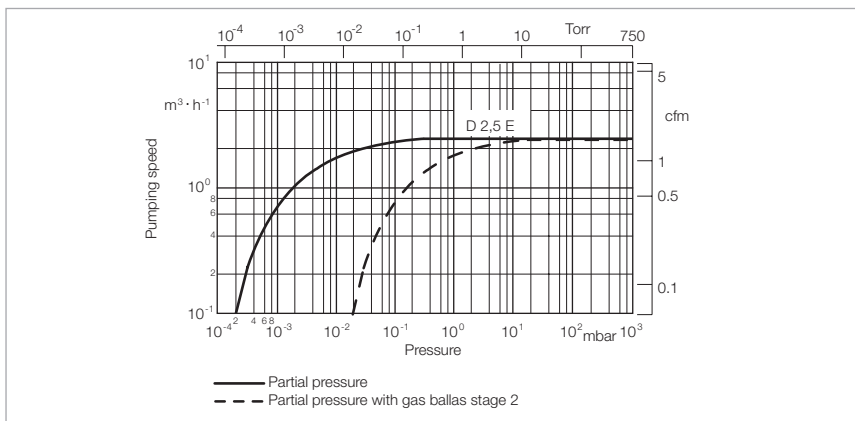
TRIVAC D 2,5 E



TRIVAC E



Dimensional drawing for the TRIVAC D 2,5 E



Pumping speed of the TRIVAC D 2,5 E at 50 Hz (60 Hz curves at the end of the chapter)

Technical Data

TRIVAC D 2,5 E

		50 Hz	60 Hz
Nominal pumping speed ¹⁾	m ³ /h (cfm)	3.2 (1.9)	3.6 (2.1)
Pumping speed ¹⁾	m ³ /h (cfm)	2.7 (1.6)	3.3 (1.9)
Ultimate partial pressure without gas ballast	mbar (Torr)	≤ 5 × 10 ⁻⁴ (≤ 3.8 × 10 ⁻⁴)	≤ 5 × 10 ⁻⁴ (≤ 3.8 × 10 ⁻⁴)
Ultimate total pressure without gas ballast ²⁾	mbar (Torr)	≤ 2 × 10 ⁻³ (≤ 1.5 × 10 ⁻³)	≤ 2 × 10 ⁻³ (≤ 1.5 × 10 ⁻³)
Ultimate total pressure with gas ballast Stage 2 ²⁾	mbar (Torr)	≤ 3 × 10 ⁻² (≤ 2.3 × 10 ⁻²)	≤ 3 × 10 ⁻² (≤ 2.3 × 10 ⁻²)
Water vapor tolerance			
Stage 1	mbar (Torr)	10 (7.5)	10 (7.5)
Stage 2	mbar (Torr)	20 (15)	20 (15)
Stage 3	mbar (Torr)	30 (22.5)	30 (22.5)
Water vapor capacity			
Stage 1	g/h (lbs/h)	20 (0.044)	20 (0.044)
Stage 2	g/h (lbs/h)	40 (0.088)	40 (0.088)
Stage 3	g/h (lbs/h)	60 (0.132)	60 (0.132)
Oil filling, min. / max.	l (qt)	0.4 / 0.7 (0.42 / 0.74)	0.4 / 0.7 (0.42 / 0.74)
Noise level	dB(A)	≤ 47	≤ 49
Admissible ambient temperature	°C (°F)	+10 to +50 (+50 to +122) (EURO motor) / +10 to +40 (+50 to +104) (US/Japan motor)	+10 to +50 (+50 to +122) (EURO motor) / +10 to +40 (+50 to +104) (US/Japan motor)
Motor rating	W (HP)	250 (0.34)	300 (0.41)
Nominal speed	rpm	1400	1600
Type of protection	IP	54	54
Weight (with oil filling)	kg (lbs)	16.1 (35.4)	16.1 (35.4)
Connections (Intake and Exhaust)	DN	16 KF	16 KF

¹⁾ To DIN 28 426 T1

²⁾ To DIN 28 400 and following numbers

Motor Dependent Data

Motors for D 2,5 E	Voltage (V)	Frequency (Hz)	Voltage tolerance	Power consumption (W (HP))	Nominal current (A)	Protection	Nominal speed (rpm)
EURO 1 ~	220-240/230	50/60	± 5%	250/300 (0.34/0.41)	1.8/1.4	IP 54	1400/1600
World 1 ~	100-120 200-240	50/60	± 5%	250/300 (0.34/0.41)	4.4/3.0 2.2/1.5	IP 54	1400/1600

Technical Data

S 1,5

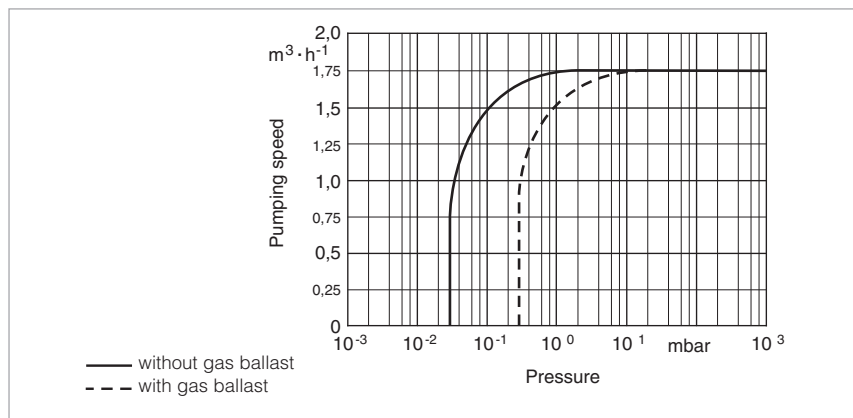
		50 Hz	60 Hz
Nominal pumping speed ¹⁾	m ³ /h (cfm)	1.9 (1.1)	2.3 (1.3)
Pumping speed ¹⁾	m ³ /h (cfm)	1.75 (1)	2.1 (1.2)
Ultimate partial pressure without gas ballast ¹⁾	mbar (Torr)	3 x 10 ⁻² (2.3 x 10 ⁻²)	3 x 10 ⁻² (2.3 x 10 ⁻²)
Ultimate total pressure with gas ballast ¹⁾	mbar (Torr)	5 x 10 ⁻¹ (3.8 x 10 ⁻¹)	5 x 10 ⁻¹ (3.8 x 10 ⁻¹)
Water vapor tolerance ¹⁾	mbar (Torr)	> 15 (> 11.3)	> 15 (> 11.3)
Water vapor capacity	g/h (lbs/h)	19 (42)	23 (50)
Oil filling, min. / max.	l (qt)	0.11/0.14 (0.12/0.15)	0.11/0.14 (0.12/0.15)
Noise level to DIN 45 635	dB(A)	50	50
Admissible ambient temperature	°C (°F)	12 – 40 (53.6 – 104)	40 (53.6 – 104)
Max. permanent inlet pressure	mbar (Torr)	30 (22.5)	30 (22.5)
Motor rating	W (hp)	80 (0.11)	80 (0.11)
Nominal speed	rpm	1500	1800
Weight	kg (lbs)	8.8 (19.4)	8.8 (19.4)
Connections			
Intake	DN	16 KF	16 KF
Exhaust		6 mm hose nipple	6 mm hose nipple

Ordering Information

S 1,5

	Part No.
S 1,5 with AC motor, 230 V (208 – 252 V ± 5%), 50/60 Hz, with 2 m long mains cord and EURO plug	101 01
Transition connector (250 V AC, 10 A, L+N+PE) only necessary in Switzerland for 1~ pumps	800 001 274
AK 8 condensate trap	190 60
Exhaust filter drain tap (G 1/4")	190 95
Connection components	
Elbow (1x) DN 16 KF	184 36
Centering ring with O-ring (2x) DN 16 KF	183 26
Clamping ring (2x) DN 16 KF	183 41

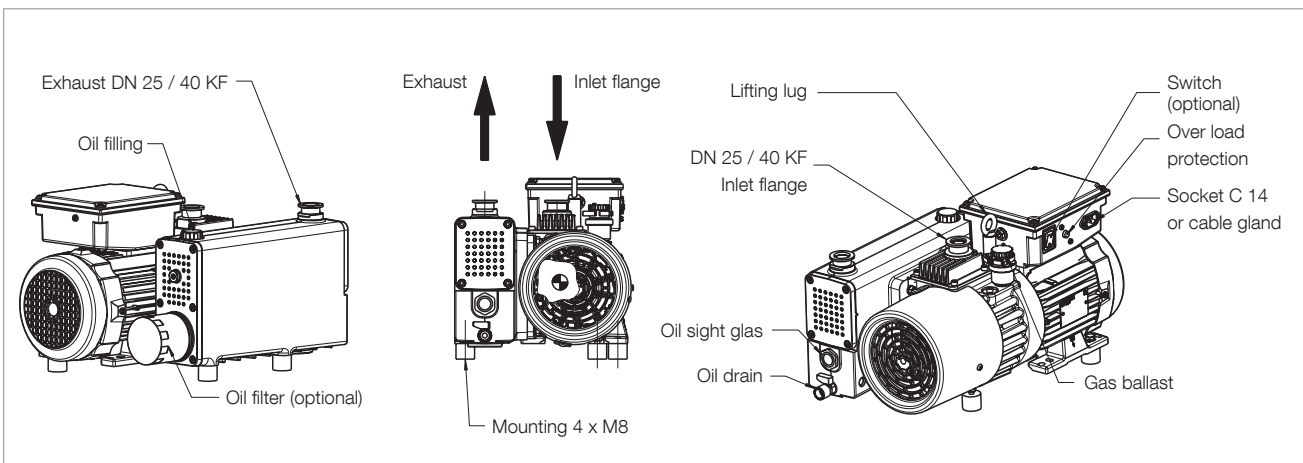
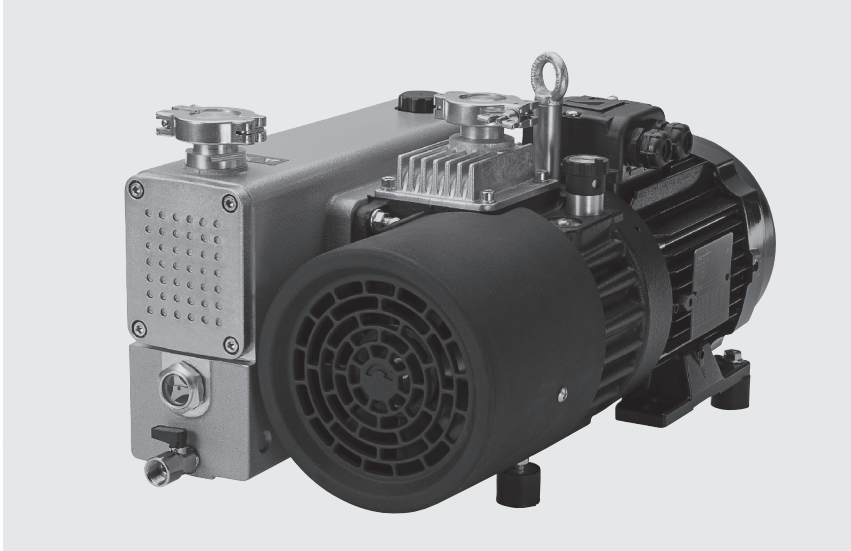
¹⁾ To DIN 28 400 and following numbers



