

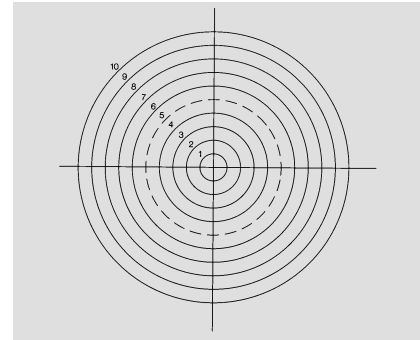
EYEPIECE GRATICULES (RETICLES)

GAUGES

Concentric Circles - NE42, NE43, NE44, NE47

Can be used for two-way measurement when calibrated as a micrometer.

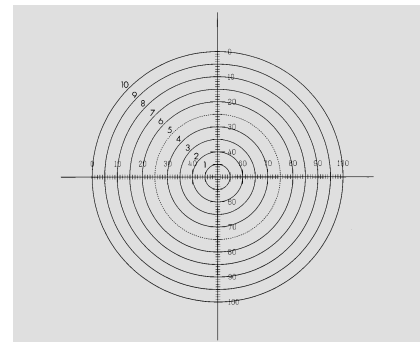
Pattern	Description	Diameter	Order Code
NE42	Concentric circles 0.25mm – 2.5mm diameter. 10 circles. Surface chrome image.	16mm	01B16224
		19mm	01B19224
		21mm	01B21224
		Special	01BSP224
Pattern	Description	Diameter	Order Code
NE43	Concentric circles 0.5mm – 5mm diameter. 10 circles. Surface chrome image.	16mm	01B16225
		19mm	01B19225
		21mm	01B21225
		Special	01BSP225
Pattern	Description	Diameter	Order Code
NE44	Concentric circles 1mm – 10mm diameter. 10 circles. Surface chrome image	16mm	01B16226
		19mm	01B19226
		21mm	01B21226
		Special	01BSP226
Pattern	Description	Diameter	Order Code
NE47	Concentric circles 2mm – 20mm diameter. 10 circles. Surface chrome image.	16mm	01B16228
		19mm	01B19228
		21mm	01B21228
		Special	01BSP228



Concentric Circles - NE48

Similar to concentric circles, but with graduated cross hairs.

Pattern	Description	Diameter	Order Code
NE48	Concentric circles, 10 circles. 1mm-10mm. Graduated cross hairs. Surface chrome image.	16mm	01B16242
		19mm	01B19242
		21mm	01B21242
		Special	01BSP242



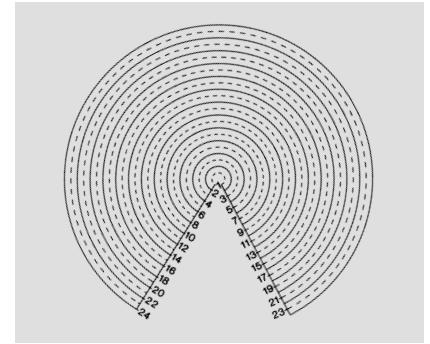
We manufacture components (encoder discs, graticules, metal foils, resolution standards) to custom design, if it is not in the catalogue please contact us for pricing information.

EYEPIECE GRATICULES (RETICLES)

Concentric Circles - NE22

This design leaves the circles clear of obstruction. In addition the intermediate lines are broken to improve ease of reading.

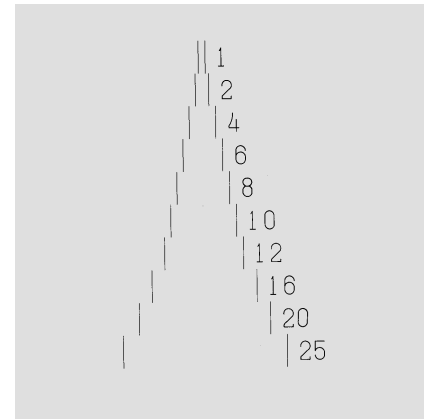
Pattern	Description	Diameter	Order Code
NE22	Concentric circles 0.5mm – 12mm diameter, 24 circles. Surface chrome image.	16mm	01B16215
		19mm	01B19215
		21mm	01B21215
		Special	01BSP215



