

High Vacuum Transformer Oil Purification Systems



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DESIGNED FOR SUBSTATION MAINTENANCE OPERATIONS WHERE SINGLE-PASS EFFICIENCIES ARE REQUIRED

- PULL ABSOLUTE VACUUM ON TRANSFORMERS
- REDUCE OVERALL WATER CONTENT TO 10 PPM OR LOWER IN SINGLE-PASS
- REDUCE PARTICLE COUNTS TO MEET ISO 14/12/10 LEVELS WITH 2.5 MICRON ABSOLUTE
- REMOVE ACIDS AND SURFACTANTS WITH FULLER'S EARTH (OPTIONAL)
- MAXIMIZE DIELECTRIC STRENGTH OF TRANSFORMER OIL



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FEATURES AND SPECIFICATIONS

- Flow rates ranging from 1 GPM through 30 GPM
- Reduce overall water content to 2 PPM or lower in single pass
- Remove free, emulsified, and dissolved water by vacuum dehydration & mass transfer
- Remove dissolved air and entrained gasses by vacuum with performance of 100% free & $\geq 90\%$ dissolved
- Reduce particle counts to meet ISO 14/12/10 levels with 2.5 micron absolute
- Achieve $\geq 50\text{kV}$ per ASTM 877 dielectric strength
- Interfacial Tension Performance of ≥ 40 Dynes/ cm@25C and Power Factor Performance of $\leq .005\%$ @25C
- Pleated Micro-glass filter elements rated Beta(c) ≤ 1000 per ISO 16889 available in a variety of micron sizes (1 through 25 micron)
- Differential pressure gauges for positive indication when filter elements need to be changed
- Versatile fluid pumping capabilities for high viscosity gear oil up to ISO 1000
- Can be equipped with ION exchange, Fuller's Earth or Activated Alumina cartridges for acidity removal to $\leq .03$ KOH/ gm oil
- Voltages of 230/380/460V, 3 phase, 50 or 60Hz
- Optional digital moisture indicator
- Optional inline particle counter with digital readout of ISO cleanliness codes
- Optional vacuum pumps & blowers ranging from 10 to 2000 CFM (vacuum down to 0.05 torr)
- Configurations include single or multi-element housings
- Can be equipped with diesel, gasoline or natural gas (any kV) on board generators
- Available with single or dual axle trailers with multiple options



CUSTOM OPTIONS ARE ALWAYS AVAILABLE

RENTAL UNITS ALSO AVAILABLE

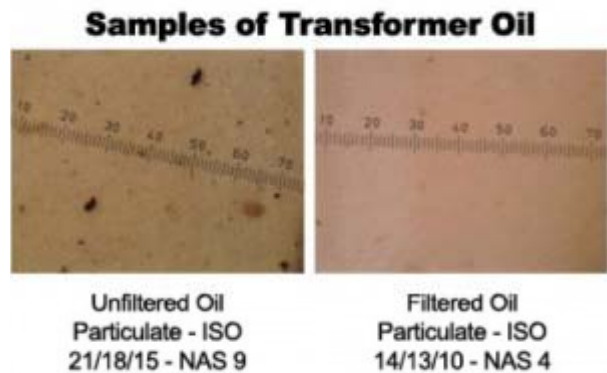
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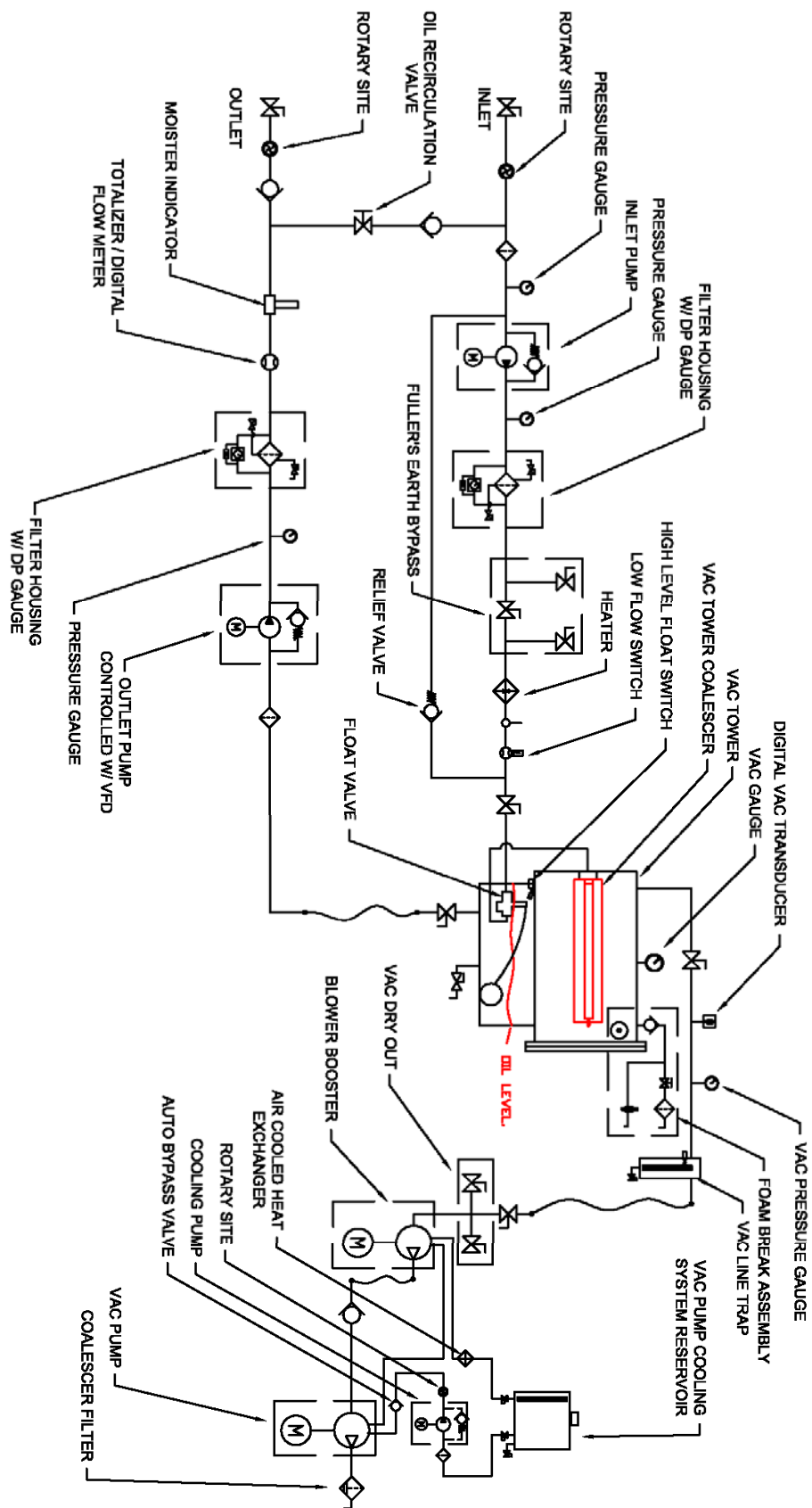
SYSTEM PERFORMANCE SPECIFICATIONS (SINGLE PASS)

