Roots Blower / Vacuum Pump
Product Catalog

KSK VACUUM TECHNOLOGY SDN BHD(Co. No. 341866-M)

叶 锦 耀 Marco Yeap
Director +6019-777 7771
KSK VACUUM TECHNOLOGY SDN BHD(Co. No. 341866-M)
No. 26, Jalan Kempas 2/3, Kawasan Perindustrian Tanah Tampoi,
81200 Johor Bahru, Johor.
Tel: +607-238 3838
Fax:+607-234 2323
Email: sales@kskvacuum.com

MYVAC™

KSK VACUUM TECHNOLOGY SDN BHD
(Co. No. 341866-M)

KSK VACUUM TECHNOLOGY SDN BHD(Co. No. 341866-M)

Company Introduction

RSR three lobes Roots Blower are new series Roots type blowers. With the help of CNC machine, we make precise rotors and casings to get a perfect gap to promote air performance, lower vibrations and noises results a significant improvement compared to traditional two lobe Roots Blower.

Traditional Roots Blower lubricate bearings and gears with grease and oil. Shangu blowers with double oil tank need oil only. It is very convenient to maintain and oil has a better lubricating effect than grease. So it could be a longer bearings and gears life.

Roots Blower Working Principle

The rotary-type positive-displacement roots blower incorporates two intermeshing rotors mounted on parallel shafts. In a twin-lobe roots blower, each rotor has two lobes (four per roots blower). In a tri-lobe roots blower, each rotor has three lobes (six per roots blower).

- The two rotors rotate in opposite directions.
- As each rotor passes the blower inlet, it traps a definite volume of gas (the 'displaced volume') and carries it around the case to the blower outlet. With constant speed operation, the displaced volume remains approximately the same at different inlet temperatures, inlet pressures and discharge pressures.
- As each rotor passes the blower outlet the gas is compressed to the system pressure there and expelled.
- Small but definite clearances allow operation without lubrication being required inside the air casing.
- Timing gears control the relative position of the rotors to each other.

Products Features

- Strict management of quality standards. ISO9001 and CE systems.
- Technical customization (size, pressure, design, pump accessories).
- CNC machinery enabling precise measurements and grinding needed for more efficient pumping.
- Fewer vibrations transmitted through the lobe, for longer-lasting shafts, gears and bearings.
- Three-lobe design controls any backflow pressure towards rotor.
- Oil and dust-free outlet.
- Lubricated with high grade oil, proven to be a much better alternative to grease.
- Significant improvement in air performance ratios: wider air, pressure and vacuum range.
- Much quieter: our new design can effectively reduce noise by approximately 5 dB.
- Lower energy consumption.
- All our products can be used for OEM.

Product Performance

- Pressure Rise: 9.8 to 98kpa Air Capacity: 0.6-1345m³/min Motor Power: 0.75-1400kw
- Vacuum Degree:-9.8 to -78kpa Air Capacity: 1.02-1244 m³/min Motor Power:0.75-1400kw

Information to Submit When Order

Usage	Blowing use or vacuum use
Gas Handled	Gas variety, status, temperature
	With or without corrosiveness and explosiveness
	State the proportion of gas formation and the molecular weight if handle mixed gas
Pressure	Unit:kPa, kgf/cm2,mmH2O,mmHg,Pa, etc.
	Difference between gauge pressure and absolute pressure
Air Capacity	Unit: m3/min
	Differences among Reference Condition (N：0℃, 1 standard atmosphere pressure),Standard Condition
	(S：20℃,1 standard atmosphere pressure), and inlet condition
Location	Outdoor or indoor
	Surrounding temperature, with or without dangerous
Motor	Model No, output, poles
Driving Type	Coupling or v-belt
Others	Temperature of cooling water
	Operating time
	Whether in need of accessories or spare parts
	Painting colour

Performance Table Explain

- The performance tables give the model type, bore, r.p.m, discharge pressure, air capacity and required power of the blower.
- The air capacity in the tables is indicated in the standard suction state. The standard suction state herein mentioned is defined as the condition at 20 temperature, 1.0332kgf/cm2 [101.3kPa] absolute pressure and 65%relative humidity.
- The reference air capacity(temperature 0℃and 1.0332kgf/cm2) [101.3kPa] absolute pressure is generally indicated in Nm^3/min.
- However, it may be converted into the standard air capacity by the following equation if the suction pressure is equal.

  $Q_s=Q_N$x 1.0732

  Where,

  Q_s: standard air capacity;

  Q_N: referenee air capacity;
- The discharge air capacity can be converted into the standard air capacity by the following equation.

$$Qs = Qd\ x\ \frac{1.0332 + Pd}{2a1.0332}\ x\ \frac{273 + ts}{273 + td}$$

  Where,

  Q_d:discharge air capacity,in(m3/min)

  P_d:discharge pressure,in(kgf/cm2)

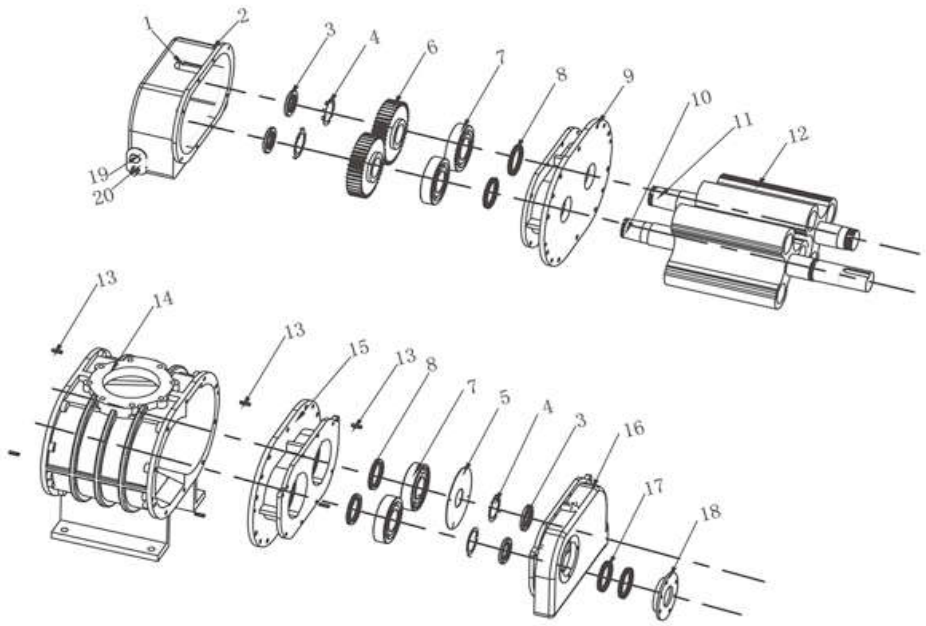
  t_s:suction temperature,in(℃)

  t_d:discharge temperature, in(℃)
- According to the air capacity and discharge pressure as calculated above, the model number, bore, r.p.m and required power can be found in the performance table.

Pressure Conversion Table

	Pa	Bar	Kgf/cm^2	Atm	MmH_20	MmHg (Torr)
Pressure	1	1×10^{-5}	1.01972×10^{-5}	9.86923×10^{-6}	1.01972×10^{-1}	7.50062×10^{-3}
	1×10^5	1	1.01972	9.86923×10^{-1}	1.01972×10^4	7.50062×10^2
	9.80665×10^4	9.80665×10^{-1}	1	9.67841×10^{-1}	1×10^4	7.35559×10^2
	1.01325×10^5	1.01325	1.03323	1	1.03323×10^4	7.60000×10^2
	9.80665	9.80665×10^{-5}	1×10^{-4}	9.67841×10^{-5}	1	7.35559×10^{-2}
	1.33322×10^2	1.33322×10^{-3}	1.35951×10^{-3}	1.31579×10^{-3}	1.35951×10^1	1

Roots Blower Structure



Parts Material Table

No.	Name	Material	QTY	No.	Name	Material	QTY
1	Lubrication Plug	Steel	2	11	Driven Shaft	45# Steel	1
2	Gear Case	Cast Iron	1	12	Rotor	Ductile Iron	2
3	Lock Nut	Steel	4	13	Positioning Pin	45# Steel	6
4	Washer	Steel	4	14	Casing	Cast Iron	1
5	Oil Splash	Steel	2	15	Drive Side Wall	Cast Iron	1
6	Gear	20CrMnTi	2	16	Drop Tank	Cast Iron	1
7	Bearing	SUJ2	4	17	Oil Seal	Nitrile Rubber	2
8	V-ring	Nitrile Rubber	4	18	Oil Tank Cap	Cast Iron	1
9	Wall Plate	Cast Iron	1	19	Oil Gauge	Organic Glass	2
10	Drive Shaft	45# Steel	1	20	Purge Plug	Steel	2

RSR Series Roots Blower Performance Parameters

Model	Bore	RPM	Theoretical	Qs-Inlet Airflow (m3/min) / La-Shaft Power (kw) / Po-Motor Power (kw)																												Motor Pole
			Airflow	9.8kpa			19.6kpa			29.4kpa			39.2kpa			49kpa			58.8kpa			68.6kpa			78.4kpa			88.2kpa			98kpa			
			Qth	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	
RSR50	50	1230	1.82	1.49	0.33	0.75	1.35	0.66	1.1	1.25	0.99	1.5	1.16	1.32	2.2	1.08	1.65	2.2	1.01	1.98	3													4
		1450	2.15	1.82	0.39	0.75	1.68	0.78	1.5	1.57	1.17	1.5	1.49	1.56	2.2	1.41	1.95	3	1.34	2.34	3	1.26	2.73	4	1.19	3.12	4							4
		1640	2.43	2.10	0.44	1.1	1.96	0.94	2.2	1.86	1.32	2.2	1.77	1.76	2.2	1.69	2.20	3	1.62	2.64	4	1.55	3.08	4	1.49	3.73	5.5							4
		1840	2.72	2.39	0.50	1.1	2.26	0.99	2.2	2.15	1.48	2.2	2.06	1.98	3	1.99	2.47	3	1.91	2.97	4	1.85	3.46	5.5	1.79	3.96	5.5							4
		2120	3.14	2.81	0.57	1.1	2.67	1.21	2.2	2.57	1.71	3	2.48	2.28	3	2.40	2.85	4	2.33	3.42	4	2.26	3.99	5.5	2.20	4.56	5.5							4
RSR65	65	1240	2.5	2.09	0.46	0.75	1.93	0.91	1.5	1.80	1.36	2.2	1.69	1.82	3	1.59	2.27	3	1.51	2.73	4	1.43	3.18	4	1.36	3.85	5.5							4
		1450	2.92	2.52	0.54	1.1	2.35	1.07	1.5	2.22	1.60	2.2	2.11	2.13	3	2.02	2.66	4	1.93	3.19	4	1.85	3.72	5.5	1.78	4.25	5.5							4
		1640	3.3	2.90	0.61	1.1	2.73	1.21	2.2	2.60	1.81	3	2.49	2.41	4	2.40	3.01	4	2.31	3.61	5.5	2.23	4.21	5.5	2.16	4.81	7.5							4
		1820	3.67	3.26	0.75	1.5	3.09	1.50	2.2	2.97	2.00	3	2.86	2.82	4	2.76	3.34	5.5	2.68	4.00	5.5	2.60	4.67	5.5	2.52	5.60	7.5							4
		2130	4.29	3.89	1.05	.	3.72	1.57	2.2	3.59	2.35	3	3.48	3.13	4	3.39	4.11	5.5	3.30	4.69	7.5	3.22	5.67	7.5	3.15	6.25	7.5							4
RSR80	80	1230	4.27	3.66	1.05	1.5	3.45	1.56	2.2	3.29	2.33	4	3.15	3.11	4	3.03	3.88	5.5	2.92	4.66	5.5	2.82	5.43	7.5	2.73	6.21	7.5	2.54	6.98	7.5	2.35	7.76	11	4
		1460	5.07	4.26	1.19	2.2	4.05	2.07	3	3.88	3.10	4	3.75	3.69	5.5	3.63	4.61	7.5	3.52	5.53	7.5	3.32	6.45	7.5	3.23	7.37	11	3.04	8.29	11	2.81	9.21	11	4
		1650	5.73	4.60	1.50	2.2	4.48	2.29	4	4.34	3.13	5.5	4.24	4.17	5.5	4.15	5.21	7.5	4.03	6.25	7.5	3.68	7.29	11	3.55	8.33	11	3.40	9.37	11	3.09	10.50	15	4
		1820	6.32	5.51	1.58	3	5.30	2.80	4	5.13	3.88	5.5	5.00	4.59	7.5	4.88	5.74	7.5	4.77	6.89	11	4.47	8.04	11	4.28	9.18	11	4.09	10.33	15	3.92	11.48	15	4
RSR100	100	1220	6.65	5.46	1.83	3	5.17	2.42	3	4.95	3.63	5.5	4.76	4.84	5.5	4.60	6.05	7.5	4.45	7.26	11	4.32	8.46	11	4.19	9.67	11							4
		1460	7.96	6.67	2.03	3	6.38	2.90	4	6.16	4.34	5.5	5.97	5.79	7.5	5.81	7.24	11	5.66	8.68	11	5.53	10.13	15	5.40	11.58	15							4
		1680	9.17	7.77	2.28	3	7.48	3.75	5.5	7.26	5.62	7.5	7.08	6.66	7.5	6.91	8.33	11	6.76	10.50	15	6.63	11.65	15	6.50	13.32	15							4
		1880	10.26	8.76	3.10	4	8.47	4.73	5.5	8.25	5.59	7.5	8.07	7.45	11	7.90	9.32	11	7.76	11.18	15	7.62	13.04	15	7.49	14.90	18.5							4
RSR125	125	980	7.54	6.61	3.07	5.5	6.23	4.17	5.5	5.93	4.71	5.5	5.68	5.48	7.5	5.46	6.85	7.5	5.26	8.22	11	5.08	9.59	11	4.91	10.96	15							6
		1200	9.23	8.30	3.12	5.5	7.92	4.31	5.5	7.62	5.66	7.5	7.38	6.71	7.5	7.16	8.39	11	6.96	10.06	11	6.78	11.74	15	6.61	13.42	15	6.45	15.09	18.5	6.30	16.77	22	4
		1450	11.16	10.03	3.45	5.5	9.64	4.56	5.5	9.35	6.08	7.5	9.10	8.11	11	8.89	10.13	15	8.68	12.16	15	8.50	14.19	18.5	8.33	16.21	18.5	8.17	18.24	22	8.02	20.26	22	4
		1630	12.55	11.21	4.30	5.5	10.83	6.25	7.5	10.53	8.35	11	10.29	10.35	15	10.07	12.35	15	9.87	14.60	18.5	9.69	16.60	18.5	9.52	18.50	22	9.36	20.60	30	9.21	22.78	30	4
		1850	14.24	12.61	5.40	7.5	12.22	7.55	11	11.93	9.88	11	11.68	11.66	15	11.46	13.12	18.5	11.26	15.51	18.5	11.08	18.10	22	10.91	20.68	30	10.75	23.27	30	10.60	25.85	30	4
RSR150C	150	970	12.32	11.00	2.95	4	10.45	5.37	7.5	10.15	6.72	11	9.77	8.95	11	9.56	11.18	15	9.28	13.43	18.5													6
		1200	15.24	13.52	4.24	5.5	13.07	7.67	11	12.85	8.31	11	12.60	11.07	15	12.28	14.66	18.5	12.09	16.61	22													4
		1460	18.55	16.42	5.66	7.5	15.87	8.50	11	15.55	11.11	15	15.17	13.47	18.5	14.96	17.83	22	14.78	20.21	30													4
		1630	20.71	18.38	5.84	7.5	17.83	8.52	11	17.41	11.28	15	17.06	15.04	18.5	16.75	18.80	22	16.46	22.56	30													4
		1820	23.12	21.15	9.78	11	20.33	13.63	18.5	19.70	17.48	22	19.17	21.33	30	18.69	25.18	30																4
RSR150	150	970	17.98	15.05	5.20	7.5	14.38	8.20	11	14.06	10.37	15	13.72	13.06	15	13.55	16.32	18.5	13.39	19.58	22	13.13	22.85	30	12.97	26.11	30	12.81	29.37	37	12.63	32.64	37	6
		1240	22.98	19.55	8.50	11	19.37	12.30	15	19.03	16.10	18.5	18.83	19.90	22	18.65	23.70	30	18.43	27.50	30	18.11	30.30	37	17.93	34.10	37	17.62	37.90	45	17.34	41.72	55	4
		1470	27.24	24.23	11.65	15	24.08	15.90	18.5	23.82	20.20	30	23.61	24.60	30	23.44	28.90	37	23.09	33.30	37	22.01	37.30	45	21.88	41.50	55	21.65	45.70	55	21.38	49.90	55	4
		1730	32.06	27.81	15.30	18.5	27.16	20.20	22	26.88	25.40	30	26.62	30.60	37	26.42	35.80	45	26.21	41.00	45	26.04	48.80	55	25.72	54.00	75	25.55	59.20	75	25.31	64.40	75	4
		1900	35.22	30.19	16.00	22	29.75	22.00	30	29.55	28.00	37	29.23	34.00	37	29.03	40.00	45	28.84	46.00	55	28.55	52.00	75	28.29	58.00	75	28.05	64.00	75	27.86	70.00	90	4
RSR175A	150	970	22.47	18.05	7.80	11	16.90	11.30	15	16.01	15.10	18.5	15.31	18.90	22	14.60	22.70	30	13.90	26.50	30	13.42	30.30	37	13.00	34.10	37							6
		1150	26.64	22.10	10.20	15	20.98	14.60	18.5	19.95	19.00	22	19.34	23.40	30	18.62	27.80	30	17.91	32.20	37	17.33	36.60	45	16.86	41.00	55							4
		1450	33.59	29.65	12.80	15	28.48	18.40	22	27.61	24.00	30	26.87	29.60	37	26.18	35.20	45	25.61	40.80	45	24.95	46.40	55	24.30	52.00	75							4
		1750	40.55	37.32	15.00	18.5	36.05	21.60	30	35.15	28.20	30	34.45	34.80	37	33.75	41.40	55	33.04	48.00	55	32.61	54.60	75										4

