

TRIVAC D 4 B and D 8 B



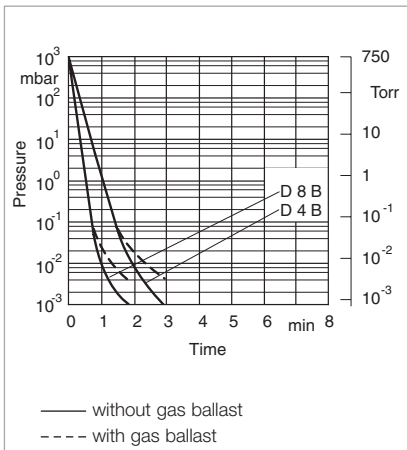
TRIVAC D 4 B (left) and TRIVAC D 8 B (right)

USA pumps max. length
 D 4 B: 485 mm (19.1")
 D 8 B: 555 mm (21.9")

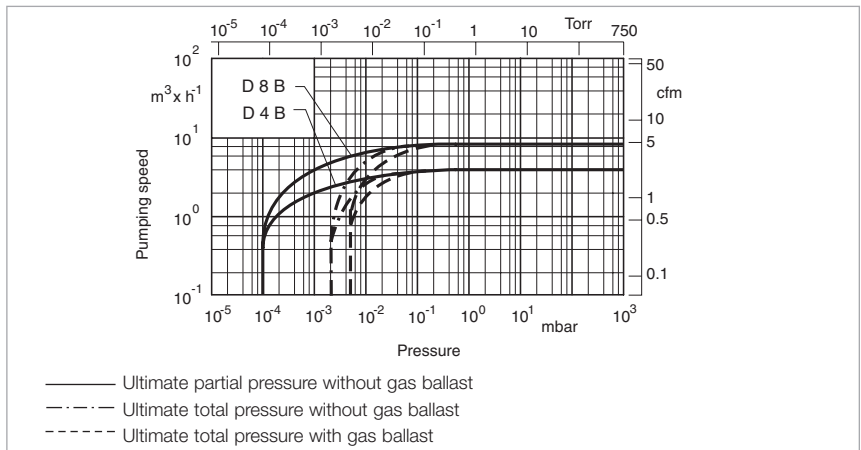
Type	DN	a	b	b ₁	b ₂	c	e	e ₁	h	h ₁	h ₂	h ₃	h ₄	l	l ₁	m	n	o	
D 4 B (Part No. 113 09)	16 KF	mm in.	75 2.95	162 6.38	147 5.79	132 5.23	100 3.94	- 6.69	170 6.69	265 10.43	215 8.46	200 7.87	230 9.06	259 10.20	- 17.91	455 17.91	198 7.80	99 3.90	108 4.25
D 4 B (Part No. 112 45)	16 KF	mm in.	75 2.95	162 6.38	147 5.79	132 5.23	100 3.94	102 4.02	- 10.43	265 10.43	215 8.46	200 7.87	230 9.06	234 9.21	437 17.21	- 17.91	198 7.80	99 3.90	108 4.25
D 4 B (Part No. 112 46)	16 KF	mm in.	75 2.95	162 6.38	147 5.79	132 5.23	100 3.94	89 3.5	- 10.43	265 10.43	215 8.46	200 7.87	230 9.06	223 8.78	438 17.24	- 17.91	198 7.80	99 3.90	108 4.25
D 4 B (Part No. 140 140)	16 KF	u. r.	u. r.	u. r.	u. r.	u. r.	u. r.	u. r.	u. r.	u. r.	u. r.	u. r.	u. r.	u. r.	u. r.	u. r.	u. r.	u. r.	u. r.
D 4 B (Part No. 140 081)	16 KF	mm in.	75 2.95	162 6.38	147 5.79	132 5.23	100 3.94	185 7.28	- 10.43	265 10.43	215 8.46	200 7.87	230 9.06	264 10.39	455 17.91	- 17.91	198 7.80	99 3.90	108 4.25
D 8 B (Part No. 113 21)	16 KF	mm in.	100 3.94	162 6.38	147 5.79	132 5.23	100 3.94	- 6.69	170 6.69	265 10.43	215 8.46	200 7.87	230 9.06	259 10.20	- 18.90	480 18.90	198 7.80	99 3.90	108 4.25
D 8 B (Part No. 112 55)	16 KF	mm in.	100 3.94	162 6.38	147 5.79	132 5.23	100 3.94	102 4.02	- 10.43	265 10.43	215 8.46	200 7.87	230 9.06	234 9.21	462 18.19	- 17.91	198 7.80	99 3.90	108 4.25
D 8 B (Part No. 112 56)	16 KF	mm in.	100 3.94	162 6.38	147 5.79	132 5.23	100 3.94	89 3.5	- 10.43	265 10.43	215 8.46	200 7.87	230 9.06	223 8.78	463 18.23	- 17.91	198 7.80	99 3.90	108 4.25
D 8 B (Part No. 140 150)	16 KF	u. r.	u. r.	u. r.	u. r.	u. r.	u. r.	u. r.	u. r.	u. r.	u. r.	u. r.	u. r.	u. r.	u. r.	u. r.	u. r.	u. r.	u. r.
D 8 B (Part No. 140 082)	16 KF	mm in.	100 3.94	162 6.38	147 5.79	132 5.23	100 3.94	185 7.28	- 10.43	265 10.43	215 8.46	200 7.87	230 9.06	264 10.39	480 18.90	- 17.91	198 7.80	99 3.90	108 4.25

