### MACFUGE® by

#### SERVIZI INDUSTRIALI

SEPARATION TECHNOLOGY











MACFUGE MODULAR SYSTEMS
INDUSTRIAL FLUIDS



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### MACFUGE MODULES With High Speed Centrifugal Separator

Ready-to connect compact unit mounting high speed centrifugal separator, for the cleaning treatment of industrial fluids:

emulsion, coolant, cutting oil, washing liquids, hydraulic oil, lubricants, fuel.





## IT'S COST EFFECTIVE

EXTENDING COMPONENT LIFE (MACHINE TOOLS, ENGINES, ETC.)

LESS DISPOSAL (FILTERS, USED OIL)

REDUCED STOP FOR MAINTENANCE, EITHER PLANNED OR FOR EMERGENCY

BETTER WORKING ENVIRONMENT AND SAFER FLUID USAGE

RECOVER OF VALUABLE PRODUCTS (PRECIOUS METALS OR PROCESS POWDER)

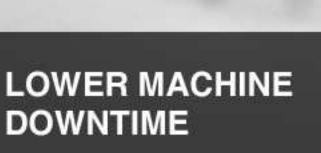
LONGER FLUID LIFE

BETTER FUNCTIONING OF THE INDUSTRIAL EQUIPMENT

HIGHER POWER GENERATION (FUEL)









NO



**OPTIMIZING ODORS TOOLS WEAR** 

MACFUGE offers the most advanced technology of separation, which generate high G centrifugal force. Providing an economical, efficient and eco-friendly system to clean the industrial fluids.

Metalworking, steel, forging, pressing, automotive and components industries (using coolant, lubricants, emulsion and mineral oil based fluids).

Installation for power generation, energy production, fuel distribution, either ground station or marine engines (using fuel and lubricant for motors and turbines).

All these applications benefit by the removal of contaminants from their fluids, whether prior of its use to increase the efficiency, or after its use for a safe recycling and re-use, or to match disposal requirements.

MACFUGE MODULES thanks to the high speed and high G force separators, clean the fluid to an higher degree for a longer time.

As a result, a better response of the fluid along the time, with the consequent reduction of disposal, and finally an improved economical and environmental balance.



The cleaning treatment of industrial fluids with centrifugal separators, reduce contamination and pollution, increase the process efficiency, reduce the manufacturing and operational cost.

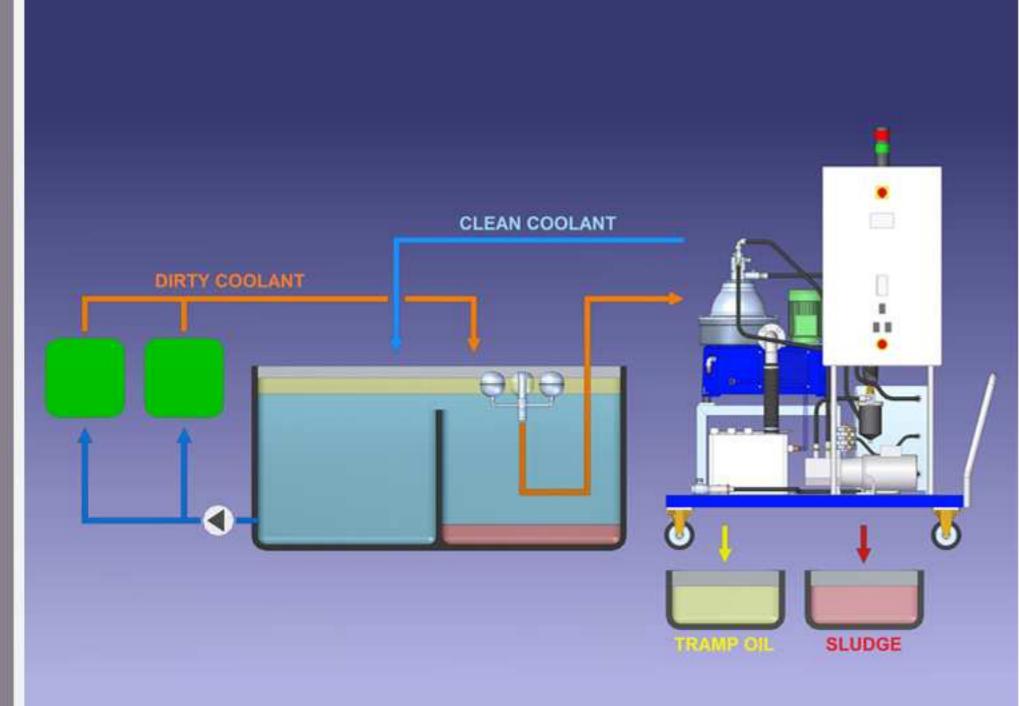
# TREATMENTS OF COOLANTS AND WASHING LIQUIDS