RSR Series Roots Blower Performance Parameters

Model	Bore	RPM	Theoretical	Qs-Inlet Airflow (m3/min)														La-Shaft Power (kw)									Po-Motor Power (kw)						Motor Pole
			Airflow	9.8kpa			19.6kpa			29.4kpa			39.2kpa			49kpa			58.8kpa			68.6kpa			78.4kpa			88.2kpa			98kpa			
			Qth	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	
RSR175	150	1240	34.74	29.05	11.32	15	28.32	17.12	18.5	27.66	22.90	30	27.17	28.70	37	26.76	34.50	37	26.31	40.32	45													4
		1480	41.46	38.05	16.77	18.5	36.60	23.68	30	35.53	30.59	37	34.61	37.50	45	33.79	44.41	55	33.04	51.32	75													4
		1620	45.39	38.45	17.00	18.5	37.75	24.60	30	37.14	32.30	37	36.65	39.80	45	36.14	47.40	55	35.74	55.00	75													4
		1730	48.47	41.05	17.60	22	40.30	26.39	30	39.68	33.93	37	39.19	39.58	45	38.73	49.49	55	38.32	55.89	75													4
RSR200H	200	970	35.4	32.10	10.70	15	30.96	16.50	18.5	30.07	23.15	30	29.08	28.10	37	28.16	33.90	37	27.75	39.70	45	27.15	45.00	55	26.62	51.30	75	26.25	57.86	75	25.73	62.90	75	6
		1170	42.72	39.92	11.50	15	38.66	18.70	22	37.65	25.90	30	36.82	33.10	45	35.96	40.30	55	35.36	47.50	55	34.71	54.70	75	34.35	61.90	75	33.82	69.79	90	33.47	77.54	90	4
		1250	45.64	42.84	13.40	15	41.68	21.00	30	40.69	28.60	37	39.74	36.20	45	38.92	43.80	55	38.38	51.40	75	36.72	59.00	75	36.13	66.60	75	35.74	74.20	90	35.37	81.80	110	4
		1350	49.29	46.49	15.10	18.5	45.33	23.30	30	44.44	31.50	37	43.69	39.70	45	42.74	47.90	55	42.24	56.10	75	41.59	64.30	75	41.08	72.50	90	40.62	80.70	90	40.34	89.47	110	4
		1450	52.94	50.15	17.00	22	48.99	25.80	30	48.10	34.60	45	47.35	43.40	55	46.69	52.20	75	46.09	61.00	75	45.54	69.80	75	45.03	78.60	90	44.55	87.40	110	44.09	96.20	110	4
		1600	58.41	54.25	18.54	22	52.50	28.27	37	51.16	38.00	45	50.03	47.73	55	49.01	57.46	75	48.10	67.19	75	47.25	76.92	90	46.46	86.65	110	45.71	96.38	110	45.01	106.11	132	4
RSR200	200	970	45.2	39.09	14.80	18.5	38.40	19.00	22	37.67	26.50	30	37.08	34.00	37	36.46	41.50	55	35.66	49.00	55	35.03	56.50	75	34.32	64.00	75	33.67	71.50	90	33.01	79.00	90	6
		1150	53.15	46.75	16.50	22	45.88	25.30	30	45.41	34.10	37	44.95	42.90	55	44.06	51.70	55	43.45	60.50	75	43.05	69.30	75	42.63	78.10	90	42.06	86.90	110	41.01	95.70	110	4
		1230	56.85	50.67	18.32	22	49.07	27.70	30	48.59	37.10	45	48.09	46.50	55	47.43	55.90	75	46.77	65.30	75	46.58	74.70	90	46.21	84.10	110	45.67	93.50	110	44.76	102.90	110	4
		1390	64.25	55.45	21.40	30	55.24	32.00	37	54.85	42.60	55	54.53	53.20	75	54.02	63.80	75	53.58	74.40	90	53.11	85.00	110	52.85	95.60	110	52.45	106.20	132	52.04	116.80	132	4
		1480	68.41	59.32	23.10	30	58.78	34.50	45	58.39	45.90	55	58.09	57.30	75	57.74	68.70	75	57.45	80.10	90	57.12	91.50	110	56.91	102.90	132	56.46	114.30	132	55.96	125.70	160	4
		1600	73.95	68.89	27.07	37	66.78	39.40	45	65.14	51.73	75	63.77	64.06	75	62.55	76.39	90	61.45	88.72	110	60.42	101.05	110	59.47	113.38	132	58.57	125.71	160				4
RSR250D	250	970	58.28	50.02	17.40	22	47.75	27.20	37	45.90	37.00	55	44.75	46.80	55	43.75	56.60	75	42.84	66.40	75													6
		1250	75.11	65.84	23.00	30	64.08	35.40	45	62.72	47.80	55	61.58	60.20	75	60.57	72.60	90	59.66	85.00	110	58.13	97.40	110	56.93	109.80	132							4
		1450	87.13	77.86	26.00	30	76.09	40.00	45	74.44	54.80	75	73.24	69.20	90	72.29	83.60	110	71.53	98.00	110	70.15	112.40	132	68.95	126.80	160							4
		1600	94.14	86.37	30.00	37	84.88	45.60	55	83.35	61.20	75	82.11	76.80	90	81.16	92.40	110	80.39	108.00	132													4
		1750	105.15	95.29	35.00	45	93.72	52.40	75	92.15	69.80	75	90.62	87.20	110	89.72	104.60	132	89.25	122.00	132													4
RSR250	250	980	73.44	65.77	32.73	37	62.88	44.90	55	61.87	57.10	75	61.07	69.30	75	60.27	81.50	90	59.54	93.70	110	58.88	105.90	110	57.88	118.10	132	56.99	130.30	160	56.43	142.50	160	6
		1150	85.3	78.34	35.90	45	75.49	50.10	75	73.25	64.30	75	71.57	78.50	90	70.94	92.70	110	70.31	106.90	132	69.42	121.10	132	68.44	135.30	160	67.42	149.50	160	66.79	163.70	185	4
		1250	92.72	85.80	39.00	45	82.90	54.40	75	80.67	69.80	90	78.78	85.20	110	77.09	100.60	110	75.57	116.00	132	74.17	131.40	160	73.37	146.80	160	72.52	162.20	185	71.69	177.60	185	4
		1320	97.92	91.00	40.00	55	88.10	56.40	75	85.86	72.80	90	83.60	89.20	110	82.67	105.60	132	81.73	122.00	160	80.82	138.40	160	79.91	154.80	185	78.96	171.20	185	78.05	187.60	220	4
		1450	107.56	100.63	42.50	55	97.74	60.30	75	95.51	78.10	90	93.61	95.90	110	91.93	113.70	132	90.40	131.50	160	89.04	149.30	185	87.66	167.10	185	86.41	184.90	200	85.22	202.70	220	4
RSR300	300	980	102.81	92.50	33.00	45	90.07	50.00	75	89.06	67.00	90	88.12	84.00	110	87.13	101.00	110	85.98	118.00	132	85.05	135.00	160	84.06	152.00	185							6
		1150	119.43	110.15	35.50	45	106.28	55.30	75	104.72	75.10	90	103.74	94.90	110	102.75	114.70	132	101.65	134.50	160	100.72	154.30	185	99.90	174.10	200	93.22	193.90	220	89.65	213.70	250	4
		1250	129.81	120.53	41.00	55	116.67	62.60	75	113.68	84.20	110	111.02	105.80	132	109.78	127.40	160	108.55	149.00	185	107.23	170.60	200	105.84	192.20	220	102.60	213.80	250	100.04	235.40	280	4
		1350	137.08	126.19	45.20	55	123.95	68.00	90	122.43	90.80	110	121.05	113.60	132	119.62	136.40	160	118.01	159.20	185	116.53	182.00	220	114.95	204.80	250	112.00	227.60	250	110.30	250.40	280	4
		1450	150.59	141.30	51.00	75	137.44	77.00	90	134.49	103.00	132	131.51	129.00	160	129.96	155.00	185	128.45	181.00	200	126.91	207.00	250	125.41	233.00	280							4
RSR300C	300	980	138.93	127.75	41.17	55	123.05	64.40	90	121.61	87.60	110	120.21	110.80	132	118.56	134.00	160	117.11	157.20	185													6
		1170	165.87	154.68	49.10	75	150.02	76.00	90	146.44	104.30	132	143.40	131.90	160	140.72	159.50	185	138.58	187.10	200													4
		1250	177.21	166.02	53.90	75	161.37	83.30	110	157.78	112.70	132	154.71	142.10	160	152.06	171.50	200	149.62	200.90	220													4
		1360	192.8	181.62	61.50	75	176.69	93.50	110	173.40	125.50	160	170.34	157.50	185	167.65	189.50	220	165.22	221.50	250													4
		1480	209.82	198.63	69.30	90	193.97	104.30	132	190.45	139.30	160	187.35	174.30	200	184.67	209.30	250	182.22	244.30	280													4

HR Series Roots Blower Performance Parameters

Model	Bore	RPM	Theoretical	Qs-Inlet Airflow (m3/min) / La-Shaft Power (kw) / Po-Motor Power (kw)																													Motor Pole
			Airflow	9.8kpa			19.6kpa			29.4kpa			39.2kpa			49kpa			58.8kpa			68.6kpa			78.4kpa			88.2kpa			98kpa			
			Qth	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	
HRE250	250	970	74.23	67.1	21	30	64.0	33	45	61.0	45	55	58.1	57	75	56.1	67	90	54.1	79	110	52.1	91	110										6
		1120	84.84	76.8	23	30	73.4	36	45	70.8	49	75	68.7	62	75	66.7	76	90	65.0	90	110	63.3	104	132										4
		1280	96.96	88.9	25	30	85.6	41	55	83.0	57	75	80.8	73	90	78.8	90	110	77.1	106	132	75.5	122	160										4
		1450	109.84	101.8	27	37	98.4	45	55	95.8	63	75	93.7	81	110	91.7	100	110	90.0	118	132	88.3	136	160										4
		1600	121.2	113.1	30	37	109.8	51	75	107.2	72	90	105.0	93	110	103.1	113	132	101.3	134	160	99.7	155	185										4
		1780	134.8	126.8	33	45	123.4	57	75	120.8	81	110	118.7	105	132	116.7	128	160	115.0	152	185	113.3	176	200										4
HRE290	300	970	100.96	91.5	22	30	87.6	40	55	84.6	58	75	82.0	76	90	79.8	93	110																6
		1120	115.38	105.9	28	37	102.0	48	55	99.0	68	90	96.5	88	110	94.2	108	132																4
		1280	131.87	122.5	31	37	118.5	53	75	115.5	75	90	112.9	97	110	110.7	121	132																4
		1450	149.38	139.9	35	45	136.0	60	75	133.0	85	110	130.4	110	132	128.2	135	160																4
		1600	164.84	155.4	37	45	151.5	65	90	148.5	93	110	145.9	121	160	143.6	151	185																4
		1780	183.38	173.9	43	55	170.0	75	90	167.0	107	132	164.4	139	160	162.2	173	200																4
HRE300	300	970	111.69	102.6	25	30	98.4	44	55	95.1	63	75	92.3	82	110	89.8	101	132																6
		1120	128.96	118.9	30	37	114.8	51	75	111.6	72	90	108.8	93	110	106.4	114	132																4
		1280	147.38	137.3	33	45	133.2	58	75	129.9	83	110	127.3	108	132	124.9	133	160																4
		1450	166.96	156.9	37	45	152.7	65	75	149.5	93	110	146.8	121	132	144.4	147	160																4
		1600	184.23	174.2	45	55	170.0	78	90	166.8	111	132	164.1	144	160	161.7	176	200																4
		1780	204.96	194.9	50	75	190.7	86	110	187.5	122	160	184.8	158	185	182.4	192	220																4
HRF245	250	980	86.2	76.2	19	30	73.5	34	45	71.4	48	75	69.5	64	90	67.7	79	90	66.1	94	110	64.3	109	132	63.3	124	160	61.5	139	160	60.0	153	185	6
		1450	127.5	121.3	30	37	119.4	52	75	117.6	72	90	114.6	95	110	112.1	117	132	110.2	138	160	108.6	160	185	107.4	182	200	105.6	204	250	104.0	226	250	4
HRF250	250	980	101.2	94.3	22	30	90.4	39	55	87.4	56	75	85.0	73	90	82.8	91	110	80.9	106	132	79.2	122	160	77.8	138	160	75.4	154	185				6
		1450	150	145.1	33	45	141.1	59	75	138.1	85	110	136.4	111	132	134.2	137	160	132.1	163	200	130.4	188	220	129.2	213	250	127.4	239	280				4
HRF290	300	980	106.5	99.0	25	30	93.5	42	55	90.6	60	75	88.0	78	90	85.9	96	110	84.0	114	132	82.4	132	160	81.0	151	185							6
		1450	157.7	150.5	35	45	146.7	63	75	143.8	90	110	141.2	117	132	139.1	145	160	137.2	172	185	135.6	200	220	134.1	227	250							4
HRF300	300	980	132.4	119.7	30	37	115.6	53	75	112.4	75	90	109.5	98	110	106.9	120	132	104.5	143	160	102.4	165	185										6
		1450	196	190.2	45	55	186.5	78	90	182.8	112	132	179.7	146	160	176.9	180	200	174.6	214	250	172.3	248	280										4
HRF350	350	980	158.2	148.9	36	45	144.4	62	75	141.0	88	110	137.1	114	132	133.5	142	160																6
		1450	234.2	226.3	53	75	221.9	93	110	218.5	133	160	215.6	172	200	213.0	212	250																4

HR Series Roots Blower Performance Parameters

Model	Bore	RPM	Theoretical Airflow	Qs-Inlet Airflow (m3/min) / La-Shaft Power (kw) / Po-Motor Power (kw)																													Motor Pole
				9.8kpa			19.6kpa			29.4kpa			39.2kpa			49kpa			58.8kpa			68.6kpa			78.4kpa			88.2kpa			98kpa			
			Qth	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	
HRF400	400	980	193.8	183.0	41	55	178.0	75	90	174.2	109	132	170.9	143	185	168.0	180	200																6
		1450	286.7	277.5	60	75	272.5	112	132	268.7	164	185	265.4	216	250	262.5	269	315																4
HRG400	400	730	223	212.6	51	75	206.0	88	110	200.9	125	160	196.6	162	200	192.8	199	220	189.4	236	280	186.2	273	315	183.2	310	355	180.4	347	400				8
		980	300	291.3	64	75	285.6	115	132	281.6	167	200	276.4	219	250	273.5	269	315	269.6	321	355	266.7	372	400	264.4	424	500	261.6	474	560				6
HRG445	450	730	252	240.1	54	75	235.2	97	132	231.4	141	185	228.1	185	220	225.3	229	250	222.7	273	315	220.3	317	355	218.1	361	400							8
		980	338	328.2	71	90	323.2	130	160	319.3	189	220	316.2	248	280	311.3	308	355	307.7	366	400	305.3	424	450	299.1	482	560							6
HRG450	450	730	280	265.7	61	75	258.8	108	132	254.8	155	185	250.4	202	220	246.4	250	280	242.6	296	355	238.1	343	400										8
		980	376	365.5	80	110	358.6	144	185	354.6	208	250	351.2	272	315	348.2	337	400	343.4	401	450	338.9	465	500										6
HRG500	500	730	348	333.3	73	90	327.4	132	160	321.9	192	220	314.1	250	280	310.7	310	355	306.6	370	400													8
		980	467	454.3	97	132	448.4	177	200	436.9	257	280	433.1	337	355	428.2	417	450	422.6	497	560													6
HRG600	600	730	400	384.3	83	110	374.8	148	185	367.5	218	250	361.4	288	315	355.9	355	400																8
		980	536	520.0	103	132	510.5	199	250	503.3	295	355	497.1	391	450	491.7	490	560																6
HRZ600	600	730	459.87	433.2	95	110	423.0	173	200	415.2	251	280	408.5	329	355	402.7	407	450	397.4	485	560	392.5	563	630	388.3	641	710	384.0	719	800	380.0	797	900	8
		980	617.37	590.7	130	160	578.5	234	250	571.6	338	355	564.0	442	500	557.2	546	630	548.8	650	710	541.0	754	800	530.8	858	900	520.5	962	1120	510.5	1066	1250	6
HRZ600T	600	730	513.98	484.7	108	132	473.9	192	220	465.6	276	315	458.5	360	400	452.3	447	500	446.6	531	630	441.3	615	710	436.4	699	800	431.9	783	900	427.5	867	1000	8
		980	690	660.8	147	160	649.9	263	280	641.6	379	450	634.5	495	560	628.3	614	710	622.6	730	800	617.4	846	900	611.4	962	1120	604.9	1078	1250	599.6	1194	1400	6
HRZ700	700	730	572.59	540.1	122	132	527.8	218	250	518.4	314	355	509.5	410	450	503.5	510	560	497.1	606	710	490.9	702	800	484.7	798	900	477.8	894	1000	470.2	990	1120	8
		980	768.69	739.2	164	185	726.9	292	355	717.5	420	450	709.6	548	630	702.6	680	710	696.2	808	900	693.2	938	1000	687.9	1066	1120	683.0	1194	1400	678.3	1322	1400	6
HRZ800	800	730	653.74	620.5	145	160	608.0	255	280	597.3	365	400	589.2	475	560	582.0	585	630	575.2	695	800	569.1	805	900	563.4	915	1120							8
		980	877.63	844.5	190	220	831.4	338	400	823.1	486	560	815.3	634	710	805.4	782	900	798.1	930	1000	792.0	1078	1250	783.3	1226	1400							6
HRZ800T	800	730	694.32	659.0	148	185	646.4	264	315	637.8	380	400	629.6	496	560	618.4	616	710	611.6	732	800	606.2	848	900										8
		980	932.1	896.8	198	220	884.2	354	400	875.6	510	560	867.4	666	710	861.2	825	900	850.3	981	1120	843.0	1137	1250										6
HRZ900	900	730	766.46	726.1	163	200	715.6	291	355	705.3	419	450	697.6	547	630	685.4	676	710	679.0	804	900	672.2	932	1000										8
		980	1028.95	991.6	223	250	977.1	404	450	968.8	580	710	960.1	756	900	948.9	930	1120	941.5	1108	1250	933.7	1284	1400										6
HRZ900T	900	730	825	782.4	178	200	769.5	314	355	757.6	450	500	745.4	586	630	732.8	722	800	721.6	858	900													8
		980	1107.6	1066.3	234	250	1050.2	418	450	1038.6	602	710	1027.5	786	900	1017.7	970	1120	1004.8	1154	1250													6
HRZ900L	900	730	901.7	858.2	188	220	842.6	340	400	830.7	491	560	820.6	642	710	811.2	792	900	803.5	944	1120													8
		980	1210.5	1165.0	252	280	1150.5	456	500	1134.9	660	710	1120.6	864	1000	1107.4	1070	1250	1094.7	1274	1400													6

MT Series Roots Blower Performance Parameters

Model	Bore	RPM	Theoretical	Qs-Inlet Airflow (m3/min) / La-Shaft Power (kw) / Po-Motor Power (kw)																													Motor Pole
			Airflow	9.8kpa			19.6kpa			29.4kpa			39.2kpa			49kpa			58.8kpa			68.6kpa			78.4kpa			88.2kpa			98kpa			
			Qth	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	
MTRF250	250	730	97.8	86.9	21	30	84.2	38	45	82.0	54	75	80.1	70	90	78.3	87	110	76.7	103	132	75.1	120	132	73.7	136	160	72.3	153	185	71.6	161	185	8
		980	131.3	120.4	29	37	117.7	51	75	115.5	72	90	113.6	95	110	111.8	117	132	110.2	139	160	108.6	161	185	107.2	183	200	105.8	205	250	104.5	227	250	6
MTRF290	300	730	115.3	105.0	25	30	101.1	45	55	98.1	64	75	95.7	83	90	93.5	103	132	91.6	122	132	89.9	141	160	88.5	160	185	86.1	179	200	84.5	198	220	8
		980	154.8	144.5	33	45	140.6	59	75	137.6	85	110	135.2	110	132	133.0	136	160	131.1	161	185	129.4	187	220	128.0	213	250	125.6	240	280	124.0	277	315	6
MTRF295	300	730	122.3	110.8	26	30	107.5	47	55	104.1	67	75	101.5	88	110	99.4	108	132	97.5	128	160	95.8	149	185	94.4	169	185	93.0	189	200	89.7	210	250	8
		980	164.1	152.5	35	45	148.7	63	75	145.8	90	110	143.2	117	132	141.1	145	160	139.2	172	185	137.6	200	220	136.2	227	250	134.8	254	280	131.6	281	315	6
MTRF300	300	730	150.2	137.2	32	37	133.1	57	75	129.9	82	90	127.0	107	132	124.0	132	160	122.0	157	185	119.9	182	200	118.0	207	250	115.7	232	250				8
		980	201.7	188.7	43	55	184.6	76	90	181.0	110	132	178.5	144	160	175.9	178	200	173.5	211	250	171.4	245	280	169.5	278	315	167.1	311	355				6
MTRF350	350	730	178.2	164.0	37	45	159.0	67	75	155.0	97	110	151.0	126	160	148.0	156	185	146.0	186	200	142.8	215	250										8
		980	239.2	225.0	50	75	220.0	90	110	216.0	130	160	212.0	170	185	209.0	209	250	207.0	249	280	203.9	289	315										6
MTMG395	400	730	198.77	184.0	41	55	177.0	74	90	173.0	107	132	169.0	141	160	165.0	174	200	162.0	207	250	159.0	240	280	156.0	273	315							8
		980	266.84	252.0	55	75	246.0	100	110	241.0	144	160	237.0	189	220	233.0	233	250	230.0	278	315	227.0	322	355	224.0	367	400							6
MTMG400	400	730	220.85	204.0	45	55	198.0	82	90	193.0	119	132	188.0	156	185	184.0	193	220	181.0	229	250	178.0	266	280										8
		980	296.48	280.0	61	75	273.0	110	132	268.0	160	185	264.0	209	250	260.0	258	280	256.0	308	355	253.0	357	400										6
MTMG450	450	730	253.97	235.4	50	55	228.8	90	110	223.3	131	160	217.8	172	200	213.4	212	250																8
		980	340.95	322.5	67	75	314.8	121	132	309.3	176	200	304.1	230	280	300.5	284	315																6
MTRG350	350	590	197.3	184.8	43	55	179.3	76	90	175.3	109	132	172.3	142	185	169.6	175	220	167.2	208	250	164.8	241	280	162.8	274	315	160.8	307	355	159.3	324	355	10
		730	244.1	231.6	53	75	226.1	93	110	222.1	134	160	219.1	175	200	216.4	216	250	214.0	257	280	211.6	297	355	209.6	338	400	207.6	380	450	206.1	420	450	8
MTRG400	400	590	248.1	232.0	52	75	226.1	94	110	221.3	135	160	217.1	177	200	213.4	218	250	209.5	260	280	207.0	301	355	204.6	343	400							10
		730	306.9	290.9	64	75	284.8	115	132	280.1	167	200	275.8	219	250	272.2	269	315	268.7	321	355	265.9	372	400	263.3	424	500							8
MTRG445	450	590	278.96	262.0	57	75	255.0	114	132	249.7	161	185	245.2	203	220	241.2	253	280	237.6	291	315	234.3	339	355	231.2	388	450							10
		730	345.15	328.3	72	90	321.3	130	160	315.9	188	220	311.4	246	280	307.4	303	355	303.8	362	400	300.4	419	450	297.4	480	560							8
MTRG450	450	590	310.1	292.6	64	75	285.1	116	132	279.9	168	185	275.0	220	250	271.0	271	315	267.6	323	355	264.1	375	400										10
		730	383.7	366.2	79	90	358.6	143	185	353.0	207	250	348.6	271	315	344.7	335	400	341.1	400	450	337.6	464	500										8
MTRG500	500	590	383.7	361.4	78	90	352.4	142	185	345.7	206	220	339.9	270	315	334.0	334	355	329.1	398	450													10
		730	474.4	452.4	96	132	443.0	175	220	436.7	253	315	430.5	333	355	425.4	412	450	420.7	492	560													8
MTRG600	600	590	436.47	413.8	84	110	404.3	168	185	397.1	252	280	391.0	335	400	285.7	419	450	380.8	503	560													10
		730	540.04	517.3	104	132	507.9	208	250	500.7	311	355	494.5	415	450	489.2	519	560	484.2	623	710													8

