
SPRING

Liquid Purification

Self-cleaning drum
filtration system



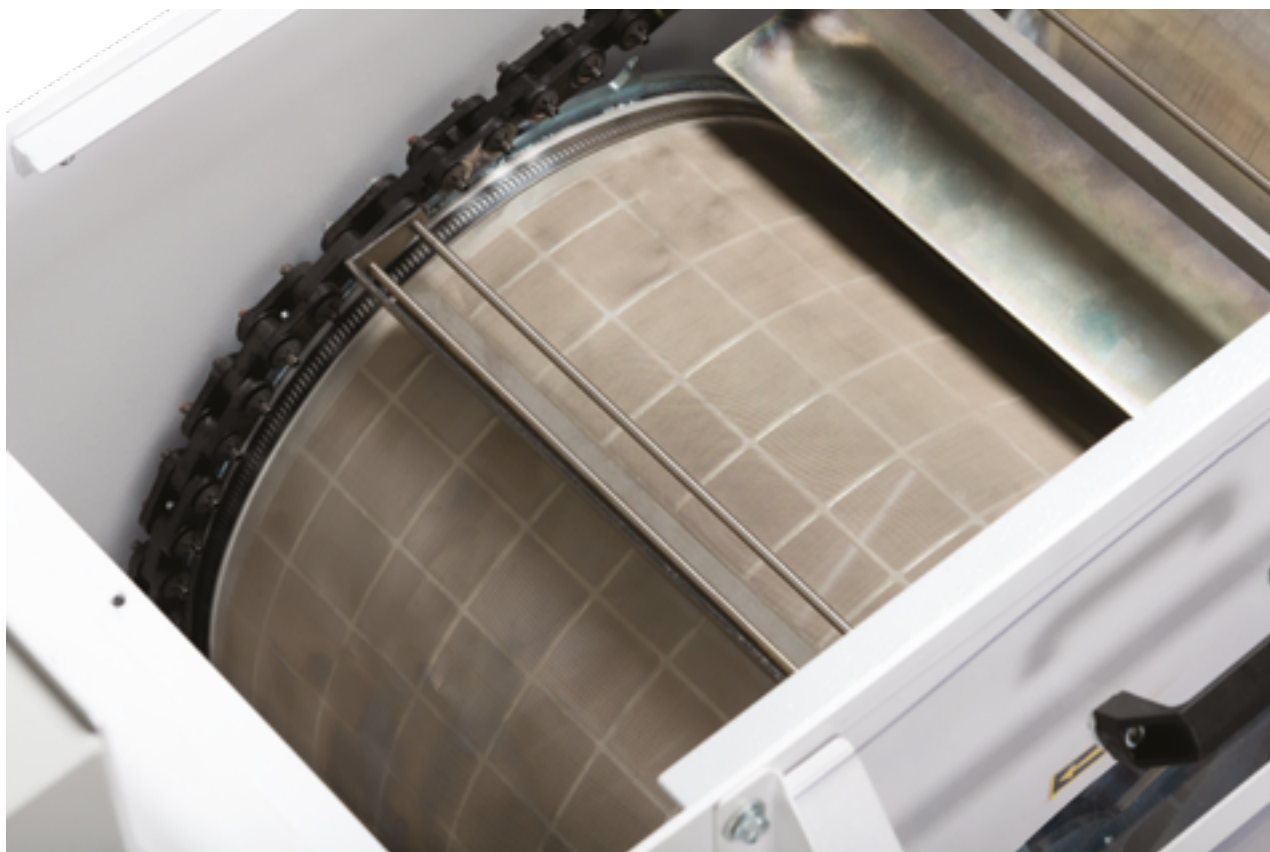
Spring

Spring is a self-cleaning drum filtration system with permanent metal filter fabric. It is suitable for removing magnetic and non-magnetic particles from neat and emulsified oils.

It is available in nine models capable of purifying 25 to 1000 l/min of neat oil and 50 to 2000 l/min of emulsion. The drum filtration efficiency can be customized to meet the customer's needs.

The self-cleaning filters in the Spring range are suitable for a wide range of machine tools, such as: machining centres, deep drilling, transfer machines, grinding machines, lathes, special high pressure tools and combination machines.

This kind of self-cleaning filter is particularly suitable for the mechanical industry and automotive sector, where there are processes involving chip removal with tools, and removal for abrasion, forming and washing.



Spring Compact

Spring Compact is a self-cleaning drum filtration system capable of processing 100 to 5000 l/ min of neat oil or emulsion. The drum filtration efficiency can be customized to meet the customer's needs.

