

B-Range Vacuum Exhausters & Low-Pressure Compressors

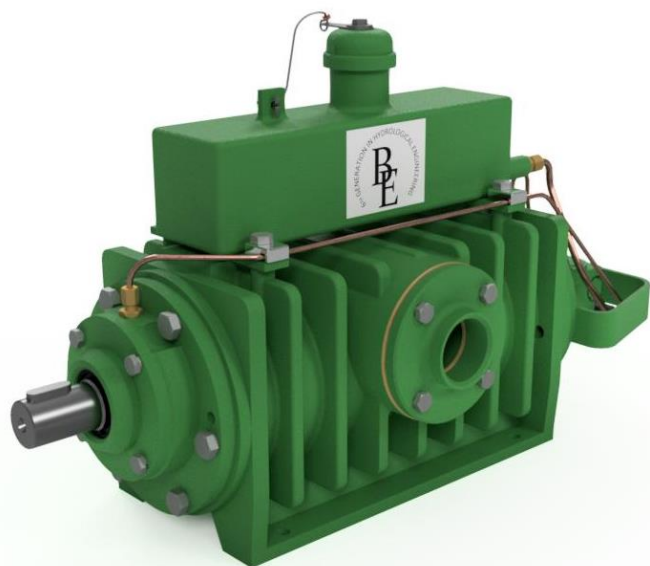


Figure 1: B-Range Vacuum Exhauster

The B-Range vacuum exhausters and low-pressure compressors are designed for specialised vacuum systems, most commonly used in the effluent industry for the collection of sewerage, oil, grease and chemicals.

The pumps utilise a lost oil process, it is recommended that the oil used in the product be any standard engine oil (i.e. not hydraulic oil or any other specialised lubricants).

It is important to ensure that that pump is accompanied by all the vacuum/pressure accessories relevant to the application of the product.

Table 1: Product Sizing and Requirements

Tanker Size	B-Range Model	Suction Air at Up to -65kPa & 1500RPM	Power Required			Power Take-Off (PTO) Minimum Pulley Diameter
			Net	Diesel Gross	Petrol Gross	
Up to 3000L	B20	~21 L/sec	1.5 kW	2.0 kW	2.5 kW	120 mm
3000-6000L	B25	~26.5 L/sec	2 kW	2.7 kW	3.0 kW	140 mm
6000-10 000L	B35	~38.5 L/sec	3 kW	3.8 kW	4.2 kW	160 mm
Greater than 10 000L	B50	~51 L/sec	5 kW	6.7 kW	7.5 kW	180 mm

The operating speed of all units is between 900-1500 R.P.M

The B-Range vacuum exhausters and low-pressure compressors are fully serviceable. All parts are sold separately, mitigating downtime and ensuring effective after sales support.

Figure 2 illustrates the standard overhaul-kit required in the event of a system fault, comprising of rotary vane blades, various seals and bearings. All information regarding the servicing and longevity of the product are available in the product user manual.



Figure 2: Standard Overhaul Kit Items (Service Parts)

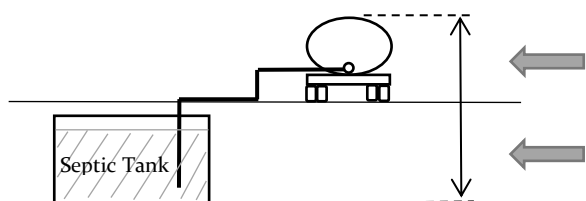
Collection & Dumping Times

It is important to note that when collecting and discharging effluent that there are several variables that influence the rate of flow (i.e. hydraulic head, depth, temperature, vessel geometry, altitude and effluent type).

Tables 2 & 3 are theoretical approximations for collection and discharge times expected for a round sewerage tanker utilising a 100mm (4") pipe at standard atmospheric conditions (i.e. 25°C, 45% RH, at the specified altitudes)



Figure 3: Broom Truck Arrangement



Note: Water can be lifted 1 meter for every -10kPa. Thus, it is essential to access the height of your tanker in relation to the maximum depth to ensure the tanker is filled

