FRANKE FILTER®
clean air creates atmosphere

Oil Mist Separators

FOR THE EXTRACTION OF FINEST OIL MIST

on all oil-lubricated rotary machines

Oil Mist Separators - for the environment

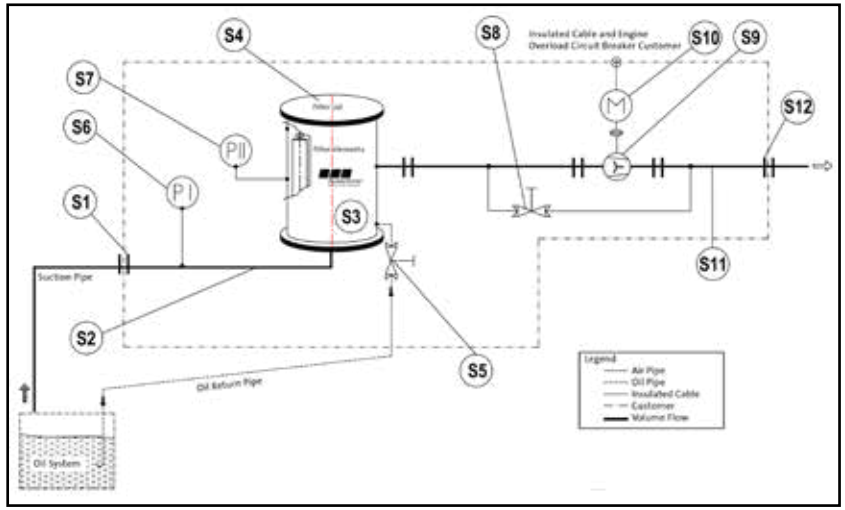
Oil mist and oil leaks due to excess pressure in the lubricating oil system belong to the past.

Your solution for the future?

The ecological Oil Mist Separators from FRANKE-Filter.

Oil Mist Separators, also called Oil Mist Eliminators protect your rotary machine, your employees and at the same time help to comply with the legally applicable environmental protection guidelines. Oil Mist Separators from FRANKE-Filter also extend the longevity of your machine and ensure the reuse of expensive lubricating oil due to their extremely high filtration efficiency, as the oil is returned to the lubricating oil tank after filtration. At FRANKE-Filter, we have made it our mission to ensure that our Oil Mist Separators are used in every large and small power plant in the world - regardless of whether it is an original equipment or a retrofit replacement. Because even though we urgently need the energy produced by the power plants, we must never neglect the protection of our environment, because

THE ENVIRONMENT IS OUR MOST VALUABLE ASSET.



Example process scheme of a standard design

Oil Mist Eliminators

Why oil mist is a problem

Oil mist often occurs in all types of rotary machines. To ensure smooth operation, the machine's bearings are lubricated. During operation, friction generates a lot of heat, which is responsible for the formation of fine oil particles.

If the resulting oil mists are not extracted, they can lead to contaminated work halls and equipment and therefore represent an increased safety risk. In addition, a lack of negative pressure can lead to leaks in the bearings, which can result in a fire hazard. If the oil mist escapes unfiltered into the atmosphere, the environment also suffers sustainably and in the long term from the polluted air.

The Solution: Oil Mist Eliminators by Franke-filter

With our separators, we have set ourselves the goal of preventing the existing risks and to make a significant contribution to environmental protection.

Application areas for Oil Mist Separators

Installation on lubricating oil tanks from
- Gas and steam turbines
- Hydro turbines
- Compressors
- Gas and diesel engines
- Vacuum pumps

for applications in
- Upstream (Onshore, Offshore)
- Midstream (compressor stations, LNG)
- Downstream (refineries)
- Power plants

Before/after comparison: Oil mist on a gas turbine before and after the installation of an Oil Mist Separator from FRANKE-Filter.

