

# HIGH PURITY NORTHWEST INC.

Type-	Flow Rate-	Power-	Heat-	Vacuum Pump	Condenser	Inlet Filter	Media	Outlet Filter	Media	Options
<b>Example:</b>										
TVG2-	10-	460-	32KW-	DSA25-	AC-	I-C639/	6MV/	O-C639/	3MV/	DMM

**ThermoVac Type**

TVG1	Gen1
TVG2	Gen2

**Flow Rate (GPM)**

3
5
10
15
20
30
50
60

**Power**

380	380V/3/50Hz
415	415V/3/50Hz
460	460V/3/60Hz
575	575V/3/60Hz

**Heat**

12KW
16KW
24KW
32KW
36KW
48KW
64KW
96KW
128KW

**Vacuum Pump**

DSA25	20 CFM Rotary Vane
DSA40	30 CFM Rotary Vane
DSA100	70 CFM Rotary Vane

## THERMO-VAC NOMENCLATURE

**Options**

Blank	No Options
ACD	Auto Condensate Drain
TSI	Touch Screen Interface
XP7	Explosion Proof; NEMA 7
PA	Explosion Proof, NEMA 4 Purge Air
LPC	Laser Particle Counter
DMM	Doble Moisture Monitor
MV	Vacuum Pump Carbon Treatment
VFD	Variable Frequency Drive
P	Packed Disc Dispersal
FE	Fullers Earth Cartridge Vessel

**Filter Element  $\beta_x(c) \geq 1000$**

Blank	No Filter
1MV	2.5 Micron Glass; Viton
3MV	3 Micron Glass; Viton
6MV	6 Micron Glass; Viton
12MV	12 Micron Glass; Viton
25MV	25 Micron Glass; Viton

**Filter Housing**

Blank	No Filter
C518	5"x18" Coreless
C537	5"x37" Coreless
C639	6"x39" Coreless

**Condenser**

AC	Air Cooled
LC	Water Cooled
BC	Air & Water Cooled

# HIGH PURITY NORTHWEST INC.



*COALESCE. DEHYDRATE. DEGAS. FILTER.*

## THERMO CO-VAC Coalescing GEN II Vacuum Dehydrator

Easy to use. Removes emulsified and dissolved moisture to below 10 ppm. Designed for unattended operation. Multiple vacuum options available.



[www.highpuritynorthwest.com](http://www.highpuritynorthwest.com)  
Local: (206) 782-2388 | Toll free: (866) 220-5118

# THERMO CO-VAC COALESCING GEN II VACUUM DEHYDRATOR

The easy to use Thermo-Vac coalesces, degases, dehydrates and filters industrial oil with the push of a button. Our fully automated system takes the guess work out of the oil purification process. The PLC starts and stops each component in the proper order. We've made oil purification easy. This design is the perfect balance of economy with quality components so that performance is maximized at a reasonable cost. This system is ideal for applications where large amounts of free water is present in lighter viscosity oils. The roll up doors offer superior protection from various weather conditions. In addition, the doors are a suitable sound barrier.



## OPERATION

Oil is drawn into the system, through a strainer, via inlet pump. Oil is then pumped through a low watt density fin tube heater bank that is protected by a flow switch. Oil then passes through a filter/separator vessel that removes free and emulsified water quickly and into the stainless steel vacuum chamber. The heater(s) are temperature controlled to raise the oil to a safe operating temperature. The vacuum chamber contains high surface area pleated dispersal elements that create a massive thin film of oil, maximizing the amount of oil exposed to the vacuum conditions. Gasses and moisture are flashed off and quickly evacuated from the chamber via a vacuum pump.

An air cooled condenser condenses the vapors to water where it is collected in a stainless steel condensate tank. The condensate tank includes a high level switch that shuts the system down and lights a light on the control panel; automatic water drain is also available.

An outlet pump located at the bottom of the vacuum chamber pumps the degassed/dehydrated oil through the  $\beta_{x[c]} \geq 1000$  layered glass fiber absolute coreless filter and exits the skid. Level in the vacuum chamber is maintained by level switches that regulate the inlet and outlet pump accordingly.

[www.highpuritynorthwest.com](http://www.highpuritynorthwest.com)

[sales@hpnwinc.com](mailto:sales@hpnwinc.com)

