

KFM ROOTS blowers

KOREA FLUID MACHINE

TYPE "L" ROOTS BLOWERS

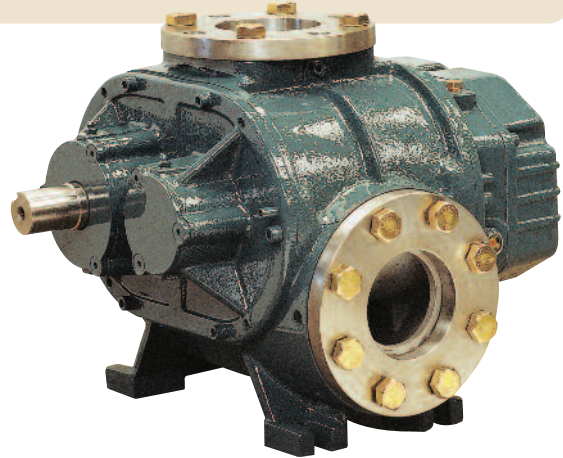
Products features

Type "L" blower is designed for lower pressure environment (less than 0.6 bar) and the manufacturing cost is much reduced.

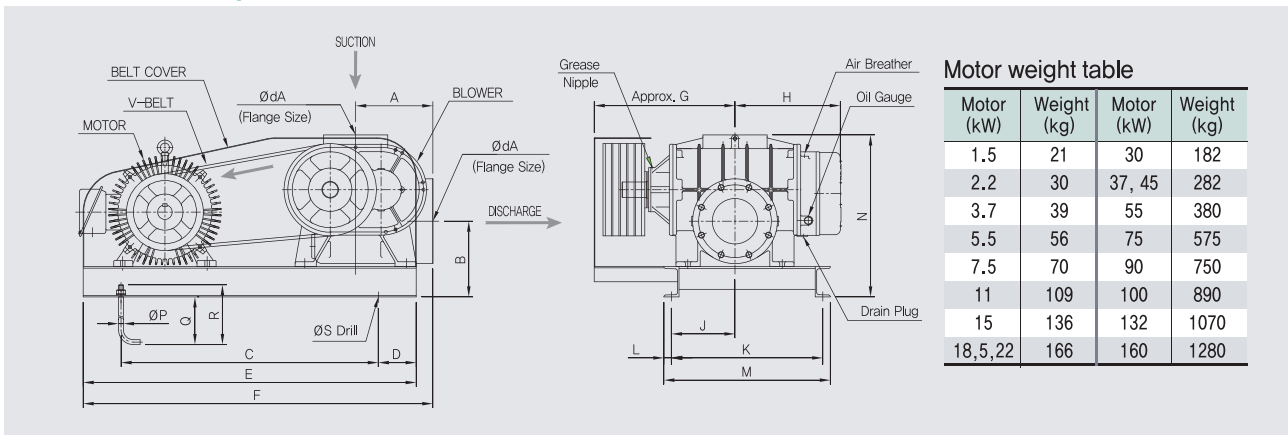
- **Casing** : It is made of cast iron and designed to have better performance and reduce the noise having airflow direction from the top to the side. Inlet/discharge flange standard is KS 10K, FF
- **Rotor** : It is made of cast iron with spur or helical types of three 5 lobes and designed to have corrosion resistancy, durability and thermal resistancy as well as low noise and high performance.
- **Side cover** : It not only holds the bearing but also discharges compressed air from the shaft to outside with blocking inward flow.
- **Shaft** : It is made of SM45C(Carbon steel) by precision process and has shrinkage fitting structure with impeller.
- **Timing gear** : It is made of SCM415(Nickel chromium steel) with grade 1 spur/helical gear which provides constant power and lower friction noise.

Features in design structure

1. "L" direction air flow
2. Simple structure
3. Grade 1 precision gear
4. Ball or roller bearing
5. Lip type oil seal
6. Three lobes rotor with spur or helical type
7. Splash oil lubrication
8. High volumetric efficiency



Outline Drawing



(unit : mm)

