

BOX BSTB F400



BELT DRIVEN BACKWARD CENTRIFUGAL IN SOUNDPROOF CABINET 400°C/2H

MANUFACTURING FEATURES:

- BSTB range fans assembled in soundproof cabinets with insulated panels.
- Fan assembled on antivibration mountings.
- Simple inlet, backward impeller with self-cleaning system.
- Supplied with motor, pulleys and belts.
- Gland connection included.
- Standard asynchronous squirrel-cage motor with IP-55 protection and Class F insulation. Manufactured with standard voltages: 230/400V 50Hz in three phase motors up to 4kW and 400/690V 50Hz for higher powers.

APPLICATIONS:

Designed for inline installation, indoor or outdoor assembly, they are suitable for:

- Air renewal in buildings and industries.
- Smoke emergency exhaust with motor outside the hazardous area (400°C/2h certified).
- Industrial and professional kitchen hoods.
- Maximum working temperature: carried air 130°C; environment 60°C.

UNDER REQUEST:

- Special voltages.
- 2 speed motors.
- Orientation:
 - LG90 (horizontal).
 - LG0 (vertical outlet).

Official homologation by the European laboratory APPLUS according to EN 12101-3:2015

Certification Nr: 0370-CPR-1371

Accessories



AVR



AVS



BA-400



INT



**INT
400**



JE 45

Technical data

Three-phase motor

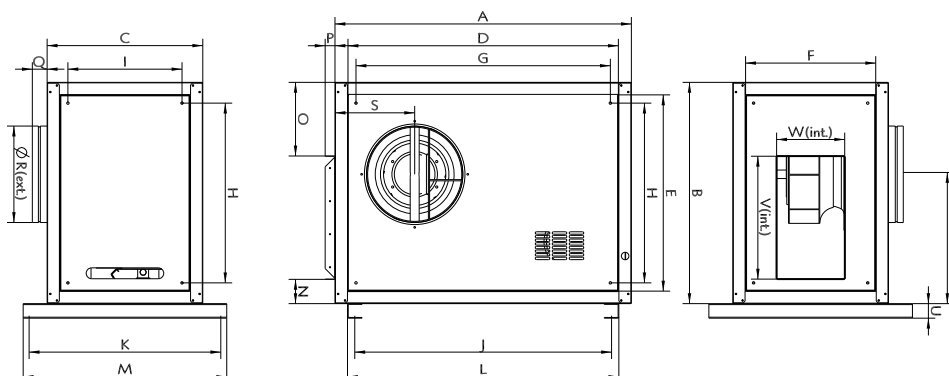
Code	Model	RPM	Min. Rated power kW	Max. Rated power kW	Max. Airflow m³/h	Sound db (A)**	Weight kg	Connect. diagram
	BOX BSTB 355 F400	1300 - 2900	0,37	3,00	6.980	68	103	1
	BOX BSTB 400 F400	1200 - 2800	0,55	4,00	8.710	74	139	1
	BOX BSTB 450 F400	1200 - 2800	0,75	7,50	12.990	79	167	1
	BOX BSTB 500 F400	900 - 2500	1,10	7,50	14.300	78	194	1
	BOX BSTB 560 F400	800 - 2200	1,50	11,00	19.110	79	222	1
	BOX BSTB 630 F400	800 - 1900	2,20	15,00	24.170	78	262	1
	BOX BSTB 710 F400	600 - 1800	3,00	18,50	29.390	79	296	1

Notes:

* The motor is not included in fan weight

** Total sound pressure level at the point of maximum flow measured in dB(A) in the suction measured in free field at a distance of 6m from the source

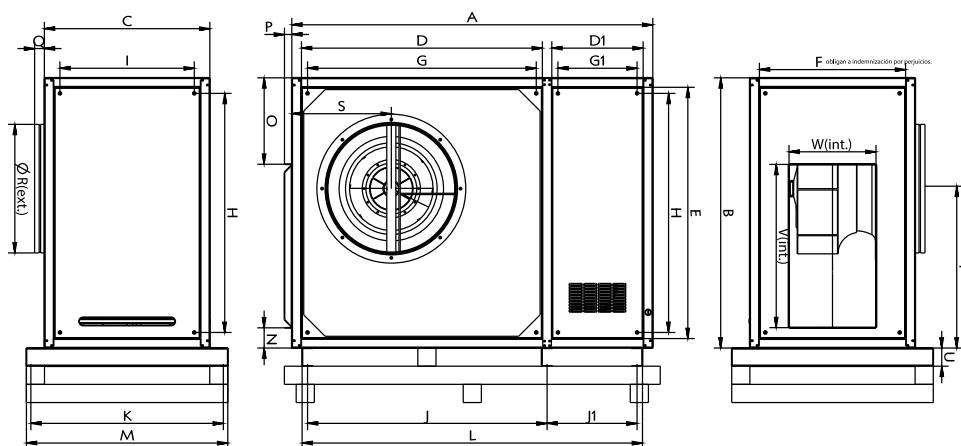
Dimensions



Model	A	B	C	D	E	F	G	H	I
BOX BSTB 355 F400	1068	824	612	960,5	721	506	894,5	652,5	440
BOX BSTB 400 F400	1223	913	642	1117	809	536	1049,5	741,5	471
BOX BSTB 450 F400	1323	1003	692	1215,7	900	587	1149,5	831,5	521
BOX BSTB 500 F400	1423	1100	732	1315,7	997	627	1249,5	928,5	561

Model	J	K	L	M	N	O	P	Q	S
BOX BSTB 355 F400	904,5	760	964,5	809	101	268	40,5	60	307
BOX BSTB 400 F400	1059,5	791	1119,5	840	100	304	40,5	60	329
BOX BSTB 450 F400	1159,5	841	1219,5	890	100	328	40,5	60	375
BOX BSTB 500 F400	1259,5	881	1319,5	930	104	355	40,5	60	399

Model	T	U	V	W	ØR
BOX BSTB 355 F400	485,7	60	453	253	353
BOX BSTB 400 F400	533,7	60	507	281	398
BOX BSTB 450 F400	587,7	60	573	310	448
BOX BSTB 500 F400	643,7	60	639	341	498



Model	A	B	C	D	D1	E	F	G	G1
BOX BSTB 560 F400	1691,5	1216	801,3	1071	461,3	1112,8	696	1004,4	394,6
BOX BSTB 630 F400	1821,5	1343	851	1204,5	458,8	1238,7	745	1137,4	391,6
BOX BSTB 710 F400	1988	1488	912	1326,8	503	1383,7	805	1259,7	435,9

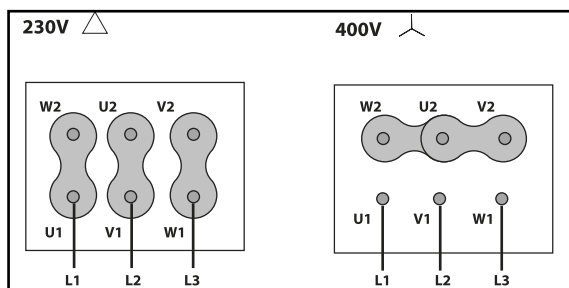
Model	H	I	J	J1	K	L	M	N	O
BOX BSTB 560 F400	1044,7	630	1064	454	950	1578	999	111	387,8
BOX BSTB 630 F400	1171,7	680	1197	451	1000	1708	1049	110	430
BOX BSTB 710 F400	1316,7	740	1319	495,5	1060	1874,5	1109	111	475,8

