Chongqing FuooTech Oil Purifier Technologies Co., Ltd

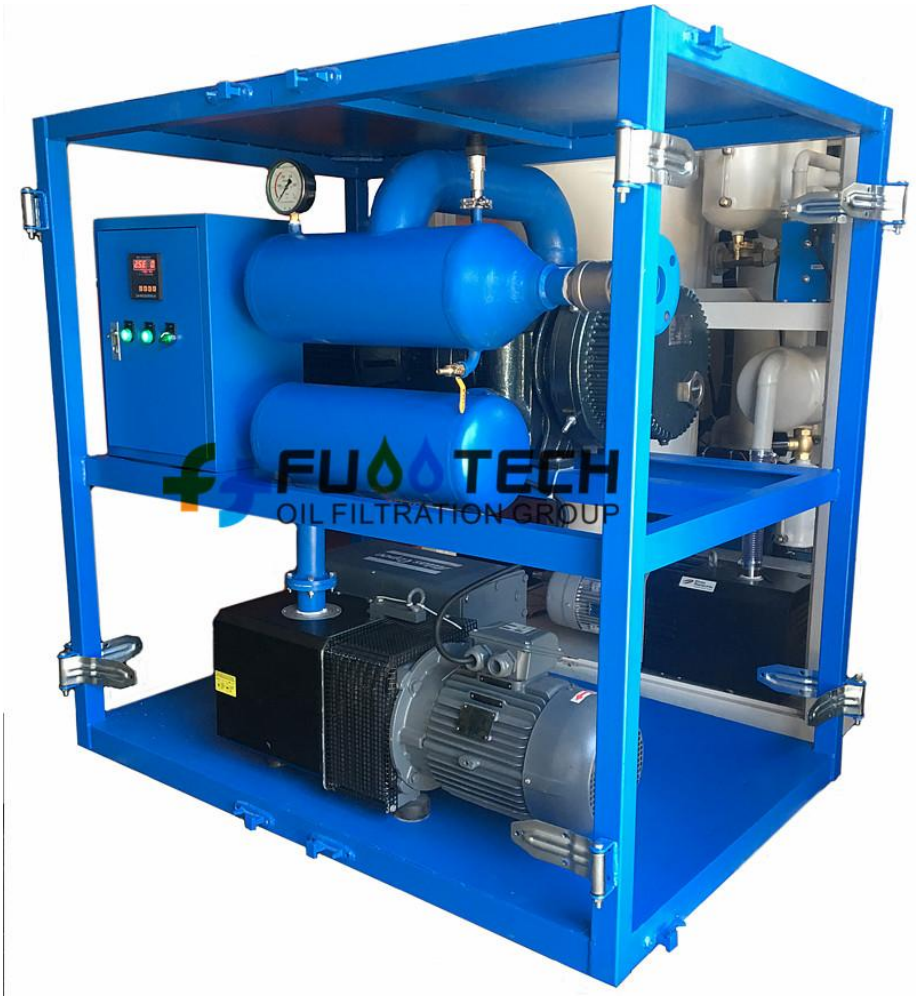
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Series FTVS Double Stage Transformer Evacuation System

Vacuum Pumping System

I. Company Profile



FuooTech Oil Filtration Group Limited is a leading oil purifier manufacturer in China, which engages in developing, producing, selling a series of oil purifier such as transformer oil purifier, turbine oil purifier, engine oil purifier, lube oil purifier and so on. We practice in this line for ten years, so we have a strong technology and gain rich experience. Our products have been exported to many countries, and get a high reputation.

Since the foundation of our company, under the duty of devoting our efforts to develop the advanced purifier for saving energy sources, adopting the advanced management like SUBI, and with the reliance on the strong technical force, advanced equipments of production, perfect quality check method, fast and outstanding after-sales service, our company has developed into a national big base specialized in producing oil purifier. Our products are outstanding because of its excellence in quality, stability in service, and diversity of products.

FuooTech Oil Filtration Group Limited owns a number of national-class oil purifier experts and experienced engineers. Encouraged by the company's modern management mechanism, we have developed six big series, including hundreds of models oil purifier equipments which have the independent property right and advanced filter technology. Those equipments can be applied to many fields, such as the electric power, petroleum chemical, metallurgical industry, mine, aviation, shipping and railway, and so on.

We adhere to the tenet of mutual-benefit and both-win. With the sincere and pragmatic work attitude, we would like open up new Sci &Tech oil purify era with our customer.

Ⅱ Application and Characteristics

Description:

FTVS series transformer evacuation system/ vacuum pump set is a new type of vacuuming equipment developed and produced by our company. It is widely used in the process of producing vacuum condition for various equipment. Its vacuum pressure can reach much lower than any other products in the same field.



Application:

It is widely used in the vacuuming process in the production, installation and maintenance of many electric power equipments, like electric power transformer, capacitor etc., and is also used in the technical process of industrial production, such as vacuum drying, vacuum distillation, vacuum wielding, vacuum coating etc.

It is not suitable for the vacuum process for air and gases containing too much powder, water and oxygen as well as explosive, corrosive, poisonous and chemical substances.

Characteristics:

1. The system consists of a special Roots Booster Vacuum Pump +a Germany Leybold Rotary vane vacuum pump combination of vacuum pumps , so the vacuum pumping speed and pressure are obviously better than any other devices.
2. Working vacuum range and maximum vacuum degree are superior to other products.
3. It's equipped with a control panel with buttons and main breaker for controlling the operation of the two pumps.
4. Consist of necessary high quality pipelines and valves to operate the system.
5. It is installed with special vacuum gauge for accurate indication.
6. Stable and reliable operation, low noise, and easy to move.
7. It's of portable/movable type, small wheels installed, and hooks equipped for lifting.

