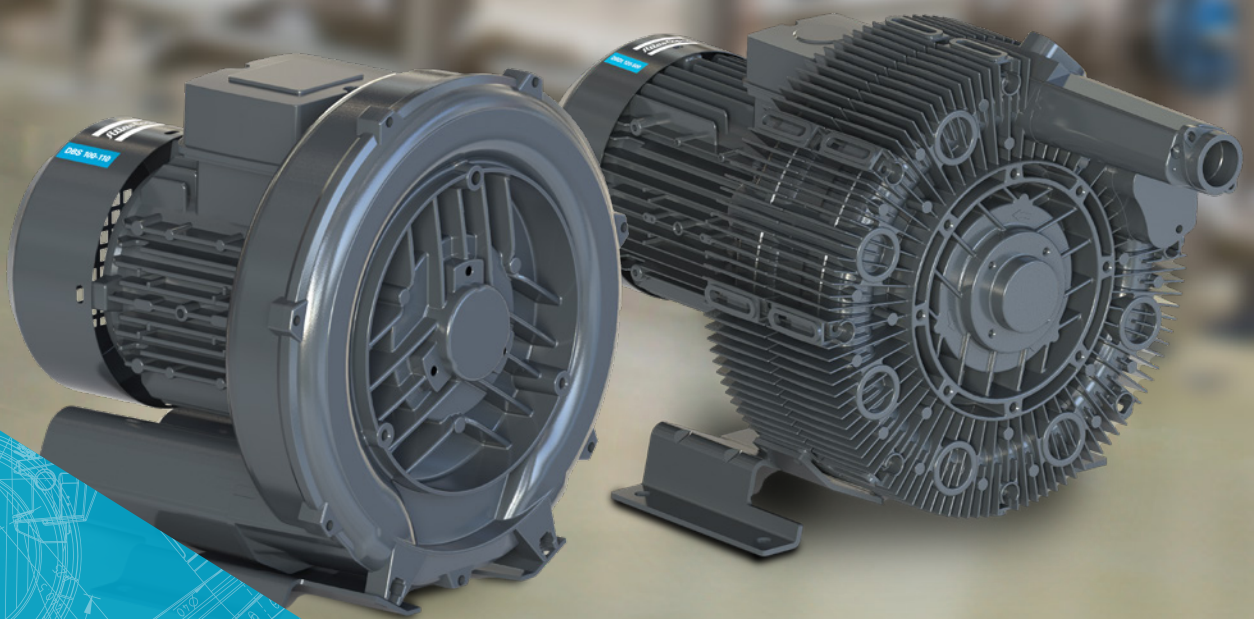




DB Series

Side Channel Blowers

DB series Side Channel Blowers

The Atlas Copco DB series Side Channel Blowers are a range of highly reliable and efficient machines, made for rough vacuum levels and low pressure duty applications. Clean, compact and low noise - they are available in single and double-stage variants.

The DB series have an oil-free design that ensures clean operation, fewer emissions and zero process contamination. With minimal energy consumption

and minimal maintenance, the DB series side channel blowers are ideal choice for rough industrial applications. The effective blade design of the DB series cuts down on noise levels for a quieter working environment. With several models of single-stage, twin impellers and double stage to choose from, we have a suitable blower for your application needs.



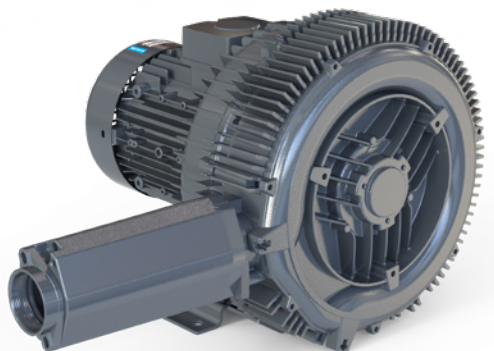
DBS - Single stage and single impeller

Ideal for applications requiring flow rates up to 1370 m³/h for regular vacuum levels up to -360 mbar.



DBSt - Twin impellers and single stage

The twin impellers working in parallel allow for large quantities of suction air up to 2050 m³/h with discrete vacuum levels up to -310 mbar. The twin impeller variant increases the flow capacity of the blower.



DBDt - Twin impellers and double stage

Double stage and twin impellers allow to manage high flow rates up to 1110 m³/hr and higher vacuum levels up to -520 mbar. They are the most complex models to match demanding applications. The double stage variant increases both the pressure difference and the flow rate of the blower.

Features & benefits



Efficiency

The DB series are highly efficient blowers with low energy consumption across the range. Equipped as standard on all models are IE3 motors according to Ecodesign 2009/125/CE.



Robust and reliable

Housed in a fully enclosed aluminium unit with long-life bearings, the DB series side channel blowers are robust and reliable.



Suitable for global installations

The DBS series are available in a wide range of voltages and both 50 and 60 Hz frequencies.



Low noise levels

Due to the effective blade design and integrated silencers both in suction and discharge, our blowers have low sound impact, making the work environment more pleasant.



Dry, clean and oil free

Due to the non-contact and oil free working principle, the DB series have clean exhaust air without oil and dust contamination.



