

STOKES RB & GB SERIES

Mechanical booster pumps

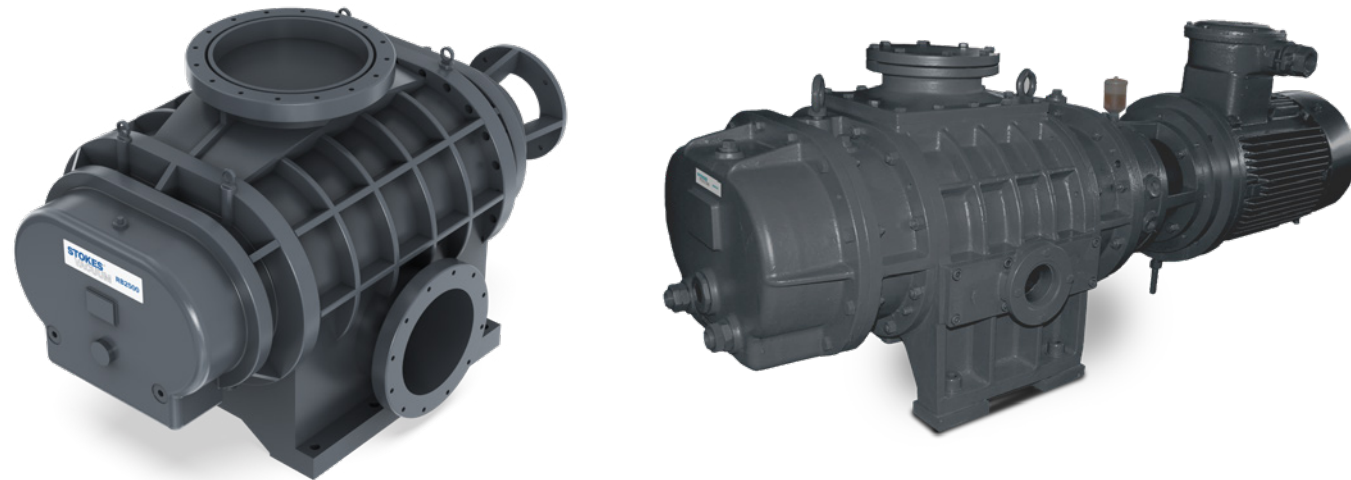
STOKES[®]
VACUUM

For over 100 years, Stokes Vacuum has offered time-tested, proven performance with experienced service and technical support.




Our latest offering, the Stokes RB & GB series mechanical booster pumps feature a rugged design for robust and reliable operation in large-scale process general industrial and chemical markets.







Stokes RB & GB series mechanical boosters offer a versatile, high-performance solution for demanding vacuum applications. The Stokes RB series, featuring two-lobe mechanical boosters, and the Stokes GB series, with a three-lobe design and exhaust gas cooling are available in capacities ranging from 170 to 2,700 m³/h. These boosters, especially when paired with backing pumps, significantly enhance pumping speeds, effectively reducing pump-down time and achieving a higher vacuum level by one decade.

Engineered for flexibility, the Stokes RB & GB series come in both bare-shaft and direct-drive motor options, with configurations including a single mechanical seal or a process isolation variant featuring five mechanical seals for superior protection against dust and particulates in harsh environments. For further adaptability, wetted parts are available in ENP or Hastelloy C coatings, tailored to meet diverse industry needs. The Stokes RB & GB series stand out as some of the most versatile and adaptable boosters available, designed to excel across various applications.



Features and benefits

-  **Increased lifetime**
-  **Configured for your needs**
-  **Reliable & simple to use**
-  **Easy to maintain**
-  **Increased productivity**
-  **Simple to service**

-  **Robust**
Increased lifetime, reliability and simple to use with strengthened shafts, and dynamically balanced impellers.
-  **Flexibility**
Can be supplied with standard motor or without motor to allow a local motor to be fitted. Horizontal or vertical flow as per application and system design needs.
-  **Reliability**
High-performance with oil lubricating mechanical shaft seal, strengthened shaft and large helical gears. Featuring mechanical seal variants for optimum protection against dust and particles in arduous applications.
-  **Adaptability**
GB series, gas cooling boosters fit to harsh application where high delta P is required. Minimized oil emulsification risk due to special designed bearing chamber which allows steady operation when dealing with steam and solvent applications.
-  **Performance**
Stable process and high delta P for consistent output - Suitable for continuous operation over wide pressure ranges.
-  **Easy to maintain**
The mechanical shaft seal leads to improved life and ease of serviceability.

