

ADMIE TECHNICAL DESCRIPTION

PORTABLE SF₆ GAS HANDLING EQUIPMENT FOR HV EQUIPMENT FILLING AND RECOVERY

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**PORTABLE SF₆ GAS HANDLING EQUIPMENT
FOR HV EQUIPMENT FILLING AND RECOVERY****1. General Description**

The Independent Power Transmission Operator (IPTO or ADMIE) is interested on the purchase of portable SF₆ gas handling equipment for the recovery and filling of gas from/to high voltage switchgear.

This document describes the minimum requirements that the device and its accessories should meet, as well as some required features. The devices must be supplied as complete items, with all of the parts (e.g. cables) required for their immediate operation. All of the supplied equipment must be accompanied by full, illustrated operation manuals.

The submission of a list naming additional optional features is welcome but the cost of these features must be clearly and individually listed. Some, all, or none of these optional features may be selected during the evaluation process.

All of the following devices must be covered by a warranty for at least two years after their delivery date. The bidder must ensure that maintenance and repair parts for every supplied item will be available for at least ten (10) years after the delivery date of the equipment.

2. Specifications

The device must be capable of controlled SF₆ handling from and to high voltage switchgear equipment. SF₆ losses during any process must be minimal and the device must feature an alarm notifying the personnel if any SF₆ losses are occurring. Its compressor must be oil-less. The device should feature an electronic scale suitable for SF₆ gas cylinders.

The following table designates the minimum guaranteed required operational parameters:

FILLING PRESSURE	At least up to 45 bar (Cylinder) At least up to 10 bar (Equipment & GIS)
GAS FLOW RATE (FILLING)	At least 6.5 m ³ /h
GAS FLOW RATE (RECOVERY)	At least 10 m ³ /h
VACUUM PRESSURE (AIR & GAS)	At least 1 mbar (absolute)
AIR FLOW RATE (EVACUATION)	At least 30 m ³ /h
DIGITAL SCALE WEIGHT CAPACITY	At least 110 kg
DIGITAL SCALE ACCURACY	± 50 gr or better
INTEGRATED TANK	At least 250 litres

The device will be used exclusively in substations and locations with strong electrical fields and must be suitable for operation in such an environment. It must be capable of basic gas purification, thus it must include an evaporator, a dry filter, a particle filter, and a humidity measurement sensor.

The device must be portable, allowing for effortless on-site application. The input voltage will be 3ph / 400 V / 50 Hz. Any cables required for the operation of the device (e.g. power) must be included in the offer. 3m (or longer) hoses rated at 50 bar or higher with DN20 connectors must be included in the offer.

3. Packing

The main device must have a frame with heavy-duty wheels. The frame must be suitable for crane lifting and must include the pressure tank. Any external parts and accessories must be delivered in hard cases. A printed manual or basic instructions summary must be included, stored inside a waterproof protective bag or sheath. The manual shall be also provided in electronic format.

4. Training

The bidder is required to undertake a training programme on the operation of the instrument. The bidder will train ten (10) employees of the company and the training programme should last no more than two (2) working days. The training programme and any seminars will take place at the premises of the company (Agias Annis 70, Aegaleo, Athens, Greece).