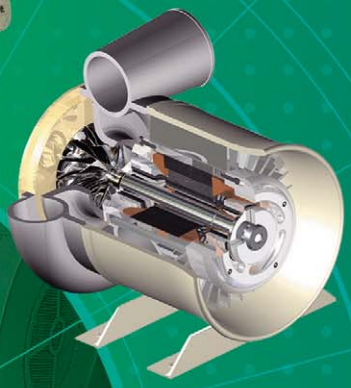
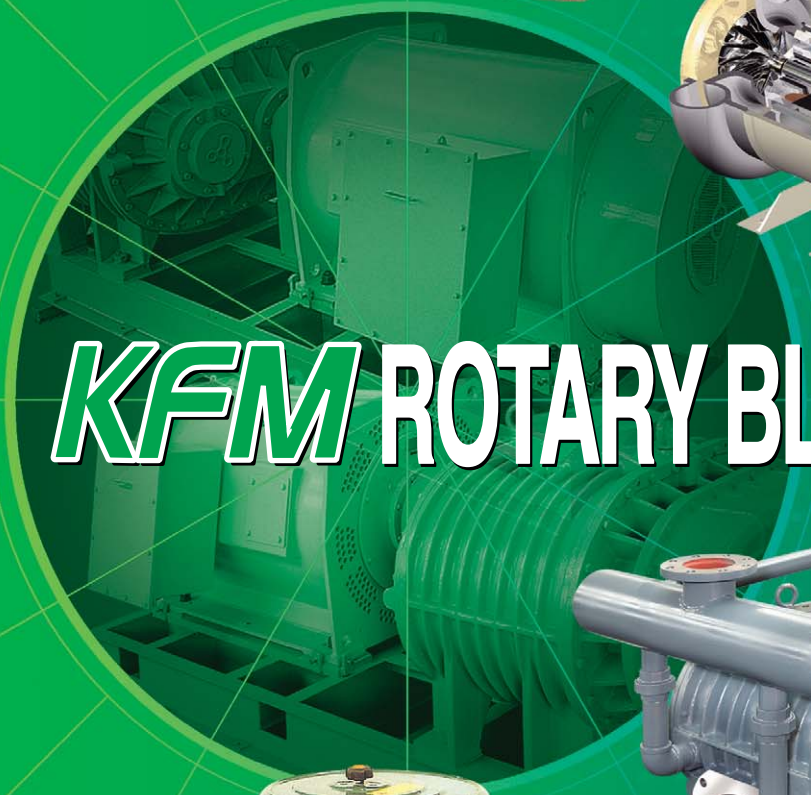
Thinking of human and nature together
(株)韓国流体機械
KOREA FLUID MACHINERY CO., LTD.
www.kfmblower.com E-mail : kfmc@kfmblower.com





KFM ROTARY BLOWERS

CÔNG TY TNHH DỊCH VỤ KỸ THUẬT KIM PHÁT
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CÔNG TY TNHH DỊCH VỤ KỸ THUẬT KIM PHÁT xin gởi đến Quý khách hàng lời chào trân trọng!

Chúng tôi chuyên cung cấp giải pháp thiết bị cho hệ thống sục khí đáy ao nuôi tôm nhằm nâng cao năng suất, rút ngắn thời gian nuôi trồng so với các giải pháp cấp khí phổ biến hiện nay như sử dụng quạt, bơm, máy sục khí bề mặt….Máy sục khí đáy do chúng tôi cung cấp được sử dụng kết hợp với hệ thống ống phân phối khí Aero tube (nanotube) hoặc đĩa phân phối khí được đặt dưới đáy ao tôm với các ưu điểm:

- Chi phí đầu tư thấp, đầu tư 1 lần sử dụng lâu dài.
- Hiệu quả cấp Oxy hoà tan tốt, đồng đều từ đáy lên mặt nước do kết hợp với đĩa phân phối khí hoặc các vỉ ống tán khí tinh Areo tube đặt dưới đáy ao.
- Dễ sử dụng, dễ lắp đặt, bảo trì do được lắp trên cạn, trên các bờ ao cạnh hồ hoặc trong phòng cấp khí trung tâm.
- Tăng mật độ nuôi trên cùng diện tích dẫn tới năng suất cao hơn.
- Hàm lượng khí hòa tan đảm bảo giúp môi trường ao tốt, tôm đủ oxy tôm khỏe hạn chế rủi ro, giảm lượng hóa chất xử lý và thuốc sử dụng.
- Giảm bớt quạt (quạt đặt cao tạo khí) thay bằng oxy đáy hiệu quả hơn tiết kiệm 20 đến 30% chi phí.
- Phấn phối đều khí khắp ao nhờ hệ thống khí đáy kết hợp với hệ thống quạt tạo dòng chảy.
- Khí được đẩy từ đáy lên tạo đối lưu trộn đều oxy giữa các tầng nước, đặc biệt là đảm bảo hàm lượng oxy đáy.
- Thúc đẩy sự khuếch tán các loại khí độc sinh ra ở đáy ao vào không khí.
- Cung cấp oxy đầy đủ và liên tục cho các vinh sinh vật đáy giúp các vi sinh vật hoạt động tối ưu trong môi trường có oxy phân hủy hữu cơ tạo ra các hợp chất có lợi, giảm chất thải, mùn bã đáy ao.
- Trong quá trình cho ăn không cần tắt hệ thống để đảm bảo tôm vẫn đủ oxy cho hoạt động bắt mồi và tiêu hóa thức ăn. Kích thích tôm ăn nhiều, lớn nhanh.
- Đảm bảo điều kiện tối ưu giúp tôm khỏe, phòng chống các bệnh dịch như tôm chết sớm, đốm trắng, đầu vàng... phát sinh trong điều kiện tôm yếu và môi trường ao nuôi bất lợi.
- Tiết kiệm 8-10% điện năng tiêu thụ so với các thiết bị máy sục khí khác.

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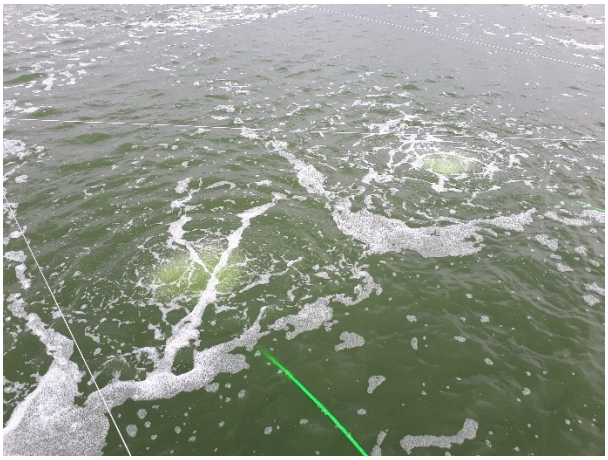
1. THÔNG TIN THIẾT BỊ

- Máy sục khí đáy (máy thổi khí) do chúng tôi cung cấp được nhập khẩu nguyên bộ từ Hàn Quốc do KFM (Korea Fluid Machinery Co.,Ltd) sản xuất. KFM là thương hiệu máy thổi khí chất lượng hàng đầu của Hàn Quốc. Với thiết kế đa dạng, đa mẫu mã, máy thổi khí KFM được lựa chọn sử dụng trong nhiều lĩnh vực như: Cấp khí Oxy trong nuôi trồng thuỷ hải sản, xứ lý nước thải, các ngành công nghiệp sơn mạ, đóng gói, sản xuất bao bì, giấy, đóng tàu…

- Đối với ứng dụng máy thổi khí để cấp Oxy đáy trong nuôi trồng thuỷ sản, hiện chúng tôi đang là nhà cung cấp thiết bị chất lượng cao, hiệu xuất khai thác thiết bị hơn hẳn các thiết bị khác, các thương hiệu Taiwan, China nhờ các ưu thế về tiêu chuẩn sản xuất, chất lượng của thiết bị, giảm suất đầu tư và giải pháp kỹ thuật do chúng tôi cung cấp. Bên cạnh đó, các chế độ, dịch vụ sau bán hàng cũng là thế mạnh của chúng tôi nhằm đem lại lợi ích tối đa cho Quý khách hàng. Hiện thiết bị và dịch vụ do chúng tôi cung cấp đang là sự lựa chọn của các nhà đầu tư nuôi tôm với quy mô lớn như Công ty Cổ Phần Thuỷ Sản BIM, Công ty Cổ Phần Chăn Nuôi N.G Việt Nam…



Máy Sục Khí Oxy Đáy Được Lắp Trên Bờ Ao Và Trong Trạm Cấp Khí Trung Tâm

2. CÁC MODEL THÔNG DỤNG

2.1. Model EK (EK050, EK065, EK080, EK100) + Lưu lượng cấp khí : 1~10 m3/phút + Cột áp: 0.1~0.4 kg/cm2 + Động cơ: 0.75~7.5 kW/3phase/380V/50Hz	
2.2. Model HL/SL (HL050, HL065, HL080, HL100, HL125, HL150, HL200, HL250, HL300, SL050, SL065, SL080, SL100, SL125, SL150, SL200, SL250, SL300) + Lưu lượng cấp khí : 1~400 m3/phút + Cột áp: 0.1~0.6 kg/cm2 + Động cơ: 0.75~110 kW/3phase/380V/50Hz	
2.3. Model HT/ST (HT050, HT065, HT080, HT100, HT125, HT150, HT200, HT250, HT300, ST050, ST065, ST080, ST100, ST125, ST150, ST200, ST250, ST300) + Lưu lượng cấp khí : 1~400 m3/phút + Cột áp: 0.1~0.8 kg/cm2 + Động cơ: 0.75~110 kW/3phase/380V/50Hz	
2.4. Model U (SUK/HUK, SUT/HUT, SUP/HUP) + Lưu lượng cấp khí : 1~800 m3/phút + Cột áp: 0.1~1.2 kg/cm2 tương dương 1~12 mH2O + Động cơ : 1~800 HP/3phase/380V/50Hz	

Quý khách hàng có nhu cầu vui lòng liên hệ trực tiếp với chúng tôi để được tư vấn lựa chọn thiết bị kinh tế nhất, tối ưu nhất.
CÔNG TY TNHH DỊCH VỤ KỸ THUẬT KIM PHÁT TRÂN TRỌNG HỢP TÁC!

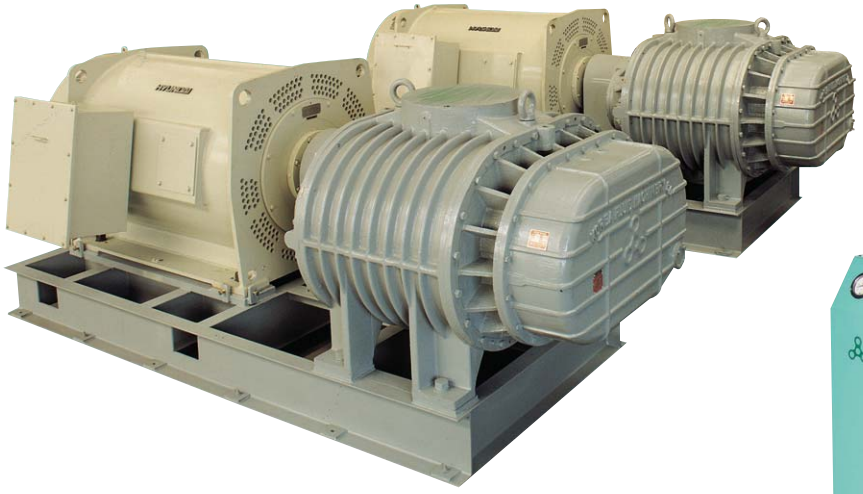
– Human, Nature, and Culture –

"Thinking of human and nature together"

This is the corporate culture Korea Fluid Machinery Co., Ltd. has grown.
Korea Fluid Machinery(KFM), located in Yusan industrial complex. Yangsan. Kyungnam developed Rotary Blower (so-called Roots Blower) by itself first in the country and made it a best seller since the establishment of the company in 1976.
Our company, which has developed and produced Rotary Blower steadily since the establishment, is the first company in the world that mass-produced and provided 3 Lobes Helical Rotary Blower that is called the third generation Rotary Blower.
On the base of numerous trial and errors and experiences followed by the management goal-develop original products faster than advanced countries-our company is the first one in the world which invented KFM Orbit Blower Compressors & Vacuum pumps of new idea and best proper for new millinnium by using Orbit Mechanism and made them marketable.
Originality and superiority of KFM Orbit Compressors & Vacuum Pumps. It ware proved by its wining IR52 Chang Young-Shil Award highly recognized of its tradition and authority. They will be the pride of KFM brand and new products of small and medium enterprise heading for the world along with other many Orbit products and Orbit Mechanism to be developed.
On the base of quality system required by ISO 9001/ KSA 9001, our company doesn't remain only in the dimension of satisfying customer´s demands, but by making it an aim to reach customers being moved, leads customer-centered management to prosper together with customers and react sensitively to very little demands from customers.
Our company also cherishes human and infinite creativity, and doesn´t spare investment in developing them. Our company has deeply acknowledged how much we owe to the nature, and has practiced the corporate culture 'Thinking of human and nature together´ and the tradition of Diligence, Thrift, Honest´ for long.
Based on the corporate culture and the tradition it has grown for the period Korea Fluid Machinery Co., Ltd. will be the one in the world to do the best in its role and responsibility to impress customers, contribute to making a clean society, and practice right management instead of being a big company.

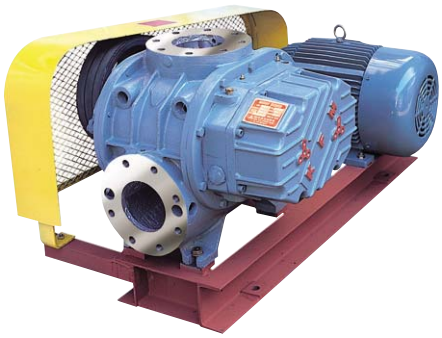
Sincerely yours
C.E.O / **Kim Chun Kyoung**

ISO-9001



KFM Largest Rotary Blower. ST500A.

KFM Turbo Blower



KFM Rotary Blower. ST100A.

KFM Economic Rotary Blower EK100A.

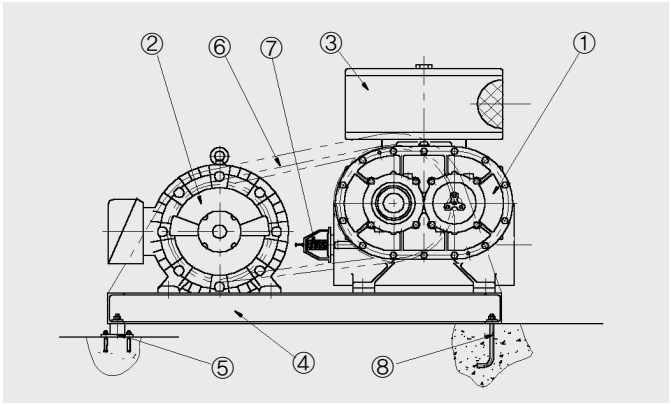
KFM Standard Rotary Blower. SL100.

KFM Back Flow Cooling Blower. ST250 VBF.

KFM Back Flow Cooling Blow. ST250 SVBF

Operating Principle & Structure (구조 및 작동원리)

Structure of the blowers (구 조)



NO.	DESCRIPTION
1	BLOWER
2	MOTOR
3	SUCTION SILENCER
4	COMMON BED
5	ANTI-VIBRATION MOUNT
6	BELT ASS'Y
7	SAFETY VALVE
8	ANCHOR BOLT

This rotary blower, or 'Roots blower' has two built-in rotors, a motor, noise silencer for suction and other parts.

로타리 블로어(Rotary Blower, 일명:Roots Blower)는 두개의 로터가 내장된 본체와 이 로터를 구동시키는 모터와 연결장치, 발생된 소음을 줄이기 위한 흡입 소음기 및 이에 필요한 부속품으로 구성되어 있다.

