# Quartz fibre thimbles

Testing of highly acidic gases and air flows at very high temperatures is best performed with quartz fibre thimbles.

- Made from pure quartz micro fibres ($SiO_2$) without binders or additives
- Ideally suited for trace analyses due to extremely low metal content
- Excellent absorption of very fine particles < 1µm due to the adsorption mechanism of the quartz fibres: 99.99% TSI efficiency % (particle size 0.3 – 0.5 µm)
- Very high air permeability – permits high flow rates
- Chemical stability: excellent stability with virtually no loss of filter material due to chemical reactions, even under extreme conditions with acidic gases (HCl, $SO_2$, $SO_3$,$H_2SO_4$, NO and $NO_3$); except for hydrofluoric acid
- Excellent resistance against chemical solvents
- Higher durability than glass micro fibre at temperatures up to 1000°C

Application examples

- Monitoring of gas emissions in high-temperature industrial furnaces
- Gravimetric determination of dust in very hot gases
- Collection of dust particles or aerosols from highly acidic air and gas flows

| Size | CFQ grade |
|---|---|
| Ø 19 x 90 mm | CFQ19090 |
| Ø 22 x 80 mm | CFQ22080 |
| Ø 25 x 100 mm | CFQ25100 |
| Ø 26 x 60 mm | CFQ26060 |

| Size | CFQ grade |
|---|---|
| Ø 30 x 100 mm | CFQ30100 |
| Ø 33 x 94 mm | CFQ33094 |
| Ø 43 x 123 mm | CFQ43123 |

ALBET LabScience

Format: Inside diameter x height.
Packaging: 25 pieces per package

Further sizes are available on request.

# Crucibles & tubes – Custom-made production

Analytic methods continue to evolve and require new tools – also in the fields of sample preparation and filtration. An important capacity of Hahnemühle is that we have the flexibility to respond to customer requirements. As a manufacturer, we offer you as a customer the customised development of new recipes for filter media and tailoring according to your requirements – entirely in terms of understanding ourselves as an "extended workbench". Our machinery permits us to flexibly respond to your tailoring requirements and we allows the manufacture of different widths, length and formats according to your specifications.

Instead of the conventionally shaped thimbles, it is also possible to produce tubes with two open ends as well as cups with flat bottom from the choice of materials we offer: cellulose, glass fibre or quartz fibre.



## Hahnemühle FineArt GmbH

Hahnemühle FineArt GmbH is one of the oldest German paper mills. For decades, the company has been dedicating itself to the manufacture of premium filter papers. The brand Albet® LabScience offers users a comprehensive range of articles for daily laboratory work. Apart from filter papers, membranes and syringe filters complete the range. Many leading companies from the pharmaceutical, chemical, food and beverage industry as well as environmental monitoring enterprises place their trust in products from Hahnemühle.

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# Extraction thimbles, crucibles & Co.

Hahnemühle thimbles – Safe handling and reliable measuring results

Filter paper made by Hahnemühle Dassel, Germany

# Extraction thimbles, crucibles & tubes



Thimbles, crucibles & tubes originating from the Hahnemühle production are high-quality products, which offer users safe handling and reliable measuring results.

With these thimbles, versatile tasks can be reliably accomplished, e.g.

- Determining the fat content of foodstuff and feedstuff by means of hot extraction
- Determining hazardous substances in packaging materials and articles of daily use
- Detecting pesticide residues in foodstuff
- Sampling of dust particles from gases and aerosols

## Purity – Reliability

Cellulose thimbles by Hahnemühle are the appropriate specimen holders for sophisticated quality control of solid and semi-solid substances. Extraction methods, for instance according to Soxhlet, Randall and Twisselmann, can be carried out with the versatile formats in which grade 900 is available. Their accuracy of fit and mechanical stability offer reliable handling. For Tecator equipment, Hahnemühle produces grade 901 thimbles with specific outside diameters. Modern, automatic extractors with high sample throughput and fast process flow can also be equipped with the Hahnemühle thimbles to ensure an excellent reproducibility of analysis results.

The ever increasing demands on analysis sensitivity are met by the thimbles that exhibit a minimal content of extractable substances. Only specially selected crude fibres that have been tested for extractable substances are used in production. Stringent criteria for approval by quality control guarantee constant values as far as dimensions, wall thickness and air permeability are concerned.