Over 30 years Innovation & Quality

More than 1000 successful projects

Over 2000 satisfied customers

12.500+ sold Oil Mist Eliminators

An overview of our Oil Mist Separators

HG10 - HG20
10 - 20 m³/h

FF2-011 - FF2-166
23 - 280 m³/h

FF2-266 - FF2-777
320 - 900 m³/h

FF2-888 - FF2-999
1.000 - 2,500 m³/h

The perfect size for every application

Volume flow	10 - 2,500 m³/h	**Power supply**	according to customer specifications
Material	Carbon steel / stainless steel		
Inlet flange	EN-Norm / ASME ANSI	**Certifications**	ISO 9001, EAC, ASME, CE
Outlet flange	EN-Norm / ASME ANSI	**Individual design**	ATEX, NEMA, redundant, Bypass, 60 Hz, Bypass with frequency converter
Vacuum generation	Side channel vacuum pump / fan		
Power	0.2 - 15 kW		

- ✓ **High quality solutions**
- ✓ **Individual design**
- ✓ **Professional welding**
- ✓ **Unique products**
- ✓ **Customized solutions**
- ✓ **Made in Germany**

- ✓ **Microfiber filter cartridges for a filtration efficiency of 99.9% at 0.1µm**

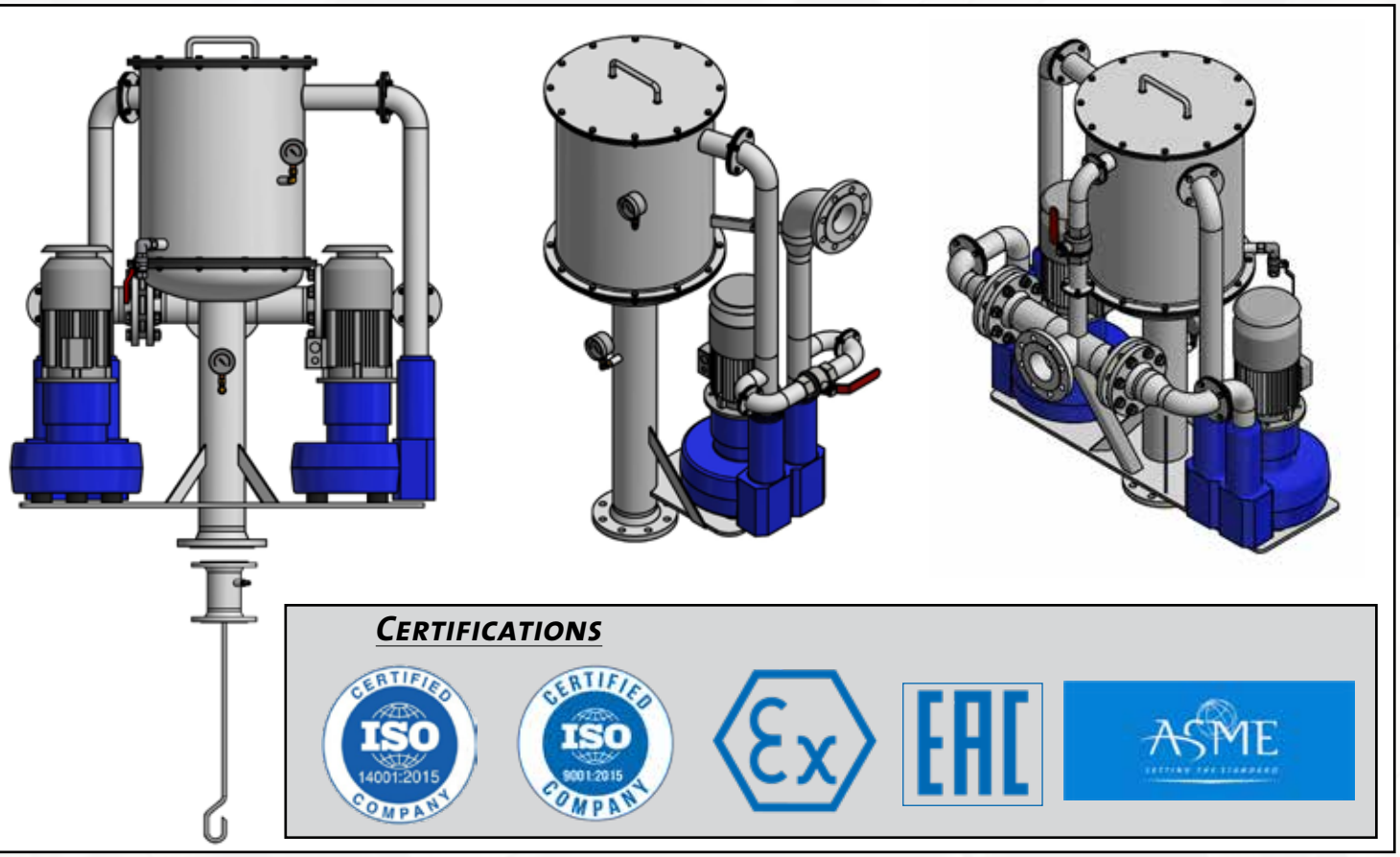
Functionality of the Oil Mist Separator

Oil Mist Separators from FRANKE-Filter guarantee a high degree of separation when extracting oil mist from the lubricating oil system of rotary machines.

Constant negative pressure
The integrated side channel vacuum pump leads the oil-laden air into the Oil Mist Separator via an intake line. The necessary negative pressure can be individually adjusted to the given requirements for negative pressure generation via the auxiliary air valve.

The coalescence effect
Inside the filter housing, the intake air is passed through several highly efficient microfiber filter cartridges. These ensure that the fine oil particles on the microfibers coalesce into larger droplets and flow back to the lubricating oil tank due to gravity.

The oil return
The oil collected at the bottom of the filter is returned to the lubricating oil tank via the return line.



Certifications

FRANKE-Filter uses this mechanical filtration principle because it saves expensive lubricating oil, ensures a clean atmosphere and protects the environment. At the same time, the Oil Mist Separators ensure the reliable, efficient and low-maintenance operation of your rotary machine.

In close cooperation with our customers we create the perfect Oil Mist Separator. Manufactured according to customer specifications, we can offer the optimum solution for every application. In addition, we offer further possibilities for adaptation and expansion to make your rotary machine even more efficient and save costs.