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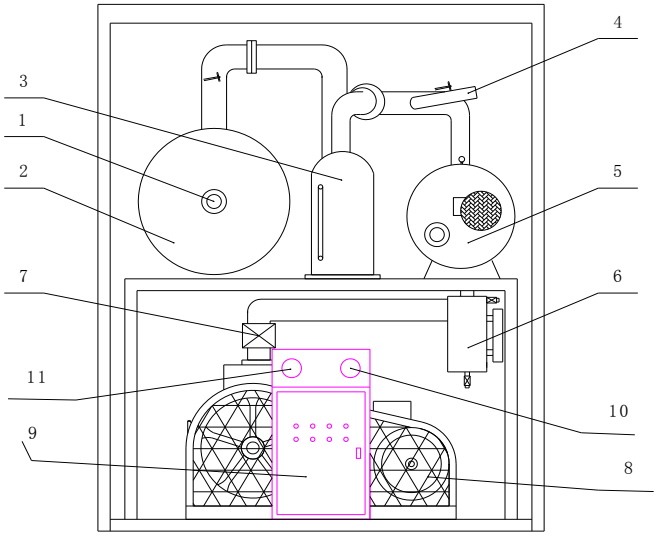
III. Product Type and Main Technical Parameter

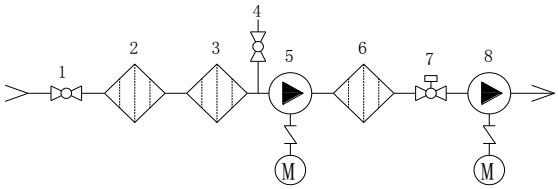
Technical Parameter	FTVS-30	FTVS-70	FTVS-150	FTVS-300	FTVS-600	FTVS-1200
Nominal Pumping Speed ***(L/s)***	30	70	150	**300**	**600**	**1200**
Nominal Pumping Speed ***(m^3/h)***	108	252	540	**1080**	**2160**	**3500**
Limited pressure (Pa) for Mechanical Booster Roots pump	**5×10^{-2}**					
Limited pressure (Pa) for rotary vacuum pump	**6×10^{-2}**					
Total Electric Power (kw)	2.2	2.6	4.5	**8.5**	**16.5**	**23**
Roots Pump Type	ZJP -30	ZJP -70	ZJP -150	**ZJP -300**	**ZJP -600**	**ZJP -1200 (or 2 Sets of ZJP-600)**
Rotary Vacuum Pump Type	X-21	X-63	X-100	**X-202**	**X-300**	**X-300 (2 sets)**
Power Supply	**50Hz, 380V, 3 phase – or as per your requirement**					
Noise dB (A)	**Less than 75**					
Cooling Method	Air Cooled				**Air/Water Cooled**	
Gas Inlet Caliber (mm)	DN50	DN80	DN100	**DN160**	**DN200**	**DN250**
Gas Outlet Caliber (mm)	DN34	DN60	DN70	**DN90**	**DN70**	**DN90**
Overall Dimensions (cm)	125×100×170	140×110×198	170×120×210	**175×135×220**	**175×145×215**	**190×160×269**
Weight (KGS)	186	290	480	**798**	**1160**	**1570**

The dimension and weight will be changed with changing the technical specification

IV. Structure Diagram & Flow Chart

Structure Diagram and Flow Chart for Vacuum Pump Set





1、Inlet valve 2、Buffer vessel 3、Cooler 4、Single vacuum valve 5、Roots Vacuum Pump (Main) 6、Water Receiver 7、Differential pressure valve (Solenoid type) 8、Rotary Vacuum Pump (Front Stage) 9、Electrical Control Box 10、Vacuum Gauge 11、Spare Vacuum Guage

V. Maintenance

1. After a certain period of running, the machine should be checked whether:

a) The electrical control system is safe and reliable;
b) Oil seals of the pump shaft are broken with leakage;
c) There is any blockage with the running system and any abnormal noise with pumps or related motors;
d) There is any air leakage at sealing joints.

2. After each 3000 hours' running, grease shall be replenished to prevent motors from being burnt.

3. Special vacuum pump oil or lubricating oil N46 should be used for the vacuum pump and roots pump and oil replaced or replenished if necessary at any time.

4. If the machine will not be used over 1 month, Place the machine in a dry environment with the panel door and all valves closed, and the machine proper protected by a covering.

VI. Troubleshooting

Trouble	Cause	Remedy
The vacuum degree reduce	1. Vacuum pump has problem. 2. The leakage of the vacuum pipe. 3. Vacuum pump oil is insufficient. 4. The water pollutes the vacuum pump oil. 5.the vacuum gauge has some problem	1. See the introduction of vacuum pump. 2.Check and repair 3.Makeup the vacuum pump oil 4.Drain away water 5.Adjust or change
Water flow into the vacuum pump	The water is too much in the cooler, so the water flows into the vacuum pump.	1. Observe the level gauge of the cooler. If the water level is high, pls drain away it. 2. Clean vacuum pump, change vacuum pump oil.
Vacuum pump electric motor stops suddenly.	1. High electric power 2. The power lack phase	1. Stop using the machine 2. Check the power supply