

1. Notice for use

Thank you for buying WIGAM ETO-4 oil charging and flushing pump.  
Please check if your ordered goods in good shipment condition, with the correct accessories.  
This manual gives instructions on the correct installation, it's important that you follow this instructions carefully.

2. Safety precautions

- a) Before carrying out any adjustments or servicing, make sure the installation is disconnected from the power supply
- b) Don't run this pump without oil.
- c) Don't run in the place with explosion hazard and inflammables
- d) Don't touch the motor and pump after running long-time to prevent to scald the hand.



3. Product introduction

3.1 Product profile

ETO-4 electric oil charging and flushing pump is designed according to the feature of compressor oil supplement or change, it's body adopts with integration gear pump.  
ETO-4 pump fits all popular brands of refrigeration oil, special for high viscosity oil. Charge the oil very easy, save the manpower.

3.2 Technical data

Model	ETO-4
Voltage	230V 50/60Hz
Viscosity of oil	<320mPa/s
Motor	180W
Flow rate	4 l/min
Max pressure	20 Bar
Outlet port	1/2" SAE
Weight	5.6kg

3.3 Operating instruction

3.3.1. Check before operating (Only qualified service personal should operate this unit, may require the user to be licensed for some countries)  
Working-spot should have good lighting and atmospheric conditions.

- Make sure the charging refrigerant oil from the oil tank is the same as the type indicated on the nameplate.
- Make sure with the correct voltage as the same as nameplate.

3.3.2 Oil charging process

- 1) Clean the inlet and outlet hose to protect the oil mix, connect to the oil pump, then insert the inlet hose to the tank.
- 2) Switch on the pump for suction oil and discharge the air from the inlet hose and pump body, then switch off the pump once make sure no air inside. Connect the outlet hose to the oil charging valve of compressor.

- 3) Open the oil charging valve, switch on the oil pump to start to charge the oil.
- 4) Running the compressor to review if the oil level, pressure and oil temperature are under normally conditions, and do the adjustment, if necessary.
- 5) Remove the oil tank, oil pump and outlet hose if everything is fine. Wipe out the rest oil inside hose and pump. Pack them with sealed plastic bag, then keep the compressor running again.

4. Maintenance

Warning: Before/during checking process, make sure the installation is disconnected from the power supply.

Warning: Don't touch the pump while the unit is very hot after running long-time

To ensure the long-life and performance of oil pump, it should need to use clean pure refrigerant oil. Be sure to check first when the oil doesn't be used for a long time.

5. Troubleshooting

Problem	Cause	Solution
Pump isn't operating at all	1. power doesn't reach the pump 2. the voltage isn't correct 3. the thermal protector works 4. the temperature is too low 5. the pump body locked due to the dirt.	1. check the power and switch 2. make sure to keep the input voltage within rated voltage $\pm 5\%$ 3. check the thermal protector 4. increase the environment temperature 5. repair the pump
Flow rate is too Small or can't pump anymore	1. the inlet hose or filter blocking 2. the system has the air 3. the outlet hose block 4. the oil level is too low 5. the system pressure is too high 5. the pump body locked due to the dirt.	1. clean the inlet hose and filter 2. discharge the air 3. keep the outlet hose unblock 4. check the inlet hose is under the oil level or not 5. solve the problem of high pressure
Pump runs with high noise	1. too low oil level 2. unreasonable hose size 3. the dirt inside to pump 4. the system has the air 5. pump inner body damaged	1. check the inlet hose is under the oil level or not 2. adjust the hose size 3. repair the pump 4. discharge the air 5. repair the pump, change the parts
Pump temperature is too high	1. work pressure is more than Max. pump pressure 2. no enough fan cooling 3. the environment temperature is too high 4. poor ventilation	1. read the manual carefully, re-select the model 2. check the motor fan runs well or not 3. decrease the environment temperature 4. improve ventilation