

Transformer Oil Regeneration Plant

A New Dawning Technology



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**CEE DEE
VACUUM EQUIPMENT PVT. LTD.**

AN ISO 9001:2000 CERTIFIED COMPANY

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Transformer Oil Regeneration Plant

Cee Dee's focus is on maintaining high quality in every aspect of the equipment manufactured, and utilise only state of the art technology in the automation of oil treatment equipment, so as to maintain excellent performance, ease of operation and the utmost in safety



Regeneration of transformer oil in the transformer tank is technically superior and more cost effective than the alternative procedure known as draining, flushing and refilling, as all the acidic oil is removed from the insulation material which will contaminate replaced oil

Transformer Oil Regeneration Plant is used to regenerate the transformer oil with change in colour and specification equal to all the parameters of new oil.

The benefits of this system compared to normal fuller's earth is that the refining medium can be reactivated (renewed) 250- 300 times before a recharged is required.

Regeneration plant is environmental friendly and disposal of regeneration media is not harmful to the environment.

The plant is equipped with a comprehensive Visual Audible early warning alarm system. Operation is fully automatic and control is maintained by PLC. The operator interfaces with the plant by means of a standard computer running an operator friendly Scada package (plant mimic) indicating all necessary information to operate the plant efficiently, such as flow rate, temperatures, alarms, moisture in oil, litres processed, etc.

UNIQUE FEATURES

- Model ranges from 3000 LPH to 20000 LPH.
- Adjustable from 10-100% of rated capacity
- Fully Automatic Plant.
- On-line recording of temperature, vacuum & moisture. (PPM) (Optional)
- Compact & easy to operate
- Oil Testing Lab (Optional)
- Generator back-up (optional)
- On-load & off-load transformer oil processing.
- Continues operation with dual processing system (Optional)
- On-line Purification
- On-line Regeneration
- On-line Desludging

PERFORMANCE

TEST DESCRIPTION	TEST METHOD	MEASUREMENT UNIT	INITIAL OIL CONDITION	AFTER SINGLE PASS WITH RP 6000 M
Moisture	IEC 733	PPM	<200	<5
Breakdown Voltage	IEC 158	KV	<20	>70
Acidity	IEC 296	Mg KOH/gm	0.3	<0.02
Tan Delta (90°C)	IEC 247		>0.05	<0.003
IFT	ASTM	DYNES/cm	<15	>35
Colour		VISUAL	DARK BROWN	LIGHT YELLOW
Gas Content	GC	% V/V	8	0.01