Gauge Pairs - NE19

Gauge pairs occupying a field of view of 10mm. Each gauge is proportional to its adjacent number. Approximate size of smallest pair = 0.1mm

Pattern	Description	Diameter	Order Code
NE19	Gauge pairs. Surface chrome image	16mm	01B16241
		19mm	01B19241
		21mm	01B21241
		Special	01BSP241

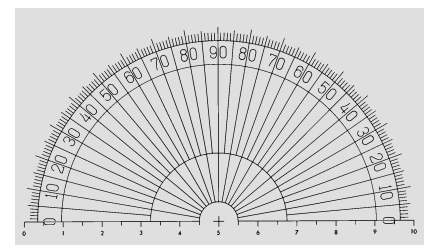


PROTRACTORS

Placed in the eyepiece, these are used in the same manner as ordinary protractors.

Half Protractor – NE25

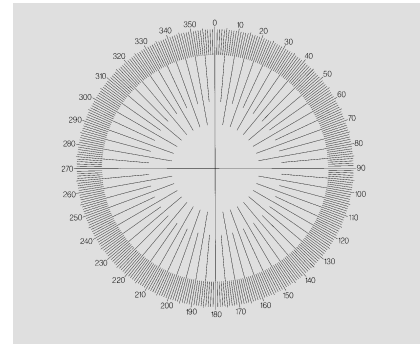
Pattern	Description	Diameter	Order Code
NE25	Half protractor scale 10mm diameter divided in degrees. Surface chrome image.	16mm	01B16216
		19mm	01B19216
		21mm	01B21216
		Special	01BSP216



EYEPIECE GRATICULES (RETICLES)

Full Protractor – NE45

Pattern	Description	Diameter	Order Code
NE45	Full protractor scale 10mm diameter divided in degrees. Surface chrome image.	16mm	01B16227
		19mm	01B19227
		21mm	01B21227
		Special	01BSP227



PARTICLE SIZING AND DISTRIBUTION

The use of the eyepiece graticules shown in this section make it possible to analyse specimens containing particles as an alternative, or in addition to, sieving. Graticules for particle size analysis are particularly popular when there are only limited quantities of particles or where particles are smaller than 50 micron diameter. Typical substances analysed are sand grains, soil particles, plant seeds, fertilizers, abrasives, liquid droplets, pigments, pulverised coal, silica, fibres and fine dust.

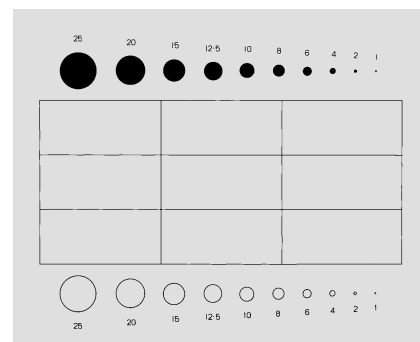
The basic principle employed is to compare particles to the globes and circles of varying sizes that appear on the graticule – dark particles being compared to solid globes, and light or transparent ones to the circles. Naturally the procedure varies with the graticule concerned, more information about which is given below.

Please note that for calibration the circles and globes will represent particles smaller in diameter by the magnification of the objective.

Patterson Globes and Circles – NG1

The graticule consists of a central rectangle, sub-divided into nine smaller rectangles with a number of increasing circles outside the top and bottom horizontal edges. The marked figures are the diameters of the circles in units. 250 units represent the horizontal length of the large rectangle. Rectangle size is 4.5mm x 2.025mm. Circle sizes in microns are 450, 360, 270, 225, 180, 145, 110, 74, 37 and 18.

Reference: H.S.Patterson and W.Cawood. Transactions of the Faraday Society, Vol. 32 Feb 1936. "The Determination of Size Distribution in Smokes." Pp. 1084-1088.



Pattern	Description	Diameter	Order Code
NG1	Patterson globes/circles. Surface chrome image.	16mm	01B16250
		19mm	01B19250
		21mm	01B21250
		Special	01BSP250

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