Model	P	Q	S	T	U	V	W	ØR
BOX BSTB 560 F400	40,5	60	511	715	100	715	383	558
BOX BSTB 630 F400	40,5	60	523	790	100	801	426	628
BOX BSTB 710 F400	40,5	60	545	878	100	899	479	708

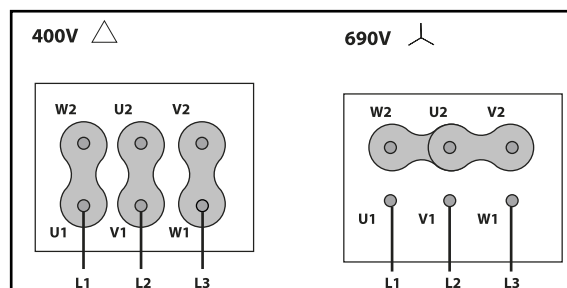
Wiring diagram

Wiring diagram N° 1

230/400V



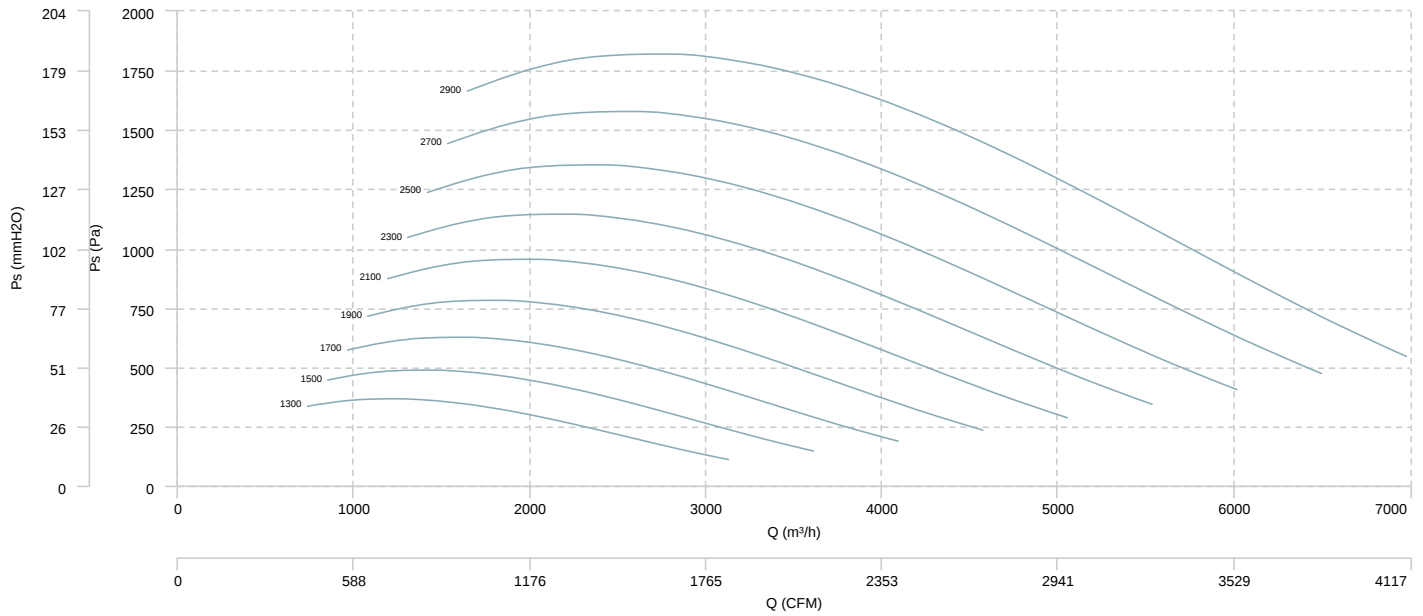
400/690V



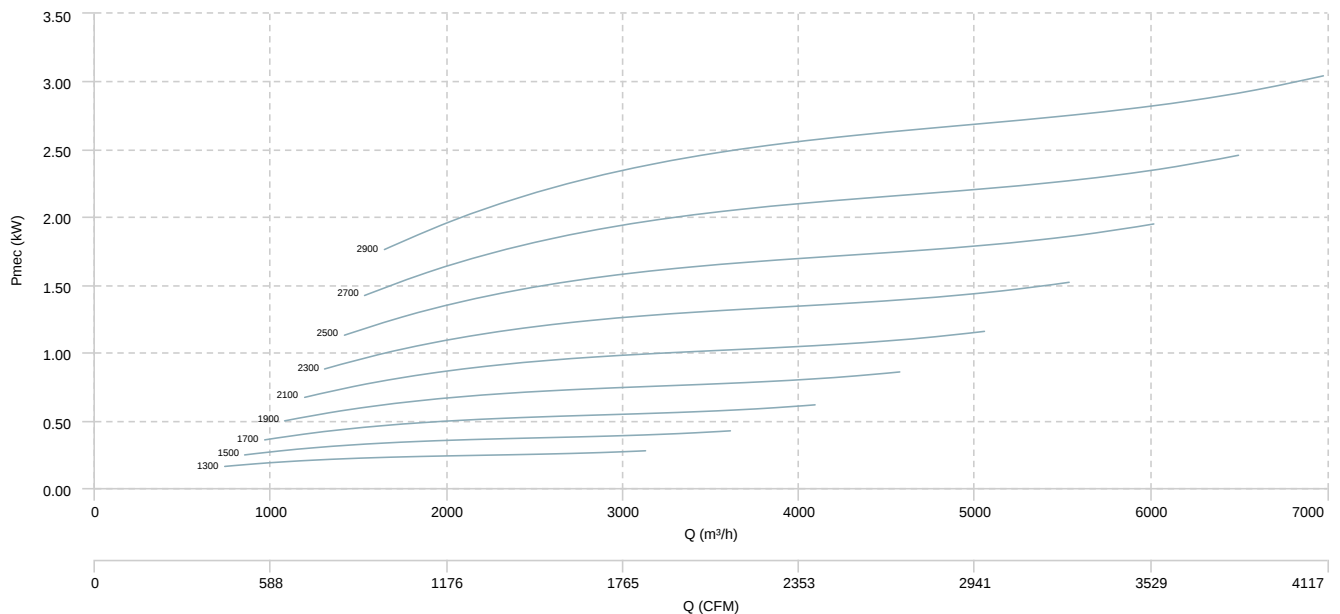
CHARACTERISCTIC CURVE

BOX BSTB 355 F400

AIR FLOW - PRESSURE

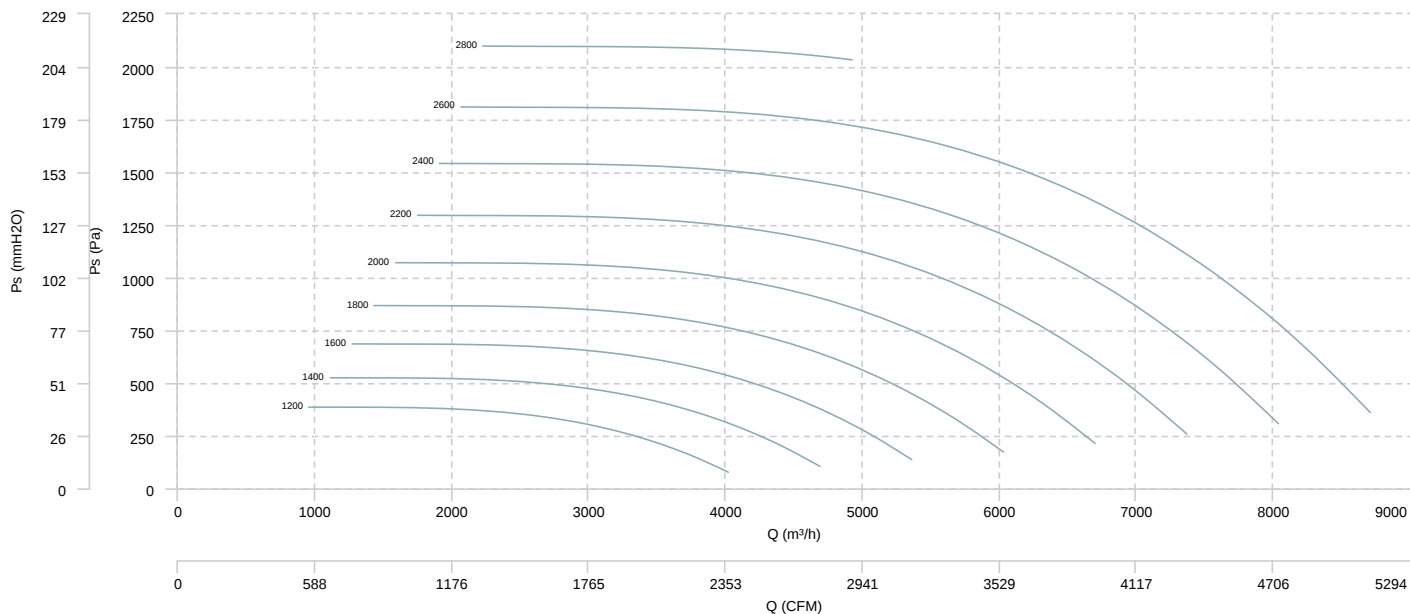


AIR FLOW - MECHANICAL POWER

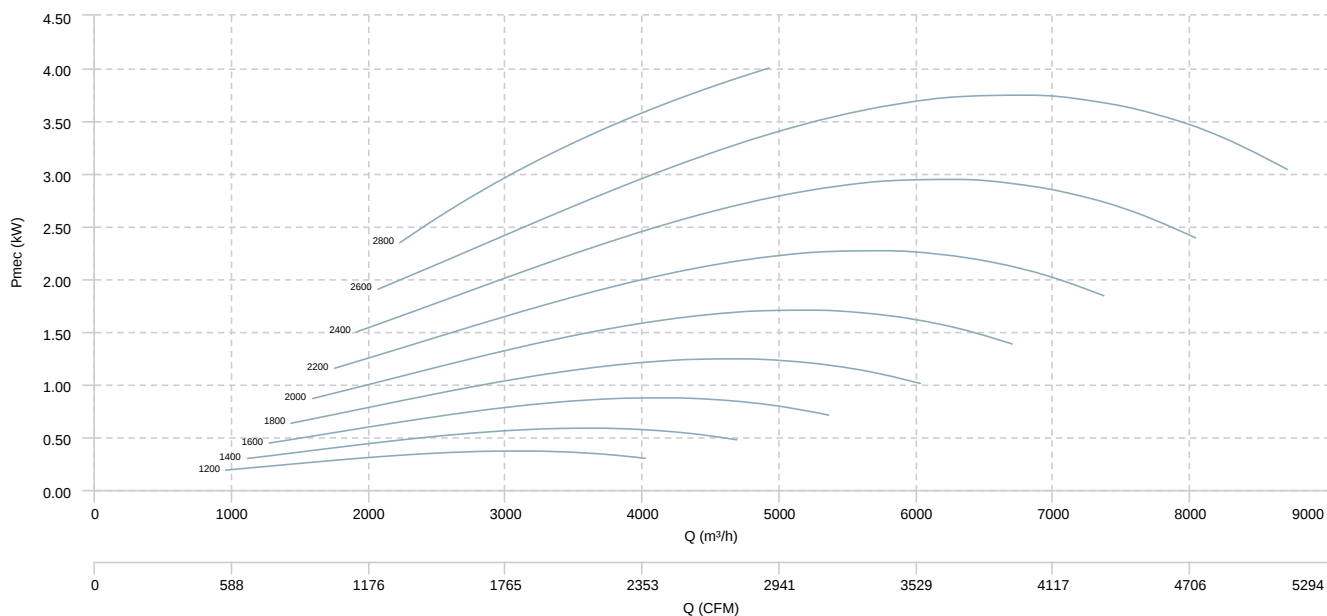


BOX BSTB 400 F400

AIR FLOW - PRESSURE

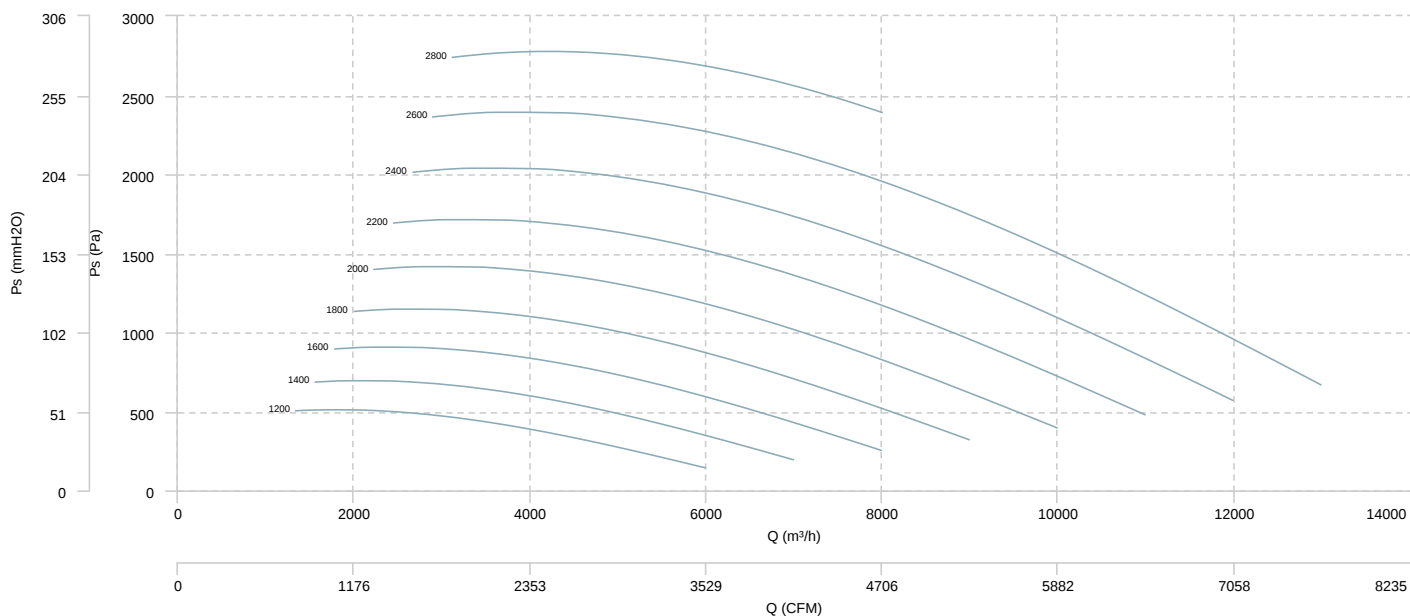


AIR FLOW - MECHANICAL POWER

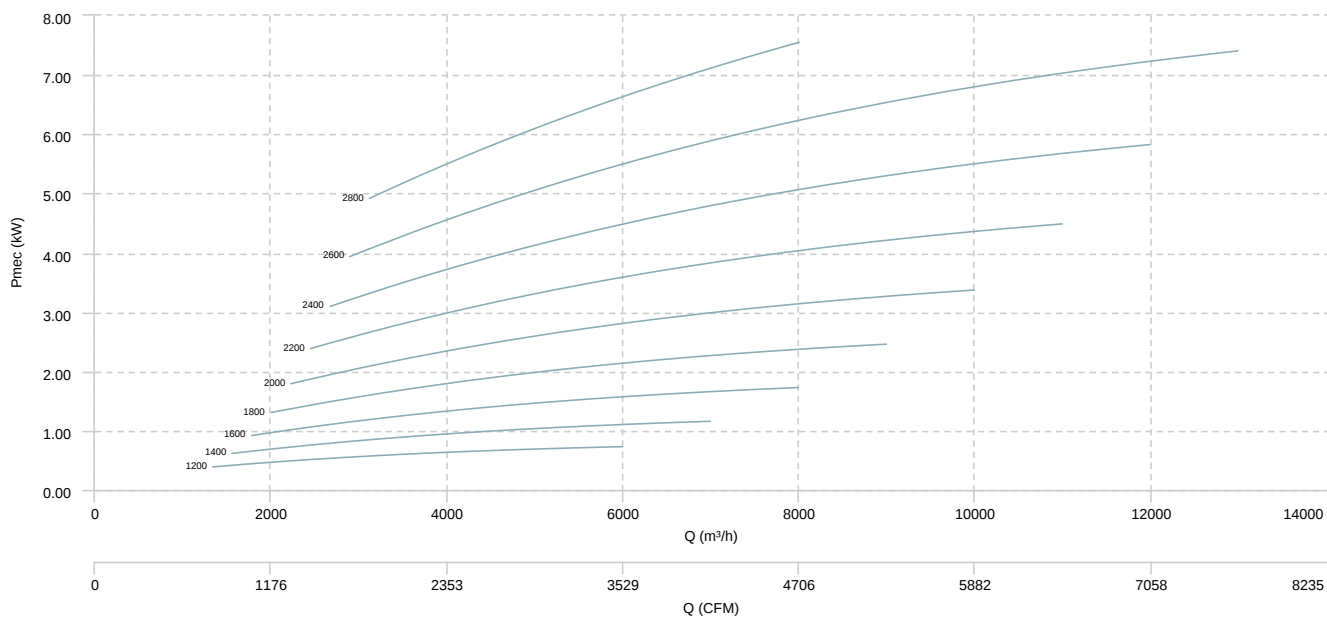


BOX BSTB 450 F400

AIR FLOW - PRESSURE

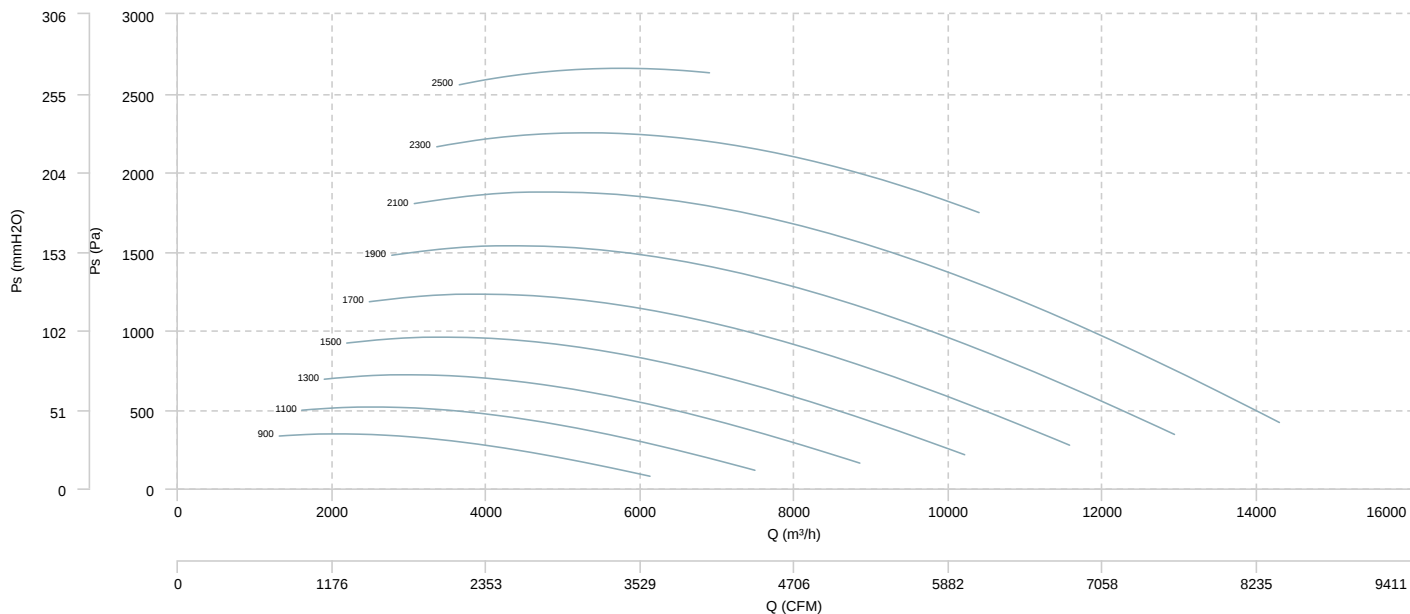


