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Description

MIZU roots type rotary blower DSR Series has been developed by adopting innovated techniques, based on the manufacturing experience in the roots type rotary blower since 1980.

These blowers have improved full-adiabatic efficiency as well as volumetric efficiency and provide superior air capacity vs pressure characteristic.

The excellence of efficiency leads and double to reduction of the heat from the blower itself, and therefore reduction of the temperature elevation and thus the operation of blower in dry condition has become practical at the discharge pressure as low as 0.6 kgf/cm²

Features

- The helical construction uses the stator helical, method the screen lines of casing at the suction and discharge sides are cut to a helical shape and the triangle suction and discharge port formed by a straight ine of the rotor top is to be opened and closed gradually.
 - Therefore, the suction and discharge ports of this type is not opened or closed at moments, which makes these blowers have an only limited operation sound and almost free from pulsations from discharge.
- The rotors are three-lobe straight type, so that the rotors can not interfere with each other, resulting from minor displacements in the thrust direction as in the helical type. Therefore, the clearance between the rotors should be assured in the profile direction only and thus there is no necessity of an excessive on account of displacements in the thrust direction as in case of the rotor helical type. From such reasons, these blowers have a very high efficiency Mizu blower also double tank oil lubricantion.
- By adoption of an unique profile of rotor, the clearance between the rotors can be held to be constant which makes the efficiency even higher.
- The precision of rotors is fully controlled and variation of precision between blowers is almost nil
 because the rotors are produced under the mass production control by utilizing a precision NC
 machine.In addition, the rotors are dynamically balanced in the fabrication stage already, so that
 these rotors are almost free from vibrations as in the case of conventional rotors which are still
 unbalanced.



Applications

MIZU roots type rotary blower DSR Series can be apply for:

- Fish care
- · Back washing
- Foaming in bath
- Transport of particles

- Stirring in plated vessel
- Vacuum pack for foods
- Combustion a fireplace
- Wastewater aeration in condominiums
- Wastewater aeration for shops and livestock industries

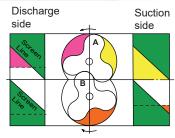
Functioning Principle

The conventional roots type rotary blowers, either two-lobe or three-lobe, have the same compression occurs upon reserve-flowing of high pressure air instantly when the rotor end is opened in line with the discharge opening. Such reverse flow and a rapid change in the compression as involved in the above compression is the cause of noise

The Helical construction of these blowers was designed to eliminate such noise, the feature of which will be described as follows.

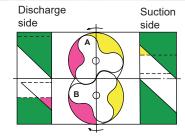
Three-lobe Roots Blower Functioning Principle Flow



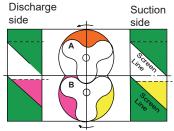


Rotor A: The suction side is open over full length thereof, and is about to close gradually while the discharge side is open half-way by opening gradually

Rotor B: The suction side is almost fully closed by closing gradually while the discharge side is not yet opened but is about to open



Rotor A: The suction side is little more closed, where the shaded triangle port is going smaller gradually along with the screen line of casing while discharge has already been completed at the discharge side. Rotor B: The suction side is immediately before going on to the screen line of casing while the discharge side is under the discharge process, where the triangle port is opening gradually.



Rotor A: Both of the suction and discharge sides are closed and immediately before opening at the discharge side.

Rotor B: The closing process has just been set out and is now closing gradually while the discharge side is immediately before full opening by opening gradually.

The Shaded portions show openings of suction and discharge ports.



How to use performance table

The performance tables give the model number, bore, r.p.m., discharge pressure, air capacity and required power of the blower.

- 1. The air capacity in the tables is indicated in the standard suction state. The standard suction state here in mentioned is defined as the condition at 20°C temperature, 1.0332kgf/cm² (101.3kPa) absolute pressure and 65% relative humidity.
- 2. The reference air capacity [0°C temperature and 1.0332kgf/cm² (101.3kPa) absolute pressure] is generally indicated in Nm³/min. However, it may be converted into the standard air capacity by the following equation, if the suction pressure is equal.

where, Qs: standard air capacity and Qn: reference air capacity.

3. The discharge air capacity can be converted into the standard air capacity by the following equation.

Qs = Qd x
$$\frac{1.0332 + Pd}{1.0332}$$
 x $\frac{273 + ts}{273 + td}$

Where, Qd : discharge air capacity, in m³/min
Pd : discharge pressure, in kgf/cm²
ts : suction temperature, in °C

td : discharge temperature, in °C

- 4. 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.
- 5. The motor powers are indicated by color marking and the motor powers to be used should be that indicated.
- 6. The choice is overlapped depending upon the type of blower. For reference, however, selection should be lower number blowers for the economy and higher number blowers for the sound level.
- 7. power (output) can be calculated using the following formula

$$kW = \sqrt{3} \times V \times A \times \cos \theta \times Eff. \times 10^3$$

V: voltage A: Current Cos θ: motor power factor

Eff: motor efficiency

pressure	atm	kpa	mbar	ℓbf/m²(psi)	kgf/cm²	in HG	ft Aq	mmHg (Torr)	mmAq
1 atm	1	101.325	1013.25.	14.698	1.0333	29.921	33.914	760	1033
1 kpa	0.0099	1	10	0.145	0.0102	0.295	0.335	7.5	103
1 mbar	0.009	0.1	1	0.0145	0.00102	0.0295	0.0335	0.75	10.198
1ℓbf/m²(psi)	0.069	6.894	68.965	1	0.0703	2.036	2.308	51.71	703
1 kgf/cm²	0.968	98.062	980.392	14.228	1	28.96	32.82	735.53	10000
1 inHg	0.0334	3.3863	33.898	0.491	0.0345	1	1.133	25.4	345.3
1 ftAq	0.02295	2.99	29.851	0.434	0.0305	0.882	1	22.42	304.8
1 mmHg(Torr)	0.013	0.1338	1.333	0.019	0.0014	0.04	0.045	1	13.6
1 mmaq	0.000097	0.0098	0.09803	0.001	0.003	0.003	0.003	0.074	1

capacity	m³/min	ℓ/min	cm³/sec	in³/sec	ft³/min(CFM)	U.S GPM
1m³/min	1	1000	1667	1016	35.288	264.172
1ℓ/min	0.001	0	16.67	1.02	0.0353	0.2641
1cm³/sec	0.00006	0.06	1	0.061	0.002	0.0158
1in³/sec	0.00098	0.983	16.39	1	0.035	0.2589
1ft³/min(CFM)	0.028	28.32	471.957	28.8	1	7.4838
1U.S. GPM	0.003785	3.4785	63.0915	3.8460	0.13360	1

