

Pack022

XD series sliding vane rotary vacuum pump

Operation instructions



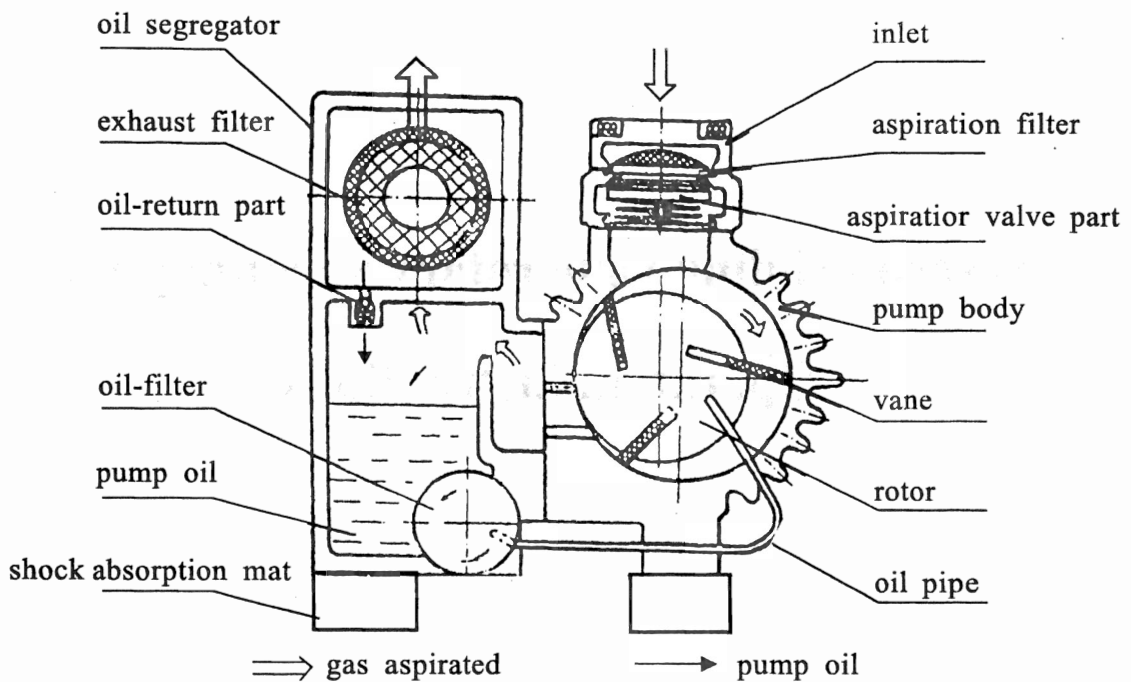


Illustration 1 XD series work principle

I、 Summarize

XD series are sliding vane rotary vacuum pump. The work principle instructed as illustration 1.

The filter with metal threads netting installed in the inlet, preventing the entry of solid dust. Oil filter has high effective ability to segregate oil and gas installed in oil segregator set. When the pump stop work, aspiration valve make pump separate from aspiration system, preventing pump oil into aspiration system. Pump cooled by air and derived by elastic coupling through electric motor.

II、 scope of application

XD series can be operated in optional inlet pressure, widely applied in vacuum packing in food industry and modeling in plastic industry, paper conveying in printing industry, vacuum jigs and vacuum aspiration.

Inlet pressure scope: 100pa--100000pa

Work temperature: 5℃--40℃

Can't aspirate liquid, easy burn, easy blow or corrosive gas..

III、 Technical Parameter

Model	XD-010	XD-020	XD-025	XD-040	XD-063	XD-100	XD-160	XD-250
Pumping Speed(m ³ /h)	10	20	25	40	63	100	160	250
Ultimate Pressure(pa)	2×10 ²	2×10 ²	2×10 ²	2×10 ²	2×10 ²	2×10 ²	2×10 ²	2×10 ²
Motor power (kw)	0.37	0.9/220v 0.75/380v	0.9/220v 0.75/380v	1.1	1.5	3	4	7.5
Rotational Speed(rpm)	1440	2800	2800	1440	1440	1440	1440	1440
Oil capacity (I)	0.5	0.5	1	1.5	2	4	9	9
Inlet size (i)	G $\frac{1}{2}$	G $\frac{1}{2}$	G1 $\frac{1}{2}$	G1 $\frac{1}{4}$	G1 $\frac{1}{4}$	G1 $\frac{1}{4}$	G2	G2 $\frac{1}{2}$
Weight (kg)	16	19	19	65	62	115	145	200
Voltage (v)	380/220	380/220	380/220	380/220	380	380	380	380

