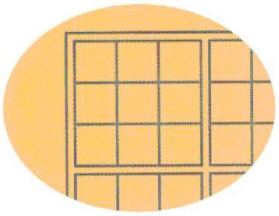
vetri plast®

IT. PAT. PEND.

Camere di conteggio
Counting chambers





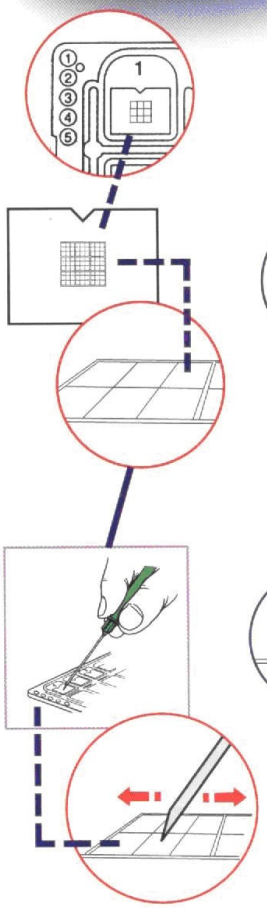
Vetrino con linee senza spessore

A causa dell'attuale sistema di costruzione degli stampi, le camere per liquidi biologici in plastica presentano sul piano di lettura una griglia di conteggio in rilievo.

Introducendo con un contagocce il liquido da esaminare attraverso il lato aperto delle camere, si investono i sistemi di conteggio in rilievo provocando turbolenze localizzate soprattutto in prossimità delle griglie.
Le particelle presenti negli strati inferiori del liquido in esame vengono fuorviate o escluse dal sistema di conteggio, costituito da linee che si elevano per circa il 10% dell'altezza totale della camera.

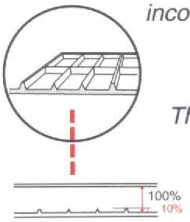
Vacutest con Vetriplast migliora il conteggio delle particelle, poichè la marcatura della griglia è ottenuta con un "sistema brevettato" di linee prive di spessore.

Il liquido da esaminare introdotto nelle camere di Vetriplast non incontra ostacoli nel regolare riempimento del pozzetto e della griglia e la distribuzione degli elementi figurati sul piano di lettura risulta omogenea.



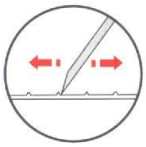
Slides with flat grid lines

Conventional plastic slides used to test urine and other biological fluids frequently incorporate raised counting grids to facilitate the measurement process.



These grid lines may rise from their base to as much as 10% of the entire height of the chamber.

Vetriplast, from Vacutest, provides a vast improvement over the conventional products since it utilizes a unique "patented system" of grid lines that are not raised at all but are flush with the base of the chamber.



The liquid specimen added to the Vetriplast chamber encounters no obstacles which can interfere with the testing since the distribution of the elements on the reading surface is perfectly homogeneous.

VACUTEST kima

VACUTEST KIMA srl Vacuum tubes - Via dell'Industria, 2 - 35020 Arzergrande (PD) Italy-Tel. +39 049.9720624 Fax +39 049.9720182 e-mail: info@vacutestkima.it

Code	***Description***
211710	**"VETRIPLAST"® plastic slide for urine sedimentation with 10 cells, with foursquare grid.**

Dimensions and specifications:

sides:	**83,0 mm side of 5 cells** **32,5 mm side of 2 cells**
Slide total height:	**Max 1,74 mm**
color:	**Transparent**

Packing:

Single wrapped	*Inner packing*	*External packing*
none	**Inner box of 100 slides (equal to 1000 tests) Label with CE, REF, manufacturer name and address- product description- quantity- sterility- lot- expiry.**	**Box of 1000 pieces (equal to 10.000 tests) Label with CE, REF, manufacturer name and address- ref- product description- quantity- sterility- lot- expiry- use and storage symbols.**

Destination of use:

For cytological urine tests.

This product must be used by skilled personnel only, in labs for bio-medical analysis

For use instructions see following pages.

Composition material of the device:

Polymethylmethacrylate
(no toxic material – translucent, particularly rigid with excellent optic qualities and resistant to water and centrifugation till about 1700G – on medical field is used particularly for serum test tubes because it is the polymer that mostly resembles to the glass.

Quality system applied during manufacturing and reference standards:

ISO: UNI EN ISO 9001:2008, certificate ICIM n. 4264/3 issued by ICIM S.p.a

UNI EN 13485: 2012 certificate ICIM n. 4265/3 issued by ICIM S.p.a.

CE: quality guaranteed system through the issuing of Declaration of Conformity CE after preparation of technical files as per Directive CE 98/79/CE (D.L. 08/09/2000 N.332) available to the competent authorities.

UNI CEI EN ISO 15223-1 symbols to be used on medical devices labels and information which must be supplied.
UNI EN 1041 information supplied by medical device manufacturer.
UNI EN 14971 application of risk management for medical devices.

Raw material certifications:

All raw materials used are non toxic, for alimentary and medical use certified, according to the current European and FDA (USA) directives.

Disposal modality:

Before use, they are non- dangerous wastes: CER 18 01 07 "chemicals substances different from those in voice 18 01 08".
After use they are sanitary wastes potentially infectious: CER 18 01 03 waste which should be picked and disposed, applying particular cares to avoid infections.

Instruction for use of VETRIPLAST® plastic slide for urine sedimentation.