Applications

- Coating
- Vacuum drying
- Pharmaceutical
- Chemical process
- Vacuum packaging
- Vacuum metallurgy
- Vacuum impregnation
- Oil degassing
- Freeze drying
- Vacuum distillation

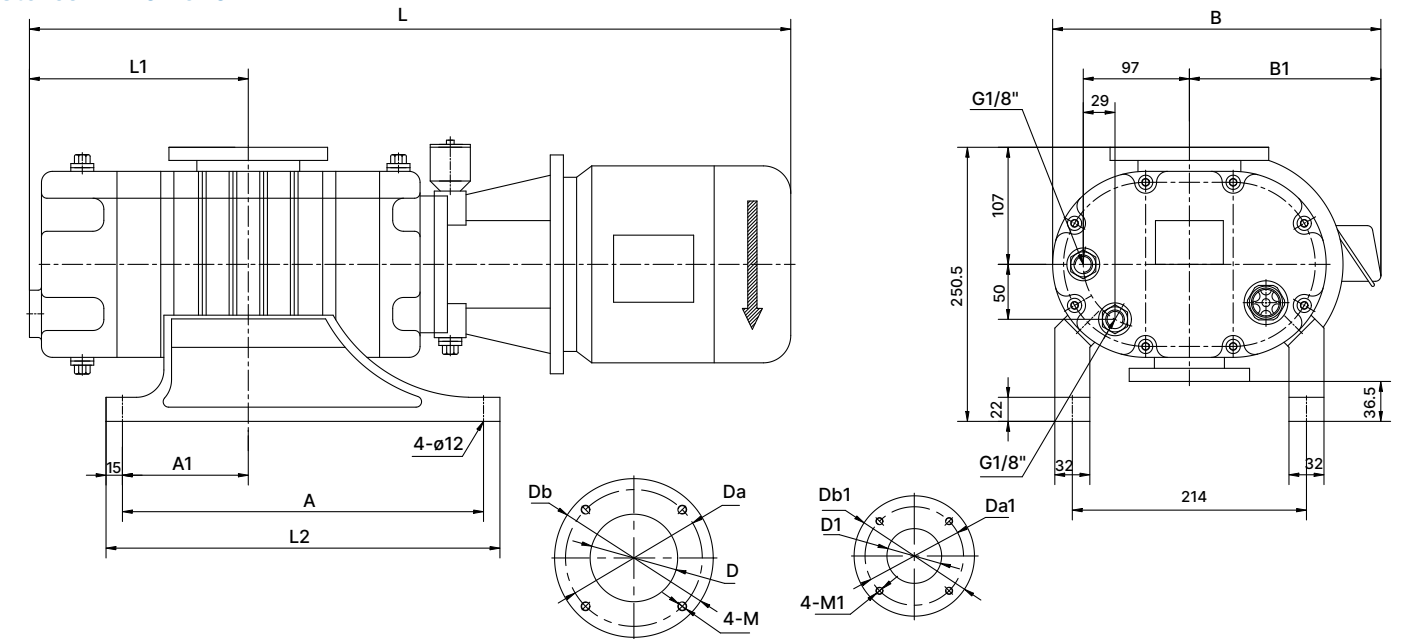


Technical specifications

		Units	RB170	RB320	RB700	RB1350	RB2700
Displacement 50Hz		m ³ /h (cfm)	170 (100)	321 (189)	707 (416)	1350 (795)	2720 (1600)
Inlet connection			DN50	DN80	DN100	DN150	DN150
Outlet connection			DN40	DN50	DN100	DN150	DN150
Weight		kg (lb)	80 (176)	100 (220)	215 (474)	300 (660)	480 (1058)
Dimensions	L	mm	411	486	713	937	962
	W		254	265	462	557	557
	H		266	268	390	520	519
Motor Power 50Hz		kW (hp)	0.75 (1)	1.5 (2)	3 (4)	4 (5.4)	7.5 (10)
Oil capacity gear case		Liter	0.5	0.5	1.55	4	4
Oil capacity coupling cover		Liter	0.35	0.35	0.5	1.3	1.3
Oil capacity shaft seal reservoir		Liter	0.01	0.01	0.07	0.17	0.17
Water cooling req		l/hr (gal/min)	300 (1.3)	300 (1.3)	500 (2.2)	900 (3.9)	900/3.9

