

HIGH VACUUM DEGASIFICATION – Model E865

Enervac's High Vacuum Process is used for the dehydration and degasification of electrical insulating liquids including transformer oils, polybutene and silicone fluids to increase and maintain their dielectric strength. The processing includes the removal of free and soluble water, dissolved air and gases and particulate matter.

The most important applications of high vacuum degasifiers are in the field of extra high voltage transmission and in the manufacture of electrical apparatus. In addition, the high vacuum process is used in the degasification of cable oils including polybutene. Outside of the electrical industry, this process is used for electronic and radar equipment, vacuum pump sealing oils, brake fluids and refrigeration oils - including phosphate esters and silicones.

Mobile and stationary units are available in sizes 50 to 3600 GPH/.



TRANSFORMER OIL REGENERATION PLANT – Model 575R

Enervac's Transformer Oil Regeneration Plant provides all the benefits of Fuller's Earth treatment without the associated problems of contaminated clay disposal or the high costs of replacing saturated earth.

At the end of the useful lifetime of the regeneration media, normally 300 times longer than Fuller's Earth, it is simply disposed of in a normal landfill site.

Ideally suited to large throughputs, the plant is available in either a mobile or stationary version, with annual throughputs from 150,000 gal to over a 1,000,000 gals.



Vacuum Packages

Enervac utilizes industry leading vacuum technology. Whether it be Rotary Vane, Rotary Piston or Dry Pump Technology rest assured a vacuum package from Enervac means a system you can count on. Vacuum Packages range in size from 14CFM (25m³/h) to 2650CFM (4500m³/h).



FULLER'S EARTH FILTER – Model E575A
Fuller's Earth Treatment Adsorption Columns

Enervac's Fuller's Earth systems are specifically engineered to remove soluble contaminants such as acids, waxes, gums, resins, asphaltenes, sludges, carbon residues and colloidal particles from lubricating, hydraulic, seal, quench and insulating oils.

Surfactants, resins, traces of free water and by-products of oxidation can also be effectively removed from aviation, automotive and diesel fuels.

Stationary and mobile units available with electrically actuated covers. Columns are designed to ASME code.



MINI DEHYDRATOR – Model 859C

This lightweight portable oil purifier filtration system dehydrator is the most cost-effective way to extend the life of hydraulic and lubrication fluids. This air-cooled unit will dehydrate, filter and de-aerate fluids.

The Mini Dehydrator is ideally suited for small volumes (up to 200 gallons (750 L) of hydraulic fluids, lubricating oils, lubricating oils, turbine oils, transmission fluids, quenching oils and synthetic fluids.

- Removes 100% of free water
- 60 US Gallons (230 L) per hour flow rate
- Filter to 10 microns
- 3 kW heater
- Custom supply voltages



MINI DEGASIFIER – Model E865C

This lightweight Mini Degasifier cart uses the latest vacuum technology to degasify, filter and dehydrate insulating and dielectric fluids.

The unit is ideally suited for pole mounted transformers, bushings, and conservator and similar small fluid volumes.

- Final water content <10 ppm
- Final gas content <0.25%
- Filter to 0.5 microns
- 3 kW heater
- Custom supply voltages



**RECOVERY AND PURIFICATION SOLUTIONS THAT
WORK FOR YOUR BUSINESS**

MOBILE OIL FILTER CART- Model E858M

The Enervac Mobile Oil Filter Cart is ideal for extending oil life by the removal of moisture, particulate and carbon from dielectric fluids and oils used in Transformers, Circuit Breakers, Voltage Regulators and Switch Gear. The cart is completely mobile and certified for highway travel. The Mobile Oil Filter Cart can be used to retrieve the fluid, flush and refill the breakers. Each unit is designed to be easily operated and maintained. Save on the disposal cost of carbon contaminated oil by restoring it with Enervac's Mobile Oil Filter Cart. Available in several sizes and specialized designs to suit your application.

- Robust compact design
- Year round operations
- Filtration to 1/2 micron
- Removes free water
- Suitable for highway travel
- Self contained - includes necessary storage
- ASME registered filter cases
- Positive displacement pumps
- All welded piping
- Flow rate up to 60 USGPM
- Single operator operation
- Can be supplied with one or two oil hoses and power cables



POLYCHLORINATED BIPHENYL (PCB) DECONTAMINATION – Model MPU

PCB decontamination equipment is designed for the decontamination of electrical insulating oils that have been contaminated with low levels of biphenyls (PCB's). Oil containing up to 7000 PPM of P.C.B.'s can be processed lowering the PCB level to below the detectable level (2 PPM).