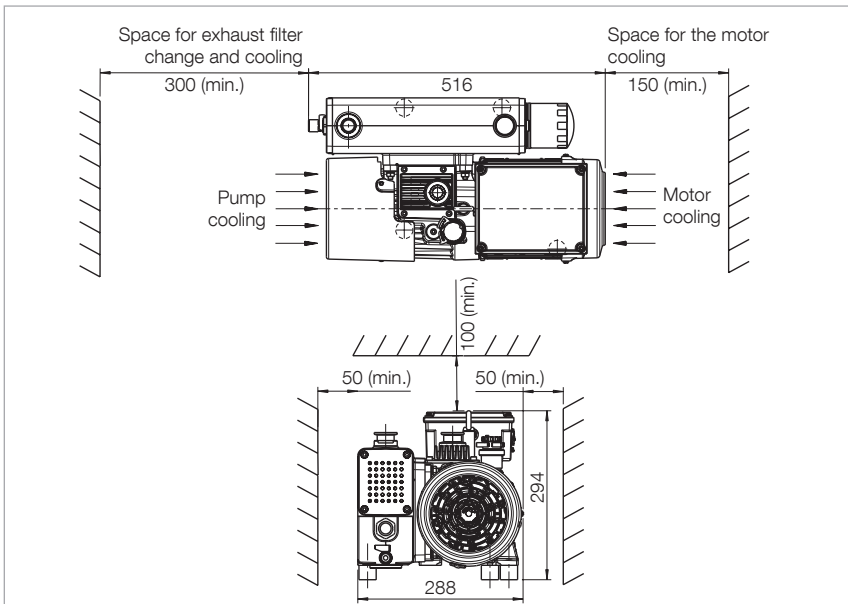
Pumping speed characteristics at 50 Hz

Products

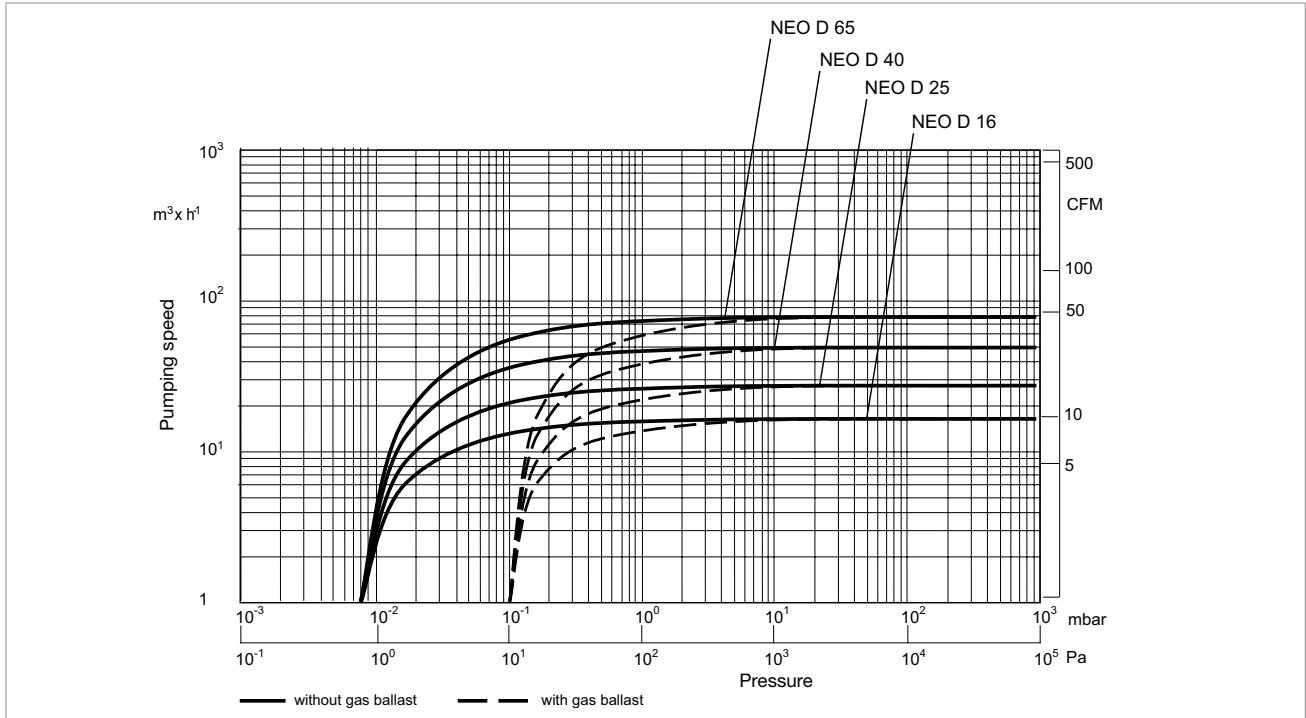
SOGEVAC NEO D 16 / D 25 / D 40 / D 65



Typical location of main pump components



Main installation clearance (in mm)



Pumping speed characteristics of the SOGEVAC NEO D 16, D 25, D 40 and D 65 at 50 Hz

Technical Data

SOGEVAC NEO

		D 16		D 25		D 40		D 65	
		50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz
Nominal speed ¹⁾	m ³ /h (cfm)	19 (11.18)	23 (13.54)	24 (14.13)	29 (17.07)	40 (23.54)	48 (28.25)	63 (37.08)	76 (44.73)
Pumping speed ¹⁾	m ³ /h (cfm)	16 (9.42)	19 (11.18)	28 (16.48)	34 (20.01)	47 (27.66)	56 (32.96)	74 (43.55)	89 (52.38)
Ultimate total pressure without gas ballast ¹⁾	mbar (Torr)	< 8 x 10 ⁻³ (< 6 x 10 ⁻³)							
Ultimate total pressure with gas ballast ¹⁾	mbar (Torr)	< 1 x 10 ⁻¹ (< 0.75 x 10 ⁻¹)							
Water vapor tolerance ¹⁾	mbar (Torr)	10 (7.5)							
Oil capacity	l (qt)	1.5 (1.59)				3 (3.17)			
Noise level ²⁾	dB(A)	54	55	54	55	57	58	57	58
Motor power									
three-phase motor	kW (hp)	0.55 (0.75)	0.70 (0.95)	0.9 (1.22)	1.1 (1.5)	1.15 (1.54)	1.5 (2.04)	2.0 (2.72)	2.6 (3.54)
single-phase motor	kW (hp)	0.75 (1.02)	0.9 (1.22)	0.9 (1.22)	1.1 (1.5)	1.3 (1.77)	1.6 (2.18)	-	-
Frequency converter	kW (hp)	0.75 (1.02)	0.9 (1.22)	0.9 (1.22)	1.1 (1.5)	1.5 (2.04)	1.5 (2.04)	2.0 (2.72)	2.2 (2.99)
Weight	kg (lbs)	49 (108)		48 (106)		80 (176)		88 (194)	
Flanges	DN	25 ISO-KF				40 ISO-KF			
Dimensions (L x W x H) ³⁾									
three-phase motor	mm	516 x 288 x 294		518 x 288 x 294		632 x 356 x 320		669 x 359 x 320	
	(in.)	(20.32 x 11.34 x 11.57)		(20.39 x 11.34 x 11.57)		(24.88 x 14.02 x 12.60)		(26.34 x 14.13 x 12.60)	
single-phase motor	mm	516 x 288 x 294		518 x 288 x 294		632 x 356 x 320		-	
	(in.)	(20.32 x 11.34 x 11.57)		(20.39 x 11.34 x 11.57)		(24.88 x 14.02 x 12.60)		-	
Frequency converter	mm	557 x 297 x 390		557 x 297 x 390		632 x 366 x 420		669 x 369 x 420	
	(in.)	(21.93 x 11.69 x 15.35)		(21.93 x 11.69 x 15.35)		(24.88 x 14.41 x 16.54)		(26.34 x 14.53 x 16.54)	

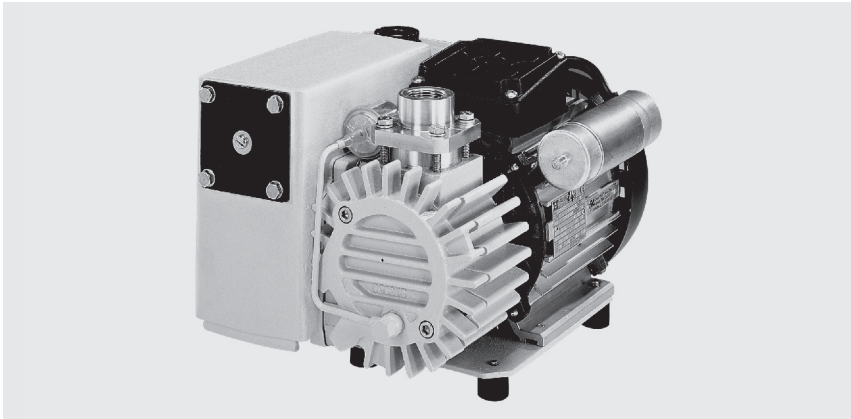
¹⁾ To DIN 28 400 and following numbers

²⁾ Operated at the ultimate pressure without gas ballast, free-field measurement at a distance of 1 m (3.5 ft), with LVO 120, LVO 140 or LVO 700 oil

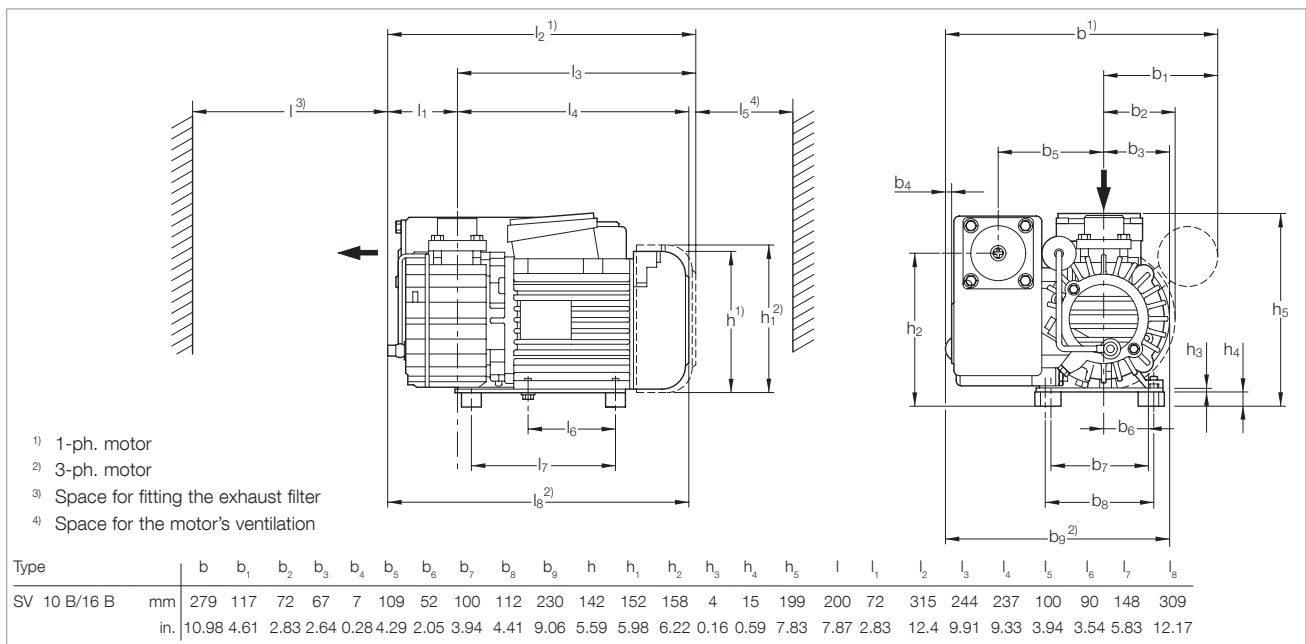
³⁾ Dimensions may vary in function of mounted accessories or specific motors (e.g. ATEX).

Products

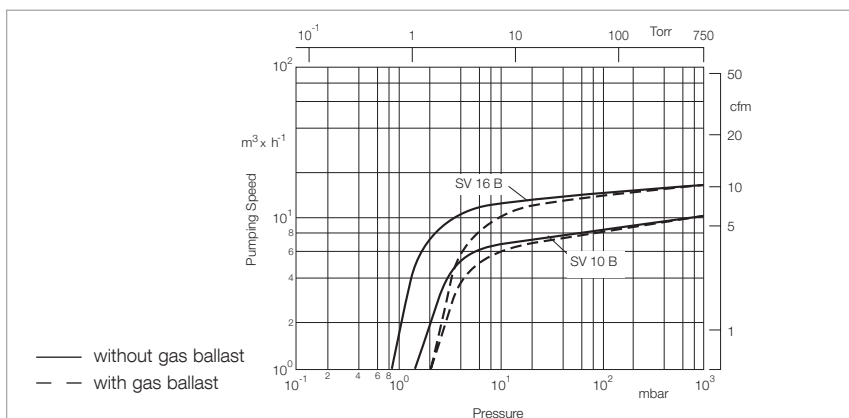
SOGEVAC SV 10 B / SV 16 B



SOGEVAC SV 16 B



Dimensional drawing for the SOGEVAC SV 10 B and SV 16 B



Pumping speed characteristics of the SOGEVAC SV 10 B and SV 16 B at 50 Hz (60 Hz curves at the end of the chapter)

Technical Data		SOGEVAC SV 10 B		SOGEVAC SV 16 B	
		50 Hz	60 Hz	50 Hz	60 Hz
Nominal speed ¹⁾	m ³ /h (cfm)	11.0 (6.5)	13.0 (7.7)	16.0 (9.4)	19.0 (11.2)
Pumping speed ¹⁾	m ³ /h (cfm)	9.5 (5.6)	11.5 (6.8)	15.0 (8.8)	17.0 (10.0)
Ultimate total pressure without gas ballast ¹⁾	mbar (Torr)	≤ 1.5 (≤ 1.1)	≤ 1.5 (≤ 1.1)	≤ 1.0 (≤ 0.8)	≤ 1.0 (≤ 0.8)
Ultimate total pressure with gas ballast ¹⁾	mbar (Torr)	≤ 2.5 (≤ 1.9)	≤ 2.5 (≤ 1.9)	≤ 2.0 (≤ 1.5)	≤ 2.0 (≤ 1.5)
Water vapor tolerance ¹⁾	mbar (Torr)	10.0 (7.5)	15.0 (11.3)	10.0 (7.5)	15.0 (11.3)
Water vapor capacity	g/h (qt/hr)	20 (0.02)	30 (0.03)	30 (0.03)	50 (0.05)
Oil capacity	l (qt)	0.5 (0.53)			
Noise level ²⁾	dB(A)	62 (1-ph.) – 60 (3-ph.)	66 (1-ph.) – 64 (3-ph.)	62 (1-ph.) – 60 (3-ph.)	66 (1-ph.) – 64 (3-ph.)
Admissible ambient temperature	°C (°F)	12 to 40 (54 to 104)			
Motor power	kW (hp)	0.55 (0.75)	0.75 (1.02)	0.55 (0.75)	0.75 (1.02)
Nominal speed	min ⁻¹ (rpm)	3000 (3000)	3600 (3600)	3000 (3000)	3600 (3600)
Type of protection	IP	55-F			
Weight (with oil filling)	kg (lbs)	20.0 (41.55)	20.0 (41.55)	20.5 (45.25)	20.5 (45.25)
Dimensions (L x W x H)	mm (in.)	315 x 281 x 199 (12.4 x 11.06 x 7.83)			
Connections intake (Inside thread) ³⁾	G	3/4" + 1/2"			

Ordering Information	SOGEVAC SV 10 B		SOGEVAC SV 16 B	
	50 Hz	60 Hz	50 Hz	60 Hz
	Part No.		Part No.	
SOGEVAC SV 10 B/SV 16 B with three-phase motor, with permanent gas ballast				
220–240/380–415 V, 50 Hz and 220–266/380–460 V, 60 Hz (CEI)	960 100		960 160	
200 V, 50/60 Hz	960 115		960 175	
with single-phase motor ⁴⁾ , with permanent gas ballast				
230 V, 50/60 Hz (CEI)	960 105		960 165	
110–120 V, 60 Hz	960 110		960 170	
100 V, 50/60 Hz	960 114		960 174	
Other voltages/frequencies ⁵⁾	upon request		upon request	
Filling with special oil	upon request		upon request	

Accessories

Exhaust filter cartridge AFE SV10B/16B	714 13 280	714 13 280
Exhaust connection G 3/4"	971 433 140	971 433 140

Spare Parts

Repair kit	714 22 230	714 22 230
Maintenance kit	971 444 430	971 444 430
Seal kit FPM (FKM)	714 22 220	714 22 220

