

# MicroSAFA

## Automatic fuel conditioning system for daily tanks up to 1.000 liters volume

The MicroSAFA automatic fuel conditioning system for particle filtration, water removal, fuel homogenization and oxygenation through its programmed recirculation protocol, prevents the proliferation of bacteria, molds and yeasts that are liable to damage the installation.



### Why is it important to install MicroSAFA in my fuel tank?

As per current regulations trends in allowance limits, the diesel can be mixed with till 7% of biodiesel. This fact modifies the fuel's chemical structure and causes a significant increase in condensation within the tank. The presence of water combined with certain temperature conditions create a perfect medium for the bacteria to grow, reproduce and create damages at the installation.

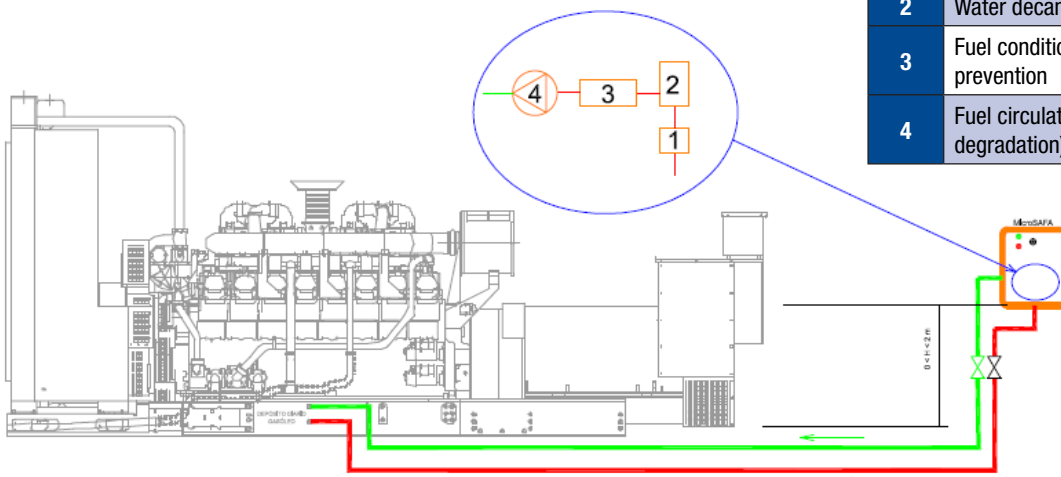


The Microsafo filtering system is the ideal solution to all these problems in small installations, especially in emergency generators with poor fuel rotation. The system eliminates solid particulate and water from the tanks by means of a decanting filter. Additionally, it is fitted with a linear module that induces lethargy in the bacteria thus limiting their capacity to proliferate.

For larger capacity installations and fuel storage yards to 1000 lts, the SAFA filtering system guarantees prevention.

TECHNICAL CHARACTERISTICS	
Dimensions	300 x 230 x 160 mm
Power supply	230 Vac
Consumption	100 mA
Maximum flow rate	20 L/h
Suction/Drive	1/4" - 1/4"
Drain	1/4"
Recommended for storage tanks of up to 1,000 L.	

### SAFA Filtering System Basic Diagram



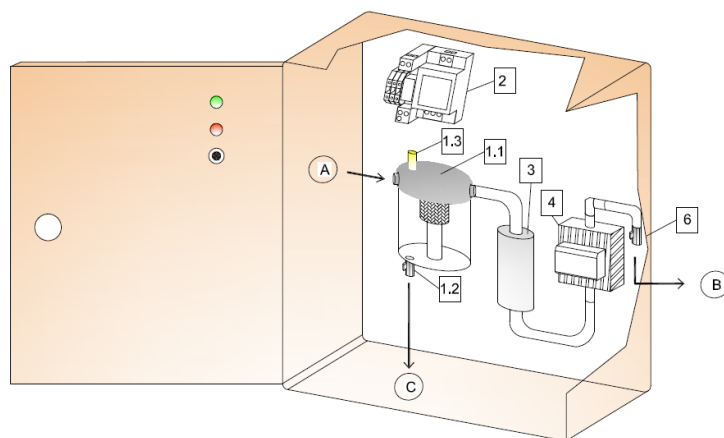
1	0,1 mm particle filter
2	Water decanter
3	Fuel conditioner for microbial growth prevention
4	Fuel circulation pump (preventing degradation)

