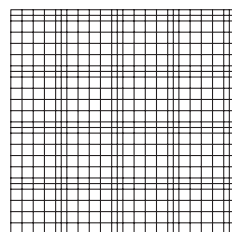


# HAEMACYTOMETERS, COUNTING CHAMBERS AND SPECIALIST SLIDES

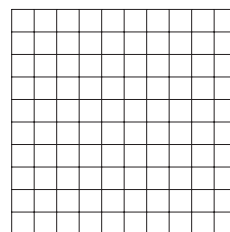


With long experience of precision glass slide manufacture, Hawksley's chambers have a worldwide reputation for accuracy. Haemocytometers are available in a cased set or as a chamber and cover glass. From Neubauer to Burkert and from Dunn to geology slides, our range is second to none.

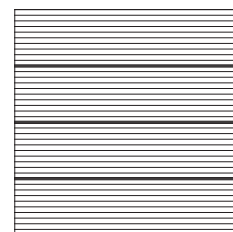
- Haemocytometers made to the very demanding tolerances in BS 748
- Optional rhodium metallized coating on many chambers
- Precisely polished surfaces for easy filling and accurate depths
- Wide selection of specialist chambers manufactured to exact and dependable sizes – eg Helber, McMasters, Dunn and Nageotte



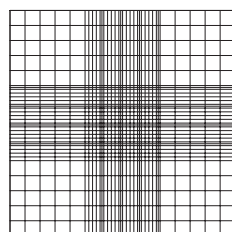
Thoma



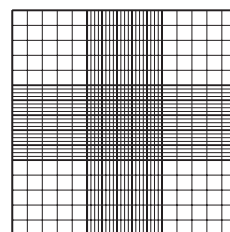
Fertility



Nageotte



Improved Neubauer



Neubauer



# HAEMACYTOMETERS, COUNTING CHAMBERS AND SPECIALIST SLIDES

## Haemocytometer sets



Consists of:

One counting chamber as specified

Two cover glasses

One red cell and one white cell pipette with tubing with mouthpieces\*

Two vacuum bulb pipette holders

All in black plastic case with instructions on use and cleaning

\* With Fuchs Rosenthal ruling, two white cell pipettes

## Counting chambers



Consists of:

One counting chamber as specified

Two cover glasses

## Introduction

Carrying out a cell count is an exacting task. The most essential element in ensuring that the count is accurate is to have a counting chamber and cover slip that conforms to the highest standard of dimensional accuracy. Without this the result can be unreliable. Hawksley's haemocytometers comply rigidly with British Standard 748, which sets down in precise detail the specification of the counting chambers, cover glasses, and dilution pipettes.

With our decades of manufacturing experience, all our counting chambers and slides are manufactured to strict quality controls and are individually checked, packed and boxed to ensure the highest levels of performance.

We carry a range of Haemocytometer rulings, as well as specialist chambers such as the Dunn Chemotaxis, most of which are available ex-stock. Haemocytometers are available as sets, with pipettes and cover glasses or as individual items, supplied packaged with just the cover glasses. Single cell or Double cell chambers are available for some of the rulings and the Haemocytometers are generally available with or without Rhodium metallizing.

## Accuracy to BS 748

The following points illustrate the very high demands of scientific accuracy imposed by the BS 748 standard.

- Cell depth over ruled areas must be accurate to  $\pm 0.001\text{mm}$ .
- Cover glass support platforms must be ground and polished optically flat and co-planar with ruled area to  $\pm 0.001\text{mm}$ .
- Gap between cover glass and platform does not vary from the stated depth by more than  $\pm 0.001\text{mm}$ .

## How are our chambers constructed?

The Cell Counting Chamber is made from a single piece of thermal and shock-resistant glass. An H-shaped moat forms either one or two counting areas, or plateaux. Each plateau features an etched grid or ruling. The ruled surface is either 0.1mm or 0.2mm below the cover glass, limiting the volume of 1mm<sup>2</sup> of blood or fluid to 0.1mm<sup>3</sup> or 0.2mm<sup>3</sup> respectively. Contact of the flat, polished cover glass surfaces with the cover glass supports produces an exact volume of fluid over the counting area. The difference in surface tension characteristics between the polished surface on the chamber and the cover glass assures smooth capillarity for precise loading and even cell distribution.

