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# GALILEO EXTRA

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## Air Filtration

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Oily mist  
filter unit





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# Galileo Extra

Galileo Extra is a filter unit patented for mists generated by whole oil and emulsions in machine tools, reliable even with large amounts of particulate matter. It is available in 5 models with flow rates from 245 to 2.750 m<sup>3</sup>/h.

Galileo Extra guarantees high filtration efficiency, longer filter life and reduced power consumption. It is easy to install and features a highly innovative design. Galileo Extra is the ideal solution for fitting on machines.

Losma guarantees that each filter unit is individually tested through rigorous control procedures.

A quality and functional test certificate is issued for each unit.

Patented in  
Italy, Europe,  
USA, China  
and Japan





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# Operation

- The polluted air in machine tools is sucked into the lower pre-chamber of the Galileo Extra.
- The acceleration effect due to the centrifugal force, generated by a turbine, allows the atomised oil particles to unite and return to a liquid state, making use of the principle of coalescence.
- A special high-efficiency Multi-layer filter blocks and captures the smallest pollutant particles, preventing their dispersion into the environment.
- The oil in its liquid state is then returned to the machine for re-use through a special drainage outlet.





Left: example sequence taken from product operation video

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# Advantages

## **FILTERS STUDIED FOR EVEN HIGHER EFFICIENCY**

Internal filters have been redesigned to increase filtration efficiency even for the smallest particles. The internal materials, tested by the Losma laboratories, have passed stress compatibility tests in contact with numerous types of oil and emulsions on the market.

## **REDUCED POWER CONSUMPTION**

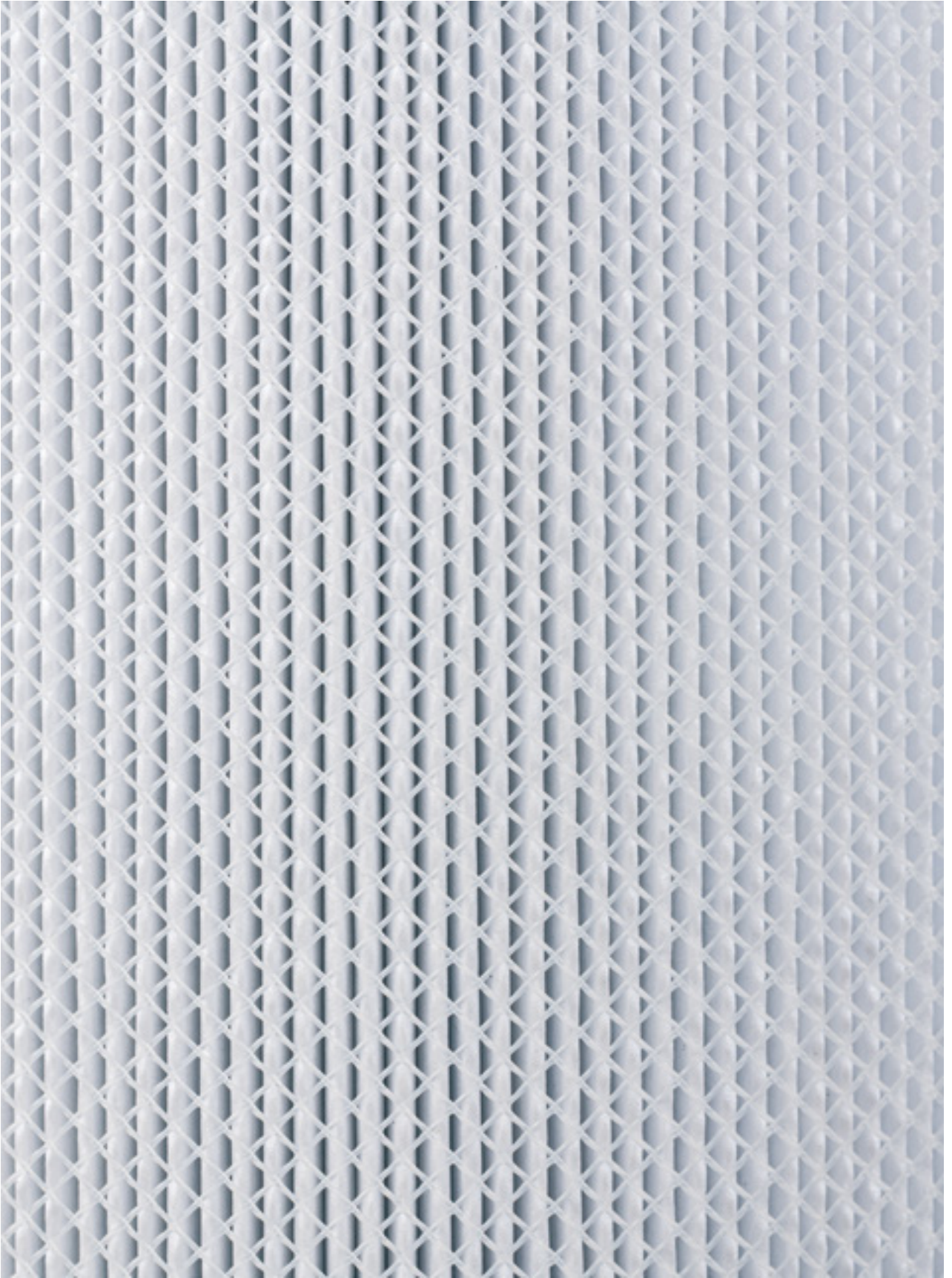
Inspired by the Blue Philosophy, Galileo Extra uses high-efficiency motors and very low power (KW).