Pressure Conversion Formula

 $1 \text{ kpa} = 1000 \text{ pa} = 1000 \text{ N/M}^2$

1 bar = 1000 mbar = 100 kpa

 $1 \text{ mbar} = 100 \text{ M/M}^2$



Specifications



Major Specifications of Type DSR

Bore : 50 to 320 A

Air Capacity : 0.7 to 185 m³/min Pressure : 0.1 to 0.6 kgf/cm²

Motor Power : 1.1 - 250 kW

Major Specifications of Type DSR - HB

Bore : 50 to 320 A

Air Capacity : 0.5 to 180 m³/min Pressure : 0.1 to 1 kgf/cm²

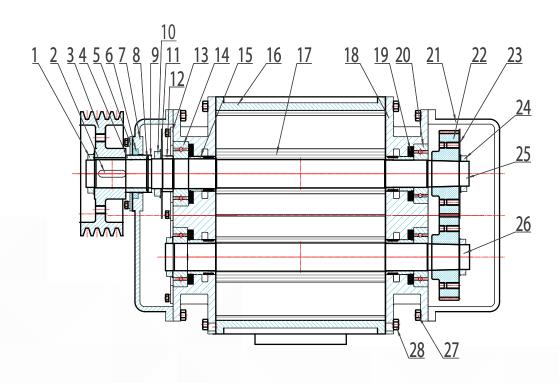
Motor Power: 3 - 400 kW

Standard Accessories

- Common Base
- V-Belt Cover & V-Belt
- Blower Pulley, Motor Pulley (if motor included)
- Suction Silencer (With Air Filter)
- Safety Valve
- Pressure Gauge
- Discharge silencer (JIS 10K)
- 1. The performance tables and standardized specifications are made available for all types to allow easy selection of one in need.
- 2. The blowers including accessories and nachi bearing are standardized under the mass production control so as to be able to correspond to the orders and needs at any time.
- 3. The operation noise is lowered to the level not ever achieved by adopting, in addition to the helical construction, a silent air cleaner as appropriate to each type of the blowers.
- 4. The rotor is a precision product machined in its full surface and since it is dynamically balanced in the shop completely, it will have almost no vibration.
- 5. The blowers require only a small area for installation due to a compact design.



Sectional Drawing



No	Description	No	Description	No	Description
1	Round Nut	11	Oil Splash	21	Nut
2	Lock Key	12	Spacer Ring	22	Oil Splash
3	Pulley	13	Bearing Cover	23	Oil Splash
4	Shaft Sleeve	14	Bearing	24	Nut
5	Press Cover	15	Seal Cartridge	25	Driving Shaft
6	Oil Seal	16	Case	26	Driving Shaft
7	Oil Tank	17	Impeller	27	Bolt
8	O Ring	18	Side Plate	28	Bolt
9	Gasket	19	Oil Baffle		
10	Nut	20	Bearing		



Pressure Performance Table

Qs = Inlet air flow (m3/min)

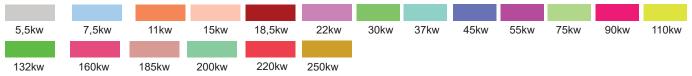
La = Blower shaft power (Kw)

