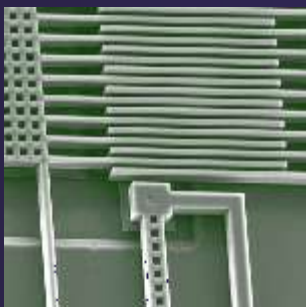
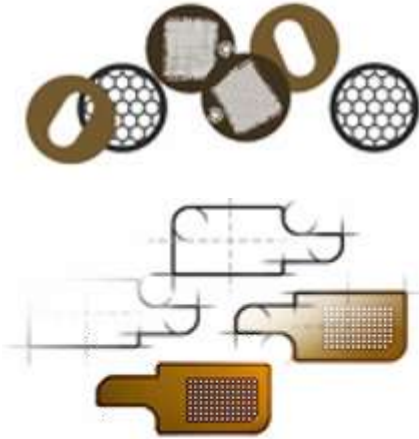


Gilder Grids

precision mesh
technology

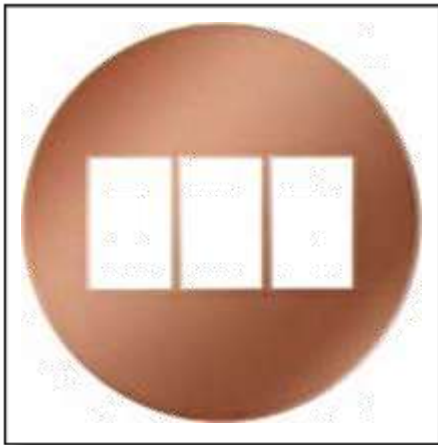


Gilder Grids



We manufacture a large range of specimen and support grids for electron microscopy, in a range of materials. Our products are made using the latest electroforming and etching technologies, enabling very fine bars and features to be achieved.

We also provide a custom made service for small components, either for small prototype or large production runs. Large stocks are held to provide a quick delivery on all our standard products.



Product and Service Features:

- Well defined grid bars
- Matt shiny side difference
- Packaged in custom anti-static vials (conductive polymer)
- Colour coded labels
 - Cu – Red/Brown
 - Cu/Pd – Grey
 - Ni – Blue
 - Au – Green
 - Mo – Grey
- No minimum order & free delivery in the UK



When ordering please specify GRID TYPE, MATERIAL & SIZE.

Alternatively use our order code:

TYPE followed by MATERIAL CODE followed by SIZE
Eg. G200-C3 = G200 in copper. 3.05 mm diameter.

Please refer to the chart on the last page for availability.



Rim & Centre Mark Details

Standard Mesh Grids

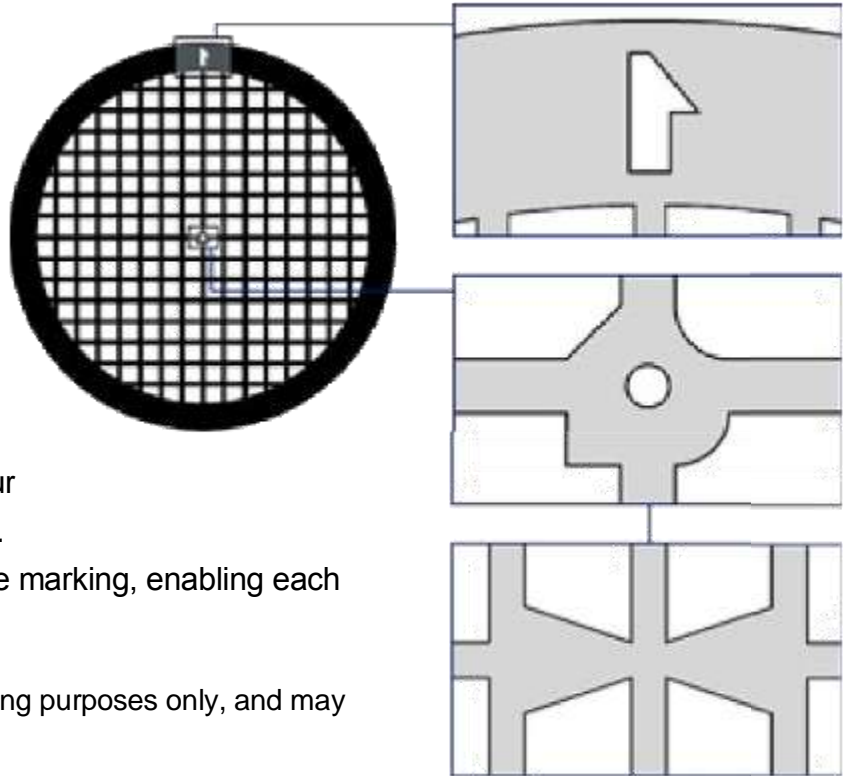
Rim Mark

An Asymmetrical mark in the rim allows for precise orientation of the grid, and aids in the identification of each side.

Centre Mark

More recent grids have an asymmetrical centre marking, enabling the four quadrants of the grid to be distinguished. Older grids have a 'reverse arrow' centre marking, enabling each half of the grid to be distinguished.

Note that the central hole is for manufacturing purposes only, and may not appear in the actual grid.



Fine Mesh Grids

Rim Mark

An Asymmetrical mark in the rim similar to that found in the standard mesh grids.

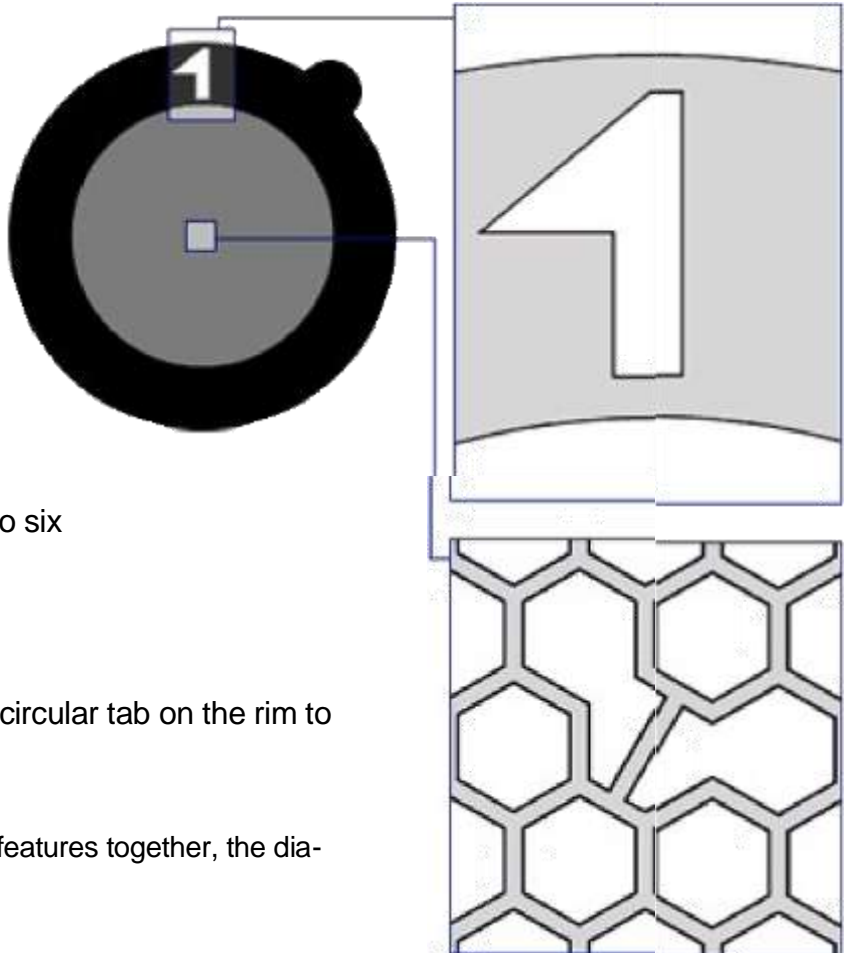
Centre Mark

Only some of the 'HH' series of fine hexagonal mesh grids have this centre marking. It effectively divides the grid into six distinguishable areas.

