

FTHS SERIES

SF6 GAS HANDLING, RECOVERY AND REFILLING SYSTEM

GAS RECYCLING ✓ VACUUM PUMPING ✓ PURIFICATION ✓ REFILLING ✓ STORAGE ✓

■ Introduction



FTHS Series Gas Handling, Recovery and Refilling Machine designed and produced by FUOTECH is widely used in SF6 gas insulated electrical equipment factory, use, operation, scientific research departments and so on, to create vacuum for a variety of electrical equipment, and fill electric equipment with SF6 gas, and recover SF6 gas from use or test equipment, then fill to storage tank after purifying and compressing.

The recovery device is suitable for SF6 electrical appliance and GIS combined electrical apparatus. The gas recovery unit of SF6 is manufactured on the basis of the standard of DL/T662-2009 "SF6 gas filling and recovery device", which consists of recovery system, and inflating system, vacuum system, purification system and gas storage system.

■ Main Functions

- 1). Vacuuming and Measuring the vacuum degree of the device and electrical equipment;
- 2). Recycle the gas in the electrical equipment;
- 3). Dry and purify SF6 gas recovered and refilled;
- 4). Inflate SF6 electric appliance;
- 5). Compressed storage and bottle filling of SF6 gas in electrical appliances.

■ Main Features

- 1) Advanced design, full function and compact structure with simple operation.
- 2) Compressed systems: it takes closed compressor to ensure no leakage.

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- 3) Vacuum systems: it takes rotary vane vacuum pump to prevent oil returning
- 4) Purification systems: Equipped with special filters which takes electric heating and high efficient adsorbents. Without frequent replacement of the adsorbents, so the purification result is better.
- 5) Electric systems: Equipped with automatically confirmation three phase power devices and automatic protection of phase break in the electrical system of the device, failure protection.
- 6) Control systems: adopts SF6 special valve with the latest technology.
- 7) Storage system: Provide the storage tank according to user's requirements.
- 8) This equipment is made in mobile type.
- 9) High efficient maintenance-free filtration system greatly guarantees the quality of recovered SF6 gas.
- 10) The whole machine is air-cooled without external water source.
- 11) The built-in temperature protection system makes the system works well even at -20°C.



■ Technical Performance

Type		High pressure liquefaction, mobile
Model		12y-60-50
Power Supply		380V, 50Hz, 3Phase
Ambient Temperature		-10°C~45°C
Recovery	Initial pressure (20°C) (MPa)	0 ~ 1.0
	Final pressure (MPa)	≤0.053
	Time to recover 1 m ³ gas (h/ m ³)	≤0.4