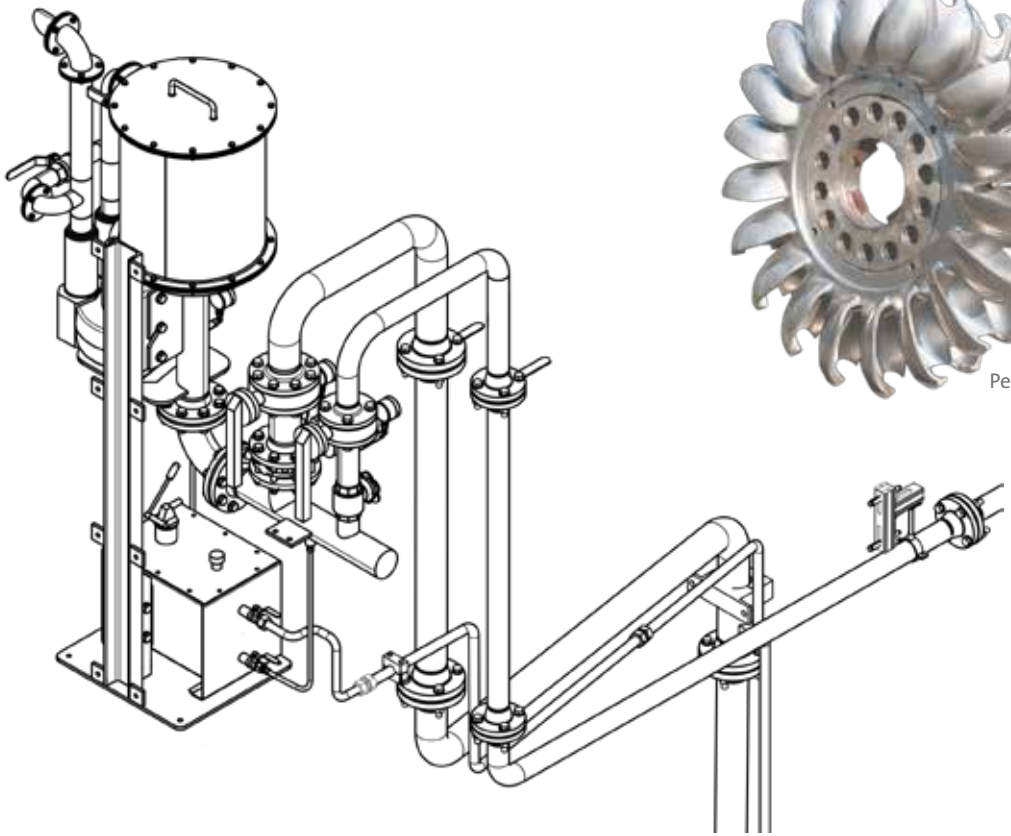
Special solution for hydro turbines

Renewable energy needs clean air

A hydro turbine in a run-of-river or pumped storage power plant differs fundamentally in its design from a gas or steam turbine in a conventional power plant. With our solution for hydroelectric power plants, up to four bearings of the turbine are extracted with just one Oil Mist Separator.

The advantage for the customer is that, on the one hand, he benefits from enormous cost savings thanks to just one unit, and on the other hand, spare parts inventory and procurement are greatly simplified. In addition, space conditions in hydro power plants are sometimes very tight, so that technical feasibility is much easier / facilitated with only one separator. Lastly, in the event of technical problems, there is a central contact point at a known location in the power plant.