AIR FLOW - MECHANICAL POWER

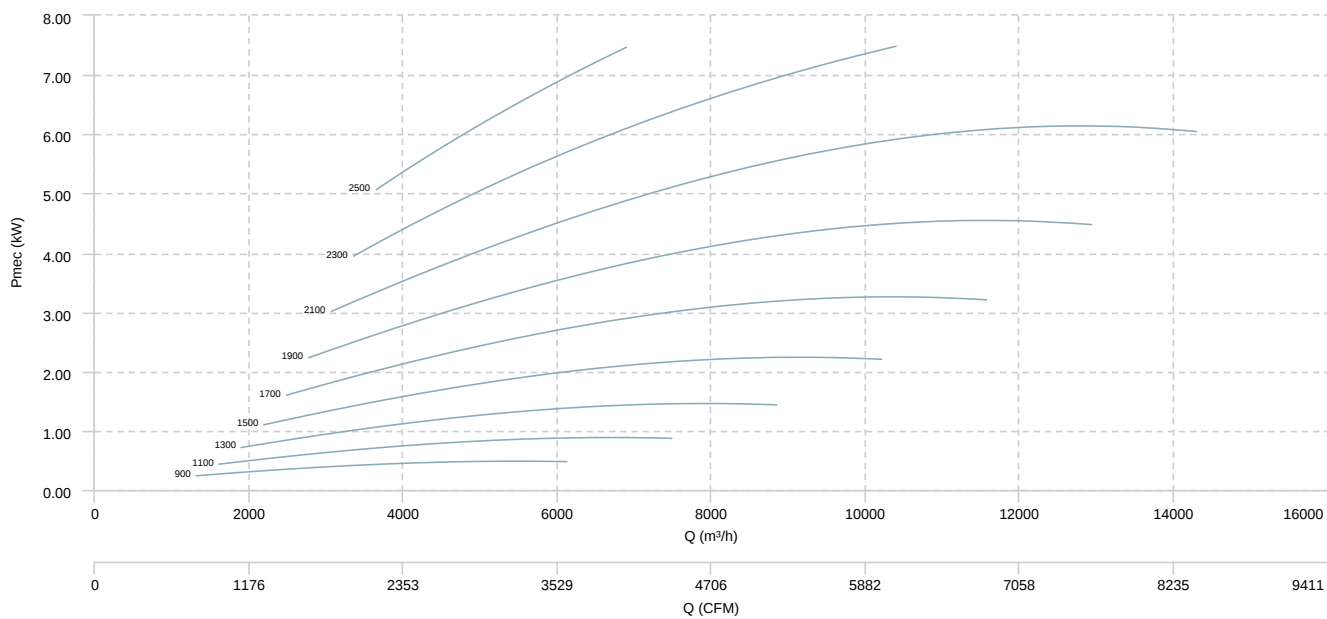


BOX BSTB 500 F400

AIR FLOW - PRESSURE

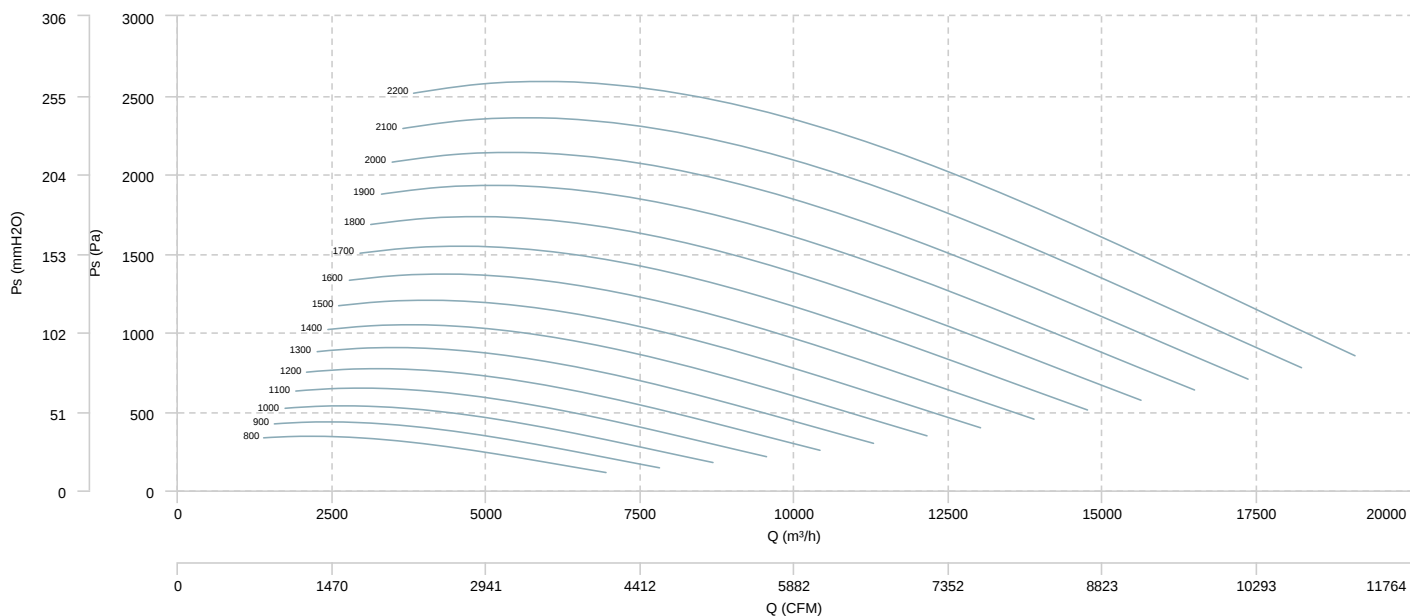


AIR FLOW - MECHANICAL POWER

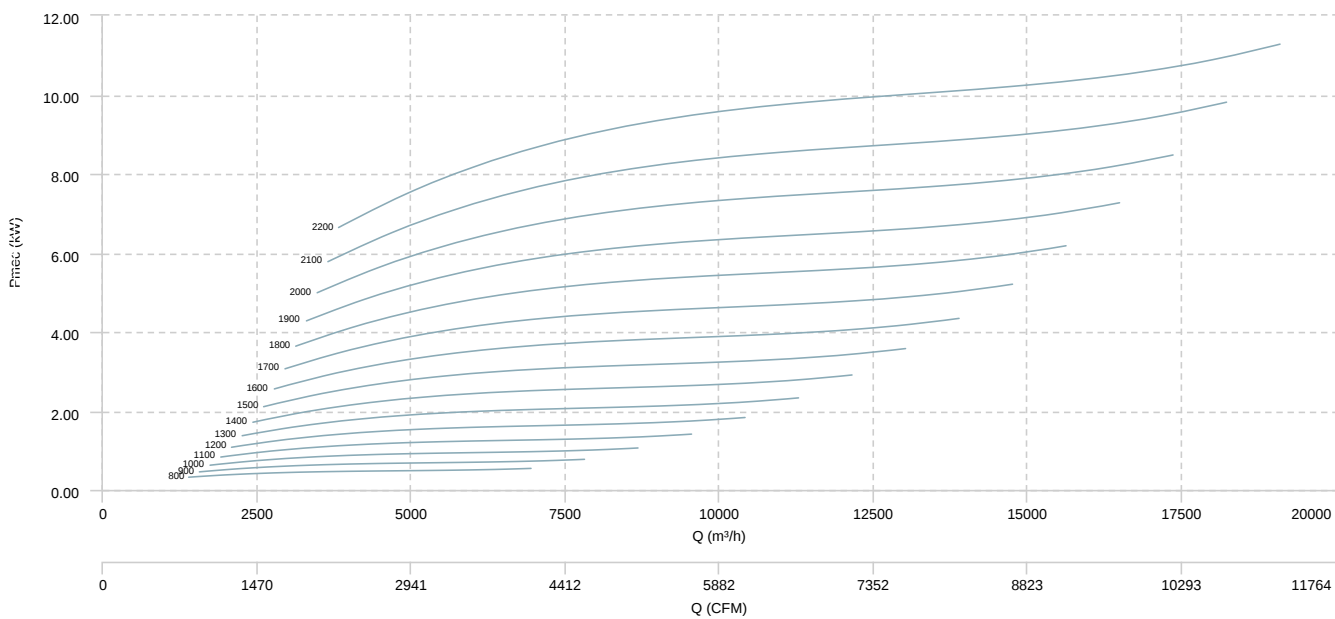


BOX BSTB 560 F400

AIR FLOW - PRESSURE

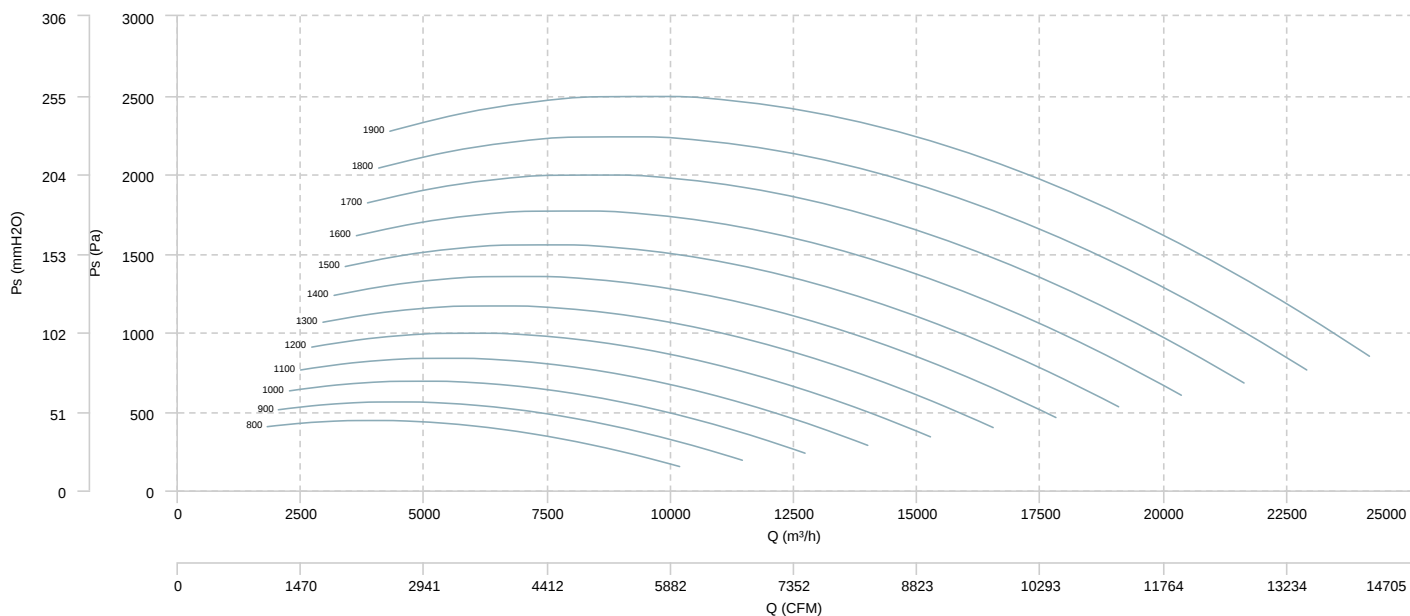


AIR FLOW - MECHANICAL POWER

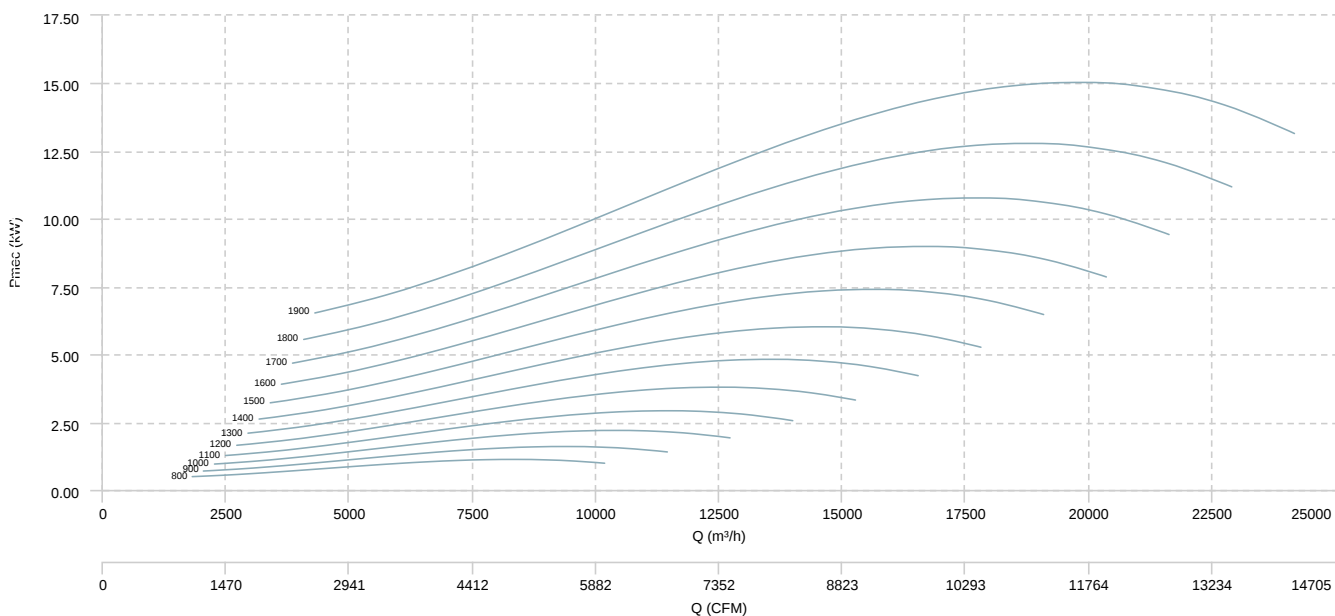


BOX BSTB 630 F400

AIR FLOW - PRESSURE

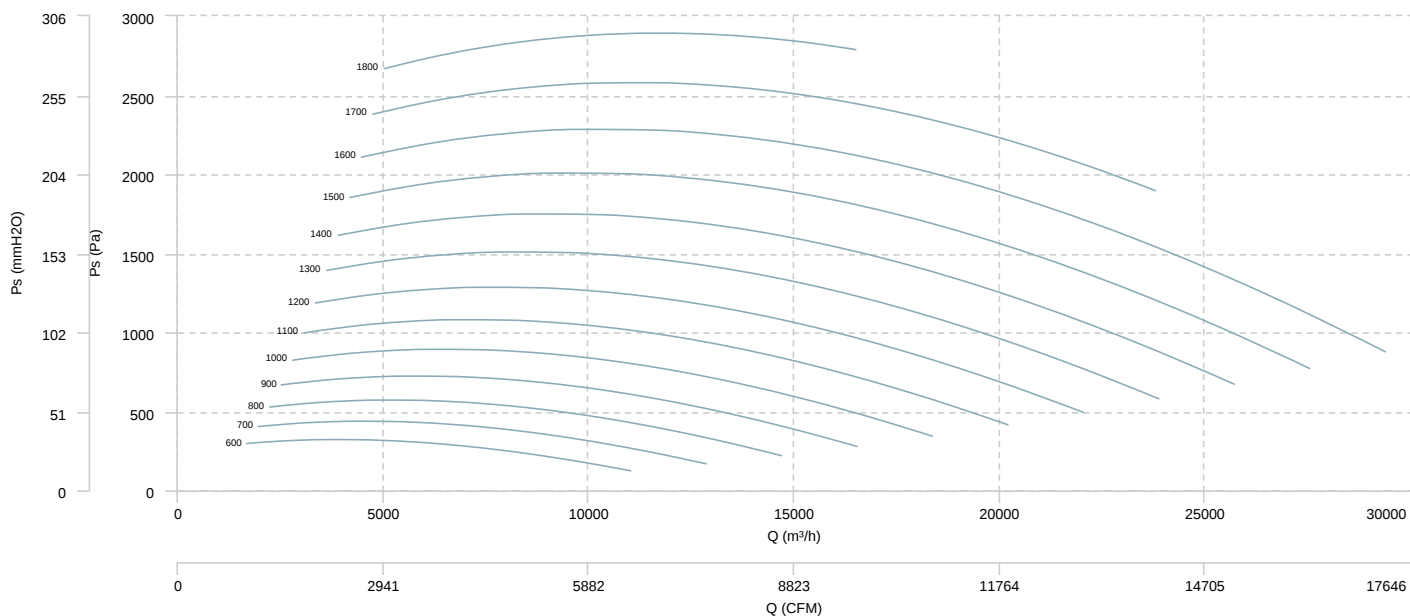


AIR FLOW - MECHANICAL POWER

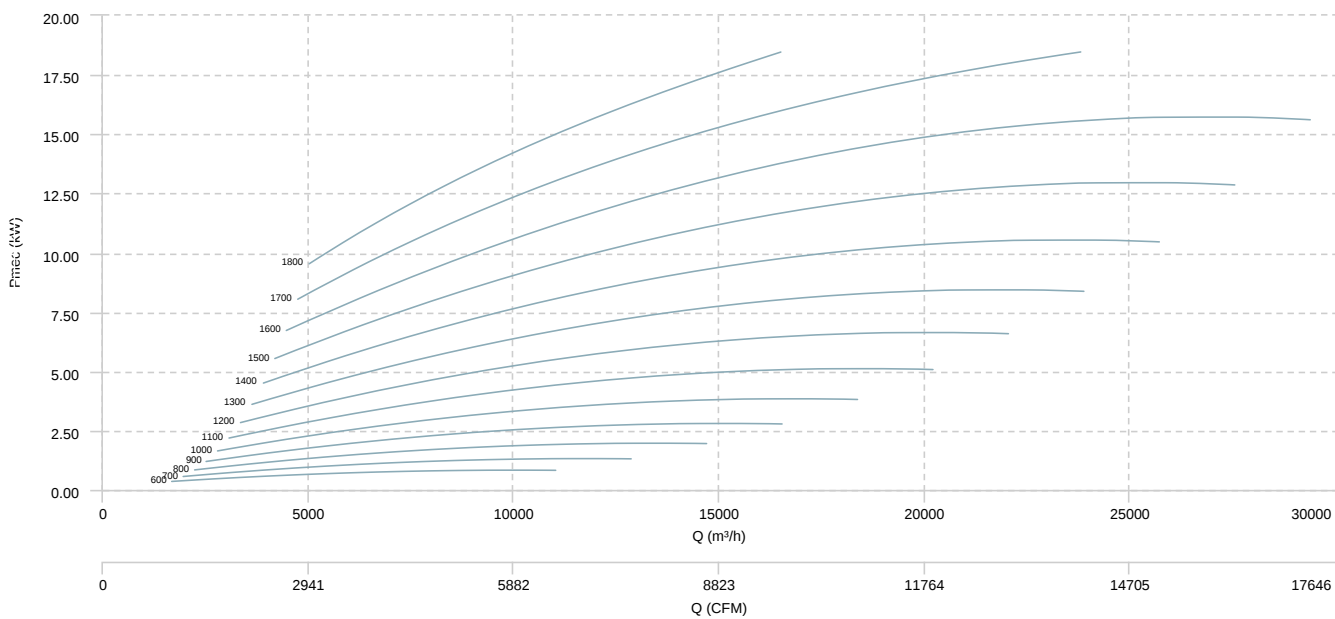


BOX BSTB 710 F400

AIR FLOW - PRESSURE



AIR FLOW - MECHANICAL POWER



Sound data

Sound / 4 poles

Sound power Lw dB (A)										
Model		63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	Total