¹⁾ To DIN 28 400 and following numbers

²⁾ Operated at the ultimate pressure without gas ballast, free-field measurement at a distance of 1 m (3.5 ft)

³⁾ 1/2" adapter supplied. Basic port is 3/4"

⁴⁾ Single-phase motors do not have plugs, cords or ON/OFF switches

⁵⁾ Please indicate when ordering a pump

Materials (materials in contact with the gas) Steel cast iron, Aluminium, Bronze, FPM (FKM), Glass, Polyamid 6.6, Filter material, (Polymers, Paper) Epoxy resin & Glass fibre

Remark: The SV 10 B and SV 16 B cannot work continuously above 150 mbar. Please consult Leybold for this application

Technical Data

SOGEVAC SV 16 D(I)

SOGEVAC SV 25 D

50 Hz

60 Hz

50 Hz

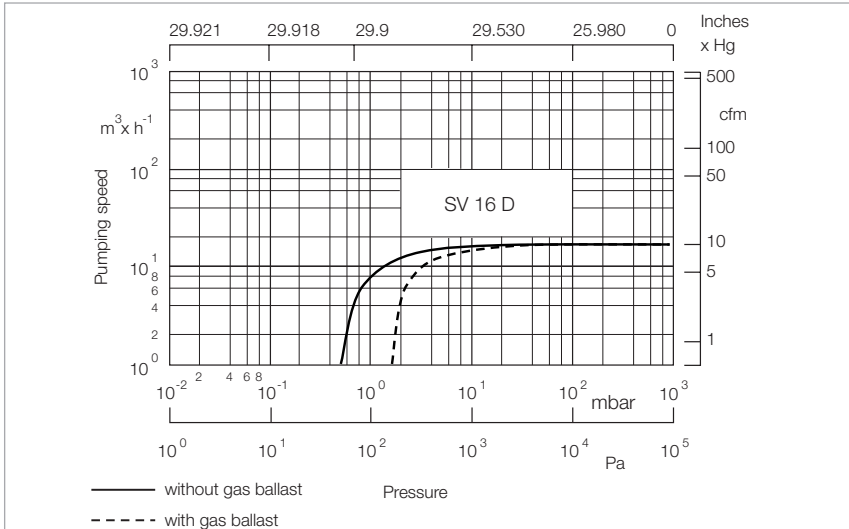
60 Hz

		50 Hz	60 Hz	50 Hz	60 Hz
Nominal speed ¹⁾	m ³ /h (cfm)	16.0 (9.4)	18.7 (11.0)	25.0 (14.7)	29.0 (17.0)
Pumping speed ¹⁾	m ³ /h (cfm)	14.5 (8.5)	17.0 (10.0)	22.5 (13.3)	25.5 (15.0)
Ultimate total pressure SV 16 D / 25 D without gas ballast ¹⁾	mbar (Torr)	≤ 0.5 (≤ 0.4)			
Ultimate total pressure SV 16 DI without gas ballast ¹⁾	mbar (Torr)	≤ 0.1 (≤ 0.08)			
Ultimate total pressure with gas ballast ¹⁾	mbar (Torr)	≤ 1.5 (≤ 1.1)			
Water vapor tolerance ¹⁾	mbar (Torr)	15.0 (11.3)			
Water vapor capacity	kg/h (qt/hr)	0.05 (0.05)	0.15 (0.16)	0.05 (0.05)	0.15 (0.16)
Oil capacity	l (qt)	2.0 (2.1)			
Noise level ²⁾	dB(A)	59			
Admissible ambient temperatur 1~ (oil: 32 cSt, approx.)	°C (°F)	+18 bis +40 (+64 to 104)			
3~	°C (°F)	+12 bis +40 (+54 to 104)			
Motor power (1~ and 3~), approx.	kW (hp)	0.75 (1.01)	0.90 (1.21)	0.75 (1.01)	0.90 (1.21)
Nominal speed	min ⁻¹ (rpm)	1440 (1440)	1750 (1750)	1440 (1440)	1750 (1750)
Weight (with oil filling)	kg (lbs)	25 (55.1)			
Connections, Intake and Exhaust SV 16 D / 25 D ³⁾ (Inside thread)	NPT/G	1/2"			
Connections, Intake and Exhaust SV 16 DI ³⁾	ISO-KF	25			

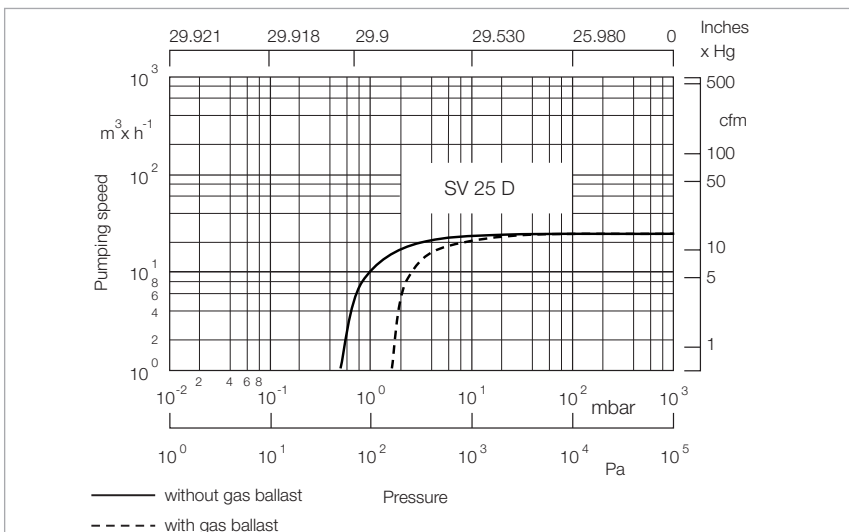
¹⁾ To DIN 28 400 ff

²⁾ Operated at the ultimate pressure without gas ballast, free-field measurement at a distance of 1 m (3.5 ft)

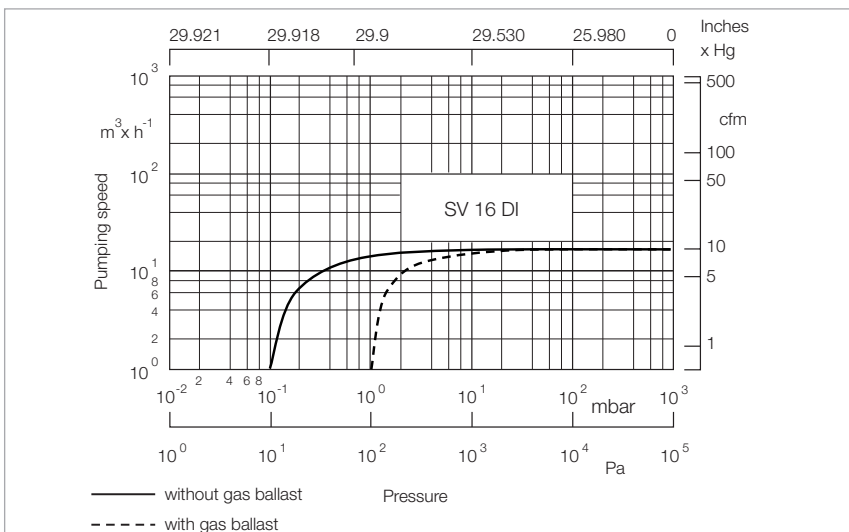
³⁾ Please indicate when ordering a pump



Pumping speed characteristics of the SOGEVAC SV 16 D at 50 Hz
(60 Hz curves at the end of the chapter)

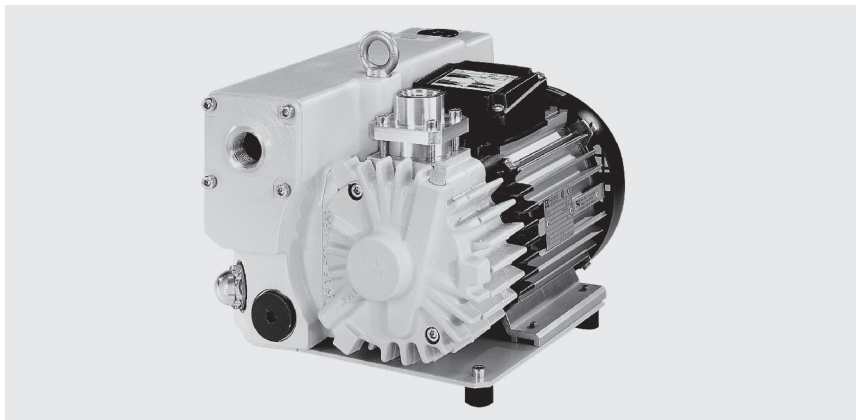


Pumping speed characteristics of the SOGEVAC SV 25 D at 50 Hz
(60 Hz curves at the end of the chapter)

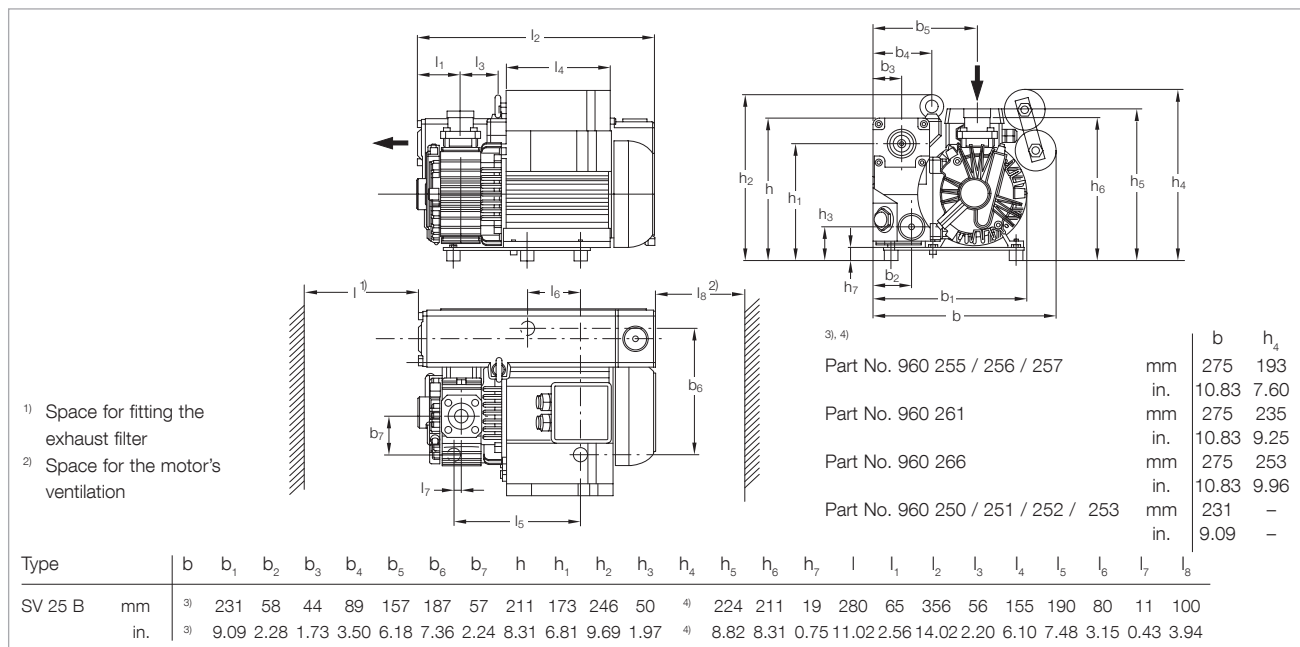


Pumping speed characteristics of the SOGEVAC SV 16 DI at 50 Hz
(60 Hz curves at the end of the chapter)

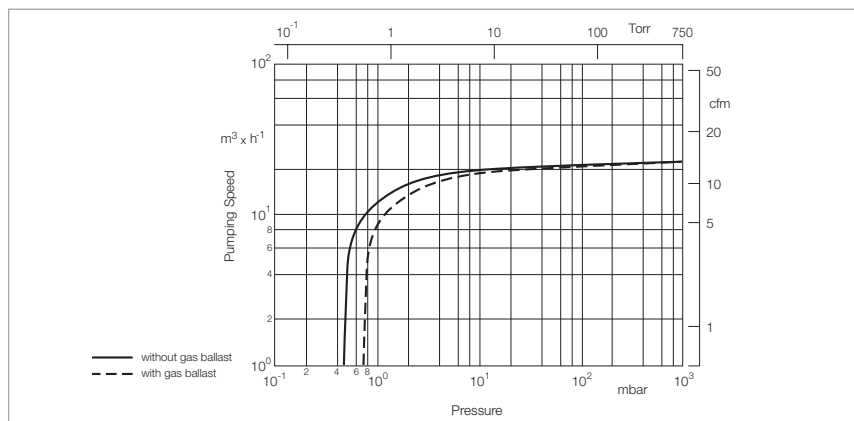
SOGEVAC SV 25 B



SOGEVAC SV 25 B



Dimensional drawing for the SOGEVAC SV 25 B



Pumping speed characteristics of the SOGEVAC SV 25 B at 50 Hz
(60 Hz curves at the end of the chapter)

Technical Data

SOGEVAC SV 25 B

		50 Hz	60 Hz
Nominal speed ¹⁾	m ³ /h (cfm)	26.0 (15.3)	31.0 (18.3)
Pumping speed ¹⁾	m ³ /h (cfm)	22.5 (13.3)	25.0 (14.7)
Ultimate total pressure without gas ballast ¹⁾	mbar (Torr)	≤ 0.5 (≤ 0.4)	
Ultimate total pressure with gas ballast ¹⁾	mbar (Torr)	≤ 0.8 (≤ 0.6)	
Water vapor tolerance ¹⁾	mbar (Torr)	10.0 (7.5)	
Water vapor capacity	g/h (qt/hr)	85 (0.09)	100 (0.11)
Oil capacity	l (qt)	0.5 (0.53)	
Noise level ²⁾	dB(A)	64	67
Admissible ambient temperature	°C (°F)	12 to 40 (54 to 104)	
Motor power	kW (hp)	0.9 (1.2)	1.1 (1.5)
Nominal speed	min ⁻¹ (rpm)	3000 (3000)	3600 (3600)
Type of protection	IP	55-F	
Weight (with oil filling)	kg (lbs)	26 (57.4) [three-phase] 27 (60.0) [single-phase]	
Dimensions (L x W x H)	mm (in.)	356 x 275 x 246 (14.02 x 10.83 x 9.69)	
Connections ³⁾			
Intake ⁴⁾	G or NPT	3/4" + 1/2"	
Exhaust	G or NPT	3/4"	