MTRZ Series Roots Blower Performance Parameters

Model	Bore	RPM	Theoretical	Qs-Inlet Airflow (m3/min)															La-Shaft Power (kw)			Po-Motor Power (kw)												Motor Pole
			Airflow	9.8kpa			19.6kpa			29.4kpa			39.2kpa			49kpa			58.8kpa			68.6kpa			78.4kpa			88.2kpa			98kpa			
			Qth	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	
MTRZ7-500	500	490	405.9	378.1	85	110	366.6	152	185	357.8	219	250	350.4	285	315	343.8	353	400	337.8	423	500	332.4	489	560	327.3	553	630	322.5	622	710	317.9	688	800	12
		590	488.5	460.9	102	132	449.4	184	220	440.6	263	315	433.2	343	400	426.6	425	500	420.7	510	560	415.2	588	630	410.1	665	710	405.3	748	800	400.7	828	900	10
MTRZ7-580	600	490	463.7	435.6	97	132	424.0	174	200	415.1	250	280	407.5	326	355	400.8	403	450	394.8	484	560	389.2	558	630	384.1	631	710	379.2	710	800				12
		590	558.3	530.4	117	160	518.6	210	250	509.7	301	355	502.1	392	450	495.5	485	560	489.4	582	630	483.9	672	710	478.7	760	800	473.8	855	900				10
MTRZ7-600	600	490	513.4	479.5	108	132	465.5	193	220	454.7	277	315	445.6	361	400	437.6	446	500	430.3	535	630	423.6	618	710	417.4	699	800	411.5	786	900				12
		590	618.1	584.3	130	160	570.3	232	250	559.5	333	400	550.4	434	500	542.3	537	630	535.1	645	710	528.4	744	800	522.2	842	900	516.3	947	1120				10
MTRZ7-700	700	490	583.8	542.1	122	132	524.8	219	250	511.6	315	355	500.4	410	450	490.5	507	560	481.6	609	710	473.4	703	800	465.7	795	900							12
		590	702.9	661.2	147	160	644.0	264	315	630.7	379	450	619.5	494	560	609.6	611	710	600.7	733	800	592.5	846	900	584.9	957	1120							10
MTRZ7-750	800	490	645.8	608.9	135	185	593.6	243	280	581.9	348	400	572.0	454	500	563.2	561	630	555.3	674	710													12
		590	777.6	740.7	163	185	725.4	292	355	713.7	419	500	703.8	547	630	695.0	676	710	687.1	811	900													10
MTRZ7-800	800	490	736.9	689.6	154	185	671.0	277	315	657.5	397	450	646.7	518	560	637.7	641	710																12
		590	887.3	841.6	186	220	823.7	333	400	810.6	478	560	800.1	624	710	791.4	772	900																10
MTRZ8-700	700	490	779.3	738.4	163	185	721.4	292	355	708.3	420	450	697.3	547	630	687.5	677	800	678.7	813	900	670.6	938	1000	663.0	1061	1120							12
		590	938.3	897.0	196	250	880.0	352	400	867.4	505	560	856.3	660	710	846.6	816	900	837.8	979	1120	829.7	1130	1250	822.1	1278	1400							10
MTRZ8-750	800	490	865.2	821.0	181	220	802.6	325	355	788.5	466	560	776.6	608	710	766.1	752	800	756.6	902	1000													12
		590	1041.8	997.5	218	250	979.2	391	450	965.0	561	630	953.1	732	800	942.6	906	1000	933.1	1086	1250													10
MTRZ8-800	800	490	916.8	871.1	192	220	852.2	344	400	837.6	494	560	825.3	644	710	814.4	797	900	804.7	956	1120													12
		590	1103.9	1058.2	231	250	1039.3	415	450	1024.7	595	710	1012.4	776	900	1001.5	960	1120	991.7	1151	1250													10
MTRZ8-900	900	490	1117.0	1035.0	229	280	1013.0	410	500	995.0	587	710	981.0	767	900	968.0	948	1120																12
		590	1345.0	1258.0	275	315	1236.0	494	560	1219.0	707	800	1205.0	923	1000	1192.0	1141	1250																10

MTRR Series *Double Stage Roots Blower Performance Parameters*

Model	Bore	RPM	Theoretical Airflow	Qs-Inlet Airflow (m3/min) / La-Shaft Power (kw) / Po-Motor Power (kw)																													Motor Pole
				98kpa			107.8kpa			117.6kpa			127.4kpa			137.2kpa			147.0kpa			156.8kpa			166.6kpa			176.4kpa			196.0kpa			
			Qth	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	
MTRRB 65	50	1150	2.29	0.66	3.85	5.5	0.63	4.20	5.5	0.61	4.45	5.5																					4
		1450	2.89	1.26	4.85	5.5	1.23	5.27	7.5	1.21	5.61	7.5	1.19	6.00	7.5	1.16	6.34	7.5	1.11	6.72	11	1.09	7.11	11										4
		1750	3.49	1.86	5.85	7.5	1.83	6.46	7.5	1.81	6.77	7.5	1.79	7.24	11	1.76	7.65	11	1.71	8.11	11	1.69	8.58	11	1.68	9.05	11	1.67	9.45	11				4
		2000	3.99	2.36	6.70	11	2.33	7.27	11	2.31	7.74	11	2.29	8.27	11	2.26	8.75	11	2.21	9.27	11	2.19	9.80	15	2.18	10.40	15	2.17	10.80	15	2.16	11.80	15	4
MTRRB 100	80	1150	6.33	3.58	10.50	15	3.53	11.20	15	3.53	12.00	15	3.48	12.80	15																			4
		1450	7.99	5.24	13.20	18.5	5.19	14.20	18.5	5.19	15.10	18.5	5.14	16.20	18.5	5.09	17.20	22	5.04	18.20	22													4
		1750	9.64	6.89	16.00	18.5	6.84	17.10	22	6.84	18.30	22	6.79	19.50	22	6.79	20.70	30	6.69	22.00	30	6.69	23.00	30	6.64	24.30	30							4
MTRRB 125	125	970	11.1	6.95	17.90	22	6.90	19.30	22	6.85	20.70	30	6.80	22.10	30	6.75	23.50	30	6.70	24.80	30	6.65	26.20	30										6
		1150	13.2	9.05	21.30	30	9.00	22.90	30	8.95	24.50	30	8.90	26.20	30	8.85	27.80	37	8.80	29.40	37	8.75	31.10	37	8.70	32.60	37							4
		1450	16.6	12.50	26.80	30	12.40	28.90	37	12.40	30.90	37	12.30	33.00	37	12.30	35.10	45	12.20	37.00	45	12.20	39.20	45	12.10	41.10	55	12.10	43.20	55				4
		1750	20	15.90	32.40	37	15.80	34.90	45	15.80	37.30	45	15.70	39.80	45	15.70	42.40	55	15.60	44.70	55	15.60	47.30	55	15.50	49.60	55	15.50	52.20	75	15.40	56.80	75	4
MTRRD 130	150	970	16.9	10.90	26.80	30	10.60	28.80	37	10.50	30.70	37	10.40	32.80	37	10.40	34.80	45	10.30	36.80	45	10.30	38.70	45	10.20	40.60	45							6
		1150	20.2	14.20	31.70	37	13.90	34.10	45	13.80	36.50	45	13.70	39.00	45	13.70	41.20	55	13.60	43.60	55	13.60	45.90	55	13.50	48.20	55	13.50	50.60	75				4
		1450	25.3	19.30	40.00	45	19.00	43.00	55	18.90	46.00	55	18.80	49.10	55	18.70	52.00	75	18.70	55.00	75	18.70	57.90	75	18.60	60.80	75	18.60	63.80	75	18.50	69.60	90	4
		1750	30.5	24.50	48.30	55	24.20	51.90	75	24.10	55.50	75	24.00	59.20	75	24.00	62.70	75	23.90	66.30	75	23.90	70.00	90	23.80	73.30	90	23.80	77.00	90	23.70	84.00	110	4
MTRRD 150	150	970	20.8	13.30	32.80	37	13.20	35.30	45	13.10	37.70	45	13.00	40.20	45	13.00	42.60	55	12.90	45.00	55													6
		1150	24.6	17.10	38.90	45	17.00	41.80	55	16.90	44.70	55	16.80	47.70	55	16.80	50.50	75	16.70	53.30	75													4
		1450	31.1	23.60	49.00	55	23.50	52.70	75	23.40	56.30	75	23.30	60.10	75	23.30	63.70	75	23.20	67.30	75													4
		1750	37.5	30.00	59.20	75	29.90	63.60	75	29.80	68.00	75	29.70	72.50	90	29.70	77.00	90	29.60	81.20	90													4
MTRRE 150	150	970	35.5	26.70	56.00	75	26.60	60.40	75	26.50	64.50	75	26.40	68.60	90	26.30	72.60	90	26.20	76.90	90	26.10	81.20	110	26.00	84.80	110	26.00	89.10	110	25.90	97.00	110	6
		1170	42.8	34.00	67.50	75	33.90	72.80	90	33.80	77.70	90	33.70	82.80	110	33.60	87.50	110	33.50	92.70	110	33.40	97.80	110	33.30	102.00	132	33.30	107.00	132	33.20	117.00	132	4
		1250	45.8	37.00	72.10	90	36.90	77.80	90	36.80	83.10	110	36.70	88.40	110	36.60	93.50	110	36.50	99.10	110	36.40	105.00	132	36.30	109.00	132	36.30	115.00	132	36.20	125.00	160	4
		1350	49.4	40.60	77.90	90	40.50	84.00	110	40.40	89.70	110	40.30	95.50	110	40.20	101.00	132	40.10	107.00	132	40.00	113.00	132	39.90	118.00	132	39.90	124.00	160	39.80	135.00	160	4
		1450	53.1	44.30	84.20	90	44.20	90.70	110	44.10	96.80	132	44.00	103.10	132	43.90	109.00	132	43.80	115.40	132	43.70	121.90	160	43.60	127.20	160	43.50	133.70	160	43.50	145.50	185	4
MTRRE 190	200	970	44.4	33.40	70.10	90	33.30	74.70	90	33.10	80.50	90	33.00	85.50	110	32.90	90.50	110	32.80	95.60	110	32.70	99.90	110	32.60	105.00	132	32.50	110.00	132	32.30	120.00	132	6
		1170	53.6	42.60	84.50	110	42.50	90.10	110	42.30	97.10	110	42.20	103.00	132	42.10	109.00	132	42.00	115.00	132	41.90	120.00	132	41.80	127.00	160	41.70	133.00	160	41.50	145.00	160	4
		1250	57.2	46.20	90.30	110	46.10	96.30	110	45.90	104.00	132	45.80	110.00	132	45.70	117.00	132	45.60	123.00	160	45.50	129.00	160	45.40	135.00	160	45.30	142.00	160	45.10	155.00	185	4
		1350	61.8	50.80	97.50	110	50.70	104.00	132	50.50	112.00	132	50.40	119.00	132	50.30	126.00	160	50.20	133.00	160	50.10	139.00	160	50.00	146.00	185	49.90	153.00	185	49.70	167.00	185	4
		1450	66.4	55.20	105.50	132	55.10	112.50	132	54.90	121.10	160	54.70	128.60	160	54.60	136.10	160	54.50	143.70	160	54.40	150.10	185	54.20	157.60	185	54.10	165.10	185	54.00	180.20	220	4

MTRR Series Double Stage Roots Blower Performance Parameters

Model	Bore	RPM	Theoretical	Qs-Inlet Airflow (m3/min)														La-Shaft Power (kw)						Po-Motor Power (kw)									Motor Pole
			Airflow	98kpa			107.8kpa			117.6kpa			127.4kpa			137.2kpa			147.0kpa			156.8kpa			166.6kpa			176.4kpa			196.0kpa			
			Qth	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	
MTRRE 200	200	970	54.3	42.80	84.80	110	42.50	91.00	110	42.40	97.70	110	42.30	104.00	132	42.30	110.00	132	42.20	116.00	132	42.10	123.00	160	42.00	129.00	160	41.80	136.00	160				6
		1170	65.5	54.00	102.00	132	53.70	110.00	132	53.60	118.00	132	53.50	126.00	160	53.50	133.00	160	53.40	140.00	160	53.30	148.00	185	53.20	155.00	185	53.00	164.00	185				4
		1250	70	58.50	109.00	132	58.20	118.00	132	58.10	126.00	160	58.00	134.00	160	58.00	142.00	160	57.90	150.00	185	57.80	158.00	185	57.70	166.00	185	57.50	175.00	200				4
		1350	75.5	64.00	118.00	132	63.70	127.00	160	63.60	136.00	160	63.60	145.00	160	63.50	153.00	185	63.40	162.00	185	63.30	171.00	200	63.20	179.00	200	63.00	189.00	200				4
		1450	81.1	69.20	128.00	160	68.90	138.00	160	68.80	147.00	160	68.70	157.00	185	68.70	166.00	185	68.60	176.00	200	68.50	185.00	220	68.40	194.00	220	68.20	204.00	250				4
MTRRE 250	200	970	69.1	54.70	108.00	132	54.50	115.70	132	54.30	123.20	160	54.10	131.20	160	54.00	139.00	160	53.80	146.70	185	53.60	154.60	185										6
		1170	83.3	68.90	131.00	160	68.70	140.20	160	68.50	149.50	185	68.30	158.70	185	68.20	168.00	200	68.00	177.20	200	67.80	186.50	220										4
		1250	89	74.60	140.00	160	74.40	150.00	185	74.20	160.00	185	74.00	170.00	200	73.90	180.00	220	73.70	190.00	220	73.50	200.00	250										4
		1350	96.2	81.80	151.00	185	81.60	161.70	185	81.40	172.50	200	81.20	183.20	220	81.10	194.00	250	80.90	204.70	250	80.70	215.50	250										4
		1450	103	88.40	163.00	185	88.30	174.00	200	88.10	186.00	200	87.80	198.00	220	87.70	210.00	250																4
MTRSR 250	250	970	101.8	82.80	157.70	185	82.50	171.20	185	82.50	184.70	220	81.30	198.20	220	81.30	211.80	250	80.90	222.10	250	80.90	238.30	280	80.60	252.40	280	80.60	265.90	315	79.30	292.00	315	6
		1170	121.5	102.50	188.30	220	102.50	204.40	250	101.80	220.60	250	101.80	236.70	280	101.10	252.90	280	101.10	269.10	315	99.60	285.20	315	99.60	301.40	355	99.20	317.50	355	98.50	349.80	400	4
		1250	129.8	110.80	201.10	220	110.80	218.40	250	109.50	235.70	280	109.50	252.90	280	108.30	270.20	315	108.30	287.50	315	108.30	304.70	355	107.60	322.00	355	107.60	339.30	400	107.60	373.80	450	4
		1350	140.2	121.20	217.20	250	121.20	235.80	280	120.10	254.50	280	120.10	273.20	315	119.20	291.80	315	119.10	310.50	355	119.10	329.10	355	118.00	347.70	400	117.00	366.40	400	117.00	403.70	450	4
		1450	150.6	131.60	233.30	280	131.60	253.30	280	130.50	273.30	315	130.50	293.40	315	129.10	313.40	355	129.10	333.40	355	129.00	353.50	400	127.50	373.50	400	127.50	393.50	450				4
MTRRE 300	300	970	137.5	115.80	213.30	250	115.80	232.10	280	115.80	250.80	280	114.50	269.60	315	114.50	288.40	315																6
		1170	165.8	144.20	257.30	280	144.20	280.00	315	144.20	302.60	355	143.10	325.20	355	143.10	347.80	400	143.10	370.50	400													4
		1250	177.2	155.50	274.90	315	155.50	299.10	355	155.50	323.30	355	154.20	347.50	400	154.20	371.70	400	154.20	395.90	450													4
		1350	191.4	169.70	296.90	315	169.50	323.10	355	169.20	349.30	400	168.20	375.50	400	168.20	401.70	450																4
		1450	205.5	183.80	318.90	355	183.80	346.90	400	183.20	374.90	450	182.10	402.90	450	182.10	430.90	500																4
MTRRF 295	250	730	122.3	97.20	188.00	200	97.20	203.00	220	96.20	218.00	250	96.20	232.00	250	96.20	246.00	280	96.20	259.00	280	95.20	273.00	315	95.20	288.00	315	94.20	301.00	355	94.20	327.00	355	8
		980	161.4	139.00	252.00	280	139.00	272.00	315	138.00	292.00	315	138.00	311.00	355	138.00	330.00	355	138.00	348.00	400	137.00	367.00	400	137.00	386.00	450	137.00	404.00	450	136.00	439.00	500	4
MTRRF 300	250	730	150.2	123.00	222.00	250	123.00	250.00	280	122.00	267.00	315	122.00	284.00	315	121.00	302.00	355	121.00	320.00	355	120.00	332.00	400	119.00	353.00	400	119.00	370.00	400				8
		980	201.7	174.00	311.00	355	174.00	335.00	400	173.00	358.00	400	173.00	381.00	450	172.00	406.00	450	172.00	429.00	500	171.00	446.00	500	170.00	474.00	500	170.00	497.00	560				4
MTRRF 350	300	730	178.2	146.00	271.00	315	146.00	291.00	355	145.00	312.00	355	145.00	331.00	400	144.00	352.00	400																8
		980	239.2	207.00	364.00	400	207.00	390.00	450	206.00	419.00	450	206.00	445.00	500	205.00	473.00	560																6
MTRRF 395	300	730	194	159.00	302.00	355	158.00	325.00	355	158.00	347.00	400	157.00	369.00	400	157.00	391.00	450	157.00	413.00	450	156.00	434.00	500										8
		980	260.4	226.00	406.00	450	226.00	436.00	500	225.00	466.00	500	225.00	496.00	560	225.00	525.00	560	224.00	554.00	630	224.00	583.00	630										6
MTRRG 400	350	590	248.1	209.00	380.00	450	208.00	411.00	450	208.00	440.00	500	207.00	471.00	560	207.00	501.00	560	206.00	530.00	630	206.00	542.00	630	206.00	590.00	710	205.00	620.00	710				10
		730	311.1	273.00	480.00	560	273.00	518.00	560	272.00	554.00	630	272.00	592.00	710	271.00	628.00	710	271.00	664.00	710	270.00	680.00	800	270.00	737.00	800	269.00	773.00	900				8
MTRRG 450	350	590	310.1	267.00	476.00	560	266.00	504.00	560	266.00	541.00	630	265.00	578.00	630	265.00	616.00	710	264.00	637.00	710	264.00	690.00	800	263.00	726.00	800	263.00	761.00	800				10
		740	388.9	347.00	598.00	710	346.00	634.00	710	345.00	680.00	800	345.00	726.00	800	344.00	772.00	900	344.00	799.00	900	344.00	864.00	1000	343.00	909.00	1000	343.00	955.00	1000				8
MTRRG 500	400	590	383.4	330.00	574.00	630	330.00	621.00	710	329.00	667.00	710	329.00	714.00	800	328.00	760.00	800																10
		730	480.9	428.00	722.00	800	427.00	780.00	900	427.00	838.00	900	426.00	896.00	1000	426.00	954.00	1000																8