Minimal maintenance

Due to its modular design, non-contacting parts, and the absence of oil or exhaust filters the DB series is nearly maintenance free.



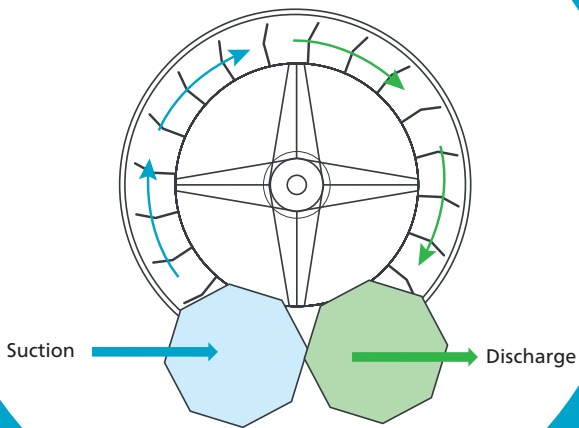
DBS - Single stage and single impeller



DBSt - Twin impellers and single stage



DBDt - Twin impellers and double stage



Working principle

Side channel blowers work on the impulse principle where kinetic energy is transferred from the impeller to the conveying medium and then is converted into pressure. Therefore, they can be used to generate both vacuum and compressed air. Pressure changes are done without any lubrication. In single stage, the blower discharges the pumped medium in one rotation. However, in a multistage version, it gets conveyed to a second or third stage after one rotation. It is compressed and discharged later from a stripper. This leads to higher differential pressures.

Applications

- Roller cleaning
 - Pneumatic conveying
 - Adhesive films
 - Furniture sublimation printing systems
 - Pick & place
- Yarn processing
 - Vacuum tables (CNC)
 - Drying (Stickers, surfaces, polymers)
 - Wine production
 - Pad printing
- Wastewater treatment
 - Paper cutting
 - Auto body shops
 - Suction (Condensation, excess paint, shavings, dust)



Technical specifications

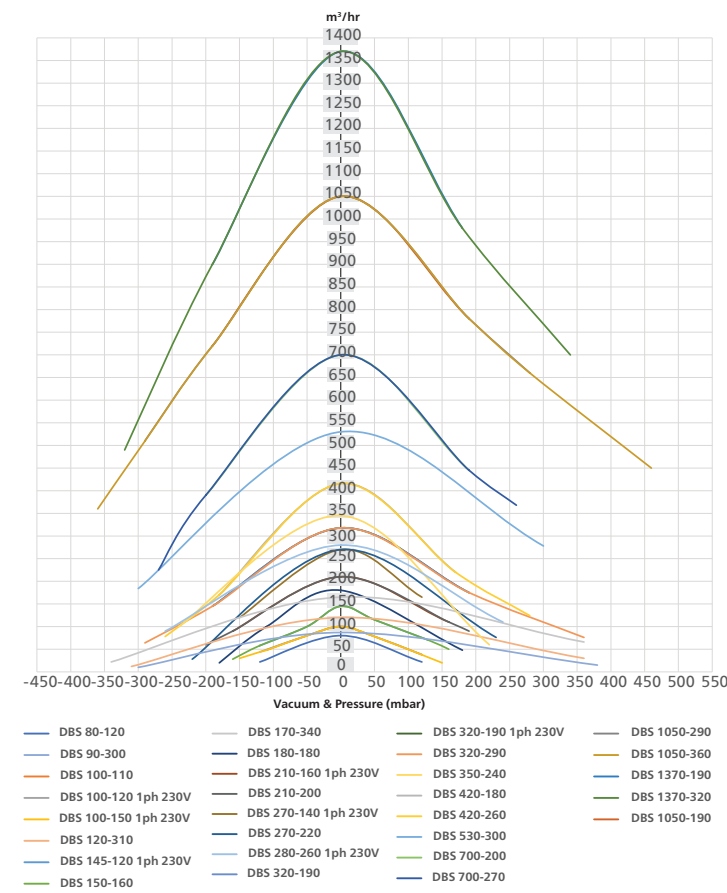
	Units		DBS (Mono/Single)	DBSt (Mono/Double)	DBDt (Twin/Double)
Max. capacity	m³/h (cfm)	50Hz	80 — 1370 (47.1 — 806.4)	500 — 2050 (294.3 — 1206.6)	65 — 1110 (38.3 — 653.3)
		60Hz	98 — 1550 (57.7 — 912.3)	600 — 2480 (353.1 — 1459.7)	76 — 1310 (44.7 — 771)
Max. pressure	mbar (torr)	50Hz	+100 — +460 (75 — 345)	+110 — +280 (82.5 — 210)	+230 — +810 (172.5 — 607.5)
		60Hz	+110 — +420 (82.5 — 315)	+40 — +230 (30 — 172.5)	+200 — +820 (150 — 615)
Max. vacuum	mbar (torr)	50Hz	-110 — -360 (-82.5 — -270)	-130 — -310 (-97.5 — -232.5)	-200 — -520 (-150 — -390)
		60Hz	-110 — -380 (-82.5 — -285)	-60 — -270 (-45 — -202.5)	-220 — -560 (-165 — -420)
Motor power	kW (hp)	50Hz	0.4 — 18.5 (0.54 — 24.8)	4 — 25 (5.4 — 33.5)	0.85 — 20 (1.1 — 26.8)
		60Hz	0.5 — 21.3 (0.67 — 28.6)	4.6 — 29 (6.2 — 38.9)	0.95 — 23 (1.3 — 30.8)