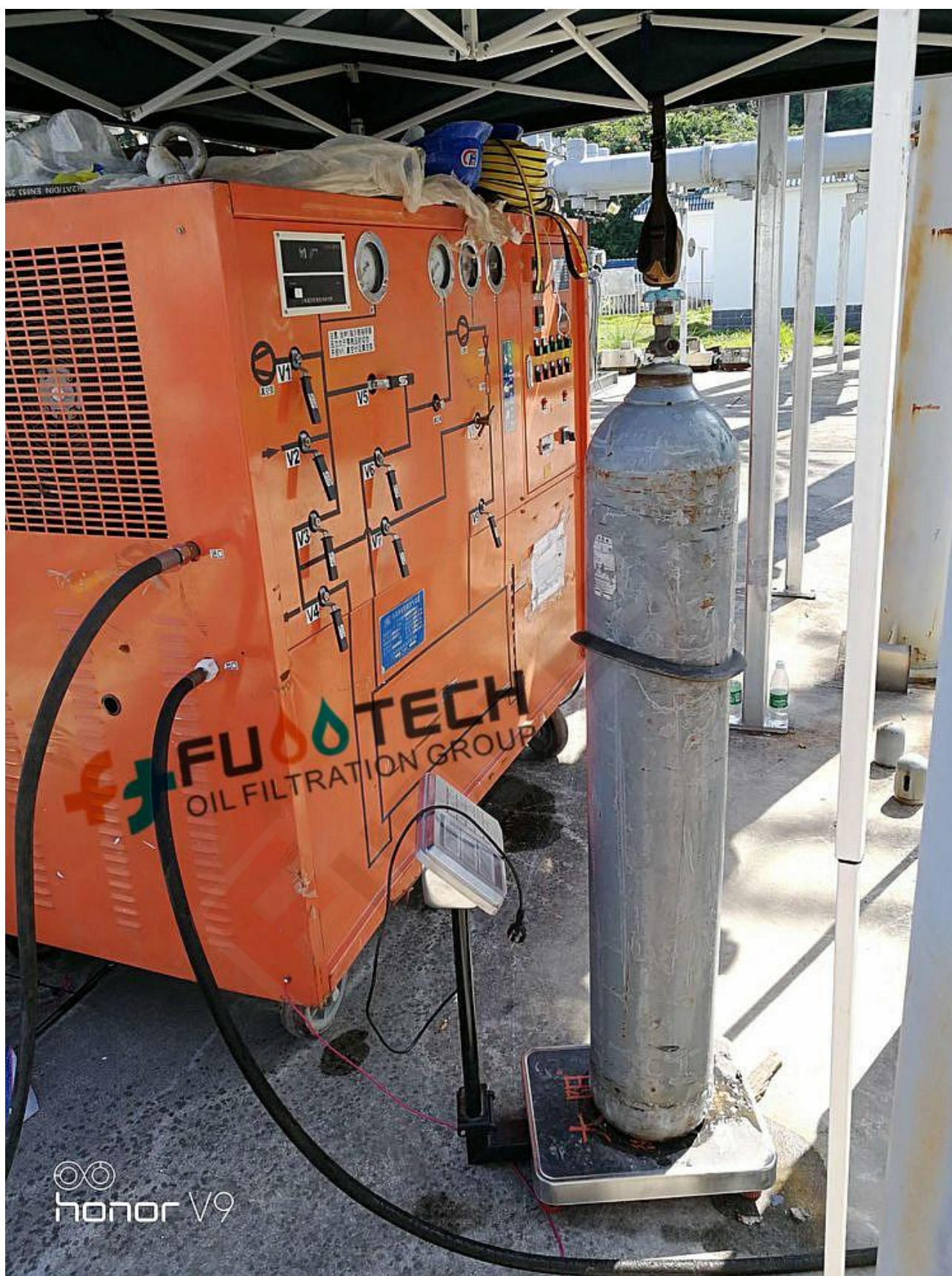
Re-filling	Initial pressure (Pa)	≤133
	Final pressure (MPa)	0.8
	Refilling rate (m³/h)	≥5
	Time to fill 1 m³ gas (h/m³)	≤0.2
Vacuum Pumping	Pumping Rate (M³/h)	60
	Time for pumping vacuum from 0.1Mpa to 133Pa (h/m³)	≤1
	Limit vacuum (Pa)	≤10
	Vacuum increase when vacuum Preservation at 133Pa (Pa/24 hours)	≤400
SF6 Gas purity after recovery	SF6 gas purity	≥99.9%
	Water content (PPM)	≤60
	Oil content (PPM)	≤10
	Impurities (μm)	≤1
Storage tank	Storage method	Liquid gas
	Max. Pressure (20°C) (MPa)	3.8
	Tank Volume (L)	50
	Tank Materials	Carbon steel
	Stored Liquid Quantity (Kg)	50
Annual Leakage Rate		≤ 1%
Mode of Liquefaction		High pressure condensing
Mode of Vaporization		Electric Heating, Temp. auto-control
Type of Dry-type filter Regeneration		Vacuum heating activation regeneration
SF6 recovery compressor pumping rate		12m³/h
Continuous trouble-free Operation time		≥1000hours
Cumulative trouble-free operation time		≥5000hours
Power Supply		380V, 50Hz, 3Phase (or as per request)

Total Power	(KW)		≤5
Sound Level	dB(A)		≤75
Cooling Method for system			Natural Air Cooled
Dimension	(mm)		1970×1100×1630
Weight	(KGS)		1050

■ On-site Projects







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