Ordering Information

SOGEVAC SV 25 B

	50 Hz	60 Hz
		Part No.
SOGEVAC SV 25 B with three-phase motor, without gas ballast 200-240/346-415 V, 50 Hz and 200-277/346-480 V, 60 Hz (CEI)		960 250
200-240/346-415 V, 50 Hz and 200-277/346-480 V, 60 Hz (CEI), NPT flanges		960 252
with three-phase motor, with permanent gas ballast 200-240/346-415 V, 50 Hz and 200-277/346-480 V, 60 Hz (CEI)		960 251
200-240/346-415 V, 50 Hz and 200-277/346-480 V, 60 Hz (CEI), NPT flanges		960 253
with single-phase motor, without gas ballast 230 V, 50/60 Hz (CEI)		960 255
with single-phase motor, with permanent gas ballast 230 V, 50/60 Hz (CEI)		960 256
230 V, 50/60 Hz, NPT flanges (CEI)		960 257
110-120 V, 60 Hz		upon request
100 V, 50/60 Hz		upon request
Other voltages/frequencies ⁵⁾		upon request
Filling with special oil		upon request
Accessories		
Exhaust filter cartridge AFE SV25B		714 16 340
Spare Parts		
Maintenance kit		971 423 100
Repair kit		971 423 450
Seal kit FPM (FKM)		714 19 490

¹⁾ To DIN 28 400 and following numbers

²⁾ Operated at the ultimate pressure without gas ballast, free-field measurement at a distance of 1 m (3.5 ft)

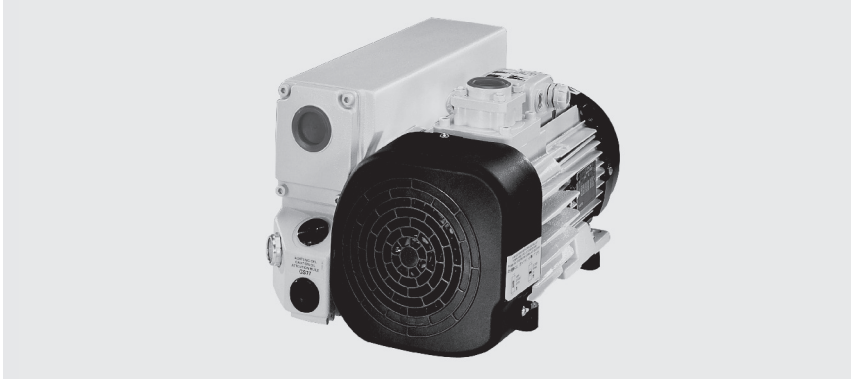
³⁾ Pumps with European and Japanese motors have G, pumps with NEMA motors have NPT

⁴⁾ 1/2" adapter supplied. Basic port is 3/4"

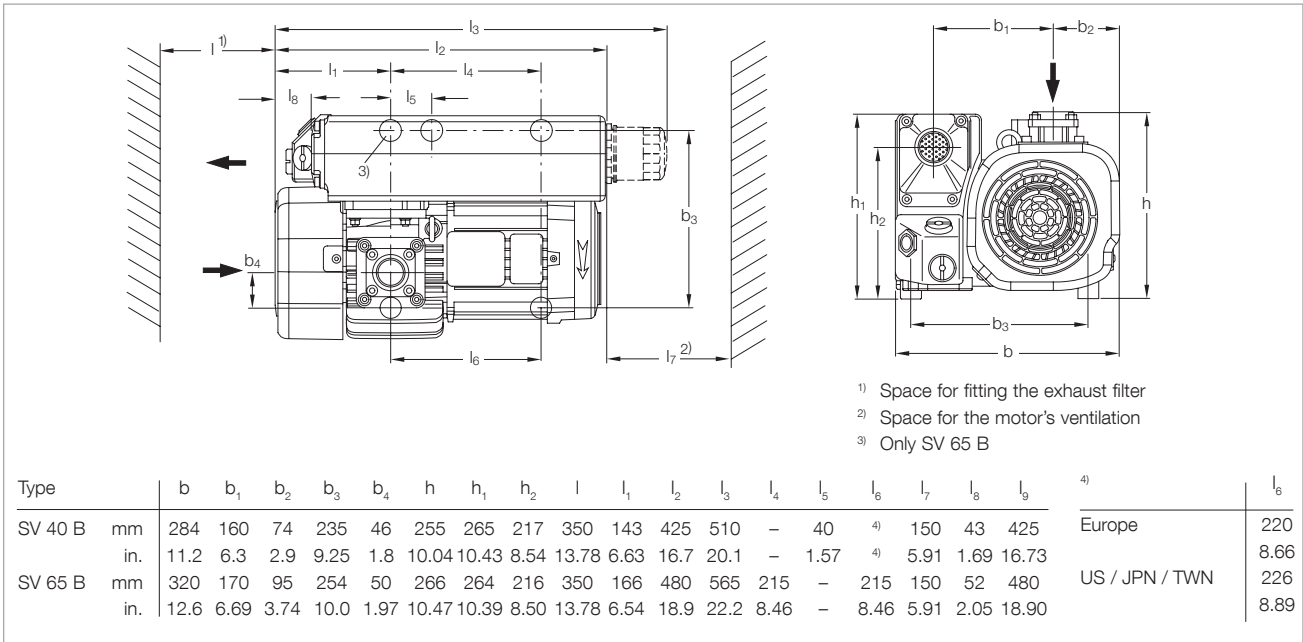
⁵⁾ Please indicate when ordering a pump

Materials (materials in contact with the gas) Steel cast iron, Aluminium, Bronze, FPM (FKM), Glass, Polyamid 6.6, Filter material, (Polymers, Paper) Epoxy resin & Glass fibre

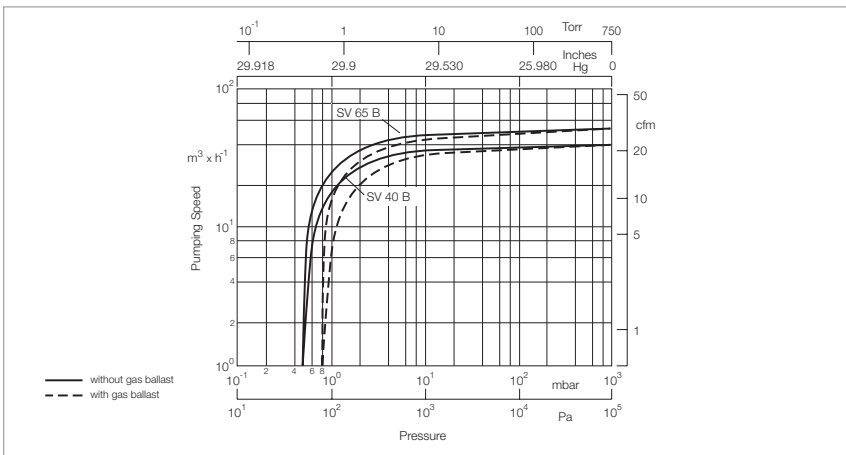
SOGEVAC SV 40 B / SV 65 B



SOGEVAC SV 65 B



Dimensional drawing for the SOGEVAC SV 40 B and SV 65 B with standard motor, European version



Pumping speed characteristics of the SOGEVAC SV 40 B and SV 65 B at 50 Hz (60 Hz curves at the end of the chapter)

Technical Data

SOGEVAC SV 40 B

SOGEVAC SV 65 B

		50 Hz	60 Hz	50 Hz	60 Hz
Nominal speed ¹⁾	m ³ /h (cfm)	44.0 (25.9)	53.0 (31.2)	59.0 (34.8)	71.0 (41.8)
Pumping speed ¹⁾	m ³ /h (cfm)	38.5 (22.7)	47.0 (27.7)	54.0 (31.8)	64.0 (37.7)
Ultimate total pressure without gas ballast ¹⁾	mbar (Torr)	≤ 0.5 (≤ 0.4)			
Ultimate total pressure ¹⁾ with standard gas ballast ²⁾	mbar (Torr)	≤ 1.5 (≤ 1.1)			
with small gas ballast ²⁾	mbar (Torr)	≤ 0.8 (≤ 0.6)			
Water vapor tolerance ¹⁾ with standard gas ballast ²⁾	mbar (Torr)	30.0 (22.5)			
with small gas ballast ²⁾	mbar (Torr)	10.0 (7.5)			
Water vapor capacity with standard gas ballast ²⁾	kg/h (qt/hr)	0.76 (0.80)	0.90 (0.95)	1.0 (1.1)0,36	1.25 (1.32)
with small gas ballast ²⁾	kg/h (qt/hr)	0.28 (0.30)	0.34 (0.36)	0.36 (0.38)	0.42 (0.44)
Oil capacity	l l (qt)	1.0 (1.05)	1.0 (1.05)	2.0 (2.1)	2.0 (2.1)
Mean noise level ³⁾	dB(A)	58	60	60	64
Admissible ambient temperature	°C (°F)	12 to 40 (54 to 104)			
Motor power	kW (hp)	1.1 (2.0)	1.5 (2.0)	1.5 (3.0)	1.8 (3.0)
Nominal speed	min ⁻¹ (rpm)	1500 (1500)	1800 (1800)	1500 (1500)	1800 (1800)
Type of protection	IP	55-F			
Weight (with oil filling)	kg (lbs)	43 (94.9)	45 (99.3)	49 (108.2)	52 (114.8)
Dimensions (L x W x H)	mm (in.)	425 x 284 x 265 (16.7 x 11.2 x 10.4)	425 x 284 x 265 (16.7 x 11.2 x 10.4)	480 x 320 x 264 (18.9 x 12.6 x 10.4)	480 x 320 x 264 (18.9 x 12.6 x 10.4)
Connection (inside thread) ⁴⁾					
Intake	G or NPT	1 1/4"			
Exhaust	G or NPT	1 1/4"			

¹⁾ To DIN 28 400 and following numbers

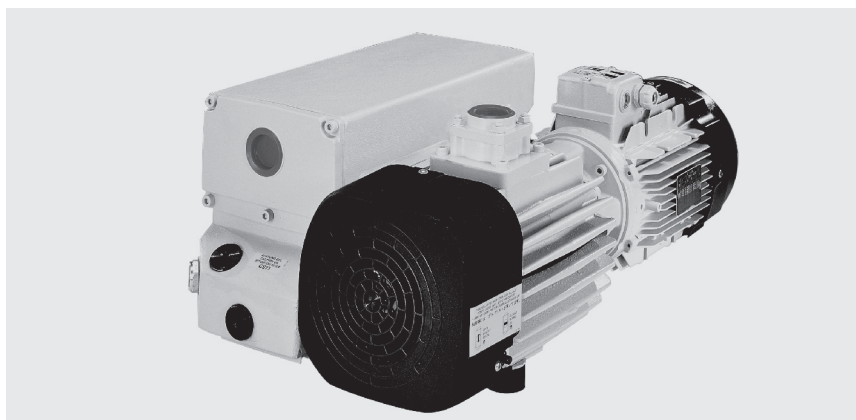
²⁾ Ordering Information, see next page

³⁾ Operated at the ultimate pressure without gas ballast, free-field measurement at a distance of 1 m (3.5 ft)

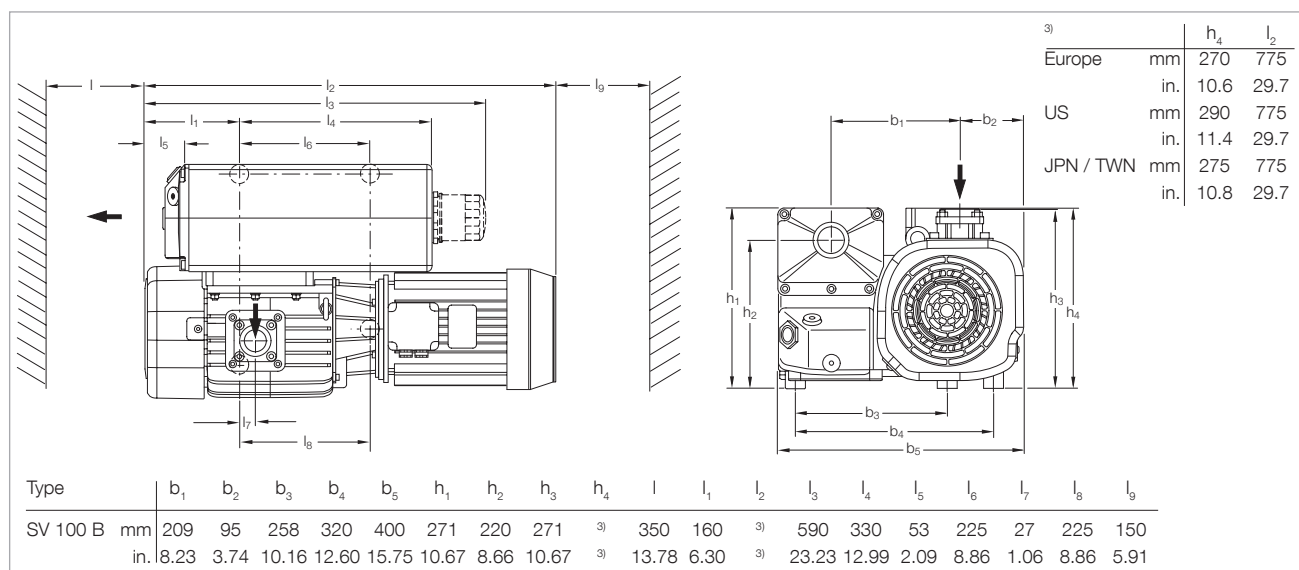
⁴⁾ Pumps with European and Japanese motors have G, pumps with US motors have NPT