Accessories

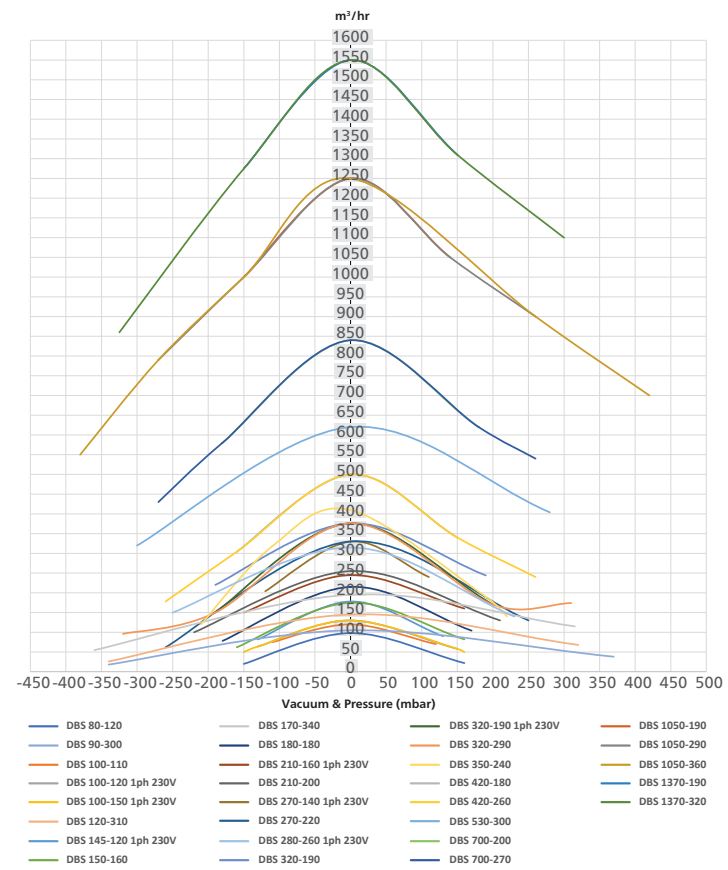
DBS	80/90/100/120/170	145/150/180	210/270/320/420	530/700	1050/1370
DBSt	-	-	500	820	1940
DBDt	70/110/120/170	150	230/320	520	1110
Inlet/outlet connection of pump	G 1 1/4"	G 1 1/2"	G 2"	G 2 1/2"	G 4"
Vacuum Filter (Polyester)	✓	✓	✓	✓	✓
Inlet filter (Compressor mode)	✓	✓	✓	✓	✓
Pressure relief valve	✓	✓	✓	✓	✓
Silencer	✓	✓	✓	✓	✓
Vacuum & Pressure gauges	✓	✓	✓	✓	✓
Elbow, T-Joints & Inner connectors	✓	✓	✓	✓	✓