The chemical process reverses the process by which PCB's were originally developed. A small amount of molten metallic sodium dispersion is added to dehydrated and degasified insulating oil in a mixing tank. A reaction takes place converting the PCB's into harmless compounds, common salt and a few hydrocarbon residues. These are removed from the oil as a sludge by a centrifuge. The sludge is non-PCB and can be disposed of in any industrial waste disposal facility.

The reclaimed insulating oil has excellent electrical properties, comparable to that of new Insulating Oil meeting the A.S.T.M. standard and can be used again in electrical equipment.



INDUSTRIAL OIL HEATERS – Model E873A **Electric Heating – Low Watt Density**

Enervac specializes in the design and manufacture of low watt density electric heating for industrial oils.

The Enervac Model E873A Oil Heater System assures less than 12 watts per square inch Uniform low watt density oil heating. The electric heating coils are mounted inside heating tubes. The coils heat the air in the tube which uniformly heats the tube walls. The heating coils do not come in direct contact with the oils, eliminating the natural hot spots in resistance heaters and preventing any burning of oil. Isolating the heating element from the oil permits service removal without disturbing the oil process.

Present us with your oil heating problems, no matter how unique, and our staff of experienced professionals will be pleased to make recommendations.



SF₆ GAS RECOVERY UNIT – Model GRU-4 PLUS

Enervac's latest SF₆ Gas Recovery Unit incorporates a new and improved high pressure, totally oil-less compressor capable of 500 psig of pressure. This technology allows for liquefaction of SF₆ gas even in the warmer climates typical of the southern United States.

The cart is ideally suited for servicing small volume SF₆ equipment. All processes required for servicing SF₆ equipment can be performed.

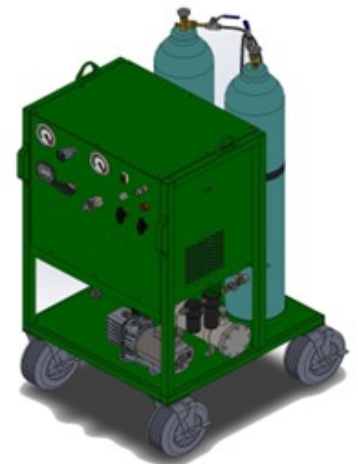
- Recover and purify SF₆
- Consolidate SF₆ cylinders
- Evacuate air and moisture prior to filling
- SF₆ gas transfer rate (2m³/h)
- Vacuum pump for evacuation of air & moisture 17m³/h
- Purifies, dries and filters to 0.1 microns during recovery and re-pressurization



SF₆ GAS RECOVERY UNIT – Model GRU-7 PLUS

Whether you are looking for fast processing speed, better than 99.6% SF₆ recovery, a 100% oil-less system, unlimited storage capacity, easy single valve operation, or portability, you will find it in the GRU-7. We developed the GRU-7 for our customers who found they needed more storage and recovery capacity than smaller handcart mounted units, but without the bulk and high price of a large skid or trailer mounted unit.

- Recover and purify SF₆
- Consolidate SF₆ cylinders
- Evacuate air and moisture prior to filling
- SF₆ gas transfer rate (2m³/h)
- Purifies, dries and filters to 0.1 microns during recovery and re-pressurization



SF₆ GAS RECOVERY UNIT – Model GRU-8 PLUS

The GRU-8 was developed for customers who liked the simplicity and low cost of the GRU-4 but found they wanted even more performance, storage, and features when dealing with larger volumes of gas. This equipment features the same very simple controls as the GRU-4 but has twice the performance, and many additional features not offered on the GRU-4 including a 300litre on-board storage and an upgraded vacuum compressor.

- SF₆ Recovery to 99.6%
- Evacuate air and moisture prior to filling
- Easy to operate - single valve switch operating modes
- SF₆ gas transfer rate (6m³/h)
- Purifies, dries and filters to 0.1 microns during recovery and re pressurization



**RECOVERY AND PURIFICATION SOLUTIONS THAT
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SF₆ GAS SERVICING CART – Model E736A

The Enervac SF₆ Gas Servicing Cart is designed for the processing of Sulfur Hexafluoride used in high voltage metal clad switch gear, bus ducts, accelerators, circuit breakers and transformers that are charged during normal operation with SF₆ gas as a dielectric. The cart will perform the following functions:

- Removal of SF₆ gas from equipment
- Liquefaction and storage of the gas in the cart's storage tank
- Servicing Cart evacuates the serviced equipment for dry out prior to recharging.
- Re-evaporating SF₆ gas and refilling evacuated equipment.
- Purifies gas by absorption and removal of decomposition products and moisture

All functions can either be fully automatic, controlled by a programmable controller or manual.