RSR Series *Roots Vacuum Pump Performance Parameters*

Model	Bore	RPM	Qs-Inlet Airflow (m3/min) / La-Shaft Power (kw) / Po-Motor Power (kw)																											Motor Pole
			-13.3kpa			-19.9kpa			-26.6kpa			-33.3kpa			-39.2kpa			-44.1kpa			-49kpa			-58.8kpa			-68.6kpa			-78.4kpa			
			Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	
RSR50	50	1230	1.29	0.47	1.1	1.20	0.67	1.5	1.10	0.88	1.5	1.02	1.08	2.2																		4
		1350	1.45	0.58	1.5	1.36	0.80	1.5	1.26	1.02	1.5	1.16	1.24	2.2																		4
		1470	1.62	0.74	1.5	1.54	0.96	1.5	1.45	1.18	1.5	1.35	1.40	2.2	1.25	1.62	2.2	1.21	1.75	3													4
		1560	1.76	0.86	1.5	1.69	1.09	2.2	1.60	1.31	2.2	1.50	1.54	2.2	1.37	1.76	3	1.31	1.89	3													4
		1660	1.88	0.93	1.5	1.81	1.17	2.2	1.71	1.41	2.2	1.61	1.66	3	1.48	1.90	3	1.42	2.04	3													4
		1750	1.99	0.99	2.2	1.92	1.27	2.2	1.82	1.50	3	1.71	1.76	3	1.58	2.02	3	1.52	2.17	4													4
		1850	2.12	1.13	2.2	2.05	1.39	2.2	1.95	1.65	3	1.84	1.91	3	1.71	2.17	4	1.64	2.32	4													4
		1960	2.27	1.28	2.2	2.20	1.55	3	2.10	1.81	3	1.99	2.08	3	1.90	2.34	4	1.85	2.50	4													4
		2120	2.46	1.56	3	2.38	1.84	3	2.27	2.21	4	2.15	2.40	4	2.02	2.67	4	1.95	2.83	4													4
RSR65	65	1360	2.08	0.95	1.5	1.93	1.24	2.2	1.78	1.52	2.2	1.64	1.81	3																		4
		1460	2.27	1.05	2.2	2.13	1.35	2.2	1.99	1.65	2.2	1.84	1.96	3	1.70	2.26	3	1.61	2.44	3													4
		1550	2.47	1.13	2.2	2.32	1.45	2.2	2.17	1.77	3	2.03	2.09	3	1.88	2.41	3	1.80	2.60	4													4
		1670	2.70	1.24	2.2	2.56	1.58	2.2	2.42	1.93	3	2.27	2.28	3	2.13	2.62	4	2.05	2.83	4													4
		1770	2.90	1.32	2.2	2.76	1.69	3	2.62	2.06	3	2.49	2.43	4	2.35	2.79	4	2.27	3.03	4													4
		1860	3.08	1.44	2.2	2.94	1.82	3	2.80	2.20	3	2.65	2.59	4	2.51	2.98	4	2.44	3.20	4													4
		1980	3.33	1.60	3	3.18	2.00	3	3.03	2.41	3	2.89	2.81	4	2.74	3.23	4	2.72	3.47	5.5													4
		2150	3.57	1.84	3	3.43	2.28	4	3.30	2.72	4	3.16	3.16	4	3.02	3.60	5.5	2.92	3.86	5.5													4
RSR80	80	1240	3.29	1.17	2.2	3.15	1.66	3	3.00	2.14	3	2.85	2.63	4	2.69	3.11	4	2.62	3.40	5.5													4
		1300	3.49	1.30	2.2	3.35	1.80	3	3.20	2.30	3	3.05	2.80	4	2.89	3.30	5.5	2.82	3.60	5.5													4
		1370	3.73	1.44	2.2	3.59	1.96	3	3.44	2.49	3	3.29	3.01	4	3.13	3.53	5.5	3.06	3.84	5.5													4
		1470	4.03	1.60	3	3.89	2.16	3	3.74	2.73	4	3.59	3.30	5.5	3.43	3.86	5.5	3.35	4.20	5.5													4
		1570	4.35	1.82	3	4.21	2.40	3	4.07	2.99	4	3.92	3.57	5.5	3.77	4.16	5.5	3.66	4.51	5.5													4
		1660	4.64	2.01	3	4.51	2.62	4	4.37	3.24	4	4.22	3.85	5.5	4.06	4.46	5.5	3.96	4.82	7.5													4
		1750	4.95	2.23	3	4.81	2.85	4	4.67	3.48	5.5	4.53	4.11	5.5	4.38	4.73	7.5	4.27	5.10	7.5													4
		1840	5.23	2.42	3	5.10	3.09	4	4.96	3.75	5.5	4.81	4.42	5.5	4.65	5.09	7.5	4.55	5.48	7.5													4
		1930	5.53	2.64	4	5.40	3.33	5.5	5.26	4.02	5.5	5.11	4.72	7.5	4.95	5.41	7.5	4.85	5.82	7.5													4
RSR100	100	1160	4.83	1.80	3	4.56	2.53	4	4.29	3.27	5.5	4.03	4.01	5.5	3.78	4.72	7.5	3.63	5.15	7.5													4
		1320	5.80	2.09	3	5.54	2.94	4	5.27	3.79	5.5	5.01	4.64	5.5	4.74	5.49	7.5	4.58	6.00	7.5													4
		1480	6.51	2.27	3	6.28	3.19	4	6.05	4.14	5.5	5.82	5.05	7.5	5.60	5.97	7.5	5.47	6.51	11													4
		1700	7.57	2.66	4	7.37	3.72	5.5	7.16	4.79	7.5	6.95	5.86	7.5	6.73	6.92	11	6.60	7.56	11													4
		1890	8.47	3.03	4	8.29	4.21	5.5	8.09	5.39	7.5	7.88	6.56	11	7.66	7.74	11	7.53	8.45	11													4
RSR125	125	980	6.24	2.27	4	5.97	3.17	5.5	5.70	4.07	5.5	5.42	4.49	5.5	5.14	5.86	7.5	5.01	6.40	7.5													6
		1200	7.77	3.26	5.5	7.51	4.31	5.5	7.25	5.37	7.5	6.98	6.42	7.5	6.96	7.47	11	6.58	8.08	11													4
		1310	8.57	3.71	5.5	8.36	4.87	7.5	8.13	6.02	7.5	7.88	7.18	11	7.61	8.33	11	7.44	9.00	11													4
		1470	9.70	4.37	5.5	9.48	5.66	7.5	9.25	6.95	11	9.02	8.23	11	8.78	9.50	11	8.50	10.28	15													4
		1650	11.00	5.18	7.5	10.70	6.64	7.5	10.50	8.11	11	10.30	9.58	15	10.10	11.10	15	9.64	11.93	15													4
		1770	11.80	5.70	7.5	11.50	7.23	11	11.30	8.75	11	11.10	10.30	15	10.90	11.80	15	10.38	12.71	15													4
		1880	12.50	6.25	7.5	12.30	7.86	11	12.00	9.46	11	11.80	11.10	15	11.60	12.70	15	11.16	13.66	15													4

RSR Series *Roots Vacuum Pump Performance Parameters*

Model	Bore	RPM	Qs-Inlet Airflow (m3/min) / La-Shaft Power (kw) / Po-Motor Power (kw)																											Motor Pole
			-13.3kpa			-19.9kpa			-26.6kpa			-33.3kpa			-39.2kpa			-44.1kpa			-49kpa			-58.8kpa			-68.6kpa			-78.4kpa			
			Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	
RSR150	150	990	15.60	4.46	7.5	15.15	6.58	7.5	14.70	8.70	11	14.25	10.80	15	13.80	12.90	18.5	13.60	14.20	18.5	13.35	15.90	18.5	12.45	19.23	22	12.00	21.34	30	11.10	25.56	30	6
		1200	19.20	7.57	11	18.73	9.93	11	18.25	12.30	15	17.77	14.70	18.5	17.30	17.00	22	17.00	18.70	22	16.82	19.36	22	15.87	24.07	30	15.40	26.43	30	14.45	31.15	37	4
		1410	22.50	10.50	15	22.10	13.20	15	21.70	15.90	18.5	21.30	18.60	22	20.90	21.30	30	20.70	23.40	30	20.50	24.00	30	19.70	29.40	37	19.30	32.10	37	18.50	37.50	45	4
		1670	26.50	14.30	18.5	26.00	17.40	22	25.50	20.50	22	25.00	23.50	30	24.50	26.60	30	24.30	28.00	37	24.00	29.67	37	23.00	35.82	45	22.50	38.90	45	21.50	45.05	55	4
		1900	29.25	17.77	22	28.62	21.09	30	27.98	24.83	30	27.35	28.45	37	26.72	32.26	37	26.40	34.00	37	26.09	35.95	45	24.82	43.25	55	24.19	46.90	55	22.93	54.20	75	4
RSR175A	150	970	16.10	6.95	11	15.60	8.70	11	14.55	11.35	15	13.50	14.00	18.5	12.90	15.70	18.5	12.10	17.50	22													6
		1150	20.00	8.10	11	19.50	10.20	15	18.45	13.35	18.5	17.40	16.50	22	16.80	18.50	22	16.00	20.60	30	15.00	22.70	30										4
		1450	26.40	10.10	15	25.90	12.70	15	24.85	16.70	22	23.80	20.60	30	23.20	23.20	30	22.40	25.90	30	21.40	28.50	37										4
		1750	32.80	12.20	15	32.30	15.30	18.5	31.25	20.05	30	30.20	24.80	30	29.60	28.00	37	28.80	31.20	37	27.80	34.30	45										4
RSR200H	200	970	30.20	11.50	15	29.50	14.50	18.5	28.30	19.00	22	27.10	23.50	30	26.40	26.50	37	25.60	29.50	37	24.80	32.50	45	23.00	38.50	45	21.70	44.50	55	20.10	50.50	75	6
		1170	37.60	13.60	18.5	36.90	17.20	22	35.70	22.65	30	34.50	28.10	37	33.80	31.70	37	32.90	35.30	45	32.20	39.00	45	30.70	46.20	55	29.10	53.50	75	27.60	60.70	75	4
		1250	40.40	14.80	18.5	39.50	18.60	22	38.15	24.30	30	36.80	30.00	37	35.90	33.80	45	35.00	37.60	45	34.10	41.50	55	32.30	49.10	75	30.50	56.70	75	28.70	64.30	75	4
		1350	44.20	16.10	22	43.50	20.30	30	42.30	26.60	30	41.10	32.90	45	40.40	37.10	45	39.60	41.30	55	38.80	45.50	55	37.30	53.80	75	35.70	62.20	75	34.10	70.60	90	4
		1450	47.00	18.30	22	46.10	22.30	30	44.95	27.95	37	43.90	35.60	45	43.30	40.30	45	42.70	45.80	55	39.00	50.20	55	39.00	61.30	75	37.80	71.60	90	36.90	81.00	90	4
RSR200	200	980	38.40	14.40	18.5	37.70	19.10	22	37.00	23.90	30	36.40	28.60	37	35.70	33.40	45	35.10	38.10	45	34.40	42.90	55	32.60	52.40	75	30.00	61.90	75	27.60	71.40	90	6
		1150	45.90	18.60	22	44.90	24.10	30	43.90	29.60	37	42.90	35.10	45	41.90	40.60	55	40.90	46.10	55	39.90	51.60	75	37.90	62.60	75	36.00	73.70	90	34.00	84.70	110	4
		1290	49.00	20.58	30	47.90	26.60	37	46.90	32.60	45	45.80	38.60	45	44.80	44.70	55	43.70	50.70	75	42.70	56.70	75	40.60	68.80	90	38.50	80.90	110	36.40	92.90	110	4
		1310	52.20	23.00	30	51.10	29.40	37	49.90	35.80	45	48.80	42.20	55	47.70	48.70	75	46.60	55.10	75	45.40	61.50	75	43.20	74.30	90	40.90	87.20	110	38.60	100.00	132	4
		1480	58.60	27.20	37	57.40	34.50	45	56.20	41.80	55	55.00	49.10	75	53.80	56.40	75	52.60	63.70	75	51.40	71.00	90	48.90	85.60	110	46.50	100.20	132	44.10	114.90	160	4
RSR250D	250	970	47.95	17.55	22	46.40	22.20	30	44.45	29.20	37	42.50	36.20	45	41.20	40.90	55	39.75	45.55	55	38.30	50.20	75										6
		1250	64.40	22.45	30	62.90	28.50	37	61.02	37.58	45	59.10	46.65	55	57.80	52.70	75	56.45	58.75	75	55.10	64.80	75										4
		1450	76.10	25.75	30	74.70	32.80	45	72.83	43.30	55	70.95	53.85	75	69.70	60.90	75	68.35	67.90	75	67.00	74.90	90										4
		1600	85.00	28.40	37	83.60	36.20	45	81.73	47.83	55	79.90	59.45	75	78.70	67.20	90	77.35	75.00	90	76.00	82.80	110										4
		1750	93.80	31.00	37	92.40	39.50	55	90.60	52.25	75	88.80	65.00	75	87.60	73.50	90	86.30	82.00	110	85.00	90.50	110										4
RSR250	250	990	61.60	45.73	55	60.80	50.85	55	60.00	55.98	75	59.30	66.23	75	58.50	71.35	75	57.80	76.47	90	57.00	81.60	90	55.50	91.84	110	54.00	102.09	110	52.40	112.34	132	6
		1150	70.30	58.91	75	69.50	64.33	75	68.70	69.75	75	68.00	80.58	90	67.20	86.00	90	66.50	91.42	110	65.70	96.83	110	70.60	107.67	132	69.10	118.50	132	67.50	129.34	160	4
		1250	76.70	62.68	75	75.90	68.95	75	75.10	75.21	90	74.40	87.74	90	73.60	94.01	110	72.90	100.28	110	72.10	106.54	110	70.60	119.08	132	69.10	131.61	160	67.50	144.14	160	4
		1320	82.40	66.45	75	81.50	73.56	90	80.70	80.68	90	80.00	94.91	110	79.20	102.02	110	78.50	109.13	132	77.40	116.25	132	76.20	130.47	160	74.70	144.70	160	73.10	158.93	185	4
		1450	88.40	70.22	75	87.60	78.18	90	86.80	86.14	90	86.10	102.07	110	85.30	110.03	132	84.60	117.99	132	83.80	125.95	132	82.30	133.91	160	80.80	157.80	185	79.20	173.72	185	4
RSR300	300	970	88.10	55.11	75	87.50	63.93	75	86.90	72.75	90	86.30	81.57	90	85.70	90.39	110	85.10	99.21	110	84.50	108.03	132	83.30	125.66	160	82.10	143.30	160	80.90	160.94	185	6
		1170	103.50	62.37	75	102.80	72.35	90	102.10	82.32	90	101.40	92.32	110	100.70	102.27	110	100.10	112.25	132	99.40	122.23	132	98.00	142.18	160	96.70	162.13	185	95.30	182.08	200	4
		1250	110.80	69.62	90	110.00	80.75	90	109.30	91.89	110	108.50	103.20	110	107.80	114.15	132	107.10	125.28	132	106.30	136.42	160	104.80	158.68	185	103.40	180.95	200	101.90	203.21	220	4
		1360	121.10	75.71	90	120.20	87.94	110	119.40	100.17	110	118.50	112.40	132	117.70	124.63	132	116.90	136.86	160	116.00	149.09	160	114.30	173.54	185	112.70	198.00	220	111.00	222.46	250	4
		1480	131.20	81.79	90	130.40	95.12	110	129.60	108.44	132	128.90	121.77	132	128.10	135.10	160	127.40	148.42	160	126.60	161.75	185	125.10	188.40	200	123.60	215.06	220	122.00	241.71	280	4

HR Series Roots Vacuum Pump Performance Parameters

Model	Bore	RPM	Theoretical	Qs-Inlet Airflow (m3/min) / La-Shaft Power (kw) / Po-Motor Power (kw)																												Motor Pole
			Airflow	-9.8kpa			-14.7kpa			-19.6kpa			-24.5kpa			-29.4kpa			-34.3kpa			-39.2kpa			-44.1kpa			-49kpa			- 53.9kpa			
			Qth	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	
HRE250	250	970	74.23	66.1	21	30	63.5	27	37	62.0	33	45	60.5	39	55	59.0	45	55	56.5	51	75	54.1	57	75	51.1	63	75	48.1	67	90	45.1	73	90	6
		1120	84.84	74.8	23	30	73.0	30	37	70.4	36	45	69.1	43	55	68.8	49	75	66.7	56	75	65.7	62	75	63.7	69	90	62.7	76	90	60.8	83	110	4
		1280	96.96	87.9	25	30	86.1	33	37	84.6	41	55	82.2	49	55	80.0	57	75	77.8	65	75	74.8	73	90	71.8	81	90	68.8	90	110	65.9	98	110	4
		1450	109.84	100.8	27	37	99.0	36	45	97.4	45	55	95.1	54	75	94.8	63	75	93.7	72	90	90.7	81	90	88.7	90	110	86.7	100	110	84.8	109	132	4
		1600	121.20	111.1	30	37	109.3	40	55	108.8	51	75	106.4	61	75	104.2	72	90	102.1	82	110	100.0	93	110	98.0	103	132	96.1	113	132	94.2	123	160	4
		1780	134.80	125.8	33	37	123.0	45	55	121.4	57	75	120.1	69	90	118.8	81	90	116.7	93	110	114.7	105	132	112.7	117	132	110.7	128	160	108.8	140	160	4
HRE290	300	970	100.96	90.5	22	30	88.4	31	37	86.6	40	55	85.0	49	75	82.6	58	75	80.3	67	90	78.0	76	90	76.9	85	110	74.8	93	110	72.7	102	132	6
		1120	115.38	104.9	28	37	102.8	37	45	101.0	48	55	99.4	57	75	97.0	68	75	95.7	77	90	93.5	88	110	91.2	97	110	89.2	108	132	87.1	117	132	4
		1280	131.87	120.5	31	45	118.3	42	55	116.5	53	75	114.9	64	75	113.5	75	90	110.2	86	110	107.9	97	110	104.7	108	132	101.7	121	132	98.0	133	160	4
		1450	149.38	138.9	35	45	136.8	48	55	134.0	60	75	132.4	73	90	131.0	85	110	129.7	98	110	127.4	110	132	124.3	123	160	121.2	135	160	118.1	148	185	4
		1600	164.84	154.4	37	55	152.3	51	75	150.5	65	90	148.9	79	90	146.5	93	110	145.1	107	132	142.9	121	160	139.7	135	160	137.6	151	185	134.6	165	185	4
		1780	183.38	172.9	43	55	170.8	59	75	168.0	75	90	166.4	91	110	164.0	107	132	162.7	123	160	160.4	139	160	158.3	155	185	155.2	173	200	153.1	189	220	4
HRE300	300	970	111.69	101.6	25	30	98.3	35	45	96.4	44	55	94.6	54	75	92.1	63	75	90.6	73	90	88.3	82	110	86.0	92	110	84.8	101	132				6
		1120	128.96	117.9	30	37	115.6	41	55	113.8	51	75	111.1	62	75	110.6	72	90	108.2	83	110	106.8	93	110	104.6	104	132	102.4	114	132				4
		1280	147.38	136.3	33	45	134.1	46	55	132.2	58	75	130.5	71	90	128.9	83	110	126.6	96	110	124.3	108	132	123.0	121	132	120.9	133	160				4
		1450	166.96	155.9	37	45	153.6	51	75	151.7	65	75	149.0	79	90	147.5	93	110	145.1	107	132	143.8	121	132	141.6	135	160	139.4	147	160				4
		1600	184.23	173.2	45	55	170.9	62	75	169.0	78	90	167.3	95	110	165.8	111	132	163.4	127	160	161.1	144	160	159.8	161	185	157.7	176	200				4
		1780	204.96	193.9	50	75	191.6	68	90	189.7	86	110	187.0	104	132	184.5	122	160	182.1	140	160	180.8	158	185	178.6	176	200	176.4	192	220				4
HRF245	250	980	86.20	76.2	19	30	73.5	26	45	72.4	34	45	70.4	42	55	68.5	48	75	66.8	55	75	65.2	64	90	63.0	72	90	61.9	79	90	60.0	86	110	6
		1450	127.50	120.3	30	37	118.5	41	55	116.4	52	75	114.5	63	75	112.6	72	90	110.5	83	110	108.6	95	110	107.4	106	132	105.1	117	132	104.0	128	160	4
HRF250	250	980	101.20	92.3	22	30	88.9	30	45	86.4	39	55	84.0	47	75	81.4	56	75	79.2	64	75	78.0	73	90	76.0	81	110	72.8	91	110	70.0	99	132	6
		1450	150.00	144.1	33	45	141.5	46	55	139.1	59	75	136.5	72	90	134.1	85	110	132.8	98	110	130.4	111	132	128.3	124	160	124.2	137	160	121.3	150	185	4
HRF290	300	980	106.50	97.3	25	30	93.7	34	45	92.8	43	55	89.0	52	75	87.5	61	75	85.0	70	90	83.7	79	90	81.4	88	110	76.2	97	110	74.0	106	132	6
		1450	157.70	152.0	36	45	149.3	50	55	147.8	64	75	144.2	78	90	142.7	92	110	140.3	106	132	138.5	120	132	136.7	134	160	131.5	147	160	129.3	161	185	4
HRF300	300	980	132.40	119.7	30	37	117.5	41	55	114.6	53	75	112.9	64	75	109.4	75	90	107.9	87	110	104.5	98	110	101.7	109	132	97.9	120	132	94.7	131	160	6
		1450	196.00	189.2	45	55	185.0	62	75	183.5	78	90	180.2	95	110	177.8	112	132	175.1	129	160	172.7	146	160	170.2	163	185	165.9	180	200	161.9	197	220	4
HRF350	350	980	158.20	146.9	36	45	144.4	49	55	140.4	62	75	136.6	75	90	132.0	88	110	124.5	101	110	121.1	114	132	117.8	127	160	114.5	142	160	111.3	155	185	6
		1450	234.20	225.3	53	75	220.9	73	90	218.9	93	110	215.1	113	132	211.5	133	160	209.0	153	185	205.6	172	200	201.2	193	220	197.0	212	250	194.8	233	250	4