Performance curves

Vacuum and pressure: DBS @ 50Hz

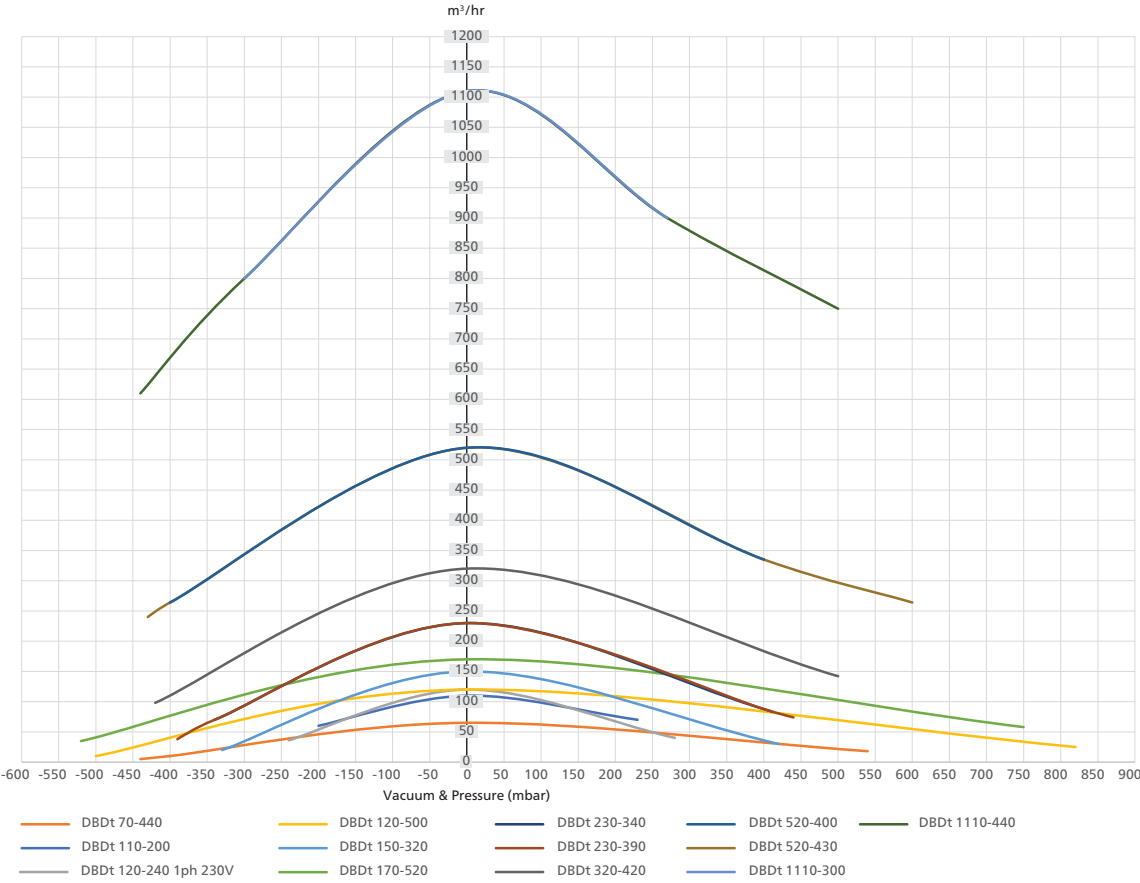


Vacuum and pressure: DBS @ 60Hz

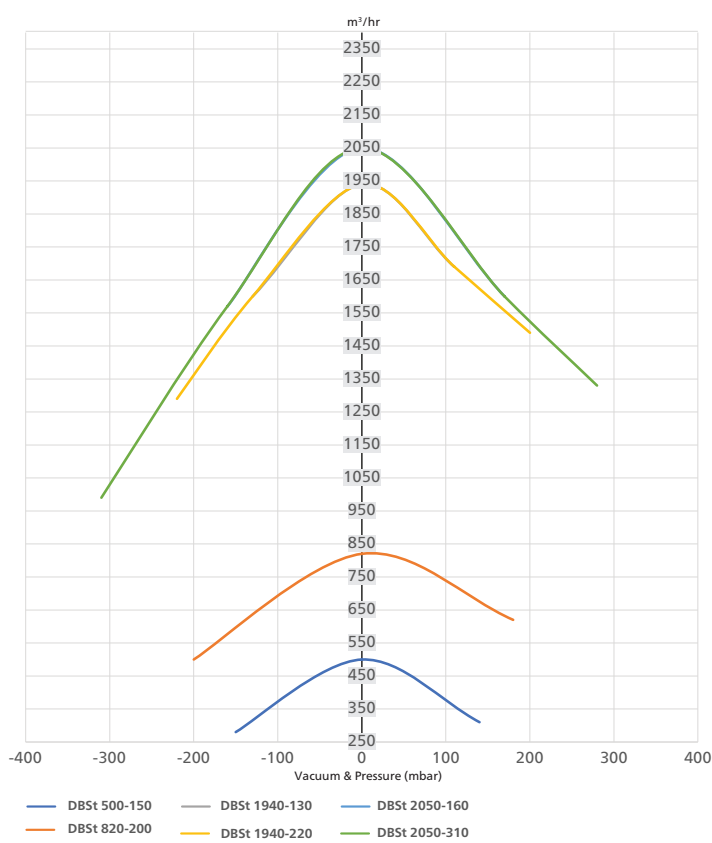


Performance curves

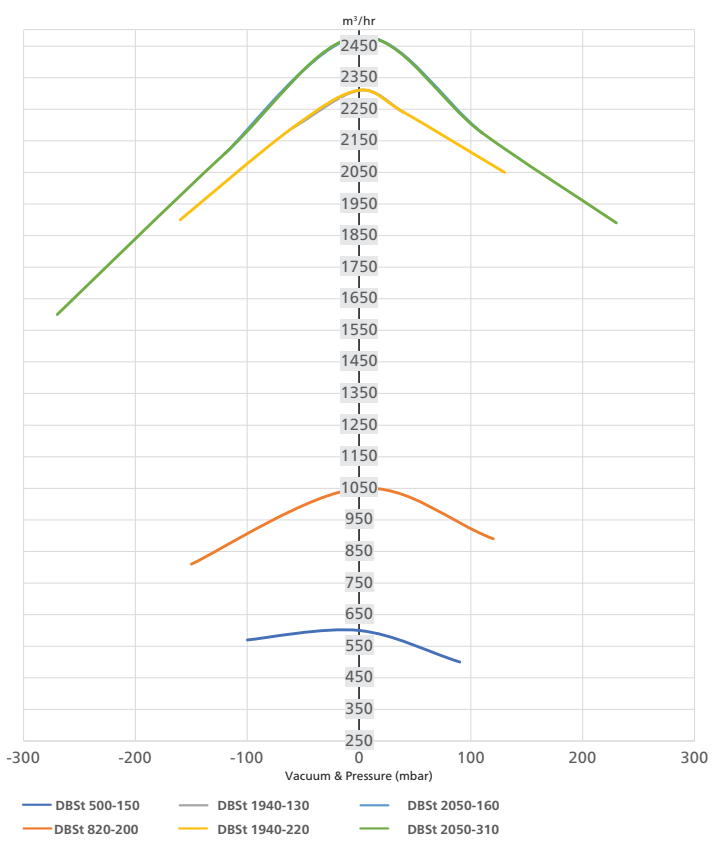
Vacuum and pressure: DBDt @ 50Hz



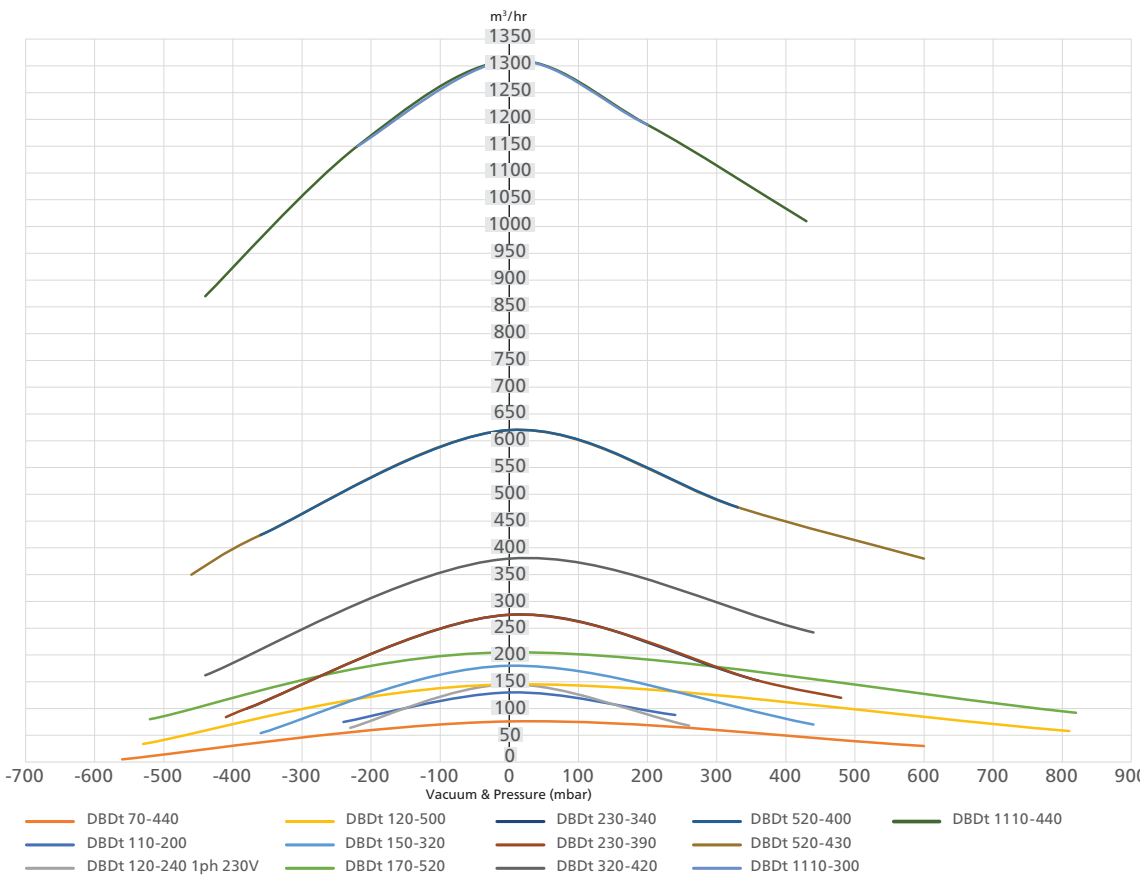
Vacuum and pressure: DBSt @ 50Hz



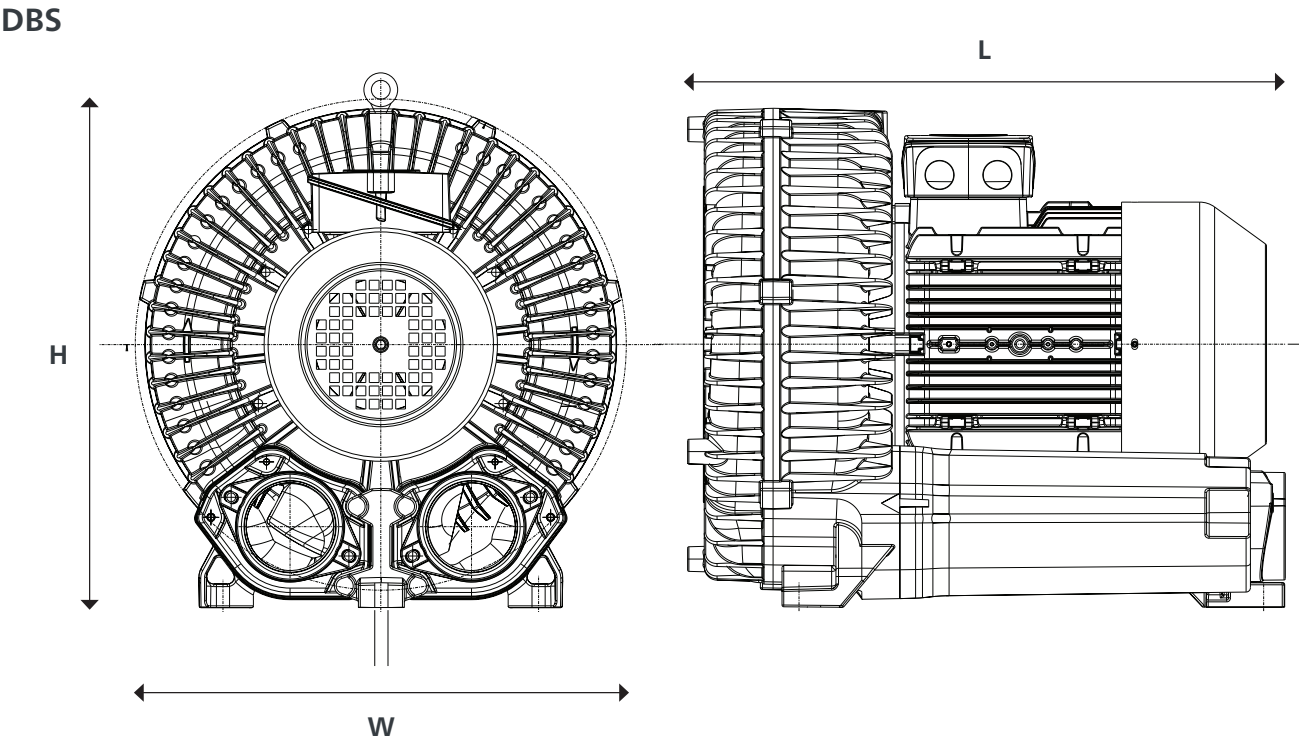
