CHONGQING TOP OIL PURIFIER CO., LTD



ZYD Series

Double-Stage Vacuum Transformer Oil Purifier

Application

ZYD double-stage vacuum insulating oil purifier is a creative design introducing domestic and international advanced technology. It is applied to process transformer oil and insulating oil from power plant, power station, electric power company, power transmission equipment, transformers, industrial and mining enterprises, especially suitable for on-site installation, maintenance and purifying high level new oil, or running oil from big power transmission and distribution equipment and transformers on national main power transformation grid, which is above 110-750kV. It can shorten the oil treatment period for transformer installation and maintenance.

Features

1. With double-stage high pumping speed vacuum system, multistage stage vacuum analytical separation system, it can quickly separate out water, gases, impurities, polar substances and other deteriorated materials.
2. Adopting the three-dimensional flash evaporation dehydration and degassing technology, it high efficiently separates water, gases from the oil, making the breakdown voltage rapidly increase to above 75KV.
3. Adopting the complex high speed degassing spiral flow structure, oil gas separate dual channel technology, redissolution technology in anti oil gas separation, it quickly removes various organic hydrocarbon gases, ensuring no acetylene and hydrogen in oil.
4. Adopting carbon fiber infrared heating, grouped ultra low surface load, PID constant temperature control and dual temperature flow protection technology. Inside the machine installed the the diameter increase oil flow direction turning overflow technology to prevent “dead oil area”, over-temperature and drying.
5. Adopting multistage high β value compound filtration system, linear coupling filter seal, it can effectively filter even the tiny particles mechanical impurities.
6. Specially made precise oil pump with low noise meeting environmental protection requirement.
7. Online filtering oil; with nobody watching is okay, and it can also be used for vacuum oiling the transformers etc and drying its hot oil.
8. Equipped with advanced infrared liquid level auto control system, auto defoaming control system, pressure protection system and safety interlock control to ensure that the equipment work for long time, safely and reliably.

Working Principle

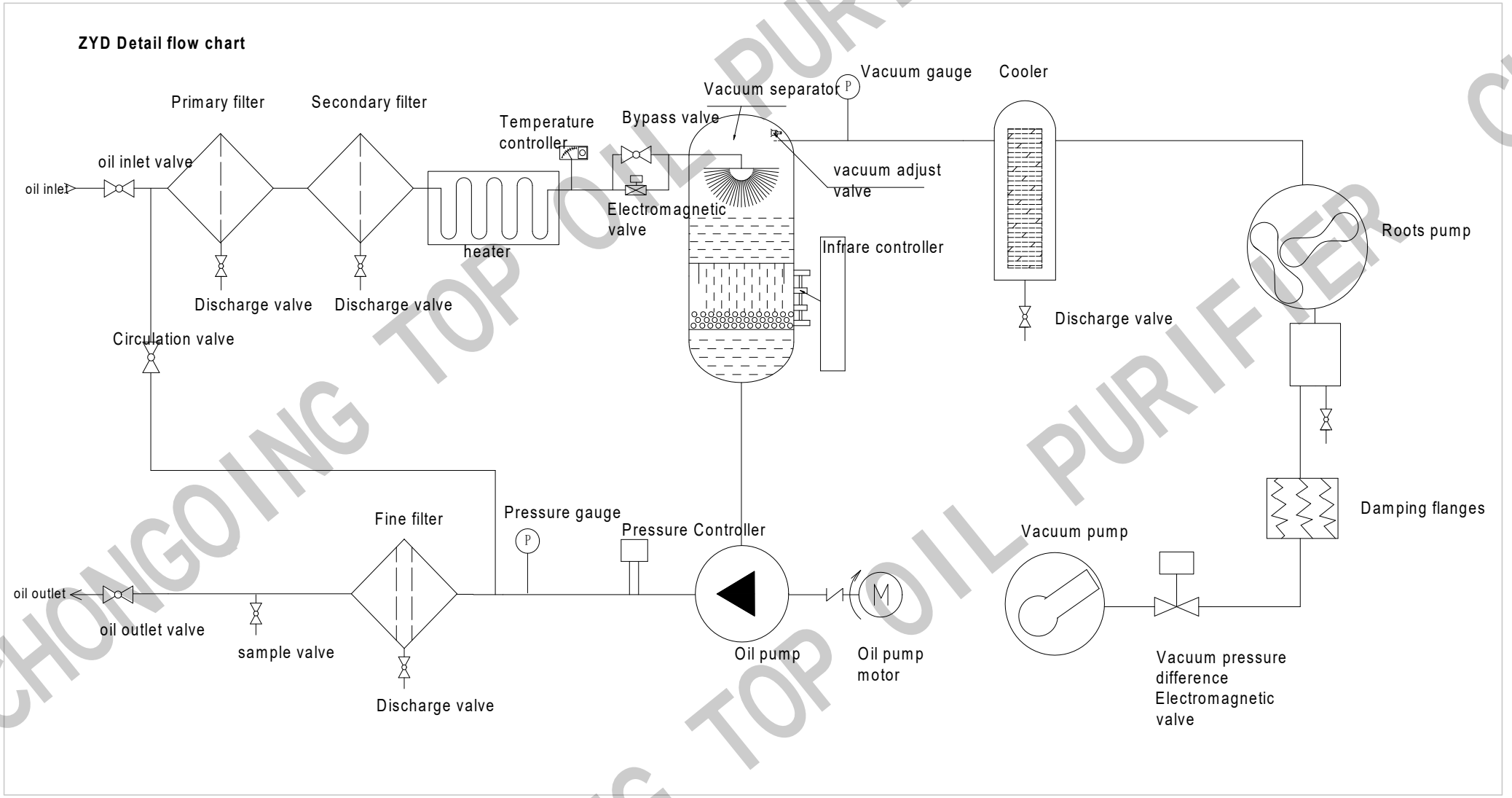
The insulating oil is conveyed into the degassing tank by means of pressure difference. Oil is indirectly heated by the heater, thus avoiding hot spots and over-swinging of the pre-selected operating temperature. The special degassing system and geometry with several stages in degassing tank creates a large oil surface and a resulting thin film for most effective maximum degassing. The treatment with a lower end vacuum (-0.08 to -0.095 MPa) guarantees, among others, that no light fractions are evaporated in the insulating oil, whereby the required characteristics of the oil are not changed.
The oil level regulation in the degassing tank assures a continuous oil flow-through in the plant, thus resulting in an optimised degassing of the oil.
After degassing and dehydration under vacuum, the oil is conveyed by means of a specially sealed and frequency controlled pump through the fine filter and out of the plant.