Operating Principle (작동원리)

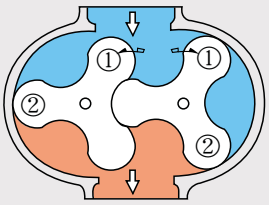


Fig.1

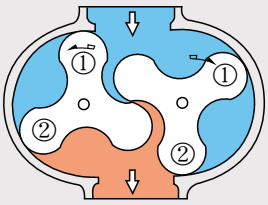


Fig.2

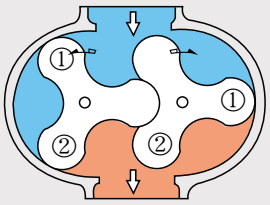


Fig.3

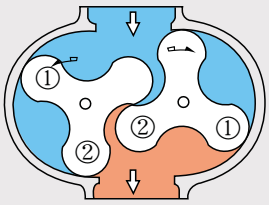
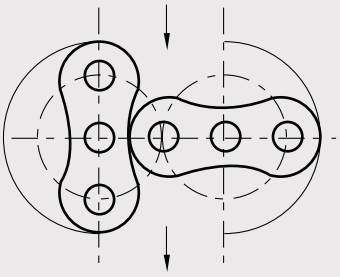
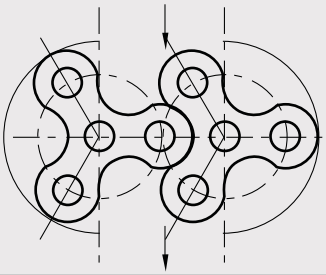
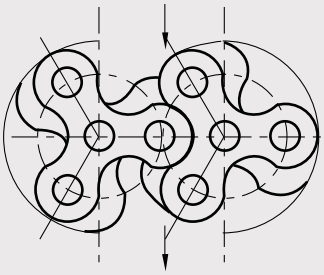
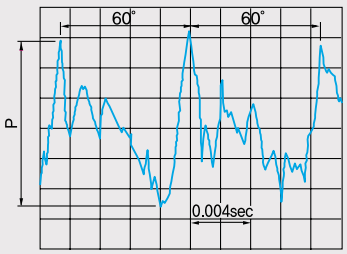
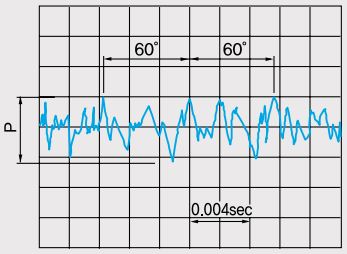
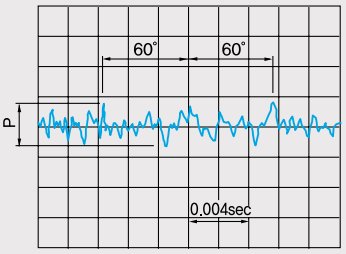
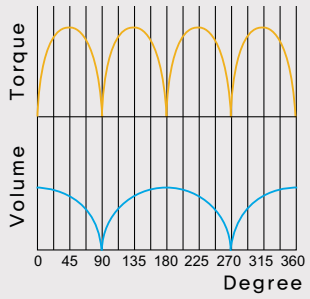
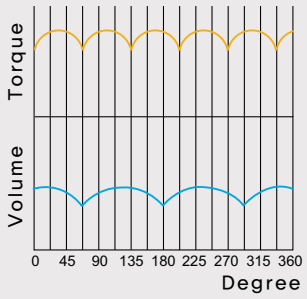
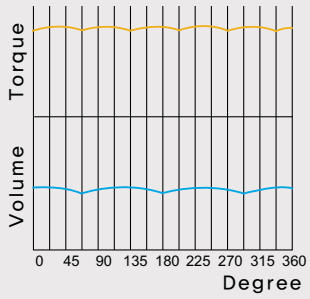


Fig.4

Two rotors move in opposite directions within a casing while keeping a suitable clearance between casing and rotors.
When the rotor moves in the direction of the arrow, air between ① and ② moves along the inner side of the casing Fig.2 and then flows towards the exhaust Fig. 3, 4.
In a case of 2-lobes rotor, this operation occurs 4 times per rotation ; a 3-lobes, 6 times ; and in a case of helical rotor, it occurs consecutively. In all cases, the air moves towards the exhaust in proportion

케이싱 내부에 서로 반대 방향으로 회전하는 2개의 로타가 케이싱 내벽과 로터 상호간에 근소한 간격을 유지하면서 회전한다.
로타가 화살표 방향으로 서로 상반되게 회전할 때 로타의 ①과 ② 사이의 공기 체적 V는 그림2와 같이 케이싱 내벽을 따라 이동하며 따라서 그림 3, 4와 같이 토출측으로 이동하여 결과적으로 공기는 화살표 방향으로 움직인다.
2엽인 경우 상기 작동이 1회전당 4회, 3엽 로타인 경우에는 1회전당 6번, 헬리컬인 경우 연속적으로 일어나며 회전수에 비례해서 일정량의 공기가 이동하여 토출측으로 나오게 된다.

Comparison Table of Two Lobes, Three Lobes & Helical Blowers

ITEM	TWO LOBES BLOWER	THREE LOBES SPUR BLOWER	THREE LOBES HELICAL BLOWER
Generation	First Generation	Second Generation	Third Generation
Outer Shape of Rotor			
Rotor Curve	Difficult complex curve for machining	Concentric simple curve for easy machining (Patent No. 6654)	Concentric simple curve for easy machining (Patent No.6654)
Rotor Material	Engineering Plastic, Cast Iron	Engineering Plastic, Cast Iron	Cast Iron, Ductile Cast Iron
Pressure Fluctuation Curve			
Discharge Pulsation Curve			
Mechanism	The first generation, 2-lobes blower was composed of 2 peanut-shaped rotors. Sucking and dis-charging air 4 times per rotation the 2-lobes blower had many problems, including great variations in pressure, vibration and noise. It was difficult to process and hard to make its axis larger, thus weakening it.	The second-generation, 3-lobes blower had much less variation in pressure, vibration and noise, since it sucked and discharged air 6 times per rotation. But it did not com-pletely solve the problem of axial force and thrust.	The third-generation, 3-lobes helical blower greatly reduced pulsation, vibra-tion and noise, and remov-ed axial thrust by consec-utively sucking and exhaling air without and pressure difference.

Features and Advantages of KFM Rotary blower

1. The main rotors are 3-lobes, with simple concentric circle patent curve,which is easy for processing.
   (1) Energy conservation through volumetric efficency over 90% and through high mechanical performances are guaranteed.
   (2) Variations of noise, of vibration, of pulsation, and of pressure are reduced remarkable compared 2-lobes of 1st generation and surging is reduced too(compare and refer to blower in page 5)
   (3) Enlarging shaft diameter expands durability of product.
   (4) Economical price by mass-production and easy manufacturing.
   (5) It is possible to use helical 3rd generation because the rotors are 3-lobes.
2. A long life is guaranteed due to excellent strength.
3. Quality and system guaranteed by ISO 9001 KS A 9001 confirmation and 'Q' mark.
4. Reliable product of which quality is confirmed by most numerous users of longest period.
5. It is possible to save the cost of repair and maintenance because the setup of the blower simple enough for an unskilled workman to disassemble and assemble it.
6. It is possible to install it in a narrow space, and also you can save the cost, reduce the time for the installation.
7. This company has countrywide service merwork. You can get technical consultation anywhere any time.
8. You can be supplied with blower at an economic price immediately on ordering due to automatic production line and FMS.
9. This company has produced and supplied most kinds of various models of blower, So this company can cope with customer's special requirements.
10. This company is so superior as to produce and supply steadily without breaking production and bankruptcy.

KFM Blower Application Table

KFM APPLICATION MODEL	BLOWERS				VACUUM PUMPS			
	Air Cooling	Water Cooling	Back-Flow Cooling	Multi-Stage	Air Cooling	Water Cooling	Back-Flow Cooling	Multi-Stage
RANGE	0.1-0.6 kg/cm²	0.6-0.8 kg/cm²	0.8-1.2 kg/cm²	1.2-2.0 kg/cm²	0-300 mmHg	330-500 mmHg	500-650 mmHg	650-700 mmHg
EK 050-100	★				★			
SL 050-SL350	★				★			
SP 050-300	★				★			
HL 080-SL350	★				★			
HP 080-300	★				★			
HT 080-250	★	★			★	★		
ST 080-500	★	★	★		★	★	★	
DST 080-500	★	★	★	★	★	★	★	★

Regarding to Selection of Blowers (제품 선정상의 유의 사항)

- Our product can be used in various use, selected by customer's purpose and ordered by data sheet & order specification.
- To a degree of pressure differdnce & vacuum level air cooling, water cooling, back flow cooling and multistage cooling type can be applied.
- For a discharge port noise can be exinguished insidepipe, discharge silencer is not neecessary spec.
- In a case of much less noise & vibration, acoustic hood & anti-vibration rubber can be chosen in a option item.
- In a case of direct coupled type, power loss is prevented by a degree of 3~5% in a point of view transmission efficiency.
- Helical type can be applied from 80A to 300A.

- 당사의 제품은 용도에 따라 다양하게 사용됨으로 고객의 용도에 맞는 제품을 선정하여 테이터 시트 및 주문 시방서에 따라 주문하여 주십시요. (제품사용 예,주문 시방서 및 데이터 시트 참조)
- 압력 및 진공의 정도에 따라 공냉식,수냉식,역류냉각방식,다단식이 적용됩니다.(상기표 참조)
- 토출측 소음은 관내에서 소멸됨으로 토출 소음기는 필수 시방이 아닙니다.
- 저소음 및 저진동이 필수적으로 요구되는 경우, 방음 카바 및 방진 고무 등을 옵션 품목으로 채택될 수 있습니다.
- 직결 전동 방식을 채택할 경우 전동효율 측면에서 3~5%정도의 동력 손실을 방지 할 수 있습니다.
- 헬리컬 방식은 80A-300A 에서 적용이 가능합니다.

Product Code of *KFM* Goods

Rotary Blower

ST 200V BF4M
(1)(2) (3) (4) (5)

(1) Materials or shape of rotors
- E : 3-Lobes Spur / Engineering plastic
- S : 3-Lobes Spur / Cast iron steel
- H : 3-Lobes Hellical / Ductile cast iron
- D : 3-Lobes doule rotor(Two stage rotor)
- T : 3-Lobes triple rotor(Three stage rotor)

(2) Input & Output flow direction of blower
- K : KFM standard type
- P : Horizontal
- T : Vertical & Horizontal
- L : Vertical & Horizontal

(4) Use
- V : Vacuum type X : Export type
- Open : Normal suction type

(5) Special specification
- B : Without motor, Bare shaft blower(Body Only)
- W : Water cooling type
- BF : Back flow cooling type
- K : Kanizen coating
- G : Gland packing type
- 1M : One mechanical seal type
- 4M : 4 Mechanical seal type
- C : Coupling connection type
- SS : Stainless steel
- CS : Cast steel
- AL : Alumium

(3)Bore size
- 50A : 050
- 65A : 065
- 80A : 080
- 100A : 100
- 125A : 125
- 150A : 150
- 200A : 200
- 250A : 250
- 300A : 300
- 350A : 350
- 400A : 400
- 500A : 500
- 800A : 800

• Example
- SP200VBF4M : Spur rotor horizontal vacuum type including back flow cooling, 4Mechancial sealing
- HT150WC : Helicall rotor vertical & suction type including water cooling, couping connection

KFM Economic rotary blower & vacuum pumps
- Economic type blowers ..... EK050~EK125, EP050~EP100
- Economic type vacuum pumps ..... EK050V~EK125V, EP050V~EP100V

KFM Millenium rotary blower & vacuum pumps
- Standard blowers ..... SL 050V~SL350V
- Standard Vacuum pumps ..... SL 050V~SL350V
- Helical rotary blowers ..... HL 080V~HL350V
- Helical rotary vacuum pumps ..... HL 080V~HL350V

KFM Classic rotary blower & vacuum pumps
- Classic spur rotary blowers ..... SP050~SP350, ST125~ST800
- Classic spur rotary vacuum pumps ..... SP050V~SP350V, ST125V~ST800V
- 3rd generation helical rotary blowers ..... HP080~HP300, HT080~HT250
- 3rd generation helical rotary vacuum pumps ..... HP080V~HP300V, HT080V~HT250V

KFM Special rotary blower & vacuum pumps
- Medium pressure water cooling rotary blowers ..... HT080W~HT250W, ST080W~ST700W
- Medium pressure water cooling rotary vacuum pumps ..... HT080VW~HT250VW, ST080VW~ST700VW
- High pressure back flow cooling rotary blowers ..... HT080BF~HT250BF, ST080BF~ST700BF
- High pressure back flow cooling rotary vacuum pumps ..... HT080VBF~HT250VBF, ST080VBF~ST700VBF

How to Use The Performance Table

Air volume listed in Rotary blower performance table represents an air volume
(TEMP. 20℃,absolute pressure 10332mmAq, relative humidity 75%)
Air volume is generally shown in terms of the following three model valves car

(1) Air volume at suction state ..... Shown in term of suction pressure, temperature, and humidity.
(2) Air volume at standard state ..... When temperature 20℃, absolute pressure 760 mmHg and relative humidity 65%
(3) Air volume at normal state ..... When the temperature 0℃ absolute pressure 760mmHg and when air is dry

The air volume conversion formula is as follows

$$Q_2 = Q_1 \times \frac{P_1}{P_2} \times \frac{T_2}{T_1}$$

Where Q_1 : air volume(㎥/min) at absolute pressure of P_1(mmHg) and absolute temperature of T_1
Q_2 : air volume(㎥/min) at absolute pressure of P_2(mmHg) and absolute temperature of T_2

Here air volume(㎥/min) has allowable range ±5% at propose pressure (KS B 6351)

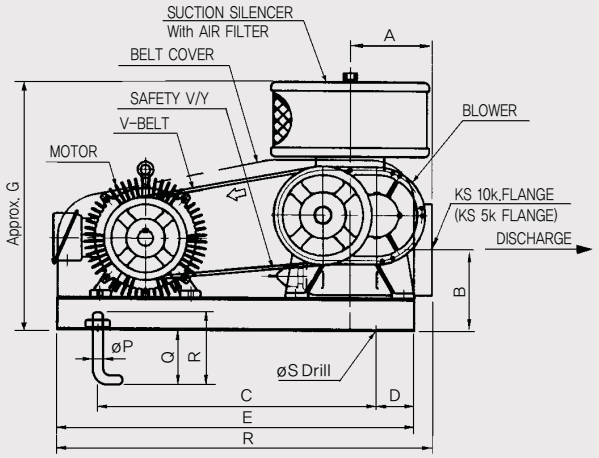
KFM Millenium Blower & Vacuum Pump Performance Table

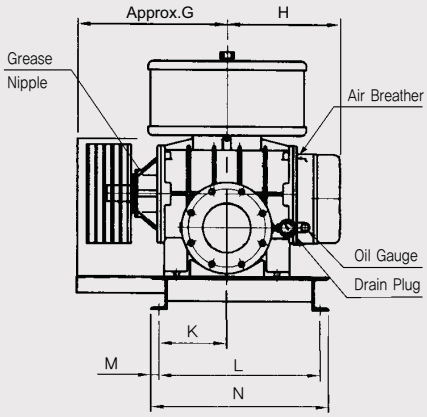
Blower Type (Discharge in mm)	Speed (rpm)	Suction air volume Qs (m³/min) and required Shaft Power La (kW)												Moter
		0.1kg/cm² (9.8kPa)		0.2kg/cm² (29.4kPa)		0.3kg/cm² (29.4kPa)		0.4kg/cm² (39.2kPa)		0.5kg/cm² (49.0kPa)		0.6kg/cm² (58.8kPa)		
		Qs	La	Qs	La	Qs	La	Qs	La	Qs	La	Qs	La	Lm
SL 050 (50)	1240	1.46	0.74	1.26	1.07	1.12	1.37	0.99	1.68	0.86	2.02	0.72	2.32	
	1450	1.79	0.87	1.58	1.23	1.42	1.58	1.27	1.94	1.12	2.31	1.00	2.68	1.1kw
	1750	2.25	1.02	2.03	1.48	1.87	1.95	1.72	2.41	1.57	2.88	1.45	3.34	1.5kw
	2100	2.84	1.24	2.58	1.82	2.40	2.39	2.23	2.98	2.05	3.57	1.91	4.16	
SL 065 (65)	1240	1.90	0.97	1.66	1.36	1.46	1.70	1.27	2.06	1.12	2.39	0.96	2.63	
	1450	2.35	1.10	2.08	1.57	1.84	1.98	1.63	2.44	1.46	2.86	1.34	3.36	2.2kw
	1750	3.04	1.35	2.70	1.93	2.46	2.51	2.25	3.19	2.07	3.85	1.92	4.60	
	2100	3.81	1.62	3.40	2.32	3.11	3.03	2.86	3.87	2.64	4.68	2.48	5.65	3.7kw
SL/HL 080 (80)	1150	3.72	1.45	3.31	2.16	2.96	2.74	2.67	3.31	2.37	3.76	2.14	4.19	
	1450	5.09	1.79	4.68	2.75	4.33	3.60	4.04	4.50	3.75	5.36	3.52	6.20	5.5kw
	1750	6.46	2.09	6.05	3.27	5.70	4.36	5.41	5.55	5.12	6.73	4.88	7.91	
	2100	8.14	2.51	7.64	3.94	7.22	5.27	6.88	6.71	6.53	8.17	6.24	9.63	7.5kw
SL/HL 100 (100)	1150	5.01	1.82	4.60	2.82	4.25	3.73	3.94	4.73	3.67	5.73	3.43	6.73	
	1450	6.71	2.18	6.31	3.45	5.96	4.64	5.65	5.82	5.37	7.09	5.13	8.36	11kw
	1750	8.41	2.55	8.01	4.09	7.66	5.64	7.35	7.14	7.07	8.64	6.83	10.18	
	2100	10.57	3.05	10.09	4.91	9.67	6.78	9.30	8.69	8.96	10.43	8.67	12.31	15kw
SL/HL 125 (125)	1180	8.22	2.59	7.74	4.17	7.31	5.75	6.94	7.33	6.70	8.92	6.40	10.50	
	1470	10.78	3.32	10.27	5.38	9.89	7.44	9.51	9.51	9.19	11.63	8.94	13.96	
	1750	13.13	3.98	12.63	6.43	12.26	8.88	11.88	11.33	11.57	13.98	11.32	16.63	
	1960	15.16	4.45	14.65	7.19	14.29	9.99	13.92	12.81	13.62	15.88	13.39	18.93	19kw
SL/HL 125L (125L)	1180	13.29	3.90	12.50	6.27	11.81	8.65	11.22	11.02	10.83	13.40	10.33	15.77	
	1470	17.23	4.89	16.42	7.92	15.82	10.95	15.21	13.98	14.70	17.11	14.29	20.53	
	1750	21.00	5.85	20.20	9.45	19.60	13.06	19.00	16.67	18.50	20.57	18.10	24.46	
	1960	23.99	6.55	23.19	10.59	22.61	14.70	22.02	18.85	21.55	23.37	21.18	27.93	
SL/HL 150 (150)	1180	16.13	4.51	15.31	7.39	14.57	10.29	14.05	13.26	13.53	16.15	13.01	18.77	
	1470	20.56	5.61	19.75	9.31	19.09	13.04	18.58	16.91	18.07	20.78	17.45	24.30	22kw
	1750	24.95	6.71	24.17	11.16	23.52	15.74	23.02	20.53	22.52	25.12	22.01	29.43	30kw
	1960	28.65	7.48	27.82	12.47	27.13	17.63	26.61	23.04	26.10	28.27	25.64	33.29	
SL/HL 150L (150L)	1180	22.27	6.07	21.14	10.06	20.11	14.16	19.39	18.41	18.67	22.59	17.96	26.72	
	1470	28.39	7.67	27.27	12.67	26.36	17.84	25.65	23.32	24.94	28.60	24.33	34.06	
	1750	34.80	9.17	33.70	15.41	32.80	21.69	32.10	28.38	31.40	34.88	30.70	41.29	
	1960	39.95	10.22	38.80	17.23	37.84	24.30	37.101	31.85	36.40	39.25	35.76	46.70	
SL/HL 200 (200)	730	21.57	6.02	20.94	10.14	20.29	14.48	19.68	18.83	19.08	22.84	18.48	26.74	
	880	26.52	7.11	25.78	12.22	25.14	17.46	24.43	22.70	23.87	27.53	23.44	32.23	37kw
	1100	34.24	8.82	33.40	15.18	32.63	21.98	31.93	28.56	31.24	34.70	30.84	40.98	45kw
	1470	47.85	11.71	46.98	20.36	45.87	29.27	44.99	38.12	44.42	46.57	43.84	55.38	
SL/HL 250 (250)	800	36.82	9.75	35.86	16.43	34.81	23.47	33.95	30.51	33.09	37.01	32.23	43.33	
	960	44.63	11.70	43.47	19.72	42.28	28.17	41.35	36.61	40.43	44.41	39.53	52.00	
	1150	54.58	13.84	53.29	23.70	52.06	34.23	50.95	44.34	49.54	53.61	48.60	63.01	55kw
	1350	64.99	15.90	63.61	27.52	62.29	39.74	61.10	51.77	60.62	63.18	59.18	74.98	75kw
SL/HL 300 (300)	800	74.64	20.81	71.85	30.73	69.81	44.04	67.88	57.36	66.26	70.67	64.65	84.15	
	960	91.31	24.37	88.39	36.98	86.23	53.40	84.35	69.87	82.61	86.15	80.78	102.14	90kw
	1150	110.48	29.20	107.47	44.52	105.15	64.48	103.07	84.53	101.13	104.43	99.5	124.5	110kw
	1350	130.99	34.27	128.05	52.52	125.29	76.06	123.17	100.01	121.21	123.98	119.7	148.4	132kw