## **HIGHER STATIC PRESSURE THANKS TO NEW TURBINES**

Even higher static pressures to maintain optimal suction flow rates also by installing Galileo Extra at a distance from the filtering source. The special turbine designed to eliminate the problem of dust deposits on its surface, solves the problem of vibrations even with large amounts of particulate matter.









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# Optional

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1. UV Mod

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2. G-Guard pre-filter

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3. G-Clipper post-filter

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4. X-VIEW

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1.



2.



3.



4.



# 1. UV Mod

Tested on the  
SARS-Cov-2  
virus

Purification system  
for killing viruses and bacteria

LOSMA is setting new standards for air purification and well-being in the workplace with its UV-MOD system for killing viruses and bacteria

According to laboratory tests, UV-MOD is able to kill the SARS-Cov-2 virus with an efficiency level of up to 99.99%.



**OPERATION:**

- The polluted air from manufacturing processes is first sucked into the Galileo Extra filtration chamber and, thanks to the centrifugal action of a special turbine and a set of high-efficiency filters, is cleaned of oil mist, vapours and any micro-particulates.
- After initial treatment, the air passes into the UV-Mod chamber.
- Thanks to the combined action of the 99.95% HEPA H13 filter and special UV-C LED modules, the UV-Mod is able to inactivate viruses and bacteria by breaking down and destroying their DNA.
- The air is then reintroduced into the environment with health levels never achieved in workplaces.

**ADVANTAGES:**

- Efficiency tested up to 99.99 % on SARS-Cov-2.
- Thanks to the integrated PWM - Pulse Width Modulation system, power is modulated according to a precise pulse pattern in order to maximise the effectiveness in damaging the DNA of viruses and bacteria. Pulsed modulation also reduces power consumption and increases the service life of the LED modules.
- An integrated self-diagnostic system checks the operating status of the LED modules at all times, signalling any faults or maintenance requirements.
- The combined UV-C + Hepa H13 treatment is the best air purification treatment for working environments to date.



## 2. G-Guard pre-filter

Metallic pre-filter to maximise filtration efficiency and filter duration in the presence of high oil mist production, even at high pressures, mixed with powders and metal shavings.

The G-Guard Plus has an inspection door for easier maintenance and is completely washable.





# 3. G-Clipper post-filter

Cartridge post-filter for micro-mists, vapours and fumes. Can obtain a very high level of filtration up to 99.95%.



# 4. X-VIEW

## Filter clogging sensor

The X-VIEW sensor is able to detect the progressive clogging state of the Galileo Extra filters, signaling three main operating phases (Led version):

- GREEN: Clean Filters;
- YELLOW: Pre clogging;
- RED: Clogging.

Also thanks to an exclusive software, it is possible to detect possible ANOMALY.



Thanks to an integrated TIMER, the X-VIEW sensor allows to know when 15,000 working hours (i.e. 5 years/8 hours per day) have been achieved, which is the recommended threshold for changing the filter set. The X-VIEW sensor can be positioned on Galileo Extra or in any other part of the machine tool where the operator is more comfortable reading the data.

Thanks to the Self-learning button, it automatically sets itself to the initial values, making installation extremely easy. From that time, all flow changes are measured according to the colour scale.

X-View works with all Galileo Extra accessories (G-Guard, G-Clipper and horizontal input).

