



# SES322 BATCH & SINGLE PASS OIL PURIFIER

## SES322 DATASHEET

The SES322 batch & single pass oil purification system restores color, corrects acidity, removes dissolved water, gas, particulate, and oxidation by-products. This versatile single or multi-pass 60-gallon batch oil processing system can be used to condition or completely regenerate a wide variety of new and in-service mineral and synthetic fluids. Cable oils, specialty dielectric fluids, ester compressor fluids, phosphate ester hydraulic fluids and numerous transmission fluids are just a few of the common SES322 applications.



### TREATMENT STAGES

01	<p><b>Oil Heating</b> The fluid is gently heated to reduce the viscosity in preparation for the vacuum dehydration and optional adsorbent treatment stages.</p>
02	<p><b>Polar Contaminant Adsorption (optional)</b> The heated fluid then passes through an optional (bypass included) adsorbent media process that removes acids, color bodies and other polar contaminants.</p>
03	<p><b>Filtration (3μ β200)</b> The next treatment phase uses long life, low pressure drop, pleated synthetic filter media to remove 99.9% of all particulate &gt; than 3 microns.</p>
04	<p><b>Vacuum Dehydration &amp; Degasification</b> Vacuum and high efficiency thin film low temperature evaporation is used to remove dissolved water and dissolved gasses.</p>
05	<p><b>Filtration (0.5μ β75)</b> A polishing filter completes the process. Pleated synthetic filter media is used to remove 98.7% of all particulate &gt; than 0.5 microns.</p>
06	<p><b>Results</b> The conditioned oil is now ready for use. Discharge flow rate and pressure are adjustable to accommodate cable requirements.</p>

### APPLICATIONS

- Improve Insulating Oil Dielectric Strength
- Mineral Oils
- Natural Esters
- Synthetic Esters
- Silicones
- Regenerate In-Service Dielectric Fluids
- Dehydrate Refrigeration Oils
- Condition & Fill Cable Oils
- Dehydrate Transmission Fluids

### FEATURES

- Conditions Both Mineral & Synthetic Dielectric Cable Fluids
- Viscosities up to 2000 SSU
- Straight Thru Single Pass Processing
- Multi-Pass Batch Processing
- Built-in 100% Safety Spill Retention
- 130 CFM Vacuum Capacity
- External Vacuum Connection Available

### PROCESSING RATE

Batch Mode	180 GPH (680 LPH) 60 Gallon Capacity
Single Pass Mode	60 GPH (226 LPH)

### PROCESSED OIL QUALITY (MINERAL OILS)

Dielectric Strength (ASTM-D1816-84A 2mm gap)	> 60 kV - (Dielectric Fluids)
Ultimate Moisture Content	Typically 1-10 ppm
Moisture Extraction / Pass	~ 50 ppm
Total Gas Content	< 0.15%
Particulate Content	0.5μ @ β75
Polar Contamination (Optional treatment stage )	Effect on oil properties will vary with the application

### PROCESSED OIL QUALITY (ESTER OILS)

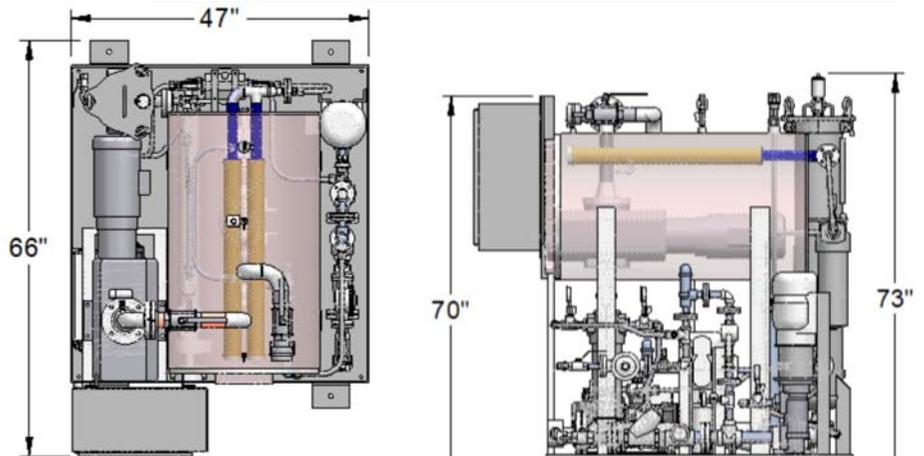
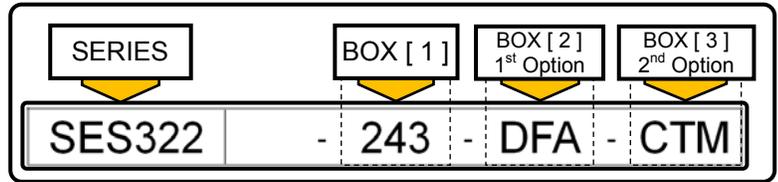
Dielectric Strength (ASTM-D1816-84A 2mm gap)	> 60 kV - (Dielectric Fluids)
Ultimate Moisture Content	Typically 15-30 ppm
Moisture Extraction / Pass	~ 25 ppm
Total Gas Content	< 0.25%
Particulate Content	0.5μ @ β75
Polar Contamination (Optional treatment stage )	Effect on oil properties will vary with the application