Blower Type (Discharge in mm)	Speed (rpm)	−1000mmAq		−2000mmAq		−3000mmAq		−4000mmAq		Moter
		Qs	La	Qs	La	Qs	La	Qs	La	Lm
SL 050V	1240	1.36	0.93	1.09	1.01	0.79	1.49	0.52	2.00	
	1450	1.74	1.00	1.45	1.40	1.14	1.80	0.68	2.30	1.1kw
	1750	2.25	1.10	1.95	1.56	1.65	2.00	1.40	2.55	1.5kw
	2100	2.85	1.22	2.55	2.24	2.24	2.66	1.92	3.20	
SL 065V	1240	1.88	1.06	1.42	1.59	1.01	1.84	0.86	2.20	2.2kw
	1450	2.35	1.20	1.90	1.80	1.49	2.30	1.33	2.70	
	1750	3.04	1.40	2.57	2.10	2.16	2.80	2.01	3.40	3.7kw
	2100	3.92	1.61	3.48	2.42	3.10	3.40	2.95	4.25	
HL 080V SL 080V	1150	3.72	1.70	3.13	2.70	2.53	3.60	2.06	4.46	5.5kw
	1450	5.14	1.98	4.58	3.12	3.96	4.21	3.51	5.24	
	1750	6.46	2.30	5.88	3.60	5.20	4.90	4.73	6.10	7.5kw
	2100	8.01	2.67	7.42	4.16	6.69	5.69	6.21	7.10	
HL 100V SL 100V	1150	5.01	2.00	4.43	2.59	3.81	4.10	3.33	5.20	11kw
	1450	6.76	2.39	6.20	3.05	5.60	5.13	5.13	6.50	
	1750	8.41	2.80	7.83	3.60	7.21	6.20	6.73	7.90	15kw
	2100	10.40	3.29	9.75	4.27	9.11	7.41	8.62	9.42	
HL 125V SL 125V	1180	8.57	2.67	7.76	4.31	7.11	5.95	6.55	7.61	
	1470	11.06	3.29	10.50	5.28	9.82	7.28	9.29	9.32	
	1750	13.43	3.90	13.17	6.20	12.47	8.57	11.96	10.94	
	1960	15.20	4.33	15.04	6.89	14.30	9.52	13.81	12.18	19kw
SL 125LV HL 125LV	1180	13.0	4.1	11.8	6.6	10.8	9.1	9.9	11.6	
	1470	17.0	5.0	15.9	8.1	14.8	11.2	14.0	14.4	
	1750	21.0	6.0	20.6	9.7	19.5	13.4	18.7	18.7	
HL 150V SL 150V	1180	16.30	4.49	15.12	7.44	14.04	10.46	13.08	13.57	22kw
	1470	20.93	5.77	19.76	9.64	18.71	13.58	17.71	17.39	30kw
	1750	25.46	7.17	24.29	11.93	23.27	16.83	22.24	21.22	
	1960	28.73	8.13	27.55	13.34	26.55	18.83	25.48	23.83	
SL 150LV HL 150LV	1180	21.7	6.1	20.1	10.1	18.6	14.2	17.3	18.2	
	1470	28.0	7.5	26.4	12.5	25.0	17.6	23.6	23.0	
	1750	34.8	9.8	33.2	16.3	31.8	23.0	30.4	29.0	
HL 200V SL 200V	730	23.49	6.03	22.48	11.44	21.70	15.06	20.81	19.11	
	880	28.41	6.99	27.60	11.41	26.09	16.79	25.13	22.22	37kw
	1100	36.03	8.45	35.03	12.91	33.37	21.79	32.26	28.13	45kw
	1470	48.98	11.41	47.74	20.56	45.31	29.32	44.07	38.25	
HL 250V SL 250V	800	36.55	8.56	35.48	15.41	33.55	22.26	32.31	29.10	
	960	44.46	10.61	43.26	18.91	41.18	27.21	39.80	35.51	
	1150	54.19	13.07	52.67	22.62	50.14	32.50	48.73	42.50	55kw
	1350	64.25	15.63	62.81	25.65	59.63	38.29	58.09	50.08	75kw
HL 300V SL 300V	800	78.55	18.35	78.08	33.29	71.89	47.56	69.31	62.51	90kw
	960	94.99	21.74	90.78	38.73	87.31	55.72	84.60	73.38	110kw
	1150	114.49	25.82	108.99	44.85	105.32	65.23	102.47	86.29	132kw
	1350	134.64	30.32	127.36	52.31	123.19	75.81	129.93	100.07	175kw

- Qs is air volume at suction status (pressure 760mmHg, temperature 20℃, relative) humidity is 75% and specific weight is 1.2kg/m³
- The actual using motor output is to be prepared blower shaft power of La×(1.1~1.2)
- The tolerance on all air volume ±5% as per KS B 6351
- The air volume or pressure which is not in the performance table can be settled by the control of rpm

HL, SL-Type Outline Drawing



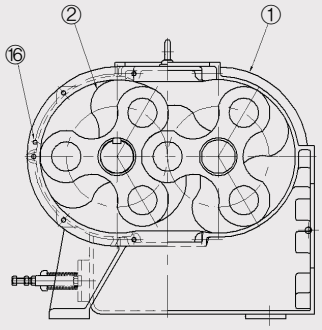


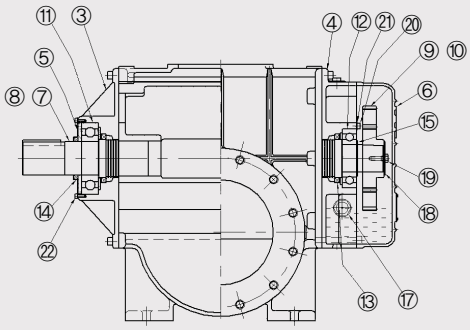
(unit : mm)

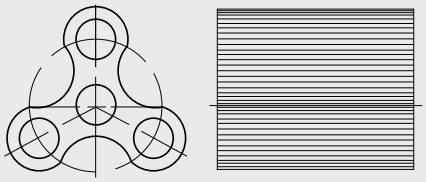
TYPE \ DIM	A	B	C	D	E	F	G	H	J	K	L	M	N	øP	Q	R	øS
SL 050	135	160	450	100	650	680	410	210	160	120	260	20	300	12	215	250	14
SL 065	135	160	450	100	650	680	430	230	180	145	260	20	300	12	215	250	14
SL/HL 080	175	190	550	100	750	775	520	245	215	125	280	20	320	16	260	300	18
SL/HL 100	175	190	600	100	800	825	540	280	230	120	400	20	440	16	260	300	18
SL/HL 125	205	235	650	100	850	900	635	350	260	120	370	25	420	16	260	300	18
SL/HL 125L	255	235	750	100	950	1005	705	360	275	135	430	25	480	16	260	300	18
SL/HL 150	255	250	750	100	950	1005	765	380	300	165	430	25	480	16	260	300	18
SL/HL 150L	255	250	850	125	1100	1155	765	465	350	210	500	25	550	16	260	300	18
SL/HL 200	310	300	950	125	1200	1235	950	505	370	245	500	30	560	20	250	300	23
SL/HL 250	350	360	1100	200	1500	1565	1120	600	416	325	580	35	650	20	250	300	23
SL/HL 300	460	415	1300	200	1800	1875	1405	630	550	365	630	35	700	20	250	300	23

• Weight of blower and standard accessories not including motor. See the table above for the motor weight.

HL, SL-Type Sectional Drawing







SPUR TYPE ROTOR ("S" TYPE)

MARK	DESCRIPTION	Q'TY	MARK	DESCRIPTION	Q'TY
1	CASING	1	12	BEARING	3
2	ROTOR	2	13	OIL SEAL	2
3	SIDE COVER(P/S)	1	14	Z SEAL	1
4	SIDE COVER(G/S)	1	15	SNAP RING	2
5	BEARING COVER	2	16	TAPER PIN	4
6	GEAR COVER	1	17	OIL LEVEL GAUGE	1
7	DRIVING SHAFT	1	18	PLANE WASHER	2
8	DIVEN SHAFT	1	19	HEXAGON BOLT	2
9	DRIVING GEAR	1	20	HOLLOW HEX BOLT	4
10	DRIVEN GEAR	1	21	PLANE WASHER	4
11	BEARING	1	22	HOLLOW HEX BOLT	4

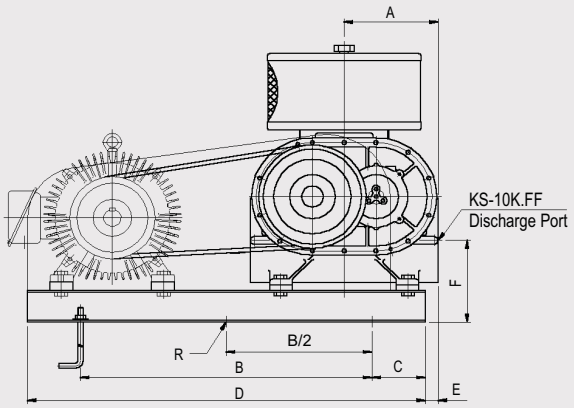
KFM Special Rotary Blower Performance Table