(Oil capacity is for reference only, take oil level as standard)

IV、 Operation

1. Setting horizontally, screw in shock absorption mat for fixation. Don't pull pump avoiding the damage of mat.
2. Oiling special vacuum pump oil to 3/4 of oil window's height.
3. When XD-010, XD-020 matching single phase motor, should use plug, stocket, wire of 15A.
4. Matching single phase 220v50HZ should work under voltage of 220v±10%. Don't keep it working under high or low voltage to avoid the damage of electrical machinery.
5. Checking rotary direction of motor after matching three phase motor. The correct direction is anti-clockwise seeing from the ending of motor.
6. Starting pump after checking the oil level.

7. It should be better to shut the inlet and make pump work more than 15 minutes in the ultimate pressure condition to draw vapor.

[during the working (1) the surface temperature will over 70°C, don't touch; (2) don't oiling]

V、 maintenance

1、 XD series should use SHO528-92 standards vacuum pump oil. Environment temperature between 0°C-10°C, use ISO-VG32 oil. Keep oil Level between 1/2-3/4 of window oil height . It is suggested to check oil level and pollution each week and add or change timely.

2、 Oil changed after the first work of 150 hours and afterward, change every 500 hours work. Oil filter should be changed as the oil changing

3、 Clearing, the pump before pour new oil for the oil pollution and the following steps for reference:

1) stop pump work and off the hot oil;

2) turn oil-off plug and let pump work 5-10 second;

3) off oil completely;

4) pour clearing oil to the 3/4 of oil window height;

5) work 5-10 seconds;

6) stop work, off the clearing oil (once more if necessary)

7) turn oil-off plug , work 5-10 seconds;