# HOW TO ORDER SES322 SERIES

Construct a custom model number by placing desired options into the corresponding fields as shown in the example below.

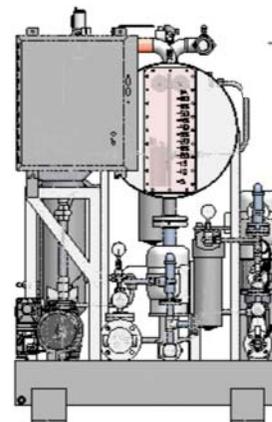
[ 1 ] SUPPLY VOLTAGE	
241	240 V / Single Phase / 60 Hz
243	240 V / Three Phase / 60 Hz
400	400 V / Three Phase / 50 Hz
480	480 V / Three Phase / 60 Hz
575	575 V / Three Phase / 60 Hz

[ 2 ] ADDITIONAL OPTIONS	
DFA	Dirty Filter Alarms
MTM	Outlet Moisture & Temperature Monitor
CTM	Contamination Monitor
OSH	Oil Suction Hose (25 ft / 7.62 m)
ODH	Oil Discharge Hose (25 ft / 7.62 m)
VCH	Vacuum Hose (25 ft / 7.62 m)
SPK	Consumable Spare Parts Kit



## PURIFICATION PROCESS

	F°	C°
Temperature Range (Adjustable)	120-190	49-88
Watt Density	11.5 W/in <sup>2</sup>	
Vacuum Limits	0.1 Torr	
Vacuum Capacity	130 ft <sup>3</sup> /min @ 0.5 Torr	
Suction Lift	12 ft	
Discharge Pressure	Adjustable 40-175 lbf/in <sup>2</sup>	



OIL OUTLET 3/4" MALE CAM

OIL INLET 1-1/4" FEM CAM

## PHYSICAL DATA

Width	47 in / 119 cm
Depth	66 in / 168 cm
Height	73 in / 185 cm
<b>Weight</b>	
Dry	Full Batch
2850 lbs   1293 kg	3294 lbs   1494 kg
<b>Connections</b>	
Inlet	1.25 FNPT
Discharge	0.75 FNPT
Vacuum	2" MCAM
<b>Power Requirements</b>	
480V/3PH/60Hz	25 A
240V/2PH/60Hz	50 A
230V/1PH/60Hz	80 A (60 A @ 6 kW)

## (Optional) SES950 Cargo Trailer Installation

### TRAILER DIMENSIONS

Overall Length	17'
Body Length	12'
Overall Width	7'-10"
Body Width	6'
Overall Height	7'- 8"
Deck Height	≈ 18"



- 8000 GVWR
- 4900 lbs Payload Capacity
- Electric Brakes
- Ball Hitch or Pintle Hitch, 60" Tongue
- TORFEX Suspension Axle, Radial Tires
- Welded Aluminum Frame Construction
- Aluminum Sheet & Post Sidewall Construction
- White Interior Plywood Lining
- Single Piece Aluminum Roof, 1-1/2" Deck Trailer Floor
- DOT Approved LED Road Lighting & Reflector Packages
- Aluminum Nose Stone Guard