#### MACFUGE EMULSIO

MACFUGE 230 SK MACFUGE 181 SK MACFUGE 251 SK MACFUGE 306 SK

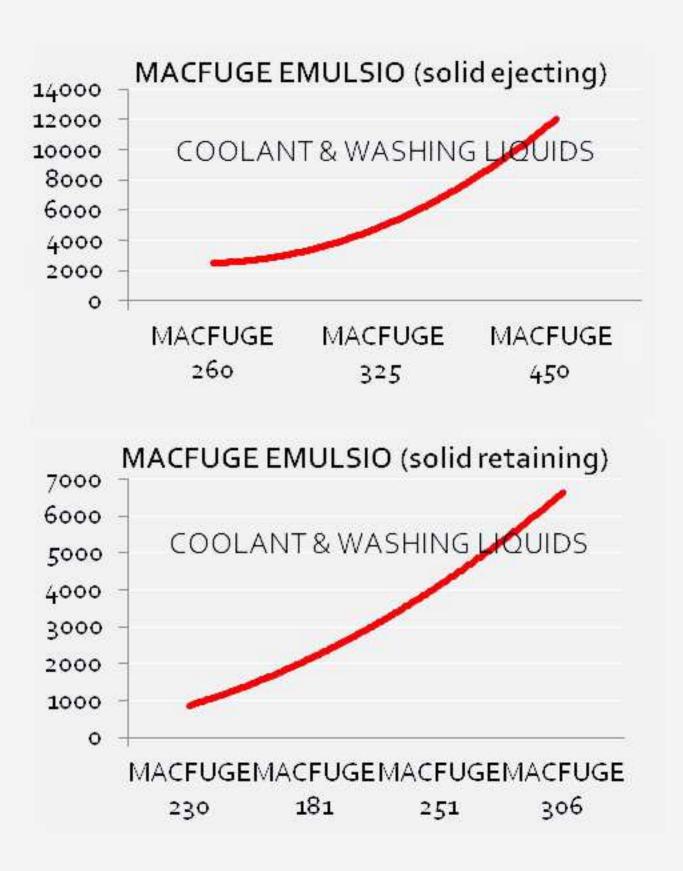
MACFUGE 260 SK MACFUGE 325 SK MACFUGE 450 SK



MACFUGE EMULSIO modular system increase the service life of industrial fluids, reduce unplanned machine shutdowns and ensure hygienic production conditions.

In metal working industry, disposal of waste coolant is a big problem. MACFUGE offers solution designed to remove tramp oil, metal powder, water and other contaminants from the coolants in a wide of applications, such as machine tool sump component, washing systems or quench tanks. Your working fluids will suddenly turn into a valuable commodity. Tramp oil and solid particles cause increased tool wear, process quality problems and health issues. In short, it's well worth the effort to keep your coolants clean.

The high efficiency modular system from MACFUGE treats industrial wash liquids, separates undesired entrained particles and tramp oils, during the production process. The treatment system has an optimum effect and convinces by its high cleaning efficiency and an important saving of washing lye. The service life of the washing liquid and the quality of the machined work pieces, increase, while tool wear is reduced.