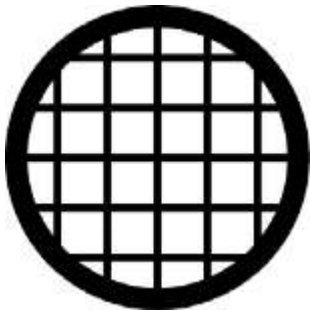
Rim Tab

The older HS and HH grids also have a circular tab on the rim to aid in handling the grid with tweezers.

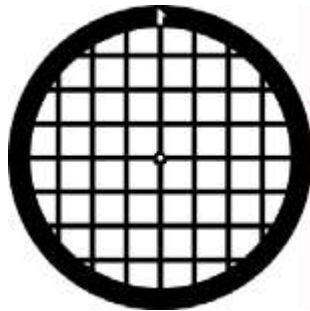
Note that no grid has all of the above three features together, the diagram is for illustrative purposes.



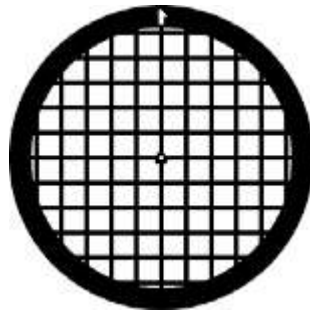
Square Mesh Grids



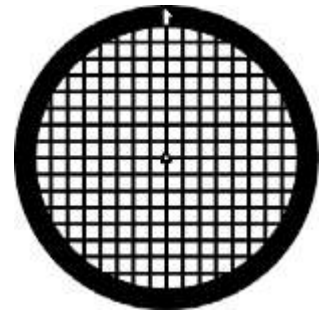
G50



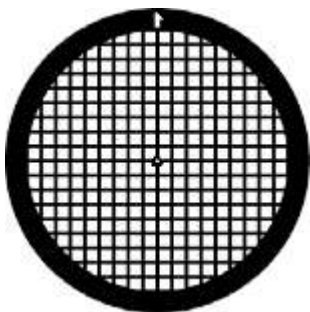
G75



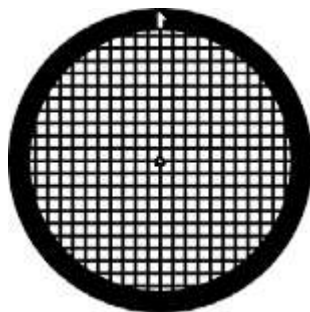
G100



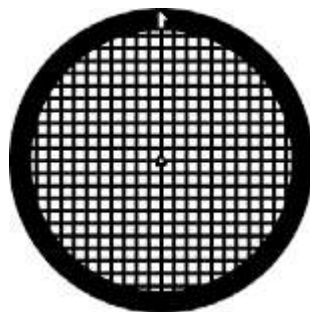
G150



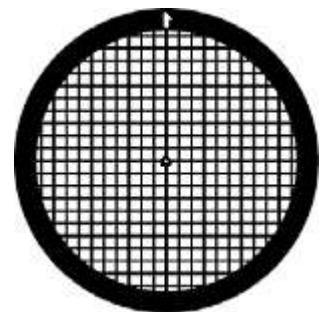
G175



G200



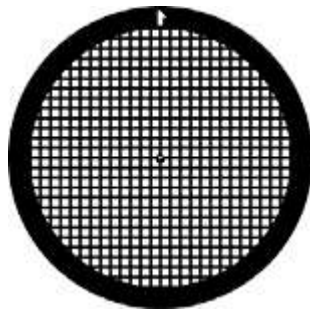
G200TH



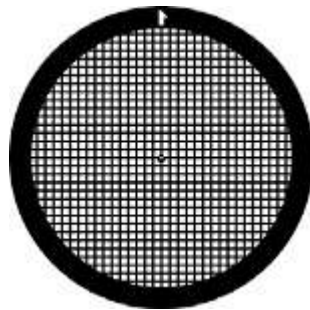
G200TT



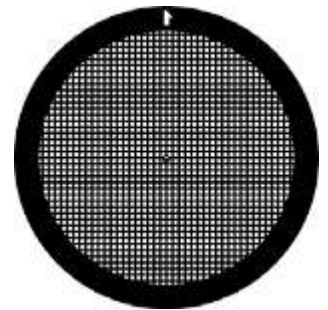
G200T



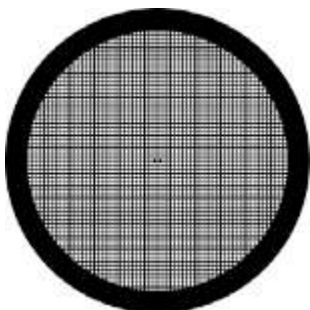
G250



G300



G400



G600TT

- The grid Type number gives the mesh repeat factor in lines/inch eg. G200 = ~200 lines/inch
- Suf_x TH denotes thickened version
- Suf_x TT denotes thick/thin bar pattern
- Suf_x T denotes a 'Handle'. The handle has been designed to be easily removed. The thickness of metal at the point of attachment of the handle to the rim has been reduced, allowing it to be bent up to 90 degrees. The handle is easily fractured and removed by bending over 90 degrees
- More detailed information is given in the specification chart



