



**Enervac Filter-Purifier
(200 lb. Model Shown).**

SF₆ Filter-Purifier

Introduction

Enervac's SF₆ FILTER-PURIFIER is used for the purification of badly decomposed SF₆ gas during transfer from circuit breakers and other electrical equipment to SF₆ reclaiming carts. It also has application in re-purifying SF₆ gas in charged circuit breakers.

The need for a high capacity purifier is most evident when SF₆ gas is badly decomposed, resulting in by-products that are harmful to electrical equipment. While some decomposition of the SF₆ charge occurs during normal circuit breaker operations certain conditions such as continuous high-intensity arcing, cause accelerated SF₆ decomposition. When this occurs, an additional high-capacity purification stage between the circuit breaker and the gas reclaiming cart, can be most beneficial.

Although most ENERVAC Model E736A reclaiming carts are equipped with internal SF₆ purifiers the external FILTER-PURIFIER is recommended for the prevention of excessive contamination of the cart. This results in more effective final cleanup of the gas by the cart purifier during re-transfer of the stored gas back to the circuit breaker, and less frequent replacement of the cart purification cartridges.

Description

The FILTER-PURIFIER incorporates four chemical purification beds, all contained in a single high pressure cylindrical housing. The chemicals are placed in a pre-determined sequence and quantity, and are separated by diffuser plates. The FILTER-PURIFIER also contains one 2-micron filter. SF₆ enters the FILTER-PURIFIER through the bottom connection and passes through the chemical beds. The SF₆ is evenly distributed through the beds by the inlet diffuser plate. Prior to exiting the FILTER-PURIFIER, the gas passes through the 2-micron filter. The FILTER-PURIFIER is equipped with inlet and exit

sampling connections, providing convenient means for gas analysis during purification.

The FILTER-PURIFIER is designed for ease of chemical and filter replacement. Replacement kits are available. Each kit contains four pre-measured chemical charges, individually packed in plastic bags, plus filter element

Capacity

The Filter-Purifier will purify up to 2,500 lbs. of SF₆ gas. Decomposed SF₆ gas, when passed through the ENERVAC purifier (single-pass) will achieve the following approximate purity levels:-

Final Concentration	
Constituents	% By Volume
HF	0
SO ₂ F ₂	0.001
SO ₂ F ₂	0.001
SF ₂	0
SF ₄	0
S ₂ F ₂	0
CO ₂	0.006
CO	0.016
Solid Particles	less than 2 μ absolute

Specifications

Operating Pressure: 275 PSIG
Operating Temperature: -20° to +100°F
Flow Rate: compatible with ENERVAC Model E736A reclaimer compressor pumping rates.
Power Requirements: None
Size: 68" high x 6-5/8" dia.
Weight: 230 lbs (with desiccant)

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