





# Vacuum Dehydration & Degasification Unit (VDDU)

## Low Vacuum Dehydration Unit (LVDH)

For Dehydrating, Degassing and Decontamination of Transformer, Lubricating & Turbine Oil



- Hot Press in Plywood / Ceramics Industries.
- Gas, Hydro & Thermal Power Generation Plant
- Transformer Oil Cleaning
- Cement Plants & Steel Plant
- Hydraulic Press, Hot / Cold Steel Mills.
- Bearing Lubrication System.
- Pulp, Cotton, Sugar & paper Plants.

## Water Removal By VDDU / LVDH



## SPECIFICATION FOR SELECTION GUIDE

Model ISO VG	68	150	320	Vacuum Pump	Discharge Pump	Heater Load kw	Total Load KW	Wt. in kg	Dimension L x W x H in mm
VDDU 1200 / LVDH 50	2000	1500	1000	180 LPM	20 LPM	9 KW	12 KW	350	1500 x 700 x 1600
VDDU 2400 / LVDH 100	4500	3500	2500	300 LPM	40 LPM	18 KW	23 KW	500	1800 x 700 x 1600

## **ADVANTAGES**

- Eliminate Oil Changes.
- Eliminate Mechanical Filters.
- Increase Production And Reduce Rejection.
- Increase Life of pumps, Valves & Seals.
- ✓ E H & S (Environment, Health & Safety) friendly. ✓ Energy Saving by keeping Oil Clean.
- ✓ Longer Oil Life.
- No Oil Leakages
- Longer Equipment Life.
- Low Operation and Maintenance Cost.

## Limitation of LVDH

Viscosity: Not above CST 320 max Water content: Not above 20,000 ppm Oil dirt level: Not above NAS 12

Hydraulic, Lubrication and Turbine Oil Conservation & Super Cleaning System. www.tridentengg.net



## TRident ENgineering

**Description :** Water in oil either free water or dissolved / emulsified Water. As well as dissolved Gases. **Method of Removing Water from Oil :** Centrifuge and Condensation methods typically only remove free water. VDDU / LVDH can remove both, free and dissolved / emulsified water from the oil. As well as dissolved gases such as ammonia and hydrogen Sulphide.

### Function of water in oil :

- Destruction corroding machine Parts.
- Reducing bearing life.
- Water depletes anti rust & anti Oxidation additives in Oil.
- Depletion of other additives.

- Reduction in Lubricity.
- Increased in acidity value of Oil.
- Accelerated aging of Components.

**Principal :** Oil is indirect heated for 55 – 65 centigrade Temp. and reaching to Vacuum Chamber and moisture, water, air, gases are condensed and remove in form of vapor and are removed by the vacuum pump. The purified oil is drained from the vacuum chamber to the system / oil tank by discharge pump. VDDU / LVDH is ensuring that there is no Aeration, No Burning of oil, No oxidation. Thus restoring oil to its Original Properties. This is a multi cycle process.

### Advantages :

Centrifuge	VDDU / LVDH	Benefits of VDDU / LVDH	
<ul> <li>Works on higher temp of 80 Centigrade.</li> <li>Because of Centrifuge action, Aeration will take place.</li> <li>Dissolved water and dissolved gas can not be removed.</li> <li>Machine cost is higher.</li> <li>Wear &amp; Tear is higher.</li> <li>Operation cost is higher.</li> <li>Man power is require on continuous attendance.</li> </ul>	<ul> <li>Works on 55-65 Centigrade under Vacuum.</li> <li>No Aeration.</li> <li>Dissolved water and Dissolved gas can be removed Up to 90 %.</li> <li>VDDU / LVDH Cost is lower.</li> <li>No wear &amp; tear, higher Life of Gear &amp; Vacuum Pump. It can be run on line with continuous in operation.</li> </ul>	<ul> <li>No additive Depletion.</li> <li>No Oxidation process.</li> <li>Water content is below 50ppm.</li> <li>User friendly.</li> </ul>	

### **OPTIONAL**

Model	Primary Filtration	Fine and Secondary Filtration	2 R LVDH - 100			
	Carbon Steel or SS - 304	Carbon Steel or SS - 304	LVDH - 50			
VDDU - 1200	Bag Filter size :	Fine filter size : ID x OD X L 28 x 63 x 500 mm				
LVDH - 50	Rating : 5 micron	No of filters : 4 in 1 Housing Rating : 1 Micron				
VDDU - 2400	Bag Filter size : Dia 175 mm x 425 mm L	Fine filter size : ID x OD X L 28 x 65 x 500 mm				
LVDH • 100	Rating : 5 micron	No of filters : 4 in 1 Housing Rating : 1 Micron				



# TRident ENgineering

B-61 & B-62, Maruti Industrial Estate, Plot No. 59/1, GIDC, Estate, PH-I "E" Road, vatva, AHMEDABAD - 382 445. INDIA Phone : + 91-79-40372241 E-mail : oil@tridentengg.net, tridentengg@gmail.com Mobile / Cell : S + 91 - 92272 40200