HR Series Roots Vacuum Pump Performance Parameters

Model	Bore	RPM	Theoretical	Qs-Inlet Airflow (m3/min) / La-Shaft Power (kw) / Po-Motor Power (kw)																													Motor Pole
			Airflow	-9.8kpa			-14.7kpa			-19.6kpa			-24.5kpa			-29.4kpa			-34.3kpa			-39.2kpa			-44.1kpa			-49kpa			- 53.9kpa			
			Qth	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	
HRF400	400	980	193.80	180.0	41	55	177.3	58	75	174.0	75	90	171.0	92	110	167.2	109	132	163.5	126	160	159.9	143	185	155.4	160	185	151.0	180	200				6
		1450	286.70	273.5	60	75	271.8	86	110	268.5	112	132	265.5	138	160	262.7	164	185	260.0	190	220	256.4	216	250	252.9	242	280	249.5	269	315				4
HRG400	400	730	223.00	211.6	51	75	206.0	70	90	204.0	88	110	201.0	107	132	197.9	125	160	195.7	144	185	193.6	162	200	190.6	181	200	186.8	199	220	182.0	218	250	8
		980	300.00	290.3	64	75	284.5	90	110	282.6	115	132	278.7	140	160	273.6	167	200	270.6	193	220	266.4	219	250	263.8	244	280	257.5	269	315	251.7	295	355	6
HRG445	450	730	252.00	236.1	54	75	230.5	76	90	226.2	97	132	223.1	119	160	219.4	141	185	215.7	163	200	210.1	185	220	206.7	207	250	201.3	229	250	198.0	251	280	8
		980	338.00	326.2	71	90	322.5	100	132	317.2	130	160	313.2	160	200	309.3	189	220	305.7	219	250	301.2	248	280	296.7	278	315	291.3	308	355	297.0	337	400	6
HRG450	450	730	280.00	261.7	61	75	255.6	84	110	250.8	108	132	247.7	131	160	243.8	155	185	239.0	178	200	234.4	202	220	230.3	225	250	224.4	250	280	220.0	272	315	8
		980	376.00	364.5	80	110	358.0	112	132	355.6	144	185	351.5	176	220	346.6	208	250	342.8	240	280	339.2	272	315	334.6	304	355	328.2	337	400	322.8	368	400	6
HRG500	500	730	348.00	330.3	73	90	324.1	102	132	321.4	132	160	317.0	162	185	314.9	192	220	309.9	222	250	303.1	250	280	296.3	280	315	290.7	310	355	283.1	340	400	8
		980	467.00	452.3	97	132	443.1	137	160	440.4	177	200	434.1	217	250	428.9	257	280	423.9	297	355	418.1	337	400	414.4	377	400	405.2	417	450	397.1	457	500	6
HRG600	600	730	400.00	381.3	83	110	374.1	113	132	368.8	148	185	361.0	183	220	354.5	218	250	348.3	253	280	340.4	288	315	332.6	323	355	325.9	355	400	318.4	390	450	8
		980	536.00	517.0	103	132	510.9	151	185	503.5	199	250	497.7	247	315	491.3	295	355	484.1	343	400	476.1	391	450	468.3	439	500	460.7	490	560	454.2	538	630	6
HRZ600	600	730	459.87	431.2	95	110	424.7	134	160	419.0	173	200	413.9	212	250	408.2	251	280	401.7	290	315	395.5	329	355	388.5	368	400	379.7	407	450	370.9	446	500	8
		980	617.37	587.7	130	160	580.2	182	200	572.5	234	250	565.4	286	315	559.6	338	400	551.2	390	450	541.0	442	500	530.0	494	560	519.2	546	630	508.4	598	710	6
HRZ600T	600	730	513.98	481.7	108	132	474.8	150	185	468.9	192	220	462.5	234	280	457.6	276	315	449.9	318	355	440.5	360	400	429.3	402	450	418.3	447	500	407.4	489	560	8
		980	690.00	658.8	147	185	650.9	205	250	643.9	263	315	638.5	321	355	631.6	379	400	622.9	437	500	611.5	495	560	601.3	553	630	590.3	614	710	579.4	672	710	6
HRZ700	700	730	572.59	537.1	122	132	529.4	170	200	522.8	218	250	516.9	266	315	510.4	314	355	504.3	362	400	496.5	410	450	489.9	458	500	477.5	510	560	466.2	558	630	8
		980	768.69	737.2	164	200	728.5	228	250	720.9	292	315	712.0	356	400	701.5	420	450	690.4	484	500	679.6	548	630	669.0	612	710	658.6	680	710	647.3	744	800	6
HRZ800	800	730	653.74	617.5	145	160	610.7	200	220	603.0	255	280	595.9	310	355	586.3	365	400	575.1	420	500	563.2	475	560	551.5	530	630	541.0	585	630	528.4	640	710	8
		980	877.63	841.5	190	220	832.9	264	315	826.4	338	355	818.5	412	450	810.1	486	560	800.1	560	630	789.3	634	710	778.7	708	800	766.4	782	900	755.3	856	1000	6
HRZ800T	800	730	694.32	654.0	148	185	648.2	206	250	641.4	264	315	623.4	322	355	614.8	380	400	604.6	438	500	593.6	496	560	582.9	554	630	570.4	616	710	557.9	674	710	8
		980	932.10	893.8	198	220	886.0	276	315	878.2	354	400	869.2	432	500	859.6	510	560	848.3	588	630	836.4	666	710	823.7	744	800	809.2	825	900	794.7	903	1000	6
HRZ900	900	730	766.46	723.1	163	200	716.8	227	250	708.6	291	355	699.2	355	400	689.3	419	450	678.8	483	560	665.6	547	630	651.6	611	710	636.4	676	710	621.6	740	800	8
		980	1028.95	987.6	223	250	976.3	316	355	965.1	404	450	953.7	492	630	941.8	580	710	930.3	668	800	917.1	756	900	903.1	844	1000	888.9	930	1120	870.1	1022	1120	6
HRZ900T	900	730	825.00	780.4	178	200	771.6	246	280	761.5	314	355	750.8	382	450	738.6	450	500	725.9	518	560	711.4	586	630	696.2	654	710	680.8	722	800	665.3	790	900	8
		980	1107.60	1062.3	234	250	1053.1	326	400	1040.2	418	450	1026.1	510	630	1011.6	602	710	995.6	694	800	979.5	786	900	962.4	878	1000	943.7	970	1120	923.6	1062	1250	6
HRZ900L	900	730	901.70	854.2	188	220	845.0	264	315	835.6	340	400	824.9	415	450	810.7	491	560	795.8	566	630	778.6	642	710	759.9	717	800	736.2	792	900	713.6	869	1000	8
		980	1210.50	1160.0	252	280	1151.6	354	400	1141.5	456	500	1130.6	558	630	1118.9	660	710	1104.5	762	900	1089.6	864	1000	1070.8	966	1120	1050.4	1070	1250	1027.6	1172	1400	6

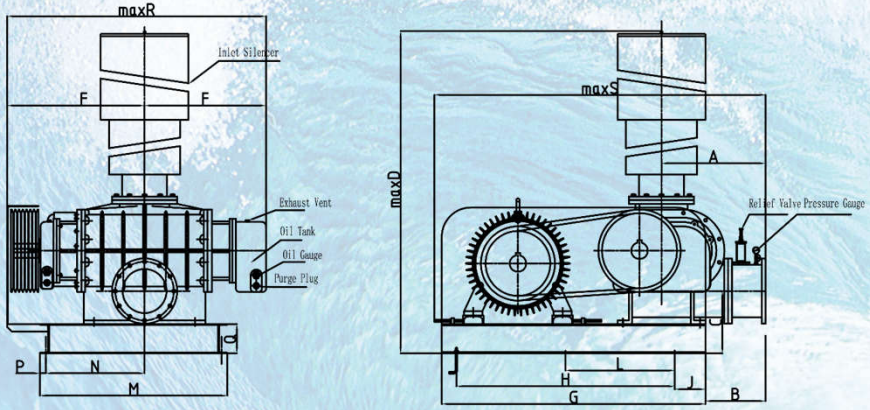
MT Series Roots Vacuum Pump Performance Parameters

Model	Bore	RPM	Theoretical	Qs-Inlet Airflow (m3/min)												La-Shaft Power (kw)												Po-Motor Power (kw)												Motor Pole
			Airflow	-9.8kpa			-14.7kpa			-19.6kpa			-24.5kpa			-29.4kpa			-34.3kpa			-39.2kpa			-44.1kpa			-49kpa			-9.8kpa			-14.7kpa			-19.6kpa			-24.5kpa			
			Qth	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	
MTRF250	250	730	97.8	86.2	21	30	84.2	30	45	83.1	38	45	81.1	46	55	79.2	54	75	77.5	62	75	75.9	70	90	73.7	83	90	70.5	88	110	8
		980	131.3	120.0	29	37	118.0	40	55	116.0	51	75	114.0	62	75	112.0	72	90	110.0	84	110	108.0	95	110	107.0	106	132	105.0	117	132	6
MTRF290	300	730	115.3	105.0	25	30	101.0	35	45	99.6	45	55	96.9	55	75	94.6	64	75	92.7	74	90	90.7	83	110	88.5	93	110	85.3	103	132	8
		980	154.8	144.0	33	45	141.0	46	55	139.0	59	75	136.0	72	90	134.0	85	110	132.0	98	110	130.0	110	132	128.0	123	160	126.0	136	160	6
MTRF295	300	730	122.3	111.2	26	30	108.3	36	45	105.7	47	55	103.2	57	75	100.6	67	75	98.1	77	90	95.4	87	110	92.6	98	110	89.6	108	132	8
		980	164.1	153.1	35	45	150.2	49	55	147.6	63	75	145.1	76	90	142.5	90	110	140.0	104	132	137.3	117	132	134.5	131	160	131.4	145	160	6
MTRF300	300	730	150.2	137.0	32	45	133.0	45	55	131.0	57	75	128.0	70	90	125.0	82	90	123.0	95	110	120.0	107	132	118.0	120	132	114.0	132	160	8
		980	201.7	192.0	43	55	185.0	60	75	183.0	76	90	180.0	93	110	177.0	110	132	175.0	127	160	172.0	144	160	170.0	161	185	165.0	178	200	6
MTRF350	350	730	178.2	164.0	38	45	159.0	53	75	157.0	67	75	154.0	82	90	150.0	97	110	147.0	112	132	144.0	126	160	141.0	141	160	136.0	156	185	8
		980	239.2	225.0	50	55	220.0	70	90	218.0	90	110	215.0	110	132	211.0	130	160	208.0	150	185	205.0	169	185	201.0	189	220	197.0	209	250	6
MTRG350	350	590	197.3	184.0	43	75	179.0	60	75	177.0	76	90	174.0	93	132	171.0	109	132	168.0	126	160	166.0	142	185	163.0	159	185				10
		730	244.1	231.0	52	75	226.0	73	90	224.0	93	110	221.0	113	132	218.0	134	160	215.0	154	200	213.0	175	200	209.0	195	220	206.0	216	250	8
MTRG400	400	590	248.1	232.0	52	75	226.0	73	90	224.0	94	110	220.0	115	132	215.0	135	160	212.0	156	185	208.0	177	200	205.0	198	220	199.0	218	250	10
		730	306.9	290.0	64	75	284.0	90	110	282.0	115	132	278.0	142	160	273.0	167	185	270.0	193	220	266.0	219	250	263.0	244	280	257.0	269	315	8
MTRG450	450	590	310.1	292.0	64	75	285.0	90	110	282.0	116	132	278.0	142	185	273.0	168	185	269.0	194	220	266.0	220	250	260.0	246	280	255.0	271	315	10
		730	383.7	365.0	78	90	358.0	110	132	355.0	143	160	351.0	175	200	346.0	207	250	342.0	239	280	339.0	271	315	334.0	303	355	328.0	335	400	8
MTRG500	500	590	383.7	361.0	78	90	352.0	110	132	349.0	142	185	343.0	174	200	337.0	206	220	332.0	238	260	327.0	270	315	323.0	302	355	314.0	334	355	10
		730	474.4	452.0	96	110	443.0	136	160	440.0	175	200	434.0	214	250	428.0	253	280	423.0	293	355	418.0	333	355	414.0	372	450	405.0	412	450	8

MTRZ Series Roots Vacuum Pump Performance Parameters

Model	Bore	RPM	Theoretical	Qs-Inlet Airflow (m3/min)									La-Shaft Power (kw)			Po-Motor Power (kw)									Motor Pole
			Airflow	-13.3kpa			-20.0kpa			-26.7kpa			-33.3kpa			-40.0kpa			-46.7kpa			-53.3kpa			
			Qth	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	Qs	La	Po	
MTRZ7-500	500A	490	405.7	386.7	109	132	381.4	155	185	376.3	200	220	371.3	245	280	365.9	291	315	360.0	337	400	353.4	384	450	12
		590	488.5	469.5	131	160	464.2	187	220	459.1	241	280	464.1	295	355	448.7	350	400	442.8	406	450	436.2	462	500	10
MTRZ7-580	600A	490	463.6	443.1	125	140	437.5	177	200	432.1	229	280	426.7	280	315	421.0	332	400	414.6	385	450	407.7	438	500	12
		590	558.3	537.8	150	185	532.1	213	250	526.7	276	315	521.3	337	400	515.6	400	450	509.3	464	500	502.4	528	560	10
MTRZ7-600	600A	490	513.3	491.4	138	155	485.4	196	220	479.5	253	280	473.8	310	355	467.7	368	400	460.9	426	500	453.5	485	560	12
		590	618.1	596.2	166	200	590.2	236	280	584.3	305	355	578.6	373	450	572.5	443	500	565.7	513	560	558.3	584	630	10
MTRZ7-700	700A	490	583.7	554.6	157	185	546.6	223	250	538.9	288	315	531.3	353	400	523.2	418	450	514.2	485	560	504.4	552	630	12
		590	702.8	673.7	189	220	665.8	269	315	658.0	347	400	650.4	425	500	642.3	504	560	633.3	584	630	623.6	665	710	10
MTRZ7-750	700A	490	645.8	616.7	174	200	608.7	247	280	601.0	319	355	593.4	390	450	585.3	463	500	576.3	536	630	566.5	611	710	12
		590	777.6	748.5	209	250	740.5	297	355	732.8	384	450	725.2	470	560	717.1	557	630	708.1	646	710	698.3	735	800	10
MTRZ7-800	800A	490	736.9	705.3	198	220	696.6	282	315	688.1	364	400	679.8	445	500	671.0	528	630	661.2	612	710	650.5	695	800	12
		590	887.3	855.7	239	280	847.0	339	400	838.5	438	500	830.2	536	630	821.4	636	710	811.6	737	800	800.8	837	900	10
MTRZ8-700	700A	490	779.3	748.0	210	250	739.4	298	355	731.1	385	450	722.9	471	560	714.1	558	630	704.5	647	710	693.9	737	800	12
		590	938.3	907.0	252	280	898.4	359	400	890.1	463	560	881.9	567	630	873.2	672	800	863.5	779	900	852.9	887	1000	10
MTRZ8-750	800A	490	865.2	831.3	233	280	821.9	331	400	812.9	427	500	803.9	523	630	794.3	620	710	783.9	718	800	772.4	818	1000	12
		590	1041.8	1007.9	280	315	998.4	398	450	989.5	514	630	980.5	629	710	970.9	746	800	960.5	865	1000	949.0	985	1120	10
MTRZ8-800	800A	490	916.8	881.7	247	280	872.0	351	400	852.7	453	500	853.5	554	630	843.7	657	710	832.8	761	900	821.0	867	1000	12
		590	1103.9	1068.8	297	355	1059.1	442	500	1049.8	545	630	1040.6	667	800	1030.8	791	900	1020.0	916	1000	1008.1	1044	1120	10
MTRZ8-900	900A	490	1117.3	1080.5	300	355	1070.4	427	500	1060.5	552	630	1050.9	675	800	1040.6	801	900	1029.3	928	1000	1016.9	1054	1120	12
		590	1345.4	1308.5	362	400	1298.4	515	630	1288.6	665	800	1278.9	813	900	1268.7	964	1120	1257.3	1117	1250	1244.9	1268	1400	10

RSR Series Roots Blower Belt Drive Drawings

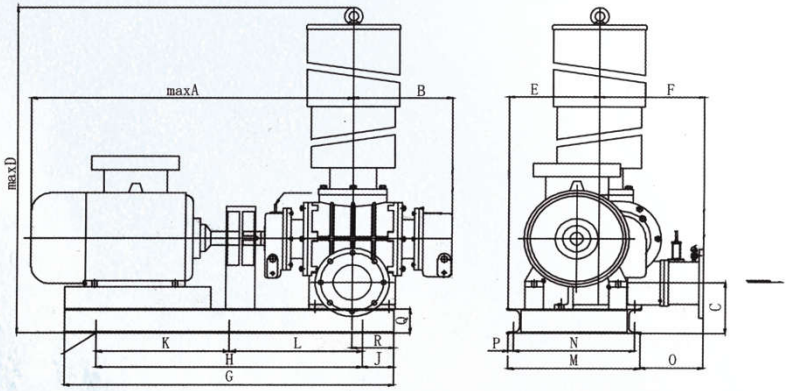


Model	Bore	A	B	C	D	Ed	Es	F	G	H	J
RSR-50	50A	255	165	120	895	225	260	201	560	410	100
RSR-65	65A	255	165	130	950	243	280	221	600	450	100
RSR-80	80A	290	205	150	1250	245	300	240	750	500	100
RSR-100	100A	290	205	160	1320	285	340	280	800	580	100
RSR-125	125A	345	215	185	1450	290	356	290	910	700	110
RSR-150C	150A	360	220	210	1650	369	—	356	1010	700	110
RSR-150A	150A	400	240	210	1730	335	400	300	1050	750	160
RSR-150	150A	400	240	210	1730	390	450	375	1050	750	160
RSR-175A	150A	400	240	210	1730	432	500	418	1050	750	160
RSR-175	150 A	400	250	210	1665	477	—	463	1050	750	160
RSR-200H	200A	500	285	250	2200	485	555	465	1280	1000	180
RSR-200	200A	500	285	250	2200	536	605	515	1330	1000	180
RSR-250D	250A	500	285	360	2240	611	680	590	1500	1000	215
RSR-250	250A	710	370	360	2400	575	640	580	1800	1490	210
RSR-300	300A	710	420	385	2780	655	775	670	1800	1490	210

Mode	Bore	L	M	Nd	Ns	P	Q	n-Φl	R	S	Weight(kg)
RSR-50	50A	—	300	130	166	15	80	4-Φ14	490	730	132
RSR-65	65A	—	340	150	186	15	80	4-Φ14	530	780	173
RSR-80	80A	—	360	150	205	15	80	4-Φ18	690	970	245
RSR-100	100A	—	470	190	245	15	80	4-Φ18	720	1000	334
RSR-125	125A	350	500	180	240	20	100	6-Φ18	790	1230	451
RSR-150C	150A	350	590	250	—	20	100	6-Φ18	850	1300	506
RSR-150A	150A	375	590	195	268	20	100	6-Φ18	1070	1350	805
RSR-150	150A	375	590	250	325	20	100	6-Φ18	1070	1350	777
RSR-175A	150A	375	755	295	368	20	100	6-Φ18	1075	1350	860
RSR-175	150A	375	755	340	—	20	100	6-Φ18	1000	1350	860
RSR-200H	200A	500	755	300	373	25	120	6-Φ20	1290	1765	1324
RSR-200	200A	500	755	355	425	25	120	6-Φ20	1290	1765	1489
RSR-250D	250A	500	950	430	500	30	160	6-Φ22	1295	2010	2152
RSR-250	250A	745	875	385	485	30	160	6-Φ22	1320	2380	2978
RSR-300	300A	745	1080	420	580	30	160	6-Φ22	1550	2960	3310

Note：Ed, Nd for Single Oil Tank,Es, Ns for Double Oil Tank.
The weights not include the motor.