1.1kw	1.5	ikw		2.2kv	N		3kw		4kw			5.5k	· A /		7.5kv	V	1	1kw		15ł	CW/		18,5k	(W
													ess	ΠΓΩ		-	•							
		mmAq	100	10	150	10	200	າດ	25	00	300		35		400	1 0	450	າດ	500	nn	55	00	60	000
Model	Bore	kpa	9.8		14.		19		24		29		34		39		44		4!			3.9		3.8
		Rpm	Qs	La																				
		1100	1.22	0.30	1.14	0.41	1.12	0.52	1.03	0.67	0.99	0.78	0.92	0.91	0.90	1.04	0.83	1.16	0.78	1.32	0.70	1.54	0.67	1.60
		1240	1.38	0.38	1.30	0.50	1.27	0.64	1.18	0.79	1.14	0.92	1.07	1.05	1.05	1.20	0.98	1.37	0.94	1.49	0.88	1.65	0.84	1.78
		1350	1.53	0.44	1.45	0.61	1.42	0.74	1.32	0.85	1.28	1.04	1.25	1.17	1.19	1.34	1.15	1.53	1.09	1.65	1.03	1.80	0.99	1.95
DSR50	50A	1450	1.66	0.50	1.55	0.64	1.54	0.82	1.43	0.96	1.40	1.14	1.34	1.30	1.30	1.47	1.21	1.63	1.20	1.79	1.12	1.91	1.14	2.15
		1530	1.75	0.56	1.66	0.75	1.63	0.90	1.53	1.07	1.49	1.24	1.45	1.41	1.39	1.58	1.33	1.74	1.30	1.92	1.28	2.12	1.24	2.29
		1640	1.89	0.64	1.79	0.81	1.76	1.01	1.71	1.15	1.62	1.37	1.67	1.54	1.55	1.74	1.50	1.88	1.43	2.10	1.40	2.28	1.38	2.49
		1730 1840	2.00	0.71	1.91 2.11	0.95 1.03	2.00	1.10	1.82	1.25	1.73	1.48	1.79	1.68	1.62	1.86 2.02	1.70	2.03	1.53	2.25	1.64	2.47	1.48	2.66
		1140	1.67	0.38	1.55	0.63	1.48	0.80	1.42	1.02	1.32	1.16	1.23	1.37	1.18	1.52	1.14	1.74	1.07	1.82	0.99	2.02	0.95	2.16
		1240	1.92	0.48	1.84	0.72	1.73	0.92	1.63	1.14	1.58	1.33	1.52	1.55	1.44	1.74	1.35	1.94	1.32	2.10	1.25	2.32	1.21	2.48
		1360	2.16	0.56	2.08	0.83	1.98	1.04	1.85	1.26	1.82	1.48	1.77	1.73	1.68	1.94	1.64	2.20	1.56	2.35	1.51	2.55	1.42	2.72
DSR65	65A	1450	2.31	0.63	2.24	0.85	2.14	1.12	2.05	1.36	2.00	1.60	1.95	1.83	1.86	2.10	1.82	2.34	1.74	2.54	1.70	2.75	1.63	3.00
		1530	2.45	0.70	2.35	0.98	2.28	1.20	2.23	1.47	2.14	1.72	2.09	1.95	2.02	2.25	1.97	2.52	1.90	2.72	1.86	2.95	1.79	3.20
		1640	2.66	0.80	2.59	1.05	2.49	1.33	2.44	1.62	2.36	1.89	2.32	2.15	2.24	2.41	2.20	2.75	2.12	2.95	2.08	3.24	2.01	3.46
		1740 1820	2.86 3.02	0.89	2.93 3.01	1.20	2.69	1.46	2.64	1.76	2.56	2.04	2.53	2.32	2.44	2.64	2.41	2.96 3.12	2.32	3.16 2.33	2.28	3.47	2.21	3.70
		1140	3.09	1.04	3.02	1.34	2.90	1.60	2.82	1.95	2.78	2.14	2.68	2.45	2.63	2.69	2.52	3.02	2.48	3.22	2.38	3.45	2.36	3.74
		1230	3.37	1.14	3.25	1.44	3.18	1.76	3.08	2.04	3.06	2.35	2.95	2.63	2.91	2.94	2.80	3.25	2.76	3.53	2.65	3.83	2.63	4.11
		1300	3.59	1.22	3.52	1.55	3.41	1.89	3.35	2.23	3.27	2.51	3.22	2.85	3.12	3.14	3.05	3.47	2.97	3.77	2.92	4.07	2.84	4.41
		1360	3.77	1.29	3.99	1.65	3.59	1.99	3.82	2.35	3.46	2.64	3.69	2.97	3.30	3.31	3.53	3.65	3.16	3.98	3.40	4.32	3.02	4.65
DSR80	80A	1460	4.08	1.40	4.00	1.80	3.90	2.17	3.88	2.53	3.76	2.87	3.72	3.22	3.62	3.60	3.56	3.91	3.46	4.32	3.42	4.65	3.34	5.06
		1560	4.38	1.52	4.19	1.95	4.10	2.32	4.03	2.76	4.00	3.10	3.98	3.46	3.93	3.88	3.88	4.41	3.77	4.66	3.70	5.25	3.65	5.48
		1650 1730	4.66	1.62	4.55 4.80	2.13	4.48	2.50	4.43 4.69	2.94 3.05	4.36	3.31	4.22	3.75	4.16 4.46	4.14	4.10	4.74	4.05	4.98 5.26	4.00	5.62 5.72	3.92 4.18	5.85 6.18
		1820	5.18	1.81	5.12	2.35	5.00	2.80	4.96	3.25	4.88	3.70	4.80	4.13	4.74	4.62	4.65	5.06	4.58	5.57	4.50	6.04	4.45	6.56
		1060	4.57	1.35	4.42	1.83	4.27	2.31	4.07	2.72	3.95	3.10	3.84	3.55	3.70	3.97	3.57	4.46	3.48	4.95	3.35	5.42	3.28	5.86
		1140	4.97	1.57	4.82	2.03	4.65	2.46	4.52	2.94	4.36	3.41	4.25	3.93	4.12	4.38	4.03	4.86	3.90	5.38	3.83	5.85	3.71	6.38
		1220	5.37	1.68	5.15	2.22	5.03	2.70	4.87	3.23	4.76	3.71	4.63	4.22	4.53	4.76	4.44	5.27	4.32	5.76	4.25	6.35	4.13	6.90
		1310 1460	5.73 6.53	1.87 2.18	5.60 6.35	2.43	5.44 6.25	2.96 3.40	5.34 6.13	3.52	5.18 6.00	4.05 4.62	5.05	4.63 5.22	4.95 5.78	5.18 5.87	4.86 5.66	5.77 6.54	4.74 5.58	7.10	4.66 5.45	6.95	4.55 5.39	7.48 8.45
DSR100	100A	1560	6.91	2.40	6.79	3.04	6.64	3.67	6.55	4.32	6.40	4.98	6.30	5.65	6.19	6.30	6.07	6.97	5.99	7.10	5.89	7.76 8.35	5.81	9.00
		1680	7.63	2.78		3.45	7.36	4.18		4.92		5.62	7.04	6.33	6.92	7.08	6.84	7.85	6.73	8.50	6.65	9.32		10.03
		1780	8.09	3.05	7.94	3.83	7.84	4.56	7.75	5.35	7.62	6.10	7.54	6.84	7.42	7.63	7.34	8.45	7.23	9.15	7.16	9.95	7.06	10.71
		1880	8.57	3.33	8.43	4.15	8.36	4.93	8.23	5.77	8.15	6.55	8.03	7.35	7.95	8.18	7.88	9.03	7.77	9.80	7.65	10.64	7.60	11.42
		980	6.50	1.65		2.25	6.15		6.03	3.42	5.95	4.10	5.80	4.73	5.75	5.40	5.62	6.13	5.55	5.70	5.45	7.22	5.37	8.05
		1050	6.95 8.00	1.90 2.50	7.82	2.53 3.22	6.63 7.65	3.15	7.53	3.83 4.72	7.45	4.53 5.50	7.32	5.22 6.25	7.25	7.10	6.13 7.12	7.92	7.00	7.30 8.65	5.93 6.95	7.93 9.43	5.85 6.90	8.75 10.25
		1300	8.75	2.90	8.53	3.63	8.40	4.50	8.25	5.33	8.19	6.20	8.07	7.03	8.00	7.10	7.12	8.83	7.82	8.65	7.76	10.03	7.64	11.40
DSR125	125A	1390	9.30	3.20	9.12	4.02	8.95	4.90	8.85	5.82	8.74	6.70	8.65	7.62	8.54	8.50	8.42	9.42	8.37	10.35	8.25	11.27	8.20	12.20
		1450	9.72	3.45	9.48	4.23	9.35	5.20	9.23	6.13	9.15	7.10	9.03	8.03	8.95	9.00	8.82	9.93	8.77	10.90	8.73	11.82	8.60	12.80
		1530	10.27		10.09		9.90	5.65		6.63		7.65	9.62	8.62	9.50	9.60	9.43	10.62	9.33	11.60	9.23	12.63	9.15	13.60
		1630	10.96		10.73			6.25	10.45	7.23	10.37	8.35	10.25	9.33	10.17	10.35	10.08	11.33	10.01	12.40	9.95	13.53	9.85	14.60
		1750	11.78	4.90	11.52	5.82	11.38	6.95	11.27	7.93	11.18	9.18	11.07	10.22	10.99	11.26	10.93	12.35	10.83	13.38	10.73	14.72	10.66	15.80

[•] Please contact us for outline dimension and installation drawing, performance curve and noise curve.



Pressure Performance Table
Qs = Inlet air flow (m3/min)
La = Blower shaft power (Kw)



