




ORION

Trade Name: DRY PUMP

Model: KRF25-V-01

Date: September 28, 2005

APPD	CKD	DWN
		

1. Warranty

1-1. Warrant Period

Products shall be warranted for one year, or 5,000 operation hours whichever comes first after the purchase.

1-2. Non-Applicable Items

Consumable parts (replacement parts).

Fault caused by careless handling or wrong operation use and control. (Use of out range of specification and use of other than that specified in supplied instruction manual. Operation use under abnormal environmental conditions.)

Fault caused by fire, flooding, lightning stroke, abnormal voltage or similar unforeseen disasters.

Fault caused by unfair repair and modification except Orion or Orion after-sales service.

Change of appearance, such as the damage caused while in use.

Secondary damages, caused by fault (Loss and inconvenience by having not used a product and damage caused by subordinate or result of commercial loss).

(Note) In case of causing a fault or an accident, please inform model name and manufacture No. at a sales office.

2. Consumable parts / Replacement parts

(1) Consumable parts (Parts to be replaced depending on wear condition when checking)

Name of Parts	Parts No.	Qty/ unit	Inspection period	Replacement criterion
Filter element (Suction side)	04000028010	1	1 week	When it was damaged, or when dirt cannot be removed by blowing air.
Metacoat (A)	03037234010	1	Removal of SD case	When it was damaged or crushed.
Gasket (B)	04009579010	1	Removal of SD case	When it was damaged or crushed.
Packing	04000695010	2	Replacement of element	When it was damaged or crushed.
Rubber packing	03039263010	2	Replacement of element	When it was damaged or crushed.
Gasket	03039292010	2	Removal of cap	When it was damaged or crushed.
Liner *1	040000380 0	To be decided by actual positioning	Replacement of vane	When it was damaged.
Spring tube	04039359010	1	Replacement of element	When it was damaged or crushed.
Spider	04002338010	1	6 months	When it was cracked or damaged.

*1 Parts number of second digits from the right side differs depending on thickness.

0. 2t becomes 1, 0.1t becomes 2, 0.05t becomes 3, and 0.03t becomes 4.

(2) Replacement parts (Parts to be replaced periodically at specified period)

Name of Parts	Parts No.	Qty / unit	Replacement time	
			60kPa operation	75kPa operation
Vane	04044373010	4	10,000	7,500
Bearing	0A000228000	2	10,000	7,500

* When you replace the vane, be sure to replace the bearing at the same time.

Use our special grease enclosure filling only for bearing.

3 Specifications

Model		KRF25-V-01	
Frequency	Hz	50	60
Designed capacity *1	L/min	405	480
Continuous operative vacuum *2	kPa	60 or less	
Maximum vacuum *3	kPa	80	
Ultimate vacuum *4	kPa	86 or more	90 or more
Diameter of piping connection		Rc3/4	
Motor	Phase / output/ pole	Three-phase / 0.75kW / 4P	
	Frame no. / heat resisting class	71M / E	
	Rated voltage – frequency	200V - 50 / 60Hz 220V - 60Hz	
	Rated current (A)	3.8 / 3.4 3.4	
Thermal set value *5	A	3.8 / 3.4 3.4	
Mass	Kg	28	
Painting color		Black (except motor)	
Installation condition (Suction air)	Installation site	Indoor	
	Permissible ambient temperature deg.C	0 to 40	
	Permissible ambient humidity %RH	65 +/- 20 (JIS Z8703)	
	Conditions	Conditions where there is no corrosive and explosive gas exist. Clean air without vapor and dew condensation, and less dirt and dust.	
Operation noise *6	dB	62	64

*1 Designed capacity: It is the theoretical value calculated from capacity. Please use the pressure-flow rate diagram for the actual flow rate.

*2 Continuous operative vacuum: Available vacuum range of the optimum performance (life time, and operation noise). Use below the continuous operative vacuum when the high vacuum is not necessary.

*3 Maximum vacuum: Available continuous operation of upper limit vacuum range. Be sure not to operate the product over the maximum vacuum. Operate the product over the maximum vacuum may result in malfunction of the product.

*4 Ultimate vacuum: Continuous operation is not possible at maximum ultimate vacuum of the pump. It is used as model selection calculation.

*5 Use the thermal set value as a target since the apparatus is different individually.

*6 The operation noise is the actual measured value at the continuous operative vacuum, not the warrant value.

EC DECLARATION OF CONFORMITY



ORION ORION MACHINERY CO., LTD.
Phone +81-26-245-8537 Facsimile +81-26-245-4151
246 Oaza Kotaka, Suzaka-shi, Nagano-ken, 382-8502 JAPAN

EC DECLARATION OF CONFORMITY

We hereby declare that the following our product conform with the essential health and safety requirements of EEC Directives.

Product : DRY PUMP
Model No. : KRF Series
(KRF15, KRF25, KRF40)
Manufacturer : ORION MACHINERY CO., LTD.
246 Oaza Kotaka, Suzaka-shi, Nagano-ken,
382-8502 JAPAN
Directives : Machinery Directive, 98/37/EC
Low Voltage Directive, 73/23/EEC, 93/68/EEC

The above product has been evaluated for conformity with above directives using the following European standards. The technical construction file (TCF) for this product is retained at the above manufacturer's location.