Materials (materials in contact with the gas) Steel cast iron, Aluminium, Bronze, FPM (FKM), Glass, Polyamid 6.6, Filter material, (Polymers, Paper) Epoxy resin & Glass fibre

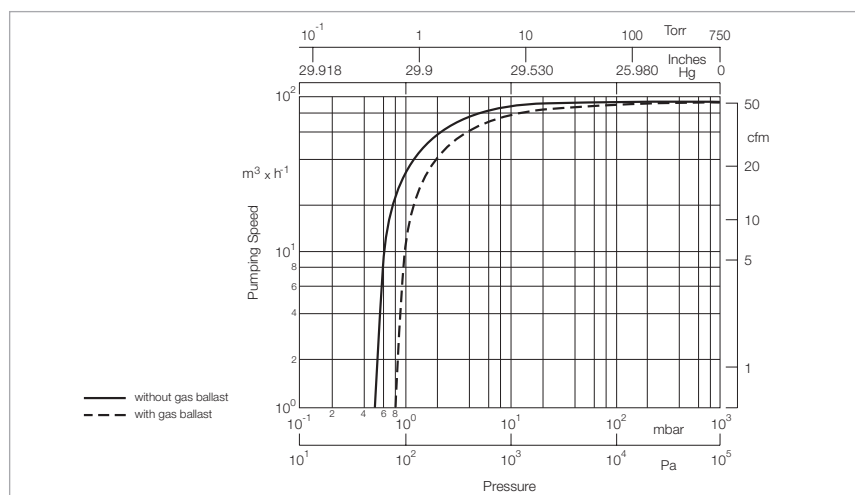
SOGEVAC SV 100 B



SOGEVAC SV 100 B



Dimensional drawing for the SOGEVAC SV 100 B



Pumping speed characteristics of the SOGEVAC SV 100 B at 50 Hz
(60 Hz curves at the end of the chapter)

Technical Data

SOGEVAC SV 100 B

		50 Hz	60 Hz
Nominal speed ¹⁾	m ³ /h (cfm)	97.5 (57.4)	117.0 (68.9)
Pumping speed ¹⁾	m ³ /h (cfm)	87.5 (51.5)	105.0 (61.8)
Ultimate total pressure without gas ballast ¹⁾	mbar (Torr)	≤ 0.5 (≤ 0.4)	
Ultimate total pressure ¹⁾ with standard gas ballast ²⁾	mbar (Torr)	≤ 1.5 (≤ 1.1)	
with small gas ballast ²⁾	mbar (Torr)	≤ 0.8 (≤ 0.6)	
Water vapor tolerance ¹⁾ with standard gas ballast ²⁾	mbar (Torr)	30.0 (22.5)	
with small gas ballast ²⁾	mbar (Torr)	10.0 (7.5)	
Water vapor capacity with standard gas ballast ²⁾	kg/h (qt/hr)	1.60 (1.69)	1.70 (1.80)
with small gas ballast ²⁾	kg/h (qt/hr)	0.45 (0.48)	0.60 (0.63)
Oil capacity	l (qt)	2.0 (2.1)	
Mean noise level ³⁾	dB(A)	61	64
Admissible ambient temperature	°C (°F)	12 to 40 (54 to 104)	
Motor power	kW (hp)	2.2 (3.5)	3.5 (5.0)
Nominal speed	min ⁻¹ (rpm)	1500 (1500)	1800 (1800)
Type of protection	IP	55-F	
Materials (materials in contact with the gas)		Steel, cast iron, Aluminium, Bronze, FPM (FKM), Glass, Polyamid 6.6, Filter material (Polymers, Paper), Epoxy resin & Glass fibre	
Weight (with oil filling)	(lbs)	92 (203)	93 (205)
Dimensions (L x W x H)			
Europe	mm (in.)	755 x 400 x 270 (29.7 x 15.7 x 10.6)	
US	mm (in.)	755 x 400 x 290 (29.7 x 15.7 x 11.4)	
JPN / TWN	mm (in.)	755 x 400 x 275 (29.7 x 15.7 x 10.8)	
Connection (inside thread) ⁴⁾			
Intake	G or NPT	1 1/4"	
Exhaust	G or NPT	1 1/4"	

¹⁾ To DIN 28 400 and following numbers

²⁾ Ordering Information, see next page

³⁾ Operated at the ultimate pressure without gas ballast, free-field measurement at a distance of 1 m (3.5 ft)

⁴⁾ Pumps with European and Japanese motors have G, pumps with US (NEMA) motors have NPT

Technical Data

SOGEVAC SV 120 B

		50 Hz	60 Hz
Nominal speed ¹⁾	m ³ /h (cfm)	130 (77)	147 (86)
Pumping speed ¹⁾	m ³ /h (cfm)	110 (65)	122 (72)
Ultimate total pressure without gas ballast ¹⁾	mbar (Torr)	≤ 0.5 (≤ 0.4)	
Ultimate total pressure ¹⁾ with gas ballast ²⁾	mbar (Torr)	≤ 1.5 (≤ 1.1)	
Water vapor tolerance ¹⁾ with standard gas ballast ²⁾	mbar (Torr)	30.0 (22.5)	
Water vapor capacity with standard gas ballast ²⁾	kg/h (qt/hr)	1.60 (1.69)	1.70 (1.80)
Mean noise level ³⁾	dB(A)	61	64
Admissible ambient temperature	°C (°F)	12 to 40 (54 to 104)	
Motor power (with IEC Euro (NEMA) motor)	kW (hp)	2.4 (3.3)	3.2 (4.4)
Mains voltage and frequency 3 ~ motor		220–230 and 380–400 V ±10 %, 50 Hz 230 and 400–460 V ±10 %, 60 Hz	
Nominal speed	min ⁻¹ (rpm)	1500 (1500)	1800 (1800)
Type of protection	IP	55-F	
Leak rate	mbar x l/s	≤ 1 x 10 ⁻³	
Materials (materials in contact with the gas)		Steel, cast iron, Aluminium, Bronze, FPM (FKM), Glass, Polyamid 6.6, Filter material (Polymers, Paper), Epoxy resin & Glass fibre	
Oil capacity	l (qt)	2.0 (2.1)	
Weight (with oil filling)	(lbs)	94 (207)	
Dimensions (L x W x H)	mm (in.)	755 x 400 x 290 (29.7 x 15.7 x 11.4)	
Connection (inside thread) ⁴⁾			
Intake	G or NPT	1 1/4"	
Exhaust	G or NPT	1 1/4"	

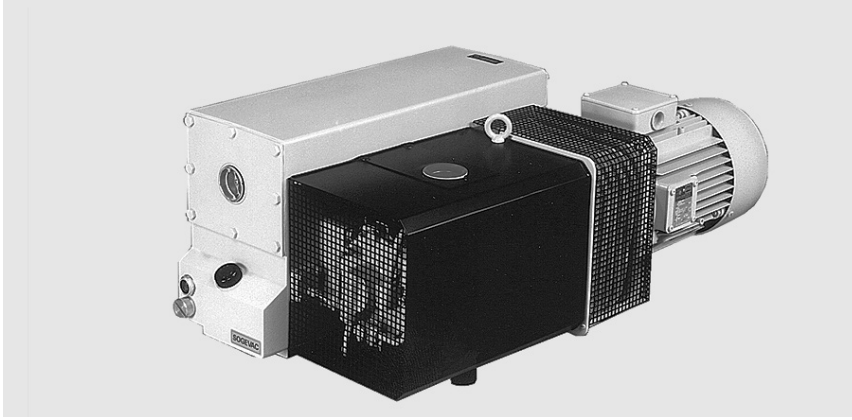
¹⁾ To DIN 28 400 and following numbers

²⁾ Ordering Information, see next page

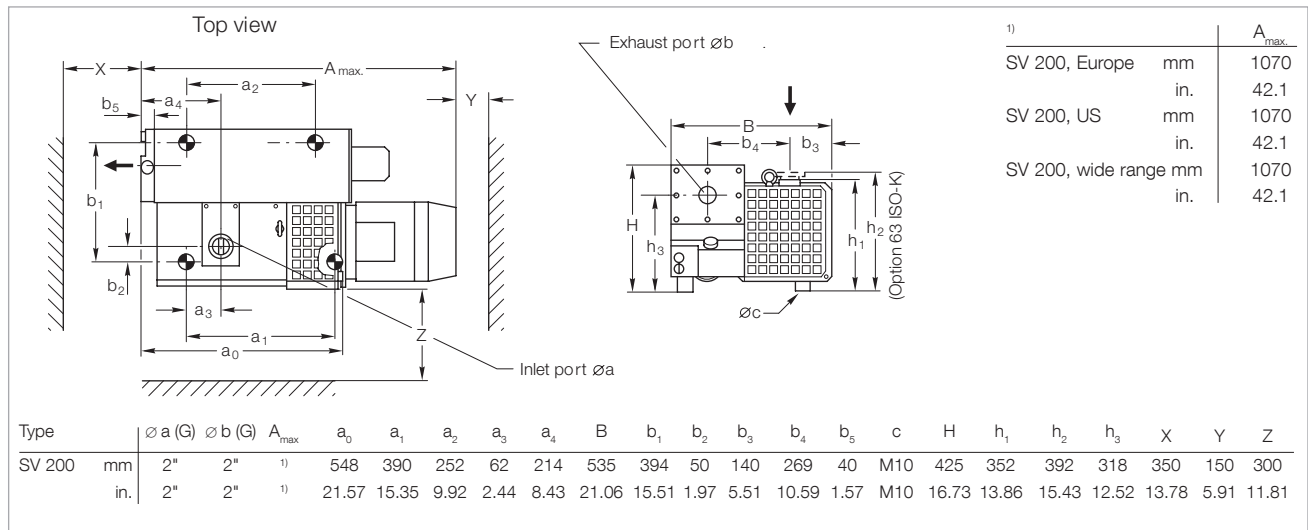
³⁾ Operated at the ultimate pressure without gas ballast, free-field measurement at a distance of 1 m (3.5 ft)

⁴⁾ Pumps with European and Japanese motors have G, pumps with US (NEMA) motors have NPT

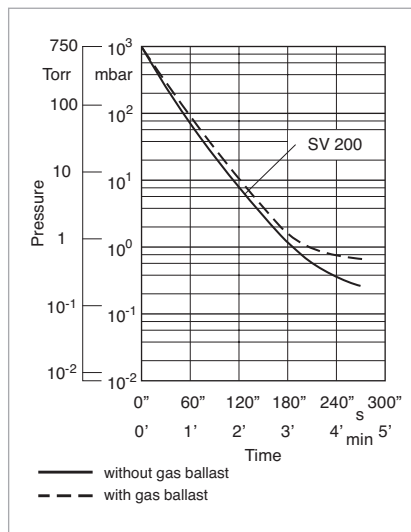
SOGEVAC SV 200



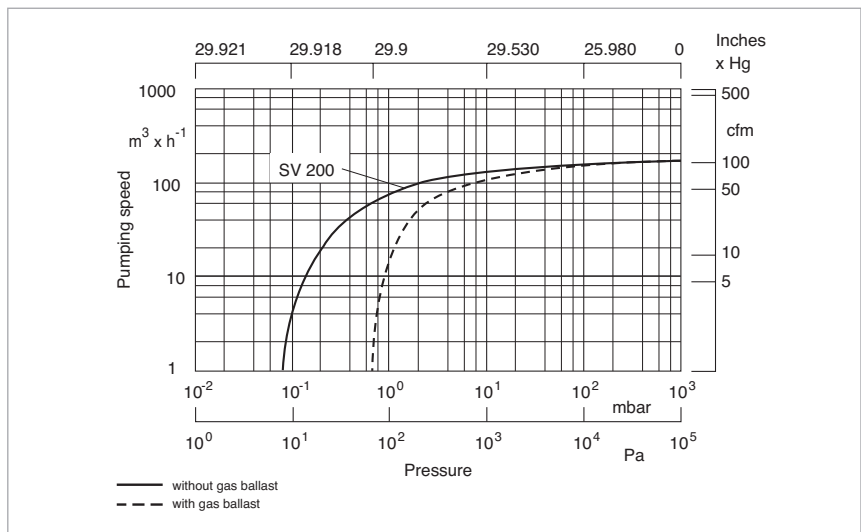
SOGEVAC SV 200



Dimensional drawing for the SOGEVAC SV 200, European version



Pump-down characteristics of a 1000 l vessel at 50 Hz



Pumping speed characteristics of the SOGEVAC SV 200 at 50 Hz (60 Hz curves at the end of the chapter)

Technical Data

SOGEVAC SV 200

		50 Hz	60 Hz
Nominal speed ¹⁾	m ³ /h (cfm)	180 (106.0)	220 (129.5)
Pumping speed ¹⁾	m ³ /h (cfm)	170 (100.1)	200 (117.8)
Ultimate total pressure without gas ballast ¹⁾	mbar (Torr)	≤ 8 x 10 ⁻² (≤ 6 x 10 ⁻²)	
Ultimate total pressure with gas ballast ¹⁾	mbar (Torr)	≤ 0.7 (≤ 0.5)	
Water vapor tolerance with standard gas ballast ¹⁾	mbar (Torr)	30.0 (22.5)	40.0 (30.0)
Water vapor tolerance with big gas ballast ²⁾	mbar (Torr)	10.0 (7.5)	50.0 (37.5)
Water vapor capacity with standard gas ballast	kg/h (qt/hr)	3.4 (3.6)	5.4 (5.7)
Oil capacity, min. / max.	l (qt)	5.0 (5.3) / 9.0 (9.5)	
Noise level ³⁾	dB(A)	69	73
Admissible ambient temperature	°C (°F)	12 to 40 (54 to 104)	
Motor power	kW (hp)	4.0 (7.5)	4.6 (7.5)
Nominal speed	min ⁻¹ (rpm)	1450 (1450)	1750 (1750)
Type of protection	IP	55-F	TEFC/55 ⁴⁾
Materials (materials in contact with the gas)		Steel, cast iron, Aluminium, FPM (FKM), Glass, Polyamid 6.6, Filter material (Polymers, Paper), Epoxy resin & Glass fibre	
Weight (with oil filling)	(lbs)	150 (331)	160 (353)
Connection (inside thread) ⁴⁾			
Intake	G or NPT	2"	
Exhaust	G or NPT	2"	