Parallel & Rectangular Mesh Grids



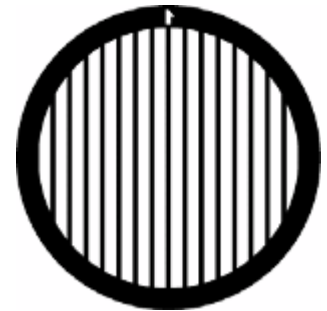
G50P



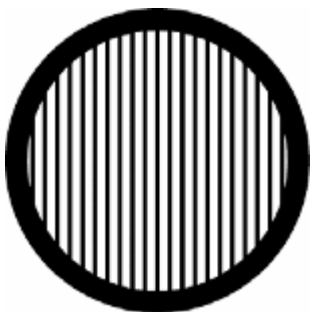
G75P



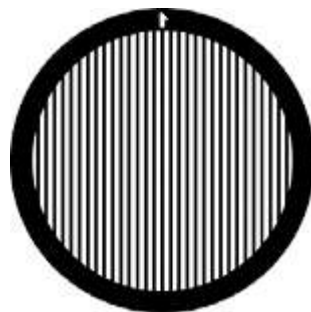
G100P



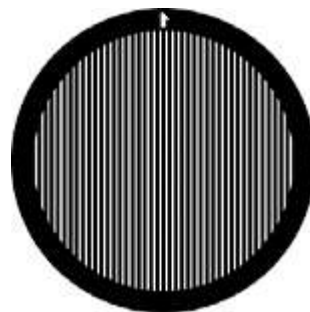
G150P



G200P



G300P



G400P



G50PB



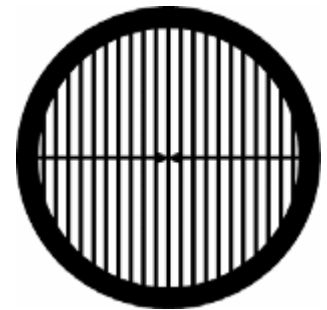
G75PB



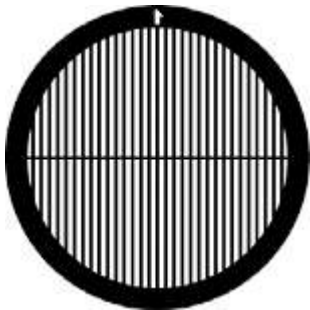
G100PB



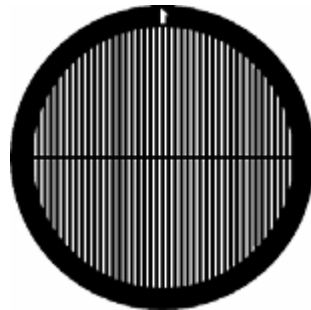
G150PB



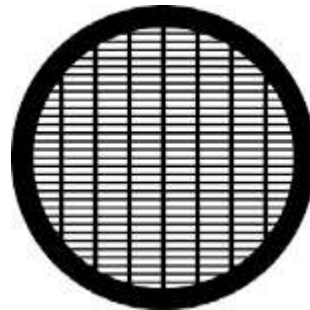
G200PB



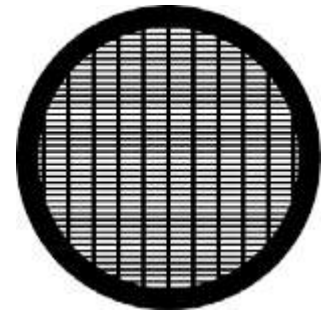
G300PB



G400PB



G75/300

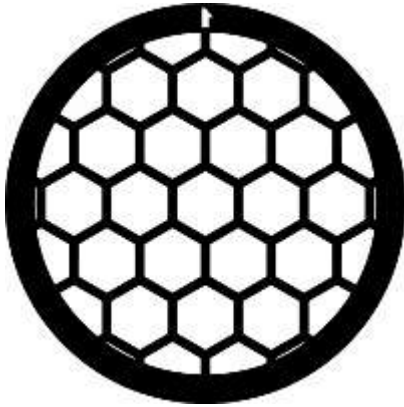


G100/400

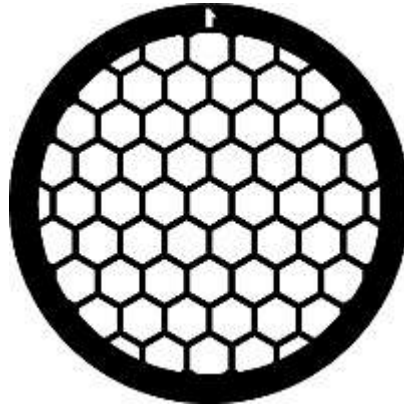
- Parallel bar grids are especially useful for obtaining sequential information from ribbons of sections.
- The grid type number indicates the repeat factor per inch.
- The suffix P indicates straight parallel bars. Suffix PB also has a single bar which crosses at 90 degrees through the centre.



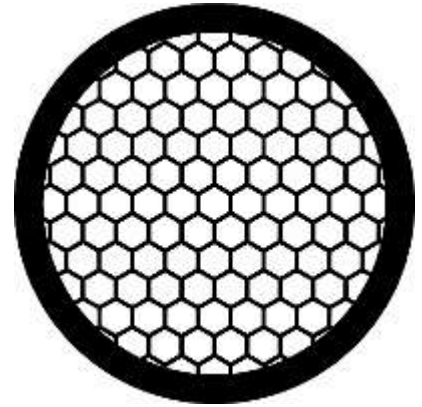
Hexagonal Mesh Grids



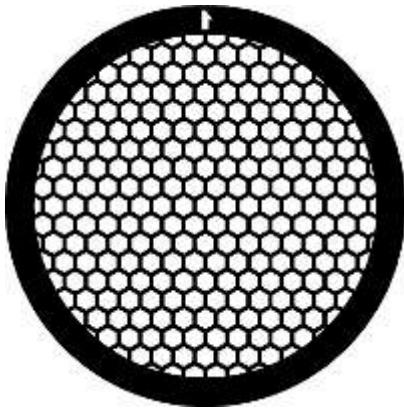
G50HEX



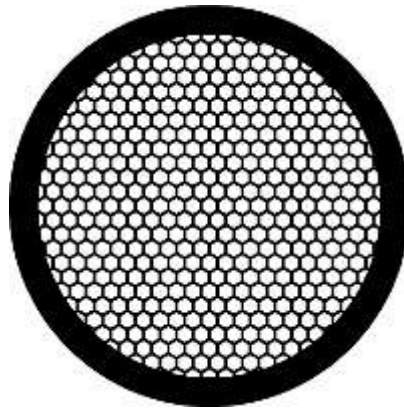
G75HEX



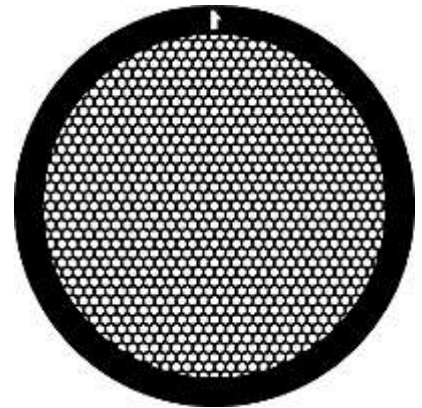
G100HEX



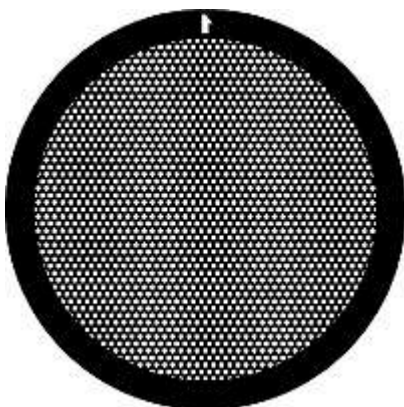
G150HEX



G200HEX



G300HEX



G400HEX

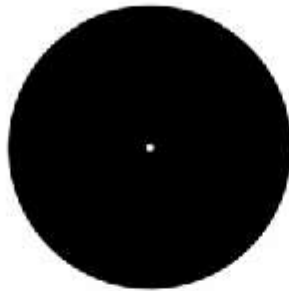
- HEXAGONAL MESH – An alternative to the standard square mesh pattern offering the maximum support factor for any given mesh repeat distance. The grid type number indicates the mesh size in lines/inch