Vacuum and pressure: DBSt @ 60Hz



Vacuum and pressure: DBDt @ 60Hz

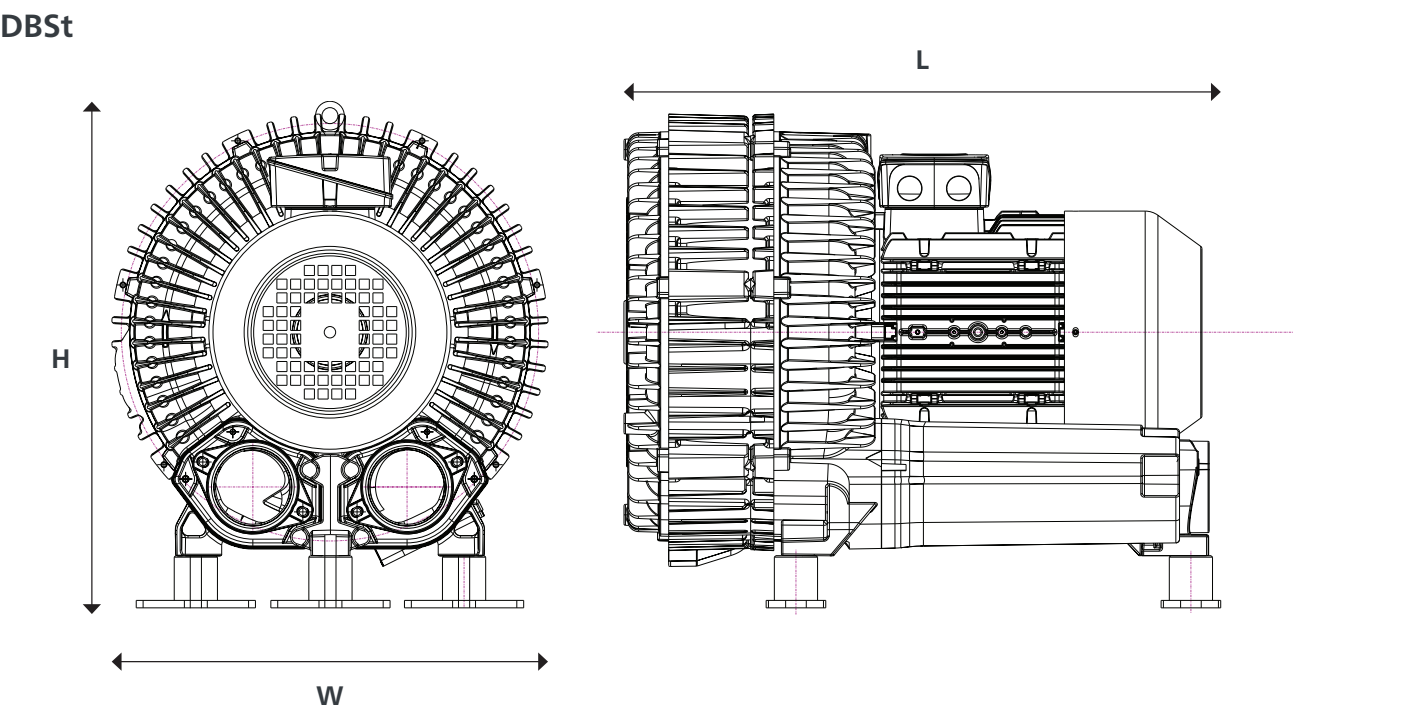


Technical drawings



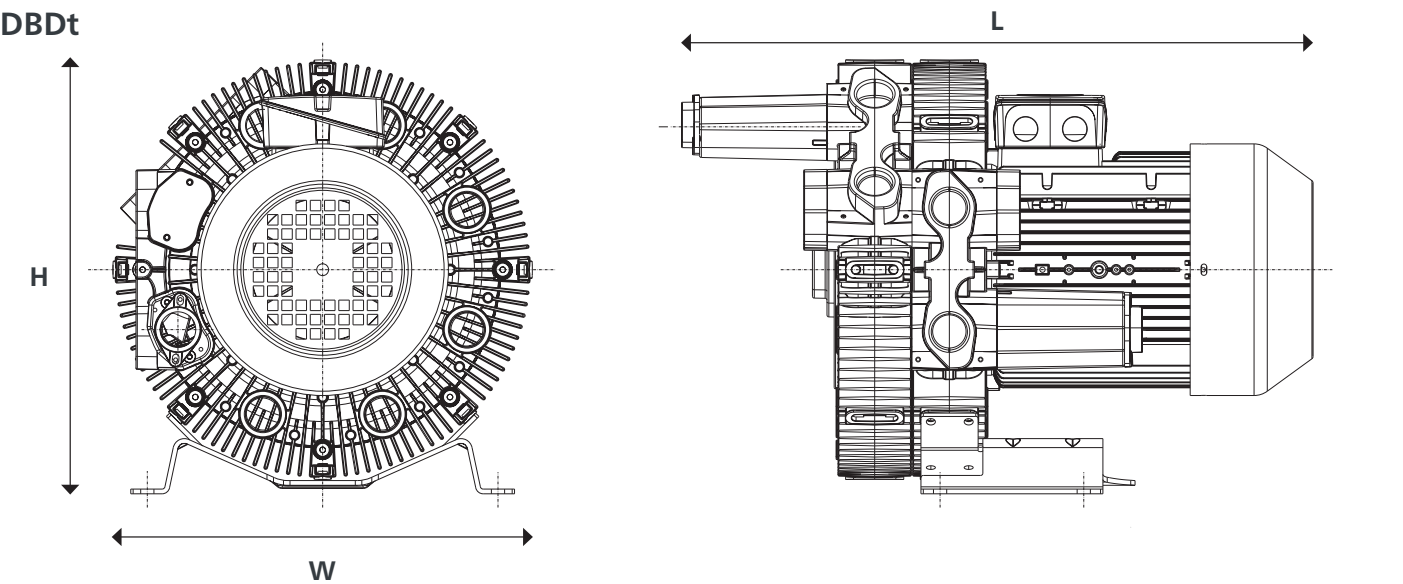
Model	Length		Width		Height		Weight		Inlet/Outlet connection
	mm	in	mm	in	mm	in	kg	lbs	
DBS 80-120	249	9.8	265	10.4	248	9.8	11	24.3	G 1 1/4"
DBS 90-300	350	13.8	365	14.4	418	16.5	23	50.7	G 1 1/4"
DBS 100-110	273	10.7	270	10.6	275	10.8	12	26.5	G 1 1/4"