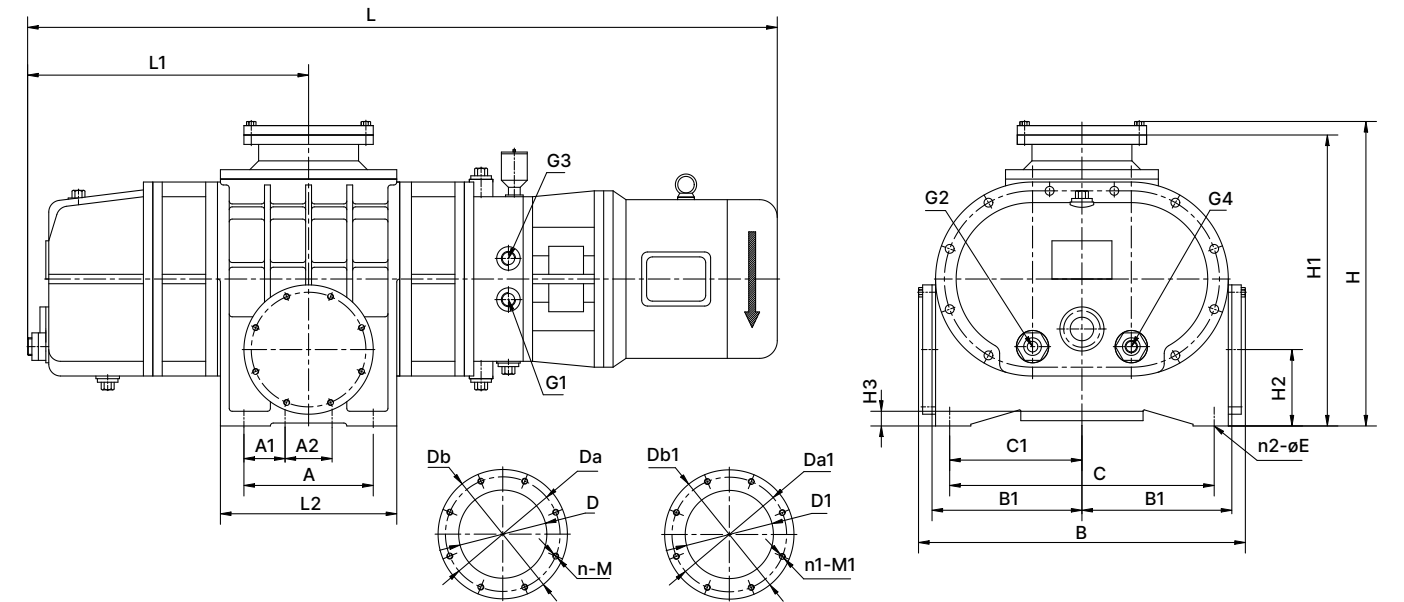
		Units	GB170	GB320	GB700	GB1350	GB2700
Displacement 50Hz		m ³ /h (cfm)	173/102	328/193	707/416	1349/794	2716/1598
Inlet connection			DN50	DN80	DN100	DN150	DN150
Outlet connection			DN40	DN50	DN100	DN150	DN150
Weight		kg (lb)	80/176	100/220	215/474	480/1058	503/1109
Dimensions	L	mm	411	486	713	937	962
	W		267	267	379	543	543
	H		243	247	390	449	449
Motor Power 50Hz		kW (hp)	0.75 (1)	1.5 (2)	3 (4)	4 (5.4)	7.5/10
Oil capacity gear case		Liter	0.5	0.5	1.55	4	4
Oil capacity coupling cover		Liter	0.35	0.35	0.5	1.3	1.3
Oil capacity shaft seal reservoir		Liter	0.01	0.01	0.07	0.17	0.17
Water cooling req		l/hr (gal/min)					