TYPE	DIM	ØdA	A	B	C	D	E	F	G	H	J	K	L	M	N	OP	Q	R	ØS	Approx. Weight(kg)
SL050		50A, FLG	135	160	450	100	650	680	210	160	120	260	20	300	290	12	215	250	14	54
SL065		65A, FLG	135	160	450	100	650	680	230	180	145	260	20	300	290	12	215	250	14	57
SL/HL080		80A, FLG	175	190	550	100	750	775	245	215	125	280	20	320	380	16	260	300	18	109
SL/HL100		100A, FLG	175	190	600	100	800	825	280	230	120	400	20	440	380	16	260	300	18	119
SL/HL125		125A, FLG	205	235	650	100	850	900	350	260	120	370	25	420	434	16	260	300	18	201
SL/HL125L		125A, FLG	255	235	750	100	950	1005	360	275	135	430	25	480	505	16	260	300	18	263
SL/HL150		150A, FLG	255	250	750	100	950	1005	380	300	165	430	25	480	535	16	260	300	18	293
SL/HL150L		150A, FLG	255	250	850	125	1100	1155	465	350	210	500	25	550	535	16	260	300	18	324
SL/HL200		200A, FLG	310	300	950	125	1200	1235	505	370	245	500	30	560	650	20	250	300	23	486
SL/HL250		250A, FLG	350	360	1100	200	1500	1565	600	416	325	580	35	650	770	20	250	300	23	875
SL/HL300		300A, FLG	460	415	1300	250	1800	1875	630	550	365	630	35	700	1005	20	250	300	23	1160

- Weight in the table excludes motor weight.
- Size may change without prior notice for performance improvement.
- Flange standard for SL050, SL065 is KS 5K, FF
- Same drawing is applied to both positive displacement and vacuum purpose and appropriate accessory is needed depending on application.