The special feature of Spring Compact is that it only processes the amount of cutting fluid required by the machine as the clean fluid collection tank is incorporated into a single block with the filter.

Spring Compact works in real time, eliminating sludge deposits in the tank and ensuring zero deposits at the bottom of the machine.

Given the characteristics of the filter, the system is designed and sized to suit the customer's specific requirements.

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Plus

PERMANENT FILTER MATERIAL

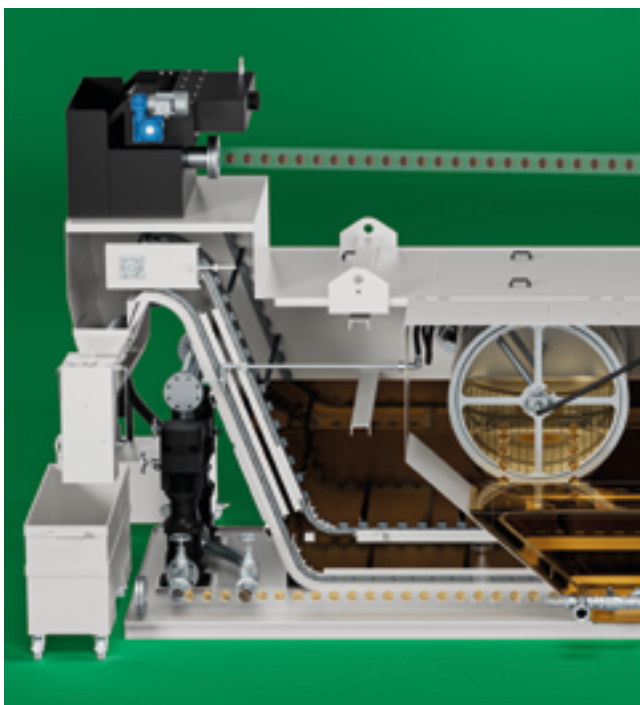
The Spring system uses a metal fabric, which is cleaned with the AutoClean system. This eliminates the use of consumables, thus significantly reducing the costs associated with maintenance and disposing of company waste.

AUTOCLEAN SYSTEM

This is an automatic cleaning system for the metal fabric used in liquid filtration. Inside the filter there is a sensor that rotates the drum when the fabric has reached its maximum clogging level. As it rotates, a backflow jet system washes the metal mesh to remove the debris, while a dredger system scrapes the sludge from the bottom of the tank and transports it outside.

DREDGING SYSTEM

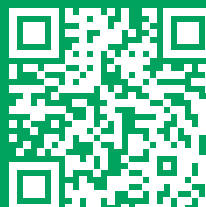
This is used to expel filtered and decanted sludge. There is also a magnetic version for ferromagnetic residues.



Operation Video

Discover how it works in detail. Watch the descriptive video about the Spring range.

Scan the QR Code.



Optional

1. DEMAG

This is a pre-filtration system with rotating magnetic discs to separate magnetic contaminant particles from the cutting fluid.

2. MAGNETIC DREDGING BED

This helps expel ferromagnetic chips.

3. ELECTRICAL CABINET

This powers all the utilities, and controls and monitors all the signals.

4. SLUDGE COMPACTOR

This is used to reduce the volume of sludge destined for disposal and to decrease its liquid content. The degree of compaction that can be achieved depends on the sludge type, liquid type and many other factors such as cycle times. The volume and moisture content is reduced by pressing with a static load. It has a volume reduction efficiency of 40% to 20%, and liquid reduction efficiency of 30% to 10%.

5. PUMPS

These deliver the clean liquid at 0.1 bar to 100 bar.

6. SKIM

This is a surface oil skimmer that maintains the quality of coolants for a long time and eliminates the bad odours created by anaerobic bacterial flora.

7. CONTAINMENT TANK

This collects the clean liquid to be returned to the machine tool..