DIELECTRIC STRENGTH	≥ 50 kV per ASTM 877
WATER REMOVAL PERFORMANCE	≤ 10 PPM
PARTICULATE REMOVAL PERFORMANCE	\leq ISO 14/12/10 (2.5 Micron Beta >1000)
GAS REMOVAL PERFORMANCE	100% Free & $\geq 90\%$ Dissolved
INTERFACIAL TENSION PERFORMANCE	≥ 40 Dynes / cm @ 25 C
POWER FACTOR PERFORMANCE	$\leq .005\%$ @ 25 C

SYSTEM OPTIONS

FLOW RATES	1 GPM to 30 GPM
VOLTAGES	230/380/460V, 3 Phase, 50 or 60 Hz
VACUUM PUMPS & BLOWERS	10 to 2000 CFM (Vacuum Down to 0.05 torr)
INLINE DIGITAL MOISTURE INDICATOR	Gives Realtime Display in PPM
INLINE DIGITAL PARTICLE COUNTER	Gives Realtime Display in ISO Format
ON BOARD GENERATORS	Diesel, Gasoline, & Natural Gas (Any kV)
TRAILERS	Single or Dual Axle With Multiple Options
ACID REMOVAL (FULLER'S EARTH)	Remove Acidity to $\leq .03$ KOH / gm oil with Fuller's Earth Cartridges or Bulk Media





OIL FILTRATION SYSTEMS

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MODEL NO: HVTOPs-30VF-D-840XZ-16CA31-120KW-300/1800CFM-490-N4-FM1-5Z-B
 TITLE: High Vacuum Transformer Oil Purification System (HVTOPS)
 30 GPM

SPECIFICATIONS:
 FLOW RATE: 30 GPM, Variable VFD
 VOLTAGE: 480V / 3 Ph / 60 HZ
 FILTRATION: NEMA 4
 16 Qty. Vac Chamber 4' X 31" Tower Coalescers

CLIENT: OFS Rental Fleet
 DRAWN: J.D. SCALE: NOT TO SCALE
 CHECKED: F.G. DATE: 05-06-09
 APPROVED: D.C.

SIZE: B

High Vacuum Transformer Oil Purification Systems

Global Industrial Solutions has made High Vacuum Transformer Oil Purification Systems for the following company's:

- Tidal Power
- Coastal Switchgear
- Sicelube
- E.T.I.
- AEP San Benito
- AEP Topaz
- UP Systems
- Venefilter
- Alstom Power Rentals
- GE Prolac
- Scroll Tech
- Casanova

Global Industrial Solutions has repaired the following High Vacuum Transformer Oil Purification Systems:

- Baron
- Enervac
- SD Myers
- Gulfgate