Machinery Directive / Low Voltage Directive:
EN 12100-1:2003, EN 12100-2:2003, EN 1050:1996, EN 1012-2:1996,
EN 60204-1:1997, EN 563: 1994, EN 983:1996, others

Signature : 

Date : 2005.08.22

Name/Title : Toru Kaneko/General Manager

Being the responsible person appointed and employed by the manufacturer.

4. Precautions

- (1) Operate the product while keeping the specified specification and precautions.
- (2) Be sure to read "Instruction Manual" before using the Dry Pump (Installation, Operation, Maintenance, and Inspection). Especially take enough care of your safety.
- (3) Be sure to install the check valve. When the dry pump is stopped, the vane may easy to get damage if the pump is reversed the rotation by the residual pressure. Be sure to install the check valve within 50cm from the inlet piping port.
- (4) Be sure to install the product horizontally on the flat surface.
- (5) Operating the product at the enclosed space may cause malfunction due to generation of heat of the pump. Carry out enough ventilation around the pump, and be careful not to exceed the ultimate ambient temperature.
- (6) Be sure to clean the filter periodically. If not, it may cause clogging and may result in failure due to over load condition.
- (7) Qualified personnel have to perform wiring work according to electrical facilities technical standards or internal regulations.
- (8) Be sure to install the overload protection device (thermal relay) in the electric circuit.
- (9) Permissible fluctuation range of power supply current is within +/- 10 % of rated current.
- (10) Be sure to use the product 1,000m or below above sea-level.

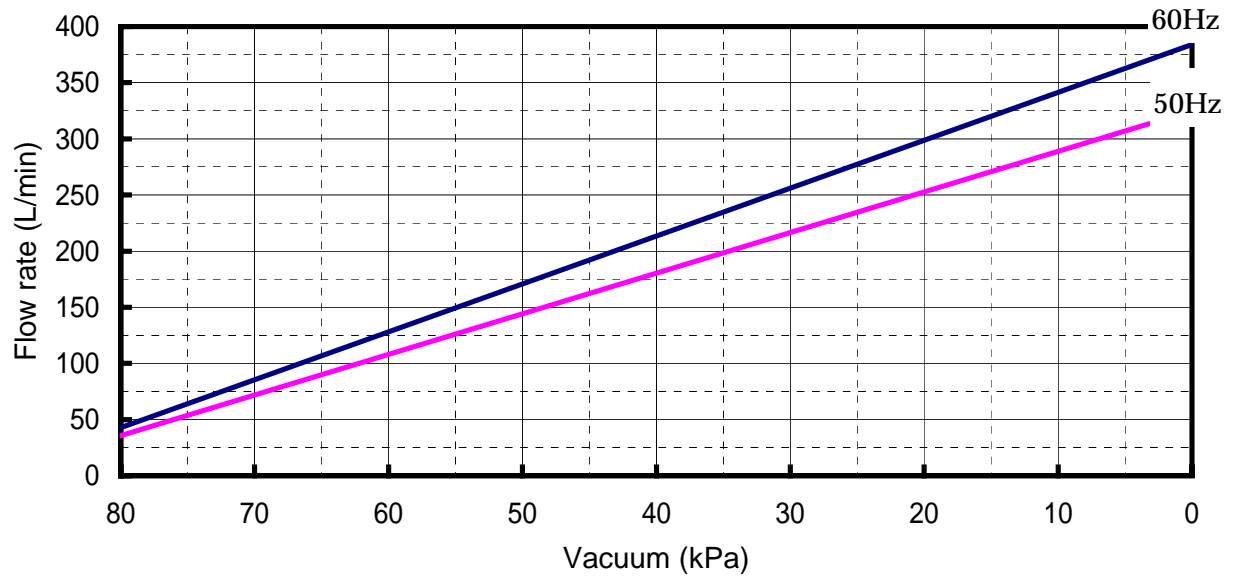
5. Accessories

D type compound gauge	6 0	1 piece
Vacuum controller (VC63)		1 piece

6. Pressure-Flow rate diagram

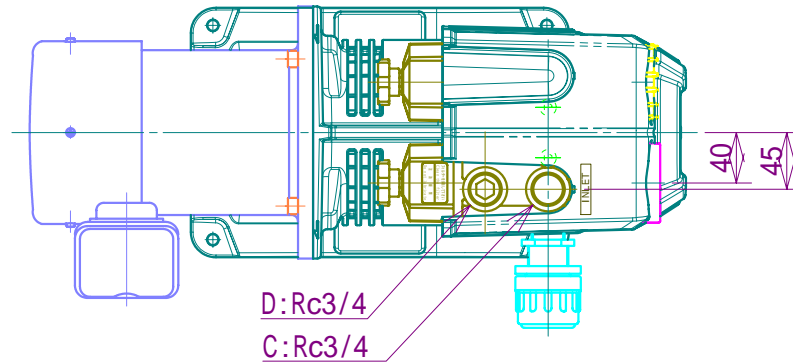
KRF25-V-01

Vacuum Specification



Condition: under 1 atmospheric pressure
20 deg.C

7. Dimensional Outline Drawing



*The controller and the inlet port can be attachable to A, B, C, and D.