MACFUGE EMULSIO easy to integrate in the production process.

# TREATMENTS OF CUT OIL



#### **MACFUGE CUT**

MACFUGE 230 C

MACFUGE 181 C

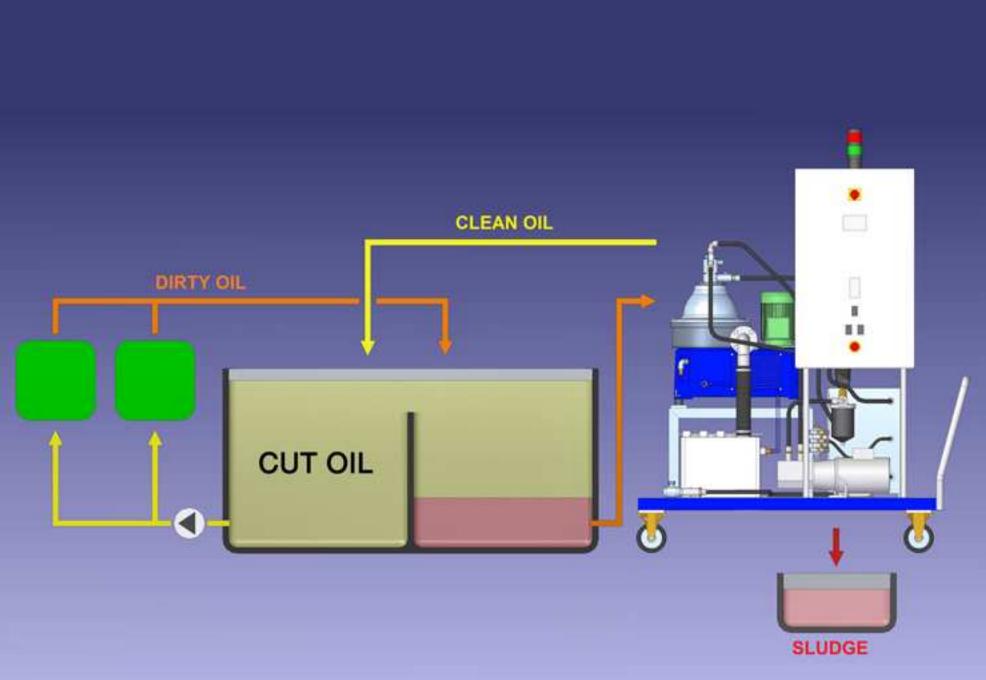
MACFUGE 251 C

MACFUGE 306 C

MACFUGE 260 C

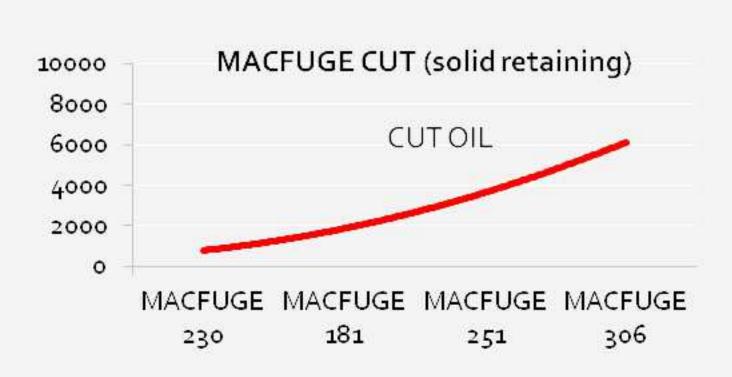
MACFUGE 325 C

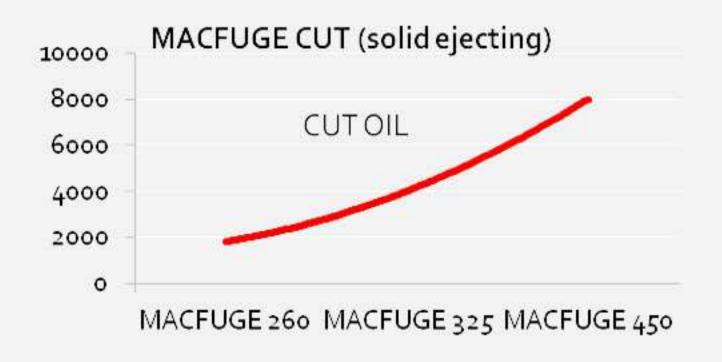
MACFUGE 450 C



MACFUGE CUT modules to keep clean the cutting oil after use and recover valuable materials.

