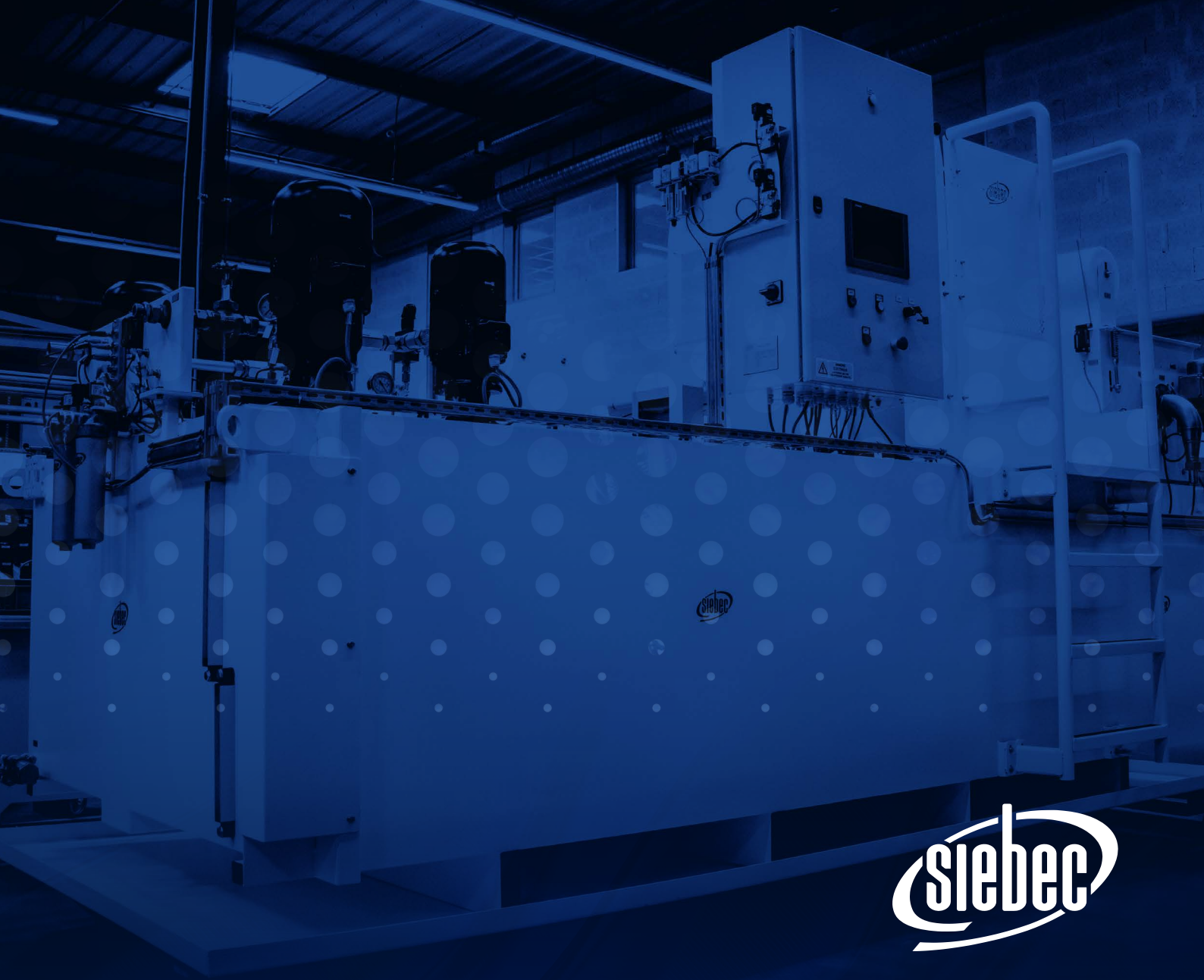


INTEGRATED SOLUTIONS

# Filtration units

CUSTOM **DESIGN** | MODULAR **INTEGRATION** | TURNKEY **SOLUTION**

**APPLICATIONS**

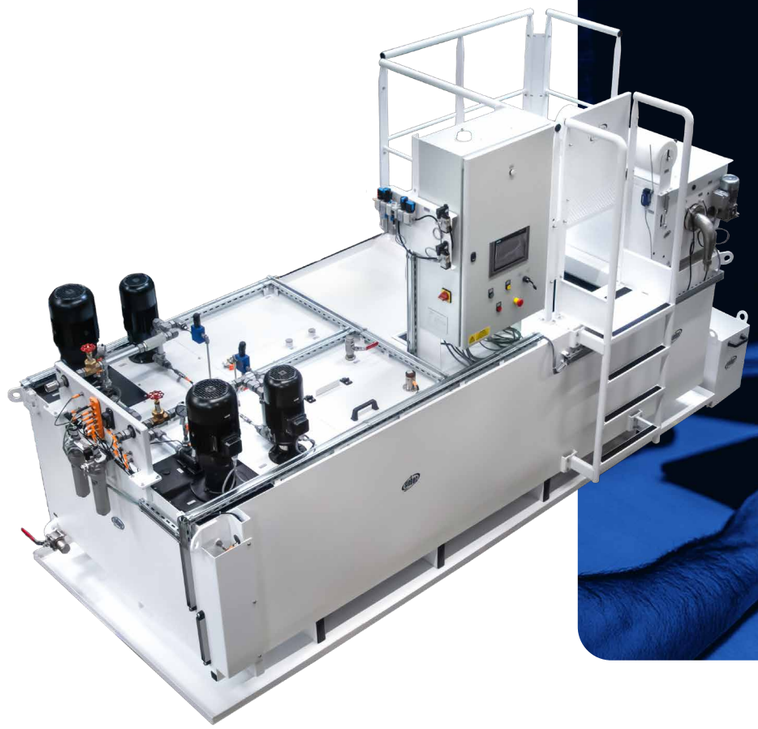
BAR TURNING / MILLING / DRILLING / TURNING / GRINDING / MASS FINISHING / LAPPING / HONING ...

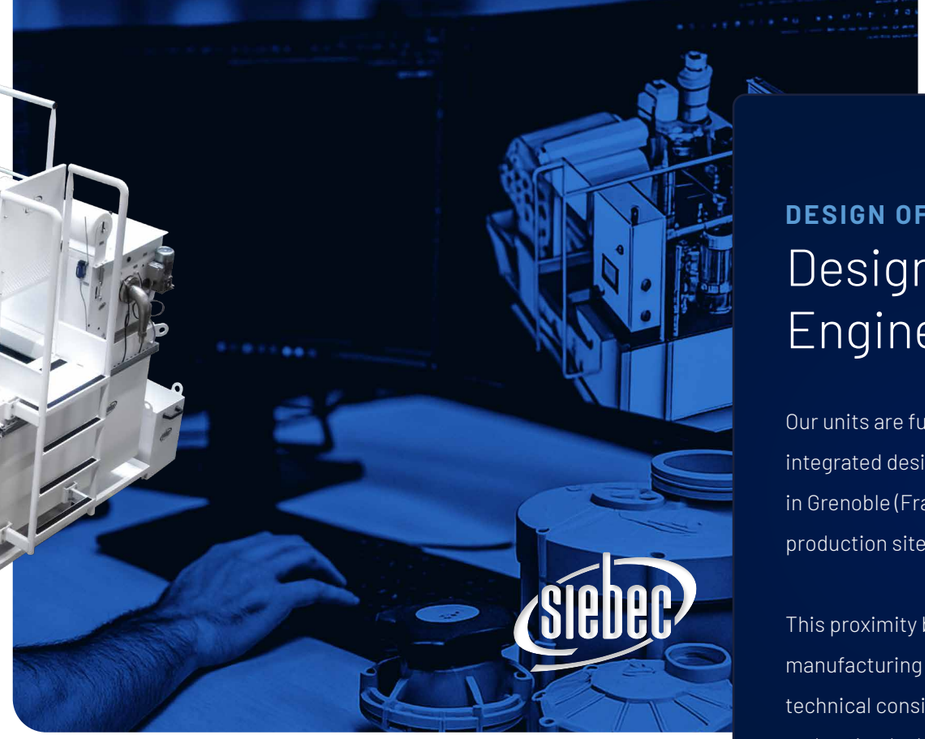
EN MADE IN FRANCE

# Modular units, Custom-designed

At SIEBEC, we design turnkey filtration units tailored to every industrial environment: bar turning, milling, drilling, turning, grinding, mass finishing, lapping, honing, etc.

**Thanks to a modular approach, each unit is custom-configured to meet the specific requirements of your process.**






## DESIGN OFFICE
## Design & Engineering

Our units are fully designed by our integrated design office located in Grenoble (France), next to our production site.

This proximity between design, manufacturing and testing ensures technical consistency, responsiveness and optimal adaptation to industrial constraints.