RSR Series Roots Blower Coupling Drive Drawings

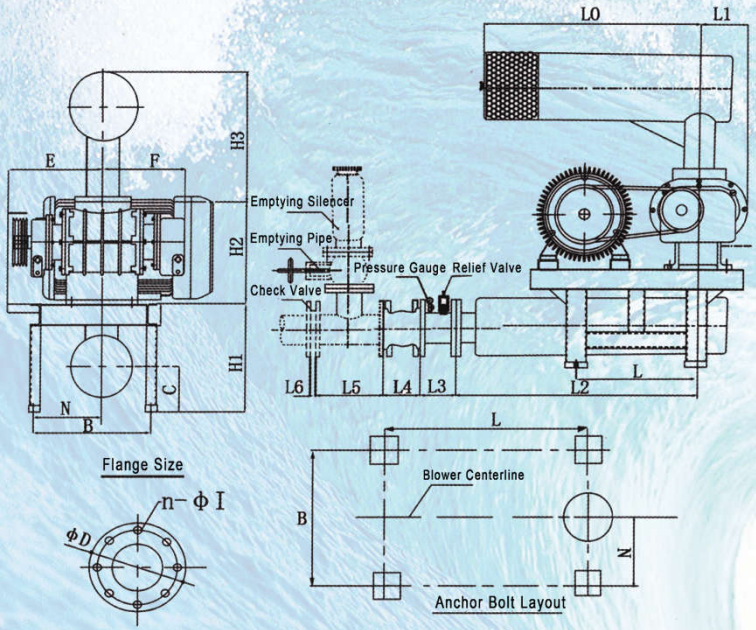


Model	Bore	A	B	C	D	E	F	G	H	J
RSR-50	50A	696	201	125	895	160	255	580	420	80
RSR-65	65A	756	221	135	950	200	255	600	440	80
RSR-80	80A	926	240	150	1250	265	290	820	500	160
RSR-100	100A	996	280	160	1320	295	290	880	630	125
RSR-125	125A	1077	290	185	1450	285	345	1000	710	145
RSR-150C	150A	1250	356	210	1730	350	400	1250	1010	120
RSR-150A	150A	1382	318	210	1730	335	400	1250	1010	120
RSR-150	150A	1439	375	210	1730	335	400	1250	1010	120
RSR-175A	150A	1482	418	210	1730	335	400	1500	1010	200
RSR-175	150A	1595	463	210	1800	410	410	1700	700	150
RSR-200H	200A	1739	463	250	2200	435	500	1700	1400	150
RSR-200	200A	1791	515	250	2200	435	500	1700	1400	150
RSR-250D	250A	1866	590	360	2240	435	500	2000	1800	100
RSR-250	250A	1800	580	360	2400	600	710	1700	1400	150
RSR-300	300A	1900	670	385	2780	650	710	1900	1600	150

Mode	Bore	L	M	Nd	Ns	P	Q	n-Φl	R	S	Weight(kg)
RSR-50	50A	—	300	130	166	15	80	4-Φ14	490	730	132
RSR-65	65A	—	340	150	186	15	80	4-Φ14	530	780	173
RSR-80	80A	—	360	150	205	15	80	4-Φ18	690	970	245
RSR-100	100A	—	470	190	245	15	80	4-Φ18	720	1000	334
RSR-125	125A	350	500	180	240	20	100	6-Φ18	790	1230	451
RSR-150C	150A	350	590	250	—	20	100	6-Φ18	850	1300	506
RSR-150A	150 A	375	590	195	268	20	100	6-Φ18	1070	1350	805
RSR-150	150A	375	590	250	325	20	100	6-Φ18	1070	1350	777
RSR-175A	150 A	375	755	295	368	20	100	6-Φ18	1075	1350	860
RSR-175	150A	375	755	340	—	20	100	6-Φ18	1000	1350	860
RSR-200H	200A	500	755	300	373	25	120	6-Φ20	1290	1765	1324
RSR-200	200A	500	755	355	425	25	120	6-Φ20	1290	1765	1489
RSR-250D	250A	500	950	430	500	30	160	6-Φ22	1295	2010	2152
RSR-250	250A	745	875	385	485	30	160	6-Φ22	1320	2380	2978
RSR-300	300A	745	1080	420	580	30	160	6-Φ22	1550	2960	3310

Note：Ed, Nd for Single Oil Tank,Es, Ns for Double Oil Tank.
The weights not include the motor.

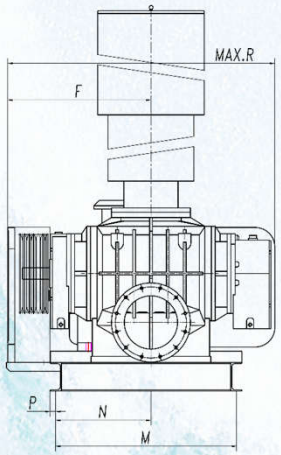
MJSR Series Roots Blower Belt Drive Drawings

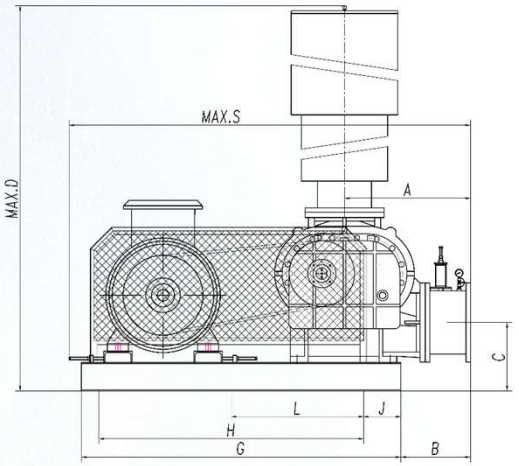


Model	L	B	L0	LI	L2	L3	L4	L5	L6	Ns	C	Es	F	H1	H2	H3	D	nΦI
MJSR80	500	360	700	175	800	150	135	320	19	220	150	300	240	375	305	420	160	8-18
MJSR100	520	470	750	175	1050	150	150	320	19	260	160	340	280	400	305	450	180	8-18
MJSR125	590	500	775	200	1100	150	165	320	21	260	185	356	290	450	370	453	210	8-18
MJSR150	600	590	1050	240	1200	180	180	400	24	335	210	450	375	500	440	600	240	8-22
MJSR200H	760	755	1320	330	1700	225	190	400	29	400	250	555	465	580	570	730	295	8-22

Note:
1. The Dimension is for reference only.
2. When the pressure rise is higher than 700mbar, water cooling is recommended.

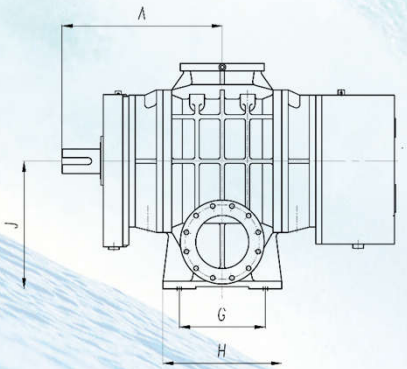
HRE Series Roots Blower Drawings

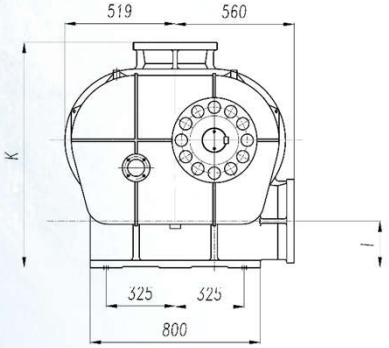




Model	Bore	A	B	C	D	F	G	H	J	L	M	P	N	R	S	Weight(kg)
HRE250	DN250	710	393	370	2700	702.5	1800	1490	210	745	1020	30	433	1650	2350	1170
HRE290	DN300	710	393	385	2780	792.5	1800	1490	210	745	1020	30	523	1650	2350	1450
HRE300	DN300	710	393	385	2780	832.5	1800	1490	210	745	1020	30	563	1650	2350	1550

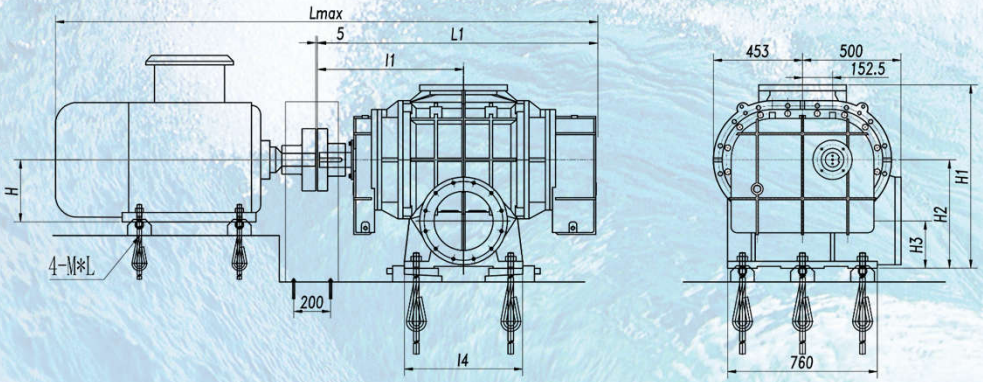
MTRF Series Bareshaft Roots Blower Drawings

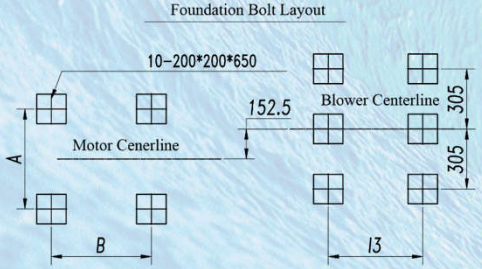


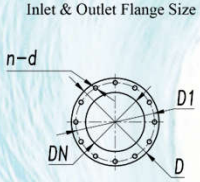


Model	Bore	A	G	H	I	J	K	N	Weight(kg)
MTRF250	250	755	420	440	220	600	1060	179	2280
MTRF290	300	805	520	650	230	600	1060	179	2660
MTRF295	300	825	560	690	230	600	1060	179	2800
MTRF300	300	905	670	820	250	630	1090	179	3000
MTRF350	350	1005	900	1050	250	630	1150	184	3450

HRF Series Roots Blower & Vacuum Pump Outline Drawings





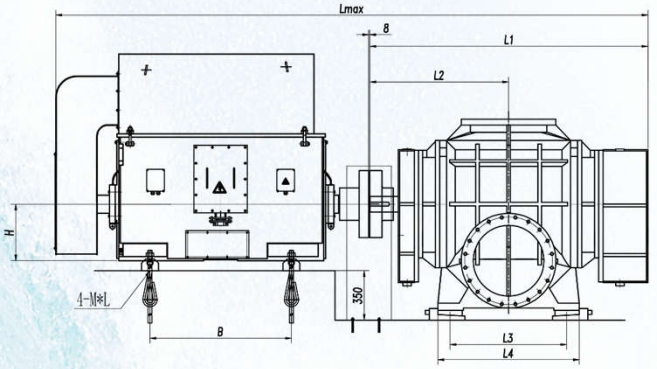


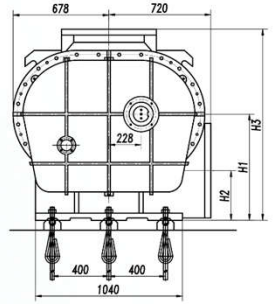
Model	H1	H2	H3	Lmax	L1	l1	l3	l4	DN	D1	D	n-d	Weight(kg)
HRF250	880	500	220	2300	1269	660	355	455	Φ250	Φ350	Φ395	12-Φ22	1650
HRF290	930	550	240	2300	1284	679	3550	480	Φ300	Φ400	Φ445	12-Φ22	1700
HRF300	930	550	240	2400	1404	733	480	600	Φ300	Φ400	Φ445	12-Φ22	1820
HRF350	930	550	260	2450	1524	793	590	715	Φ350	Φ460	Φ505	16-Φ22	1950
HRF400	980	600	300	2500	1689	875	760	880	Φ400	Φ515	Φ565	16-Φ26	2110

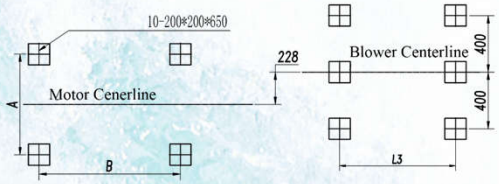
Motor Dimension

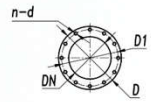
Motor	Y225		Y250	Y280		Y315			Y355		Y400
	S	M	M	S	M	S	M	L	M	L	
B	286	311	349	368	419	406	457	508	560	630	1000
A	356		406	457		508			610		710
H	225		250	280		315			355		400
M*L	M16*300		M20*300			M24*300					M30*630

HRG Series Roots Blower & Vacuum Pump Outline Drawings







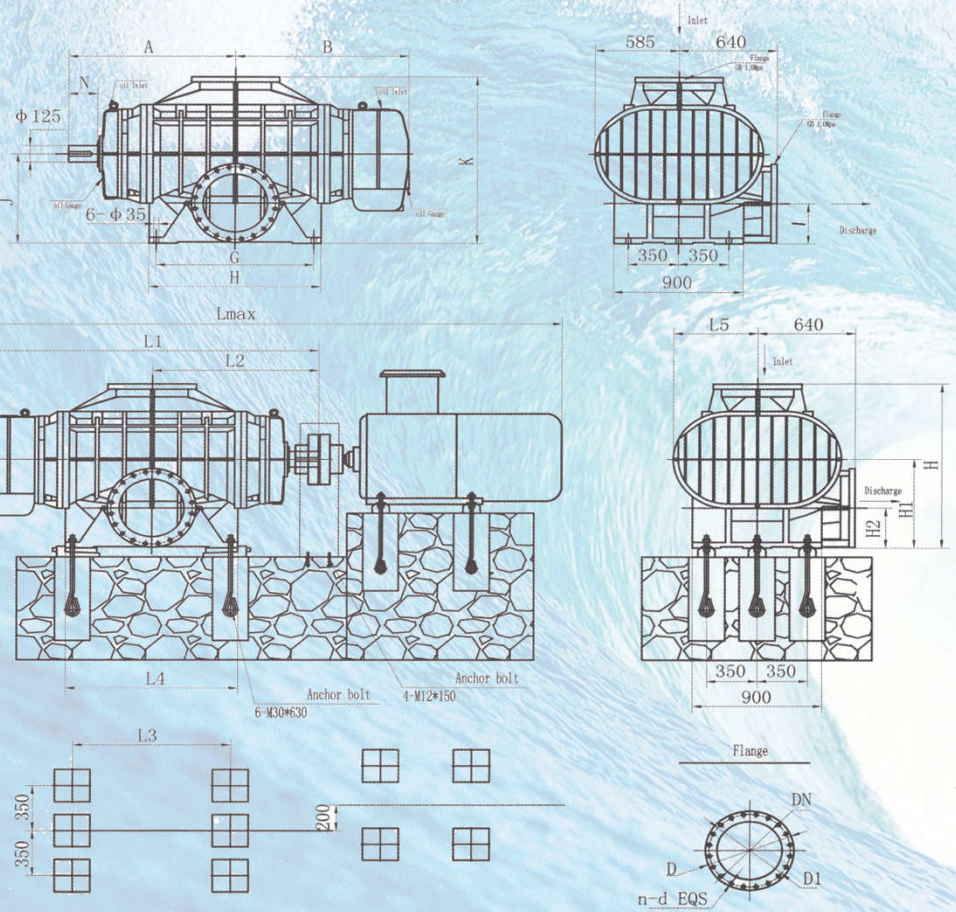


Model	H1	H2	H3	Lmax	L1	L2	L3	L4	DN	D1	D	n-d	Weight(kg)
HRG400	650	300	1250	3150	1618	808	470	650	Φ400	Φ515	Φ565	16-Φ26	3700
HRG445	700	315	1300	3200	1698	848	550	730	Φ450	Φ565	Φ615	20-Φ26	3810
HRG450	700	315	1300	3250	1778	888	630	810	Φ450	Φ565	Φ615	20-Φ26	4210
HRG500	750	350	1350	3300	1968	983	820	1000	Φ500	Φ620	Φ670	20-Φ26	4350
HRG600	850	400	1450	3400	2113	1055	950	1130	Φ600	Φ725	Φ780	20-Φ27	4580

Motor Dimension

Motor	Y355	Y400	Y450	Y500	Y560	Y630
A	630	700	800	900	1000	1120
B	900	1000	1120	1250	1400	1600
H	355	400	450	500	560	630
M*L	M24*300	M30*630	M30*630	M36*800	M36*800	M42*1000

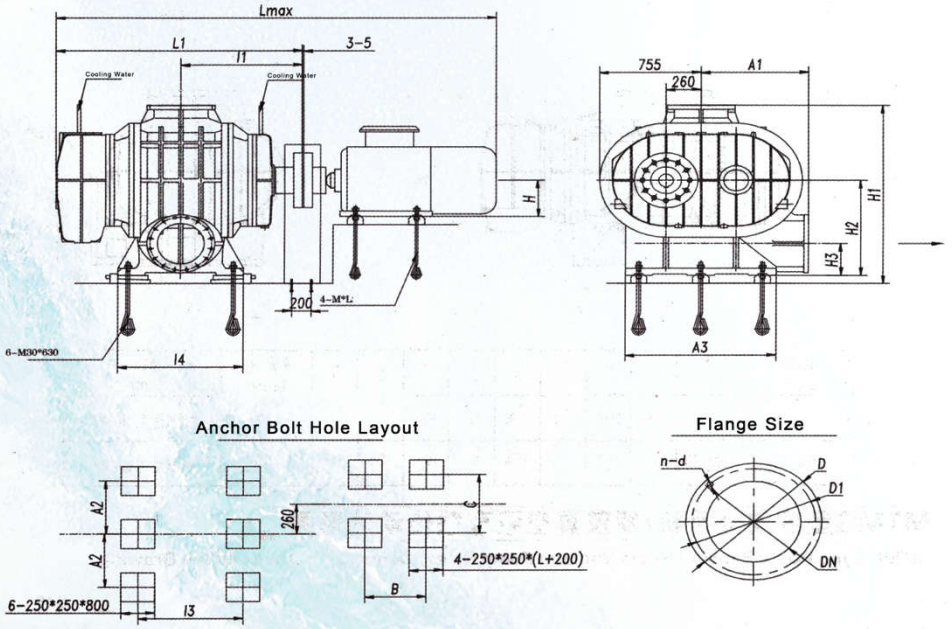
MTMG Series Roots Blower & Vacuum Pump Outline Drawings



Model	Bore	A	B	G	H	I	J	K	N	Weight(kg)	Remarks
MTMG-395	DN400	1090	1140	950	1000	290	670	1260	200	5200	Flange：16-Φ26
MTMG-400	DN450	1160	1210	1100	1200	315	695	1295	200	5700	Flange：20-Φ26

Model	Lmax	LI	L2	L3	L4	L5	H	HI	H2	DN	D1	D	n-d
MTMG-395	5000	2230	1090	950	1000	585	1260	670	290	Φ400	Φ515	Φ565	16-Φ26
MTMG-400	5200	2370	1160	1100	1200	585	1295	695	315	Φ450	Φ565	Φ615	20-Φ26