To remove the contaminants from the fluid during and after the cutting operations, like watery fluids and abrasive solid particles, while giving the possibility to recover the valuable ones. Keeping cleaned the cutting oil after each cycle, means bigger number of cycles and reduced risk of tools wearing and ruptures: less oil consumption, less disposal, for a better economic balance while contributing for a better environment.

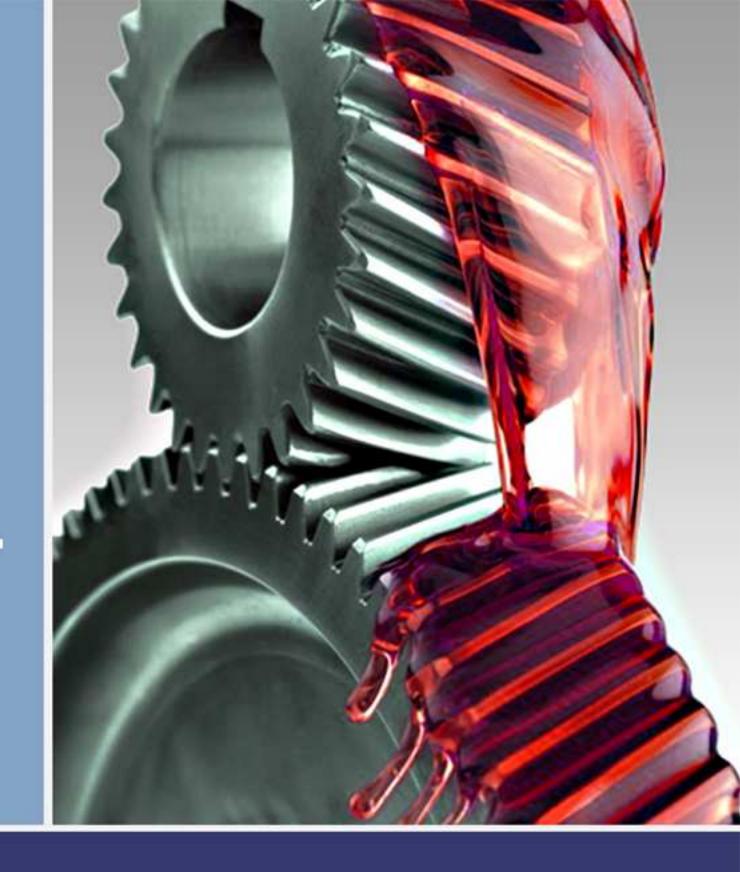






The higher speed of MACFUGE CUT centrifuges module, will speed up also the payback time of the investment.

