



OIL & DIESEL

MAINTENANCE



Continuous maintenance of oil and diesel provides you with optimal purity

www.waagene.no



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History

Åge S. Wågene, engineer, started his engineering business in air compressors in 1976 and operated with sales and service for compressors and pneumatic tools. The company represented FF Air AS Denmark and the ABAC Group in Italy.

In 1999 the company started developing an oil treatment plant designed for hydraulic and lubricating oils, and launched the product in 2001. In the early years the company targeted the domestic shipping industry, and then entered the international market. The global shipping industry found the Wågene solution to be a highly effective means of keeping oil clean by removing particles and water.

In 2011 the company sold off its compressed air operations to focus entirely on oil maintenance. In recent years the maintenance of diesel has also come onto the market.

The company changed its name to Wågene Purifiner Technology AS in 2011 and has focused on building up a network of agents and retailers to supply the shipping industry worldwide. By the end of 2013 the company had delivered more than 2,500 cleaner units to industry. Two of our major customers are Carnival Cruises, the world's largest cruise line, and Bourbon Offshore France, one of the world's largest supply ship companies.

We will continue to break new ground by

- > reducing costs and consumption with clean oil
- > reducing costs of loss and damage caused by contaminated oil
- > providing considerable environmental benefits.



Making your business greener...

By removing water and particles from your oil or diesel fuel you will remove the root causes of the problem.

Clean oil or diesel will not cause problems for machinery and equipment. It will help you achieve reduced downtime, drastically lower the failure rate and not least, benefit the environment.



Our unique oil maintenance system

Purifiers is a “bypass” oil maintenance system that connects to a hydraulic or lubricating system to continuously remove water and particles. The filter cartridge is a pure cotton filter that removes particles larger than 3.1 microns. The advantage of using a cotton filter is that it does not absorb water, thus the reason it does not fill up with water. This provides strong economy. It is our patented top, that removes the water. This evaporates the water and reduces water content down to 50-100 ppm / 0.005 to 0.01% and lower. New hydraulic oil has a standard NAS class 6-8, with continuous oil maintenance our system shows a consistent quality NAS Class 3-4 or ISO 13/10.

Research done by “Norske Shell” university and many others, concludes: Up to 80% of mechanical breakdowns were due to contaminated oil. Contamination of oil is a lengthy process but once it has begun, the rate of pollution is very rapid, if you do not have continuous oil maintenance. Two measures must be done to achieve optimum oil quality:

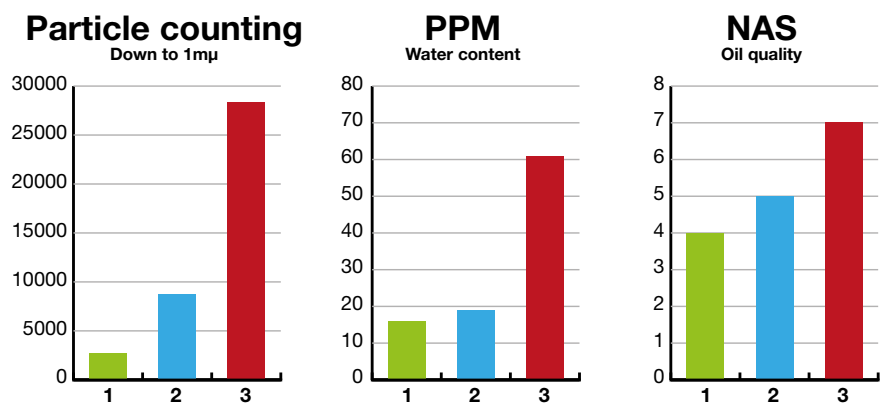
- Remove particulate contamination, such as iron (Fe), copper (Cu), Silicon (Si) and other metals.
- Remove chemical contaminants in the oil that is usually water.

Particle pollution is a result of mechanical wear, during maintenance, defective gaskets, clogged filters, etc. It should also be noted that new oil also contains large amounts of particles up to 5 microns. Water pollution can come from condensation, leaks into system, air valves or compressors and equipment in the system. Water in the oil may lead to the formation of acids. The presence of just water in oil is more critical than you might at first think.



Our patent filter removes particles down to 1-3 micron and the water evaporates in the specially designed top.

Texaco Regal 68 Hydraulic oil (17,500 hours / 2 years)



Test performed by Norsk Oljelaboratorium AS, May 2013





Controller
TF5060C



Filter WP-15B



TF5060PMH

PRESSURE-FREE SYSTEM

TF5060C Mining and contractor machinery

Filters and cleans oil for better quality than new oil free of particles and water. This prolongs oil life 10 to 15 times. Cleaner unit removes particles down to 1 micron. Evaporates all the water, including emulsified water in oil, down to 0.01%. Extends the oil's quality time. For direct installation on machine.