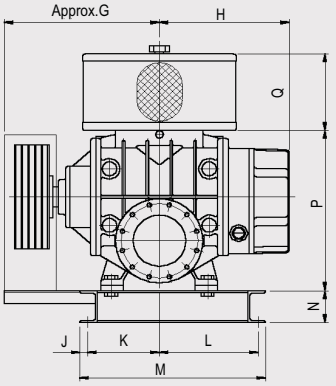
HT, ST-Type Blower Performance Table

BORE SIZE (mm)	SPEED (rpm)	Suction air volume Qs (㎥/min) & required Shaft Power La(kW) at Each Discharge Pressure																						Cooling Water (ℓ /min)
		0.1kg/㎠		0.2kg/㎠		0.3kg/㎠		0.4kg/㎠		0.5kg/㎠		0.6kg/㎠		0.7kg/㎠		0.8kg/㎠		0.9kg/㎠		1.0kg/㎠		1.1kg/㎠		1.2kg/㎠		
		Qs	La	Qs	La	Qs	La	Qs	La	Qs	La	Qs	La	Qs	La	Qs	La	Qs	La	Qs	La	Qs	La	Qs	La	
080	1150	3.72	1.91	3.31	2.36	2.96	2.99	2.67	3.70	2.39	4.31	2.16	4.89	1.94	5.44	1.76	6.08	1.60	6.62	1.45	7.15	1.29	7.65	1.16	8.18	6
	1300	4.40	2.13	4.00	2.67	3.64	3.46	3.35	4.33	3.06	5.13	2.82	5.85	2.62	6.66	2.44	7.50	2.30	8.38	2.13	9.10	1.97	9.94	1.86	11.11	
	1450	5.09	2.32	4.68	2.95	4.33	3.89	4.04	4.89	3.75	5.85	3.54	6.84	3.34	7.87	3.16	8.87	2.99	9.99	2.85	11.07	2.72	12.29	2.62	13.57	
	1500	5.30	2.38	4.88	3.04	4.52	4.03	4.21	5.02	3.91	6.02	3.68	7.04	3.49	8.12	3.31	9.15	3.14	10.32	2.99	11.43	2.85	12.65	2.74	13.97	
	1750	6.46	2.69	6.05	3.54	5.70	4.76	5.41	6.06	5.13	7.24	4.88	8.40	4.70	9.72	4.51	11.02	4.32	12.33	4.15	13.62	4.00	15.12	3.84	16.60	
	2040	7.84	3.02	7.37	4.03	6.95	5.35	6.63	6.85	6.29	8.19	5.99	9.55	5.74	10.89	5.54	12.49	5.32	13.88	5.12	15.38	4.95	16.94	4.76	18.62	
100	1150	5.01	2.33	4.60	3.10	4.25	4.07	3.94	5.14	3.67	6.22	3.43	7.29	3.22	8.38	3.03	9.60	2.85	10.67	2.67	11.70	2.50	12.87	2.35	14.28	8
	1450	6.71	2.73	6.31	3.82	5.98	5.12	5.65	6.49	5.37	7.84	5.12	9.23	4.90	10.65	4.70	12.03	4.50	13.37	4.34	15.02	4.16	16.66	4.02	18.48	
	1500	7.00	2.81	6.58	3.91	6.23	5.28	5.89	6.69	5.60	8.07	5.36	9.56	5.12	10.95	4.93	12.47	4.73	13.86	4.55	15.49	4.35	17.10	4.21	18.99	
	1750	8.41	3.20	8.01	4.47	7.66	6.10	7.33	7.76	7.00	9.40	6.72	11.05	6.44	12.73	6.17	14.39	5.94	16.12	5.70	17.84	5.51	19.84	5.34	21.73	
	2040	10.11	3.61	9.66	5.02	9.28	6.86	8.93	8.74	8.59	10.61	8.24	12.44	7.89	14.28	7.60	16.05	7.31	17.86	7.03	19.70	6.80	21.75	6.61	23.77	
125	1180	13.4	4.7	12.6	6.8	11.9	9.3	11.4	11.8	10.9	14.4	10.5	17.0	10.1	19.6	9.8	22.3	9.5	25.2	9.3	28.1	9.1	31.1	8.8	34.2	10
	1470	17.2	5.9	16.5	8.5	15.9	11.6	15.3	14.9	14.8	18.2	14.4	21.4	14.0	24.8	13.7	28.3	13.4	31.8	13.1	35.4	12.8	38.8	12.5	42.7	
	1750	21.0	7.0	20.3	9.9	19.7	13.6	19.1	17.5	18.6	21.4	18.2	25.2	17.8	29.1	17.5	33.1	17.2	37.3	16.9	41.5	16.6	45.8	16.4	50.1	
	1940	23.7	7.6	23.1	10.8	22.6	14.9	22.0	19.2	21.6	23.6	21.2	27.9	20.8	32.4	20.5	36.8	20.2	41.4	19.9	46.0	19.6	50.9	19.4	55.6	
150	1180	22.3	7.3	21.3	10.9	20.5	14.7	19.8	19.0	19.1	23.4	18.4	27.6	17.9	32.1	17.3	36.3	16.7	40.2	16.2	44.3	15.7	48.7	15.2	53.1	13
	1470	28.6	8.9	27.5	13.3	26.6	18.2	25.8	23.5	25.2	28.9	24.5	34.0	23.9	39.3	23.3	44.4	22.8	50.0	22.3	55.2	21.7	60.1	21.2	65.7	
	1750	34.9	10.4	33.8	15.6	32.8	21.3	32.0	27.5	31.3	33.9	30.8	40.2	30.2	46.3	29.6	52.3	29.0	58.6	28.4	64.8	27.9	71.2	27.4	77.3	
	1940	39.3	11.3	38.4	16.9	37.5	23.4	36.8	30.3	36.1	37.2	35.5	44.1	34.9	51.0	34.4	57.7	33.9	65.0	33.5	72.0	33.0	79.3	32.6	86.8	
200	880	41.3	11.4	39.6	19.1	38.3	26.4	37.3	34.1	36.3	41.7	35.5	49.6	34.6	57.4	33.8	65.6	33.0	73.9	32.3	82.5	31.5	91.9	30.7	101.6	16
	970	45.9	12.4	44.4	20.7	43.2	29.0	42.2	37.6	41.1	45.9	40.2	54.6	39.2	63.3	38.5	72.3	37.6	81.6	36.9	91.2	36.1	101.2	35.3	112.2	
	1100	52.9	14.1	51.5	23.2	50.2	32.5	49.1	42.5	48.1	52.3	47.1	62.0	46.1	71.9	45.1	81.6	44.3	92.4	43.4	102.7	42.6	114.2	41.8	126.4	
	1180	57.1	15.1	55.5	24.8	54.2	34.8	53.0	45.5	51.9	56.0	50.9	66.4	49.8	77.0	48.8	87.6	48.0	99.1	47.0	110.3	46.1	122.5	45.3	135.7	
	1470	72.4	18.4	70.3	30.8	68.7	43.4	67.2	56.5	66.0	69.9	64.8	83.1	63.7	96.3	62.6	109.5	61.5	123.0	60.6	137.6	59.6	153.0	58.5	168.7	
	1750	87.3	21.6	85.0	36.5	83.2	51.7	81.6	67.5	80.3	83.3	79.1	99.0	77.8	115.1	76.7	131.0	75.4	146.6	74.3	163.5	73.4	181.0	72.4	199.9	
250	880	85.0	23.0	83.0	37.0	80.9	52.4	79.1	68.8	77.6	85.0	76.10	100.5	74.8	116.3	73.5	132.0	72.2	148.0	70.9	163.0	69.6	178.2	68.3	194.0	18
	980	96.1	25.5	93.8	41.0	91.8	58.5	89.9	76.7	88.3	94.7	86.8	112.0	85.4	129.5	84.1	147.0	82.8	164.0	81.5	181.0	80.3	198.0	78.9	214.6	
	1150	115.1	29.9	112.1	48.3	109.6	68.9	107.5	90.4	105.5	111.0	103.8	131.3	102.2	151.5	100.7	171.1	99.2	190.9	97.8	210.0	96.3	229.0	94.7	247.5	
	1280	129.9	33.1	126.9	54.1	124.1	77.0	122.2	100.8	120.3	123.7	118.4	146.0	116.4	167.8	114.7	189.1	113.2	210.5	111.8	232.2	110.2	253.0	108.8	274.5	
300	730	102.2	28.7	99.8	44.7	97.2	63.1	94.8	82.8	92.9	102.7	91.2	122.6	89.5	141.9	87.8	161.4	86.3	181.5	84.9	202.6	83.3	223.7	81.9	245.7	20
	800	114.0	30.6	111.4	48.6	108.7	68.9	105.9	90.1	103.9	111.9	101.9	133.2	100.3	154.4	98.7	175.7	97.1	197.7	95.9	220.2	94.5	244.3	93.1	268.4	
	880	126.8	33.6	123.8	52.7	121.1	75.1	118.4	98.1	116.1	121.9	114.1	145.0	112.5	168.8	111.1	192.2	109.6	216.2	108.1	240.3	106.7	265.7	105.3	291.0	
	980	142.7	37.2	139.4	57.9	136.9	82.3	134.4	108.3	132.1	134.3	130.2	160.2	128.3	186.4	126.6	213.1	125.1	239.1	123.6	265.9	122.2	293.6	120.8	320.3	
	1150	171.6	43.4	167.6	67.3	164.4	96.6	161.9	127.2	159.4	157.3	157.2	187.1	155.1	216.2	153.5	246.4	151.7	276.2	150.0	306.1	148.6	336.8	147.3	368.5	
350	580	172.6	52.4	168.6	75.9	165.5	107.6	162.6	141.0	159.3	173.4	156.0	205.9	153.2	237.1	150.5	269.2	148.2	301.7	145.9	335.8	143.7	370.7	141.2	406.1	25
	650	198.9	58.2	194.3	84.5	190.4	119.5	186.7	155.5	183.7	191.9	180.4	226.9	177.4	261.7	175.1	298.3	172.8	334.0	170.5	370.8	168.2	409.6	165.6	448.8	
	700	221.7	62.6	215.2	90.8	210.2	128.7	206.8	168.8	203.5	207.2	200.5	245.7	198.3	284.7	195.3	322.2	193.3	362.6	190.6	400.5	188.6	440.6	186.6	481.6	
	750	242.3	66.3	236.2	97.0	230.3	137.7	226.3	180.0	222.6	220.9	219.7	262.5	217.0	303.9	214.3	344.5	211.4	385.0	209.8	428.3	207.6	469.8	206.0	511.8	
	800	263.6	70.1	256.8	102.7	251.1	146.2	246.8	191.2	242.8	235.3	239.1	278.2	236.3	321.3	233.7	365.0	231.2	408.7	228.6	451.1	226.3	493.8	225.2	539.1	
400	580	192.3	57.3	188.7	82.6	184.9	114.0	181.1	149.2	177.2	184.9	173.6	220.1	170.0	254.3	166.9	288.2	163.7	320.9	160.8	354.5	158.1	388.8	155.2	423.1	35
	650	221.8	63.7	217.3	92.3	213.0	129.2	209.2	170.0	204.9	209.9	201.7	250.1	198.1	288.8	194.8	325.8	191.1	363.4	187.8	399.3	185.3	437.4	182.0	474.8	
	700	244.3	67.7	239.2	98.9	234.0	138.9	230.5	184.0	226.7	227.7	223.1	270.7	219.3	312.6	215.5	352.0	212.3	391.5	209.8	430.5	206.3	468.4	203.3	507.7	
	750	267.0	71.8	261.6	106.0	256.2	149.1	251.7	196.7	247.9	244.2	244.0	290.4	240.2	334.2	236.5	377.2	232.7	418.5	229.8	460.6	226.6	502.0	223.7	544.2	
	800	290.4	75.9	283.9	113.1	278.4	158.9	274.3	210.1	269.3	259.8	264.6	306.9	260.6	353.4	257.5	400.2	253.8	444.0	251.0	488.0	247.9	531.2	244.6	573.1	
500	580	290.2	84.9	284.3	121.0	278.3	169.3	273.0	221.8	267.4	275.0	262.5	328.0	257.9	379.8	252.9	429.8	248.3	478.6	243.7	528.0	238.8	576.7	234.5	627.4	40
	600	305.7	88.6	299.5	126.8	294.1	177.6	288.3	232.5	283.1	289.0	278.4	345.2	273.3	399.3	268.5	452.6	263.7	504.0	259.3	556.9	254.5	609.3	249.4	662.4	
	650	337.8	95.0	330.0	136.5	323.7	191.4	317.5	250.8	311.9	310.8	306.7	369.8	301.9	429.3	297.5	486.7	292.7	543.3	288.3	598.8	283.5	654.5	278.7	711.6	
	700	372.1	101.1	361.8	146.6	354.7	206.2	348.1	269.8	342.3	333.5	337.1	397.7	330.7	459.1	325.6	519.6	320.8	580.6	316.0	640.6	311.6	700.5	307.7	760.3	
	750	407.2	107.3	395.7	156.3	386.8	220.0	379.9	288.0	373.5	354.6	367.6	421.6	361.6	487.6	356.1	552.4	350.9	616.8	345.8	680.3	341.6	745.6	337.3	808.9	

- The tolerance on all air volume is ±5% as per KS B 6351.
- The air volume or pressure which is not in the performance table can be settled by the control of R.P.M.
- You could select as back-flow cooling type in the range of color
- The frequently used R.P.M of each bore size is expressed by the color of

HT, ST-Type Blower Outline Drawing



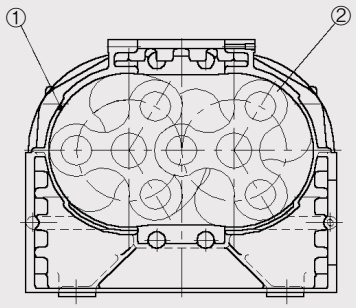


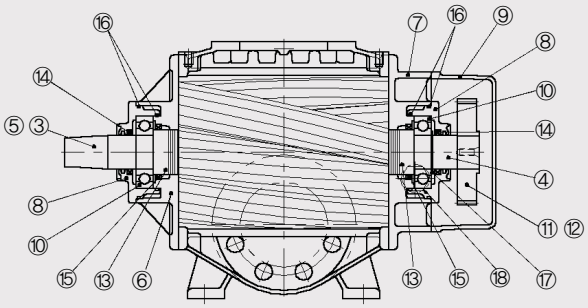
(unit : mm)

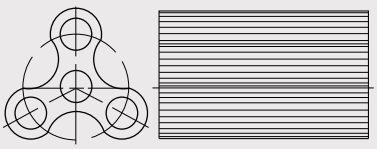
TYPE \ DIM	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R
ST,HT 080	190	600	150	900	20	220	350	240	20	135	125	400	75	375	188	4-ϕ18
ST,HT 100	190	600	150	900	20	230	375	265	20	170	230	440	75	400	188	4-ϕ18
ST,HT 125	255	800	200	1200	55	275	430	325	25	195	245	490	100	495	255	4-ϕ18
ST,HT 150	255	800	200	1200	55	275	530	405	25	235	205	490	100	520	255	4-ϕ18
ST,HT 200	355	1050	250	1550	55	320	650	480	30	270	370	700	125	625	355	4-ϕ23
ST,HT 250	470	1400	200	1800	120	385	800	570	35	405	325	800	150	840	472	6-ϕ23
ST 300	520	1600	200	2000	65	480	860	670	40	390	370	800	200	950	530	6-ϕ23
ST 350	355	2200	200	2600	130	490	920	790	40	450	470	1000	200	1080	–	6-ϕ23
ST 400	470	2500	250	3000	80	550	1000	860	45	580	630	1300	250	1190	–	6-ϕ23
ST 500	520	2500	250	3000	80	600	1250	950	45	620	690	1400	250	1190	–	6-ϕ23

• The dimension of this catalog may be changed without prior notice in order to improve the performance of the product.

HT, ST-Type Blower Sectional Drawing







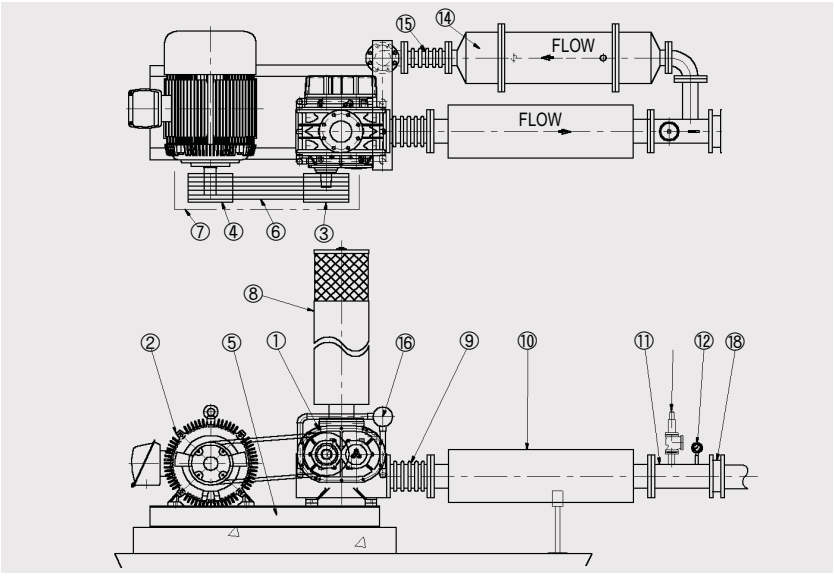
SPUR TYPE ROTOR ("S" TYPE)

No.	DESCRIPTION	MAT'L	Q'TY	No.	DESCRIPTION	MAT'L	Q'TY
1	CASING	GC200	1	10	BALL BEARING	STB	4
2	ROTOR	GC200	2	11	DRIVING GEAR	SCM415	1
3	DRIVING SHAFT	SM45C	1	12	DRIVEN GEAR	SCM415	1
4	DRIVEN SHAFT(G/S)	SM45C	2	13	LABYRINTH	SM45C	4
5	DRIVEN SHAFT(P/S)	SM45C	1	14	OIL SEAL	NBR	3
6	SIDE COVER(P/S)	GC200	1	15	OIL SEAL	NBR	4
7	SIDE COVER(G/S)	GC200	1	16	O-RING	RUBBER	8
8	BEARING CASE	GC200	4	17	SNAP RING	SK5	2
9	GEAR COVER	GC200	1	18	OIL LEVEL GAUGE	ACRYL	1

Back Flow Cooling Type Blower Performance Table

BORE SIZE (mm)	SPEED (rpm)	Suction Air Volume Qs(m³/min) & Required Shaft Power La(kW)at Each Discharge Pressure												Cooling Water (ℓ /min)
		0.9kg/cm²		1.0kg/cm²		1.1kg/cm²		1.2kg/cm²		1.3kg/cm²		1.4kg/cm²		
		Qs	La	Qs	La	Qs	La	Qs	La	Qs	La	Qs	La	
ST080BF	1150	1.60	6.62	1.45	7.15	1.29	7.65	1.16	8.18	1.07	9.09	0.97	9.97	6
	1300	2.30	8.38	2.13	9.10	1.97	9.94	1.86	11.11	1.74	12.28	1.63	13.62	
	1450	2.99	9.99	2.85	11.07	2.72	12.29	2.62	13.57	2.51	15.15	2.41	16.93	
	1500	3.14	10.32	2.99	11.43	2.85	12.65	2.74	13.97	2.63	15.53	2.53	17.24	
	1750	4.32	12.33	4.15	13.62	4.00	15.12	3.84	16.60	3.71	18.22	3.61	20.12	
ST100BF	1150	2.85	10.67	2.67	11.70	2.50	12.87	2.35	14.28	2.22	15.94	2.11	17.93	8
	1300	3.66	12.22	3.51	13.64	3.34	15.15	3.19	16.57	3.03	18.33	2.92	20.45	
	1450	4.50	13.37	4.34	15.02	4.16	16.66	4.02	18.48	3.89	20.29	3.78	22.34	
	1500	4.73	13.86	4.55	15.49	4.35	17.10	4.21	18.99	4.08	20.98	3.96	23.16	
	1750	5.94	16.12	5.70	17.84	5.51	19.84	5.34	21.73	5.18	23.71	5.04	26.19	
ST125BF	1180	9.5	25.2	9.3	28.1	9.1	31.1	8.8	34.2	8.64	37.4	8.4	41.3	10
	1470	13.4	31.8	13.1	35.4	12.8	38.8	12.5	42.7	12.29	46.5	12.1	50.3	
	1750	17.2	37.3	16.9	41.5	16.6	45.8	16.4	50.1	16.09	54.6	15.9	59.0	
ST150BF	1180	16.7	40.2	16.2	44.3	15.7	48.7	15.2	53.1	14.8	57.8	14.5	62.3	13
	1470	22.8	50.0	22.3	55.2	21.7	60.1	21.2	65.7	20.7	71.5	20.3	77.4	
	1750	29.0	58.6	28.04	64.8	27.9	71.2	27.4	77.3	26.9	83.7	26.5	90.4	
ST200BF HT200BF (250S)	880	33.0	73.9	32.3	82.5	31.5	91.9	30.7	101.6	29.9	112.5	29.2	123.8	16
	970	37.6	81.6	36.9	91.2	36.1	101.2	35.3	112.2	34.5	123.8	33.7	135.5	
	1180	48.0	99.1	47.0	110.3	46.1	122.5	45.3	135.7	44.4	149.3	43.6	164.1	
	1470	61.5	123.0	60.6	137.6	59.6	153.0	58.5	168.7	57.7	185.3	56.8	203.8	
	1750	75.4	146.6	74.3	163.5	73.4	181.1	72.4	199.9	71.3	218.5	70.2	238.8	
ST250BF	880	72.7	148.0	70.9	163.0	69.6	178.2	68.3	194.0	67.0	209.6	65.7	225.2	18
	980	82.8	164.0	81.5	181.0	80.3	198.0	78.9	214.6	77.5	231.8	76.4	249.8	
	1150	99.2	190.9	97.8	210.0	96.3	229.0	94.7	247.5	93.4	267.9	92.5	289.1	
	1280	113.2	210.5	111.8	232.2	110.2	253.0	108.8	274.5	107.9	297.3	106.7	319.0	
ST300BF	730	86.3	181.5	84.9	202.6	83.3	223.7	81.9	245.7	80.6	267.9	79.5	292.0	20
	880	109.6	216.2	108.1	240.3	106.7	265.7	105.3	291.0	104.2	316.4	103.2	343.1	
	980	125.1	239.1	123.6	265.9	122.2	293.6	120.8	320.3	119.7	349.1	118.7	377.5	
	1150	151.7	276.2	150.0	306.1	148.6	336.8	147.3	368.5	146.4	400.6	145.7	434.1	
	1210	163.0	286.9	161.6	318.5	160.1	349.5	159.0	381.9	157.9	411.5	156.7	442.7	
ST350BF	580	148.2	301.7	145.9	335.8	143.7	370.7	141.2	406.1	138.7	440.1	136.6	477.3	25
	650	172.8	334.0	170.5	370.8	168.2	409.6	165.6	448.8	163.5	487.9	161.5	526.9	
	700	193.3	362.6	190.6	400.5	188.6	440.6	186.6	481.6	184.8	523.2	182.8	565.2	
	750	211.4	385.0	209.8	428.3	207.6	469.8	206.0	511.8	204.7	557.1	203.4	601.5	
	800	231.2	408.7	228.6	451.1	226.3	493.8	225.2	539.1	223.2	582.8	221.8	628.6	
ST400BF	580	163.7	320.9	160.8	354.5	158.1	388.8	155.2	423.1	152.3	456.9	149.8	492.8	35
	650	191.1	363.4	187.8	399.3	185.3	437.4	182.0	474.8	179.2	513.9	176.7	553.5	
	700	212.3	391.5	209.3	430.5	206.3	468.4	203.3	507.7	200.3	548.1	198.2	590.3	
	750	232.7	418.5	229.8	460.6	226.6	502.0	223.7	544.2	220.8	586.3	218.1	628.1	
	800	253.8	444.0	251.0	488.0	247.9	531.2	244.6	573.1	241.7	616.5	239.5	659.5	
ST500BF	580	248.3	478.6	243.7	528.0	238.8	576.7	234.5	627.4	230.2	577.6	225.9	730.0	40
	600	263.7	504.0	259.3	556.9	254.5	609.3	249.4	662.4	244.9	715.6	240.5	771.1	
	650	292.7	543.3	288.3	598.8	283.5	654.5	278.7	711.6	274.2	769.2	269.8	829.3	
	700	320.8	580.6	316.0	640.6	311.6	700.5	307.7	760.3	303.3	821.0	300.1	887.5	
	750	350.9	616.8	345.8	680.3	341.6	745.6	337.3	808.9	333.9	873.3	330.5	935.1	

