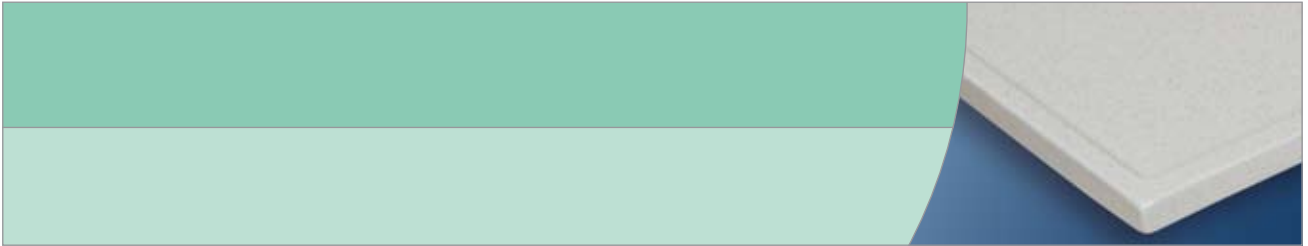


FRIDURIT® direct

Technical description | April 2008



The quick ceramic solution

■ ■ ■ Legal notice

Editor



The specifications of our products are based on extensive technical development and on the results of stringent tests. We have gained experience in diverse areas of application over many years with FRIDURIT Technical Ceramics. However, the user is responsible for checking our specifications and recommendations as to his own application and, if necessary, confirming the suitability by conducting his own tests.

We reserve the right to make technical alterations.

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This catalogue is also available as a pdf file. Please refer to the address mentioned above.

April 2008

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Preface

This technical description gives you extensive information about FRIDURIT direct as a basis for your specifications.

Should you have any questions which this document does not answer, we would be pleased to advise you further. For contact details, please refer to the end of this brochure or to the internet on www.fridurit.de.



*Basic types I or II
for wall and island benches*



*Basic types III, IV or V
for fume cupboards*

**FRIDURIT® direct -
The quick ceramic solution**

FRIDURIT direct is a quickly available component-system of high-quality ceramic laboratory benchtops and matching sinks and cup sinks. Adapt our basic benchtop types I and II to meet your requirements for wall and island benches. The basic benchtop types III to V with circumferential marine edge can be adjusted to your fume cupboard sizes. Service holes, as well as further mechanical processing, are possible during production. All in standard colour light grey with black speckles.

Our experience with the production of ceramic benchtops and sinks ensures top quality, together with flexible design.

The system at a glance:

- available on short lead time
- integrated ceramic marine edge
- standard benchtop colour: light grey (similar to RAL 7035) with black speckles
- standard sink colour: light grey unicoloured (similar to RAL 7035)
- mechanical (unglazed) apertures and service holes can be arranged in compliance with the minimum distances (see “Technical details“)

The material

FRIDURIT Technical Ceramics is produced using a time-consuming process from natural raw materials. The high-quality, silica-based material is impressive in its wide-ranging chemical and thermal resistance, extraordinary durability, scratch and impact strength. Even after years of intensive use, products made from Technical Ceramics maintain their flawless appearance. The wear-free surfaces of the benchtops and sinks remain easy to clean and to decontaminate and thus always provide safety and aesthetics in the laboratory.

Further information, e.g. test certificates issued by independent institutions, are available on request.

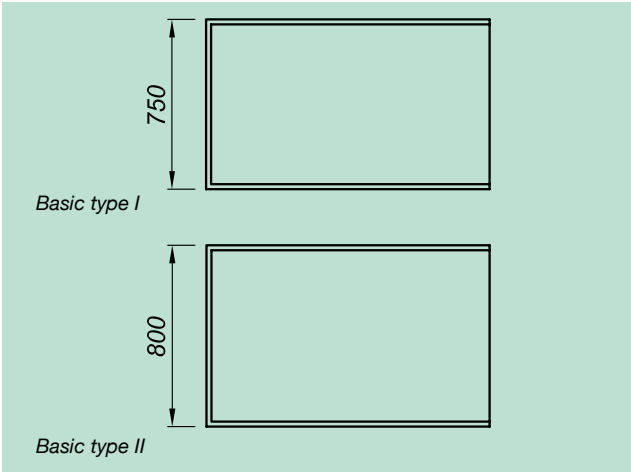


Coloured pigments for glazing



Technical Ceramics is resistant to the toughest attacks in every day life of a laboratory