Table 2: Theoretical Discharge Time (Minutes) Against Closed Valve at -65kPa

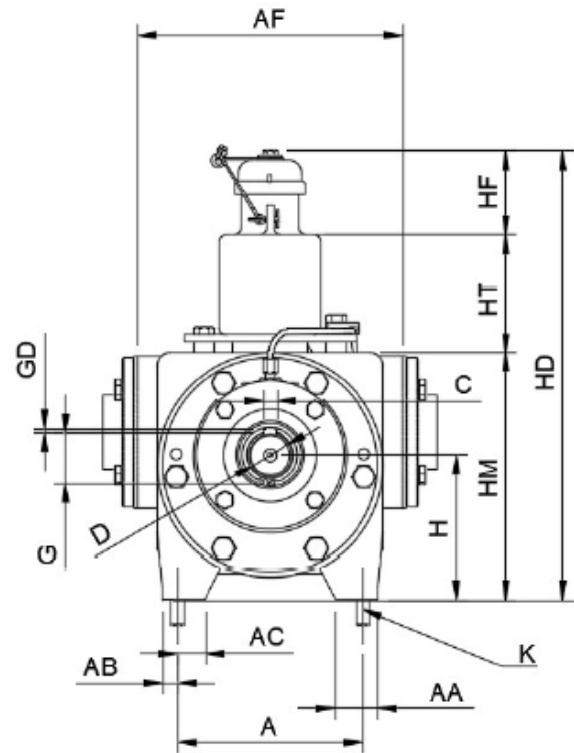
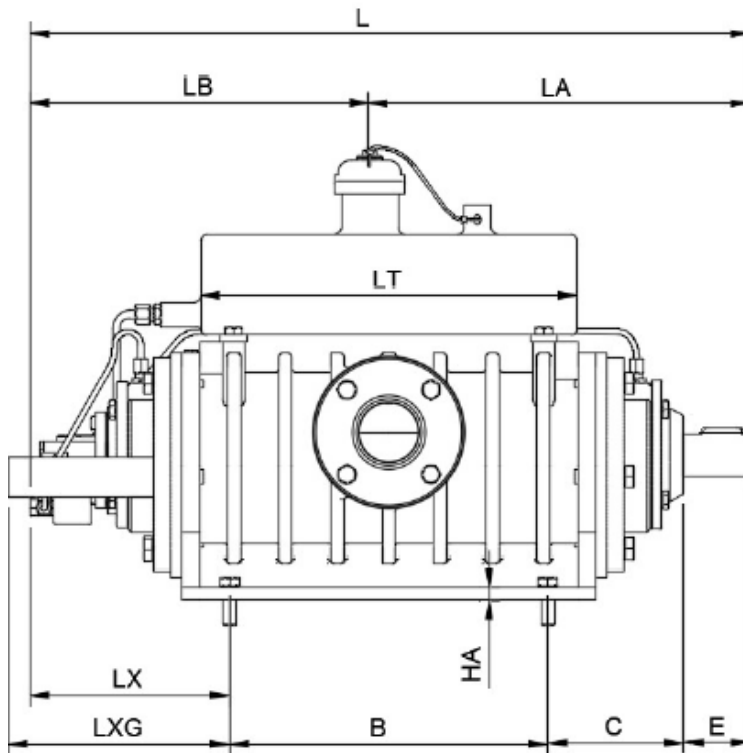
Sea Level						1800 Meters Above Sea Level				
Model	4000L	6000L	8000L	10 000L	12 000L	4000L	6000L	8000L	10 000L	12 000L
B20	2.1	3.2	3.9	4.8	5.8	2.9	4.5	5.8	7.1	8.6
B25	1.8	2.7	3.6	4.5	5.4	2.5	3.8	5.0	6.3	7.5
B35	1.2	1.8	2.4	3.0	3.6	1.7	2.5	3.3	4.2	5.0
B50	0.9	1.4	1.8	2.3	2.7	1.3	2.0	2.5	3.3	3.8

Table 3: Approximate Collection Time (Minutes) Once Exhauster Starts

Sea Level						1800 Meters Above Sea Level				
Model	4000L	6000L	8000L	10 000L	12 000L	4000L	6000L	8000L	10 000L	12 000L
B20	4.9	6.8	9.0	12.5	13.8	5.8	9.4	10.9	15.4	18.7
B25	4.2	6.3	8.4	10.5	12.6	4.9	7.4	9.8	12.3	14.7
B35	2.8	4.2	5.6	7.0	8.4	3.3	5.0	6.5	8.2	10.0
B50	2.1	3.2	4.2	5.3	6.3	3.7	3.7	4.9	6.2	7.4

The times indicated above can be expected with the pipe connected and an open valve so that filling can begin as soon as the exhauster starts

Exhauster Dimentions



	A	AA	AB	AF	B	BB	HOLE DIAG	C	D	E
B15	12.0	32	10	180	65	125	136.5	128	24	38
B20	140	32	10	180	110	170	178	90	24	50
B25	140	32	10	200	150	210	205.2	91	32	50
B35	140	32	10	200	240	320	277.8	101	32	50
B50	150	32	10	230	240	320	283	106	32	50
	F	G	GD	H	HA	HD	HM	HT	HF	KØ
B15	8	20	8	90	10	287	158	80	45	10
B20	8	20	8	100	10	297	172	80	45	10
B25	10	28	8	110	10	312	187	80	45	10
B35	10	28	8	110	10	312	187	80	45	10
B50	10	28	8	115	12	357	207	150	45	10
	L	LT	LA	LB	LX	LXG	Flanges	In & Out	Mass	
B15	340	140	165	175	142.5	160	SABC 1123 6 (600-4)	25Rp	22KG	
B20	394	140	198	196	141	160	4-11Ø holes on 7.5 PCD	40Rp	32KG	
B25	432	180	216	214	141	168	4-11Ø holes on 9.0 PCD	40Rp	40KG	
B35	540	275	271	269	149	168	4-11Ø holes on 9.0 PCD	40Rp	55KG	
B50	555	240	276	279	150	168	4-11Ø holes on 9.0 PCD	40Rp	74KG	