132kw		0kw		85KV	v	200	N.VV		20kw		o0kw													
												Pre	ssui	re										
Model	Bore	mmAq	100	00	150	00	200	00	25	00	30	00	350	00	40	00	45	00	500	00	55	00	60	00
		kpa	9.	8	14.	7	19.	.6	24	.5	29	.4	34	.3	39	.2	44	1.1	4	9	53	.9	58	8.8
		Rpm	Qs	La	Qs	La	Qs	La	Qs	La	Qs	La	Qs	La	Qs	La	Qs	La	Qs	La	Qs	La	Qs	La
		810	12.01	3.85	11.74	5.03	11.54	6.20	11.33	7.32	11.15	8.50	1102	9.62	10.86	10.80	10.74	11.97	10.65	13.20	10.45	14.42	10.39	15.60
		860	12.80	4.40	12.64	5.63	12.40	6.86	12.23	8.03	12.03	9.30	11.84	10.47	11.75	11.70	11.63	13.03	11.54	14.25	11.42	15.53	11.27	16.80
		970	14.70	5.58	14.52	7.02	14.30	8.30	14.13	9.63	13.95	11.05	13.82	12.43	13.70	13.80	13.62	15.23	13.50	16.60	13.33	18.03	13.23	19.40
		1110	17.08	7.00	16.92	8.62	16.70	10.15	16.54	11.72	16.37	13.10	16.23	14.84	16.15	16.50	16.07	18.03	15.95	19.60	15.82	21.23	15.70	22.80
DSR150	150A	1180	18.25	7.80	18.13	9.43	17.92	11.10	17.75	12.73	17.59	14.40	17.46	16.03	17.37	17.80	17.25	19.42	17.17	21.10	17.05	22.82	16.97	24.40
DOICIOU	1504	1240	19.27	8.45	19.12	10.21	18.95	11.90	18.75	13.62	18.63	15.40	18.55	17.05	18.43	18.90	18.35	20.72	18.23	22.40	18.15	24.23	18.03	25.80
		1400	22.00	10.20	21.85	12.12	21.70	14.00	21.53	15.93	21.40	17.90	21.32	19.92	21.20	21.90	21.15	23.83	21.05	25.80	20.95	27.93	20.87	29.70
		1450	22.85	10.70	22.70	12.75	22.58	14.68	22.45	16.68	22.33	18.70	22.23	20.80	22.12	22.90	22.01	24.85	21.92	26.88	21.83	29.00	21.74	30.90
		1520	23.93	11.65	23.84	13.38	23.68	15.90	23.52	17.43	23.40	20.15	22.56	21.59	23.21	24.60	23.13	25.84	23.04	28.90	22.95	30.20	22.82	33.30
		1620	25.42	13.40	25.32	15.62	25.15	18.00	25.02	20.42	24.86	22.60	24.74	25.03	24.68	27.40	24.55	29.63	24.48	32.05	24.32	34.42	24.27	36.90
		1730	27.05	15.30	26.94	17.63	26.77	20.20	26.63	22.92	26.48	25.30	26.33	27.92	26.27	30.40	26.15	33.02	26.08	35.55	25.95	38.02	25.87	40.89
		970	22.73	7.90	22.20	10.19	22.13	11.25	21.63	13.35	21.05	15.46	20.85	17.57	20.53	19.65	20.21	21.75	20.12	23.87	19.83	26.03	19.65	28.14
		1110	26.75	12.21	26.54	11.94	26.33	13.14	25.83	15.53	25.50	17.93	25.24	20.33	24.83	22.73	24.55	25.10	24.23	27.53	24.07	29.93	23.95	32.33
		1180	28.65	13.23	28.50	12.54		13.84	27.96	16.35		18.95	27.17	21.47	26.83	24.07	26.57	26.63	26.34	29.15	26.15	31.74	25.95	34.26
DSR175	150A	1240	30.25	12.65	30.10	13.43	29.94	14.75	29.53	17.47	29.15	20.16	28.85	22.58	28.55	25.54	28.27	28.24	28.05	30.93	27.84	33.65	27.63	36.26
		1400	34.22			16.70		18.54	33.35	21.65	33.26	25.54	32.83	27.57	32.55	30.64	32.33	33.63	32.03	36.65	31.82	39.71	31.62	42.76
		1460	35.26	17.47	35.10			19.09	34.69	22.45	34.50	25.79	34.09	28.55	33.86	31.74	33.64	34.85	33.34	38.01	33.18	41.68	32.94	44.36
		1520	36.65	17.51	36.54	17.80		19.64	36.03	22.94	35.73	26.23	35.35	29.52	35.17	32.83	34.95	36.07	34.65	39.37	34.52	43.65	34.25	45.95
		1620	38.67	18.72	38.52	21.13		22.87	38.03	26.43	37.84	29.94	37.43	39.42	37.15	36.96	36.96	40.43	36.65	43.95	36.55	47.75	36.35	50.97
		900	31.17	11.26 13.41	30.81	12.94 15.27		14.63 17.12	29.95 34.01	17.62 20.42		20.66	29.23	23.85	28.87 33.03	26.96 30.95	28.55 32.75	29.97 34.42	28.24 32.36	33.14 37.85	27.93 32.05	36.07 41.04	27.65	39.07 44.35
		980	38.52	15.52		17.42		19.31	37.62	22.91	37.31	27.15	37.07	30.76	36.75	34.53	36.44	38.25	36.05	42.04	35.66	45.55	31.73 35.25	49.35
		1070	42.53	17.81	42.29	19.52		21.22	41.63	25.82	41.43	30.12	41.11	34.45	40.95	38.66	40.58	42.63	40.17	46.84	39.75	50.73	39.45	54.97
DSR200	200A	1150	46.01	19.92	45.76	21.82		23.71	45.31	28.12		32.74	44.82	37.34	44.62	42.04	44.23	46.64	44.75	50.97	43.44	55.07	43.18	59.76
D31\200	2007	1230		21.91		24.16		26.42	48.42	31.33		36.22	48.11	41.23	47.71	46.02	47.41	50.72	47.01	55.52	46.82	59.81	46.62	64.81
		1310		24.32		26.76		29.23	51.51	34.21	51.32	39.62	51.13	44.81	50.92	50.11	50.62	55.02	50.42	59.91	50.13	64.52	49.81	69.72
		1390	55.33	26.61	54.43	29.22	54.73	31.82	54.63	37.41	54.41	42.92	54.31	48.53	54.12	54.22	53.93	59.21	53.61	64.42	53.42	69.11	53.22	74.62
		1480	58.81	28.92	58.61	31.58	58.41	34.23	58.21	40.41	58.03	46.52	57.82	52.33	57.71	58.11	57.51	63.62	57.36	68.92	57.22	74.22	57.14	80.12
		990	63.60	15.50	63.40	21.20	63.10	28.80	62.90	35.80	62.70	41.80	62.50	48.60	62.20	55.30	62.10	62.10	61.80	66.70	61.60	73.30	61.40	76.70
		1170	75.00	19.10	74.70	25.80	74.30	33.90	74.10	42.20	73.60	49.10	73.10	56.90	72.70	64.60	72.30	72.50	72.01	77.80	71.70	85.30	71.30	89.20
DSR250	250A	1250	80.30	19.60	80.00	26.80	79.60	36.30	79.20	45.20	78.80	52.60	78.50	61.10	78.20	69.50	77.90	78.10	77.40	83.60	77.10	91.70	76.80	96.10
		1360	90.40	21.60	90.00	29.60	88.70	40.50	88.50	50.40	88.30	58.90	88.10	68.50	87.80	78.10	87.50	87.60	87.20	94.20	86.90	103.40	86.60	108.30
		1480	97.10	23.20	96.50	31.50	96.50	44.10	96.20	54.80	96.00	64.10	95.80	74.50	95.50	84.90	95.20	95.80	95.10	102.60	94.50	112.50	94.40	117.30
		990	89.30	21.90	89.20	30.10	88.90	32.10	88.70	46.10	88.50	55.30	88.30	64.30	88.10	73.40	87.90	73.20	87.60	77.10	87.40	94.30	87.10	108.80
		1170	105.80				105.10				104.30		104.10	75.90	103.80	86.40	103.50	90.60	103.20	101.10	102.90	110.10	102.70	128.40
DSR300	300A	1250	112.90	29.40	112.50	40.30	112.20	46.70	112.10	58.20	111.80	69.80	111.60	81.30	111.40	92.80	111.20	97.80	110.90	108.80	110.50	119.60	110.20	138.20
		1360					125.10						124.40		124.20									
		1480					135.90								135.10									
		990					125.40								119.40									
DSR350	350∆	1170					150.60								144.60									
DOI1330	JJUA	1250					161.80								155.80									184.70
		1360					177.30			_													163.90	
		1480	198.10	36.50	196.10	54.70	194.10	72.90	192.50	ษา.15	190.90	109.40	189.50	127.60	188.10	145.80	186.85	164.05	185.60	182.30	183.20	200.50	180.80	218.70

[•] Please contact us for outline dimension and installation drawing, performance curve and noise curve.