Applications

Mining and contractor machinery such as excavators, mobile cranes and overhead lifts, etc.

Specifications Purifiner Controller unit

Power Supply:	24 V
Nominal Wattage:	360W / 15A
Flow Rate:	600/24H – 25L/H
Back pressure:	Max 3 bar
Inlet pressure:	Max 200 bar
Filter:	1-3 micron (optional)
Water Removal:	Evaporation
Weight:	11 kg
Dimensions:	38 x 35.5 x 14 cm (H x W x D)
Pipework:	INLET=10L OUTPUT =12S

Filters

WP-15B	Up to 500 litres system
WP-25B	Up to 1000 litres system
WP-50B	Up to 1500 litres system
WP-80	For extreme particle pollution



TF5060PMH TF for pressure-free system

The "TF" unit is designed for hydraulic and lubricating oils. It is NOT intended for pressurized systems or where the cleaning unit is placed higher than the system it will purify. The TF has the ability to "lift/suck" oil into the filter, but must have "free fall" (fall back by gravity) back to the tank/oil reservoir. Water down to 100 ppm. (0.01%) and particles 1-3 microns.

Applications

Hydraulic systems such as balers, compactors, ro-ro equipment. This is mounted on the IBC tank for cleaning oil, such as freezer compressor oil or other places where it is not possible to permanently install the unit. There are two sets of oil in attendance, one to use and one for purification; just select one of the two as needed.

Specifications Purifiner TF5060PMH

Capacity:	600 litres/24 hour (Single filter) 1,200 litres/24H (Twin filter)
Oil amount:	Up to 3,000 litres (6,000l for Twin and 9,000l for Triple units)
Oil type:	All hydraulic and lubricating oils
Viscosity:	32 - 320
Max. pressure in:	No back-pressure
Power consumption:	2,300 watt, 230 volt, 16 amp circuit
Connection:	3/8" BSP external thread
Warranty:	24 months
Weight:	35 kg
Dimensions:	64 x 45 x 47 cm (H x W x D)

TS5060PMH

TS for pressurized systems

The "TS" unit is designed for pressurized hydraulic and lubricating systems. This unit can be placed lower than the tank or return point. It can also handle back pressure from the hydraulic system up to 8 bar. The Purifier can be connected directly to the system as a "bypass filtration".

Applications

Azipods, Thrusters, Stern tube on board vessels. It can also be used on all other hydraulic systems. The Purifier can purify lubricating systems as well.

Specifications Purifier TS5060PMH

Capacity:	600 litres/24 hour
Oil amount:	Up to 3,000 litres (flow in the system / tank to be cleaned)
Oil type:	All hydraulic- and lubricating oils
Viscosity:	32 - 320
Max pressure in:	200 bar (with reduction valve) 3 bar as standard
Max Back-pressure:	8 bar
Filter use:	Approx. 4 filters a year with continual use and in normal circumstances
Power consumption:	2,400 watt, 230 volt, 16 amp circuit
Connection:	3/8" BSP external thread
Warranty:	24 months
Weight:	45 kg
Dimensions:	64 x 45 x 47 cm (H x W x D)



TS5060PMH-Mobile

Purifier TS-Mobile

TS Mobile has the same properties as the TS5060PMH but a higher capacity. The unit is mounted on the trolley, making it easy to move around. Suitable if you have many smaller systems you want to clean.

Applications

Suitable for cleaning many smaller systems such as elevators, presses, overhead lifts, small machinery, cranes, etc. The unit is well suited for rental companies to use on their own and others' fleet. Service and maintenance firms etc.

Specifications Purifier TS5060PMH Mobile

Capacity:	600 litres/24 hour
Oil amount:	Up to 3,000 litres (flow in the system / tank to be cleaned)
Oil type:	All hydraulic- and lubricating oils
Viscosity:	32 - 320
Max pressure in:	200 bar (with reduction valve) 3 bar as standard
Max Back-pressure:	8 bar
Filter use:	Approx. 4 filters a year with continual use and in normal circumstances
Power consumption:	2,400 watt, 230 volt, 16 amp circuit
Connection:	3/8" BSP external thread
Warranty:	24 months
Weight:	60 kg
Dimensions:	115 x 55 x 50 cm (H x W x D)





TS5060PMH-Twin

PRESSURIZED SYSTEMS

TS5060PMH-Twin Purifiner TS-Twin

TS Mobile has the same properties as the TS5060PMH but a higher capacity. TS unit is designed for hydraulic oils, but can clean almost any type of oil. It is used for pressurized systems or where the cleaner unit remains lower than the system it will clean. TS-Twin plugs directly into the hydraulic system.