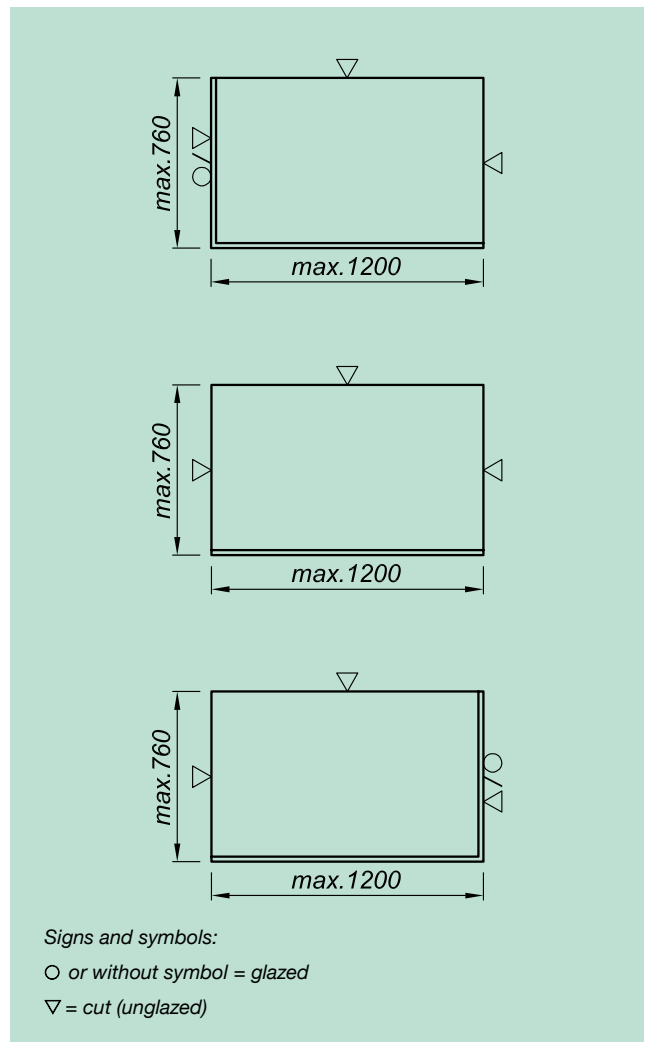
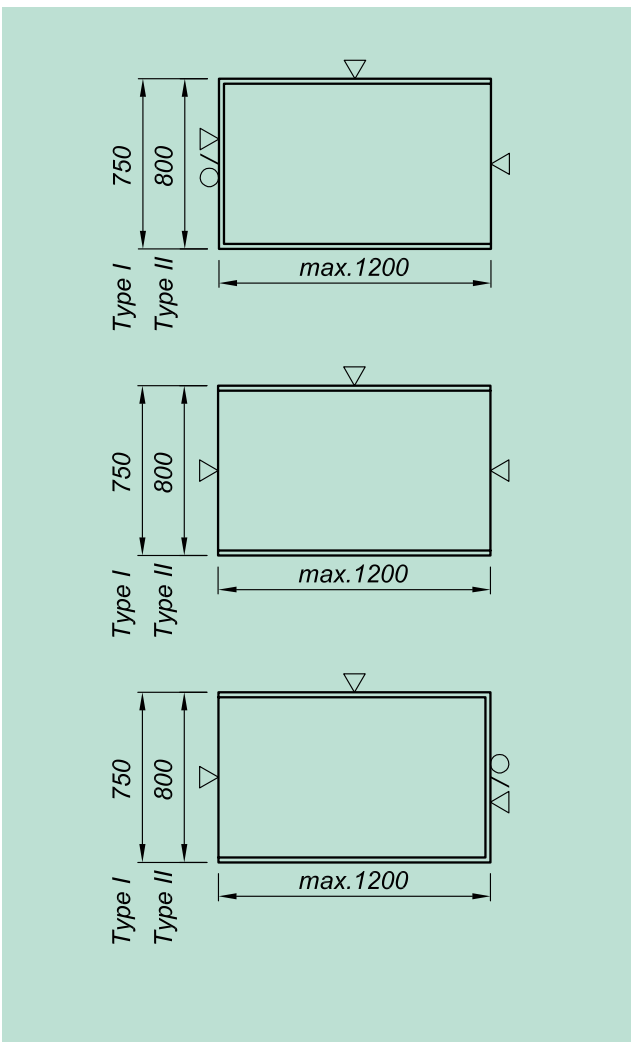
Basic types for wall and island benches



Basic types I and II

Benchtops up to 1200 mm in length can be provided for your wall and island benches according to the specifications.