# Cellulose fibre thimbles

Properties

- Produced from binderless cellulose with a minimal share of extractable components
- The high purity of the selected cellulose facilitates reliable and unadulterated results
- Particularly suited for highly sensitive analyses
- The wall thickness amounts to:
  - 1.3 mm for thimbles with an inside diameter ≤ 35 mm
  - 1.7 mm for thimbles with an inside diameter > 35 mm
- The evenly high porosity of the thimbles guarantees a high flow rate
- High degree of fitting accuracy for all customary manual and automatic extraction equipment
- Suitable for extraction according to Soxhlet, Randall, Twisselmann and in Tecator equipment
- Suitable for extraction under alkaline or extremely acidic conditions and in conjunction with solvents that are compatible with cellulose fibre

Application examples

- Extraction of fatty acids and fatty substances from foodstuff, feedstuff, paints, lacquers and bituminous materials
- Determination of the oil content of oilseeds
- Detection of pesticide residues in foodstuff
- Extraction of active ingredients from pharmaceuticals
- Analyses of pesticides, polycyclic aromatic hydrocarbons and dioxins in foodstuff
- Determination of hazardous substances in packaging materials and articles of daily use
- Extraction of plasticizers from synthetic materials
- Determination of resins and fats in pulp
- Extraction of secondary phytochemicals, etc.

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| Soxhlet thimbles (grade 900) | |
|---|---|
| Ø 19 x 90 mm | 90019090 |
| Ø 22 x 60 mm | 90022060 |
| Ø 22 x 80 mm | 90022080 |
| Ø 22 x 100 mm | 90022100 |
| Ø 25 x 60 mm | 90025060 |
| Ø 25 x 70 mm | 90025070 |
| Ø 25 x 80 mm | 90025080 |
| Ø 25 x 100 mm | 90025100 |
| Ø 28 x 80 mm | 90028080 |
| Ø 28 x 100 mm | 90028100 |
| Ø 30 x 80 mm | 90030080 |
| Ø 30 x 90 mm | 90030090 |
| Ø 30 x 100 mm | 90030100 |
| Ø 33 x 60 mm | 90033060 |
| Ø 33 x 80 mm | 90033080 |
| Ø 33 x 90 mm | 90033090 |
| Ø 33 x 94 mm | 90033094 |
| Ø 33 x 100 mm | 90033100 |
| Ø 33 x 118 mm | 90033118 |

| Soxhlet thimbles (grade 900) | |
|---|---|
| Ø 33 x 205 mm | 90033205 |
| Ø 35 x 100 mm | 90035100 |
| Ø 35 x 110 mm | 90035110 |
| Ø 35 x 150 mm | 90035150 |
| Ø 40 x 123 mm | 90040123 |
| Ø 40 x 150 mm | 90040150 |
| Ø 43 x 123 mm | 90043123 |
| Ø 48 x 145 mm | 90048145 |
| Ø 53 x 315 mm | 90053315 |

| Tecator thimbles (grade 901) | |
|---|---|
| Ø 26 x 60 mm | 90126060 |

Packaging: 25 pieces per package

Format grade 900: Inside diameter x height
Format grade 901: Outside diameter x height

Further sizes are available on request.

# Glass fibre thimbles

The filtration and determination of dusts and aerosols from gas and air flows can best be performed with glass fibre thimbles. They offer a high degree of air permeability and a good stability at temperatures of up to 500 °C.

- Made from 100% pure borosilicate fibres without binde
- High degree of air permeability and high loading capacity
- Retention rate of small particles (0.3 – 0.5 µm): > 99% acc. to BS 4400
- Wall thickness 1.5 mm (for thimbles with diameters < 33 mm)
- Good stability at high temperatures up to 500 °C
- For use in hot, humid and acidic gases

Application examples

- Extraction with solvents that are incompatible with cellulose fibres
- Collection of dust particles or aerosols from air and gas flows
- Monitoring of gas emissions in industrial furnaces
- Gravimetric determination of dust in hot gases
- Extraction as required by special biochemical analyses

ALBET LabScience

| Size | CFV grade |
|---|---|
| Ø 19 x 90 mm | CFV19090 |
| Ø 22 x 80 mm | CFV22080 |
| Ø 25 x 100 mm | CFV25100 |
| Ø 26 x 60 mm | CFV26060 |

| Size | CFV grade |
|---|---|
| Ø 30 x 100 mm | CFV30100 |
| Ø 33 x 94 mm | CFV33094 |
| Ø 43 x 123 mm | CFV43123 |

Format: Inside diameter x height. Packaging: 25 pieces per package

Further sizes are available on request.