Pressure Performance Table
Qs = Inlet air flow (m3/min)
La = Blower shaft power (Kw)

3kw	4kw		5.5	kw	7.	5kw		11kw		15k	w	1	8.5kw		22kv	/	30	Okw
									Pres	sure	<u> </u>							
		mmAg	650	00	70	00	750		800		85	00	90	00	95	00	100	000
Model	Bore	kpa	63		68		73		78			3.3		3.2		3.1		3.0
		Rpm		Ι				Π										
		· ·	Qs	La	Qs	La	Qs	La	Qs	La	Qs	La	Qs	La	Qs	La	Qs	La
		1240	0.78	2.01	0.73	2.10	0.69	2.49	0.62	2.79	0.61	3.37	0.56	3.95	0.50	4.17	0.45	4.41
		1350	0.95 1.06	2.23	1.00	2.28	0.86	2.76	0.79	3.01	0.78	3.40	0.76	3.92 4.05	0.73	4.37 4.60	0.69	4.81 5.07
DSR50-HB	50A	1450	1.00		1.18	2.52				3.56			1.03	4.05	0.83			5.07
		1530	1.22	2.55	1.16	2.63	1.16	3.18	1.13	3.75	1.08	3.88 4.27	1.03	4.43	1.13	4.61 4.80	1.06	5.10
		1640 1730	1.50	2.75	1.46	2.92	1.42	3.54	1.29	3.75	1.24	4.27	1.16	4.43	1.13	5.12	1.14	5.50
				2.89	1.10	2.88	1.42	3.49	0.98	4.01	0.89	4.20	0.88	4.76	0.83	4.92	0.78	5.28
		1240 1360	1.13	3.08	1.10	3.05	1.03	3.76	1.19	4.12	1.17	4.40	1.15	5.02	1.12	5.40	1.08	5.26
		1450	1.60	3.35	1.51	3.42	1.47	4.05	1.40	4.21	1.41	4.85	1.38	5.23	1.35	5.51	1.31	5.96
DSR65-HB	65A	1530	1.74	3.50	1.70	3.60	1.64	4.14	1.57	4.39	1.53	5.10	1.48	5.40	1.42	5.62	1.35	6.01
		1640	1.98	3.74	1.90	3.94	1.86	4.42	1.79	4.54	1.75	5.25	1.70	5.40	1.65	5.78	1.60	6.10
		1740	2.18	4.13	2.10	4.27	2.06	5.05	2.00	4.65	1.73	5.80	1.84	6.10	1.75	6.35	1.70	6.50
	1140	2.27	4.09	2.25	4.22	2.19	4.83	2.14	4.73	2.01	5.61	1.96	5.97	1.89	6.33	1.82	6.69	
		1230	2.52	4.49	2.49	4.71	2.37	5.30	2.35	5.32	2.25	6.10	2.19	6.45	2.12	6.81	2.06	7.17
		1300	2.77	4.82	2.71	5.11	2.61	5.69	2.55	5.85	2.48	6.40	2.40	6.71	2.35	7.26	2.29	7.66
		1360	2.95	5.18	2.87	5.27	2.77	5.99	2.73	5.93	2.62	5.80	2.57	7.21	2.49	7.53	2.46	7.93
DSR80-HB	80A	1460	3.07	5.67	3.22	5.76	2.92	6.44	3.10	6.46	2.78	7.03	2.65	7.38	2.60	7.90	2.55	8.10
		1560	3.44	6.17	3.38	6.25	3.30	6.97	3.24	7.05	3.18	7.40	3.15	7.70	3.10	8.12	3.07	8.35
		1650	3.73	6.55	3.68	6.72	3.62	7.45	3.55	7.63	3.40	8.00	3.32	8.20	3.27	8.40	3.21	8.70
		1730	4.01	6.94	3.96	7.05	3.88	7.84	3.79	7.95	3.70	8.40	3.65	8.71	3.61	8.98	3.52	9.10
		1060	3.17	6.36	3.07	6.71	3.01	7.51	2.87	7.62	2.87	8.53	2.79	8.89	2.72	9.25	2.65	9.61
		1140	3.65	6.90	8.59	7.32	3.51	8.15	3.46	8.35	3.40	8.90	3.36	9.10	3.54	9.50	3.48	9.86
		1220	4.06	7.52	3.93	8.02	3.90	8.88	3.82	9.12	3.75	10.10	3.68	10.40	3.61	11.32	3.55	11.96
		1310	4.43	8.15	4.36	8.56	4.26	9.62	4.18	9.65	4.10	10.82	4.03	11.50	3.90	11.71	3.82	12.10
DSR100-HB	100A	1460	5.28	9.23	5.19	9.37	5.10	10.44	5.00	10.06	4.78	11.32	4.61	11.85	4.48	12.30	4.30	12.75
		1560	5.70	9.75	5.63	10.35	5.55	11.12	5.45	11.75	5.38	11.98	5.32	12.21	5.24	12.80	5.15	13.20
		1680	6.44	10.77	6.37	11.50	6.25	12.21	6.20	12.61	6.00	12.90	5.85	13.20	5.71	13.67	5.49	14.10
		1780	6.95	11.52	6.88	11.98	6.83	13.07	6.70	13.45	6.55	13.92	6.38	14.10	6.10	14.52	5.91	14.88
		980	5.24	8.92	5.19	9.34	5.08	10.98	5.01	10.65	4.86	13.20	4.78	14.10	4.71	15.30	4.64	16.40
		1050	5.54	9.71	5.42	10.15	5.32	11.98	5.27	11.60	5.11	14.08	5.01	15.11	4.92	16.01	4.80	16.71
		1200	6.83	11.05	6.77	11.84	6.66	12.56	6.45	13.44	6.21	14.23	6.06	15.38	5.80	16.26	5.55	16.91
		1300	7.55	12.22	7.45	13.15	7.38	13.92	7.26	14.93	7.01	15.66	6.53	16.43	6.56	17.01	6.22	17.85
DSR125-HB	125A	1390	8.14	13.14	8.03	13.95	7.92	14.91	7.85	15.72	7.61	16.20	7.32	17.15	7.06	17.68	6.71	18.03
		1450	8.50	13.73	8.42	14.62	8.33	15.62	8.24	16.53	8.08	17.10	7.90	17.72	7.73	18.21	7.46	19.21
		1530	9.05	14.63	8.97	15.60	8.87	16.63	8.80	17.52	8.61	18.01	8.48	18.71	8.21	19.40	8.00	21.10
		1630	9.75	15.65	9.68	16.81	9.55	17.82	9.50	19.01	9.31	19.60	9.15	20.30	8.93	20.98	8.80	21.60
		1750	10.55	16.94	10.46	18.18	10.35	19.14	10.29	20.53	10.05	21.00	9.87	21.80	9.80	22.35	9.62	23.10

[•] Please contact us for outline dimension and installation drawing, performance curve and noise curve.