BOX BSTB 355 F400 (1300)	Inlet	47	58	69	70	70	69	60	49	75
	Radiated	39	50	61	62	62	61	52	41	67
BOX BSTB 400 F400 (1200)	Inlet	54	62	73	74	77	74	65	53	80
	Radiated	46	54	65	66	69	66	57	45	72
BOX BSTB 450 F400 (1200)	Inlet	57	69	79	80	81	78	69	56	85
	Radiated	49	61	71	72	73	70	61	48	77
BOX BSTB 500 F400 (900)	Inlet	49	65	72	74	77	73	66	52	80
	Radiated	41	57	64	66	69	65	58	44	72
BOX BSTB 560 F400 (800)	Inlet	49	67	73	75	79	74	67	54	82
	Radiated	41	59	65	67	71	66	59	46	74
BOX BSTB 630 F400 (800)	Inlet	51	68	75	77	81	77	69	57	84
	Radiated	44	61	68	70	74	70	62	50	77
BOX BSTB 710 F400 (600)	Inlet	46	63	70	73	76	71	64	49	80
	Radiated	39	56	63	66	69	64	57	42	72

Notes:

* To calculate the sound power level at different rpm from those indicated above, use the following formula:

$$Lw\ dB(A)_{rpmA} = Lw\ dB(A)_{rpmB} + 52.5 \cdot \log_{10} \frac{rpmA}{rpmB}$$

erp data

ERP	
Fan type	Centrifugal fan backward blades with casing
Installation category	A
Efficiency category	Static
The fan has to be installed with FSC	No

ERP / 4 poles

Model	Motor power (kW)	Maximum efficiency point data						
		Max. efficiency (%)	Efficiency grade (N) (N)	Air Flow (m³/h)	Ps (Pa)	Pabs (kW)	speed (rpm)	Specific ratio
BOX BSTB 355 F400	0,37	46,32	61,60	1.832,81	321,70	0,35	1300	1,00
BOX BSTB 355 F400	0,37	50,55	64,27	2.114,78	428,32	0,49	1500	1,00
BOX BSTB 355 F400	0,55	56,55	69,07	2.396,74	550,14	0,64	1700	1,00
BOX BSTB 355 F400	0,75	57,91	69,02	2.678,71	687,21	0,88	1900	1,00
BOX BSTB 355 F400	1,10	59,36	69,21	2.960,73	839,48	1,15	2100	1,00