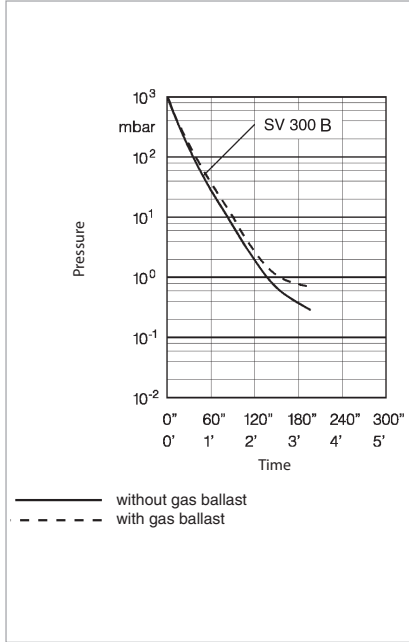
¹⁾ To DIN 28 400 and following numbers

²⁾ Ordering Information see Chapter "Accessories"

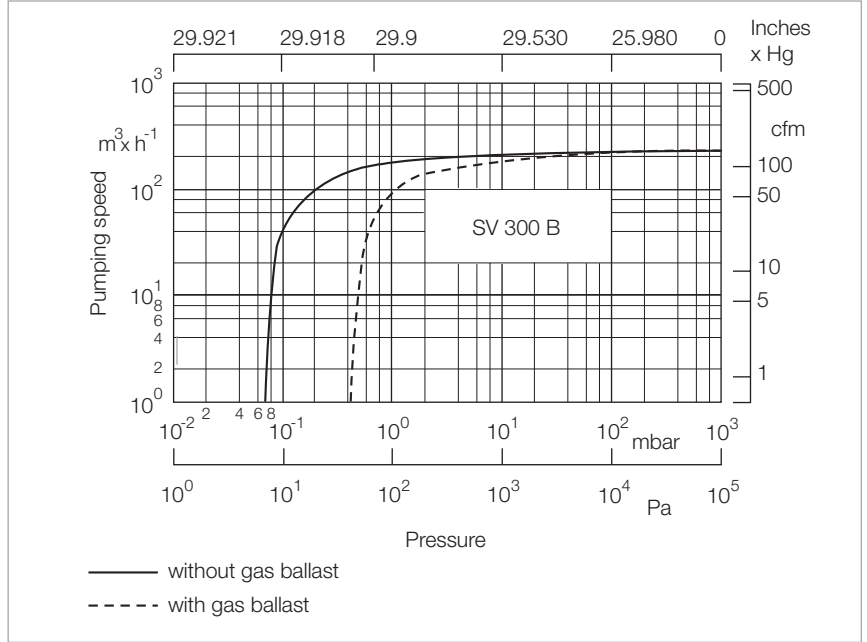
³⁾ Operated at the ultimate pressure without gas ballast, free-field measurement at a distance of 1 m (3.5 ft)

⁴⁾ CEI motor (Europe) 50/60 Hz has IP 55, NEMA motor (North and South America) has TEFC

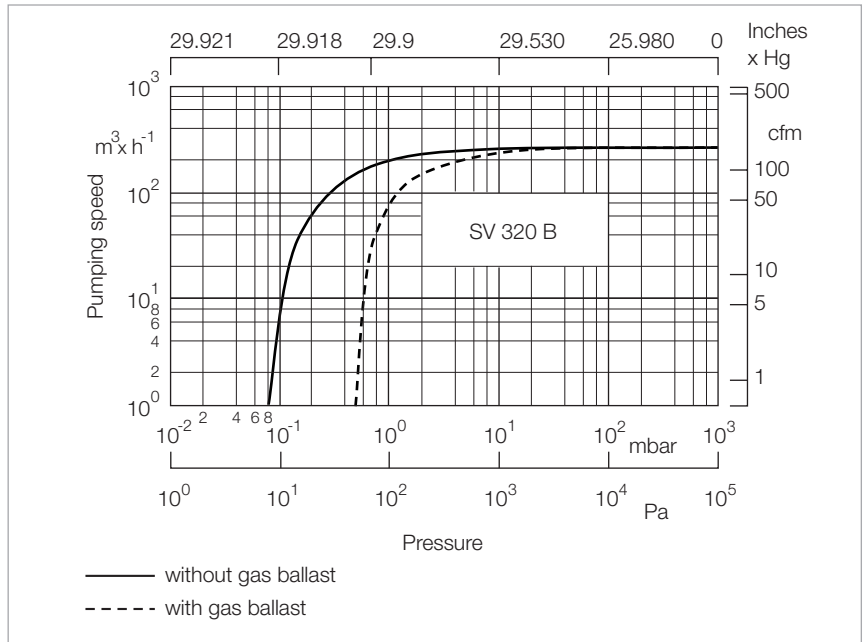
⁵⁾ Pumps with European and Japanese motors have G, pumps with US (NEMA) motors have NPT



Pump-down characteristics of a 1000 l vessel at 50 Hz



Pumping speed characteristics of the SOGEVAC SV 300 B at 50 Hz (60 Hz curves at the end of the chapter)



Pumping speed characteristics of the SOGEVAC SV 320 B at 50 Hz (60 Hz curves at the end of the chapter)

Technical Data

SOGEVAC SV 300 B

		50 Hz	60 Hz
Nominal speed ¹⁾	m ³ /h (cfm)	280 (165)	340 (200)
Pumping speed ¹⁾	m ³ /h (cfm)	240 (141)	290 (171)
Ultimate total pressure without gas ballast ¹⁾	mbar (Torr)	≤ 0.08 (≤ 0.06)	
Ultimate total pressure with small gas ballast 4 Nm ³ /h ¹⁾	mbar (Torr)	≤ 0.5 (≤ 0.4)	
Ultimate total pressure with standard gas ballast 7.5 Nm ³ /h also for electromagnetic gas ballast 10 Nm ³ /h ¹⁾	mbar (Torr)	≤ 0.7 (≤ 0.5)	
Ultimate total pressure with big gas ballast 15 Nm ³ /h ¹⁾	mbar (Torr)	≤ 2.0 (≤ 1.5)	
Ultimate total pressure with 2 big gas ballasts 28 Nm ³ /h ¹⁾	mbar (Torr)	≤ 3.0 (≤ 2.3)	
Water vapor tolerance with small ballast 4 Nm ³ /h	mbar (Torr)	4 (3) with turbine 220 mm	5 (4) with turbine 220 mm
Water vapor capacity with small ballast 4 Nm ³ /h	kg/h (qt/hr)	0.4 (0.4) with turbine 220 mm	0.6 (0.6) with turbine 220 mm
Water vapor tolerance with standard gas ballast 7.5 Nm ³ /h also for electromagnetic gas ballast 10 Nm ³ /h ²⁾	mbar (Torr)	10.0 (7.5) with turbine 220 mm 40.0 (30.0) with turbine 150 mm ⁶⁾	12.0 (9.0) with turbine 220 mm 50.0 (37.5) with turbine 150 mm ⁶⁾
Water vapor capacity with standard gas ballast 7.5 Nm ³ /h also for electromagnetic gas ballast 10 Nm ³ /h	kg/h (qt/hr)	1.3 (1.4) with turbine 220 mm 6.0 (6.4) with turbine 150 mm ⁶⁾	1.8 (1.9) with turbine 220 mm 8.0 (8.5) with turbine 150 mm ⁶⁾
Water vapor tolerance with big gas ballast 15 Nm ³ /h ²⁾	mbar (Torr)	70.0 (52.5) with turbine 150 mm ⁶⁾	
Water vapor capacity with big gas ballast 15 Nm ³ /h ²⁾	kg/h (qt/hr)	11 (12) with turbine 150 mm ⁶⁾	14 (15) with turbine 150 mm ⁶⁾
Water vapor tolerance with 2 big gas ballasts 28 Nm ³ /h ²⁾	mbar (Torr)	95 (72) with turbine 150 mm ⁶⁾	
Water vapor capacity with 2 big gas ballasts 28 Nm ³ /h ²⁾	kg/h (qt/hr)	15 (16) with turbine 150 mm ⁶⁾	17 (18) with turbine 150 mm ⁶⁾
Noise level (according to DIN 466535) ³⁾	dB(A)	72	76
Admissible ambient temperature	°C (°F)	12 to 40 (54 to 104)	
Motor power ⁴⁾	kW (hp)	5.5 (7.5)	6.3 (8.6)
Mains voltage and frequency 3 ~ motor	V	see Ordering Information	
Nominal speed	min ⁻¹ (rpm)	1500 (1500)	1800 (1800)
Type of protection	IP	55	
Isolation class 3 ~ motor		F	
Leak rate	mbar x l/s	≤ 1 x 10 ⁻³	
Oil capacity, min. / max.	l (qt)	8.5 (9.0) / 11.5 (12.2)	
Weight (with oil filling)	kg (lbs)	223 (493)	225 (497)
Connections ⁵⁾			
Intake, Thread	G or NPT	2"	2"
Exhaust, Thread	G or NPT	2"	2"

¹⁾ To DIN 28 400 and following numbers

²⁾ Ordering Information see Chapter "Accessories"

³⁾ Operated at the ultimate pressure without gas ballast, free-field measurement at a distance of 1 m (3.5 ft)

⁴⁾ Versions with NEMA motor have 10 hp motors

⁵⁾ Pumps with European and Japanese motors have G, pumps with US (NEMA) motors have NPT

⁶⁾ Standard turbine 220 mm. Special turbine 150 mm can be retrofitted

Technical Data

SOGEVAC SV 320 B

		50 Hz	60 Hz
Nominal speed ¹⁾	m ³ /h (cfm)	330 (194)	385 (227)
Pumping speed ¹⁾	m ³ /h (cfm)	284 (167)	330 (194)
Ultimate total pressure without gas ballast ¹⁾	mbar (Torr)	≤ 0.08 (≤ 0.06)	≤ 0.08 (≤ 0.06)
Ultimate total pressure with standard gas ballast ¹⁾	mbar (Torr)	≤ 0.7 (≤ 0.05)	≤ 0.7 (≤ 0.05)
Water vapor tolerance with standard gas ballast	mbar (Torr)	10 (7.5)	10 (7.5)
Water vapor capacity with standard gas ballast ¹⁾	kg/h (qt/hr)	1.3 (1.3)	1.8 (1.8)
Noise level (according to DIN 466535) ²⁾	dB(A)	70	73
Admissible ambient temperature	°C (°F)	+10 to +50 (+50 to +122)	+10 to +50 (+50 to +122)
Motor power	kW (hp)	6.0 (8.0)	7.5 (10.2)
Mains voltage and frequency 3 ~ motor	V	see Ordering Information	see Ordering Information
Weight (with oil filling)	kg (lbs)	211 (465.18)	211 (465.18)
Connections			
Intake, Thread	G	2"	2"
Exhaust, Thread	G	2"	2"

¹⁾ To DIN 28 400 and following numbers

²⁾ Operated at the ultimate pressure without gas ballast, free-field measurement at a distance of 1 m (3.5 ft)

Technical Data

SOGEVAC SV 470 B(F)

SOGEVAC SV 570 B(F)

		50 Hz	60 Hz	50 Hz
Nominal speed ¹⁾	m ³ /h (cfm)	470 (277)	570 (366)	570 (366)
Pumping speed ¹⁾	m ³ /h (cfm)	400 (236)	470 (277)	470 (277)
Ultimate total pressure without gas ballast ¹⁾	mbar (Torr)	0,08 (0.06)		
Ultimate total pressure with 1 gas ballast ¹⁾	mbar (Torr)	(0.5)		
2 gas ballast valves ¹⁾	mbar (Torr)	2.0 (1.5)		
Water vapor tolerance ¹⁾				
1 gas ballast ^{1), 2)}	mbar (Torr)	15.0 (11.0)	20.0 (15.0)	20.0 (15.0)
2 gas ballast valves ^{1), 2)}	mbar (Torr)	40.0 (30.0)	50.0 (38.0)	50.0 (38.0)
Max. water vapor capacity				
1 gas ballast ^{1), 2)}	kg/h (qt/hr)	5.0 (5.3)	7.5 (8.0)	7,5
2 gas ballast valves ^{1), 2)}	kg/h (qt/hr)	13.0 (14.0)	17.0 (18.0)	17.0 (18.0)
Oil filling, min. / max.	l (qt)	20 / 21		
Mean noise level ³⁾	dB(A)	72	75 (72 for BF pumps)	75 (72 for BF pumps)
Admissible ambient temperature	°C (°F)	12 to 40 (54 to 104)		
Nominal motor speed	min ⁻¹ (rpm)	820 (820)	1000 (1000)	1000 (1000)
Type of protection	IP	55-F		
Cooling		Air (Water at BF variants)		
Temperature protection				
Pump		yes		
Motor PTC		yes		
Water quality	TH	(4 to 8 at BF variants)		
Water pressure, min. / max.	bar (psig)	(2 to 8 at BF variants)		
Materials (materials in contact with the gas)		Steel, cast iron, Aluminium, FPM (FKM), Glass, Polyamid 6.6, Filter material (Polymers, Paper), Epoxy resin & Glass fibre		
Dimensions (L x W x H)	mm (in.)	1305 x 863 x 733 ⁴⁾ (51.38 x 33.98 x 28.86)		
Connection ⁴⁾				
Intake side	Europe / US	G or NPT	3"	
Pressure side	Europe / US	G or NPT	3"	

¹⁾ To DIN 28 400 and following numbers, with standard gas ballast

²⁾ Please ask Leybold for more information about water cooled pumps

³⁾ Operated at the ultimate pressure without gas ballast, free-field measurement at a distance of 1 m (3.5 ft)

⁴⁾ With G 3" flanges. NPT 3" flanges add. 45 mm (1.8 in.) on pump length and height

