

## CLT Filter System

Filtration of cooling liquid treatment





# Overview

CLT Filter System

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# Product presentation

## CLT Filter System

### Gremotool Cooling Liquid Treatment (CLT):

- Can be easily integrated into existing cooling lubricant system
- Optimal addition to band filters and magnetic separators
- Filtration of steel, cast iron, graphite, aluminium, copper, brass, tool abrasion and grinding particles
- Improves the surface quality during metal processing
- Extends the service intervals of machining tools and cooling lubricants
- Oil and sludge absorbing filter unit
- Reduces abrasion of system components (valves, nozzles, pumps, rotary feedthroughs)
- No external electricity power supply
- Simple operation and maintenance
- Reduces your operating and disposal costs





# Applications areas

## CLT Filter System

The availability of modern machine tools and the corresponding performance in machining is constantly increasing.

The process stability and reliability of the systems are becoming increasingly important. This applies to single-part production as well as to automated production systems, regardless of the processing of the various materials or in 3-, 4- or 5-axis production.

To influence these parameters, the maintenance of cooling lubricants and cutting oils is of central importance. Thanks to the filtration of cooling lubricants and cutting oils in the areas of turning, milling, grinding, and drilling, particles that get into cooling lubricants and oils during the machining process or through carry-over are removed, as well as adhering to particles microorganisms (f.e. bacteria, fungi).

The use of the CLT filter system helps to conserve essential resources, extend life cycles, reduce dependencies, and improve the company's carbon footprint.



**Automobile Industry**



**Aircraft Industry**



**Aerospace**



**Railroad Industry**



**Tool Manufacturing**



**Engineering Output**



**Medical Technology**



**Research**



# Benefits

## CLT Filter System

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### Cooling lubricant

The service life of the cooling lubricants or cutting oils is significantly increased by the filter system.

Annual machine cleaning, which would be necessary due to microparticle deposits, is no longer necessary. This saves high costs caused by machine downtimes, cleaning, wastewater disposal and refilling.

### Installation / Maintenance

The filter is easy to install. It is integrated into the machine's existing pipework system using a plug-and-play solution.

Once in use, the filter can be replaced in a few simple steps in under 10 minutes. Shut-off valves ensure user-friendliness and cleanliness when changing the cartridge.

### Maintenance / Service

The filter reduces wear on important system components, such as pumps, rotary joints, and valves. The filter also helps to protect the entire system.

### Processing tools

If there are no particles in the cooling lubricant or cutting oil, they will not reach the machining tool.

This has a positive effect on the service life of the machining tools and on the performance of the cooling lubricant or cutting oil.

The surface quality can also be improved many times over thanks to filtration.

### Construction technique

Thanks to its compact design, the filter system requires minimal floor space and is also ideal for use in limited spaces.

The stainless-steel housing ensures that the filter system is extremely hard-wearing and durable.

### Individual system or as a supplementary use

The filter system can be used as an individual system or as an optimum supplement to band filters, magnetic separators, or existing filter systems.



# Cost optimisation with filter system

## CLT Filter System

Cleaning costs per year	Unit	Multiplicator	Cost
Machine standstill costs	ca. 48h	80.00 €/h	3840.00 €
Machine cleaning costs for 2 operators	ca. 16h (=2x8h)	40.00 €/h	640.00 €
Disposal of old cooling lubricant incl. transport	ca. 1m <sup>3</sup>	300.00 €/m <sup>3</sup>	300.00 €
<b>TOTAL Cleaning costs</b>			<b>4780.00 €</b>

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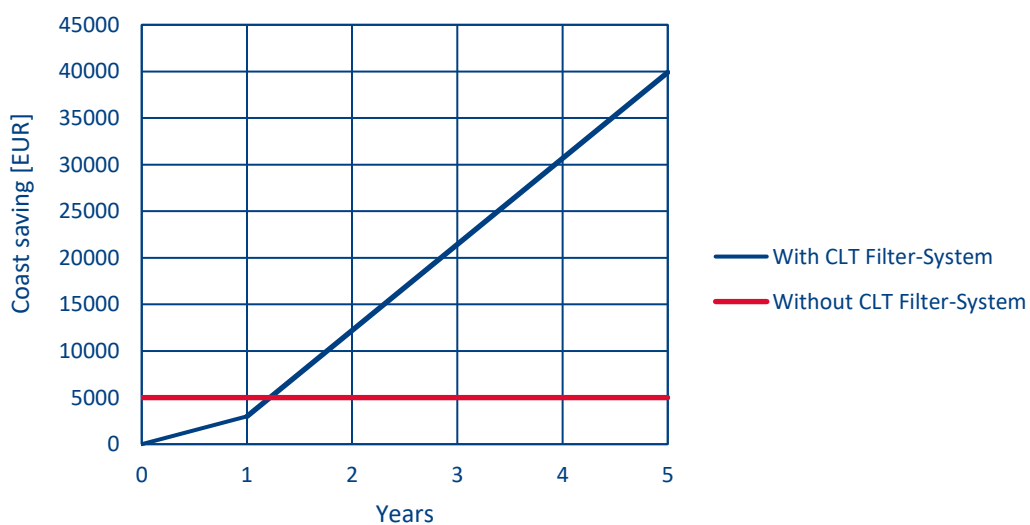
Tool service increase for cutting tools	Unit	Multiplicator	Cost
Tool costs per year	ca. 20000.00 €	ca. 10 – 20 %	3000.00 €