Mobile Regeneration Plant

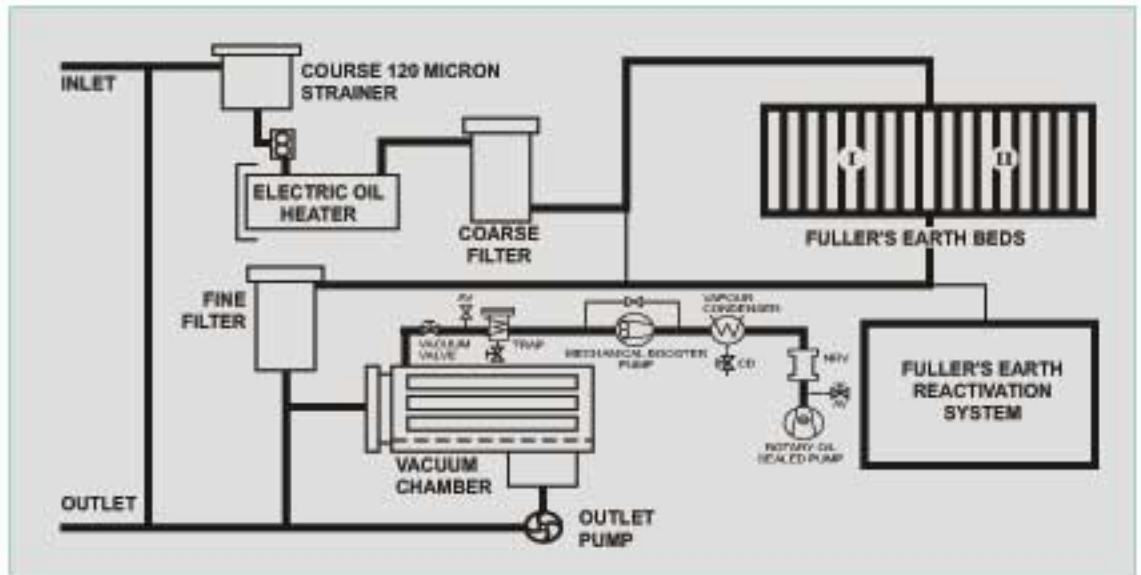


On-site Oil Treatment



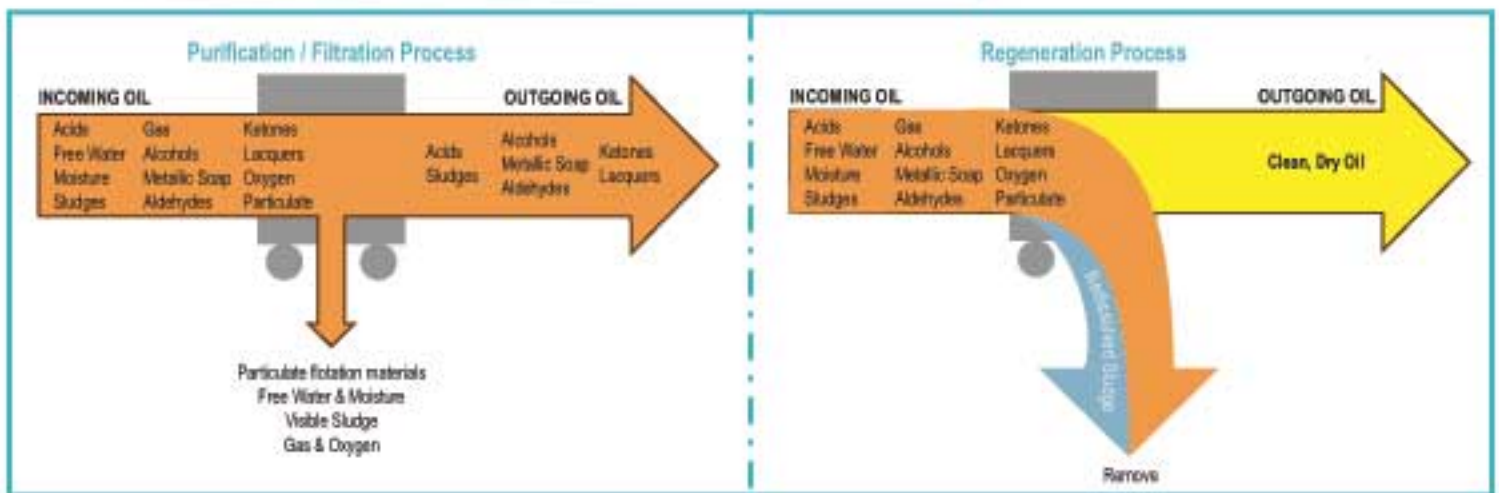
On-site / On-line Oil Treatment

TRANSFORMER OIL REGENERATION PLANT.



Certified By CPRI-LAB, Bangalore

WE CUSTOMISE, DESIGN & MANUFACTURE WIDE RANGE OF TRANSFORMER OIL REGENERATION PLANTS



APPLICATION

- Renewing of Transformer oil
- Electric Power Generating Plants
- Power / Distribution & transmission facilities
- Paper Mills
- Refineries
- Chemical Plants
- Steel Mills
- Coal Mines
- Railways
- All transformer oil regeneration requirements



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Transformer Oil Regeneration Plant

Technical Comparison

ITEM	OIL EXCHANGE	ON SITE REGENERATION
1	Off-line only.	On or off-line by choice.
2	Used oil must be drained and transported to regen facility	Used oil regenerated in the transformer on-site, i.e. no removal or transportation costs.
3	Cost of new oil required for flushing.	No new oil required.
4	Flushing is not very effective in that it reaches only approximately 10% of the interior surface if done through an inspection hole. If the top lid is removed, only approximately 60% of the interior surface could be reached. Cooling fins are difficult to flush. Approximately 20% of the contaminated oil remains trapped in the cellulose insulation.	Regeneration does more than restore the oil to its original, new condition. It also dissolves and removes the deposited sludges on the core and coils, in the cooling fins and ducts and in between windings. The adsorbed sludge (decay products) in the cellulose insulation is also removed.
5	The film of old oil remaining in the transformer and cellulose insulation contains polar compounds and can ruin large quantities of new oil.	No decay products are left. The transformer is purged of contaminants that could not be removed by any.
6	Vacuum needs to be drawn on the transformer before retro filling.	No vacuum drawing costs.
7	Danger of spillage in oil handling and transport.	No spillage danger through handling of oil.
8	Downtime estimated between 8 and 36 hours depending on the size of transformer, revenue loss.	No downtime with on-line regeneration, no revenue loss.

Cee Dee's range of product

- ▶ Transformer Oil Filtration Plant
- ▶ On-line Drying Unit
- ▶ Vacuum Impregnation Plant
 - Casting • Resin
- ▶ Vacuum Drying Plant
- ▶ Resin Casting plant
- ▶ Electrostatic oil cleaner (CDOC)
- ▶ Drying Ovens
- ▶ Vacuum Ovens
- ▶ Uni - Vac Oil Dehydration Unit
- ▶ Capacitor Impregnation Plant



* In view of continuous development, we reserve the right to modify the design & / or dimensions without notice

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