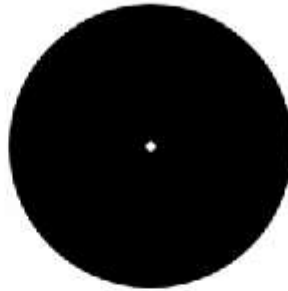
Aperture Grids



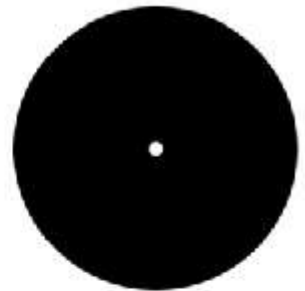
GA50



GA75



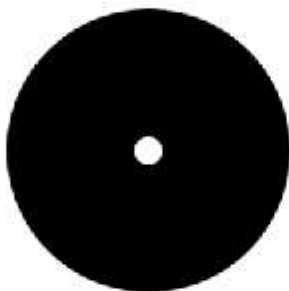
GA100



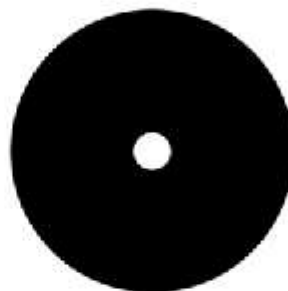
GA150



GA200



GA300



GA400



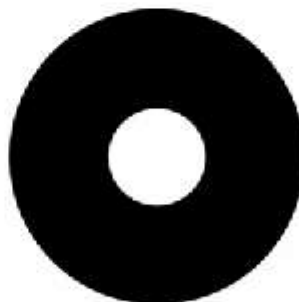
GA500



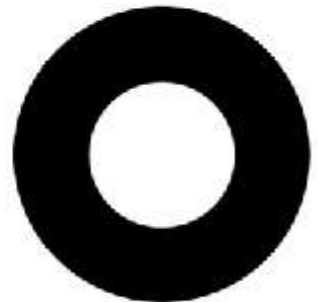
GA600



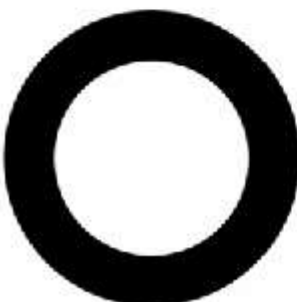
GA800



GA1000



GA1500

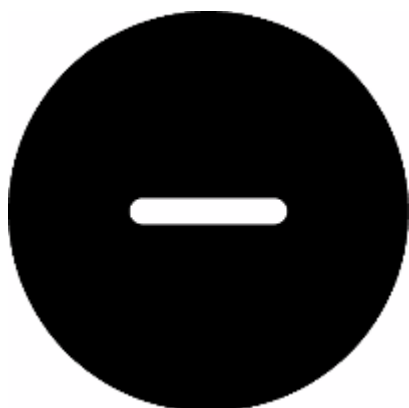


GA2000

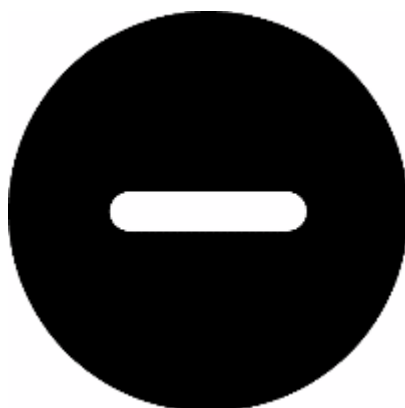
✦ The diameter of the single aperture corresponds to the grid type number eg. GA1000 = 1000 μ m aperture



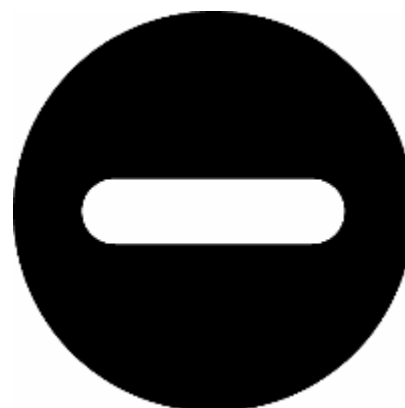
Slot Grids



GS1x0.2



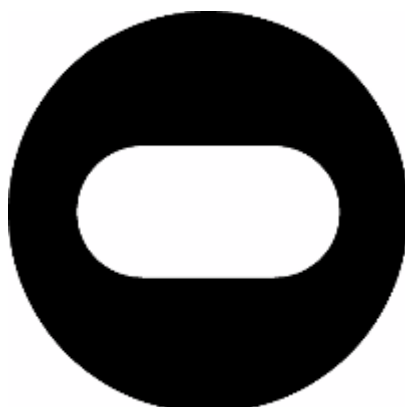
GS1.5x0.3



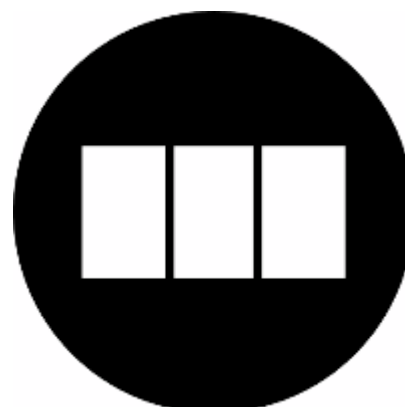
GS2x0.5



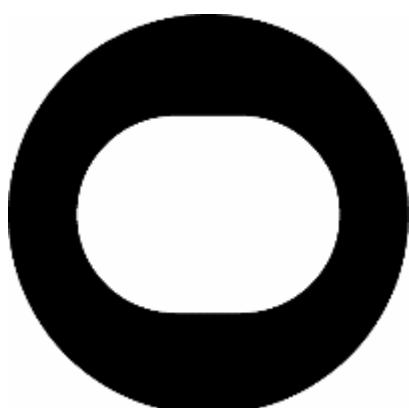
GS2x0.75



GS2x1



GS2/3X1

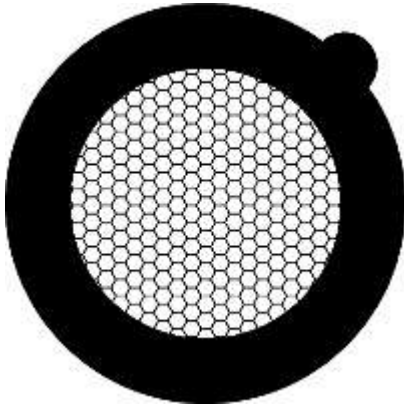


GS2x1.5

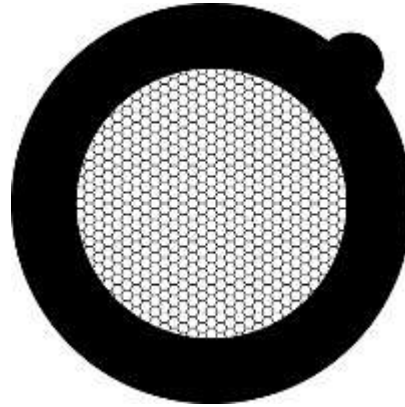
- The grid type number corresponds to the overall slot size in mm eg. GS2X1 = 2 mm X 1 mm slot.
- The Larger the slot dimension the thicker the grid, rigidity is essential when using formvar/carbon films to avoid 'cracking'. The GS2X1 slot grid has an overall thickness of ~50 microns .
- Molybdenum grids are especially useful in ion milling applications because of its resistance to etching.



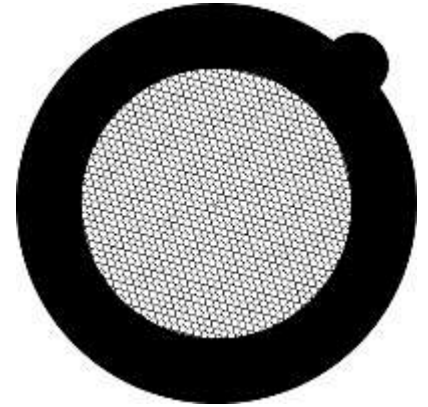
Fine Mesh Grids



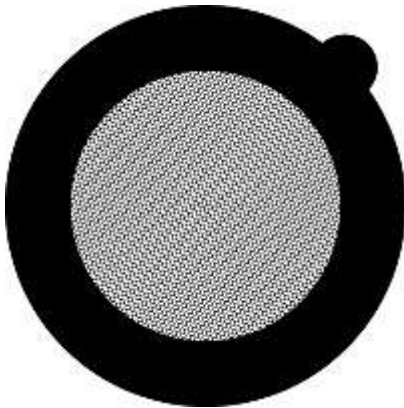
G200HH



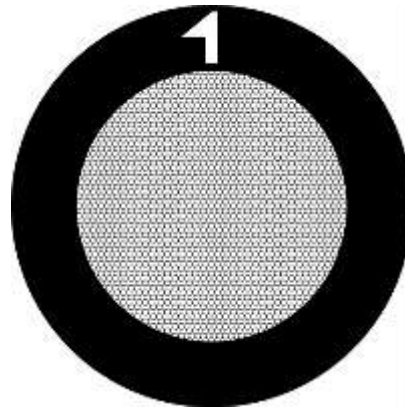
G300HH



G400HH



G600HH



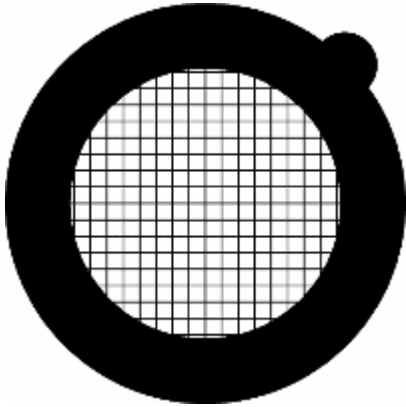
G600HHS

- HEXAGONAL MESH – Suffix HH & HHS. Comprising of 5 grid types
- More detailed information is given in the specification chart.