Pressure Performance Table

Qs = Inlet air flow (m3/min)

La = Blower shaft power (Kw)

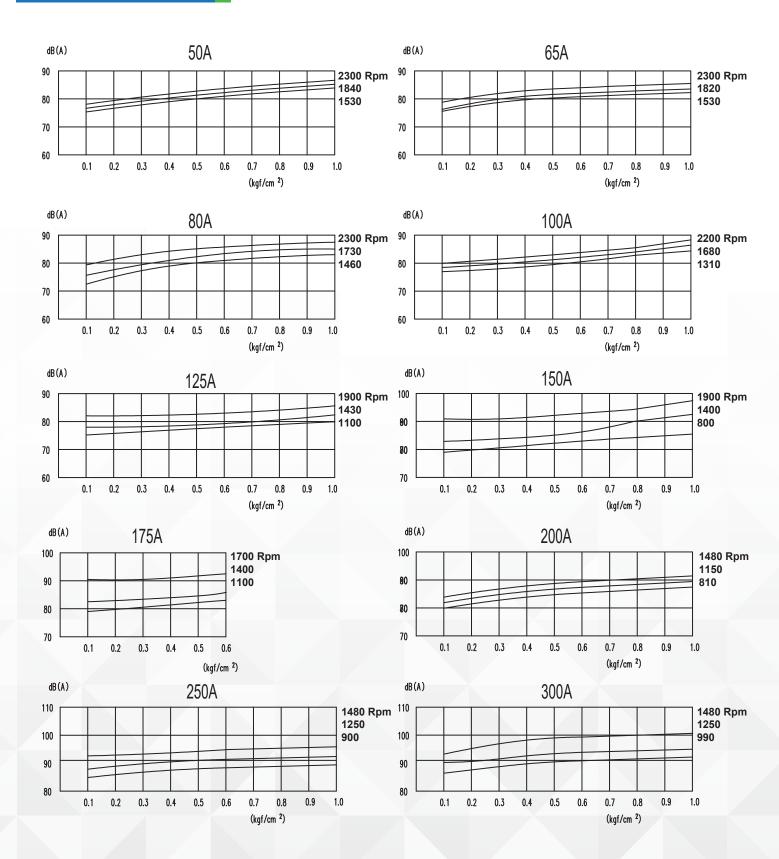
22kw	30kw	37kw	45kw	55kw	75kw	90kw	110kw	132kw	160kw
185kw	200kw	220kw	250kw	280kw	315kw	355kw	400kw		

			Pressure															
Model	Bore	mmAq	65	00	70	00	75	00	80	00	85	500	90	000	95	00	100	000
Model	Боге	kpa	63	3.7	68	3.6	73	.5	78	3.4	83	3.3	88	3.2	93	3.1	98	3.0
		Rpm	Qs	La	Qs	La	Qs	La	Qs	La	Qs	La	Qs	La	Qs	La	Qs	La
		810	10.26	17.16	10.11	18.00	10.06	20.73	9.84	20.40	9.80	24.38	9.75	25.98	9.64	27.28	9.53	28.58
		860	11.16	17.77	11.00	19.42	10.85	20.87	10.37	22.03	10.62	25.67	10.51	26.97	10.40	28.27	10.29	29.57
		970	13.12	21.45	12.95	22.15	12.86	24.34	12.67	24.91	12.51	26.50	12.23	30.30	11.97	33.40	11.65	37.20
		1110	15.55	25.07	15.45	26.02	15.33	28.45	15.20	29.21	15.00	32.60	14.78	35.00	14.42	38.60	14.01	42.30
		1180	16.88	26.34	16.76	27.35	16.55	30.15	16.40	30.65	16.27	33.20	16.10	36.30	15.89	41.10	15.71	44.23
DSR150-HB	150A	1240	17.92	27.73	17.82	29.20	17.66	31.43	17.62	32.60	17.21	36.21	17.10	39.38	16.80	44.45	16.63	47.78
		1400	20.76	33.34	20.68	33.60	20.45	37.97	20.30	37.50	20.11	43.00	19.87	46.10	19.63	49.80	19.48	52.00
		1450	21.70	33.95	21.65	35.65	21.51	38.54	21.42	39.80	21.30	44.80	21.11	47.10	20.90	50.90	20.71	54.00
		1520	22.92	34.57	22.75	37.70	21.69	39.12	21.50	42.10	21.12	46.80	21.01	49.30	20.70	53.20	20.32	58.10
		1620	24.12	40.07	24.05	41.71	23.85	45.83	23.70	46.60	23.50	51.10	23.31	54.00	23.13	57.80	22.90	60.10
		1730	25.76	44.85	25.65	46.10	25.45	50.27	25.25	51.40	25.14	55.95	25.00	58.10	24.80	61.00	24.61	65.00
N/		810	27.26	47.34	26.93	43.35	26.62	48.52	26.33	51.73	26.12	55.20	25.87	58.20	25.61	61.40	25.34	64.61
		900	31.45	47.64	31.14	51.23	30.35	54.52	30.54	57.85	30.21	60.80	29.90	64.01	29.58	67.20	29.26	70.41
		980	35.05	53.03	34.72	56.75	34.38	60.55	34.05	64.23	33.80	66.80	33.62	69.10	33.36	74.87	33.01	80.09
		1070	39.35	58.83	39.13	63.73	38.92	67.37	38.75	71.44	38.58	74.01	38.37	77.20	38.11	80.50	37.90	84.20
DSR200-HB	200A	1150	43.03	64.33	42.74	68.63	42.45	73.34	42.25	77.66	42.03	80.10	41.81	84.20	41.63	87.50	41.45	90.70
		1230	46.41	69.32	46.21	74.22	46.02	78.81	45.83	83.52	45.60	86.10	45.42	89.10	45.20	92.30	45.02	96.10
		1310	49.72	74.81	49.53	79.71	49.32	84.72	49.11	89.76	48.90	92.10	48.68	95.30	48.41	99.20	48.25	105.10
		1390	53.03	79.65	52.82	84.91	52.71	90.24	52.52	95.55	52.18	98.70	52.10	103.20	51.90	107.20	51.72	112.10
		1480	56.92	85.61	56.82	91.32	56.71	96.72	56.53	102.40	56.21	106.30	56.10	110.10	55.75	115.20	55.40	120.00
		990	61.80	83.20	61.20	88.90	60.40	93.60	59.80	99.70	59.20	112.10	58.80	120.10	58.30	129.60	58.01	137.20
		1170	71.20	96.10	69.60	101.50	69.40	108.50	69.20	115.10	68.60	126.20	68.20	134.40	67.70	140.10	67.10	152.10
DSR250-HB	250A	1250	76.40	103.50	76.10	110.80	75.60	118.20	75.10	125.20	74.50	142.20	74.10	149.10	73.40	155.20	73.20	165.20
	,	1360	86.50	112.50	86.20	125.60	85.70	133.90	85.40	142.40	85.10	154.10	84.70	165.20	84.30	177.10	84.20	183.10
		1480	93.70	126.90	93.40	136.20	93.20	145.60	92.60	154.30	92.20	170.10	91.80	184.10	91.50	192.10	91.20	205.20
		990	86.90	114.70	86.70	123.60	86.40	127.10	86.10	135.10	85.50	150.10	85.10	165.10	84.60	172.30	83.80	181.50
		1170	102.50	135.30	102.30	145.30	102.10	150.10	101.80	159.80	101.50	170.50	101.10	182.10	100.80	200.00	100.50	227.20
DSR300-HB	300A	1250	110.40	145.40	110.20	155.80	110.00	161.70	109.80	172.40	109.30	187.10	108.90	203.10	108.60	220.10	108.30	234.10
		1360	123.20	162.60	123.10	176.60	122.70	180.40	122.50	192.30	122.20	206.10	122.10	217.50	121.70	232.10	121.50	254.50
		1480			134.20						132.80						130.8	270.1
		990		158.50				181.80			105.70						102.20	243.90
		1170		187.30		201.70		216.15			131.15				128.85			288.20
DSR350-HB	350A	1250		200.00	146.00	215.50		230.90	143.60		142.45					292.50		
		1360		217.75		234.50		251.25			157.95				155.65			
		1480		236.95	178.30		177.10										171.40	

[•] Please contact us for outline dimension and installation drawing, performance curve and noise curve.