### MECHANICAL & FINE FILTRATION

- Roll media
- Permanent media
- Filter bags
- Filter cartridges
- Stainless steel filters
- Centrifuges

### OIL REMOVAL

- Absorption
- Separation
- Coalescence

### CONTROL & AUTOMATION

- 4.0 Management
- Connected sensors
- Pressure variation
- Supervision

### ANTIBACTERIAL & THERMAL TREATMENT

- UV
- Heat exchanger
- Cooling unit

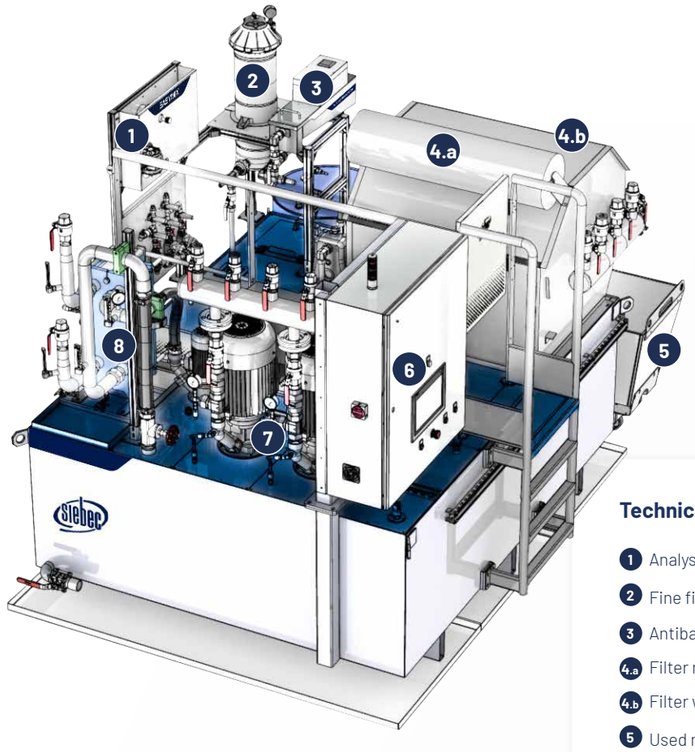
### FLUID MANAGEMENT

- Automatic correction of soluble concentration
- Buffer / Retention tanks
- Agitators

### DISTRIBUTION

- Process pumps
- Low/high pressure spray
- Frequency variation
- Pressure boosters

MADE IN FRANCE




**Process**
Milling & turning

**Characteristics**

Machined material: stainless steel
Number of connected machines: 4
Lubricant: emulsion
Flow rate: 480 L/min
Pressure: up to 70 bars

### Technical solutions

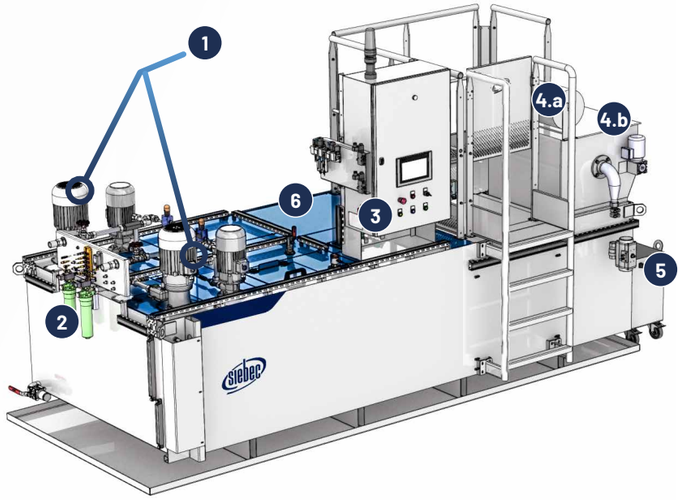
1. Analysis / correction of soluble concentration.
2. Fine filtration / Oil removal
3. Antibacterial UV treatment.
4.a Filter media roll.
4.b Filter with rolling media (drum).
5. Used media recovery tank.
6. Automation 4.0
7. Low & high pressure watering, and frequency inverter (pressure regulation and energy savings).
8. Maintaining cutting oil temperature.

**Process**

## Gantry milling

### Characteristics

Machined material: Aerospace aluminum
Number of connected machines: 1
Lubricant: emulsion
Flow rate: 200 L/min
Pressure: 12 to 40 bars




### Technical solutions

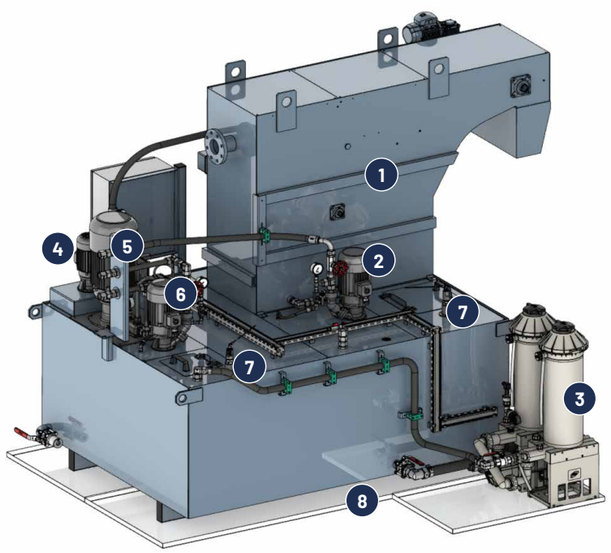
1. Low & high pressure spray, and frequency inverter (pressure regulation and energy savings).
2. Safety sentinel cartridge filter.
3. Automation 4.0: IO-LINK protocol and Profinet communication.
4.a Filtering media roll
4.b Roll media filter (drum).
5. Waste media recovery tank
6. Pre-arrangement immersed coil.