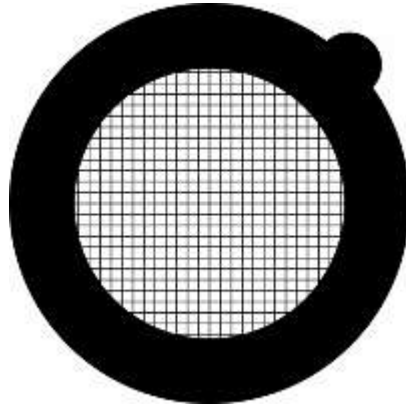
- Fine Bar grids were first developed by us 25 years ago, since that time we have extended the range to offer solutions in applications where it is important that the maximum area of specimen is available for viewing in the microscope. The G2000HS grid represents the finest mesh grid that is currently available it is manufactured using modern electron beam lithography techniques. It has found use in applications as diverse as vitreous ice (non-crystalline ice) specimen techniques to x-ray calibration.



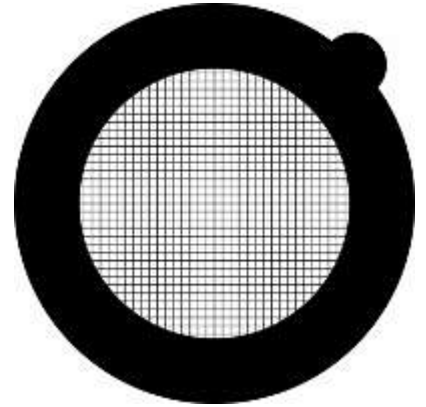
Fine Square Mesh



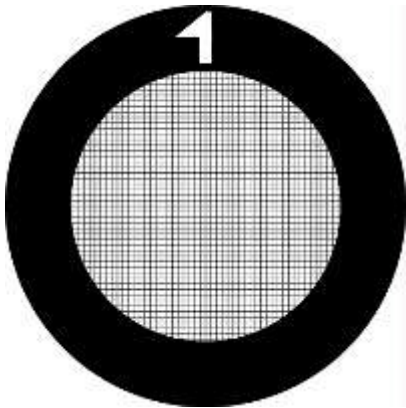
G200HS



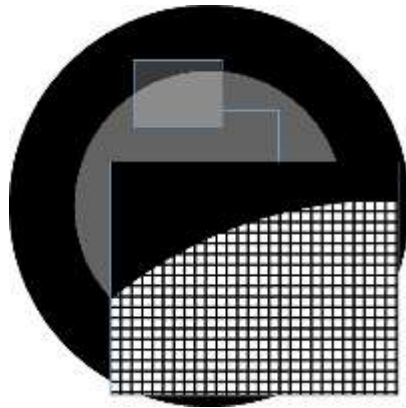
G300HS



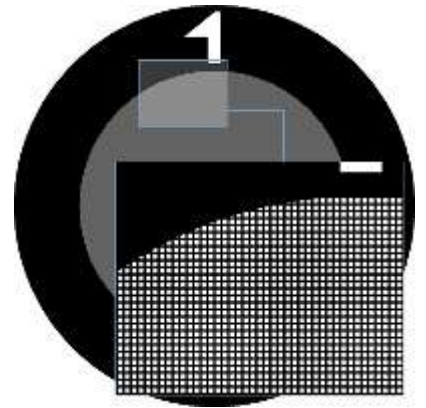
G400HS



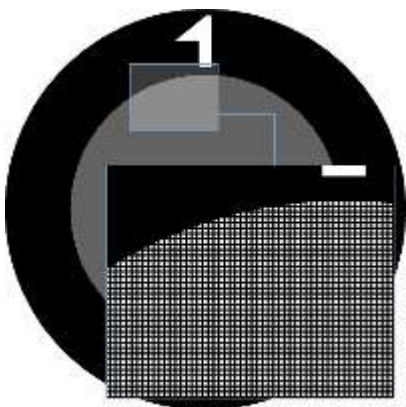
G600HSS



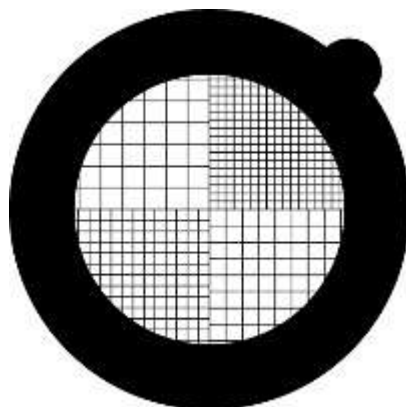
G1000HS



G1500HS



G2000HS

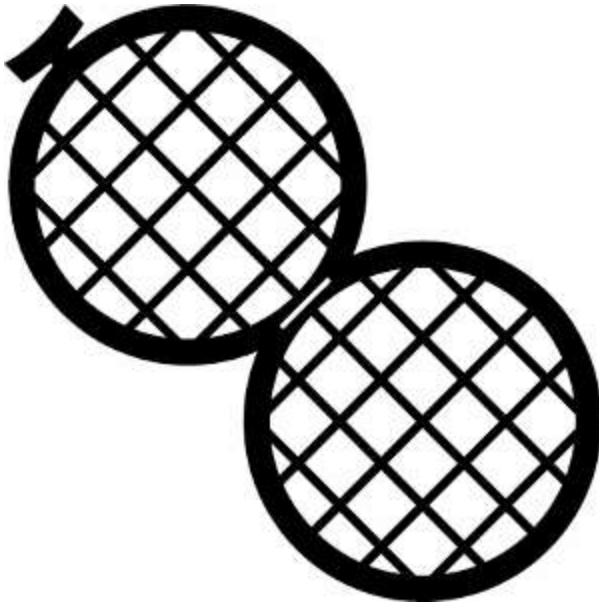


GVHS

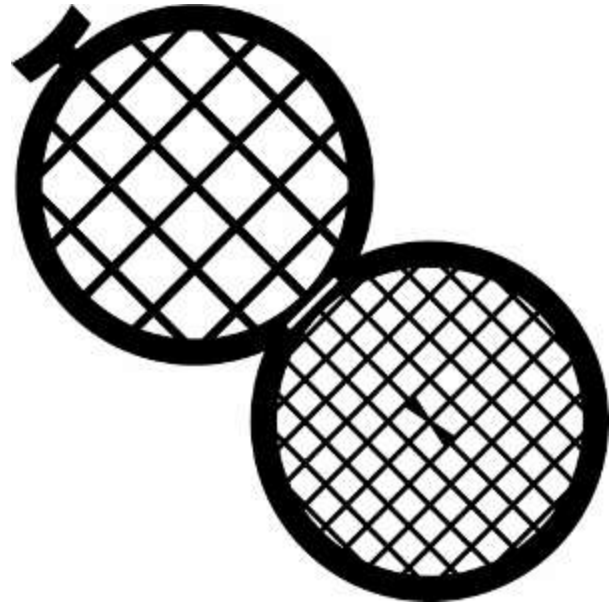
- SQUARE MESH – Suffix HS & HSS. Comprising of 8 grid types ranging from 200 lines/inch to an unrivalled 2000 lines/inch.