X-View also displays:

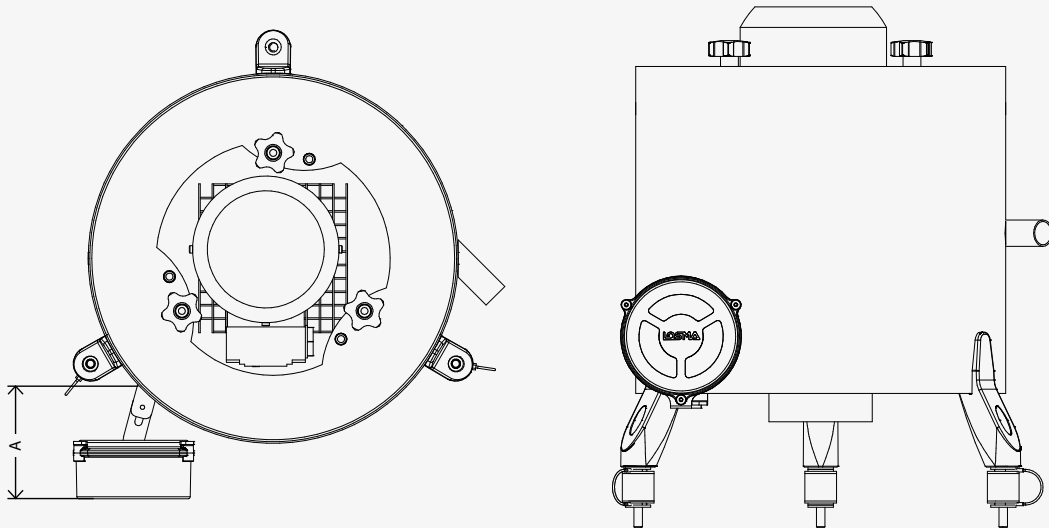
- possible upstream obstructions: whether by chip or liquid build-up. X-View is capable of detecting instantaneous or progressive clogging in the inlet pipe or suction grid of the machine tool cabin;
- zero flow alarm. For example, when Galileo is switched off or when the motor is not running or a pipe is disconnected;
- The timer indicates the achievement of 15,000 working hours - the threshold recommended for checking the filters.