BOX BSTB 355 F400	1,50	60,21	68,88	3.242,75	1.006,99	1,49	2300	1,00
BOX BSTB 355 F400	2,20	62,30	69,98	3.524,73	1.189,68	1,85	2500	1,00
BOX BSTB 355 F400	2,20	60,68	67,20	3.806,60	1.387,71	2,40	2700	1,00
BOX BSTB 355 F400	3	61,49	67,09	4.088,64	1.600,74	2,93	2900	1,00
BOX BSTB 400 F400	0,55	56,61	70,77	2.574,62	347,50	0,45	1200	1,00
BOX BSTB 400 F400	0,75	59,20	71,44	3.003,83	472,97	0,68	1400	1,00
BOX BSTB 400 F400	1,10	60,84	71,39	3.433,17	617,77	0,99	1600	1,00
BOX BSTB 400 F400	1,50	61,78	70,78	3.861,99	781,88	1,39	1800	1,00
BOX BSTB 400 F400	2,20	63,94	71,66	4.291,13	965,30	1,84	2000	1,00
BOX BSTB 400 F400	2,20	63,12	69,47	4.720,22	1.167,96	2,48	2200	1,00
BOX BSTB 400 F400	3	63,45	68,63	5.149,34	1.390	3,21	2400	1,00