u. r. = upon request

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 section)

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 x h ⁻¹ (cfm)	4.8 (2.8)	5.8 (3.4)	9.7 (5.7)	11.6 (6.9)
Pumping speed ¹⁾	m ³ x h ⁻¹ (cfm)	4.2 (2.5)	5 (3)	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 (22.5)	30 (22.5)	25 (18.8)	25 (18.8)
Water vapor capacity	g/h	93	93	157	157
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 - 40 (54 - 104)	12 - 40 (54 - 104)	12 - 40 (54 - 104)	12 - 40 (54 - 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 ³⁾	IP	54	54	54	54
Weight ²⁾	kg (lbs)	18.7 (41.2)	18.7 (41.2)	21.2 (46.7)	21.2 (46.7)
Connections, Intake and Exhaust	DN	16 KF	16 KF	16 KF	16 KF

¹⁾ To DIN 28 400 and following numbers

²⁾ Weight, motor rating and noise levels for the pumps with global version 230 V, 50 Hz AC motor only.

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

³⁾ Global versions only. North and South American versions are TEFC

Ordering Information

TRIVAC D 4 B two-stage

TRIVAC D 8 B two-stage

TRIVAC B without motor	Part No. 113 07	Part No. 113 17
with 1-phase motor 230 V, 50 Hz ¹⁾	Part No. 112 45	Part No. 112 55
with 3-phase motor 230/400 V, 50 Hz / 250/440 V, 60 Hz ¹⁾	Part No. 112 46	Part No. 112 56
230/400 V, 50 Hz, ATEX Category 3 inside and 3 outside inside: II (i) 3G IIC T4 (50 Hz) outside: II (o) 3G IIC T3 (50 Hz)	Part No. 140 140	Part No. 140 150
with dual voltage motor ²⁾ 100-120 V, 50/60 Hz and 200-240 V, 50/60 Hz	Part No. 140 081 ²⁾	Part No. 140 082 ²⁾
Mains cord for dual voltage motor ²⁾ 230 V earthed plug 230 V UK plug 230 V CH plug 230 V NEMA plug (200-240 V) 115 V NEMA plug (100-120 V)	Part No. 200 81 091 Part No. 200 81 097 Part No. 200 81 099 Part No. 200 81 141 Part No. 200 81 090	Part No. 200 81 091 Part No. 200 81 097 Part No. 200 81 099 Part No. 200 81 141 Part No. 200 81 090
Transition connector (250 V AC, 10 A, L+N+PE) only necessary in Switzerland for 1~ pumps	Part No. 800 001 274	Part No. 800 001 274

Accessories

FS 2-4 dust filter	Part No. 186 05	Part No. 186 05
FA 2-4 fine vacuum adsorption trap	Part No. 187 05	Part No. 187 05
Adsorption trap with aluminium oxide	Part No. 854 14	Part No. 854 14
Activated aluminium oxide, 1.3 kg (2 l approx.)	Part No. 854 10	Part No. 854 10
TK 4-8 cold trap	Part No. 188 20	Part No. 188 20
AF 4-8 exhaust filter	Part No. 189 06	Part No. 189 06
AR 4-8 exhaust filter with lubricant return	Part No. 189 20	Part No. 189 20
AK 4-8 condensate trap	Part No. 188 06	Part No. 188 06
OF 4-25 mechanical oil filter	Part No. 101 91	Part No. 101 91
CF 4-25 chemical oil filter	Part No. 101 96	Part No. 101 96
Connector for gas ballast inlet M 16 x 1.5 – DN 16 KF	Part No. 168 40	Part No. 168 40
Oil drain tap M 16 x 1.5	Part No. 190 90	Part No. 190 90

Spare Parts

Inside section	Part No. E 200 10 989	Part No. E 200 10 991
Seal kit	Part No. 197 20	Part No. 197 20

¹⁾ Certification after 94/9/EG (ATEX), Category 3 inside. Inside: II (i) 3G IIC T4 (50 Hz), T3 (60 Hz)

²⁾ A mains cord needs to be ordered additionally