Performance Table

Standard suction air volume Qs (m³/min) and required Shaft Power La (kW)														Suction air volume Qs (m³/min) and required Shaft Power La (kW)														Motor																									
MODEL	SPEED (rpm)	0.1kg/air (9.8kPa)		0.2kg/air (29.4kPa)		0.3kg/air (29.4kPa)		0.4kg/air (39.2kPa)		0.5kg/air (49.0kPa)		0.6kg/air (58.8kPa)		MODEL	SPEED (rpm)	-1000mmAq		-2000mmAq		-3000mmAq		-4000mmAq		Lm																													
		Qs	La	Qs	La	Qs	La	Qs	La	Qs	La	Qs	La			Qs	La	Qs	La	Qs	La	Qs	La																														
SL 050 (50)	1240	1.46	0.74	1.26	1.07	1.12	1.37	0.99	1.68	0.86	2.02	0.72	2.32	SL 050V	1240	1.36	0.93	1.09	1.01	0.79	1.49	0.52	2.00	SL 050V	1240	1.36	0.93	1.09	1.01	0.79	1.49	0.52	2.00	SL 050V	1240	1.36	0.93	1.09	1.01	0.79	1.49	0.52	2.00	SL 050V	1240	1.36	0.93	1.09	1.01	0.79	1.49	0.52	2.00
	1450	1.79	0.87	1.58	1.23	1.42	1.58	1.27	1.94	1.12	2.31	1.00	2.68		1450	1.74	1.00	1.45	1.40	1.14	1.80	0.68	2.30		1450	1.74	1.00	1.45	1.40	1.14	1.80	0.68	2.30		1450	1.74	1.00	1.45	1.40	1.14	1.80	0.68	2.30										
	1750	2.25	1.02	2.03	1.48	1.87	1.95	1.72	2.41	1.57	2.88	1.45	3.34		1750	2.25	1.10	1.95	1.56	1.65	2.00	1.40	2.55		1750	2.25	1.10	1.95	1.56	1.65	2.00	1.40	2.55		1750	2.25	1.10	1.95	1.56	1.65	2.00	1.40	2.55										
	2100	2.84	1.24	2.58	1.82	2.40	2.39	2.23	2.98	2.05	3.57	1.91	4.16		2100	2.85	1.22	2.55	2.24	2.24	2.66	1.92	3.20		2100	2.85	1.22	2.55	2.24	2.24	2.66	1.92	3.20		2100	2.85	1.22	2.55	2.24	2.24	2.66	1.92	3.20										
SL 065 (65)	1240	1.90	0.97	1.66	1.36	1.46	1.70	1.27	2.06	1.12	2.39	0.96	2.63	SL 065V	1240	1.88	1.06	1.42	1.59	1.01	1.84	0.86	2.20	SL 065V	1240	1.88	1.06	1.42	1.59	1.01	1.84	0.86	2.20	SL 065V	1240	1.88	1.06	1.42	1.59	1.01	1.84	0.86	2.20										
	1450	2.35	1.10	2.08	1.57	1.84	1.98	1.63	2.44	1.46	2.86	1.34	3.36		1450	2.35	1.20	1.90	1.80	1.49	2.30	1.33	2.70		1450	2.35	1.20	1.90	1.80	1.49	2.30	1.33	2.70		1450	2.35	1.20	1.90	1.80	1.49	2.30	1.33	2.70										
	1750	3.04	1.35	2.70	1.93	2.46	2.51	2.25	3.19	2.07	3.85	1.92	4.60		1750	3.04	1.40	2.57	2.10	2.16	2.80	2.01	3.40		1750	3.04	1.40	2.57	2.10	2.16	2.80	2.01	3.40		1750	3.04	1.40	2.57	2.10	2.16	2.80	2.01	3.40										
	2100	3.81	1.62	3.40	2.32	3.11	3.03	2.86	3.87	2.64	4.68	2.48	5.65		2100	3.92	1.61	3.48	2.42	3.10	3.40	2.95	4.25		2100	3.92	1.61	3.48	2.42	3.10	3.40	2.95	4.25		2100	3.92	1.61	3.48	2.42	3.10	3.40	2.95	4.25										
SL/HL 080 (80)	1150	3.72	1.45	3.31	2.16	2.96	2.74	2.67	3.31	2.37	3.76	2.14	4.19	HL 080V SL 080V	1150	3.72	1.70	3.13	2.70	2.53	3.60	2.06	4.46	HL 080V SL 080V	1150	3.72	1.70	3.13	2.70	2.53	3.60	2.06	4.46	HL 080V SL 080V	1150	3.72	1.70	3.13	2.70	2.53	3.60	2.06	4.46										
	1450	5.09	1.79	4.68	2.75	4.33	3.60	4.04	4.50	3.75	5.36	3.52	6.20		1450	5.14	1.98	4.58	3.12	3.96	4.21	3.51	5.24		1450	5.14	1.98	4.58	3.12	3.96	4.21	3.51	5.24		1450	5.14	1.98	4.58	3.12	3.96	4.21	3.51	5.24										
	1750	6.46	2.09	6.05	3.27	5.70	4.36	5.41	5.55	5.12	6.73	4.88	7.91		1750	6.46	2.30	5.88	3.60	5.20	4.90	4.73	6.10		1750	6.46	2.30	5.88	3.60	5.20	4.90	4.73	6.10		1750	6.46	2.30	5.88	3.60	5.20	4.90	4.73	6.10										
	2100	8.14	2.51	7.64	3.94	7.22	5.27	6.88	6.71	6.53	8.17	6.24	9.63		2100	8.01	2.67	7.42	4.16	6.69	5.69	6.21	7.10		2100	8.01	2.67	7.42	4.16	6.69	5.69	6.21	7.10		2100	8.01	2.67	7.42	4.16	6.69	5.69	6.21	7.10										
SL/HL 100 (100)	1150	5.01	1.82	4.60	2.82	4.25	3.73	3.94	4.73	3.67	5.73	3.43	6.73	HL 100V SL 100V	1150	5.01	2.00	4.43	2.59	3.81	4.10	3.33	5.20	HL 100V SL 100V	1150	5.01	2.00	4.43	2.59	3.81	4.10	3.33	5.20	HL 100V SL 100V	1150	5.01	2.00	4.43	2.59	3.81	4.10	3.33	5.20										
	1450	6.71	2.18	6.31	3.45	5.96	4.64	5.65	5.82	5.37	7.09	5.13	8.36		1450	6.76	2.39	6.20	3.05	5.60	5.13	5.13	6.50		1450	6.76	2.39	6.20	3.05	5.60	5.13	5.13	6.50		1450	6.76	2.39	6.20	3.05	5.60	5.13	5.13	6.50										