Additional Technical Data

Air Cooling

SOGEVAC SV 470 B(F)

SOGEVAC SV 570 B(F)

50 Hz

60 Hz

50 Hz / 60 Hz?

Water vapor tolerance with ¹⁾				
1 gas ballast ^{1), 2)}	mbar (Torr)	15 (11)	20 (15)	20 (15)
2 gas ballast valves ^{1), 2)}	mbar (Torr)	40 (30)	50 (37.5)	50 (37.5)
Max. perm. water vapor capacity with				
1 gas ballast ^{1), 2)}	kg/h (qt/hr)h	5.0 (5.3)	7.5 (8.0)	7.5 (8.0)
2 gas ballast valves ^{1), 2)}	kg/h (qt/hr)	13.0 (13.8)	17.0 (18.0)	17.0 (18.0)
Mean noise level ³⁾	dB(A)	72	75	75

¹⁾ To DIN 28 400 and following numbers, with standard gas ballast

²⁾ Please ask Leybold for more information

³⁾ Operated at the ultimate pressure without gas ballast, free-field measurement at a distance of 1 m (3.5 ft)

Additional Technical Data

Water Cooling

SOGEVAC SV 470 B(F)

SOGEVAC SV 570 B(F)

50 Hz

60 Hz

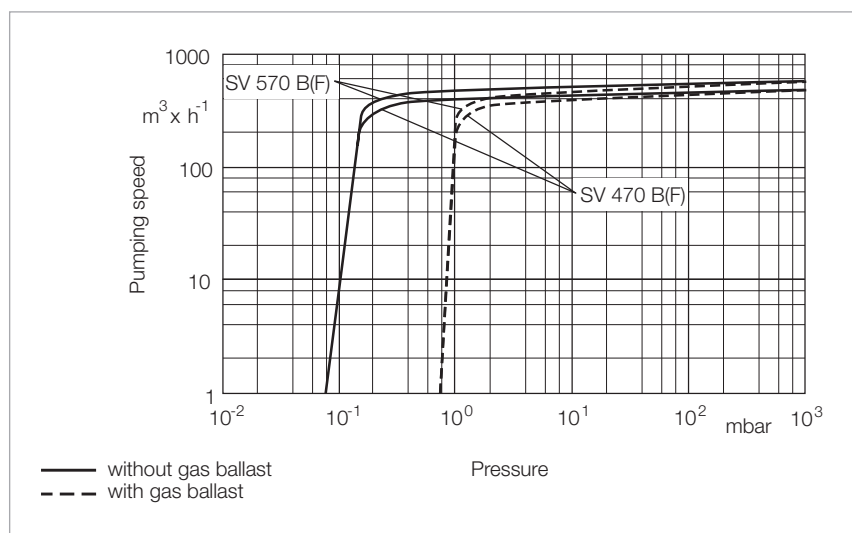
50 Hz / 60 Hz?

Water vapor tolerance with ¹⁾				
1 gas ballast ^{1), 2)}	mbar (Torr)	15 (11)	20 (15)	20 (15)
2 gas ballast valves ^{1), 2)}	mbar (Torr)	35 (26)	40 (30)	40 (30)
Max. perm. water vapor capacity with				
1 gas ballast ^{1), 2)}	kg/h (qt/hr)	5.0 (5.3)	7.5 (8.0)	7.5 (8.0)
2 gas ballast valves ^{1), 2)}	kg/h (qt/hr)	11.0 (11.7)	13.0 (13.8)	13.0 (13.8)
Mean noise level ³⁾	dB(A)	72		
Thermostatic valve		Pos 3		
Water quality	TH (°F)	4-8		
Water pressure, min. / max.	bar (psi)	2 / 8 (29 / 114)		
Min. water flow for 10 °C (50 °F) water warming	l/h	700	800	800

¹⁾ To DIN 28 400 and following numbers, with standard gas ballast

²⁾ Please ask Leybold for more information

³⁾ Operated at the ultimate pressure without gas ballast, free-field measurement at a distance of 1 m (3.5 ft)

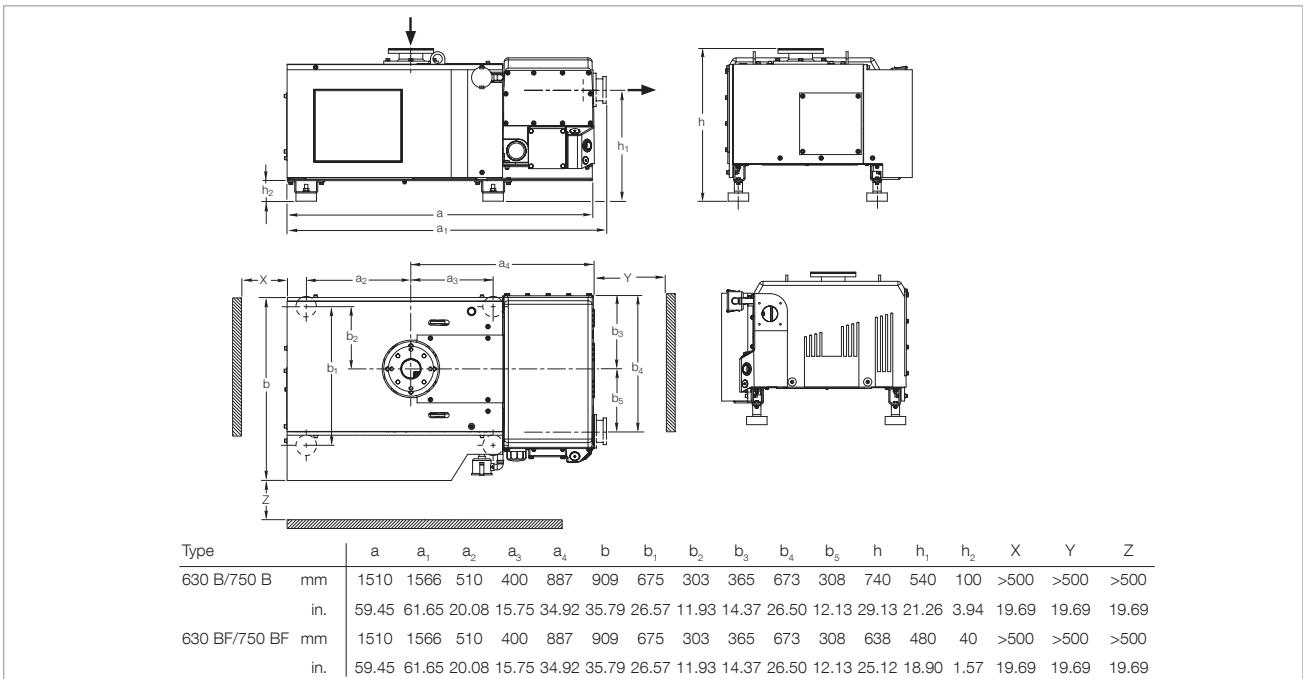


Pumping speed characteristics of the SOGEVAC SV 470 B(F) and 570 B(F) at 50 Hz operation (60 Hz curves at the end of the chapter)

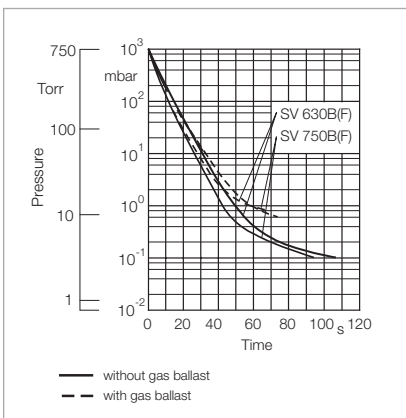
SOGEVAC SV 630 B/630 BF/750 B/750 BF



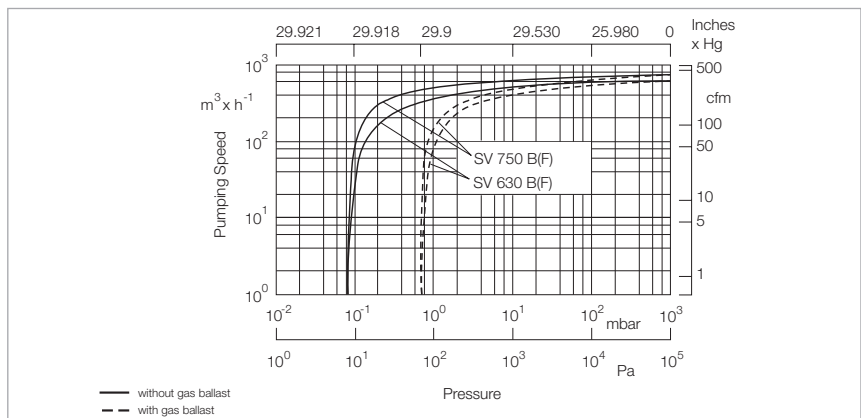
SOGEVAC SV 630 B



Dimensional drawing for the SOGEVAC SV 630 B, SV 630 BF, 750 B and 750 BF



Pumpdown curve for a 1000 l vessel for 50 Hz pump operation



Pumping speed characteristics of the SOGEVAC SV 630 B(F) and 750 B(F) (60 Hz curves at the end of the chapter)

Technical Data

			SOGEVAC SV 630 B		SOGEVAC SV 630 BF		SOGEVAC SV 750 B/BF
			50 Hz	60 Hz	50 Hz	60 Hz	50 Hz
Nominal speed ¹⁾	m ³ /h (cfm)		700 (412.0)	840 (494.4)	700 (412.0)	840 (494.4)	840 (494.4)
Pumping speed ¹⁾	m ³ /h (cfm)		640 (376.7)	755 (444.4)	640 (376.7)	755 (444.4)	755 (444.4)
Ultimate total pressure without gas ballast ¹⁾	mbar (Torr)		$< 8 \times 10^{-2}$ ($< 6 \times 10^{-2}$)				
Ultimate total pressure with 1 gas ballast ¹⁾	mbar (Torr)		$\leq 0,7$ (≤ 0.5)				
Ultimate total pressure with 2 gas ballast valves ¹⁾	mbar (Torr)		≤ 2 (≤ 1.5)				
Water vapor tolerance ¹⁾							
with 1 gas ballast ^{1), 2)}	mbar (Torr)		40.0 (30.0)	50.0 (37.5)	25.0 (18.8)	30.0 (22.5)	50.0 (37.5)
with 2 gas ballast valves ^{1), 2)}	mbar (Torr)		60.0 (45.0)	70.0 (52.5)	35.0 (26.3)	40.0 (30.0)	70.0 (52.5)
Max. water vapor capacity							
with 1 gas ballast ^{1), 2)}	kg/h (qt/hr)		17.0 (18.0)	24.0 (25.4)	11.0 (11.6)	14.0 (14.8)	24.0 (25.4)
with 2 gas ballast valves ^{1), 2)}	kg/h (qt/hr)		26.0 (27.5)	34.0 (35.9)	15.0 (15.9)	19.0 (20.1)	34.0 (35.9)
Controlled anti suck back valve 24 V DC			-	-	yes	yes	-
Oil filling min. / max.	l		20 / 23				
Noise level (averaged) ³⁾	dB(A)		72	75	72	75	75
Admissible ambient temperature	°C (°F)		12 to 40 (54 to 104)				
Motor power	kW (hp)		15.0 (20.2)	18.5 (25.0)	15.0 (20.2)	18.5 (25.0)	18.5 (25.0)
Nominal speed pump	min ⁻¹ (rpm)		820 (820)	1000 (1000)	820 (820)	1000 (1000)	1000 (1000)
Type of protection	IP		55-F				
Cooling			air	air	water	water	air / water
Thermostatic valve			no	no	yes	yes	no / yes
Temperature protection							
Pump			no	no	yes	yes	no / yes
Motor PTC			no	no	yes	yes	no / yes
Water quality	TH		-	-	4 to 8	4 to 8	-
Water pressure, min. / max.	bar (psig)		-	-	2/8 (29/114)	2/8 (29/114)	-
Materials (materials in contact with the gas)			Steel, cast iron, Aluminium, FPM (FKM), Glass, Polyamid 6.6, Filter material (Polymers, Paper), Epoxy resin & Glass fibre				
Net weight (with oil filling)	kg (lbs)		730 (1611)	760 (1678)	730 (1611)	760 (1678)	750 (1656)
Dimensions (L x W x H)	mm (in.)		1510 x 909 x 740 (59.45 x 35.79 x 29.13)	1510 x 909 x 740 (59.45 x 35.79 x 29.13)	1566 x 638 x 909 (61.65 x 25.12 x 35.79)	1566 x 638 x 909 (61.65 x 25.12 x 35.79)	1510 x 909 x 740 (59.45 x 35.79 x 29.13)
Connection							
Intake	EUROPE / US	DN	100 PN 10 / 100 ISO-K	100 PN 10 / 100 ISO-K	DIN 160 Roots adapter 100 ISO-K	DIN 160 Roots adapter 100 ISO-K	100 PN 10 / 100 ISO-K
Exhaust	EUROPE / US	DN	Option ⁴⁾	Option ⁴⁾			Option

¹⁾ To DIN 28 400 and following numbers, with standard gas ballast

²⁾ Please ask Leybold for more information

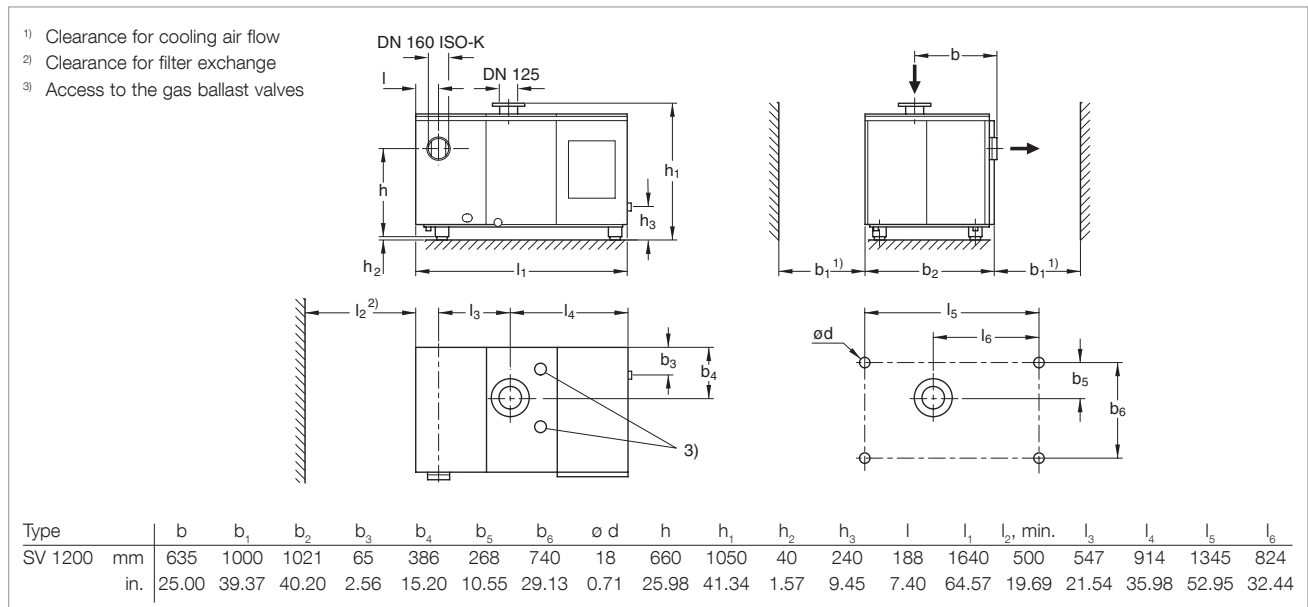
³⁾ Operated at the ultimate pressure without gas ballast, free-field measurement at a distance of 1 m (3.5 ft)

⁴⁾ 77 mm exhaust with 4 x M10 holes on 145 mm circle.

