



# Vacuum Transformer Oil Purifier Model VFD



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## Features

### User-friendly design with simple operation

- Oil vacuum injection
- Transformer drying
- Online working
- Highly automatic operation



### Efficiently improve oil performance

- Enhance the value of breakdown voltage greatly
- High efficiency of de-watering, de-gassing and particulate-removing
- Higher dirty-collecting ability and longer life span
- Multi-stages filtration system
- The primary filtration device is washed
- High precision filtration device



### Four main systems ensure safety

- Liquid level auto-controlling system
- Auto pressure protection system
- Steady temperature auto-controlling system
- Electrical auto-protection
- PLC: full automatic machine is available



### Provide the most compact design

- All of the main components adopt imported advanced parts
- Small size, light weight, low noise
- Low maintenance and long servicing life
- Environmentally friendly





# SINGLE-STAGE VACUUM TRANSFORMER OIL PURIFIER

## ➤ Model VF

The Sino-NSH oil purifier machines, *model VF*, are specially designed for processing (dehydration, degasification, filtration, and breakdown voltage enhance) of insulation oil of transformer, circuit breaker, mutual inductor, voltage regulator and switch gear.

### Technical Data:

Item	Unit	VF-30	VF-50	VF-100	VF-150	VF-200	VF-300	
Flow Rate	L/H	1800	3000	6000	9000	12000	18000	
Vacuum Range	Mpa	-0.065 ~ -0.099						
Max Vacuum Range	Pa	≤ 90						
Working Pressure	Mpa	≤ 0.3						
Temperature Range	°C	45 ~ 80						
Power Supply	V	380V/3P/50Hz (or as needed)						
Working Noise	dB(A)	≤ 70			≤ 75			
Heating Power	Kw	24	30	72	108	144	210	
Total Power	Kw	26	33	76	114	150	222	
Weight	Kg	350	480	750	1100	1250	1420	
Size	length	Mm	1200	1300	1400	1500	1600	1800
	width	Mm	900	900	1050	1100	1100	1250
	height	Mm	1200	1300	1500	1800	1850	2000

### Guaranteed Data of Processed Oil:

- Breakdown Voltage (KV) : **65**
- Appearance : **Transparent**
- Water Content (ppm) : **≤ 7**
- Gas Content (%) : **≤ 0.1**
- Filter Fineness (um) : **≤ 5**
- Mechanical Impurity : **None**
- Kinetic viscosity : **No less than unused oil**

# NSH



**VF-30**



**VF-30**



**VF-100 with  
single axle trailer**

# DOUBLE-STAGE VACUUM TRANSFORMER OIL PURIFIER

# NSH

## ➤ Model VFD

With more efficient dehydration and degassing ability. Comparing with model VF, it adds roots vacuum system, second stage of separating system to improve the effect of purification.

It also can be used to inject the insulating oil into the transformers.

### Technical Data:

Item	Unit	VFD-30	VFD-50	VFD-100	VFD-150	VFD-200	VFD-300	
Flow Rate	L/H	1800	3000	6000	9000	12000	18000	
Vacuum Range	Mpa	-0.092 ~ -0.099						
Max Vacuum Range	Pa	≤ 50						
Working Pressure	Mpa	≤ 0.2						
Temperature Range	°C	45 ~ 80						
Power Supply	V	380V/3P/50Hz (or as needed)						
Working Noise	dB(A)	≤ 72			≤ 78			
Heating Power	Kw	24	36	72	90	120	150	
Total Power	Kw	27	41	79	98	130	162	
Weight	Kg	550	850	1100	1400	1600	2200	
Size	length	Mm	1500	1500	1900	2100	2100	2600
	width	Mm	1280	1280	1400	1650	1550	1800
	height	Mm	1750	1750	1800	1900	1900	2000



**VFD-30 with  
single axle trailer**



**VFD-50**

### Guaranteed Data of Processed Oil:

- Breakdown Voltage (KV) : 75
- Appearance : Transparent
- Water Content (ppm) : ≤ 4-5
- Gas Content (%) : ≤ 0.1
- Filter Fineness (um) : ≤ 5
- Mechanical Impurity : None
- Kinetic viscosity : No less than unused oil



**VFD-200 with  
double axle trailer**



# DOUBLE-STAGE HIGH VACUUM TRANSFORMER OIL PURIFIER

## ➤ Model HVFD

It also can be used to inject the insulating oil into the transformers.

We can provide you with *customized machine solutions* to improve the automated process, to inspect the operation, to test the result, to simplify the operation, to design accords to your using environment etc.

## Technical Data:

Item	Unit	HVFD-30	HVFD-50	HVFD-100	HVFD-150	HVFD-200	HVFD-300	
Flow Rate	L/H	1800	3000	6000	9000	12000	18000	
Vacuum Range	Mpa	-0.092 ~ -0.099						
Max Vacuum Range	Pa	≤ 50						
Working Pressure	Mpa	≤ 0.2						
Temperature Range	℃	45 ~ 80						
Power Supply	V	380V/3P/50Hz (or as needed)						
Working Noise	dB(A)	≤ 75			≤ 80			
Heating Power	Kw	30	48	90	120	180	240	
Total Power	Kw	35	54	98	129	189	254	
Weight	Kg	510	650	800	1100	1300	1600	
Size	length	Mm	1400	1500	1800	1900	2000	2100
	width	Mm	1000	1250	1400	1650	1700	1700
	height	Mm	1200	1300	1500	1800	1850	2000



**HVFD-50**



**Customized machine**

VFD-R regeneration units adopt both physical and chemical methods. They can not only regenerate the aging transformer oil, switch oil but remove the acid, suspending materials and contaminates.

VFD-R regeneration units adopt special adsorbent. They can be normally run without switching off the power and changing the oil of transformer.

After the treatment, the transformer oil will maintain basic ingredients and anti-oxidation capacity to meet the standard of new transformer oil. Meanwhile, the VFD-R regeneration units can keep the power equipments insulating and safe by consuming only 90% maintenance cost.



**After the treatment, performance of transformer oil can achieve the below specifications:**

- + Breakdown voltage  $\geq 75$  KV
- + Flash point(close)  $\geq 140$  °C
- + Soluble acid PH value = 5-7
- + Dielectric loss tangent  $\text{tg}(90^\circ\text{C})\% \leq 0.002$
- + Acid value  $\leq 0.01\text{mgKOH/g}$







### Standard Models:

VF	Single-Stage Vacuum Purifier
VFD	Double-Stage Vacuum Purifier
HVFD	Double-Stage High Vacuum Purifier

### Configuration Options:

Stationary
Mobile with castor wheels
Steel Shield with castor wheels
Mobile with trailer
Mobile with trailer and steel shield cover

### Machine Options:

Explosion-proof Type
Automation Type /PLC Type
Regeneration Type

### Corollary Equipment of Power Plant

VS - Vacuum Pump Set (Air Evacuating)
AD - Air drying system
LF - Oil Flushing System
DOF - Duplex Oil Filtration System
DPCS - Oil Lubricating Station
CPPA - Centrifugal Separator



**Stationary**



**Mobile with castor wheels**



**Mobile with trailer**



**Steel shield with castor wheels**



**Single axle trailer with cover**



**Double axle trailer with cover**



**Automation with PLC**



**VS**



**AD**



**DPCS**



**DOF**



**CPPA**



## Turnkey Solutions

- ✦ Commissioning
- ✦ Training
- ✦ Customer service
- ✦ Spares
- ✦ Instruments
- ✦ Technical support and schemes

## Our Clients



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