MTRG Series Roots Blower & Vacuum Pump Outline Drawings

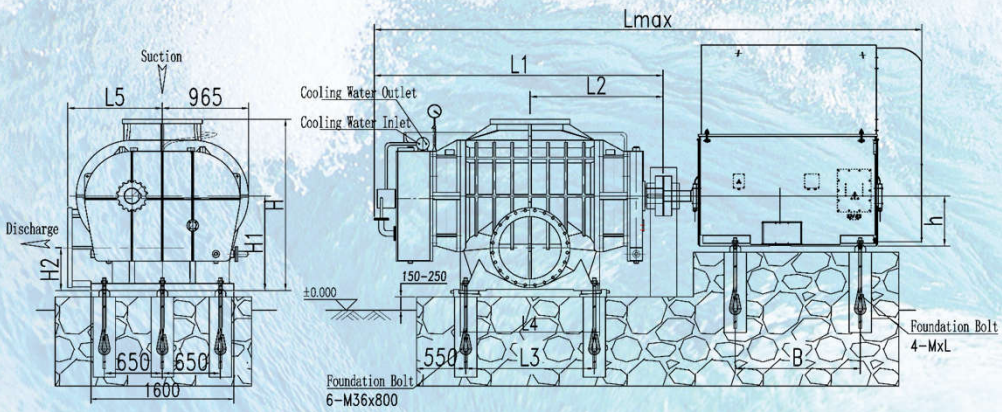


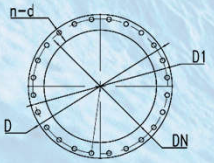
Model	A1	A2	A3	H1	H2	H3	Lmax	L1	L2	I1	I3	I4	DN	D1	D	n-d2
MTRG-350(V.W)	775	460	1120	1475	825	275	4955	1945	537	925	780	900	350	460	505	16-Φ22
MTRG-400(V.W)				1500	850	300	5135	2125	577	1015	720	1000	400	515	565	16-Φ26
MTRG-445(V.W)	800			1400	750	315	5315	2305	627	1105	940	1094	450	565	615	20-Φ26
MTRG-450(V.W)				1400	750	315	5355	2345	627	1125	940	1150	450	565	615	
MTRG-500(V.W)		480	1160	1550	800	350	5965	2655	642	1280	1280	1400	500	620	670	
MTRG-600(V.W)			1120	1650	900	400	5980	2680	490	1325	1350	1400	600	725	780	20-Φ27

Outline Dimension of Motor

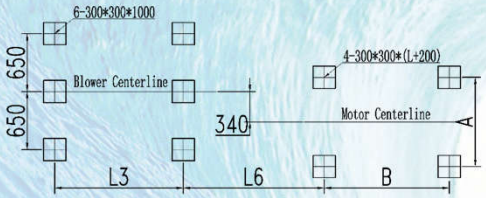
Motor	Y315		Y355		Y450	Y500	Y560	JS							
	M	L	M	L				126-8	127-8.10	137 -8.10	138 - 8.10	1410-8	1410-10	157-8. 10	1510-8.10
									128-8.10					158-8.10	1510-8.10
C	457	508	560	630	1120	1250	1400	550	650	660	760	970	870	820	1020
B	508		610		800	900	1000	710		790		940		1100	
H	315		355		450	500	560	450		500		560		630	
MXL	M24X400				M30X 630	M36X800		M24X400				M36X800			
L3	620	645	709	744	1170	1355	1505	770	820	840	890	1055	1005	950	1055
L5	650				750			650						750	

MTRZ7 Series Roots Blower & Vacuum Pump Outline Drawings





Suction & Discharge Flange Size



Foundation Bolt Layout

Cooling Water is required when the pressure rise is higher than 49kpa.
Cooling Water Temperature≤25℃, Water Pressure: 196-294kpa, Flowrate: 30L/min.

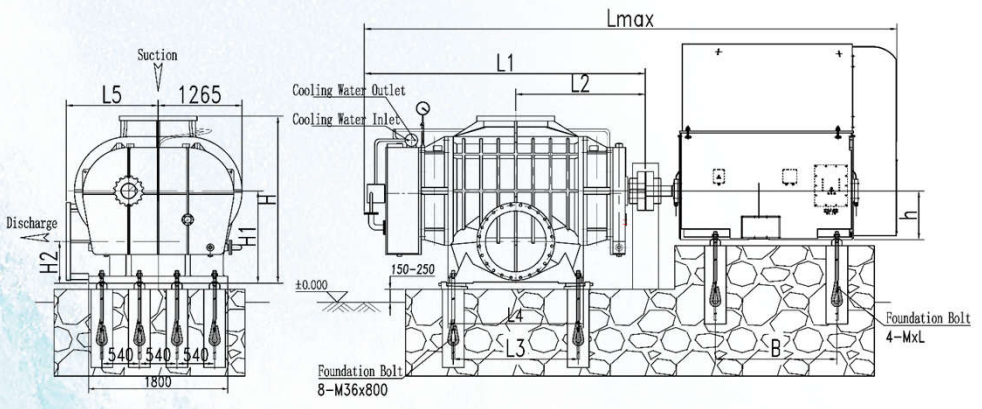
Outline Dimension of MTRZ7 Roots Blower and Vacuum Pump

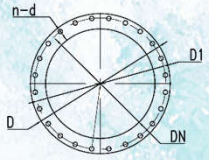
Model	Lmax	L1	L2	L3	L4	L5	H	H1	H2	DN	D1	D	n-d	Weight(kg)
MTRZ7-500(W)	5763	2655	1200	850	980	1000	1705	945	365	Φ500	Φ620	Φ670	20-Φ26	12450
MTRZ7-580(W)	5903	2795	1270	990	1120	1000	1850	1000	420	Φ600	Φ725	Φ780	20-Φ29	13500
MTRZ7-600(W)	6023	2915	1330	1110	1240									14400
MTRZ7-700(W)	6185	3085	1415	1280	1410	1000	1920	1060	480	Φ700	Φ840	Φ895	24-Φ29	15600
MTRZ7-750(W)	6343	3235	1490	1440	1560									16500
MTRZ7-800(W)	6563	3455	1600	1600	1780	1060	2015	1120	540	Φ800	Φ950	Φ1015	24-Φ33	18400

Outline Dimension of MTRZ7 Roots Blower and Vacuum Pump

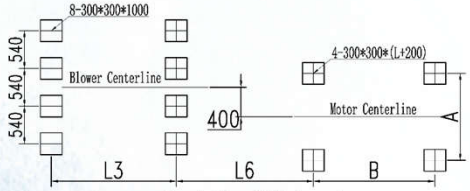
Size	Motor Type	Y355*		Y450	Y500	Y560	Y630
		M	L				
A		610		800	900	1000	1120
B		560	630	1120	1250	1400	1600
h		355		450	500	560	630
L6		1209		1395	1510	1585	1615
MxL		M24X 400		M30X630	M36 X800		M42X1000

MTRZ8 Series Roots Blower & Vacuum Pump Outline Drawings





Suction & Discharge Flange Size



Foundation Bolt Layout

Cooling Water is required when the pressure rise is higher than 49kpa.
Cooling Water Temperature≤25℃, Water Pressure: 196-294kpa, Flowrate: 60L/min.

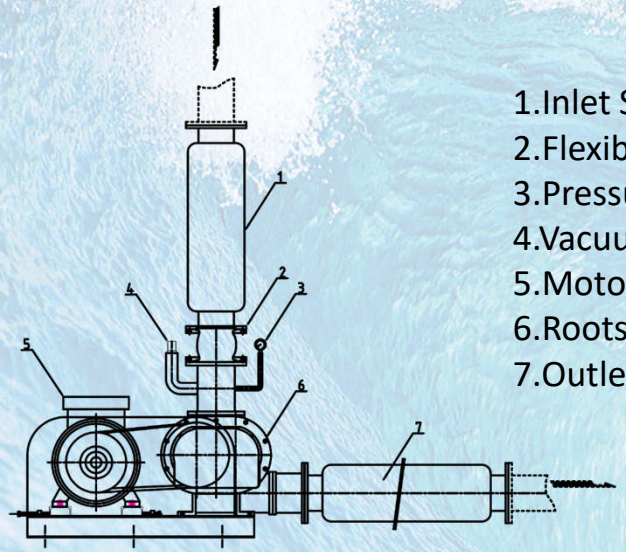
Outline Dimension of MTRZ8 Roots Blower and Vacuum Pump

Model	Lmax	L1	L2	L3	L4	L5	H	H1	H2	DN	D1	D	n-d	Weight(kg)
MTRZ8-700(W)	6575	3355	1564	1180	1360	1200	2250	1160	490	Φ700	Φ840	Φ895	24-Φ29	20500
MTRZ8-750(W)	6575	3505	1639	1330	1510	1265	2300	1210	550	Φ800	Φ950	Φ1015	24-Φ33	21600
MTRZ8-800(W)	6695	3595	1684	1420	1600	1265	2300	1210	550	Φ800	Φ950	Φ1015	24-Φ33	22250
MTRZ8-900(W)	7165	3945	1859	1820	1950	1265	2320	1230	600	Φ900	Φ1050	Φ1115	24-Φ33	24600

Outline Dimension of MTRZ8 Roots Blower and Vacuum Pump

Size	Motor Type	Y450	Y500	Y560	Y630	Y710
A		800	900	1000	1120	1400
B		1120	1250	1400	1600	1800
h		450	500	560	630	710
L6	RZ8-700(W)	1592	1707	1782	1812	1862
	RZ8-750(W)					
	RZ8-800(W)					
	RZ8-900(W)	1567	1682	1757	1787	1837
MxL		M30X630	M36 X800		M42X1000	M48X1000

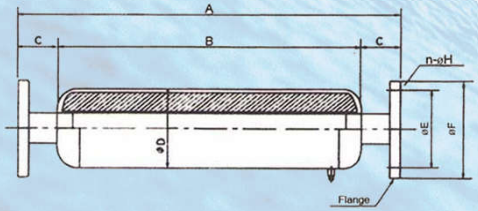
RSR Vacuum Pump Layout



1.Inlet Silencer
2.Flexible Connector
3.Pressure Gauge
4.Vacuum Degree Valve
5.Motor
6.Roots Blower
7.Outlet Silencer

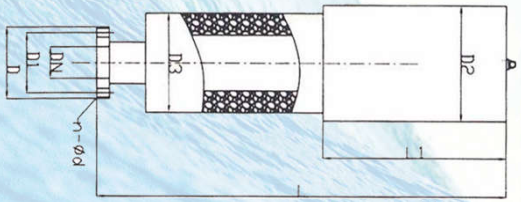
Accessories

KM Type Discharge Silencer



Type	Bore	A	B	C	D	E	F	n-ΦH	Weight(kg)
KM-50	50A	600	480	60	140	125	165	4-Φ18	10
KM-65	65A	700	560	70	165	145	185	4-Φ18	14
KM-80	80A	900	740	80	190	160	200	8-Φ18	18
KM-100	100A	1200	1040	80	217	180	220	8-Φ18	37
KM-125	125A	1400	1210	95	261	210	250	8-Φ18	44
KM-150	150A	1600	1410	95	286	240	285	8-Φ22	67
KM-200	200A	1800	1600	100	320	295	340	8-Φ22	80
KM-250	250A	2000	1800	100	406	350	395	12-Φ22	130
KM-300	300A	2000	1800	100	500	400	445	12-Φ22	160
KM-350	350A	2000	1800	100	670	460	505	16-Φ22	175
KM-400	400A	2080	1840	120	750	515	565	16-Φ26	206
KM-450	450A	2180	1940	120	850	565	615	20-Φ26	245
KM-500	500A	2210	1970	120	920	620	670	20-Φ26	274
KM-600	600A	2300	2060	120	960	725	780	20-Φ30	384
KM-700	700A	2395	2060	167.5	990	840	895	24-Φ30	446
KM-800	800A	2500	2160	170	1150	950	1015	24-Φ34	590

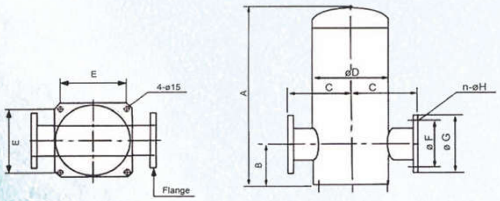
XF Type Inlet Silencer



Type	Bore	D	D1	D2	D3	L	n- ΦH
XF-50	50A	Φ115	Φ85	Φ150	Φ125	560	4-Φ14
XF-65	65A	Φ155	Φ130	Φ165	Φ140	600	4-Φ14
XF-80	80A	Φ155	Φ130	Φ250	Φ215	840	4-Φ14
XF-100	100A	Φ180	Φ145	Φ265	Φ230	910	4-Φ18
XF-125	125A	Φ207	Φ178	Φ300	Φ265	945	4-Φ18
XF-150	150A	Φ260	Φ225	Φ350	Φ320	1130	8-Φ19
XF-200	200A	Φ320	Φ280	Φ440	Φ375	1500	8-Φ23
XF-250	250A	Φ395	Φ350	Φ550	Φ450	1650	12-Φ23
XF-300	300A	Φ445	Φ400	Φ600	Φ485	1750	12-Φ23
XF-350	350A	Φ505	Φ460	Φ670	Φ540	2250	16-Φ23
XF-400	400A	Φ565	Φ515	Φ750	Φ640	2500	16-Φ26
XF-450	450A	Φ615	Φ565	Φ850	Φ700	2750	20-Φ26
XF-500	500A	Φ670	Φ620	Φ920	Φ750	3000	20-Φ26

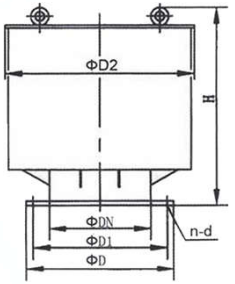
Accessories

RKM Type Discharge Silencer



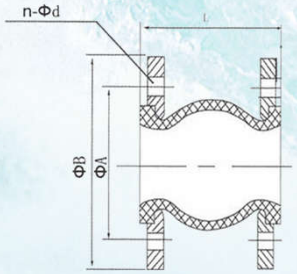
Type	Bore	A	B	C	D	E	F	G	n-ΦH	Weight(kg)
RKM-50	50A	120	120	150	140	130	125	165	4-Φ19	15
RKM-65	65A	480	130	175	191	170	145	185	4-Φ19	20
RKM-80	80A	595	145	200	216	190	160	200	8-Φ19	27
RKM-100	100A	660	155	225	267	230	180	220	8-Φ19	34
RKM-125	125A	800	190	250	280	240	210	250	8-Φ23	58
RKM-150	150A	920	210	300	356	290	240	285	8-Φ23	80
RKM-200	200A	1050	256	325	406	350	295	340	8-Φ23	97

ZRL Air Filter



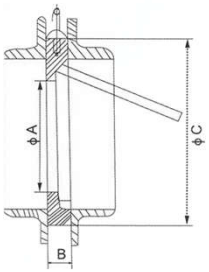
Type	DN	D1	D	D2	n-d	H	Weight(Kg)
AF-50	50	125	165	230	4-Φ16	211	3.0
AF-65	65	145	185	260	4-Φ16	233	3. 5
AF-80	80	160	200	300	8-Φ16	263	4.0
AF-100	100	180	220	350	8-Φ16	293	5.0
AF-125	125	210	250	450	8-Φ16	375	10
AF-150	150	240	285	550	8-Φ20	477	18
AF-200	200	295	340	700	8-Φ20	577	24
AF-250	250	350	395	900	12-Φ20	679	37
AF-300	300	400	445	1100	12-Φ20	809	50
AF-350	350	460	505	1300	16-Φ20	943	115
AF-400	400	515	565	1500	16-Φ24	1010	165
AF-450	450	565	615	1650	20-Φ24	1183	202
AF-500	500	620	670	1850	20-Φ24	1293	252
AF-600	600	725	780	1550	20-Φ27	1205	230
AF-700	700	840	895	1660	24-Φ27	1367	243
AF-800	800	950	1015	1850	24-Φ30	1450	357

Flexible Connector



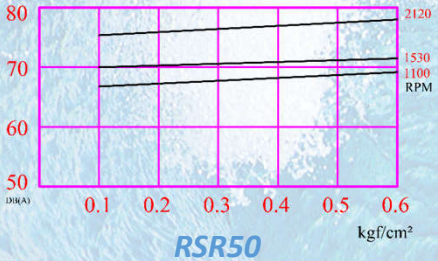
Type	Bore	A	B	C	n-0d	L
KXT-I III	50	125	165	18	4-Φ17.5	105
	65	145	185	20	4-Φ17.5	115
	80	160	200	20	8-Φ17.5	135
	100	180	220	22	8-Φ17.5	150
	125	210	250	24	8-Φ17.5	165
	150	240	285	24	8-Φ22	180
	200	295	340	24	8-Φ22	190
	250	350	395	28	12-Φ22	230
	300	400	445	28	12-Φ22	245
	350	460	505	28	16-Φ22	255
	400	515	565	30	16-Φ26	255
	450	565	615	30	20-Φ26	255
	500	620	670	32	20-Φ26	255
	600	725	780	34	20-Φ30	261
	700	840	895	36	24-Φ30	261
	800	950	1015	40	24-Φ34	261

Check Valve

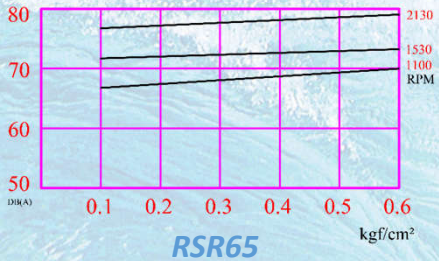


Type	Bore	A	B	C	Bolt Size(Number)	Weight(kg)
DCV-50	50A	25	17	105	M16X86 (4)	1.1
DCV-65	65A	38	17	125	M16X 108 (4)	1.4
DCV-80	80A	45	17	135	M16X 108 (8)	1.6
DCV-100	100A	68	17	158	M16X 108 (8)	2.3
DCV-125	125A	88	18	190	M20X 115 (8)	3.4
DCV-150	150A	110	19	214	M20X 120 (8)	5
DCV-200	200A	140	20	275	M20X 120 (8)	10
DCV-250	250A	185	20	330	M22X 130 (8)	12
DCV-300	300A	225	24	380	M22X 140 (8)	21
DCV-350	350A	255	30	430	M22X200 (12)	49.6
DCV-400	400A	300	35	475	M24X215 (16)	64.2
DCV-450	450A	345	40	525	M24X215 (20)	78.4
DCV-500	500A	387	50	580	M24X215 (20)	88.7
DCV-600	600A	485	67	695	M24X315 (20)	112