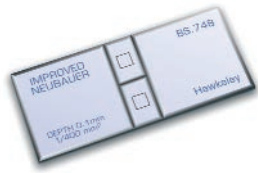
## Rhodium coating (metallizing)

The advantages of a counting chamber with a rhodium coated central platform have been proved over many years. Unlike an ordinary chamber on which lines are ruled directly on glass, the lines of a rhodium coated chamber are ruled through a semi-transparent film of metal. Under the microscope the lines show up bright against a darker, neutral grey background and by shifting the contrast the grid can be viewed as either light or dark.

There are other advantages with a metallised chamber. Filling is easier, the blood cells being evenly distributed and clearly defined against the darker background. Microscope adjustments are less critical and the greater contrast between the lines and the background results in rapid identification of boundary line cells.

Thickness of the metal film is kept within rigid limits assuring light transmission of the correct value. After coating the chamber is heated and annealed to harden the metal and bond it to the glass surface. The metallised area needs no special care beyond that given to an ordinary counting chamber.

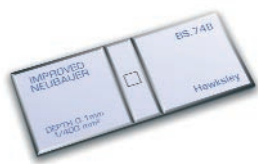
## Ordering Information



### Hawksley counting chambers to BS 748

#### Two cell chambers

- AC1000 2 cell rhodium coated Improved Neubauer  
Ruling 1/400mm<sup>2</sup>. Cell depth: 0.1mm ± 1%.
- AC2000 2 cell rhodium coated Neubauer  
Ruling 1/400mm<sup>2</sup>. Cell depth: 0.1mm ± 1%.
- AC3000 2 cell rhodium coated Burker  
Ruling Burker 1/25mm<sup>2</sup>. Cell depth: 0.1mm ± 1%.
- AC5000 2 cell rhodium coated Thoma  
Ruling 1/400mm<sup>2</sup>. Cell depth: 0.1mm ± 1%.
- AC6000 2 cell rhodium coated Modified Fuchs Rosenthal  
Ruling Pattern 1/16mm<sup>2</sup> Cell Depth: 0.2mm ± 1%.



#### Single cell chambers

- AS1000 2 cell standard Improved Neubauer  
Ruling 1/400mm<sup>2</sup>. Cell depth: 0.1mm ± 1%.
- AS2000 2 cell standard Neubauer  
Ruling 1/400mm<sup>2</sup>. Cell depth: 0.1mm ± 1%.
- AS3000 2 cell standard Burker  
Ruling 1/25mm<sup>2</sup>. Cell depth: 0.1mm ± 1%.
- BC1000 1 cell rhodium coated Improved Neubauer  
Ruling 1/400mm<sup>2</sup>. Cell depth: 0.1mm ± 1%.
- BC2000 1 cell rhodium coated Neubauer  
Ruling 1/400mm<sup>2</sup>. Cell depth: 0.1mm ± 1%.
- BC3000 2 cell rhodium coated Burker  
Ruling 1/25mm<sup>2</sup>. Cell depth: 0.1mm ± 1%.
- BS1000 1 cell standard Improved Neubauer  
Ruling 1/400mm<sup>2</sup>. Cell depth: 0.1mm ± 1%.
- BS2000 1 cell standard Neubauer  
Ruling 1/400mm<sup>2</sup>. Cell depth: 0.1mm ± 1%.
- BS5000 1 cell standard Thoma  
Ruling 1/400mm<sup>2</sup>. Cell depth: 0.1mm ± 1%.



### Hawksley haemocytometer sets to BS 748

- +Z4 To order a haemocytometer set for any of the above, add '+Z4' after the product code: e.g. 2 cell rhodium coated Improved Neubauer haemocytometer set = AC1000+Z4.

#### Pipettes, Tubes, Cover glasses

- Z60000 Blood dilution pipette, Thoma pattern, 1ml red cell.
- Z60011 Blood dilution pipette, Thoma pattern, 1ml white cell.
- Z70000 Tubing and mouthpiece, red cell pipettes (pkt 10).
- Z70077 Tubing and mouthpiece, white cell pipettes (pkt 10).
- Z50000 Cover glasses 22mm x 25mm x 0.5mm thk (pkt 10).
- Z10088 Cover glasses for single cell McMasters (each).