Applications

This unit is widely used for larger systems such as Azipod, Thrusters and Stern Tube on board vessels. Hydraulic central systems. The unit is highly accessible and can be used on any system where you have to collect the oil and return it back into the system.

Specifications Purifiner TS5060PMH-Twin

Capacity:	1,200 litres/24 hour
Oil amount:	Up to 6,000 litres (flow in the system / tank to be cleaned)
Oil type:	All hydraulic and lubricating oils
Viscosity:	32 - 320
Max pressure in:	200 bar (with reduction valve) 3 bar as standard
Max. back-pressure:	8 bar
Filter use:	Approx. 4 filters a year with continual use and in normal circumstances
Power consumption:	2,600 watt, 230 volt, 16 amp circuit
Connection:	3/8" BSP external thread.
Warranty:	24 months
Weight:	60 kg
Dimensions:	64 x 76 x 47 cm (H x W x D)



TS5060PMH-Triple

PRESSURIZED SYSTEMS

TS5060PMH-Triple Purifiner TS-Triple

TS Mobile has the same properties as the TS5060PMH but a higher capacity. TS unit is designed for hydraulic oils, but can clean almost any type of oil. It is used for pressurized systems or places where the cleaner unit is lower than the system to be cleaned. TS Triple is connected directly to the hydraulic system.

Applications

This unit is used extensively for large systems such as Azipod, Thrusters and Stern Tube on board vessels and hydraulic central systems. The unit is highly accessible and can be used on any system where you have to collect the oil and return it back into the system.

Specifications Purifiner TS5060PMH-Triple

Capacity:	1,800 litres/24 hour
Oil amount:	Up to 9,000 litres (flow in the system / tank to be cleaned)
Oil type:	All hydraulic and lubricating oils
Viscosity:	32 - 320
Max pressure inn:	200 bar (with reduction valve) 3 bar as standard
Max. Back-pressure:	8 bar
Filter use:	Approx. 4 filters a year with continual use and in normal circumstances
Power consumption:	2,600 watt, 230 volt, 16 amp circuit
Connection:	3/8" BSP external thread
Warranty:	24 months
Weight:	70 kg
Dimensions:	64 x 76 x 47 cm (H x W x D)

Effective cleaning of diesel



WFP-200 Single Fuel Purifier unit

The Fuel Purifier diesel purifier removes 95% of particles and 98% of water. The unit requires simple maintenance and is easy to operate. Fuel purifiers can run continuously and are connected directly to the tank.

Specifications Fuel Purifier WFP-200 Single

Capacity:	200 litres per hour
Type:	Diesel
IBC tank:	600 litre
Filtration:	60 microns
Maximum lift height:	8 feet
Return out:	Freefall
Filter consumption:	Normally by continuous treatment about 4 times a year
Power Consumption:	250 watts, 230 volt, 10 amp. fuse
Warranty:	24 months
Weight:	25 kg
Dimensions:	58 x 31 x 47 cm (H x W x D)

WFP-200 Single



WPD-600 Fuel Purifier unit

The Diesel Purifier WPD-600 is installed in a cabinet. The unit is easy to use and requires simple maintenance and can run continuously. WPD-600 can be connected directly to the tank or stand "in-line" (full flow).

Specifications WPD-600

Capacity:	Up to 600 litres per hour
Filtering:	Particle size 10 micron (standard) (2 and 30 micron = on request)
Max. pressure:	0.5 bar
Lifting height:	1.5 metres
Power Consumption:	250 watts, 230 volts, 50/60 Hz
Connection:	1/2" BSP
Warranty:	24 months
Weight:	50 kg
Dimensions:	76 x 60 x 35 cm (H x W x D)

WPD-600



Applications

For use with diesel having a viscosity between 2 and 5.35 cSAT at 37.8 degrees Celsius.



Purifiner is a small investment that gives good economy in the long term

Purifiner is designed for continuous maintenance of oil or diesel. Feedback from our users is that Purifiner is a minimal investment that offers savings over the short term. In the longer term Purifiner provides good economy by prolonging the interval for oil changes and reducing maintenance costs. Minimum consumption of filter cartridges since the water is not absorbed in the filter cartridge but evaporates away.

We have excellent trade references.
Please contact us for a quote:

For more information:
www.waagene.no



Clients:



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