Back Flow Cooling Type Blower Outline Drawings

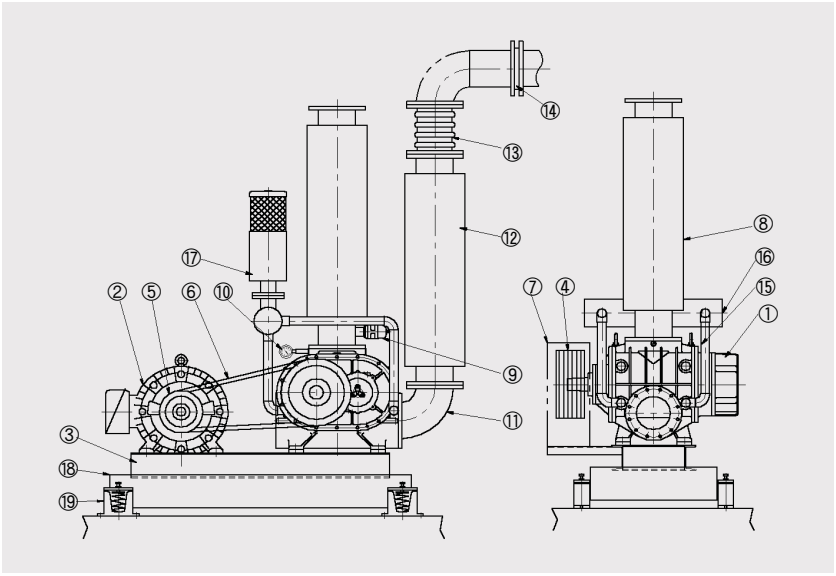


NO.	DESCRIPTION	Q'TY
1	BLOWER	1
2	MOTOR	1
3	BLOWER PULLEY	1
4	MOTOR PULLEY	1
5	BED	1
6	BELT	1SET
7	BELT COVER	1
8	SUCTION SILENCER	1
9	EXPANSION JOINT	1
10	DISCHARGE SILENCER	1
11	SHORT PIPE	1
12	PRESSURE GAUSE	1
13	SAFETY VALVE	1
14	INTER COOLER	1
15	EXPANSION JOINT	1
16	TERMINAL PIPE	1
17	ELBOW	2
18	CHECK VALVE	1

Back Flow Cooling Type Vacuum Pump Performance Table

BORE SIZE (mm)	SPEED (rpm)	Suction Air Volume Qs (m^3/min) & Required Shaft Power La (kW) at Each Vacuum										SPEED (rpm)	BORE SIZE (mm)
		-5000mmAq		-5500mmAq		-6000mmAq		-6500mmAq		-7000mmAq			
		Qs	La	Qs	La	Qs	La	Qs	La	Qs	La		
ST080VBF	1150 1300 1500 1750	2.08 2.66 3.51 4.63	5.07 5.57 6.56 7.72	1.88 2.46 3.33 4.38	5.57 6.14 7.22 8.53	1.68 2.24 3.09 4.11	5.97 6.65 7.70 9.21	1.48 2.05 2.87 3.87	6.46 7.24 8.44 9.86	1.29 1.81 2.66 3.59	6.94 7.72 9.27 10.46	1150 1300 1500 1750	080
ST100VBF	1150 1300 1500 1750	3.04 3.80 4.89 6.17	6.40 7.26 8.32 9.67	2.80 3.55 4.61 5.88	6.85 7.85 9.08 10.37	2.55 3.26 4.34 5.57	7.40 8.32 9.72 11.22	2.26 2.98 4.05 5.24	7.77 8.91 10.39 12.07	1.96 2.65 3.75 4.92	8.14 9.34 11.19 12.74	1150 1300 1500 1750	100
ST125VBF	1180 1470 1750	9.8 13.6 17.1	14.6 18.2 21.0	9.4 13.1 16.5	16.1 20.1 22.9	8.9 12.4 15.9	17.7 21.8 25.1	8.3 11.9 15.2	19.1 23.5 27.0	7.7 11.2 14.4	20.8 25.4 28.0	1180 1470 1750	125
ST150VBF	1180 1470 1750	17.0 22.9 28.9	23.5 29.4 35.1	16.2 22.1 28.0	26.2 32.7 38.9	15.3 21.2 27.2	29.3 36.2 43.2	14.4 20.2 26.4	32.6 39.8 47.6	13.5 19.2 25.4	36.8 43.7 52.4	1180 1470 1750	150
ST200VBF HT200VBF (250S)	880 970 1100 1180 1470 1750	36.6 41.5 48.1 52.0 66.7 81.2	42.9 47.5 53.6 57.0 70.5 83.9	35.5 40.5 47.2 51.0 65.3 79.8	45.8 50.9 57.7 61.3 75.7 90.1	34.2 39.3 46.2 50.0 63.8 78.0	48.2 54.0 61.7 65.3 80.3 95.6	32.8 37.8 44.8 48.5 62.1 75.8	50.2 56.1 64.6 68.5 84.3 99.5	31.2 36.1 43.2 46.7 60.4 73.9	51.5 57.5 66.7 70.7 87.8 103.0	880 970 1100 1180 1470 1750	200 (250)
ST250VBF	730 880 900 980 1150 1280	60.4 75.8 77.7 85.9 103.4 117.6	73.7 87.7 89.6 93.6 108.5 120.9	58.1 73.7 75.6 83.6 100.6 114.7	78.6 94.7 96.3 100.4 116.3 129.2	55.7 70.9 72.7 80.4 97.2 111.0	82.7 98.9 100.6 105.2 121.7 135.1	53.1 68.1 69.9 77.3 93.5 107.2	84.9 101.9 103.6 108.2 125.1 139.0	50.0 64.9 66.5 73.7 89.6 102.9	85.4 102.6 104.5 107.6 125.9 139.9	730 880 900 980 1150 1280	250
ST300VBF	730 800 880 960 1150 1210	89.8 100.7 113.2 125.2 154.4 163.4	104.5 113.7 123.8 132.4 157.7 165.3	86.6 97.6 110.0 121.5 150.2 159.2	111.3 121.4 133.1 140.9 167.8 176.6	82.9 94.1 106.0 117.1 145.0 153.7	116.7 128.6 139.4 147.7 175.2 184.1	79.0 90.1 101.9 112.6 139.8 148.2	120.2 132.3 144.8 152.3 180.2 189.7	74.5 85.8 97.1 107.4 134.0 142.2	121.4 135.2 147.1 154.1 182.2 191.5	730 800 880 960 1150 1210	300
ST350VBF	650 700 750 800	174.6 194.8 213.3 233.4	205.6 214.9 224.0 237.3	167.9 187.6 205.8 226.3	219.4 228.6 237.8 252.4	161.0 179.4 197.2 218.4	229.5 238.6 249.6 264.3	152.7 170.6 188.2 209.3	236.7 244.5 255.9 272.7	142.7 160.7 177.5 199.6	238.1 246.1 256.7 277.0	650 700 750 800	350
ST400VBF	580 650 700 750 800	168.7 195.4 215.0 235.3 257.5	209.0 220.5 228.5 238.1 250.5	162.2 188.0 207.1 227.1 249.7	223.2 235.1 243.1 253.3 267.4	155.4 180.5 198.2 218.4 241.1	234.4 246.7 253.0 263.9 279.2	147.3 171.4 188.7 208.5 231.1	241.5 252.2 259.5 271.2 288.1	137.7 160.6 177.8 196.3 220.6	243.0 252.8 261.3 272.0 291.7	580 650 700 750 800	400
ST500VBF	580 650 700 750	255.6 299.0 330.7 363.7	294.8 317.7 332.0 348.6	246.0 288.6 319.6 351.8	317.1 339.4 353.4 370.7	234.1 277.2 307.7 339.0	330.3 356.5 369.8 388.8	222.9 263.9 293.7 324.1	341.3 366.5 380.7 399.1	210.1 247.6 276.6 306.2	345.7 366.1 382.5 399.1	580 650 700 750	500

Back Flow Cooling Type Vacuum Pump Outline Drawings

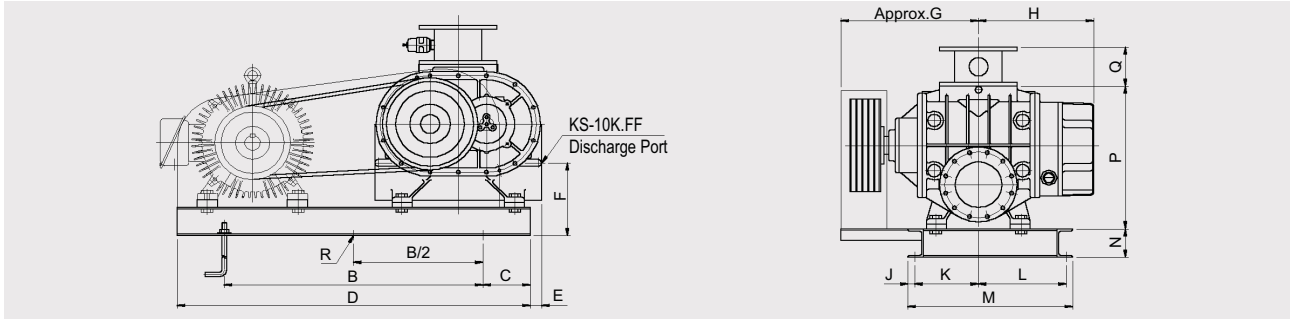


NO.	DESCRIPTION	Q'TY
1	BLOWER	1
2	MOTOR	1
3	BED	1
4	BLOWER PULLEY	1
5	MOTOR PULLEY	1
6	V-SELT	1SET
7	BELT COVER	1
8	SUCTION SILENCER	1
9	VACUUM BREAKER	1
10	VACUUM GAUGE	1
11	ELBOW	1
12	DISCHARGE SILENCER	1
13	EXPANSION JOINT	1
14	CHECK VALVE	1
15	BACK FLOW PIPING	1SET
16	SEPARATED EXHAUST PIPE	1
17	INTER-SILENCER	1
18	INERTIA BASE	1
19	SPRING MOUNT	1SET

KFM Rotary Vacuum Pump Performance Table

BORE SIZE (mm)	SPEED (rpm)	Suction Air Volume Qs(m³/min)&Required Shaft Power La(kw)at Each Vacuum																					
		−1000mmAq		−1500mmAq		−2000mmAq		−2500mmAq		−3000mmAq		−3500mmAq		−4000mmAq		−4500mmAq		−5000mmAq		−5500mmAq		−6000mmAq	
		Qs	La	Qs	La	Qs	La	Qs	La	Qs	La	Qs	La	Qs	La	Qs	La	Qs	La	Qs	La	Qs	La
080	1150	3.72	1.62	3.50	1.98	3.28	2.29	3.06	2.70	2.87	3.17	2.67	3.63	2.47	4.15	2.27	4.61	2.08	5.07	1.88	5.57	1.68	5.97
	1300	4.40	1.81	4.19	2.25	3.97	2.60	3.72	3.09	3.51	3.66	3.29	4.16	3.07	4.62	2.89	5.15	2.66	5.57	2.46	6.14	2.24	6.65
	1500	5.30	2.04	5.10	2.55	4.87	3.03	4.64	3.61	4.42	4.24	4.19	4.82	3.97	5.39	3.74	5.97	3.51	6.56	3.33	7.22	3.09	7.70
	1750	6.46	2.30	6.24	2.94	6.00	3.50	5.76	4.20	5.56	4.98	5.32	5.64	5.08	6.39	4.84	7.01	4.63	7.72	4.38	8.53	4.11	9.21
100	1150	5.01	2.00	4.75	2.52	4.50	2.96	4.23	3.47	3.98	4.02	3.73	4.61	3.48	5.19	3.24	5.77	3.04	6.40	2.80	6.85	2.55	7.40
	1300	5.86	2.20	5.59	2.78	5.32	3.30	5.08	3.90	4.81	4.56	4.58	5.27	4.33	5.93	4.07	6.60	3.80	7.26	3.55	7.85	3.26	8.32
	1500	7.00	2.47	6.76	3.19	6.48	3.80	6.21	4.50	5.95	5.27	5.68	6.05	5.42	6.86	5.14	7.54	4.89	8.32	4.61	9.08	4.34	9.72
	1750	8.41	2.81	8.16	3.71	7.89	4.48	7.61	5.34	7.31	6.23	7.05	7.12	6.77	7.97	6.48	8.82	6.17	9.67	5.88	10.37	5.57	11.22
125	1180	13.4	4.2	13.1	5.6	12.7	6.8	12.3	8.1	11.9	9.5	11.4	10.7	10.9	12.0	10.4	13.2	9.8	14.6	9.4	16.1	8.9	17.7
	1470	17.2	5.1	16.9	6.8	16.4	8.3	16.0	9.8	15.6	11.4	15.1	13.0	14.5	14.7	14.0	16.3	13.6	18.2	13.1	20.1	12.4	21.8
	1750	21.0	6.0	20.6	7.9	20.2	9.6	19.7	11.3	19.2	13.1	18.7	15.0	18.1	17.0	17.6	18.9	17.1	21.0	16.5	22.9	15.9	25.1
150	1180	22.3	6.2	21.7	8.4	21.1	10.4	20.5	12.4	19.8	14.5	19.1	16.7	18.4	18.9	17.7	21.1	17.0	23.5	16.2	26.2	15.3	29.3
	1470	28.6	7.7	27.9	10.5	27.2	13.0	26.5	15.7	25.9	18.4	25.1	21.2	24.4	23.8	23.6	26.6	22.9	29.4	22.1	32.7	21.2	36.2
	1750	34.9	9.1	34.3	12.5	33.5	15.6	32.8	18.7	32.0	21.9	31.2	25.0	30.5	28.2	29.7	31.6	28.9	35.1	28.0	38.9	27.2	43.2
200 (250S)	880	41.3	11.5	40.9	15.7	40.6	19.7	40.2	23.9	39.6	28.0	39.0	31.9	38.3	35.9	37.6	39.6	36.6	42.9	35.5	45.8	34.2	48.2
	970	45.9	12.6	45.8	17.2	45.4	21.7	44.9	26.2	44.4	30.8	43.8	35.3	43.1	39.6	42.3	43.7	41.5	47.5	40.5	50.9	39.3	54.0
	1100	52.9	14.1	52.6	19.3	52.2	24.4	51.7	29.5	51.1	34.7	50.5	39.8	49.7	44.6	49.0	49.3	48.1	53.6	47.2	57.7	46.2	61.7
	1180	57.1	15.0	56.7	20.5	56.3	25.9	55.8	31.3	55.2	36.8	54.4	42.2	53.7	47.3	52.9	52.3	52.0	57.0	51.0	61.3	50.0	65.3
	1470	72.4	18.4	71.9	25.2	71.5	31.9	71.0	38.7	70.2	45.5	69.6	52.3	68.8	58.7	67.7	64.8	66.7	70.5	65.3	75.7	63.8	80.3
250	730	68.5	17.5	67.8	24.0	67.1	30.5	66.4	37.7	65.7	45.5	64.9	53.2	63.6	60.3	62.1	67.5	60.4	73.7	58.1	78.6	55.7	82.7
	880	85.0	20.9	84.3	28.6	83.5	36.6	82.7	45.3	81.9	54.7	81.1	64.0	79.6	72.5	77.7	80.2	75.8	87.9	73.7	94.7	70.9	98.9
	900	87.1	21.4	86.4	29.2	85.6	37.3	84.8	46.4	84.0	55.8	83.0	65.2	81.6	73.8	79.6	81.7	77.7	89.6	75.6	96.3	72.7	100.6
	980	96.1	22.9	95.3	31.3	94.5	40.1	93.5	49.5	92.7	59.2	92.0	69.1	90.3	78.1	88.1	86.2	85.9	93.6	83.6	100.4	80.4	105.2
	1150	115.1	26.7	114.0	36.5	113.2	46.8	111.8	57.5	111.1	68.2	110.0	80.4	108.3	90.9	105.6	100.1	103.4	108.5	100.6	116.3	97.2	121.7
300	730	102.2	25.0	101.2	34.5	100.3	43.9	99.0	54.1	98.0	65.0	96.6	76.0	94.9	86.0	92.6	95.7	89.8	104.5	86.6	111.3	82.9	116.7
	800	114.0	27.0	112.6	37.4	111.4	47.3	110.4	58.5	109.4	70.6	107.6	82.3	105.6	93.4	103.4	103.7	100.7	113.7	97.6	121.4	94.1	128.6
	880	126.8	29.5	125.7	40.9	124.6	52.1	123.3	64.3	122.2	77.3	120.9	90.4	118.7	102.3	116.3	113.6	113.2	123.8	110.0	133.1	106.0	139.4
	960	139.4	31.9	138.6	44.2	137.4	56.4	136.1	69.5	134.9	83.2	133.7	97.3	131.4	110.1	128.5	122.2	125.2	132.4	121.5	140.9	117.1	147.7
	1150	171.6	38.7	170.0	53.0	168.7	67.9	167.1	83.7	165.9	100.0	163.9	116.1	161.4	131.3	157.9	144.8	154.4	157.7	150.2	167.8	145.0	175.2
350	650	198.9	49.2	197.1	67.8	195.2	85.6	192.7	105.8	190.1	126.7	186.9	147.5	183.4	167.9	179.5	187.4	174.6	205.6	167.9	219.4	161.0	229.5
	700	221.7	52.0	219.2	71.7	216.7	90.4	214.2	111.2	212.0	133.8	208.5	156.0	204.8	177.0	200.5	197.2	194.8	214.9	187.6	228.6	179.4	238.6
	750	242.3	54.4	239.9	75.3	237.8	95.3	234.9	117.6	232.2	141.2	229.3	164.3	224.5	185.5	219.4	205.8	213.3	224.0	205.8	237.8	197.2	249.6
	800	263.6	57.0	260.5	79.4	257.6	100.6	255.4	124.3	252.8	149.3	249.1	173.7	244.8	196.6	239.4	217.4	233.4	237.3	226.3	252.4	218.4	264.3
400	580	192.3	49.7	190.5	68.3	188.7	86.1	186.2	106.5	183.8	128.0	180.6	149.5	177.7	170.4	173.4	190.1	168.7	209.0	162.2	223.2	155.4	234.4
	650	221.8	52.9	219.8	73.1	217.8	92.4	215.0	114.1	212.2	137.2	208.7	159.8	204.9	181.5	200.6	202.4	195.4	220.5	188.0	235.1	180.5	246.7
	700	244.3	55.4	241.6	76.5	238.9	96.6	236.2	119.4	234.0	143.1	229.6	166.5	225.9	188.3	221.2	209.9	215.0	228.5	207.1	243.1	198.2	253.0
	750	267.0	58.0	264.4	80.4	262.1	101.9	258.9	125.7	256.2	150.9	252.7	175.7	247.5	197.3	242.0	218.7	235.3	238.1	227.1	253.3	218.4	263.9
	800	290.4	61.0	287.0	84.5	283.9	106.9	281.4	131.9	278.6	158.3	274.6	183.8	269.9	207.6	264.0	229.9	257.5	250.5	249.7	267.4	241.1	279.2
500	580	290.2	70.9	288.2	97.7	286.2	123.5	282.9	151.9	278.7	181.7	274.7	212.4	269.4	242.1	263.8	270.2	255.6	294.8	246.0	317.1	234.1	330.3
	650	337.8	76.5	334.8	106.0	331.9	134.2	327.8	165.7	323.7	198.5	318.6	231.0	313.0	261.9	306.7	291.0	299.0	317.7	288.6	339.4	277.2	356.5
	700	372.1	80.3	368.9	111.5	366.2	141.4	361.8	173.3	357.4	208.0	351.8	242.2	345.9	273.7	339.1	304.2	330.7	332.0	319.6	353.4	307.7	369.8
	750	407.2	84.4	403.8	117.5	400.8	149.1	396.1	182.7	391.5	218.4	385.1	253.7	379.5	287.8	372.3	319.4	363.7	348.6	351.8	370.7	339.0	388.8