# TREATMENTS OF LUBRICANT OIL AND HYDRAULIC OIL

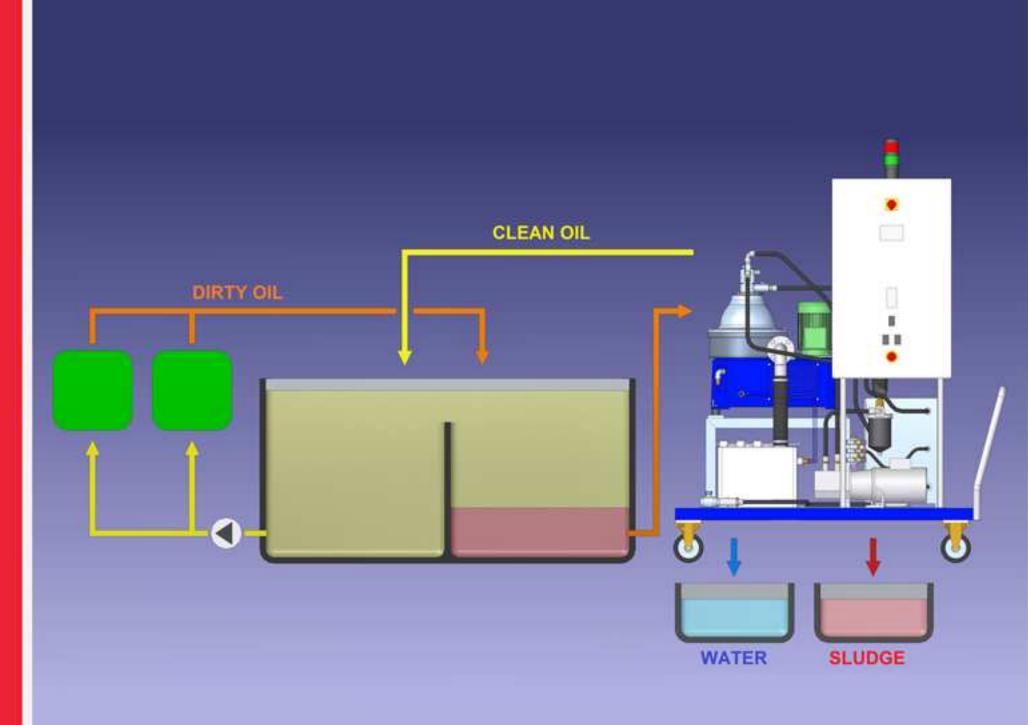


#### **MACFUGE LUBE**

MACFUGE 230 S MACFUGE 181 S MACFUGE 251 S

MACFUGE 306 S

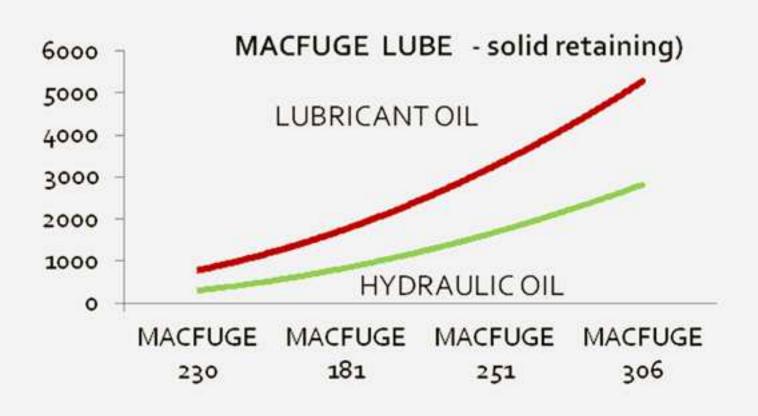
MACFUGE 260 S MACFUGE 325 S MACFUGE 450 S

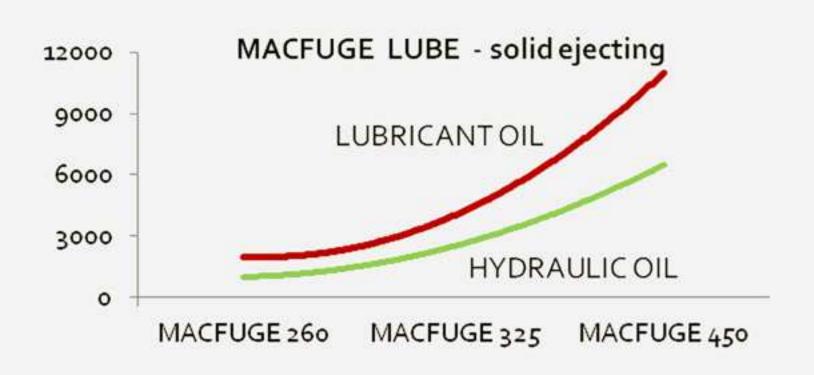


The lubricant oils often contains particles and watery contaminants that may create serious problem.