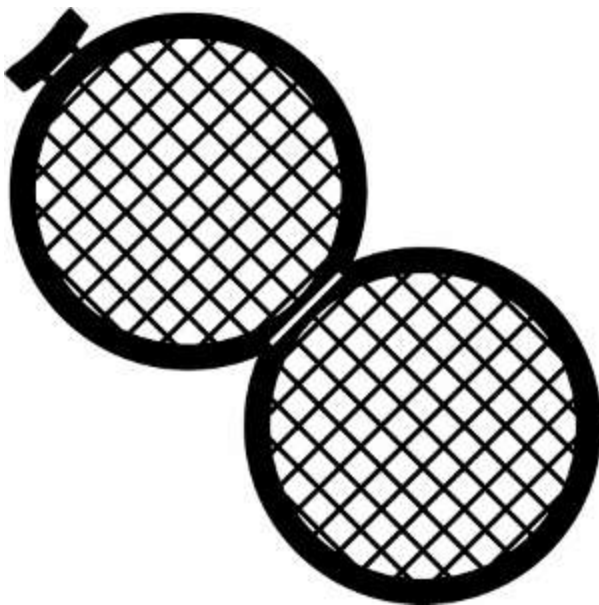
Double Folding Grids



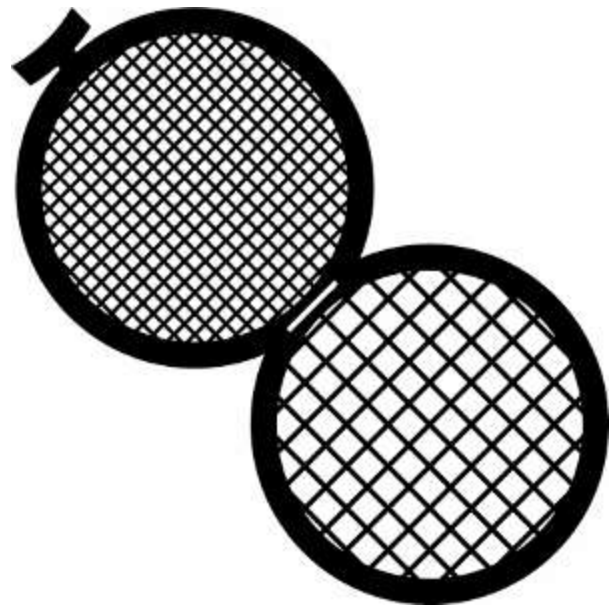
GD50/50



GD50/100



GD100/100

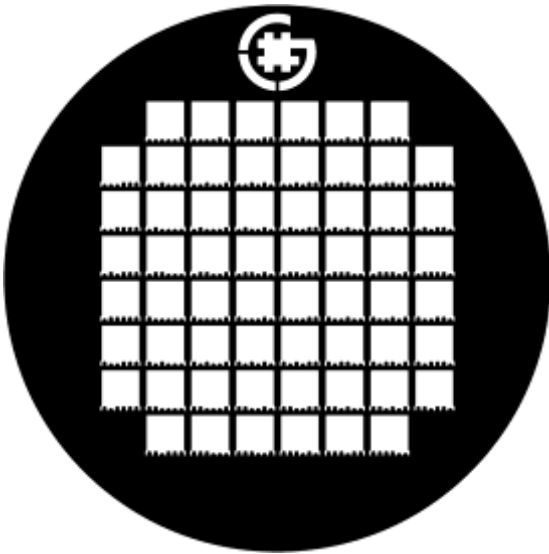


GD100/200

- The grids have a curved securing tab, which folds to the curvature of the 'sandwiched' grid.
- Four mesh combinations are available.
- Used mostly In metallurgical applications for supporting thin metal foils

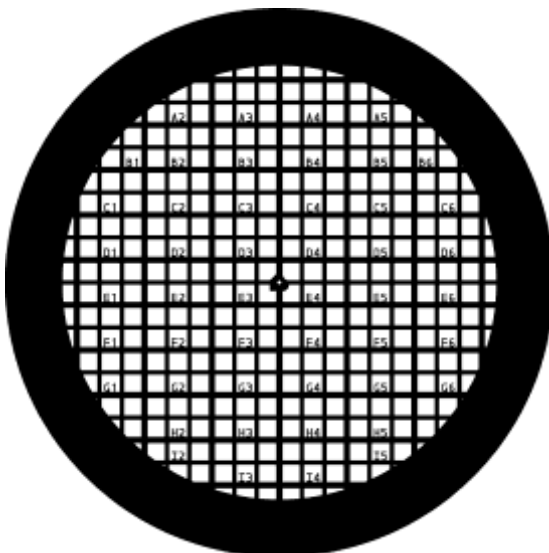


TEM Finder Grids



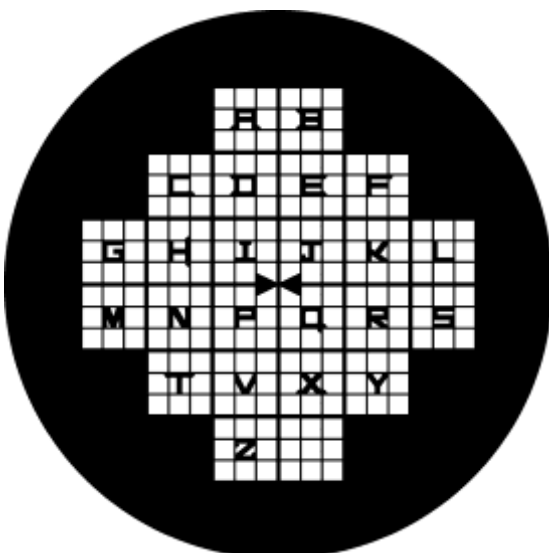
G100F1

- ◆ **Each** of the 60 grid squares is identified using a base two binary numbering system
- ◆ **The** six binary number symbols appear on the bottom grid bars along the horizontal axis
- ◆ **Zero** represented by a short pillar and one by a longer pillar



G200F1

- ◆ **An alpha-numerical** code identifies 48 blocks of 6 grid squares, delineated by thicker grid bars.
- ◆ **Each** block's code is attached to the baseline of its centre-bottom cell, letters representing rows and numbers representing columns.

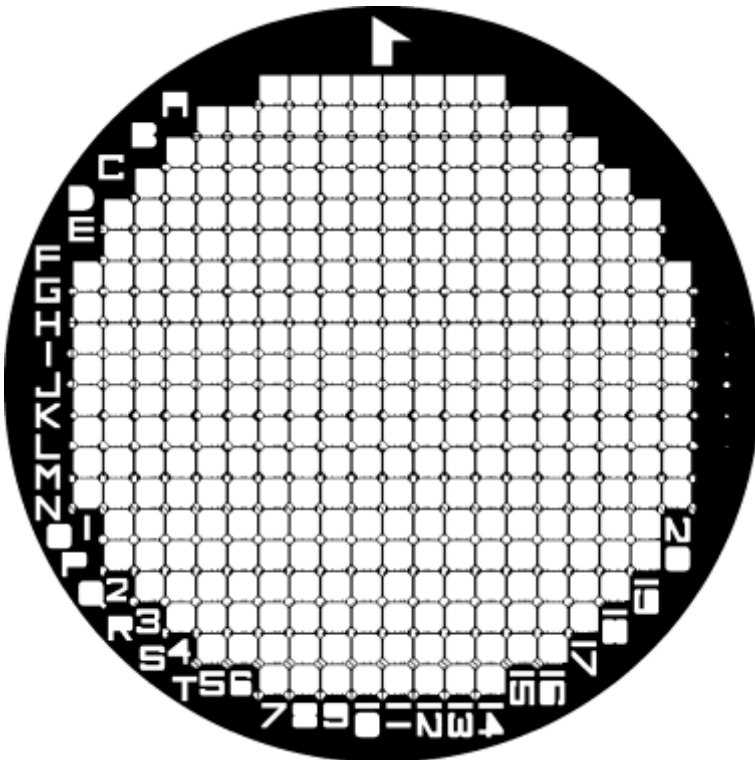


G200F2

- ◆ **Alphabetic** identification of 24 blocks of nine grid squares.
- ◆ **The Letter** is built into the centre grid square of each block