DBS 100-120 1ph 230V	273	10.7	270	10.6	275	10.8	12	26.5	G 1 1/4"
DBS 100-150 1ph 230V	273	10.7	270	10.6	275	10.8	13	28.7	G 1 1/4"
DBS 120-310	368	14.5	380	15.0	438	17.2	26	57.3	G 1 1/4"
DBS 145-120 1ph 230V	296	11.7	267	10.5	301	11.9	14.7	32.4	G 1 1/2"
DBS 150-160	296	11.7	325	12.8	301	11.9	16	35.3	G 1 1/2"
DBS 170-340	418	16.5	454	17.9	498	19.6	30	66.2	G 1 1/4"
DBS 180-180	296	11.7	337	13.3	301	11.9	17	37.5	G 1 1/2"
DBS 210-160 1ph 230V	340	13.4	370	14.6	337	13.3	21.9	48.3	G 2"
DBS 210-200	340	13.4	370	14.6	337	13.3	22.1	48.7	G 2"
DBS 270-140 1ph 230V	340	13.4	370	14.6	337	13.3	26	57.3	G 2"
DBS 270-220	340	13.4	370	14.6	337	13.3	25.3	55.8	G 2"
DBS 270-240 1ph 230V	365	14.4	378	14.9	366	14.4	30.1	66.4	G 2"
DBS 320-190	389	15.3	400	15.7	384	15.1	31.5	69.5	G 2"