Pelton turbine



Example drawing of an Oil Mist Separator for a hydro turbine

MAN

Baker Hughes

Solar® Turbines
A Caterpillar Company

Atlas Copco

CRYO STAR

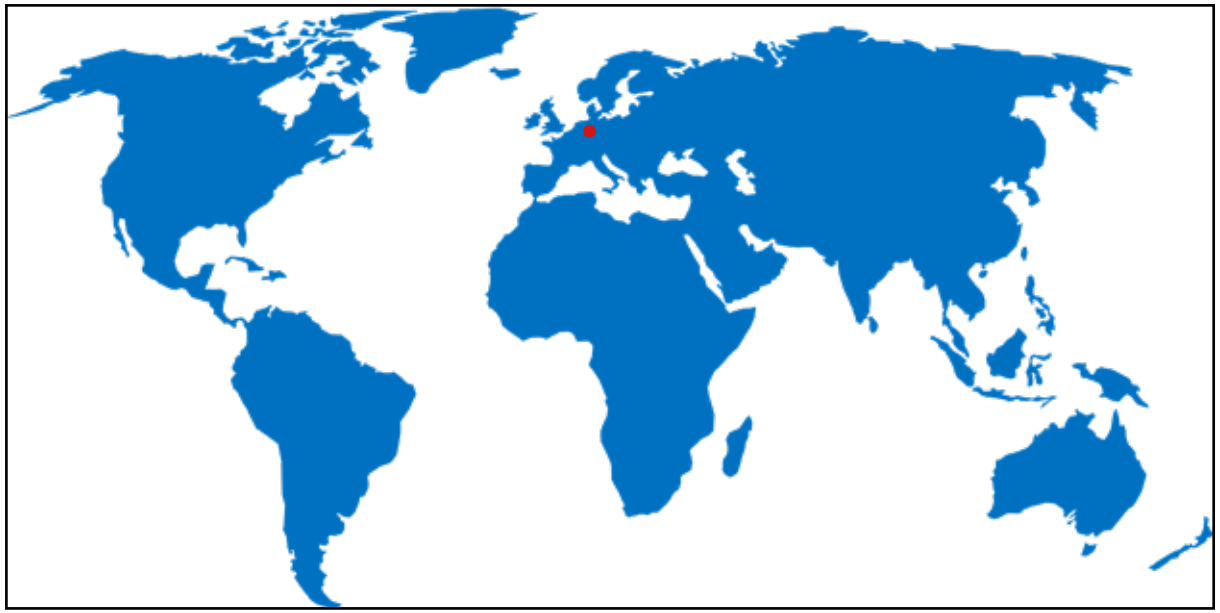
GE

MITSUBISHI HITACHI POWER SYSTEMS

TGM KANIS TURBINEN

AEL

SIEMENS energy



Oil Mist Eliminators by Franke-Filter

Reliable • efficient • low-maintenance

- ✓ Exact setting of the vacuum in the lubricating oil system
- ✓ Up to 30,000 hours of maintenance-free operation
- ✓ Quality of the lubricating oil is maintained
- ✓ Filtration efficiency of 99.9% at a particle size of 0.1µm
- ✓ 1-5mg/m³ residual oil content possible after filtration

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Franke Filter®
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