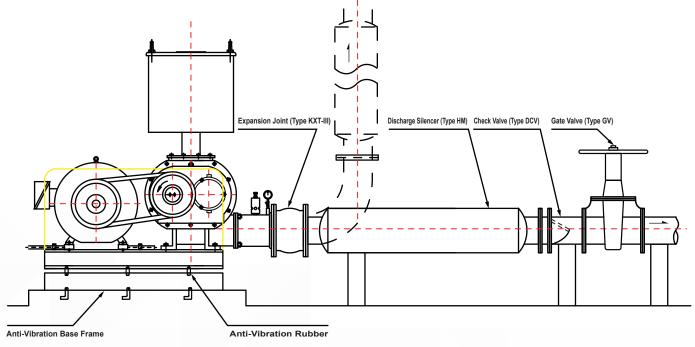
Noise Level





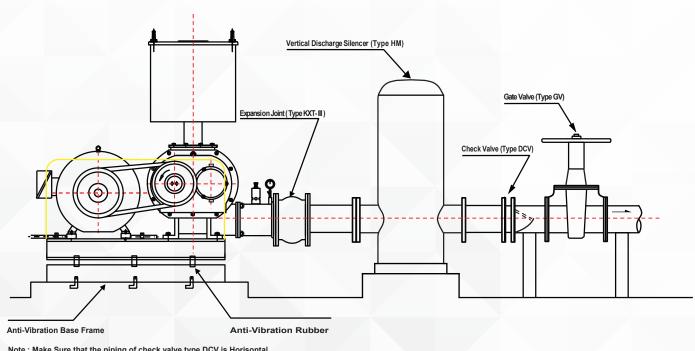
Reference Piping Installation Drawing

• PIPELINE INSTALLATION DIAGRAM



Note: Make Sure that the piping of check valve type DCV is Horisontal

• BELT JOINT INSTALLATION DIAGRAM

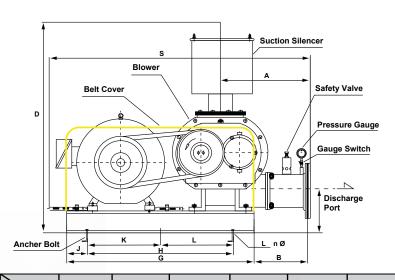


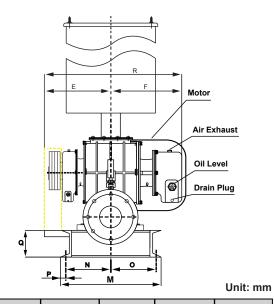
Note: Make Sure that the piping of check valve type DCV is Horisontal



Outline Dimensions

• DSR BELT TRANSMISSION EXTERNAL DIMENSIONS





Model	Bore	А	В	С	D	E	F	G	Н	J	К
DSR-50	50A	270	170	120	790	200	190	560	410	75	-
DSR-65	65A	270	170	130	900	220	210	600	450	75	-
DSR-80	80A	305	195	150	1170	220	220	650	500	75	-
DSR-100	100A	305	195	160	1240	280	260	730	580	75	-
DSR-125	125A	345	200	190	1410	290	270	860	700	80	350
DSR-150	150A	390	220	215	1680	380	400	960	750	80	400
DSR-175	150A	390	220	215	1680	480	500	1050	750	125	400
DSR-200	200A	490	275	260	2060	500	520	1280	1000	140	500
DSR-250	250A	640	280	380	2660	690	590	1900	1500	200	750
DSR-300	300A	695	335	395	2780	780	700	1900	1500	200	750
DSR-350	350A	695	335	395	2880	780	765	1900	1500	200	750

Model	Bore	L	М	N	0	Р	Q	n	R	S	Weight (kg)
DSR-50	50A	-	300	115	155	15	80	4	390	780	85
DSR-65	65A	-	340	125	175	15	80	4	430	820	98
DSR-80	80A	-	360	125	205	15	80	4	440	895	148
DSR-100	100A	-	470	150	265	15	80	4	540	975	190
DSR-125	125A	350	470	170	270	15	100	6	560	1110	280
DSR-150	150A	350	590	250	300	20	100	6	780	12030	470
DSR-175	150A	350	770	350	380	20	100	6	980	1320	600
DSR-200	200A	500	755	355	380	20	120	6	1020	1605	820
DSR-250	250A	750	950	495	405	25	160	6	1280	2230	1700
DSR-300	300A	750	950	585	415	25	160	6	1480	2285	2100
DSR-350	350A	750	1050	570	430	25	160	6	1530	2285	2350

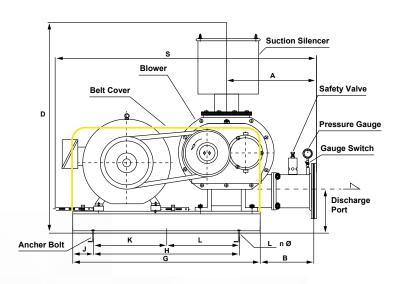
Noted: 1). Low Pressure (9.8kpa-58.8kpa) blower

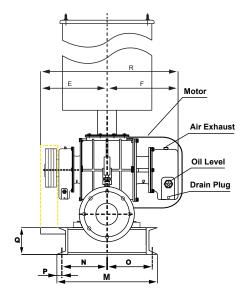
^{2).} The weight of motor is excluded



Outline Dimensions

• DSR BELT TRANSMISSION EXTERNAL DIMENSIONS





Unit: mn	ι	Jn	it:	r	n	n
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Model	Bore	A	В	С	D	Е	F	G	Н	J	К
DSR-80HB	80A	310	190	150	1130	285	225	650	500	75	-
DSR-100HB	100A	310	200	160	1250	325	265	730	580	75	-
DSR-125HB	125A	345	195	190	1415	350	265	860	700	80	-
DSR-150HB	150A	387	220	210	1730	475	400	1050	750	125	400
DSR-200HB	200A	485	275	270	2110	630	530	1280	1000	140	500
DSR-250HB	250A	640	280	380	2785	725	595	1900	1500	200	750
DSR-300HB	300A	695	335	395	2820	820	695	1900	1500	200	750
DSR-350HB	350A	695	335	395	2880	865	765	1900	1500	200	750