Technical Parameter

Item		Unit	ZYD-20/30	ZYD-50	ZYD-100	ZYD-150	ZYD-200	ZYD-250	ZYD-300
Flow rate		L/min	20/30	50	100	150	200	250	300
Working vacuum degree		MPa	-0.08 ～ -0.099						
Working pressure		MPa	≤0.3						
Temperature range		℃	20 ～ 80						
Power supply			380V/50HZ/3Ph 5 wire (as customer's requirement)						
Normal working hour		H	≥ 4000						
Continuous working hour		H	150						
Working noise		dB（A）	70	70	70	75	75	75	75
Heating power		KW	28	30	45	60	75	90	120
Total power		KW	35.5	37.5	52.5	71.4	86.5	102.5	135
outlet(inlet) caliber		mm	φ25	φ32	φ42	φ50	φ50	φ60	φ60
Weight		Kg	600	800	1000	1400	1800	2000	2200
Size	L	mm	1500	1600	1600	1900	2000	2100	2200
	W	mm	800	1000	1200	1200	1200	1200	1200
	H	mm	1600	1600	1600	2000	2100	2200	2300
Index after filtering	Breakdown voltage	kV	≥75						
	Moisture content	PPM	≤3						
	Gas content	%	0.1						
	Impurity size	μm	≤1(customizable)						
	Value β	%	98						

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Flow Chart



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Recommend Oil Testers (http://www.toptester.com.cn, www.topoilpurifier.com)

Transformer Oil Testers

1. Transformer Oil BDV Tester Model IIJ-II-80kV/ IIJ-II-100kV
2. Online Particle and PPM Meter PTT-002
3. 12.Insulating Oil Gassing Property Tester DPT-20
4. 13.Insulating Oil Oxidation Stability Tester TP622
5. Oil Dielectric Loss Tester TP-6100/ TP-6100A
6. Transformer Oil Gas Chromatography GC-9890B
7. Transformer Oil Surface Tension Tester IT-800A
8. Oil Acidity Tester (6 cups) ACD-3000I

Transformer Characteristics Testers

1. CT/PT Transformer Characteristics Comprehensive Tester TPVA-402
2. CT/PT Transformer Tester TPVA-405
3. Transformer Load And No-load Tester TOFT
4. Transformer Turn Ratio Meter TPOM-901
5. Tan Delta Tester CDEF (10kV and 12kV)
6. Transformer Winding Deformation Tester TPWD-902
7. Transformer Capacity Tester TPTC
8. Transformer On-Load Voltage Regulation Switch Tester OLTC-2000







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