Model	Length		Width		Height		Weight		Inlet/Outlet connection
	mm	in	mm	in	mm	in	kg	lbs	
DBS 320-190 1ph 230V	389	15.3	400	15.7	384	15.1	34	75.0	G 2"
DBS 320-290	389	15.3	455	17.9	384	15.1	40	88.2	G 2"
DBS 350-240	365	14.4	406	16.0	366	14.4	31.8	70.1	G 2"
DBS 420-180	389	15.3	411	16.2	384	15.1	32.6	71.9	G 2"
DBS 420-260	389	15.3	466	18.3	384	15.1	44	97.0	G 2"
DBS 530-300	459	18.1	464	18.3	461	18.1	64.4	142.0	G 2 1/2"
DBS 700-200	459	18.1	482	19.0	461	18.1	66.5	146.6	G 2 1/2"
DBS 700-270	459	18.1	482	19.0	461	18.1	69.2	152.6	G 2 1/2"
DBS 1050-190	560	22.0	565	22.2	569	22.4	104	229.3	G 4"
DBS 1050-290	560	22.0	622	24.5	569	22.4	126.6	279.2	G 4"
DBS 1050-360	560	22.0	622	24.5	569	22.4	153	337.4	G 4"
DBS 1370-190	560	22.0	660	26.0	569	22.4	127	280.0	G 4"
DBS 1370-320	560	22.0	660	26.0	569	22.4	153	337.4	G 4"
DBS 1020-300	637	25	548	21.5	606	23.7	120.5	265.6	G 4"
DBS 1020-375	637	25	548	21.5	606	23.8	140	308.6	G 4"



Model	Length		Width		Height		Weight		Inlet/Outlet connection
	mm	in	mm	in	mm	in	kg	lbs	
DBSt 500-150	426	16.8	550	21.7	470	18.5	61.2	134.9	G 2"
DBSt 820-200	500	19.7	577	22.7	550	21.7	90.1	198.7	G 2 1/2"
DBSt 1940-130	610	24.0	763	30.0	662	26.1	155	341.8	G 4"

Model	Length		Width		Height		Weight		Inlet/Outlet connection
	mm	in	mm	in	mm	in	kg	lbs	
DBSt 1940-220	610	24.0	763	30.0	662	26.1	184	405.7	G 4"
DBSt 2050-160	662	26.1	610	24.0	763	30.0	212	467.5	G 5"
DBSt 2050-310	662	26.1	610	24.0	833	32.8	249.5	550.1	G 5"



Model	Length		Width		Height		Weight		Inlet/Outlet connection
	mm	in	mm	in	mm	in	kg	lbs	
DBDt 70-440	328	12.9	566	22.3	392	15.4	30	66.2	G 1 1/4"
DBDt 110-200	505	19.9	390	15.4	289	11.4	18	39.7	G 1 1/4"
DBDt 120-240 1ph 230V	505	19.9	390	15.4	289	11.4	17	37.5	G 1 1/4"
DBDt 120-500	369	14.5	685	27.0	399	15.7	31.5	69.5	G 1 1/4"
DBDt 150-320	320	12.6	426	16.8	315	12.4	27	59.5	G 1 1/2"
DBDt 170-520	444	17.5	667	26.3	459	18.1	52	114.7	G 1 1/4"
DBDt 230-340	368	14.5	508	20.0	360	14.2	45.2	99.7	G 2"

Model	Length		Width		Height		Weight		Inlet/Outlet connection
	mm	in	mm	in	mm	in	kg	lbs	
DBDt 230-390	480	18.9	475	18.7	360	14.2	64.4	142.0	G 2"
DBDt 320-420	426	16.8	590	23.2	410	16.1	65	143.3	G 2"
DBDt 520-400	825	32.5	577	22.7	490	19.3	88.3	194.7	G 2 1/2"
DBDt 520-430	825	32.5	747	29.4	490	19.3	135.3	298.3	G 2 1/2"
DBDt 1110-300	610	24.0	763	30.0	610	24.0	163	359.4	G 4"
DBDt 1110-440	610	24.0	763	30.0	610	24.0	202	445.4	G 4"



We take over the maintenance planning and responsibility for servicing your vacuum pump on a regular basis. Our Preventive Care plan is tailored to your pump's needs. As your pump is serviced with the latest technology, high levels of energy efficiency are achieved. We will also optimize service events to reduce your total cost of ownership and increase your productivity. This allows you to focus fully on your production.



Our vacuum specialists are well-trained and experts in the field. They will help you to improve uptime and protect your processes. Regular maintenance conducted by one of our vacuum specialists reduces the risk of deterioration. Damaged or worn parts will be replaced with genuine Atlas Copco spare parts to protect your investment and increase the lifespan of your vacuum pumps.



Regular scheduled maintenance can identify potential problems before they occur and plans can be structured around your individual production situation. Preventive Care enables cost management as you can plan your maintenance costs in advance. In this way, expenses associated with unplanned downtime are minimized.



We use genuine Atlas Copco spare parts and oil and our services are conducted by vacuum specialists. This enhances your vacuum pump performance, reducing the risk of downtime and enabling your production to run more smoothly.



Atlas Copco AB
atlascopco.com/vacuum