Stokes RB170 - 320



Type	A	A1	B	B1	L	L1	L2	D	Da	Db	M	D1	Da1	Db1	M1
RB170	270	85	267	142	636	163	300	50	90	110	M8	40	70	85	M6
RB320	330	115	320	175	736	200	360	80	125	145	M8	50	90	110	M8

Stokes RB700 - 2700

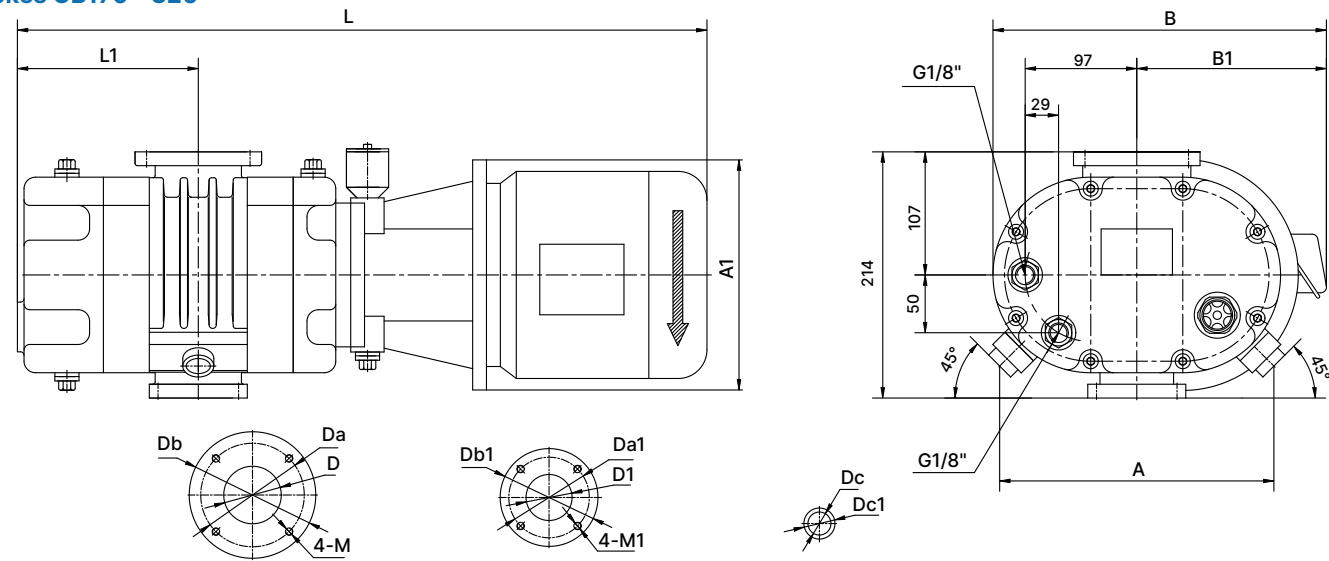


Type	A	A1	A2	B	B1	C	C1	n2	øE	L	L1	L2	H	H1	H2
RB700	144	-	-	462	210	328	164	4	φ15	1030	320	184	391	370	100
RB1350	220	-	-	556	255	450	225	4	φ21	1328	478	300	518	495	130
RB2700	220	-	-	556	255	450	225	4	φ21	1403	478	300	518	495	130

Type	H3	G1	G2	G3	G4	D	Da	Db	n	M	D1	Da1	Db1	n1	M1
RB700	35	G1/4"	G1/4"	G1/4"	G1/4"	100	145	170	4	M10	100	145	170	4	M10
RB1350	25	G1/2"	G1/2"	G1/2"	G1/2"	150	195	220	8	M10	150	195	220	8	M10
RB2700	25	G1/2"	G1/2"	G1/2"	G1/2"	150	195	220	8	M10	150	195	220	8	M10