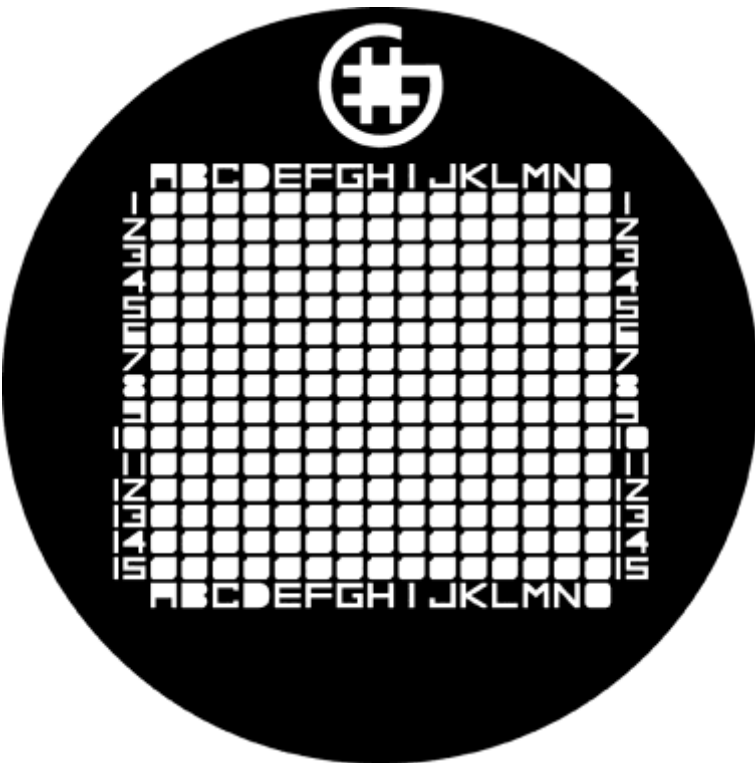


TEM Finder Grids



G200HF3

- ◆ **An alphanumeric** code uniquely identifies 322 grid squares
- ◆ **At light** microscope level, this code can be referenced from the letters and numbers on the rim of the grid, representing rows and columns respectively.
- ◆ **At the electron** microscope level, the row letter is indicated by a symbol to the bottom left of the grid square. The column number is indicated by a binary coding symbol attached to the baseline of the cell.



G200F4

- ◆ **Each grid** rectangle is asymmetrical having different outlines in each corner.
- ◆ **The index** feature enables the position of each grid square to be identified by reference to the letters and numbers

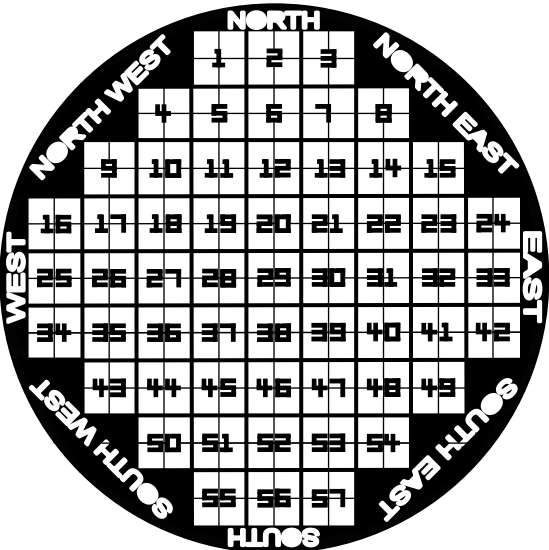


SEM Finder Grids - 10mm Ø



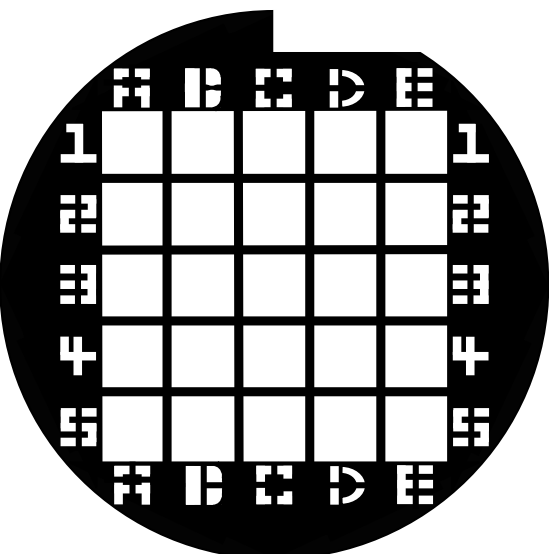
SEMF1

- ◆ Referring to the annular rim identifies north, south, east and west.
- ◆ The four quadrant markers are tapered towards the centre
- ◆ 100 Radial sectors are identified by reference to decimal numbers in the annular rim and alphabet letters in the four quadrants



SEMF2

- ◆ The larger cells are identified using numbers 1 < 57. Each large cell is sub-divided into 4, making a total of 228 cells.
- ◆ By reference to the cell number and geographical location each cell can be identified.



SEMF3

- ◆ 25 cells are identified by reference to their alphanumeric position.
- ◆ The large asymmetric cut out feature in the rim enables the right view to be easily obtained when placing on a SEM stub.



Grid Storage

Our grid boxes are intended for use in both routine grid handling and for long term grid storage. Their ease of use makes them ideal for grid handling and viewing; their high packing density and compact shape, together with their individual Record Card make them well suited for the long term storage of catalogued specimens.

Both boxes are available with – code SB50BN & SB100BN or without - code SB50 & SB100 a unique box number. The number is never repeated.

SB50 & SB50BN



- The blue arrow at the 12.00 o'clock position indicates the park position for the cover when not in use. This is a 'click' position and cannot be moved accidentally, preventing spillage.
- The clear cover can be rotated smoothly through 360 degrees, exposing a maximum of 2 or 3 diamond shaped holes at any one time.
- The materials have been chosen for their anti-static properties, the clear cover also has self lubricating properties, enabling the cover to move freely whilst remaining in close contact with the face of the base.
- The 50 diamond shaped holes have an alphanumeric referencing system. Each box is supplied with an indexed record card.
- The Storage boxes are designed to be stacked, the base locating precisely over the face of another box.

SB50 Specifications

Size	Length 75 mm X Width 65 mm X Depth 6.5 mm
Weight	22 grams
Materials	Base: ABS-PHAT(Acrylonitrile Butadiene Styrene + Anti-Static Additive) Cover: CAB(Cellulose Acetal Butyrate)

SB100 & SB100BN



- The 100 diamond shaped holes have an alphanumeric referencing system.
- Each position has a blue printed letter and number. Blue is chosen for its visibility under normal 'safelight' conditions. Each box is supplied with an indexed record card.
- The clear cover has a central access position reducing the number of grids exposed when selecting any particular grid.
- The materials have been chosen for their anti-static properties; the clear cover also has self lubricating properties, enabling the cover to slide easily.