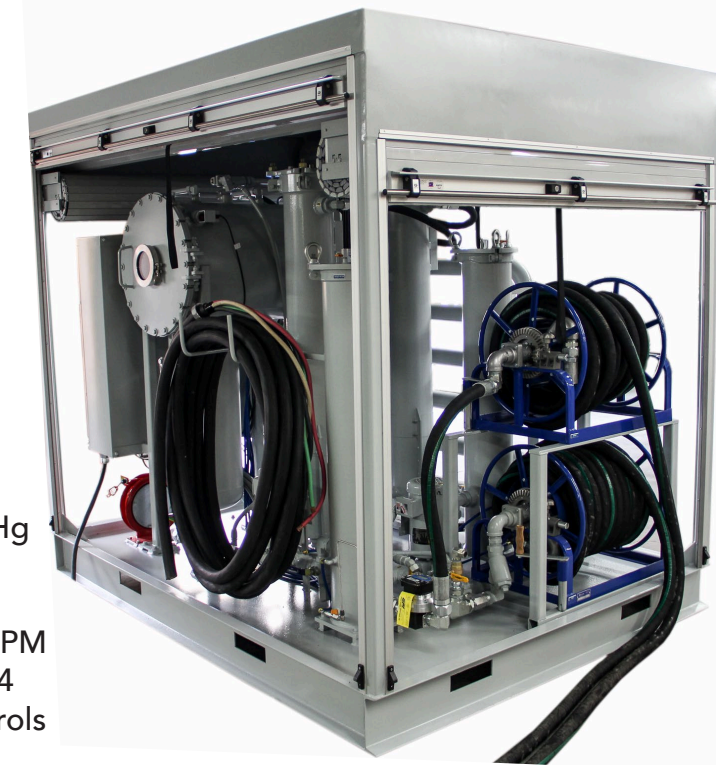
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1544 NW Ballard Way, Seattle, WA 98107

East Coast Office: (603) 577-8707

## SYSTEM FEATURES

- 30 GPM (1800 GPH) Process Flow Rate
- VFD Pump Drives
- 460V 3 Phase, 60 Hz Power
- TEFC Motors
- Rotary Vane Vacuum Pump, 40 CFM at 25" Hg
- Removes Free, Emulsified & Dissolved moisture to below 20 PPM
- UL Approved NEMA 4 Electrical Panel & Controls
- PLC Controller
- Dirty Filter, Low Oil Level, High Oil Level, Low Flow, and High Heat Alarm Lights
- Phase Fail Circuit Switch
- One Push Button Start / Shutdown
- Individual Heater Selector Switches
- Digital Temperature Controller
- Stainless Steel (304) Vertical Vacuum Chamber
- Fiber Optic Foam Control System
- Stainless Steel Fittings
- 96 kW Heater, 11 watts per square inch
- Doble Domino Moisture in Oil Monitor
- High Capacity Outlet Filter Vessel
- $\beta_{6[c]} = 1000$  (6 micron) Absolute Rated Micro-Glass Inlet Particulate Filter
- $\beta_{3[c]} = 1000$  (3 micron) Absolute Rated Micro-Glass Outlet Particulate Filter
- Hour Meter & Flow Meter Totalizer
- Gortite Roll Up Aluminum Doors (all 4 sides)
- Fork Lift Guides and/or Caster Wheels
- All Manuals in hard copy and CDformat
- 100' Inlet & Outlet Double Wall Hose with Automatic Valves
- One year warranty



## SAMPLE SPECIFICATIONS

**Flow Rate:** 30 GPM  
**Water Removal:** <10 ppm  
**Electrical Service:** 480V/3Ph/60Hz.  
**Control Logic:** PLC  
**Electrical Panel Enclosure Type:** NEMA 4 with UL (CUL 508 Stamp)  
**Operating Vacuum:** 50 Torr  
**Ultimate Vacuum:** 0.5 Torr  
**Vacuum Pump Flow Rate:** 40 CFM  
**Vacuum Chamber:** 304 Stainless Steel Horizontal with access door

**Working Pressure:** 50 PSI

**Oil Dispersal Mechanism:** 6"x22" Pleated Coalescer, Qty. 6

**Condenser Type:** Air Cooled Condenser

**Condensate Tank:** 304 Stainless Steel

**Suction Strainer:** Y Type

**Inlet Pump:** Positive Displacement Gear with internal relief valve

**Inlet Filter (Optional):** Coreless 2 Micron Microglass

**Outlet Filter (Optional):** Coreless 2 Micron Microglass / 0.5 Micron Nominal

**Heat:** Qty. (6) 16kw Heaters; 96 kw Total

**Seal Material:** Viton

**Discharge Pump:** Positive Displacement Gear with internal relief valve

**Flow Control:** Recirculation valve with Flow Meter

**Inlet Connection:** 1.5" Parker Snap Tite

**Outlet Connection:** Same

**Skid Dimensions:** Approx. 60"W x 84"L X 96"H

**Weight:** Approx. 6000 LBS

**Skid Mounting:** On drip pan with fork lift slots, lifting eyes and custom enclosure doors

## CONTROLS

**Temperature:** LED Panel Mount

**Heater Protection:** Flow Switch

**Control Panel Alarms:** High level Oil, High level Condensate, High Temperature, Low Oil Flow, High Foam and Dirty Filter

**Foam Control:** Fiber Optic with Solenoid Valve on Vacuum Chamber