Dimensions - GB series

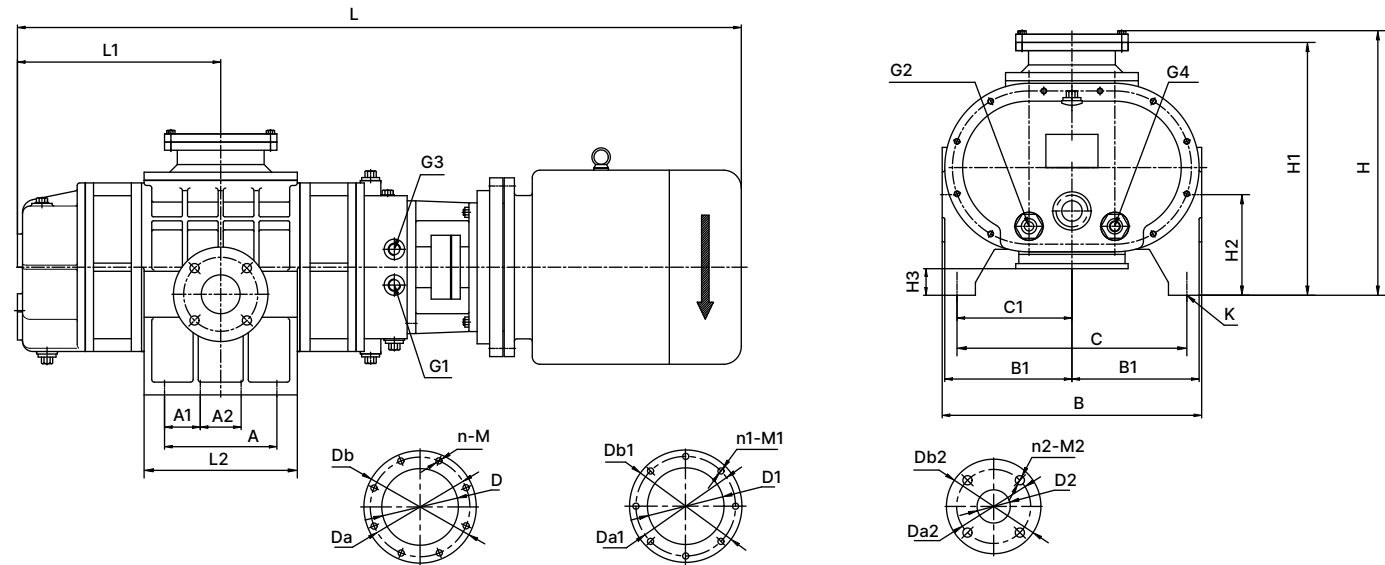
Stokes GB170 - 320



Type	A	A1	B	B1	L	L1	D	Da	Db	M	D1	Da1	Db1	M1	Dc1	Dc2
GB 15	238	200	265	140	686	163	50	90	110	M8	40	70	85	M8	20	27
GB 170	238	200	265	140	686	163	50	90	110	M8	40	70	85	M8	20	27
GB 320	227	250	320	175	859	200	80	125	145	M8	50	90	110	M8	25	35

*L, A1 differ upon different motor selection, please refer to IOM for more details

Stokes GB700 - 2700



Type	A	A1	A2	B	B1	C	C1	L	L1	L2	H	H1	H2	H3	G1	G2	G3
GB700	144	-	-	348	184	328	164	1130	320	186	391	370	177	50	G1/4"	G1/4"	G1/4"
GB1350	220	-	-	508	249	450	225	1328	398	300	520	495	197	75	G1/2"	G1/2"	G1/2"
GB2700	220	-	-	508	249	450	225	1543	398	300	520	495	197	75	G1/2"	G1/2"	G1/2"

Type	G4	D	Da	Db	N	M	D1	Da1	Db1	N1	M1	D2	Da2	Db2	N2	M2	K
GB700	G1/4"	100	145	170	4	M10	100	145	170	4	M10	40	70	85	4	M6	4-φ15
GB1350	G1/2"	150	195	220	8	M10	150	195	220	8	M10	65	105	125	4	M8	4-φ21
GB2700	G1/2"	150	195	220	8	M10	150	195	220	8	M10	65	105	125	4	M8	4-φ21

Service solutions

We offer a full complement of vacuum pump services, including commissiocenuine spare parts and oil, remanufacturing, service exchange, field services, and managed maintenance.



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