SB100 Specifications

Size	Length 75 mm X Width 65 mm X Depth 6.5 mm
Weight	25 grams
Materials	Base: ABS-PHAT(Acrylonitrile Butadiene Styrene + Anti-Static Additive) Cover: CAB(Cellulose Acetal Butyrate)



Availability						● available – not available		Specifications						
GRID TYPE	Copper	Cu/Pd	Nickel	Gold	Mo	Size mm 3.05 2.3	Number/vial Mo Au Other	Mesh Lines/inch	Pitch µm	Bar Width µm	Hole Width µm	Mark Centre Rim		
G50	●	●	●	●	—	● ●	— 50 100	50	500	80	420	— —		
G75	●	●	●	●	—	● ●	— 50 100	75	340	55	285	◆ ◆		
G100	●	●	●	●	●	● ●	25 50 100	100	250	45	205	◆ ◆		
G150	●	●	●	●	—	● ●	— 50 100	150	165	40	125	◆ ◆		
G175	●	●	●	●	—	● ●	— 50 100	175	145	37	108	◆ ◆		
G200	●	●	●	●	●	● ●	25 50 100	200	125	35	90	◆ ◆		
G200TH	●	●	●	●	—	● ●	— 50 100	200	125	40	85	◆ ◆		
G200TT	●	●	●	●	—	● ●	— 50 100	200	125	35-25	95	◆ ◆		
G200T	●	●	●	●	—	● ●	— 50 100	200	125	40	85	◆ ◆		
G250	●	●	●	●	—	● ●	— 50 100	250	100	30	70	◆ ◆		
G300	●	●	●	●	—	● ●	— 50 100	300	83	25	58	◆ ◆		
G400	●	●	●	●	—	● ●	— 50 100	400	62	25	37	◆ ◆		
G600TT	●	●	●	●	—	● ●	— 50 100	600	42	16-10	30	◆ —		
G50P	●	●	●	●	—	● ●	— 50 100	50	500	85	416	— ◆		
G75P	●	●	●	●	—	● ●	— 50 100	75	340	70	270	— ◆		
G100P	●	●	●	●	—	● ●	— 50 100	100	250	65	185	— —		
G150P	●	●	●	●	—	● ●	— 50 100	150	165	50	115	— ◆		
G200P	●	●	●	●	—	● ●	— 50 100	200	125	45	80	— —		
G300P	●	●	●	●	—	● ●	— 50 100	300	83	35	48	— ◆		
G400P	●	●	●	●	—	● ●	— 50 100	400	62	40	22	— ◆		
G50PB	●	●	●	●	—	● ●	— 50 100	50	500	84	416	— ◆		
G75PB	●	●	●	●	—	● ●	— 50 100	75	340	70	270	— ◆		
G100PB	●	●	●	●	—	● ●	— 50 100	100	250	65	185	— —		
G150PB	●	●	●	●	—	● ●	— 50 100	150	165	50	115	— ◆		
G200PB	●	●	●	●	—	● ●	— 50 100	200	125	45	80	— —		
G300PB	●	●	●	●	—	● ●	— 50 100	300	83	35	48	— ◆		
G400PB	●	●	●	●	—	● ●	— 50 100	400	62	40	22	— ◆		
G75/300	●	●	●	●	—	● ●	— 50 100	75-300 300	340-83	50-25	290-58	— —		
G100/400	●	●	●	●	—	● ●	— 50 100	100-400-300	250-62	45-25	205-37	— —		
G50HEX	●	●	●	●	—	● ●	— 50 100	50	500	70	430	— ◆		
G75HEX	●	●	●	●	—	● ●	— 50 100	75	340	50	290	— ◆		
G100HEX	●	●	●	●	—	● ●	— 50 100	100	250	35	215	— —		
G150HEX	●	●	●	●	—	● ●	— 50 100	150	165	35	130	— ◆		
G200HEX	●	●	●	●	—	● ●	— 50 100	200	125	25	100	— —		
G300HEX	●	●	●	●	—	● ●	— 50 100	300	83	25	58	— ◆		
G400HEX	●	●	●	●	—	● ●	— 50 100	400	62	25	37	— ◆		
G200HS	●	—	●	●	—	● ●	— 50 100	200	125	12	113	— ◆		
G200HH	●	—	●	●	—	● ●	— 50 100	200	125	12	113	— ◆		
G300HS	●	—	●	●	—	● ●	— 50 100	300	83	10	73	— ◆		
G300HH	●	—	●	●	—	● ●	— 50 100	300	83	10	73	— ◆		
G400HS	●	—	●	●	—	● ●	— 50 100	400	62	8	54	— ◆		
G400HH	●	—	●	●	—	● ●	— 50 100	460	57	8	49	◆ ◆		
G600HH	●	—	●	●	—	● ●	— 50 100	698	37	8	29	◆ ◆		
G600HSS	●	—	●	●	—	● ●	— 50 100	600	42	5	37	— ◆		
G600HHS	●	—	●	●	—	● ●	— 50 100	600	42	5	37	— ◆		
G1000HS	●	—	●	●	—	● ●	— 25 25	1000	25	6	19	— ◆		
G1500HS	●	—	●	●	—	● ●	— 15 15	1500	16.5	5	11.5	— ◆		
G2000HS	●	—	●	●	—	● ●	— 15 15	1500	16.5	5	11.5	— ◆		
GVHS	●	—	●	●	—	● ●	— 50 100	200-400 150-300	125-62 165-83	10-10 10-10	115-52 155-73	— ◆		
GA50	●	●	●	●	—	● ●	— 50 100	—	—	—	50	— —		
GA75	●	●	●	●	—	● ●	— 50 100	—	—	—	75	— —		
GA100	●	●	●	●	—	● ●	— 50 100	—	—	—	100	— —		
GA150	●	●	●	●	—	● ●	— 50 100	—	—	—	150	— —		
GA200	●	●	●	●	—	● ●	— 50 100	—	—	—	200	— —		
GA300	●	●	●	●	—	● ●	— 50 100	—	—	—	300	— —		
GA400	●	●	●	●	—	● ●	— 50 100	—	—	—	400	— —		
GA500	●	●	●	●	—	● ●	— 50 100	—	—	—	500	— —		
GA600	●	●	●	●	—	● ●	— 50 100	—	—	—	600	— —		
GA800	●	●	●	●	—	● ●	— 50 100	—	—	—	800	— —		
GA1000	●	●	●	●	●	● ●	25 50 100	—	—	—	1000	— —		
GA1500	●	●	●	●	—	● ●	— 50 100	—	—	—	1500	— —		
GA2000	●	●	●	●	—	● ●	— 50 100	—	—	—	2000	— —		
GS1X0.2	●	●	●	●	—	● ●	— 50 100	—	—	—	1000 X 200	— —		
GS1.5X0.	●	●	●	●	—	● ●	— 50 100	—	—	—	1500 X 300	— —		
GS2X0.5	●	●	●	●	—	● ●	— 50 100	—	—	—	2000 X	— —		
GS2X0.75	●	●	●	●	—	● ●	— 50 100	—	—	—	2000 X 750	— —		
GS2X1	●	●	●	●	●	● ●	25 50 100	—	—	—	2000 X	— —		
GS2/3X1	●	●	●	●	●	● ●	25 50 100	—	—	—	2÷3 X	— —		
GS2X1.5	●	●	●	●	—	● ●	— 50 100	—	—	—	2000 X	— —		
G100F1	●	●	●	●	—	● ●	— 50 100	100	250	See page 12 & individual spec. sheet				
G200F1	●	●	●	●	—	● ●	— 50 100	200	125	See page 12 & individual spec. sheet				
G200F2	●	●	●	●	—	● ●	— 50 100	200	125	See page 12 & individual spec. sheet				
G200HF3	●	—	●	●	—	● ●	— 25 25	200	125	See page 13 & individual spec. sheet				
G200F4	●	●	●	●	—	● ●	— 50 100	200-250	125-105	20-15	105-90	— —		
GD50/50	●	●	●	●	—	● ●	— 50 100	50-50	500-500	70-70	430-430	— —		
GD50/100	●	●	●	●	—	● ●	— 50 100	50-100	500-250	70-55	430-195	— —		
GD100/10	●	●	●	●	—	● ●	— 50 100	100-100	250-250	50-50	200-200	— —		
GD100/20	●	●	●	●	—	● ●	— 50 100	100-200	250-125	50-40	200-85	— —		
SEMF1	●	—	●	●	—	—	— 5 10	—	—	See page 14 & individual spec. sheet				
SEMF2	●	—	●	●	—	—	— 5 10	—	—	See page 14 & individual spec. sheet				
SEMF3	●	—	●	●	—	—	— 5 10	—	—	See page 14 & individual spec. sheet				

The figures given for bar and hole width are for comparative purposes only - some variation may exist