**Process**

## Large-scale turning

### Characteristics

Material: Aerospace alloys
Number of connected machines: 1
Lubricant: Emulsion
Flow rate and pressure: 30 L/min at 80 bar and 2x 50 L/min at 6 bar




### Technical solutions

1. Rotary drum filter with permanent media (stainless steel mesh) at 50µm
2. LP pump in the semi-clean compartment
3. Fine filtration + oil removal unit
4. Mesh cleaning pump
5. HP pump 30 L/min at 80 bar with pressure regulation
6. LP pump in the ultra-clean compartment
7. KEYENCE radar sensors
8. Drip retention tank


EASYPURE

**Process**

## Cutting fluid recycling

### 1st stage

The used emulsion, coming from machine drainings, is first directed to a 2,000-liter buffer tank. This first stage helps stabilize and prepare the fluid for subsequent treatments. A coalescence oil separator, equipped with a prefilter bag, then separates foreign oils present in the emulsion. This prefiltration also retains large chips, optimizing the effectiveness of the downstream treatment stages.

### 2nd stage

The lubricant is then pumped to a conical trunk decanter, where the heaviest particles are separated by gravity. A recovery cart collects micro-chips and sludge, acting as a mechanical prefiltration stage. The clarified fluid is then finely filtered via the specific MINIPURE MP53 module, ensuring optimal quality before being transferred to the final storage compartment.

### 3rd stage

Finally, the filtered fluids are stored in a final 2,000-liter tank. An integrated NANOREACTOR system provides continuous biological treatment, eliminating bacteria and ensuring the long-term chemical stability of the lubricant. At the same time, our intelligent EASYMIX module monitors the soluble oil concentration in real time and automatically adjusts the mix to maintain optimal parameters. At the outlet, a dedicated pump feeds the machine tanks with fully regenerated fluid, ready to be reused in the machining process.

### Technical solutions

| | | |
|---|---|---|
| 1 | Description | Retention up to 2,000 L |
| 2 | OILMAX | Oil removal from liquids |
| 3 | Pre-filtration | Filter equipped with a PP OILTECH microfiber bag, allowing absorption of oils present in the liquid. |
| 4 | Oil separator retention | |
| 5 | 500 L decanter | Containing the volume of emulsions to be regenerated |
| 6 | Electrical cabinet | Command and control of the system's proper operation |
| 7 | MINIPURE | Fine filtration and final oil removal before transfer to the final compartment |
| 8 | Retention | The retention allows the full tank volume (500 L) to be contained in case of leakage |
| 9 | Agitator | Allows mixing of various effluents and products |
| 10 | Sediment collection cart | Composed of a filter bag |
| 11 | NANOREATOR | Antibacterial treatment of fluids |
| 12 | Tank 2,000 L + Retention | Before distribution in the workshop |
| 13 | Level control | Radar technology |
| 14 | EASYMIX | Automatic monitoring & correction of cutting fluids |
| 15 | Process pump | This pump allows autonomous feeding of machines. |

A question?
Need advice?
Our experts answer you.

**Discover all our innovations on**
www.siebec.com


FR **SIEBEC SAS**
Phone: +33 4 76 26 12 09
Email: contact@siebec.com

FR **SOFRAPER SAS**
Phone: +33 4 76 26 12 09
Email: contact@sofraper.com

UK **SIEBEC Ltd**
Phone: +44 1785 227 700
Email: sales@siebec.co.uk

DE **SIEBEC GmbH**
Phone: +49 6126 9384-34
Email: info@siebec.de

ES **SIEBEC S.L.**
Phone: +34 93 372 20 24
Email: ventas@siebec.com

IT **SIEBEC SRL**
Phone: +39 011 699 58 90
Email: commerciale@siebec.com

PT **SIEBEC LDA**
Phone: +351 961 190 171
Email: info.pt@siebec.com


## Discover SIEBEC Group

**6 key locations (France, UK, Spain, Germany, Italy and Portugal)**

**45 distributors across the world**