## How does Micro SAFA operate?

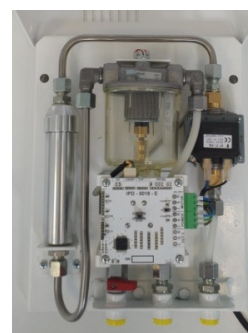
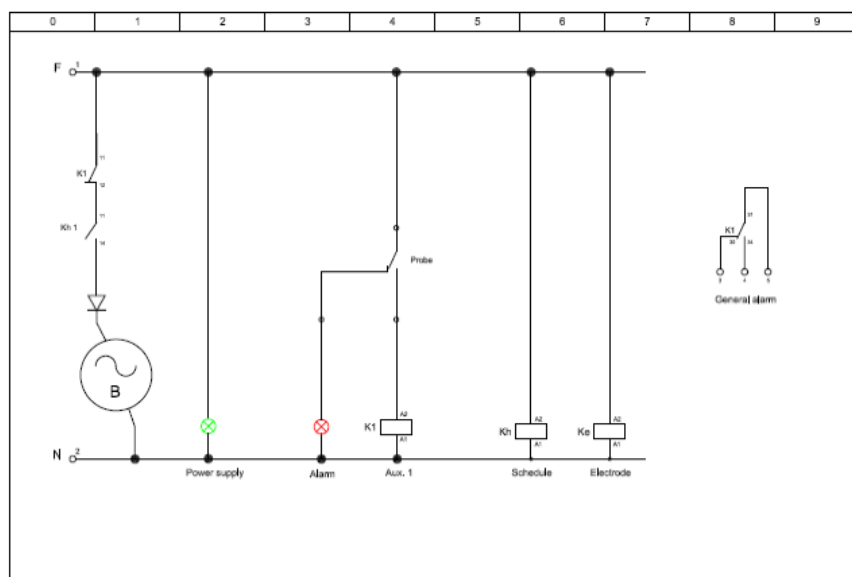
- **Circulates** and prevents fuel degradation inside daily-supply tanks.
- Fuel is passed through a fuel conditioner to **prevent microbial growth**.
- The fuel is **automatically distributed** for a predetermined number of periods programmed to ensure that the contents of the tank are recirculated at a rate of 1.5 times tank's capacity every 28 days.
- **If water is detected in the decanting filter in the unit, it triggers an alarm** and a malfunction warning light comes on (alarm).
- The system is powered by 230 Vac and comprises a 100 mm water decanting filter, fuel conditioner, flow detector, flow failure display, timer.
- Optional weatherproof protective cabinet enclosure (Protection IP-66).

### SCOPE OF CONTENTS

Nº	Description	Código Inpro
1.1	Oil filter and water separator	01110000022032
2	MicroSAFA PCB controller	23110000000410
2.1	Timer switch controller (optional alternative)	02010000932290
2.2	Aux. relay contact	02010000001490
2.3	Electrode relay	02050000001000
3	Fuel conditioner	23120000314148
4	Solenoid pump 15 l/h	01000000003660
5	Standard plastic protective enclosure	00180000010005
6	Optional IP 66 cabinet	02060004030201



## Diagram and electrical connections



MicroSAFA  
With plastic cover, open



MicroSAFA in IP66 cabinet,  
with adjustable timerswitch

## Installation instructions

1. Prior to installation, clean all joints of any possible dirt that may reach the equipment.
2. Secure the equipment to a firm surface above the maximum level of the tank to be treated.
3. Connect hydraulic aspiration "A" and return "B" to the storage tank.
4. Connect power supply, 230 Vac.

## Setup instructions (Unit operation)

Default settings:

Operating every hour at 10 minute intervals every day of the week. With the optional timer version can be adjusted locally to specific time frame, i.e. from 08.00 to 18.00 hours, at 10 minute intervals, every day of the week. (On 8.00 to 8.10 – On 9.00 to 9.10... – On 18.00 to 18:10).

The optional timer allow a change on these values through a mobile phone with NFC technology and an application to this effect, or manually by means of the timer. To make new settings, please contact our technical department to request instructions for regulating the Mini Filtering System, or download them from our website [www.inprogroup.net](http://www.inprogroup.net)

## Maintenance

When the red alarm lamp light comes on, check the water decanting filter to ensure it is free of solid particles, and remove any water present. After this, start up the pump (e.g., manual timer) until the diesel reaches the pump and the equipment is ready to operate in automatic mode.

## EC DECLARATION OF CONFORMITY ACCORDING DIRECTIVE 2006/42/EC ANNEX II

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Declare under our sole responsibility that the machine PUMPSET for oil,

Type: **Micro Safa**

Serial Nr: XXXX

Manufacturing date: **2016**

**Is manufactured in conformity with the Machinery Directive 2006/42/EC, Electrical Safety Directive 2006/95/EC and Electromagnetic Compatibility Directive 2004/108/CE.**

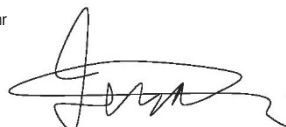
Manufacturer will not be liable for:

- Not following of the instructions referred in the manuals delivered by INPRO R&D, S.L.
- Modifications to machine design not authorised by INPRO R&D, S.L.
- Damages caused during maintenance or repair performed by not authorized people by INPRO R&D, S.L.

**For its construction EN 12.514-1, EN-ISO-9001 rules have been observed.**

Quality Management

Arganda del Rey, el 06 de February de 2017



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