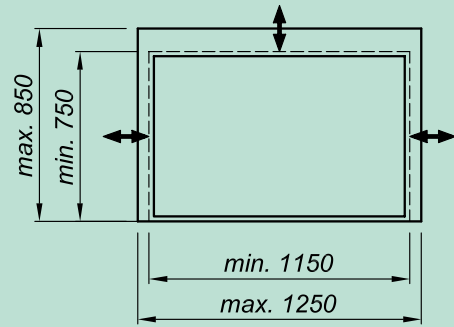
The following variations can be arranged with the two basic types:



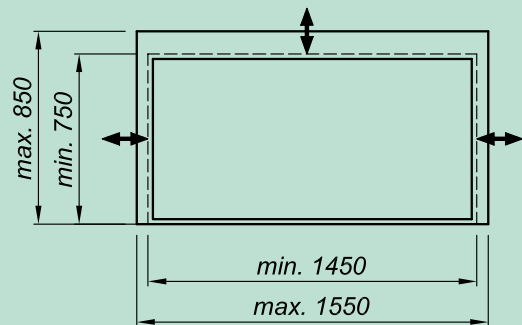
Basic types III to V

The basic types III, IV and V with circumferential marine edge can be adjusted to your individual fume cupboard dimensions. The work surface area of the different types of fume cupboard benchtops remains unchanged with the modification of the external dimensions.

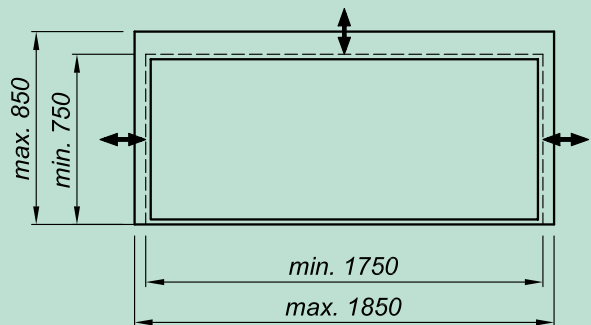
In order to prevent an uncontrolled discharge of fluids into the drainage system, cup sinks can be mounted into the fume cupboard benchtops from above to provide a 7 mm bunding around the cup sink. Further details on the installation of sinks can be found in the chapter "Notes on installation".



Basic type III



Basic type IV

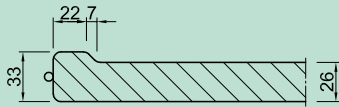


Basic type V

Signs:

↔ Edge width varies depending on the fume cupboard dimensions

Technical details



Glazed with integrated ceramic edge



Cut (unglazed) with integrated ceramic edge



Cut (unglazed) without edge

Edge profiles

FRIDURIT direct full-size laboratory benchtops made from Technical Ceramics are available with three different edge profiles.

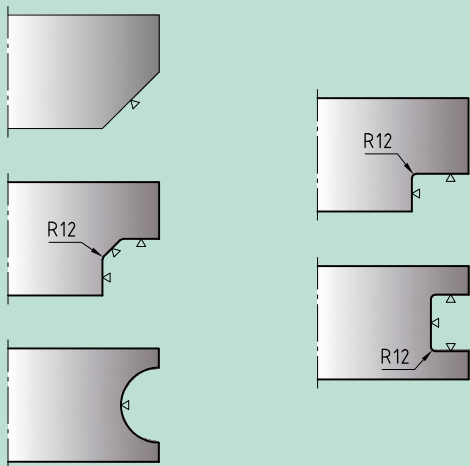
The edges are integrated into the benchtop, i.e. they are formed into the benchtop during the production process directly with no joints. The edge prevents fluids from overflowing and offers staff protection in the laboratory.

Apertures

Apertures can be placed anywhere in the benchtop. All apertures are unglazed. Further details on apertures are available in the chapter “Notes on installation”.

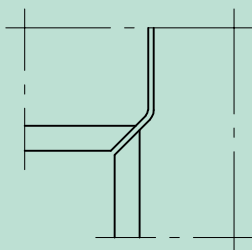
Minimum distances for sink apertures

The minimum distance from an edge for sink apertures is 50 mm.



Edge sections

We can adjust your benchtops to your structural conditions. Edge sections close to pipelines, pillars and supports can also be adjusted in production.



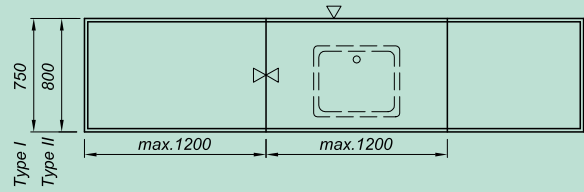
Mitre cuts

As a corner solution, mitre cuts are provided as depicted in the diagram.