8. BOOSTER TANK

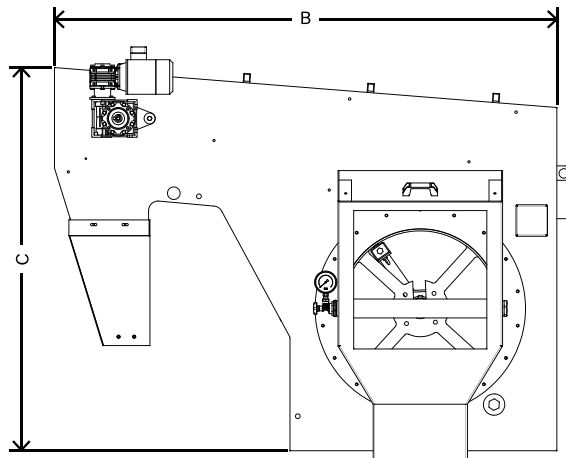
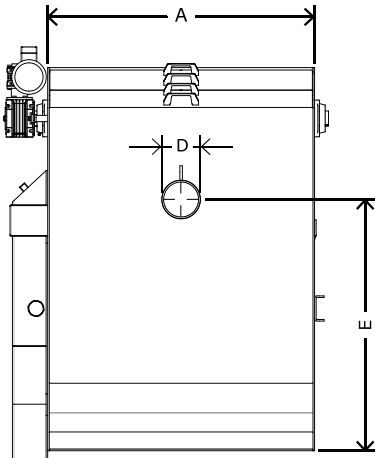
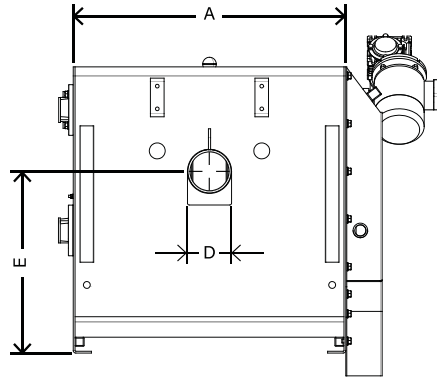
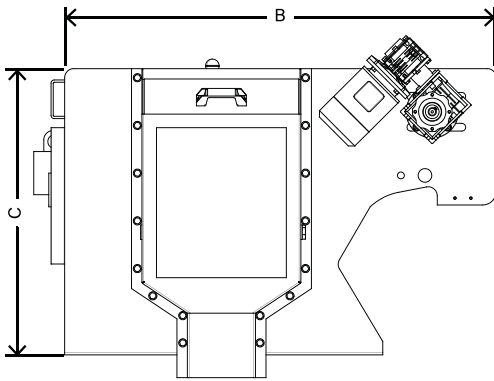
This collects the dirty liquid to supply the filter.

9. STAINLESS STEEL VERSION

The Spring range is also available in a stainless steel version.



Technical Data



| Models | Dimensions (mm) | | | | |
|--------|-----------------|-----|-----|----|-----|
| | A | B | C | D | E |
| F1 | 400 | 950 | 630 | 2" | 400 |
| F2 | 500 | 950 | 630 | 2" | 400 |
| F3 | 600 | 950 | 630 | 3" | 400 |

| Master | Max emulsion flow rate (l/min) | Max whole oil flow rate (l/min) | Tank Capacity (l) | Weight (only filter) |
|--------|--------------------------------|---------------------------------|-------------------|----------------------|
| F1 | 50 | 25 | 170 | 100 |
| F2 | 100 | 50 | 300 | 120 |
| F3 | 150 | 75 | 460 | 140 |

| Models | Dimensions (mm) | | | | |
|--------|-----------------|------|------|------------|------|
| | A | B | C | D | E |
| F4 | 600 | 1600 | 1220 | 4" G | 800 |
| F5 | 850 | 1600 | 1220 | 4" G | 800 |
| F6 | 1100 | 1600 | 1220 | DN125-PN16 | 800 |
| F7 | 1450 | 1600 | 1220 | DN125-PN16 | 800 |
| F8 | 1100 | 2400 | 1520 | DN125-PN16 | 1100 |
| F9 | 1450 | 2400 | 1520 | DN125-PN16 | 1100 |

| Master | Max emulsion flow rate (l/min) | Max whole oil flow rate (l/min) | Tank Capacity (l) | Weight (only filter) |
|--------|--------------------------------|---------------------------------|-------------------|----------------------|
| F4 | 300 | 150 | 1150 | 260 |
| F5 | 600 | 300 | 2000 | 290 |
| F6 | 900 | 450 | 3000 | 310 |
| F7 | 1200 | 600 | 4000 | 350 |
| F8 | 1600 | 800 | 5500 | 650 |
| F9 | 2000 | 1000 | 7000 | 850 |

* The nominal flow rates refer to an emulsion with a maximum oil concentration of 5% or neat oil with a maximum viscosity of 20cst at 40°C, and using filter fabric with a degree of filtration of 100μ. Treating liquids with other properties, contaminant types and relative concentrations may significantly affect the purifier performance. Our engineering department is available to identify the most suitable solution to meet your needs.