- You could select a water-cooling type in the range of color
- You could select a back-flow cooling type in the range of color
- The actual using motor output is to be prepared blower shaft power of La×(1.1~1.2)(shaft power : La).
- The tolerance on all air volume is ±5% as per KS B 6351.
- The air volume or pressure which is not in the performance table can be settled by the control of R.P.M.
- The volume rate of warer in the water-cooling type is the same as that of table .



(unit : mm)

TYPE \ DIM	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R
ST,HT 080	190	600	150	900	20	220	350	240	20	135	125	400	75	375	150	4-ϕ18
ST,HT 100	190	600	150	900	20	230	375	265	20	170	230	440	75	400	200	4-ϕ18
ST,HT 125	255	800	200	1200	55	275	430	325	25	195	245	490	100	495	250	4-ϕ18
ST,HT 150	255	800	200	1200	55	275	530	405	25	235	205	490	100	520	250	4-ϕ18
ST,HT 200	355	1050	250	1550	55	320	650	480	30	270	370	700	125	625	250	4-ϕ23
ST,HT 250	470	1400	200	1800	120	385	800	570	35	405	325	800	150	840	300	6-ϕ23
ST 300	520	1600	200	2000	65	480	860	670	40	390	370	800	200	950	300	6-ϕ23
ST 350	355	2200	200	2600	130	490	920	790	40	450	470	1000	200	1080	-	6-ϕ23
ST 400	470	2500	250	3000	80	550	1000	860	45	580	630	1300	250	1190	-	6-ϕ23
ST 500	520	2500	250	3000	80	600	1250	950	45	620	690	1400	250	1190	-	6-ϕ23

KFM Two-Stage Water-Cooling Type Rotary Blower Performance Table

KFM Two-Stage Rotary Blower Performance Table

BORE SIZE (mm)	SPEED (rpm)	Suction Air Volume Qs(m³/min) & Required Shaft Power La(KW)at Each Discharge Pressure														SPEED (rpm)	BORE SIZE (mm)
		1.3kg/cm²		1.4kg/cm²		1.5kg/cm²		1.6kg/cm²		1.7kg/cm²		1.8kg/cm²		2.0kg/cm²			
		Qs	La	Qs	La	Qs	La	Qs	La	Qs	La	Qs	La	Qs	La		
100	1300	4.42	47.8	4.38	15.6	4.35	16.4	4.3	17.2	4.29	17.9	4.26	18.7	4.22	20.3	1300	100
	1500	5.57	15.7	5.54	18.9	5.51	19.9	5.5	20.9	5.47	21.8	5.44	22.9	5.41	24.8	1500	
	1750	7.00	21.6	6.99	23.0	6.97	24.3	7.0	25.5	6.94	26.7	6.92	28.0	6.90	30.5	1750	
125	1180	10.3	32.1	10.2	33.8	10.1	35.6	10.0	37.1	9.98	38.8	9.88	40.3	9.8	43.3	1180	125
	1470	14.3	40.9	14.2	43.1	14.1	45.4	14.0	47.3	13.9	49.5	13.8	51.3	13.7	55.2	1470	
	1750	18.3	49.5	18.1	52.1	18.0	54.8	17.9	57.2	17.8	59.8	17.6	62.0	17.5	66.7	1750	
150	1180	18.0	51.8	17.9	54.8	17.8	57.6	17.8	59.8	17.4	62.1	17.2	64.3	17.0	68.7	1180	150
	1470	24.5	66.2	24.4	69.9	24.2	73.6	24.2	76.8	24.0	80.2	23.8	83.6	23.7	89.8	1470	
	1750	30.7	80.1	30.6	84.6	30.5	89.1	30.5	93.3	30.3	97.6	30.2	103	30.1	110	1750	
200	880	38.3	97.7	38.1	103	37.9	108	37.8	114	37.6	118	37.3	123	37.2	133	880	200
	1100	52.0	125	51.9	132	51.8	139	51.7	146	51.5	153	51.4	159	51.2	173	1100	
	1470	75.2	170	75.1	181	75.1	191	75.0	202	74.9	211	74.9	221	74.9	238	1470	
250	730	56.8	153	55.8	159	54.9	165	53.9	171	52.9	176	52.0	180	51.0	192	730	250
	900	76.3	185	75.7	196	75.2	205	74.7	214	74.1	223	73.6	231	73.1	249	900	
	1150	105	233	105	250	105	264	105	277	105	292	105	306	106	333	1150	
300	730	97.4	227	97.1	240	97.6	252	96.3	264	96.3	275	95.5	287	95.5	309	730	300
	800	119	269	119	285	121	300	118.4	315	119	327	118	342	118	365	800	
	960	169	367	170	389	173	409	169	430	170	447	168	468	169	494	960	

• At suction state, pressure is 760mmHg, temperature is 20°C, relative humidity is 75% and specific weight is 1.2kg/m³

KFM Two-Stage Rotary Vacuum Pump Performance Table

BORE SIZE (mm)	SPEED (rpm)	Suction Air Volume Qs(m³/min) & Required Shaft Power La(KW)at Each Vacuum												Sealing Water (ℓ/min)	SPEED (rpm)	BORE SIZE (mm)
		−400mmHg		−450mmHg		−500mmHg		−550mmHg		−600mmHg		−650mmHg				
		Qs	La	Qs	La	Qs	La	Qs	La	Qs	La	Qs	La			
65	1300	2.16	3.71	2.15	3.88	2.13	4.06	2.06	4.24					6	1300	65
	1450	2.47	4.11	2.46	4.32	2.44	4.52	2.38	4.73						1450	
	1500	2.56	4.23	2.57	4.48	2.55	4.68	2.49	4.9						1500	
	1750	3.13	4.97	3.09	5.21	3.07	5.46	3.01	5.7						1750	
100	1150	4.77	7.60	4.74	8.10	4.67	8.6	4.46	9.0	4.05	9.52			11	1150	100
	1300	5.62	8.56	5.59	9.11	5.52	9.63	5.31	10.1	4.90	10.8				1300	
	1450	6.47	9.50	6.44	10.1	6.37	10.8	6.16	11.3	5.75	12.0	5.34	12.7		1450	
	1500	6.75	9.86	6.72	10.5	6.65	11.2	6.44	11.7	6.03	12.4	5.62	13.1		1500	
	1750	8.17	11.5	8.14	12.2	8.07	13.2	7.86	13.7	7.45	14.5	7.04	15.3		1750	
125	1150	13.4	15.5	13.3	16.7	13.2	17.7	13.0	18.8	12.4	19.8	11.8	20.8	15	1150	125
	1180	13.8	16.0	13.7	17.1	13.6	18.2	13.4	19.3	12.8	20.4	12.2	21.4		1180	
	1450	17.4	19.8	17.3	21.1	17.2	22.4	17.0	23.8	16.4	25.2	15.8	26.6		1450	
	1470	17.7	20.0	17.6	21.4	17.5	22.7	17.3	24.1	16.7	25.5	16.1	26.9		1470	
	1750	21.5	23.9	21.3	25.5	21.2	27.1	21.0	28.7	20.4	30.4	19.8	32.1		1750	
150	1150	22.2	23.9	22.0	25.5	21.8	27.0	21.6	28.5	20.6	30.2	19.6	31.9	18	1150	150
	1180	22.8	24.4	22.3	25.8	22.1	26.9	21.9	28.8	21.1	30.6	20.3	32.3		1180	
	1450	28.6	29.9	28.4	31.9	28.2	33.6	28.0	35.6	27.2	37.7	26.4	39.8		1450	
	1470	29.2	30.5	29.0	32.5	28.8	34.5	28.6	36.3	27.7	38.4	26.8	40.6		1470	
	1750	35.5	36.4	35.3	38.8	35.1	41.4	34.9	43.3	34.0	45.8	33.4	48.3		1750	
200	880	41.4	48.1	41.1	52.7	40.8	57.0	40.5	61.5	39.4	64.7	38.2	67.9	22	880	200
	1100	53.2	58.0	52.9	63.7	52.6	70.0	52.3	74.5	51.0	79.0	49.6	83.5		1100	
	1470	73.1	74.6	72.8	82.2	72.5	91.9	72.2	96.4	70.5	103	68.8	110		1470	
250	730	70.0	68.5	69.6	72.1	69.4	76.2	68.3	81.4	66.1	86.1	63.9	90.8	25	730	250
	880	85.9	82.7	85.6	87.0	85.4	91.9	84.2	98.1	82.0	104	79.8	110		880	
	900	88.2	84.5	87.8	88.9	87.6	94.0	86.5	100	84.3	106	82.1	112		900	
	980	96.8	91.9	96.5	96.8	96.3	102	95.2	109	93.0	116	90.8	123		980	
300	730	104	94.0	103	101	101	107	97.0	116	93.0	123	89.0	130	30	730	300
	800	115	103	114	110	111	118	107	127	103	135	99.0	143		800	
	880	127	114	126	121	123	130	118	139	114	148	110	158		880	
	960	139	125	138	132	134	141	130	152	126	162	122	172		960	
	980	142	127	141	135	137	144	133	155	129	165	125	175		980	

• The actual using motor output is to be prepared blower shaft power of La×(1.1~1.2)(shaft power : La).
• The tolerance on all air volume is ±5% as per KS B 6351.
• The air volume or pressure which is not in the performance table can be settled by the control of R.P.M.
• You could select a water-cooling type in the range of color

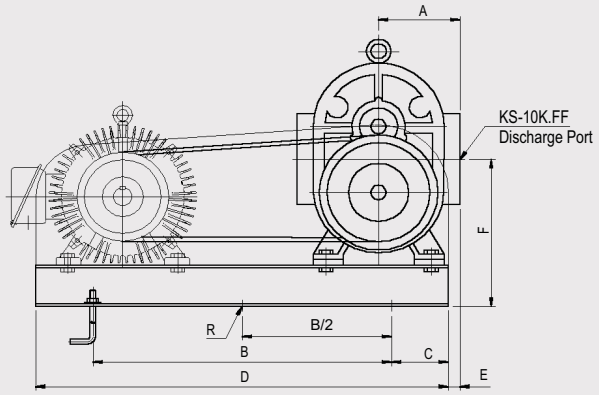
KFM Classic Blower Performance Table

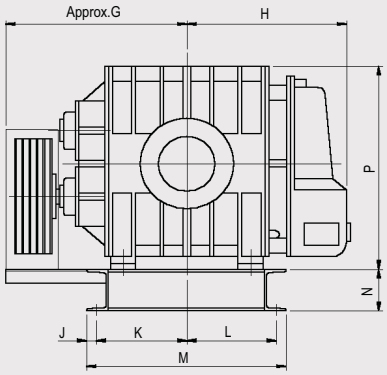
HP, SP–Type, Rotary Blower Performance Table

TYPE	BORE	R.P.M	Suction Air Volume Qs(m³/min) & Required Shaft Power La(KW)at Each Suction Pressure																	
			0.1kgf/cm²		0.2kgf/cm²		0.3kgf/cm²		0.4kgf/cm²		0.5kgf/cm²		0.6kgf/cm²		0.7kgf/cm²		0.8kgf/cm²		0.9kgf/cm²	
			Qs	La	Qs	La	Qs	La	Qs	La	Qs	La	Qs	La	Qs	La	Qs	La	Qs	La
SP050	50A	1450	1.74	1.0	1.52	1.4	1.36	1.8	1.21	2.2	1.06	2.6	0.94	3.0	0.82	3.5				
		1750	2.25	1.1	2.03	1.6	1.87	2.1	1.72	2.6	1.57	3.1	1.45	3.6	1.35	4.1				
		2000	2.68	1.3	2.45	1.9	2.29	2.4	2.15	3.0	2.00	3.5	1.88	4.0	1.78	4.6				
SP065	65A	1450	2.35	1.2	2.02	1.7	1.78	2.3	1.57	2.8	1.40	3.4	1.26	4.1	1.15	4.9				
		1750	3.04	1.4	2.70	2.0	2.46	2.6	2.25	3.3	2.08	4.0	1.94	4.8	1.82	5.9				
		2000	3.60	1.5	3.26	2.2	3.02	2.9	2.81	3.7	2.64	4.4	2.50	5.2	2.39	6.1				
HP080 SP080	80A	1150	3.72	1.7	3.31	2.5	2.96	3.3	2.67	4.0	2.37	4.8	2.14	5.6	1.94	6.5				
		1450	5.09	1.9	4.68	3.0	4.33	4.0	4.04	5.1	3.75	6.2	3.52	7.3	3.34	8.4				
		1750	6.46	2.3	60.5	3.6	5.70	4.8	5.41	6.1	5.12	7.4	4.88	8.7	4.71	10.0				
HP100 SP100	100A	1150	5.01	2.0	4.60	3.1	4.25	4.1	3.94	5.2	3.67	6.3	3.43	7.4	3.22	8.5	3.04	9.6		
		1450	6.71	2.4	6.31	3.8	5.96	5.1	5.65	6.4	5.37	7.8	513	9.2	4.90	10.7	4.72	12.2		
		1750	8.41	2.8	8.01	4.5	7.66	6.2	7.35	7.9	7.07	9.5	6.83	11.2	6.63	12.9	6.42	14.6		
HP125 SP125	125A	1150	12.95	4.1	12.18	6.6	11.51	9.1	10.93	11.6	10.55	14.1	10.07	16.6	9.68	19.1	9.40	22.0	9.20	25.5
		1450	17.0	5.0	16.2	8.1	15.6	11.2	15.0	14.4	14.5	17.5	14.1	21.0	13.7	24.0	13.4	27.5	13.2	31.0
		1750	21.0	6.0	20.2	9.7	19.6	13.4	19.0	17.1	18.5	21.1	18.1	25.1	17.8	29.1	17.5	33.5	17.2	38.0
HP150 SP150	150A	1150	21.7	6.1	20.6	10.1	19.6	14.2	18.9	18.2	18.2	23.0	17.5	27.0	17.0	34.0	16.4	38.0	16.0	43.0
		1450	28.0	7.5	26.9	12.5	26.0	17.6	25.3	23.0	24.6	28.0	24.0	33.0	23.4	40.0	22.8	48.0	22.4	57.0
		1750	34.8	9.8	33.7	16.3	32.8	23.0	32.1	29.0	31.4	35.0	30.7	43.0	30.2	49.0	29.7	54.0	29.2	66.0
HP200S SP200S	200A(S) 150A(D)	970	39.3	10.8	38.3	18.2	37.2	26	36.3	33	35.4	41	34.5	48	33.8	55	33.2	63	32.6	75
		1150	46.6	12.2	45.5	21	44.1	30	43.0	39	41.9	48	40.9	60	40.1	69	39.5	76	39.0	83
		1450	60.2	15.6	59.1	27	57.7	39	56.6	51	55.6	62	54.6	74	53.8	85	53.2	97	52.6	110
HP200L SP200L	200A	970	51.6	13.2	50.0	23	48.6	32	47.3	43	46.3	52	45.2	62	44.3	72	43.4	83	42.6	95
		1150	62.4	15.6	60.7	27	59.4	39	58.1	48	57.1	58	56.1	69	55.1	80	54.3	93	53.5	108
		1450	79.6	19	77.8	33	76.3	48	75.0	62	73.8	77	72.7	91	71.7	105	70.7	130	69.8	137
HP250 SP250	250A	730	69.5	16	66.9	30	65.0	43	63.2	56	61.7	69	60.2	83	58.9	96	57.6	109	56.3	122
		880	85.4	20	82.9	36	80.9	52	49.1	68	77.6	84	76.2	100	74.8	116	73.5	132	72.2	148
		980	96.1	23	93.5	41	91.5	59	89.7	77	88.3	95	86.8	112	85.4	130	84.1	148	82.8	165
SP300	300A	730	103.8	25	99.9	45	97.0	64	94.6	83	92.4	103	90.5	122	88.9	141	87.5	160		
		880	127.2	29	123.4	52	120.4	75	118.0	99	115.8	122	114.0	145	112.3	168	110.9	191		
		980	142.8	33	139.0	58	136.0	84	133.6	110	131.5	136	129.6	160	127.9	187	126.5	213		