	1750	8.41	2.55	8.01	4.09	7.66	5.64	7.35	7.14	7.07	8.64	6.83	10.18		1750	8.41	2.80	7.83	3.60	7.21	6.20	6.73	7.90		1750	8.41	2.80	7.83	3.60	7.21	6.20	6.73	7.90		1750	8.41	2.80	7.83	3.60	7.21	6.20	6.73	7.90										
	2100	10.57	3.05	10.09	4.91	9.67	6.78	9.30	8.69	8.96	10.43	8.67	12.31		2100	10.40	3.29	9.75	4.27	9.11	7.41	8.62	9.42		2100	10.40	3.29	9.75	4.27	9.11	7.41	8.62	9.42		2100	10.40	3.29	9.75	4.27	9.11	7.41	8.62	9.42										
SL/HL 125 (125)	1180	8.22	2.59	7.74	4.17	7.31	5.75	6.94	7.33	6.70	8.92	6.40	10.50	HL 125V SL 125V	1180	8.57	2.67	7.76	4.31	7.11	5.95	6.55	7.61	HL 125V SL 125V	1180	8.57	2.67	7.76	4.31	7.11	5.95	6.55	7.61	HL 125V SL 125V	1180	8.57	2.67	7.76	4.31	7.11	5.95	6.55	7.61										
	1470	10.78	3.32	10.27	5.38	9.89	7.44	9.51	9.51	9.19	11.63	8.94	13.96		1470	11.06	3.29	10.50	5.28	9.82	7.28	9.29	9.32		1470	11.06	3.29	10.50	5.28	9.82	7.28	9.29	9.32		1470	11.06	3.29	10.50	5.28	9.82	7.28	9.29	9.32										
	1750	13.13	3.98	12.63	6.43	12.26	8.88	11.88	11.33	11.57	13.98	11.32	16.63		1750	13.43	3.90	13.17	6.20	12.47	8.57	11.96	10.94		1750	13.43	3.90	13.17	6.20	12.47	8.57	11.96	10.94		1750	13.43	3.90	13.17	6.20	12.47	8.57	11.96	10.94										
	1960	15.16	4.45	14.65	7.19	14.29	9.99	13.92	12.81	13.62	15.88	13.39	18.93		1960	15.20	4.33	15.04	6.89	14.30	9.52	13.81	12.18		1960	15.20	4.33	15.04	6.89	14.30	9.52	13.81	12.18		1960	15.20	4.33	15.04	6.89	14.30	9.52	13.81	12.18										
SL/HL 125L (125L)	1180	13.29	3.90	12.50	6.27	11.81	8.65	11.22	11.02	10.83	13.40	10.33	15.77	SL 125LV HL 125LV	1180	13.0	4.1	11.8	6.6	10.8	9.1	9.9	11.6	SL 125LV HL 125LV	1180	13.0	4.1	11.8	6.6	10.8	9.1	9.9	11.6	SL 125LV HL 125LV	1180	13.0	4.1	11.8	6.6	10.8	9.1	9.9	11.6										
	1470	17.23	4.89	16.42	7.92	15.82	10.95	15.21	13.98	14.70	17.11	14.29	20.53		1470	17.0	5.0	15.9	8.1	14.8	11.2	14.0	14.4		1470	17.0	5.0	15.9	8.1	14.8	11.2	14.0	14.4		1470	17.0	5.0	15.9	8.1	14.8	11.2	14.0	14.4										
	1750	21.00	5.85	20.20	9.45	19.60	13.06	19.00	16.67	18.50	20.57	18.10	24.46		1750	21.0	6.0	20.6	9.7	19.5	13.4	18.7	18.7		1750	21.0	6.0	20.6	9.7	19.5	13.4	18.7	18.7		1750	21.0	6.0	20.6	9.7	19.5	13.4	18.7	18.7										
	1960	23.99	6.55	23.19	10.59	22.61	14.70	22.02	18.85	21.55	23.37	21.18	27.93		1960	23.99	6.55	23.19	10.59	22.61	14.70	22.02	18.85		21.55	23.37	21.18	27.93	1960	23.99	6.55	23.19	10.59		22.61	14.70	22.02	18.85	21.55	23.37	21.18	27.93											
SL/HL 150 (150)	1180	16.13	4.51	15.31	7.39	14.57	10.29	14.05	13.26	13.53	16.15	13.01	18.77	HL 150V SL 150V	1180	16.30	4.49	15.12	7.44	14.04	10.46	13.08	13.57	HL 150V SL 150V	1180	16.30	4.49	15.12	7.44	14.04	10.46	13.08	13.57	HL 150V SL 150V	1180	16.30	4.49	15.12	7.44	14.04	10.46	13.08	13.57										
	1470	20.56	5.61	19.75	9.31	19.09	13.04	18.58	16.91	18.07	20.78	17.45	24.30		1470	20.93	5.77	19.76	9.64	18.71	13.58	17.71	17.39		1470	20.93	5.77	19.76	9.64	18.71	13.58	17.71	17.39		1470	20.93	5.77	19.76	9.64	18.71	13.58	17.71	17.39										
	1750	24.95	6.71	24.17	11.16	23.52	15.74	23.02	20.53	22.52	25.12	22.01	29.43		1750	25.46	7.17	24.29	11.93	23.27	16.83	22.24	21.22		1750	25.46	7.17	24.29	11.93	23.27	16.83	22.24	21.22		1750	25.46	7.17	24.29	11.93	23.27	16.83	22.24	21.22										
	1960	28.65	7.48	27.82	12.47	27.13	17.63	26.61	23.04	26.10	28.27	25.64	33.29		1960	28.73	8.13	27.55	13.34	26.55	18.83	25.48	23.83		1960	28.73	8.13	27.55	13.34	26.55	18.83	25.48	23.83		1960	28.73	8.13	27.55	13.34	26.55	18.83	25.48	23.83										
SL/HL 150L (150L)	1180	22.27	6.07	21.14	10.06	20.11	14.16	19.39	18.41	18.67	22.59	17.96	26.72	SL 150LV HL 150LV	1180	21.7	6.1	20.1	10.1	18.6	14.2	17.3	18.2	SL 150LV HL 150LV	1180	21.7	6.1	20.1	10.1	18.6	14.2	17.3	18.2	SL 150LV HL 150LV	1180	21.7	6.1	20.1	10.1	18.6	14.2	17.3	18.2										
	1470	28.39	7.67	27.27	12.67	26.36	17.																																														