Arrangement examples

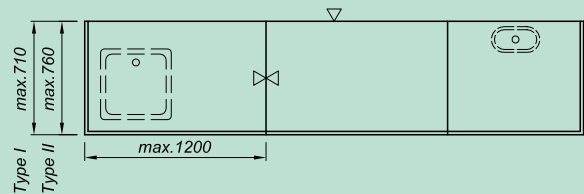
The adjacent figure shows some possibilities of how to arrange basic benchtop types I and II in your laboratory.

With the circumferential edge, a closed table arrangement adjacent to the wall can be achieved. This solution is possible in widths of 750 mm and 800 mm.



Wall bench with circumferential edge

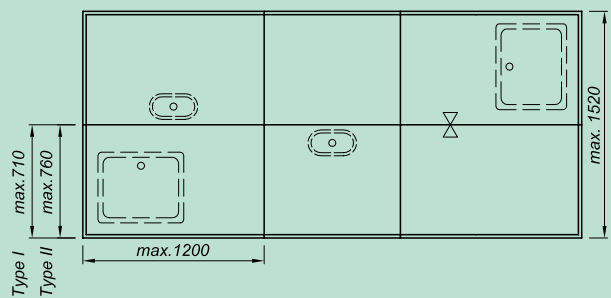
If other widths are requested, the rear edge can be removed in production. A wall bench with a maximum width of 760 mm is available.



Wall bench with front and side edge

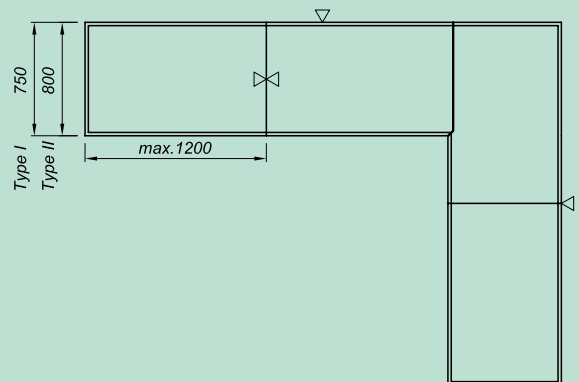
Island benches can have a maximum width of 1520 mm. There are no limits to the length of the table arrangement.

The flush-mounted or sit on sinks can be installed lengthwise or crosswise. With this configuration there is no need for the normal attention to tolerances as per one-piece sink unit (head sink). Further details on the installation of sinks are available in the chapter "Notes on installation".



Island bench

For corner configurations, we provide benchtops with mitre cuts.

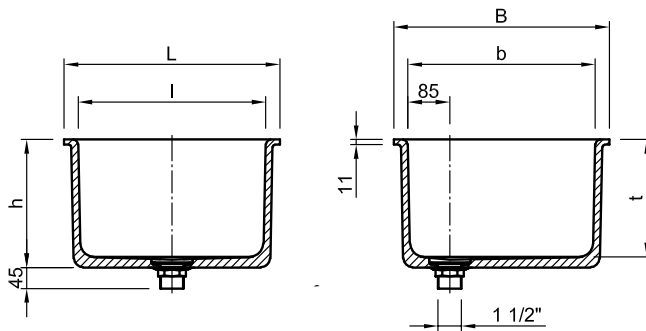


Corner bench

The sinks are made from FRIDURIT Technical Ceramics according to DIN 12915.
All visible surfaces have a light grey glaze.

Sinks

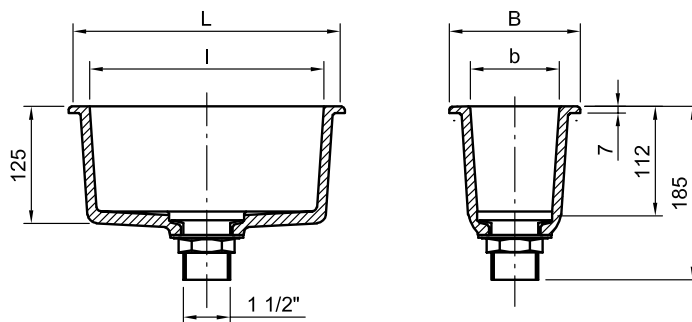
Internal dimensions (in mm)			External dimensions (in mm)				Weight kg	Order code
l	b	t	L	B	h	S		
400	400	250	460 ^{±3}	460 ^{±3}	273	11	25	VBES442L
500	400	250	560 ^{±3}	460 ^{±3}	273	11	26	VBES542L
600	400	250	660 ^{±3}	460 ^{±3}	273	11	32	VBES642L