Technical data

Voltage: 24V DC

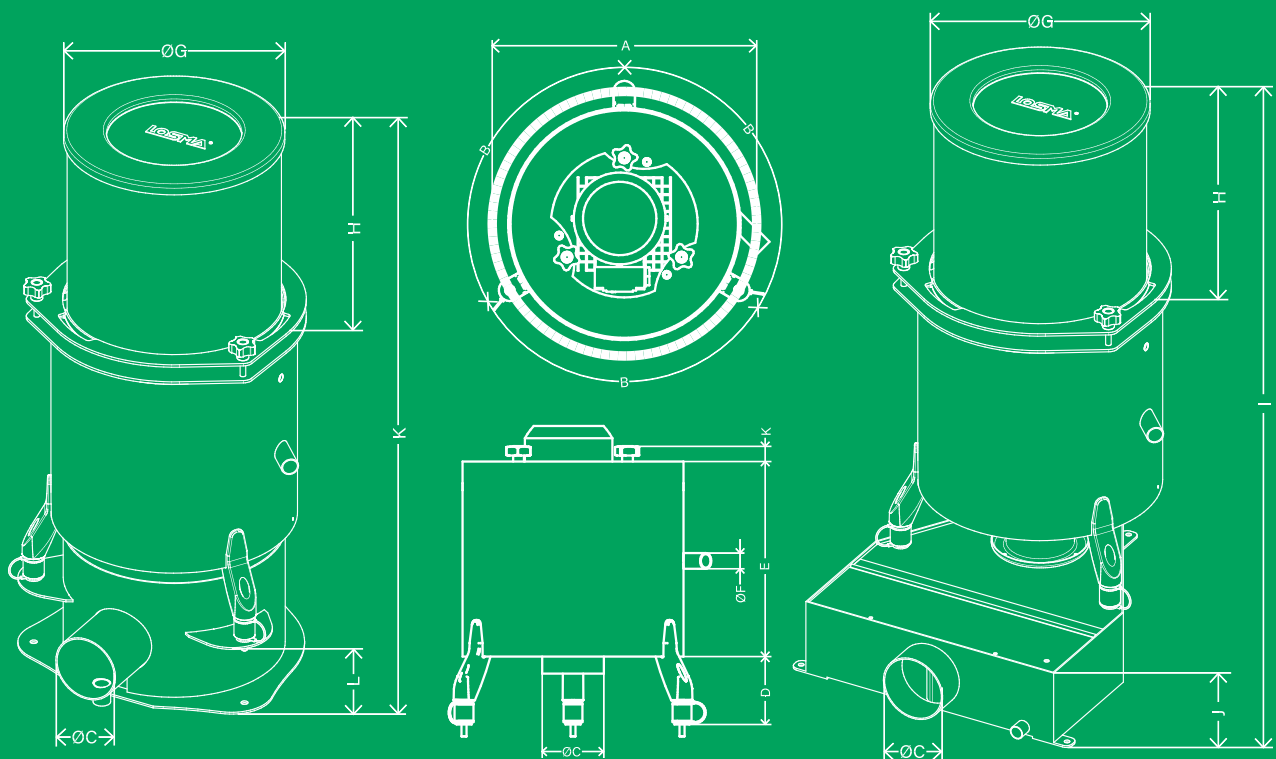
Signal type: LED display

Size: A=110mm Ø=115mm



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# Technical Data



# 1. Galileo Extra

Models	Dimensions (mm)											
	ØA	<) B	ØC	D	E	ØF	ØG	H	I	J	K	L
GX250	330	120	78	100	280	25	254	310	700	163	789	99
GX500	400	120	98	100	310	25	315	310	730	198	838	118
GX1000	490	120	148	90	400	25	380	425	930	264	1083	168
GX2000	530	120	148	90	450	25	380	425	950	264	1133	168
GX3000	560	90	198	90	550	25	460	315	1025	339	1178	223

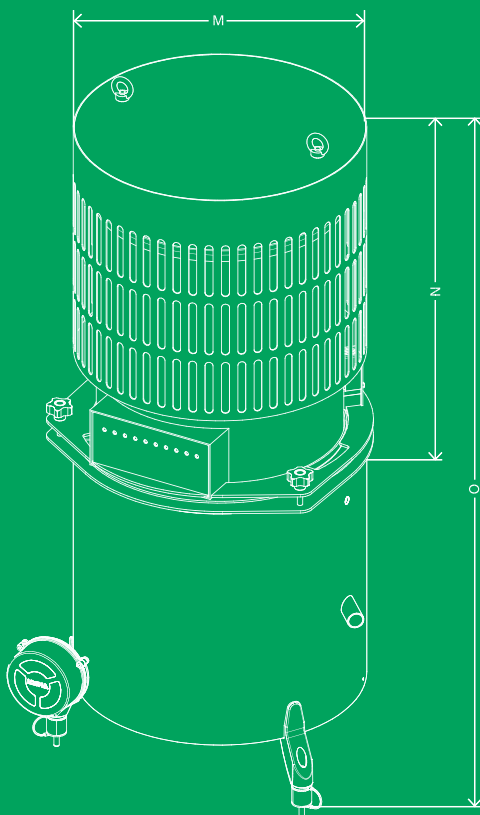
Models	Maximum air flow (m³/h) *		Pressure (Pa)		Power (kW)		Opening inlet (mm)	Noise level (dBa)		Net Weight (kg)	RPM (rpm)	
	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz		50 Hz	60 Hz		50 Hz	60 Hz
GX250	245	280	630	900	0,09	0,12	80	61,4	64,2	11	2810	3420
GX500	535	630	1040	1100	0,25	0,29	100	68,4	72,2	15	2835	3440
GX1000	1020	950	1520	1680	1,10	1,30	150	69,8	73,4	36	2885	3480
GX2000	1930	1760	1450	1850	1,50	1,75	150	74,4	75,6	41	2910	3510
GX3000	2300	2750	1500	2150	2,20	2,55	200	76,2	79,1	62	2910	3510

\* Free inlet



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# Technical Data



# 2. UV Mod



Models	Dimensions (mm)		
	ØM	N	O
UVMOD 500	440	595	1005
UVMOD 1000	440	595	1085
UVMOD 2000	515	670	1210
UVMOD 3000	515	670	1310

Models	Maximum air flow (m <sup>3</sup> /h) *		Prevalence (Pa)		Net Weight (kg)
	50 Hz	60 Hz	50 Hz	60 Hz	
UVMOD 500	364	430	1027	1495	24,3
UVMOD 1000	753	918	1470	2140	24,5
UVMOD 2000	1220	1455	1425	1962	32,6
UVMOD 3000	1600	1920	1783	2530	33,0

Models	Net Weight (kg)
GX 500	15
GX 1000	36
GX 2000	41
GX 3000	62

Assembly	Net Weight (kg)
GX 500 + UVMOD	39,3
GX 1000 + UVMOD	60,5
GX 2000 + UVMOD	73,6
GX 3000 + UVMOD	95,0

\* Free inlet