- At suction state is, pressure is 760mmHg, temperature 20˚C, relative humidity 75% specific weight is 1.2kg/m³
- The air volume or pressure which is not in the performance table can be settled by the control of R.P.M.
- The real using motor out put is to be preferred blower shaft power of La×1.2(shaft power : La)
- The tolerance on all air volumes is ±5% as per KS B 6351.
- When the design pressure is 0.6kg/cm² and above, shall be applied side cover water cooling type on the blower S125~500

HP, SP-Type Outline Drawing



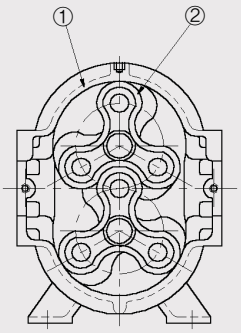


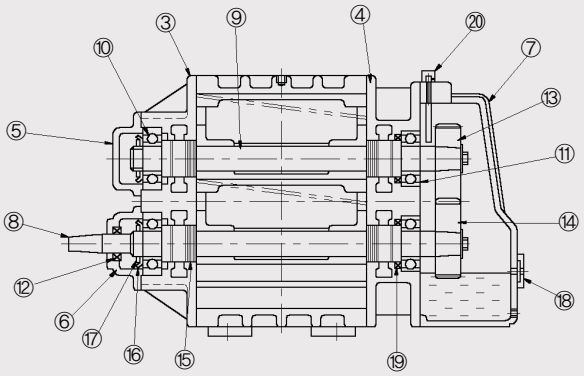
(unit : mm)

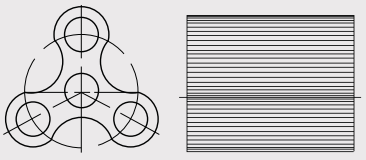
TYPE \ DIM	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q
SP 050	110	560	55	670	–	215	270	200	20	250	100	390	75	270	4-ϕ15
SP 065	110	560	55	670	–	215	270	220	20	250	100	390	75	270	4-ϕ15
SP,HP 080	140	600	150	900	5	305	355	275	25	110	70	230	100	380	4-ϕ18
SP,HP 100	140	600	150	900	5	305	360	295	25	90	120	260	100	380	4-ϕ18
SP,HP 125	195	800	200	1200	15	410	440	405	30	185	95	320	125	535	4-ϕ23
SP,HP 150	210	800	200	1200	30	410	525	485	30	240	180	480	125	535	4-ϕ23
SP,HP 200S	260	1000	250	1500	15	540	540	495	35	245	215	530	150	740	4-ϕ23
SP,HP 200L	285	1000	250	1500	40	540	640	565	35	300	250	520	150	740	4-ϕ23
SP 250	330	1500	200	1900	10	710	750	605	40	385	245	710	200	970	6-ϕ23
SP 300	380	1500	200	1900	70	710	850	605	40	460	400	940	200	970	6-ϕ23

• Model SL050, SL065 is KS 5K,FF FLANGE.
• The dimension of this catalog may be changed without prior notice in order to improve the performance of the product.

HP, SP-Type Sectional Drawing







SPUR TYPE ROTOR(SP TYPE)

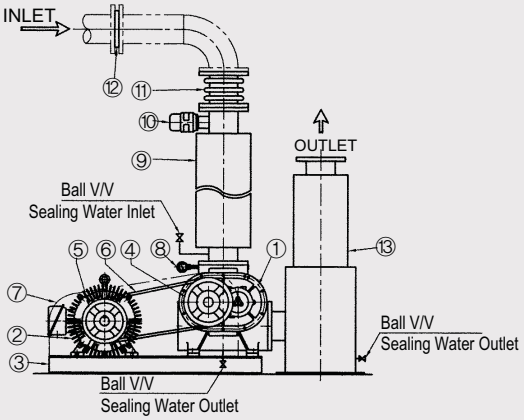
MARK	DESCRIPTION	MAT'L	Q'TY	MARK	DESCRIPTION	MAT'L	Q'TY
1	CASING	GC200	1EA	11	BALL BEARING	STB	2EA
2	ROTOR	GC200	2EA	12	OIL SEAL	SILICON	1EA
3	SIDE COVER(P/S)	GC200	1EA	13	DRIVING GEAR	SCM415	1EA
4	SIDE COVER(G/S)	GC200	1EA	14	DRIVEN GEAR	SCM415	1EA
5	B/R PUSH COVER	GC200	1EA	15	LABYRINTH	SM45C	4EA
6	B/R PUSH COVER	GC200	1EA	16	LOCK WASHER	SS400	2EA
7	GEAR COVER	GC200	1EA	17	LOCK NUT	SM30C	2EA
8	DRIVING SHAFT	SM45C	1EA	18	OIL GAUGE	ACRYL	1EA
9	DRIVEN SHAFT	SM45C	1EA	19	OIL SEAL	SILICON	2EA
10	BALL BEARING	STB	2EA	20	AIR VENT	BC6	1EA

KFM Rotary Vacuum Pump Performance Table (Wet)

BORE SIZE (mm)	SPEED (rpm)	Suction Air Volume Qs(m³/min) & Required Shaft Power La(KW)at Each Vacuum										Sealing Water (ℓ /min)	SPEED (rpm)	BORE SIZE (mm)
		– 100mmHg		– 200mmHg		– 300mmHg		– 400mmHg		– 500mmHg				
		Qs	La	Qs	La	Qs	La	Qs	La	Qs	La			
050	1240	1.62	1.27	1.52	1.77	1.30	2.26					5	1240	050
	1450	1.95	1.42	1.85	1.99	1.63	2.55					6	1450	
	1750	2.42	1.64	2.32	2.31	2.11	2.96					6	1750	
	2000	2.81	1.83	2.72	2.57	2.51	3.30					6	2000	
	2100	2.97	1.90	2.88	2.67	2.67	3.44					6	2100	
065	1240	2.11	1.54	1.98	2.17	1.77	2.77					6	1240	065
	1450	2.58	1.77	2.45	2.49	2.24	3.21					6	1450	
	1750	3.26	2.10	3.13	2.96	2.92	3.82					6	1750	
	2000	3.82	2.37	3.69	3.35	3.48	4.34					6	2000	
	2100	4.05	2.48	3.92	3.50	3.71	4.55					7	2100	
080	1150	3.05	1.82	2.81	2.64	2.40	3.35	1.66	4.23	0.92	5.11	7	1150	080
	1300	3.74	2.18	3.48	3.16	3.03	4.07	2.23	5.10	1.44	6.12	8	1300	
	1500	4.67	2.65	4.37	3.85	3.88	5.04	3.00	6.25	2.21	7.46	8	1500	
	1750	5.82	3.25	5.49	4.72	4.94	6.26	3.96	7.70	2.97	9.14	8	1750	
	2040	7.16	3.94	6.78	5.72	6.17	7.66	5.70	9.38	3.96	11.1	9	2040	
100	1300	6.34	3.51	5.82	5.14	5.31	6.79	4.49	8.50	3.67	10.2	9	1300	100
	1500	7.47	4.07	6.96	5.96	6.44	7.85	5.62	9.83	4.80	11.8	9	1500	
	1750	8.89	4.78	8.38	6.99	7.86	9.19	7.04	11.5	6.22	13.8	10	1750	
	2040	10.5	5.60	10.0	8.19	9.50	10.7	8.68	13.4	7.86	16.1	10	2040	
125	1180	14.8	5.78	14.2	9.21	13.4	12.8	12.2	16.2	10.9	19.7	11	1180	125
	1470	18.7	7.23	18.1	11.5	17.3	15.9	16.1	20.3	14.8	24.6	11	1470	
	1750	22.4	8.63	21.9	13.8	21.1	19.0	19.9	24.2	18.6	29.5	12	1750	
	1940	24.9	9.58	24.5	15.3	23.7	21.0	22.4	26.9	21.1	32.7	14	1940	
150	1180	24.2	90.2	23.6	14.9	22.5	20.7	20.1	26.4	17.7	32.1	15	1180	150
	1470	30.6	11.3	30.1	18.5	28.8	25.7	26.5	32.8	24.2	40.0	18	1470	
	1750	36.9	13.5	36.4	22.0	34.9	30.5	32.7	39.1	30.5	47.7	18	1750	
200	880	44.4	16.2	44.0	26.4	42.3	36.6	40.0	46.9	37.6	57.2	20	880	200
	1100	56.6	17.4	53.7	29.5	49.4	42.4	42.5	54.7	35.6	67.1	20	1100	
	1470	77.0	23.0	74.7	39.5	70.7	56.3	64.0	72.9	57.3	89.5	20	1470	
	1750	92.5	27.1	90.6	47.1	86.8	66.9	80.3	86.7	73.8	106	22	1750	
250	730	73.6	23.8	71.3	40.9	67.5	58.3	61.2	75.4	54.8	92.6	20	730	250
	900	91.6	29.1	89.6	50.5	85.9	71.7	79.4	92.8	73.0	114	22	900	
	1150	118	36.9	116	64.6	113	91.3	106	118	100	146	30	1150	
	1280	132	41.0	130	71.9	127	102	120	132	114	162	33	1280	
300	800	120	36.8	117	64.7	113	93	105	123	97	154	33	800	300
	960	145	43.8	142	77.2	138	111	130	148	122	185	35	960	
	1150	174	52.1	172	92.1	168	133	160	177	151	222	35	1150	
	1210	184	54.7	181	96.7	177	139	169	186	161	233	36	12101	

- You could select a water-cooling type in the range of color ▭
- The actual using moter output is to be prepared blower shaft power of La×(1.1~1.2)(shaft power : La).
- The tolerance on all air volume is ±5% as per KS B 6351.
- The air volume or pressure which is not in the performance table can be settled by the control of R.P.M.

Vacuum Pump System(Wet)

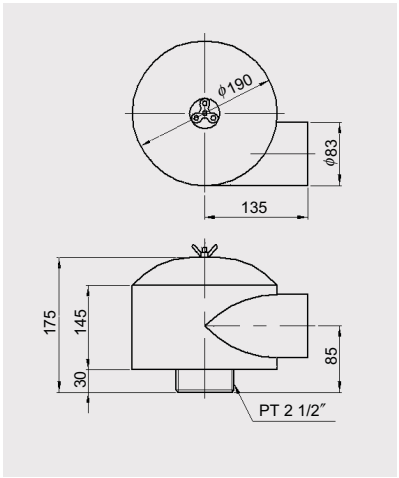


No.	NAME	No.	NAME
1	BLOWER	8	VACUUM GAUGE
2	MOTOR	9	SUCTION SILENCER
3	BED	10	VACUUM BREAKER
4	BLOWER PULLEY	11	EXPANSION JOINT
5	MOTOR PULLEY	12	CHECK VALVE
6	V-BELT	13	SEPARATOR SILENCER
7	BELT COVER		

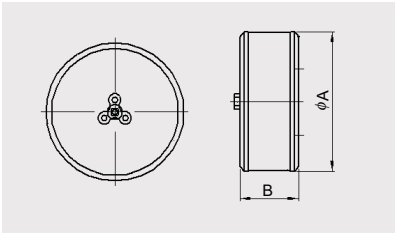
Standard Accessories of the Blower

●Common Bed ●Suction Silencer ●Pulley of Blower ●V-Belt ●Belt Cover ●Bolt of Foundation ●Safety Valve

Suction Silencer (50A, 65A)

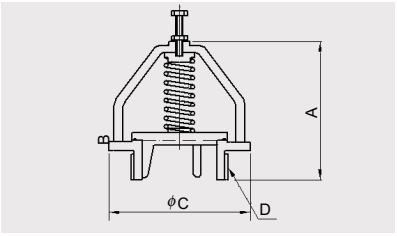


Suction Silencer



TYPE \ DIM.	A	B
CSL 050	214	120
CSL 065	245	140
CSL 080	310	140
CSL 100	370	160
CSL 125	410	200
CSL 150	490	230
CSL 200	580	300

Safety Valve



TYPE \ DIM.	A	B	C	D
KSV 040	81	16	73	PT 1 ½″
KSV 065	130	25	114	PT 2 ½″
KSV 080	156	31	140	PT 3″
KSV 100	197	38	178	PT 4″

Special Accessories & Service of the Blower(Option)

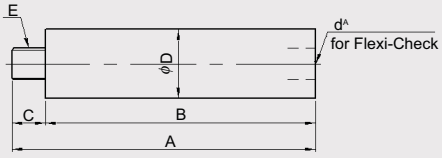
Special Accessories of the Blower

●Motor & Pulley for Motor ●Discharge & Special Silencer ●Flexible Joint, Check Valve & Fange ●Gauge & Instruments ●Spare Parts ●Anti-Vibration Rubber or Channel ●Electric Pannel ●Cooler or Heat Exchanger ●Acoustic Hood ●Vacuum Braker

Services of The Blower

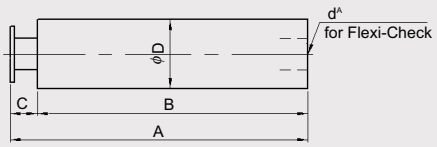
●Design & Engineering ●Drawings & Documents ●Witness Inspection ●Special Painting & Packing ●Transportation & Shipping ●Installation ●Commissioning ●Supervision ●Operator Training & Education ●Other Services

Discharge Silencer



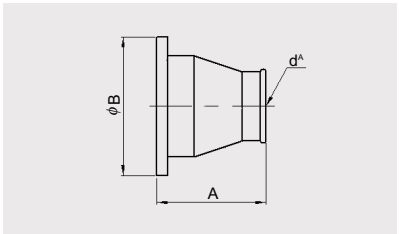
TYPE \ DIM.	dA	A	B	C	D	E
KFS 050	50	470	440	30	140	PT 2″
KFS 065	65	550	520	30	165	PT 2 ½″

Discharge Silencer



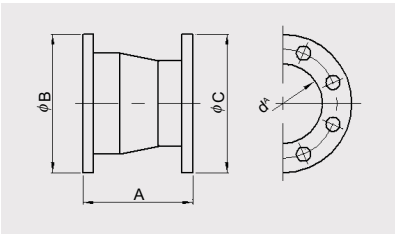
TYPE \ DIM.	dA	A	B	C	D
KFL 080	80	580	490	90	216
KFL 100	100	690	600	90	233
KFL 125	125	1000	900	100	310
KFL 150	150	1200	1100	100	310

Flexi - Check



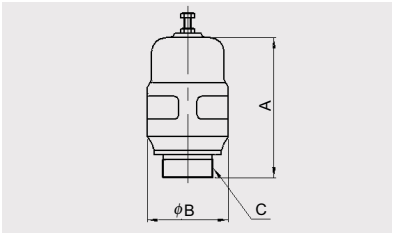
TYPE \ DIM.	dA	A	B
KFC 050	50	95	130
KFC 065	65	125	155

Flexi - Check



TYPE \ DIM.	dA	A	B	C
KFC 080	80	120	195	180
KFC 100	100	120	211	211
KFC 125	125	150	250	250
KFC 150	150	170	296	280

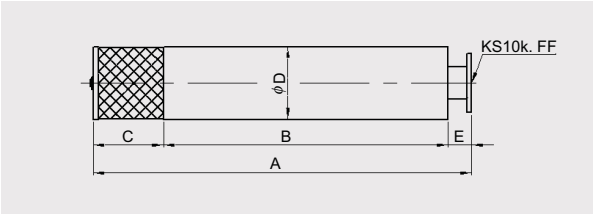
Vacuum Breaker



TYPE \ DIM.	A	B	C
KVB 040	205	100	PT 1 ½″
KVB 065	334	178	PT 2 ½″

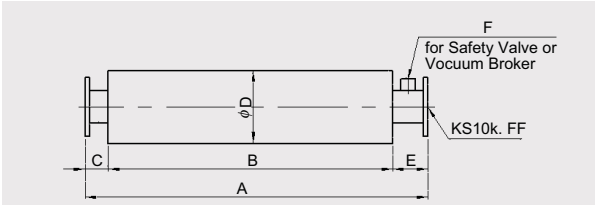
Special Accessories & Service of the Blower(Option)

Suction Silencer



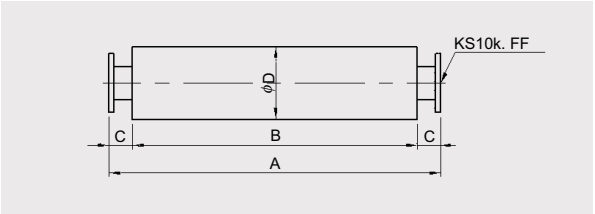
TYPE / DIM.	A	B	C	D	E
KSS 080	820	490	240	216	90
KSS 100	970	600	280	233	90
KSS 125	1300	900	300	310	100
KSS 150	1500	1100	300	310	100
KSS 200	1830	1340	380	350	110
KSS 250	1980	1480	380	450	120
KSS 300	2160	1660	380	490	120

Silencer



TYPE / DIM.	A	B	C	D	E	F
KDS 080	700	490	90	216	120	PT 1 ½″
KDS 100	810	600	90	233	120	
KDS 125	1150	900	100	310	150	PT 2 ½″
KDS 150	1350	1150	100	310	150	
KDS 200	1640	1340	110	350	190	PT 3″
KDS 250	1790	1480	120	450	190	
KDS 300	1980	1660	120	490	200	PT 4″

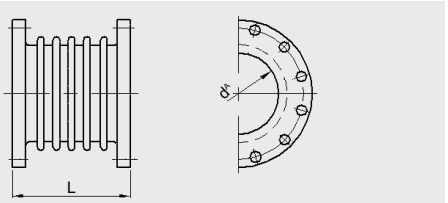
Silencer



TYPE / DIM.	A	B	C	D
KCS 080	670	490	90	216
KCS 100	780	600	90	233
KCS 125	1100	900	100	310
KCS 150	1300	1100	100	310
KCS 200	1560	1340	110	350
KCS 250	1720	1480	120	450
KCS 300	1900	1660	120	490

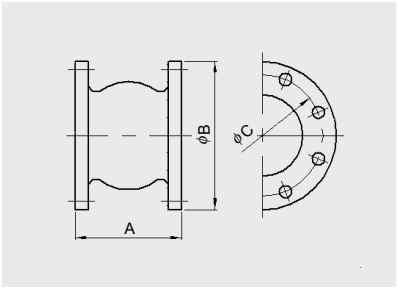
• 350A 이상은 주문 제작형입니다.
• The dimension of this catalog may be changed without prior notice in order to improve the performance of the product.