with 1 1/2" PE-outlet and standpipe

Cup sinks

Internal dimensions (in mm)			External dimensions (in mm)				Weight kg	Order code
l	b	t	L	B	h	S		
∅105	---	112	∅145	---	125	7	1.5	VBPE111L
250	95	112	294	140	125	7	3	VBPE291L



with 1 1/2" PE-outlet

P-trap

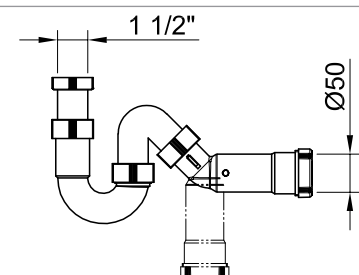
Polyethylene P-trap (stench trap), horizontal / vertical, provides simple, reliable connections between drainage system and PE-outlet 1 1/2" thread connection.

Easy adaption and cleaning due to screw connection.

outlet: compression fitting DN50

connection: 1 1/2" x 100 mm

Order code BZS001



Notes on installation for benchtops

FRIDURIT direct benchtops are ready to install when delivered.

Due to their high stability, FRIDURIT laboratory benchtops are self-supporting, i.e. they only need to be supported near each corner (see diagram). The breaking load (P) of the benchtop depends on its width (B) and length (L):

$$P \text{ (in kg)} = 1600 \times B/L \text{ (in mm)}$$

We recommend mounting the benchtops on levelling devices since this allows them to be levelled and aligned simply and quickly.

There are two methods of sealing joints between FRIDURIT full-size laboratory benchtops:

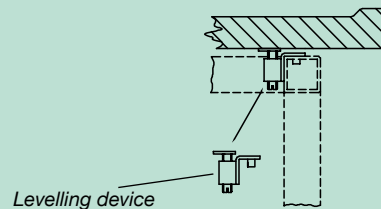
- a) flexible with silicone rubber
- b) curing, e.g. with an epoxy adhesive

We recommend applying a self-adhesive foam strip to the edges. This facilitates the sealing process and protects the edges during installation. The width of the joints should be considered at the planning stage of the benchtop dimensions.

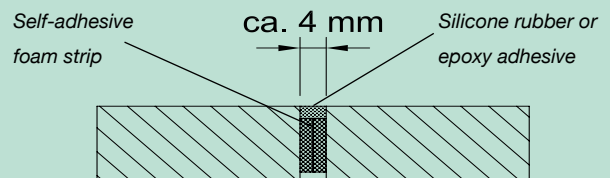
We would be glad to send you assembly instructions with further details.



Support (by levelling devices)



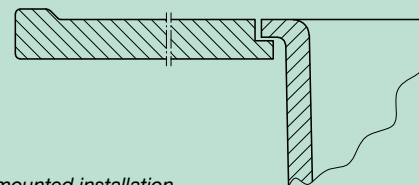
Levelling device



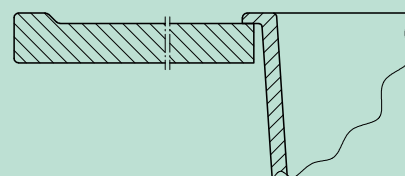
Details on joints

Notes on installation for sinks

By default, the apertures for sinks are unglazed. Sinks and cup sinks can either be mounted flush with the benchtop (in a stepped aperture) or surface mounted providing a raised marine edge. In both cases, the sinks are simply fitted into the aperture and sealed with a flexible or hard curing sealant. The sealing on the upper face is easily accessible for cleaning and disinfection.



Flush-mounted installation
in a stepped (unglazed) aperture



Sit-on installation for waste water protection

■ ■ ■ FRIDURIT® system solutions

Safety and competence for successful laboratory projects

FRIDURIT®



FRIDURIT® laboratory benchtops and sinks

■ made from Technical Ceramics

Highest resistance to virtually all chemicals commonly used in the laboratory. Low-maintenance and reliable due to scratch and abrasion proof surface. Non combustible and 100 % recyclable.

■ made from Polypropylene

Resistant to breakage, welded with no joints and easy to clean.



FRIDURIT® Fume scrubber

Absorbs inorganic contaminants in the waste air from the laboratory safely and reliably. A mature solution to the problem.

FRIDURIT® Neutraliser unit

For safe neutralisation of laboratory effluent. Fully automatic, quiet and reliable.

FRIDURIT is a registered brand of FRIATEC AG.