Whether the lubricant oil serve for engine or a turbine, or as hydraulic oil to move a press or an actuator, the contamination is directly proportional with the loss of the oil property.

The MACFUGE LUBE modules are engineered to remove the contaminant even from the heavier lubricants, and fulfill the quality requirement of more demanding equipment like turbines ones.







MACFUGE LUBE modular system to prolong oil's life ...

# TREATMENTS OF FUEL AND HEAVY FUEL



#### **MACFUGE POWER**

MACFUGE 230 S

MACFUGE 181 S

MACFUGE 251 S

MACFUGE 306 S

MACFUGE 260 S

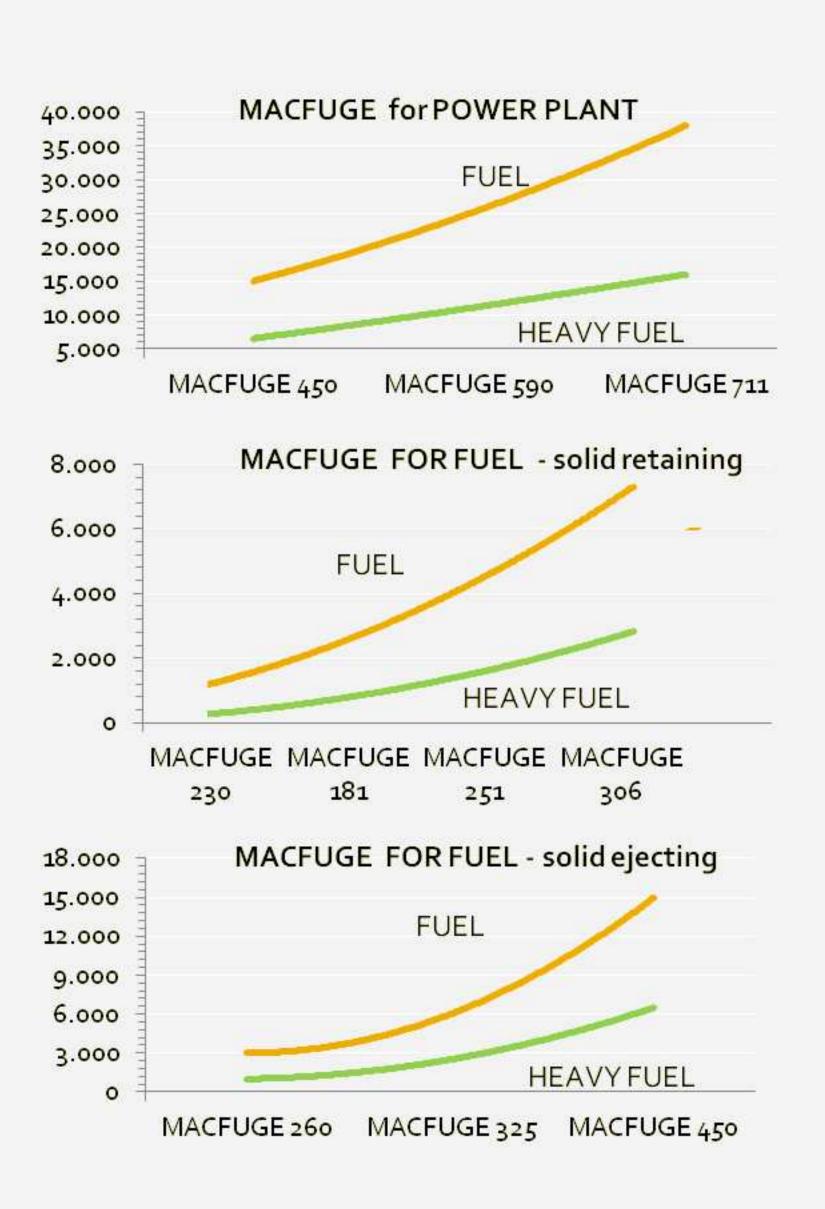
MACFUGE 325 S

MACFUGE 450 S



The MACFUGE POWER modules are engineered to remove the contaminant even from fuel and heavy fuel, the solution to reach the quality requirement on a more and more demanding sector.