Expansion Joint



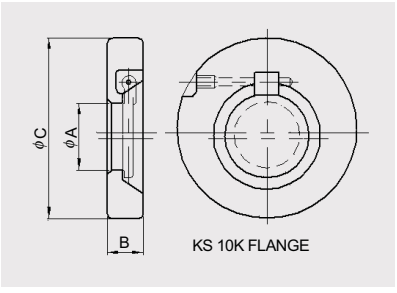
TYPE / DIM.	d^A	L	EXPANSION MEASURE
KEJ 080	80	250	±6
KEJ 100	100	250	±6
KEJ 125	125	250	±8
KEJ 150	150	300	±7
KEJ 200	200	300	±8
KEJ 250	250	300	±7
KEJ 300	300	300	±8

Flexible - Tube



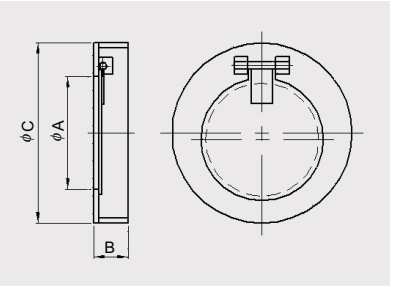
TYPE / DIM.	A	B	C
KFT 080	80	185	150
KFT 100	80	210	175
KFT 125	100	250	210
KFT 150	100	280	240
KFT 200	130	330	290

Check Valve



TYPE / DIM.	A	B	C
KCV 080	47	20	130
KCV 100	60	20	155
KCV 125	80	24	185
KCV 150	104	24	216
KCV 200	149	26	226

Check Valve



TYPE / DIM.	A	B	C
KCV 250	188	60	329
KCV 216	216	60	374

Installation of the Blowers

1. Location

1) The blower shall be installed in a building where is lighted and fresh air for simple operation and maintenance

2) In case of outdoor installation, take care of followings.
   ① The motor shall be covered with the sunshade to prevent temperature rise of motor surface and weather protection.
   ② The suction filter of suction silencer shall be covered with the filter cover so as to prevent that the rain water is entering go the blower during the operation(The suction filter cover is not necessory pneumatic transportation.)

3) In case of Indoor installation, total air intake volume in the room shall be flowed in the room from outside.

4) For the maintenance and the periodical inspection, sufficient space and hoist shall be provided around the blower.

5) Adequate ventilation must be provided for the air required for suction of blower and to limit temperature rise to 10˚C above the ambient temperature when the roots blower is on the full load operation.

2. Foundation and Installation Work

1) Concrete foundation shall be sufficiently stable to withstand the vibrations and solid enough to give firm support of the assembled unit on a base plate(Concrets composition : cement 1, sand 2, gravel 4)

2) The blower shall be installed in a horizontal plane(1/100 slope) which is a little bit higher than floor level. In order to correct the alignment place small rectangular thickness of metal or wedges under the base near the foundation bolts.

3) It is very important not to allow any foreign substances to enter inside the blower through the pipes. The pipes shall be carefully cleaned before assembling and cleared from any foreign substances, particularly from welding.

4) If there is the possibility that condensate or water entrainment be formed, it is necessary forecast adequate drains in the lower parts of the pipes and possibly a separator.

1. 설 치 장 소

1) 블로어는 원활한 운전 및 보수를 위해 밝고 넓은 통풍이 잘되는 실내장소에 설치하는 것이 좋다.

2) 실외에 설치하는 경우에는
   ① 태양열에 의한 Motor의 온도상승방지와 빗물에 의한 침수방지를 위한 Motor에 Cover를 덥는다.
   ② 흡입 사이렌사의 휠터는 빗물 침투방지를 위해 Cover를 씌운다.

3) 실내에 여러대의 블로어를 설치하는 경우는 설치된 블로어의 총흡입량이 유입될 수 있는 통기구가 있어야 한다.

4) 블로어의 수리 및 점검을 위하여 충분한 공간 및 Hoist를 설치해야 한다.

5) 블로어 운전시 압축열이 발행하므로(토출압력 0.1kg/cm^2 증가시 약10˚C 상승) 실내 환기에 유의해야 한다.

2. 설치작업시 유의사항

1) 콘크리트 기초는 블로어 베드를 견고하게 지지하고 진동에 견딜 수 있어야 한다.(콘크리트 혼합비 : 시멘트1 : 모래2 : 자갈4)

2) 블로어는 지면보다 약간 높은 수평인 기초위에 설치하고(수평도 1/100)베드 수평도는 평라이너 또는 테이퍼 라이너로써 조절한다.

3) 블로어 설치중 이물질이 블로어 내에 들어가지 않도록 유의해야 하며 특히 배관 용접시 이물질이 들어가지 않도록 한다.

4) 흡입 배관으로부터 수분 또는 응결수의 유입이 되지 않게 해야 하며 만약 물의 유입이 예상될 경우 Drain 또는 Separator를 설치하여 제거해야 한다.

5) 블로어 운전시의 진동이 배관에 미치는 영향을 없애기 위해 블로어 전후에 Expansion Joint를 설치 한다.

6) 배관은 블로어에 악영향을 주지 않도록 지지해야 한다.

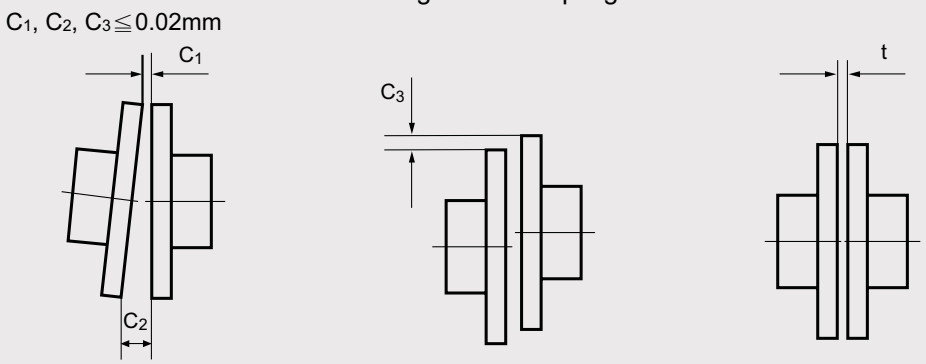
7) 토출압력에 0.6kg/cm^{2}이상 또는 토출 온도가 매우 높은 경우는 베어링 및 윤활유 보호를 위해 냉각 방식을 고려해야 한다.

8) 냉각은 블로어 사이드 커버 양측의 하부로 유입되어 상부로 흘러나가게 되며 동절기의 동파방지를 위해 사이드커버 하부에 반드시 드레인 밸브를 설치해야 한다.(그림참조)

10) Repeat the alignment test after the foundation bolts have been tightened and the pipe connected.
① The V-belt drive was properly aligned with a ruler placed on the faces of the pulleys at the factory but shall be checked again.
② Also, belts tension shall be checked. The deflection of 10mm for 1m distance between the centers by hand pressure, too high belt tension may cause damages to the Roots Blowers.
③ Centering of coupling
a. When flange outside diameter fits in every directions and no gap, set the other shaft center of the driving and the driven shaft precisely.
b. To maintain rubber bush life for a long period make C_1, C_2, C_3, within 0.02mm as the following figures.
c. 't' is equivalant to thickness of washer.

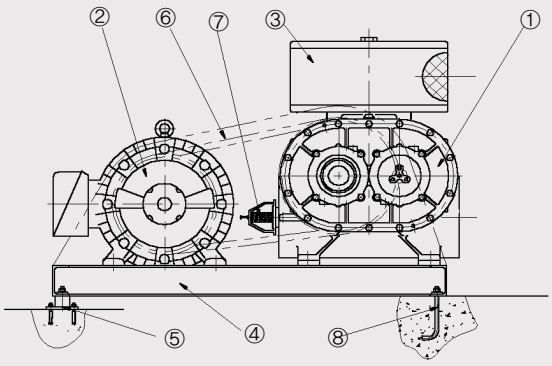
10) 기초 위에 블로어가 설치되고 배관이 완료되면 블로어의 Alignment를 재조정 한다.
① V벨트 구동의 경우, 공장에서 블로어 및 모타의 풀리면에 곧은 자를 대어 적절히 Alignment 하였으나 다시 한번 확인토록 한다.
② 또한 벨트를 손으로 눌렀을때 센터간 거리 1m에 약 10mm의 변형이 생기는가를 재확인 한다.
만약 장력이 클 경우 블로어에 손상을 일으킬 수 있다.
③ 커플링의 센터링
a. 양측 커플링의 플랜지 외경이 일치하고 갭이 없을 때 구동측 샤프트의 중심과 피구동측 샤프트의 중심이 일치하도록 장착한다.
b. 고무 부시의 수명연장을 위해 다음 그림에서의 C_1, C_2, C_3가 0.02mm 이내에 들도록 한다.
c. " t"는 와샤의 두께와 같다.

Centering of the Coupling



Installation of the blowers

One-Stage Blower



NO.	DESCRIPTION
1	BLOWER
2	MOTOR
3	SUCTION SILENCER
4	COMMON BED
5	ANTI-VIBRATION MOUNT
6	BELT ASS' Y
7	SAFETY/ VALVE
8	ANCHOR BOLT

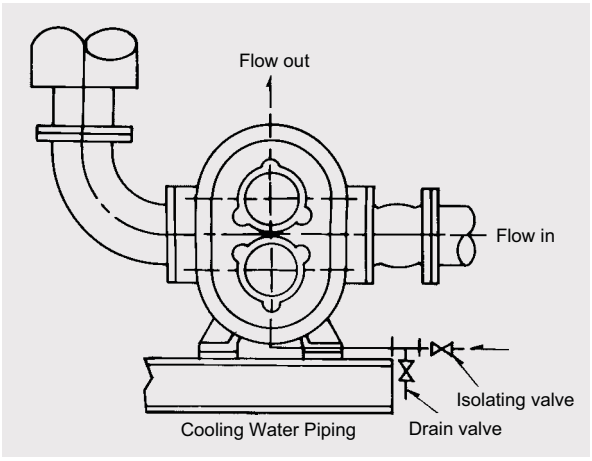
5) For the vibration insolating from the Roots Blower the pipes, expansion joints shall be installed suction side and discharge side of the Roots Blower.

6) Pipe lines shall have its own supports/hangers not to effect any loads to the Roots Blower.

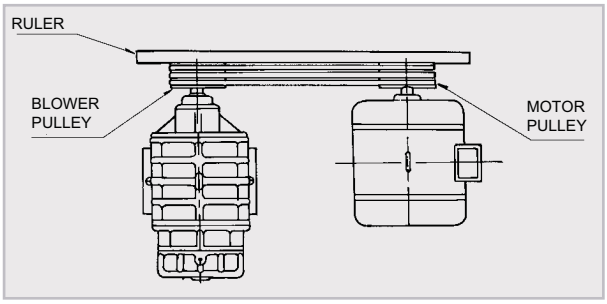
7) When the operating discharge pressure is more high 0.6kg/cm^{2}G or discharge air-temperature is too high, it is advisable that the cooling system shall be provided to the Roots Blower(for instance side cover water cooling type) for the bearing protection).

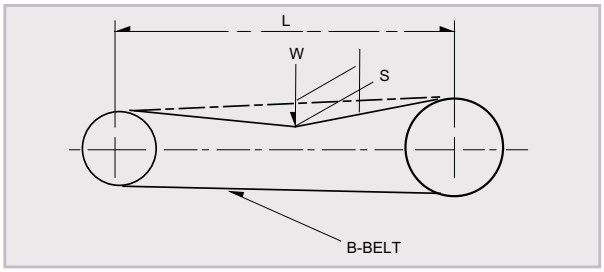
8) Water shall flow in through the lower cover part and flow out though the upper part. To prevent any danger of cracking caused by frost, the cooling piping shall be provided with empty valve on the flow in side.

9) It operating fluid is dangerous, vent pipes shall be provided to the safety valve and piped to outside(pressare operation) or suction side of Roots Blower (vacuum operation).

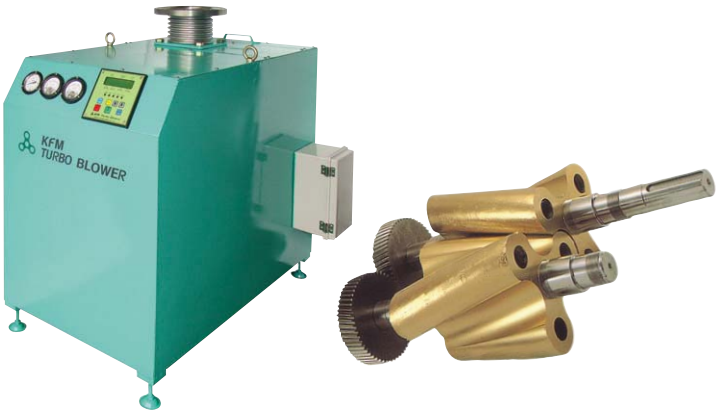


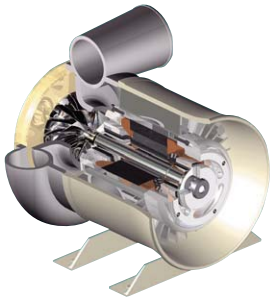
9) 블로어 운전시 과부하 방지를 위한 안전변을 설치해야하고(압송운전 : 토출측 진공운전 : 흡입측) 이송 Gas가 유해한 경우는 안전변의 Vent Line을 별도로 설치하여 유해 Gas의 대기방출을 방지해야 한다.



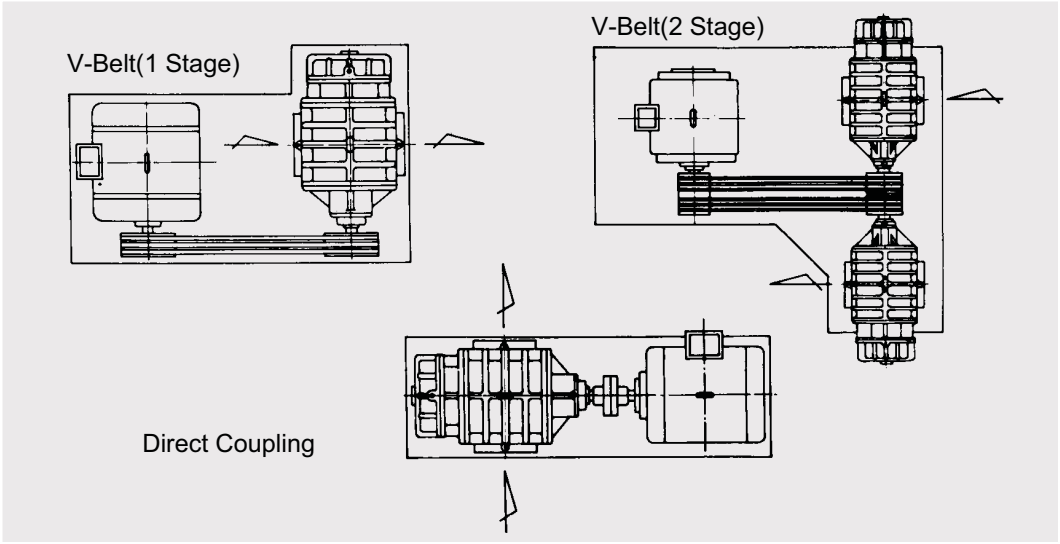


W : Pressure(or Load)
S : Deflection
L : Center Distance between Motor Pulley and Blower Pulley.





Driving Method



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