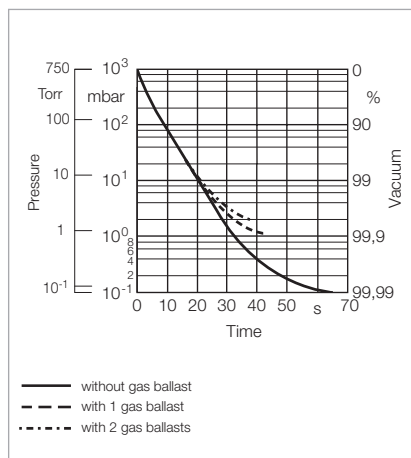
SOGEVAC SV 1200



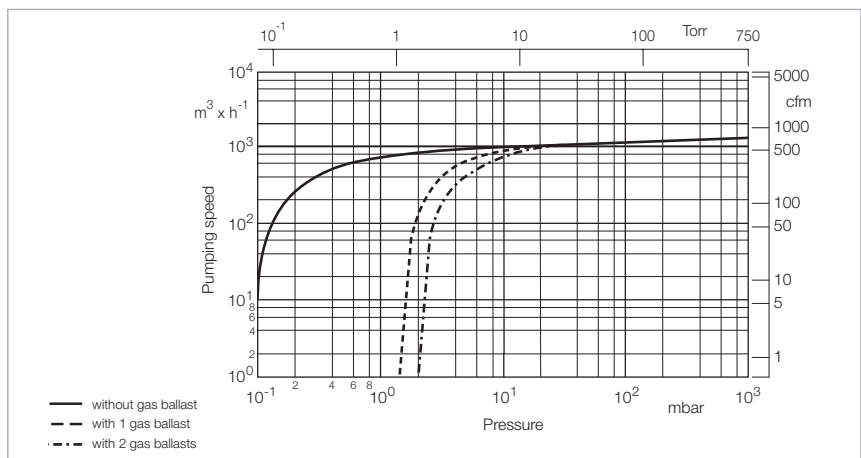
SOGEVAC SV 1200



Dimensional drawing for the SOGEVAC SV 1200



Pump-down characteristics of a 1000 l vessel at 50 Hz



Pumping speed characteristics of the SOGEVAC SV 1200 at 50 and 60 Hz

Technical Data

SOGEVAC SV 1200

50 Hz

60 Hz

		50 Hz	60 Hz
Nominal speed ¹⁾	m ³ /h (cfm)	1150 (677)	
Pumping speed ¹⁾	m ³ /h (cfm)	1070 (630)	
Ultimate total pressure without gas ballast ¹⁾	mbar (Torr)	≤ 0.1 (≤ 0.08)	
Ultimate total pressure with 1 gas ballast ¹⁾	mbar (Torr)	≤ 1.5 (≤ 1.1)	
with 2 gas ballasts ²⁾	mbar (Torr)	≤ 2.0 (≤ 1.5)	
Water vapor tolerance with 1 gas ballast ¹⁾	mbar (Torr)	20.0 (15.0)	
with 2 gas ballasts ²⁾	mbar (Torr)	40.0 (30.0)	
Water vapor capacity with 1 gas ballast ¹⁾	kg/h (qt/hr)	12.5 (13.0)	
with 2 gas ballasts ²⁾	kg/h (qt/hr)	25.0 (26.0)	
Oil capacity, min. / max.	l (qt)	60 (63) / 70 (74)	
Noise level ³⁾	dB(A)	75	
Admissible ambient temperature	°C (°F)	12 to 40 (54 to 104)	
Motor power	kW (hp)	22 (30)	
Nominal motor speed / Pump rated rotational speed	min ⁻¹ (rpm)	1460 (1460) / 700 (700)	1750 (1750) / 700 (700)
Type of protection	IP	55-F	55-F/TEFC ⁴⁾
Weight (with oil filling)	kg (lbs)	1450 (3200)	1500 (3311)
Dimensions (L x W x H)	mm (in.)	1640 x 1021 x 1050 (64.57x 40.20 x 41.34)	
Connection			
Intake	DN	125 PN 10	ASA 150 - 6" ⁵⁾
Exhaust	DN	160 ISO-K	ASA 150 - 6" ⁵⁾
Option ⁶⁾	DN	125 PN 10	-

¹⁾ To DIN 28 400 and following numbers

²⁾ With 2 gas ballasts

³⁾ Operated at the ultimate pressure without gas ballast, free-field measurement at a distance of 1 m (3.5 ft)

⁴⁾ CEI motor (Europe) 50/60 Hz has IP 54, NEMA motor (North and South America) has TEFC

⁵⁾ For NEMA pumps

⁶⁾ Please indicate when ordering a pump

Note: Further pump options upon request (for example, water cooled pumps)

Technical Data

SOGEVAC SV 28 BI

		50 Hz	60 Hz
Nominal pumping speed	m ³ /h (cfm)	25 (14.8)	30 (17.8)
Pumping speed (according to PNEUROP)	m ³ /h (cfm)	23 (13.6)	27 (15.9)
Ultimate total pressure without gas ballast	mbar (Torr)	≤ 0.05 (≤ 0.04)	
Ultimate total pressure with gas ballast	mbar (Torr)	≤ 0.5 (≤ 0.4)	
Water vapor tolerable load with gas ballast	mbar (Torr)	10.0 (7.5)	
Noise level (according to DIN 466535)			
3~ motor	dB(A)	54	57
1~ motor	dB(A)	57	60
Motor power			
3~ motor	kW (hp)	0.90 (1.2)	1.1 (1.5)
1~ motor	kW (hp)	0.75 (1.0)	0.9 (1.2)
Mains voltage and frequency			
3~ motor	V	see Ordering Information	
1~ motor	V	see Ordering Information	
Rated rotational speed	min ⁻¹ (rpm)	1500 (1500)	1800 (1800)
Type of protection	IP	55-F	
Leak rate	mbar x l/s	≤ 1 x 10 ⁻³	
Oil capacity (depending on Part No.)	l (qt)	1.5 (1.59)	
Net weight (with oil filling) dependent of oil casing and motor	kg (lbs)	34 (75) to 37 (82)	
Connections			
intake	DN	25 ISO-KF	
exhaust	DN	25 ISO-KF	

Technical Data

SOGEVAC SV 40 BI

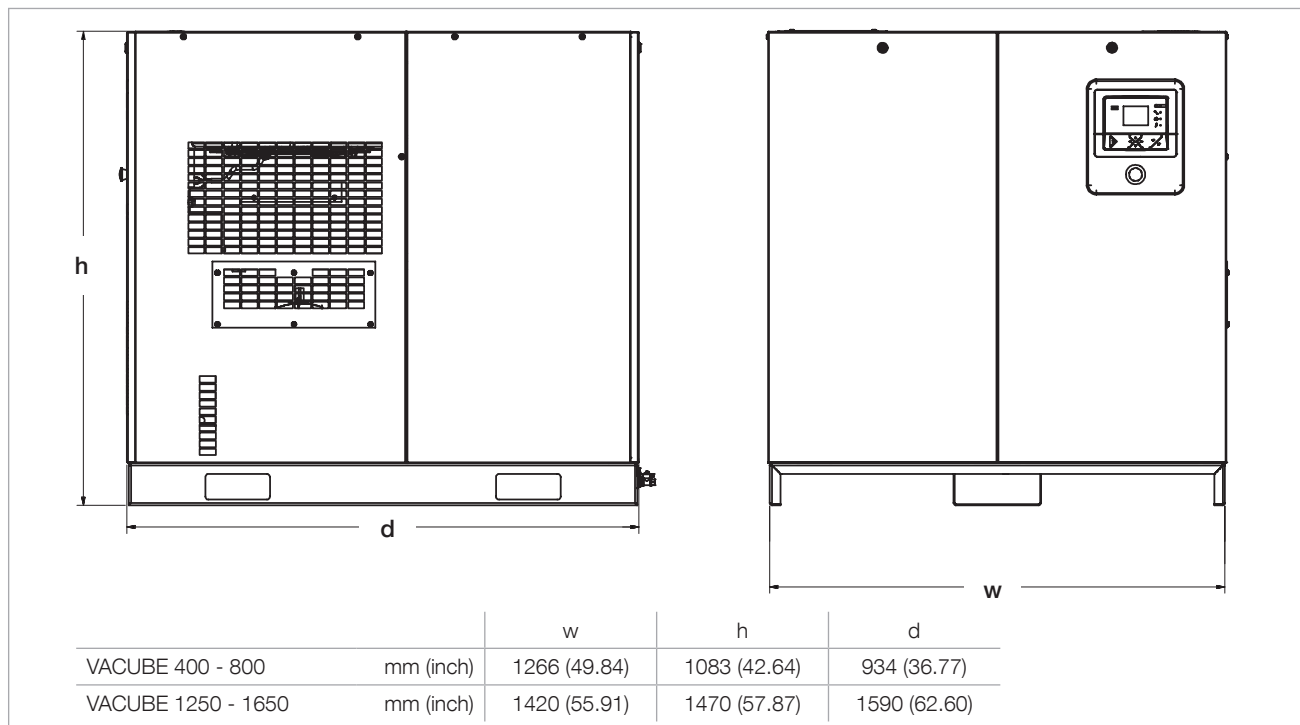
		50 Hz	60 Hz
Nominal pumping speed	m ³ /h (cfm)	42 (24.8)	50 (29.5)
Pumping speed (according to PNEUROP)	m ³ /h (cfm)	40 (23.6)	48 (28.3)
Ultimate total pressure without gas ballast	mbar (Torr)	$\leq 5 \times 10^{-2}$ ($\leq 3.75 \times 10^{-2}$)	
Ultimate total pressure with gas ballast	mbar (Torr)	≤ 0.5 (≤ 0.4)	
Water vapor tolerable load with gas ballast	mbar (Torr)	10.0 (7.5)	
Motor power	kW (hp)	1.1 (1.5)	1.3 (1.8)
Mains voltage and frequency	V	see Ordering Information	
Rated rotational speed	min ⁻¹ (rpm)	1500 (1500)	1800 (1800)
Type of protection	IP	55-F	
Leak rate	mbar x l/s	$\leq 1 \times 10^{-3}$	
Oil capacity	l (qt)	1.0 (1.1)	
Net weight (with oil filling)		43 (94.9)	45 (99.3)
Connections			
intake	DN	40 ISO-KF	
exhaust	DN	40 ISO-KF	

Ordering Information

SOGEVAC SV 40 BI

	50 Hz	60 Hz
	Part No.	
SOGEVAC SV 40 BI with three-phase motor without gas ballast 230/400 V, 50 Hz and 460 V, 60 Hz	960 330	
with small gas ballast 230/400 V, 50 Hz and 460 V, 60 Hz	960 331	
Other voltages/frequencies or single-phase motors	upon request	
Filling with special oil	upon request	
Accessories		
Exhaust filter cartridge AFE SV40B I	971 471 470	
Spare Parts		
Repair kit	971 443 150	
Set of seal	971 427 640	
Vacuum generator with gas ballast	971 443 160	
without gas ballast	971 443 170	
Maintenance kit	971 427 660	

For further accessories see Chapter "Accessories TRIVAC" in the Catalog Part "Oil Sealed Vacuum Pumps TRIVAC"



Dimensional drawing VACUBE

Technical Data

VACUBE

VQ 400 VQ 550 VQ 700 VQ 800 VQ 1250 VQ 1500 VQ 1650

Max. eff. pumping speed	m ³ /h / cfm	420 / 247	530 / 310	700 / 412	790 / 465	1250 / 736	1490 / 877	1620 / 955
Ultimate pressure	mbar / Torr	0.35 / 0.26						
Motorshaft power	kW / hp	5.5 / 7.5	7.5 / 10	11 / 15	15 / 20	22 / 29	30 / 40	37 / 50
Noise level	dB(A)	51 - 65	51 - 65	51 - 73	51 - 76	65 - 75	65 - 75	65 - 80
Ambient temperature	°C / °F	0 - 46 / 32 - 115						
Weight	kg / lbs	500 / 1102	500 / 1102	510 / 1125	520 / 1147	1058 / 2333	1058 / 2333	1073 / 2366
Motor protection class	IP	54						
Supply voltages*		380 - 460V, 3ph, 50/60Hz						

* other voltages available on request