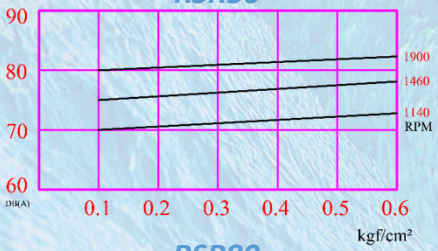
RSR Roots Blower Noise Level



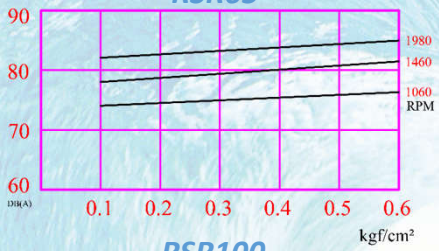
RSR50



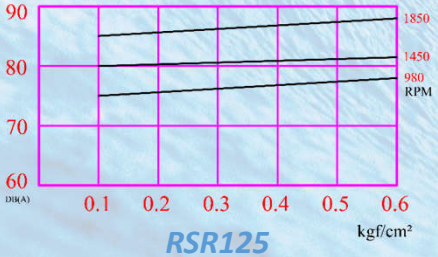
RSR65



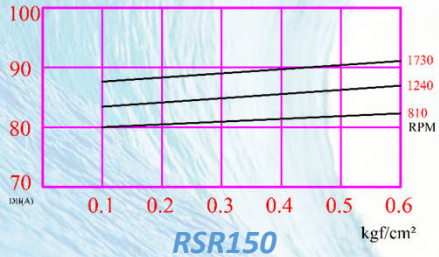
RSR80



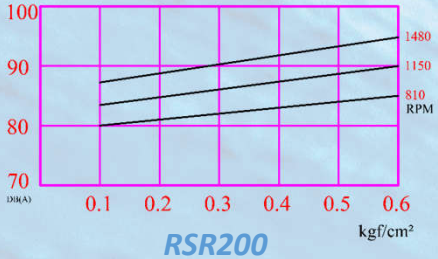
RSR100



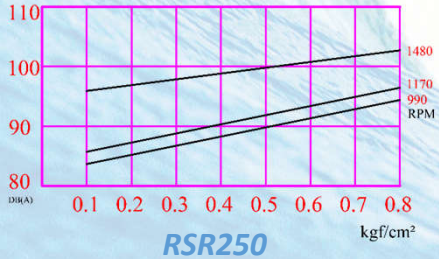
RSR125



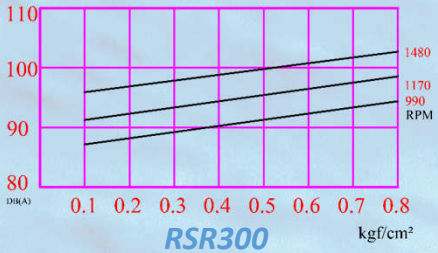
RSR150



RSR200



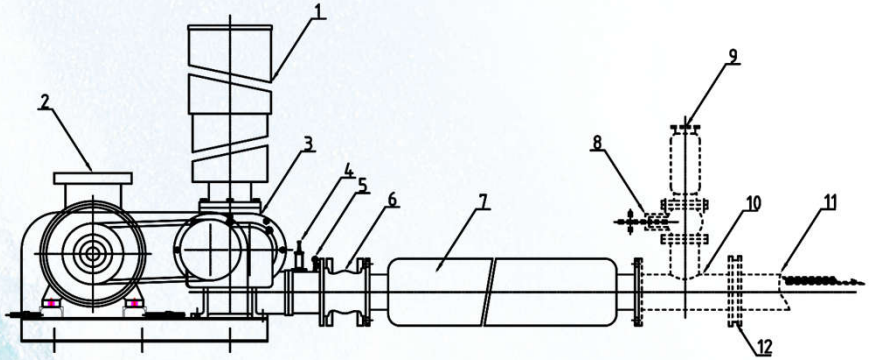
RSR250



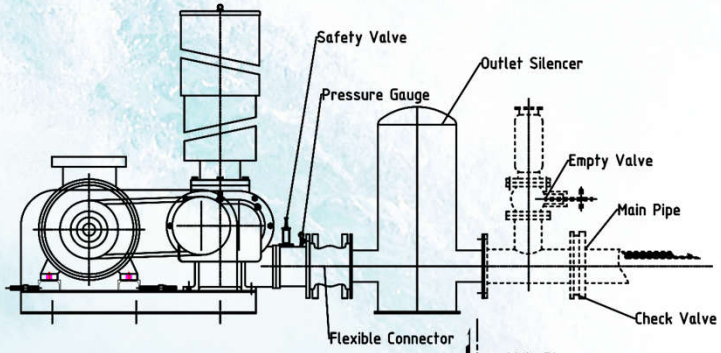
RSR300

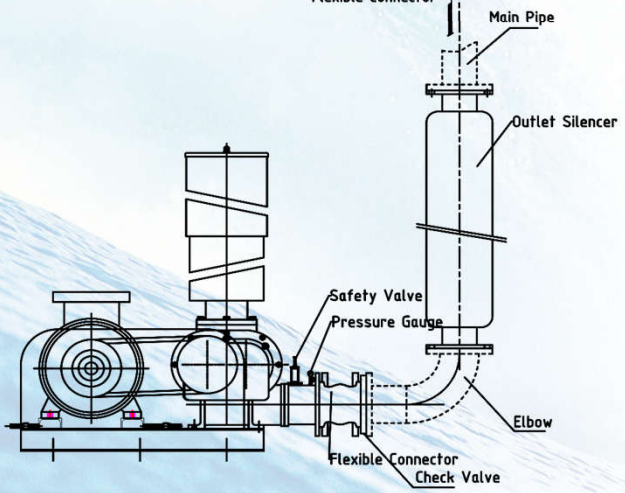
The above noise valve is tested 1 meter away from the blower (equipped with inlet silencer and out silencer).

RSR Roots Blower Layout

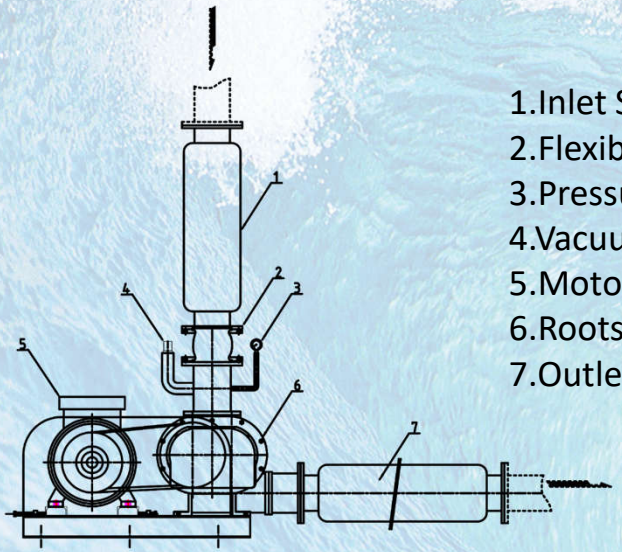


1.Inlet Silencer	2.Motor	3.Roots Blower	4.Safety Valve
5.Pressure Gauge	6.Flexible Connector	7.Outlet Silencer	8.Gatevalve
9.Empty Silencer	10.Empty Joint	11.Main Pipe	12.Check Valve





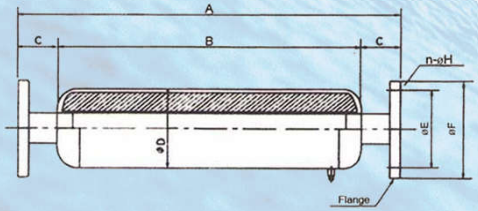
RSR Vacuum Pump Layout



1.Inlet Silencer
2.Flexible Connector
3.Pressure Gauge
4.Vacuum Degree Valve
5.Motor
6.Roots Blower
7.Outlet Silencer

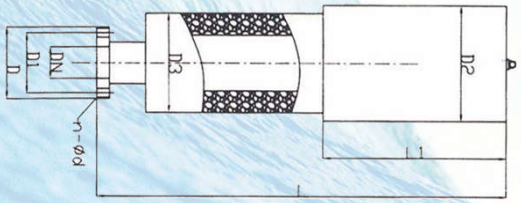
Accessories

KM Type Discharge Silencer



Type	Bore	A	B	C	D	E	F	n-ΦH	Weight(kg)
KM-50	50A	600	480	60	140	125	165	4-Φ18	10
KM-65	65A	700	560	70	165	145	185	4-Φ18	14
KM-80	80A	900	740	80	190	160	200	8-Φ18	18
KM-100	100A	1200	1040	80	217	180	220	8-Φ18	37
KM-125	125A	1400	1210	95	261	210	250	8-Φ18	44
KM-150	150A	1600	1410	95	286	240	285	8-Φ22	67
KM-200	200A	1800	1600	100	320	295	340	8-Φ22	80
KM-250	250A	2000	1800	100	406	350	395	12-Φ22	130
KM-300	300A	2000	1800	100	500	400	445	12-Φ22	160
KM-350	350A	2000	1800	100	670	460	505	16-Φ22	175
KM-400	400A	2080	1840	120	750	515	565	16-Φ26	206
KM-450	450A	2180	1940	120	850	565	615	20-Φ26	245
KM-500	500A	2210	1970	120	920	620	670	20-Φ26	274
KM-600	600A	2300	2060	120	960	725	780	20-Φ30	384
KM-700	700A	2395	2060	167.5	990	840	895	24-Φ30	446
KM-800	800A	2500	2160	170	1150	950	1015	24-Φ34	590

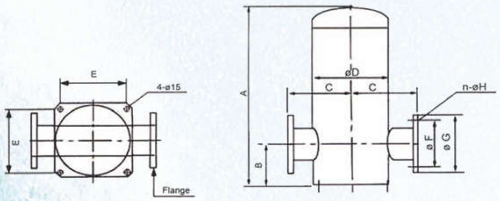
XF Type Inlet Silencer



Type	Bore	D	D1	D2	D3	L	n- ΦH
XF-50	50A	Φ115	Φ85	Φ150	Φ125	560	4-Φ14
XF-65	65A	Φ155	Φ130	Φ165	Φ140	600	4-Φ14
XF-80	80A	Φ155	Φ130	Φ250	Φ215	840	4-Φ14
XF-100	100A	Φ180	Φ145	Φ265	Φ230	910	4-Φ18
XF-125	125A	Φ207	Φ178	Φ300	Φ265	945	4-Φ18
XF-150	150A	Φ260	Φ225	Φ350	Φ320	1130	8-Φ19
XF-200	200A	Φ320	Φ280	Φ440	Φ375	1500	8-Φ23
XF-250	250A	Φ395	Φ350	Φ550	Φ450	1650	12-Φ23
XF-300	300A	Φ445	Φ400	Φ600	Φ485	1750	12-Φ23
XF-350	350A	Φ505	Φ460	Φ670	Φ540	2250	16-Φ23
XF-400	400A	Φ565	Φ515	Φ750	Φ640	2500	16-Φ26
XF-450	450A	Φ615	Φ565	Φ850	Φ700	2750	20-Φ26
XF-500	500A	Φ670	Φ620	Φ920	Φ750	3000	20-Φ26

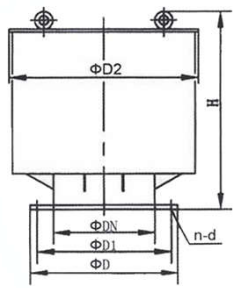
Accessories

RKM Type Discharge Silencer



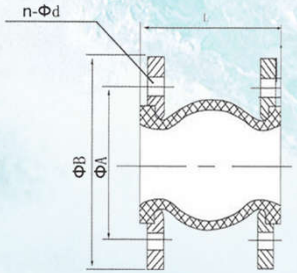
Type	Bore	A	B	C	D	E	F	G	n-ΦH	Weight(kg)
RKM-50	50A	120	120	150	140	130	125	165	4-Φ19	15
RKM-65	65A	480	130	175	191	170	145	185	4-Φ19	20
RKM-80	80A	595	145	200	216	190	160	200	8-Φ19	27
RKM-100	100A	660	155	225	267	230	180	220	8-Φ19	34
RKM-125	125A	800	190	250	280	240	210	250	8-Φ23	58
RKM-150	150A	920	210	300	356	290	240	285	8-Φ23	80
RKM-200	200A	1050	256	325	406	350	295	340	8-Φ23	97

ZRL Air Filter



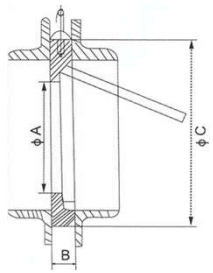
Type	DN	D1	D	D2	n-d	H	Weight(Kg)
AF-50	50	125	165	230	4-Φ16	211	3.0
AF-65	65	145	185	260	4-Φ16	233	3. 5
AF-80	80	160	200	300	8-Φ16	263	4.0
AF-100	100	180	220	350	8-Φ16	293	5.0
AF-125	125	210	250	450	8-Φ16	375	10
AF-150	150	240	285	550	8-Φ20	477	18
AF-200	200	295	340	700	8-Φ20	577	24
AF-250	250	350	395	900	12-Φ20	679	37
AF-300	300	400	445	1100	12-Φ20	809	50
AF-350	350	460	505	1300	16-Φ20	943	115
AF-400	400	515	565	1500	16-Φ24	1010	165
AF-450	450	565	615	1650	20-Φ24	1183	202
AF-500	500	620	670	1850	20-Φ24	1293	252
AF-600	600	725	780	1550	20-Φ27	1205	230
AF-700	700	840	895	1660	24-Φ27	1367	243
AF-800	800	950	1015	1850	24-Φ30	1450	357

Flexible Connector



Type	Bore	A	B	C	n-0d	L
KXT-I III	50	125	165	18	4-Φ17.5	105
	65	145	185	20	4-Φ17.5	115
	80	160	200	20	8-Φ17.5	135
	100	180	220	22	8-Φ17.5	150
	125	210	250	24	8-Φ17.5	165
	150	240	285	24	8-Φ22	180
	200	295	340	24	8-Φ22	190
	250	350	395	28	12-Φ22	230
	300	400	445	28	12-Φ22	245
	350	460	505	28	16-Φ22	255
	400	515	565	30	16-Φ26	255
	450	565	615	30	20-Φ26	255
	500	620	670	32	20-Φ26	255
	600	725	780	34	20-Φ30	261
	700	840	895	36	24-Φ30	261
	800	950	1015	40	24-Φ34	261

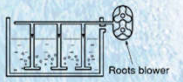
Check Valve



Type	Bore	A	B	C	Bolt Size(Number)	Weight(kg)
DCV-50	50A	25	17	105	M16X86 (4)	1.1
DCV-65	65A	38	17	125	M16X 108 (4)	1.4
DCV-80	80A	45	17	135	M16X 108 (8)	1.6
DCV-100	100A	68	17	158	M16X 108 (8)	2.3
DCV-125	125A	88	18	190	M20X 115 (8)	3.4
DCV-150	150A	110	19	214	M20X 120 (8)	5
DCV-200	200A	140	20	275	M20X 120 (8)	10
DCV-250	250A	185	20	330	M22X 130 (8)	12
DCV-300	300A	225	24	380	M22X 140 (8)	21
DCV-350	350A	255	30	430	M22X200 (12)	49.6
DCV-400	400A	300	35	475	M24X215 (16)	64.2
DCV-450	450A	345	40	525	M24X215 (20)	78.4
DCV-500	500A	387	50	580	M24X215 (20)	88.7
DCV-600	600A	485	67	695	M24X315 (20)	112

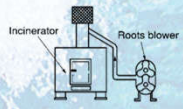
Roots Blower Applications

Water Treatment



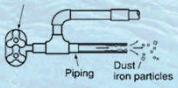
Blowers are used to purify water and stir up sediment at water treatment plants.

Incinerators



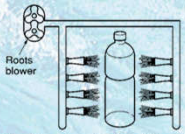
Blowers enhance combustion efficiency and promote the removal of exhaust gases.

Cleaning of Pipes



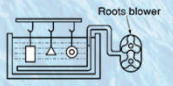
Blowers can be used to remove dust and iron particles when piping is replaced or periodically checked. They can also be used to supply various kinds of coating material to the interior of pipes.

Air Blower



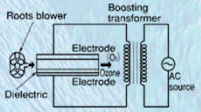
Here blower is used to blow off drops of water clinging to surfaces of cans, bottles, machine parts, etc. Air blowers can also be used as sources of cooling or drying air.

Plating Bath



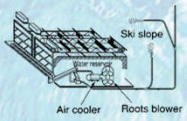
Plating quality can be enhanced by using a blower to circulate electrolytes in the plating bath to give the plating a more uniform thickness. Here blowers serve as the source of air supply.

Ozonizer



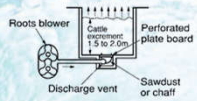
This blower is used as the air supply source for a high-concentration ozonizer.

Snow Machine



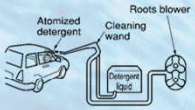
Ski resorts use blowers for pneumatic transport with artificial snow machines.

Fermentation



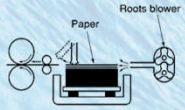
The stream of air provided by the blower promotes the fermentation of livestock excrement, etc., for efficient composting.

Atomization of Detergent



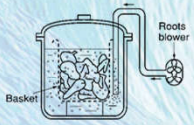
Blowers conserve energy at car washes by atomizing water and detergent.

Paper Feed for Printer



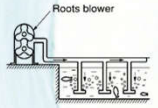
Air discharged from blowers facilitates the separation of sheets of paper as well as their distribution in neat piles after printing.

Frozen Food



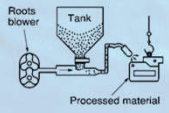
Blowers are useful in the stir-freezing of frozen foods in water.

Aquaculture Oxygen Supply



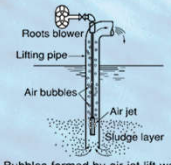
Aquafarms producing all sorts of fish and shellfish use blowers to oxygenate and circulate the water in tanks. Blowers are also used for aquariums and live fish tanks.

Sand Blasting



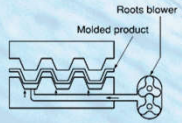
Provides a concentrated blast of air for use in sandblasting.

Airlift Pump



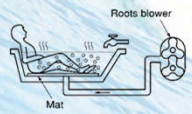
Bubbles formed by air jet lift water through the pipe by reducing the specific gravity of sewage.

Press



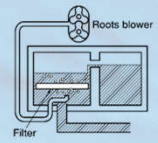
Blower is used for lift when removing molded products from the press.

Medical Treatment Bath



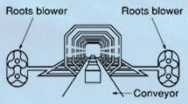
Blowers supply the air that creates the whirlpool in a Jacuzzi hot tub. Many health centers and other facilities have introduced whirlpool baths for their therapeutic effects.

Back Washing



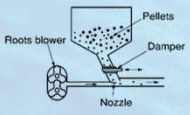
Blowers are used to optimize filter and filter material performance by backwashing.

Drying Line



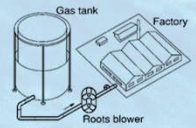
Our blowers are used to good effect in small-scale drying lines.

Particle Transportation



Blower is used for the pneumatic conveyance of pelletized raw materials such as vinyl chloride and polyethylene (The vacuum method will work here as well).

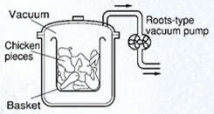
Special Gas



Blowers serve vital functions in the supply of city gas, etc.

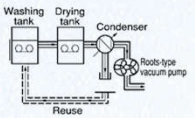
Roots Blower Applications

Food Processing



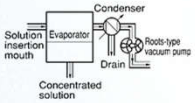
Vacuum conditions are useful in the seasoning of foods.

Vacuum Drying



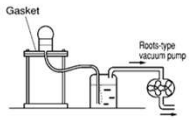
Here, a Roots-type vacuum pump that can collect solvent drainage is ideal (used with drainage pot).

Vacuum Drying



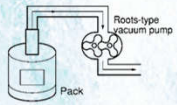
Used to vacuum dry the moisture.

Leak Testes



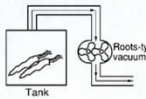
Can be used in tests of airtightness.

Vacuum Packing of Food



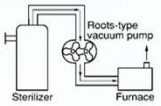
Vacuum packing keeps foods such as meat and vegetables fresh.

Freeze Drying



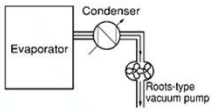
Freshness and quality of vegetables and other foods can also be preserved by freezing the foods in tanks under vacuum conditions.

Sterilization Apparatus



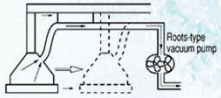
Our pumps are used as vacuum sources in sterilizers.

Concentration/Distillation



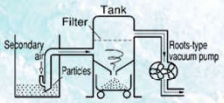
In these processes, liquids are made more concentrated by evaporation, or the vapor produced is cooled and returned once again to liquid state.

Adsorption Conveyance



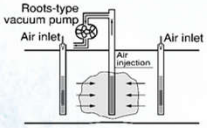
Adsorption conveyance by vacuum pump is well suited to heavy materials such as steel plates and easily breakable materials such as glass. Energy savings are promoted by the elimination of gripping operations.

Particle Transport



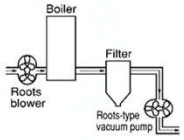
Used in the conveyance of rice, wheat, soybeans, resin pellets, etc.

Soil Remediation



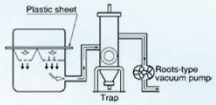
Used in the decontamination of soil and groundwater.

Combustion Gas Recovery



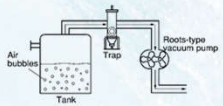
Also used in the desulfurization of high-temperature combustion gas and flue gas.

Vacuum Molding



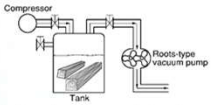
Roots-type vacuum pumps are used as vacuum sources for vacuum molders used with resins, etc. (trap attached).

Vacuum Defoaming



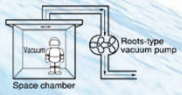
Product quality is improved for chemicals and pharmaceuticals by using a Roots-type vacuum pump to remove air bubbles by defoaming under vacuum.

Impregnation



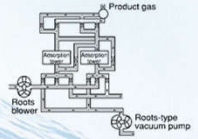
In this setup, our pumps first produce a vacuum in the tank and then supply high pressure to facilitate the impregnation of parts with liquids or gases.

Experiments



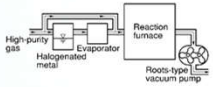
Dry vacuum pumps can be used to create a "space environment" on Earth by producing a vacuum state within a space chamber.

VPSA/PSA



This configuration shows a blower used in combination with a vacuum pump.

Heat Treatment



Reaction furnaces for heat treatment need to be airtight so that no oil or air will become admixed with the reactants. Roots-type vacuum pumps can meet this need.

Production Equipment

South Korea DOOSAN Horizontal Machining Center

Taiwan AGMA VMC 168 Vertical Machining Center

South Korea WIA Horizontal Machining Center

Double-Way CNC Planer

Gantry Planer

Horizontal Boring & Milling Machine

Workshop

Project