SF₆ GAS STORAGE TANK – Model E736T

Various sizes of liquid SF₆ storage tanks are available. Enervac's stationary or mobile Gas Storage Tanks are designed, fabricated and registered to the ASME code. Standard features include: Liquid level gauge, ASME relief valve, pressure gauge, temperature gauge, tank inspection flange, inlet and outlet valves. Mobile tanks are mounted on 12" casters with a tow bar.

- Sizes available from 300 to 4000 lbs.
- Epoxy coated internals to prevent corrosion
- Ideal storage vessel for consolidating partially used SF₆ bottles



SF₆ GAS TRANSFER UNIT – Model GTU PLUS

Designed as a low cost solution to recovering, consolidating and transferring Sulfur Hexafluoride, the GTU is an essential tool for servicing small volume SF₆ equipment.

All processes required for servicing SF₆ can be performed:

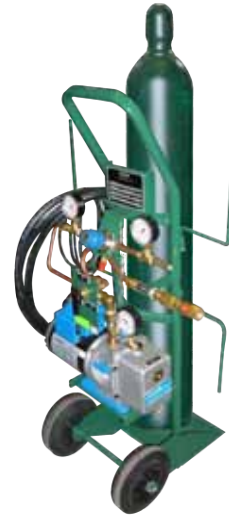
- Consolidate SF₆ cylinders
- Colour change moisture indicator to monitor moisture in gas
- Automatic shutoff when maximum allowable pressure is reached
- Purifies, dries and filters to 0.1 microns during recovery and re-pressurization



SF₆ GAS REFILL & EVACUATION UNIT – ERFU -2

A lightweight, yet rugged, portable unit for the evacuation of gas switchgear, or breaker compartments; and regulated filling using SF₆ standard gas cylinders.

- Single valve operation
- Regulated filling of SF₆ equipment
- Evacuate air and moisture prior to filling
- User adjustable regulated gas refilling
- Permanently mounted high capacity, high vacuum pump



SF₆ GAS CART ACCESSORIES

Enervac supplies and distributes accessories for use with your SF₆ recovery equipment including:

- SF₆ Leak detectors
- SF₆ gas analysers systems (purity, moisture, decomposition products)
- SF₆ filter purifiers
- Fittings kits
- Tank/ cylinder heaters
- Sample storage bags
- Empty storage cylinders
- Hoses and regulators



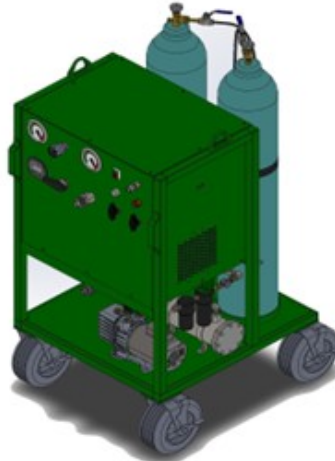
Rental Program

SF₆ Gas

SF₆ GAS RECOVERY UNIT
Model GRU-4



SF₆ GAS RECOVERY UNIT
Model GRU-7



SF₆ GAS RECOVERY UNIT
Model E736A



Oil Purification

MINI DEHYDRATOR
Model 859C



MINI DEGASIFIER
Model E865C



HIGH VACUUM DEGASIFICATION
Model E865A



Instrumentation & Controls

JERGUSON[®]



Level Gages
Magnetic Level Indicators
Switches & Transmitters

JACOBY-TARBOX[®]



Sight Flow Indicators
Sight Windows
Eductors & Tank Agitators

Reliance[®]



Boiler Level Gages
Remote Level Indicators
Boiler Safety Instruments

Purity Products

ANDERSON[®]
Separator



Gas Coalescing & Filtration
Steam Separators & Traps
Liquid Particle Filtration

Enervac[™]
INTERNATIONAL ULC



Transformer Oil Purification
SF6 Purification Equipment
Oil Regeneration Equipment

OIL FILTRATION SYSTEMS[®]



Vacuum Dehydrators
Varnish Removal Systems
High & Low Flow Filter Skids

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16633 Foltz Parkway • Strongsville, OH 44149 USA
Telephone: (440) 572-1500 • Fax: (440) 238-8828

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280 Holiday Inn Drive, Cambridge, Ontario, Canada N3C 1Z4 (P) 1-519-651-1034 (F) 1-519-651-1038
www.enervac.com / sales@enervac.com