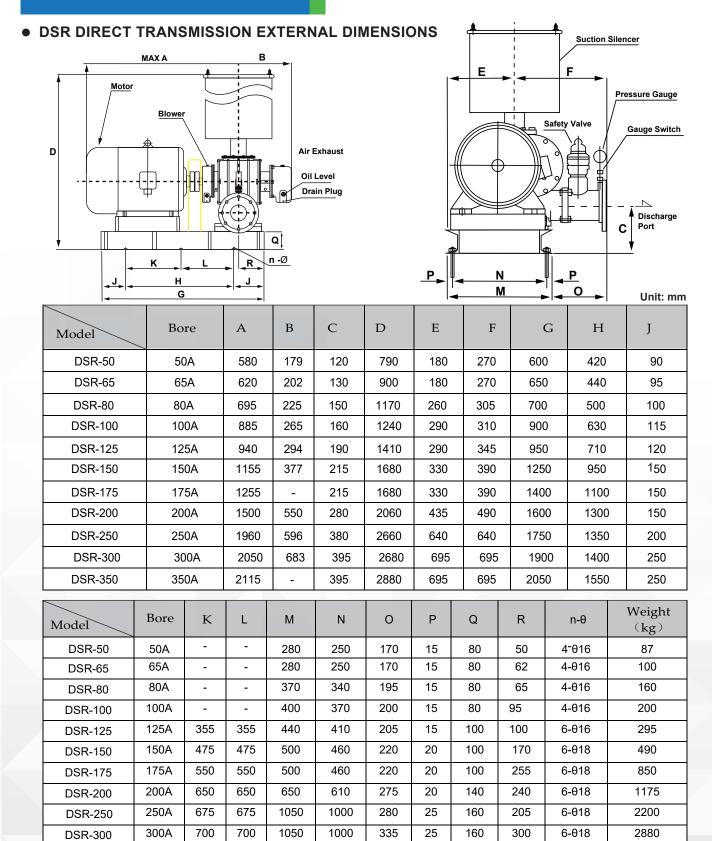
Model	Bore	L	М	N	0	Р	Q	n	R	S	Weight (kg)
DSR-80HB	80A	-	360	190	140	15	80	4	530	900	123
DSR-100HB	100A	-	470	220	220	15	80	4	600	980	158
DSR-125HB	125A	-	470	230	210	15	100	4	710	1100	235
DSR-150HB	150A	350	640	335	265	20	100	6	860	1320	394
DSR-200HB	200A	500	860	490	330	20	126	6	1080	1600	860
DSR-250HB	250A	750	950	510	390	25	160	6	1165	2230	1653
DSR-300HB	300A	750	950	605	295	25	160	6	1325	2280	2132
DSR-350HB	350A	750	1050	670	330	25	160	6	1630	2285	2600

Noted: 1). High Pressure (63.7kpa-98kpa) blower

2). The weight of motor is excluded



Outline Dimensions



Noted: 1). Low Pressure (9.8kpa-58.8kpa) blower

775

775

1050

1000

335

350A

DSR-350

2). The weight of motor is excluded

160

380

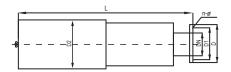
6-018

2430



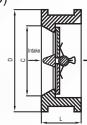
Accessories

• INLET SILINCER (HF)



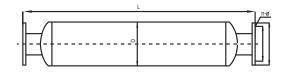
Model	D	D	D	D	L	N-D	(Kg)
DSR-50	50	58	110	170	440		5
DSR-65	65	130	160	170	550	4-Ø14	7
DSR-80	80	133	165	250	740	4-Ø14	16
DSR-100	100	147	185	270	800	4-Ø14	20
DSR-125	125	175	210	270	900	4-Ø14	20
DSR-150	150	225	250	350	1100	8-Ø18	35
DSR-175	150	225	250	350	1100	8-Ø18	60
DSR-200	200	280	310	120	1360	8-Ø18	60
DSR-250	250	350	380	560	1650	12-Ø 18	120
DSR-300	300	400	450	600	1750	12-Ø 18	140
DSR-350	350	460	505	650	1850	12-Ø 18	180

● CHECK VALVE (DVC)



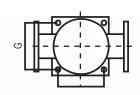
Model	Nominal (mm)	Diameter (inch)	L	d	D	(Kg)
DSR-50	50	2	45	22	105	1.1
DSR-65	65	2.5	50	32	130	1.8
DSR-80	80	3	68	48	140	2
DSR-100	100	4	68	58	160	2.8
DSR-125	125	5	70	80	188	4
DSR-150	150	6	76	102	218	5.4
DSR-175	150	8	76	148	270	8.4
DSR-200	200	8	90	148	270	8.4
DSR-250	250	10	114	187	325	12.8
DSR-300	300	12	114	220	380	21.4
DSR-350	350	14	114	270	436	33

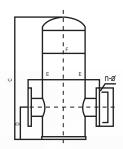
• OUTLET SILENCER (HM)



Model	BORE	Α	В	1	D	E	n-H	(Kg)
DSR-50	50	125	165	600	140	125	4-Ø 19	10
DSR-65	65	145	185	700	165	145	4-Ø 19	14
DSR-80	80	160	200	900	190	160	8-Ø 19	25
DSR-100	100	180	220	1200	217	180	8-Ø 19	33
DSR-125	125	210	250	1400	261	210	8-Ø 19	43
DSR-150	150	240	285	1600	286	240	8-Ø 23	57
DSR-175	150	245	285	1600	286	240	8-Ø 23	57
DSR-200	200	295	340	1800	320	295	8-Ø 23	98
DSR-250	250	350	395	2000	406	350	12-Ø 22	130
DSR-300	300	400	445	2000	500	400	12-Ø 22	160
DSR-350	350	460	560	2000	598	420	16-Ø 22	220

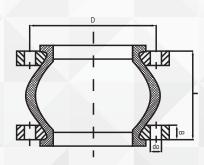
•VERTICAL OUTLET SILENCER (HL)





Model		Α	В	С	D	E	F	G	n-H	(Kg)
DSR-50	50	125	165	450	130	140	165	140	4-Ø 19	14
DSR-65	65	145	185	500	140	170	190	170	4-Ø 19	16
DSR-80	80	160	200	610	150	190	217	190	8-Ø 19	25
DSR-100	100	180	220	680	160	220	261	230	8-Ø 19	33
DSR-125	125	210	210	250	820	200	240	286	8-Ø 19	43
DSR-150	150	240	285	940	220	290	320	300	8-Ø 23	57
DSR-175	150	240	285	940	220	290	320	300	8-Ø 23	57
DSR-200	200	295	340	1060	260	320	438	370	8-Ø 23	98
DSR-250	250	350	395	1200	300	360	554	480	12-Ø 22	142
DSR-300	300	400	445	1500	450	410	604	510	12-Ø 22	178
DSR-350	350	460	505	1600	480	470	654	560	16-Ø 22	220

• EXPANSION JOINT (KXT)



Nominal (mm)	Diameter (inch)	L (mm)	B (mm)	(Bore no.)	do (mm)	D (mm)
50	(2)	105	18	4	17.5	125
65	(2 1/2)	115	20	4	17.5	145
80	(3)	135	20	8	17.5	160
100	(4)	150	22	8	17.5	160
125	(5)	165	24	8	17.5	210
150	(6)	180	24	8	22	240
200	(8)	190	24	8	22	295
250	(10)	230	28	12	22	350
300	(12)	245	28	12	22	400
350	(14)	255	28	16	22	460
400	(16)	255	30	16	26	565
450	(18)	255	30	20	26	565
500	(20)	255	32	20	26	620
600	(24)	260	35	20	30	725