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Reduced costs for existing filters	Unit	Multiplicator	Cost
Filter costs per year	ca. 500.00 €	Ca. 30 – 50 %	200.00 €

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Total yearly savings	Cost
	<b>7980.00 €</b>





# Technical data

## CLT Filter System

<b>Height of filter system</b>	[mm]	1090 resp. 1140 inkl. Mobile base tray
<b>Base area dimension</b>	[mm]	384 x 445
<b>Wight</b>	[kg]	30
<b>Material</b>		Stainless steel, powder-coated on the outside
<b>Max. Flow range</b>	[m <sup>3</sup> /h]/[l/min]	18/300 (with 1µm filter cartridge)
<b>Max. Operating pressure</b>	[bar]	8
<b>Max. Differential pressure</b>	[bar]	2.5
<b>Operating temperature</b>	[°C]	90
<b>Connection size (inflow/outflow) **</b>	[Inch]	G1 (replaceable)

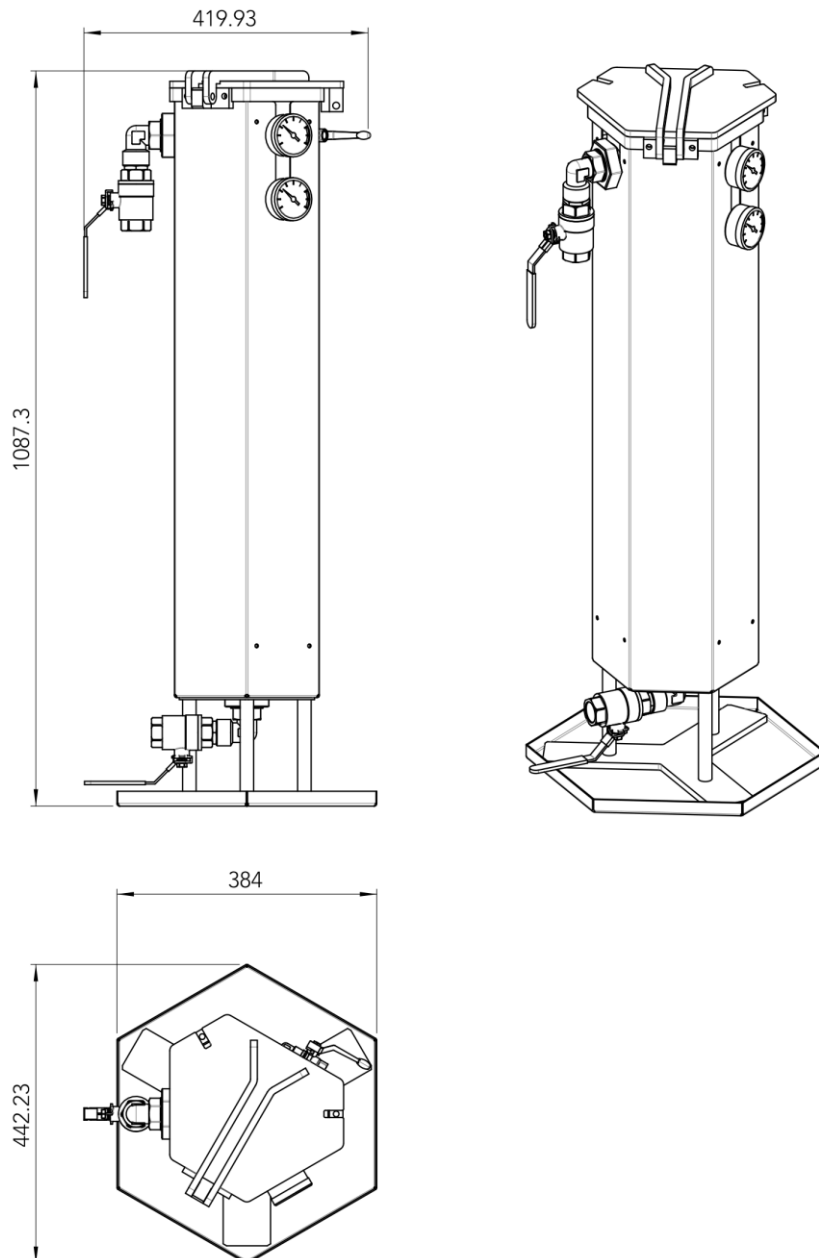
### Benefits:

- Savings of tool costs of 20-50% per machine
- 75% less disposal costs for cooling lubricant per year
- Significantly less unplanned machine standstills due to maintenance and repairs
- Oil and sludge absorbing filter unit
- Optimum protection for your employees thanks to uncompromising filtering of ultra-fine particles and microorganisms
- Simple operation and maintenance of the CLT filter system



# Dimensions

CLT Filter System







# Service

## CLT Filter System

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### **Consulting and Engineering**

We are glad to support you with challenges in lubricant maintenance for conventional as well as highly automated production environments with our specialised experts.

### **Production and Distribution**

The CLT Filter System is manufactured by strategic partners in Austria.

### **Mounting and Quality Assurance**

The components are assembled in-house and tested for functionality. We guarantee reliability through our final inspection before delivery.

### **Logistic**

Our transport partners deliver the quality products to the required destination without damage.

### **Services and Support**

Maintenance and revisions of the CLT filter system are carried out by Gremotool, including modifications and/or adaptations.

### **Our strengths**

Gremotool represents:

- Customer-orientation
- Flexibility
- Creativity
- Quality awareness
- Keeping deadlines



## Impressum

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