Whenever Gasoil and Heavy Oil are used as Fuel, there is the requirement to clean (purify) the same from contaminating water and solid. There is the case of Marine Industry (onboard engines, offshore platform), Power Industry (ground power stations, turbine or thermal engines), Petrol Industry (gasoline distribution and storage).





MACFUGE POWER modular system to recover power

#### **MACFUGE EMULSIO**

#### CONCENTRATOR MODULAR SYSTEM.

To concentrate and further remove the tramp oil contaminating the coolant and emulsion based fluids, while separating solids carried on during working condition. To keep clean the fluid buffer tank where the accumulation of such contaminants create problems to the coolant quality during the time.

#### MODULES

MACFUGE 230 SK MACFUGE 181 SK MACFUGE 251 SK MACFUGE 306 SK

MACFUGE 260 SK MACFUGE 325 SK MACFUGE 450 SK

#### **MACFUGE CUT**

#### CLARIFIER MODULAR SYSTEM.

To clarify the cutting oil from any solid carried on during the working operation.

Whether the solid are removed directly from a buffer tank, it is of first importance that the oil is clean from solid before to be recirculated on the cutting machines.

#### MODULES

MACFUGE 230 C MACFUGE 181 C MACFUGE 251 C MACFUGE 306 C

MACFUGE 260 C MACFUGE 325 C MACFUGE 450 C

#### **MODULES**

MACFUGE 230 S

MACFUGE 181 S

MACFUGE 251 S

MACFUGE 306 S

MACFUGE 260 S

MACFUGE 325 S

MACFUGE 450 S

#### **MACFUGE LUBE**

SEPARATOR MODULAR SYSTEM.

A more complex module to treat and clean viscous oil, whether as hydraulic oil or lubricant, from the presence of water and solid. The proper cleaning require heating up and temperature control while cooling down if necessary before the oil is recirculated to be used.

#### **MODULES**

MACFUGE 230 S

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MACFUGE 251 S

MACFUGE 306 S

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#### **MACFUGE POWER**

SEPARATOR MODULAR SYSTEM.

Whenever Gasoil and Heavy Oil are used as Fuel, there is the requirement to clean and purify the same from contaminating water and solid.

# BENEFITS AT A GLANCE



PASSION
INTEGRITY
RESPONSIBILITY
EXPERTISE
RESEARCH AND
HIGH TECHNOLOGY
SAFETY
TRAINING
FLEXIBILITY

#### **MACFUGE CAPITAL CARE**

We believe, live and pursue our values

With the centrifugal force, we help our Clients in the separation process and performance optimization

AN ANSWER TO ANY CUSTOMER'S SEPARATION PROBLEM



Increase service life

Removes contamination from different types of fluids

Does not affect properties of additives

Lower machine downtime shutdown

It can be used to serve several tanks

Plug and play feature as shown in image

Constant production conditions

Drastic reduction of liquid disposal volumes

Eco friendly solution

Reduced disposal costs

The MACFUGE modules are designed and manufactured as specific solution for our customers in the various industrial applications.

The MACFUGE modules to clean the industrial fluids have various optional to be a flexible and locally adaptable solutions. They can be realized as fixed installation or as mobile unit, to serve different locations. They can be used to serve a single equipment (central tank or single engine), or multiple equipment (local tank, maintenance service). MACFUGE engineers are available to study the local requirement, to deliver a MACFUGE module like a plug and play solution for any place.

Hook up the MACFUGE module with air and water, plug it and start it up.

The module works automatically giving all the details for an easy supervision and process control, with a reduced maintenance requirement. The higher value of this technology will be sooner transferred to the value of your working fluids.

## MACFUGE by

#### SERVIZI INDUSTRIALI

SEPARATION TECHNOLOGY







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