In the VETRIPLAST slide (plastic slide with 10 cells) with counting grid, the microscopic counting of the cells present in the urine sediment, is based on the same principle of the glass counting chambers actually present on the market (Bürker, Thoma-Zeiss, Neubauer).
The above-mentioned counting chambers determine, through appropriate calculations, the number of the elements per ml, present in a sample of urine.
The surface on which the samples is spread in the chamber is divided in spaces defined by a grid.
Inside of the squares, the volume of the samples is predetermined and consequently, through calculation procedures, there is a direct

connection between the number of cells counted on the squares and its amount in the quantity of the urine under examination.

The possibility of error in the cell counting of the urine sediment through the above mentioned chambers could be the following:

Error depending on:	MATERIAL	a) non calibrated pipettes b) defective counting chambers c) cover glasses wrongly positioned or of bad quality
	TECNIQUE	d) defective sampling e) defective pipetting f) defective mixing g) samples drying
	OPERATOR	h) differences between operators i) operator with tired sight

VETRIPLAST is different from the traditional glass counting chamber for its easiness in the use; it helps the operator in the daily routine, decreases drastically some possible causes of error with the use of the chambers. VETRIPLAST increases the quality respect to the other plastic chambers thanks to the unique patented plastic grid. The total absence of thickness permits an homogeneous distribution of the elements on the counting grid.
In the VETRIPLAST the volume of the samples limited by the grid is pre-determined and constant in all the cells (every slide is subject to strict quality controls during the production).

The area delimited by the grid is 3mm by 3mm divided in 9 squares with a side of 1 mm, defined by a double line. Every square of 1mm side is also divided in 9 small squares with a side of 0,333mm, defined by a single line.
Every grid is divided in 81 small squares with a side of 0,333mm.

In this way it is obtained a precise subdivision of the sample value on the grid.

0,9 ul on the whole counting grid
0,1 ul inside of each of the 9 squares of 1x1mm side
0,0111ul inside of each of the 9 small squares of 0,333 x 0,333mm side

Features of VETRIPLAST slide:

1) reduces the number of glass slides to be prepared;
2) avoids the use of defective counting chambers;
3) no need to put a cover glass avoiding every error;
4) ensures the precision of the sample volume inside every chamber and every grid;
5) permits a quick examination of the sample, avoiding the possibility of drying;
6) reduces the possibility of overcrowding of the cells.

DIRECTIONS

- After having sufficiently stirred the sample of urine, pour 10 ml into a tapered test tube (code 18304);
- centrifuge for 5 minutes at 1000-1500 rpm.
- Pour off 9 ml of the top fluid;
- Suspend the sediment again, sufficiently stirring the test tube;
- Remove the suspension with a Pasteur capillary pipette and fill the selected cell on the slide.

- Individuate the grid position at 100 magnifications and then read at 400 magnification. The field of reading will include the smallest square of the grid (0,333 x 0,333mm side).

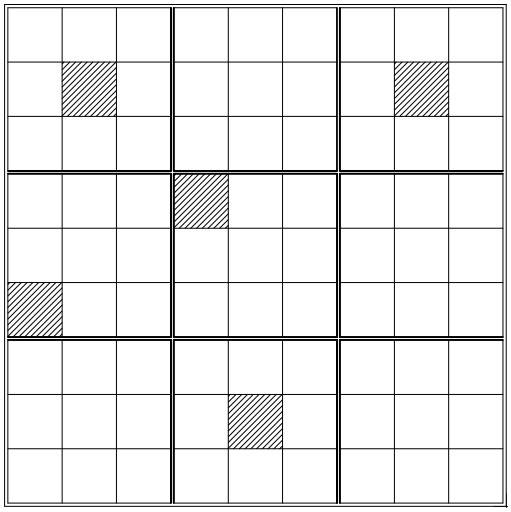
READING AND COUNTING THE FIGURED ELEMENTS IN THE GRID

INTRODUCTION

Independently from the counting directions given, there could be a percentage of errors due to the random distribution of the elements in the cells.
The error percentage could be reduced by counting a bigger number of elements in the squares.
It is therefore necessary that the operator establish the way of counting depending on the number of elements present in the sample under examination.

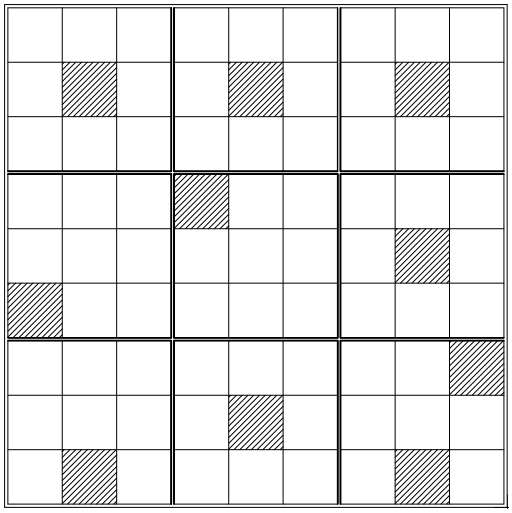
HIGH PRESENCE OF ELEMENTS

Count the number of elements present in 5 different squares, taking care not to count twice the same position.
(example n. 1)
The count of the elements in 5 squares could be made by using the “table 1” here attached.



Example n.1

LOW PRESENCE OF ELEMENTS
Count the number of elements present in 10 different squares, taking care not to count twice the same position.
(example no. 2)
The count of the elements in 10 squares could be made by using the “table 2” here attached.



Example n.2