BOX BSTB 400 F400	4	63,55	67,65	5.578,58	1.631,31	4,07	2600	1,00
BOX BSTB 400 F400	4	61,21	64,81	4.922	2.034,17	4,54	2800	1,00
BOX BSTB 450 F400	0,75	58,03	70,09	3.305,44	448,94	0,71	1200	1,00
BOX BSTB 450 F400	1,10	59,61	69,69	3.856,29	611,06	1,10	1400	1,00
BOX BSTB 450 F400	1,50	60,41	68,72	4.407,19	798,09	1,62	1600	1,00
BOX BSTB 450 F400	2,20	62,17	68,99	4.958,12	1.010,09	2,24	1800	1,00
BOX BSTB 450 F400	3	62,13	67,52	5.509,14	1.246,99	3,07	2000	1,00
BOX BSTB 450 F400	4	62,61	66,72	6.060,13	1.508,90	4,06	2200	1,00
BOX BSTB 450 F400	5,50	63,17	66,14	6.610,78	1.795,71	5,22	2400	1,00
BOX BSTB 450 F400	7,50	63,45	65,34	7.161,87	2.107,48	6,61	2600	1,00
BOX BSTB 450 F400	7,50	63,51	64,39	7.713,21	2.444,02	8,25	2800	1,00
BOX BSTB 500 F400	1,10	56,37	69,96	3.263,72	315,32	0,51	900	1,00