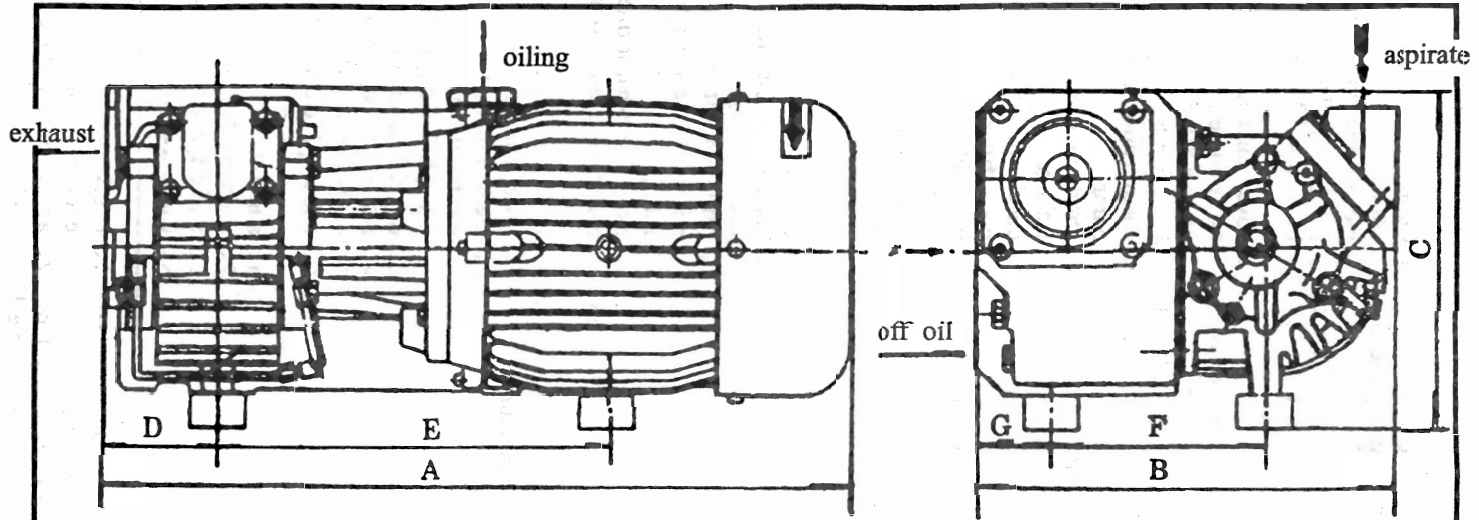
8) off oil completely

9) pour vacuum pump oil;

III、get over obstacle

appearance	cause	Solve
1、 pump can't start	<ol style="list-style-type: none"> 1、 wire connection of electrical machinery is wrong , the voltage is too low; 2、 pump or electrical machinery block; 3、 environment temperature below 5℃ 	<ol style="list-style-type: none"> 1、 Connect wire again and check voltage; 2、 pick off the fan cover to try start pump and electrical machinery 3、 heat oil to 30℃ before oiling;
2、 can't reach the ultimate pressure	<ol style="list-style-type: none"> 1、 have gas in oil 2、 measure way or instrument is not correct; 3、 oil is not used in pump or be polluted; 4、 leakage of pipe; 5、 not reach oil level; 6、 aspiration filter choked; 7、 inlet pipe is too long or narrow; 8、 wear of vane 9、 wear of pump; 10、 aspiration valve out of work; 	<ol style="list-style-type: none"> 1、 cover inlet and work pump for 60 minutes; 2、 try correct measure way or instruments; 3、 change oil which special used in pump; 4、 check pipe and get over the leakage; 5、 check oil level; 6、 clear filter; 7、 use wide and short inlet pipe; 8、 exchange vane; 9、 send to factory for repairing or buy a new one; 10、 check the aspiration valve;
3、 hight electric current when work	<ol style="list-style-type: none"> 1、 oil polluted 2、 exhaust filter choked 	<ol style="list-style-type: none"> 1、 change oil; 2、 change exhaust filter;
4、 consume much oil and appear oil fog	<ol style="list-style-type: none"> 1、 too much oil; 2、 wrong installation or material break of exhaust filter; 3、 exhaust filter choked; 4、 oil-return valve out of work, oil-return pipe choked; 	<ol style="list-style-type: none"> 1、 off redundant oil; 2、 reinstall or exchange exhaust filter; 3、 exchange exhaust filter; 4、 check and clear oil-return pipe;
5、 too high temperature when work	<ol style="list-style-type: none"> 1、 high environment temperature; 2、 without enough aeration 3、 too much oil; 4、 insufficient oil; 5、 oil polluted; 6、 exhaust filter polluted 	<ol style="list-style-type: none"> 1、 lower temperature; 2、 clear cooling fin of pump and electrical machinery, supply enough flowing air to cool pump; 3、 off redundant oil; 4、 add oil to standard level; 5、 change new oil; 6、 exchange exhaust filter;
6、 heavy noise when work	<ol style="list-style-type: none"> 1、 oil level is too low; 2、 exhaust filter choked; 3、 wear of elastic coupling 4、 wear of vane or pump 	<ol style="list-style-type: none"> 1、 add oil; 2、 exchange exhaust filter; 3、 exchange elastic coupling; 4、 exchange wore parts;
7、 pump block	<ol style="list-style-type: none"> 1、 work without oil or vane broke 2、 work under wrong direction; 3、 sliding bearing work without oil or with less oil and make bearing steel broke 	<ol style="list-style-type: none"> 1、 check and repair pump or exchange vane; 2、 adjust rotary direction and exchange vane; 3、 add oil and exchange part;

VII、install dimension



model size	XD-010	XD-020	XD-025	XD-040	XD-063	XD-160	XD-250
A	405	410/440	420	632	665	835	
B	235	280	265	312	323	540	
C	210	210	205	275	280	410	
D	60	60	65	150	130	240	
E	220	210	210	320	364	390	
F	130	130	130	190	210	304	
G	25	25	25	20	20	100	