## Pipettes



## Tubing, mouthpiece and pipettes



## Dunn chamber



## McMasters chamber

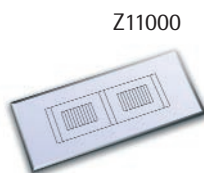


# HAEMACYTOMETERS, COUNTING CHAMBERS AND SPECIALIST SLIDES

## Ordering Information

### Hawksley Specialist Chambers

Our specialized chamber range includes, amongst others, worm egg, chemotaxis and geofossil slides. All are supplied with the appropriate cover glasses and instructions on their use.



**Z11000** McMaster Egg Slide  
For determining faecal egg counts. The glass slide has two chambers with top covers fixed to the lower slide. Each chamber has a 10mm x 10mm grid etched on the under side of the top cover. The volume under each grid is 0.15ml and cell depth is 1.5mm.



**Z30000** Helber Bacteria Counting Chamber  
A one piece chamber with a Thoma ruling on a single round plateau. The Helber Chamber is used for bacteria and sperm counting. Cell Depth is 0.02mm  $\pm$  1% (1/50mm). Volume of 1mm<sup>2</sup>: 0.02 $\mu$ l.



**Z80000** Bacteria Evaluation Chamber  
A single round cell 1mm thick with no ruling. Depth 0.02mm  $\pm$  1% (1/50mm). Volume of 1mm<sup>2</sup>: 0.02 $\mu$ l. Complete with 2 cover glasses.



**AC8000** Malassez Chamber  
This is a 2 cell counting chamber for haemocytes and leucocytes with a Malassez ruling 1/400mm<sup>2</sup>. Cell depth 0.2mm  $\pm$  1% (1/20mm). Volume of 1mm<sup>2</sup>: 0.2 $\mu$ l. Complete with 1 pair of cover glasses. This chamber is rhodium coated.



**AC9000** Nageotte Chamber  
A two cell chamber for low leucocyte concentrations below the capabilities of a standard Haemocytometer. 40 rectangular areas in 0.25 mm spaced vertical lines. The Nageotte can accurately measure down to 0.1 cell/ml (100 cell/ml). Cell Depth is 0.5mm  $\pm$  1% (1/2mm). Total Volume of 1mm<sup>2</sup> of the grid is 50ml. This chamber is rhodium coated.



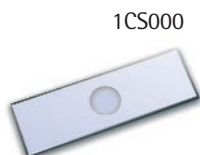
**Z3BC1B** Fertility Semen Counting Chamber  
Rhodium coated ruled 0.1mm x 0.1 mm, 1/100mm<sup>2</sup>, on 1mm<sup>2</sup> grid. Cell depth of 0.01mm  $\pm$  1% (1/100mm). Volume of 1mm<sup>2</sup>: 0.1 $\mu$ l.



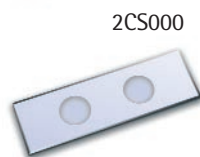
**G10000** Geological Slide  
Plastic microscope slides for particle analysis and microfossils. The 40 place grid is indented to hold specimens securely into place. Complete with a glass cover which slides over the top of the black grids.



**DCC100** Dunn Chamber  
A single round cell slide. Cells are cultured on coverslips that are then inverted onto the slide. Cells that rest over the annular bridge of the chamber are observed under phase-contrast optics and their migration tracks are recorded by time-lapse frame grabbing. There is no ruling. Cell Depth: 0.02mm  $\pm$  1% (1/200mm). Volume of 1mm<sup>2</sup>: 0.02 $\mu$ l.



**1CS000** Micro Cavity Microscope Slide  
Single cell slide, 75 x 25 x 1.25 mm thick with ground edges and polished round depression 15 mm dia x 1mm deep.



**2CS000** Micro Cavity Slide  
Double cell slide, 75 x 25 x 1.25 mm thick with ground edges and polished round depression 15 mm dia x 1mm deep.

**Hawksley** ● Medical and Laboratory Equipment

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