Model	Motor power (kW)	Maximum efficiency point data						
		Max. efficiency (%)	Efficiency grade (N) (N)	Air Flow (m³/h)	Ps (Pa)	Pabs (kW)	speed (rpm)	Specific ratio
BOX BSTB 500 F400	1,10	59,52	70,61	3.989,04	471,04	0,88	1100	1,00
BOX BSTB 500 F400	1,50	60,68	69,57	4.714,24	657,86	1,42	1300	1,00
BOX BSTB 500 F400	2,20	62,56	69,63	5.439,54	875,86	2,12	1500	1,00
BOX BSTB 500 F400	3	62,34	67,68	6.164,77	1.125,01	3,10	1700	1,00
BOX BSTB 500 F400	4	62,73	66,58	6.890,28	1.405,28	4,30	1900	1,00
BOX BSTB 500 F400	5,50	63,39	65,92	7.615,02	1.716,81	5,75	2100	1,00
BOX BSTB 500 F400	7,50	64,16	65,51	8.359,56	2.056,98	7,44	2300	1,00
BOX BSTB 500 F400	7,50	61,11	61,99	6.900	2.630,02	8,25	2500	1,00
BOX BSTB 560 F400	1,50	55,94	68,79	4.372,75	276	0,60	800	1,00
BOX BSTB 560 F400	1,50	58,44	69,89	4.919,38	349,30	0,81	900	1,00
BOX BSTB 560 F400	1,50	59,79	69,90	5.465,86	431,25	1,09	1000	1,00
BOX BSTB 560 F400	1,50	60,21	69,05	6.012,65	521,80	1,44	1100	1,00
BOX BSTB 560 F400	2,20	62,30	70,10	6.559,25	621	1,81	1200	1,00
BOX BSTB 560 F400	2,20	61,77	68,44	7.105,89	728,82	2,32	1300	1,00
BOX BSTB 560 F400	3	61,90	67,56	7.652,43	845,26	2,89	1400	1,00
BOX BSTB 560 F400	4	62,48	67,24	8.199,27	970,31	3,52	1500	1,00
BOX BSTB 560 F400	4	62,23	66,09	8.745,83	1.104,04	4,29	1600	1,00
BOX BSTB 560 F400	5,50	62,88	65,96	9.291,96	1.246,27	5,09	1700	1,00
BOX BSTB 560 F400	5,50	62,87	65,17	9.838,92	1.397,22	6,04	1800	1,00
BOX BSTB 560 F400	7,50	63,75	65,37	10.385,27	1.556,76	7,01	1900	1,00
BOX BSTB 560 F400	11	64,29	65,24	10.931,83	1.725	8,11	2000	1,00
BOX BSTB 560 F400	11	64,33	64,62	11.478,41	1.901,84	9,38	2100	1,00
BOX BSTB 560 F400	11	64,25	64,23	12.025,22	2.087,28	10,79	2200	1,00
BOX BSTB 630 F400	2,20	60,37	70,59	5.393,32	424,81	1,06	800	1,00
BOX BSTB 630 F400	2,20	62,75	71,52	6.067,13	537,66	1,46	900	1,00
BOX BSTB 630 F400	2,20	63,19	70,55	6.741,56	663,77	1,99	1000	1,00
BOX BSTB 630 F400	3	62,93	68,97	7.415,94	803,18	2,66	1100	1,00
BOX BSTB 630 F400	4	63,56	68,45	8.089,91	955,82	3,42	1200	1,00
BOX BSTB 630 F400	4	63,30	67,07	8.763,77	1.121,74	4,38	1300	1,00
BOX BSTB 630 F400	5,50	63,99	66,80	9.437,63	1.301,02	5,40	1400	1,00
BOX BSTB 630 F400	7,50	64,93	66,86	10.112,78	1.493,40	6,55	1500	1,00
BOX BSTB 630 F400	7,50	64,72	65,75	10.785,77	1.699,34	7,98	1600	1,00
BOX BSTB 630 F400	11	65,45	65,70	11.460	1.918,28	9,45	1700	1,00
BOX BSTB 630 F400	11	65,36	65,30	12.135,52	2.150,63	11,24	1800	1,00
BOX BSTB 630 F400	15	65,99	65,76	12.809,69	2.396,19	13,09	1900	1,00
BOX BSTB 710 F400	3	57,19	67,97	6.785,64	284,91	0,94	600	1,00
BOX BSTB 710 F400	3	60,79	69,72	7.916,61	387,80	1,41	700	1,00
BOX BSTB 710 F400	3	62,56	69,80	9.047,65	506,52	2,04	800	1,00

Model	Motor power (kW)	Maximum efficiency point data						
		Max. efficiency (%)	Efficiency grade (N) (N)	Air Flow (m³/h)	Ps (Pa)	Pabs (kW)	speed (rpm)	Specific ratio
BOX BSTB 710 F400	3	63	68,67	10.178,43	641,07	2,89	900	1,00
BOX BSTB 710 F400	4	63,49	67,75	11.309,40	791,44	3,93	1000	1,00
BOX BSTB 710 F400	5,50	64,02	67	12.440,24	957,65	5,19	1100	1,00
BOX BSTB 710 F400	7,50	64,94	66,80	13.571,35	1.139,68	6,65	1200	1,00
BOX BSTB 710 F400	11	65,46	66,26	14.702,32	1.337,57	8,38	1300	1,00
BOX BSTB 710 F400	11	65,43	65,45	15.833,29	1.551,24	10,48	1400	1,00
BOX BSTB 710 F400	15	66	65,80	16.964,22	1.780,65	12,77	1500	1,00
BOX BSTB 710 F400	15	65,87	65,45	18.095,27	2.026,04	15,53	1600	1,00
BOX BSTB 710 F400	18,50	66,28	65,68	19.268,97	2.284,30	18,42	1700	1,00
BOX BSTB 710 F400	18,50	64,22	63,53	16.500	2.789,40	19,92	1800	1,00