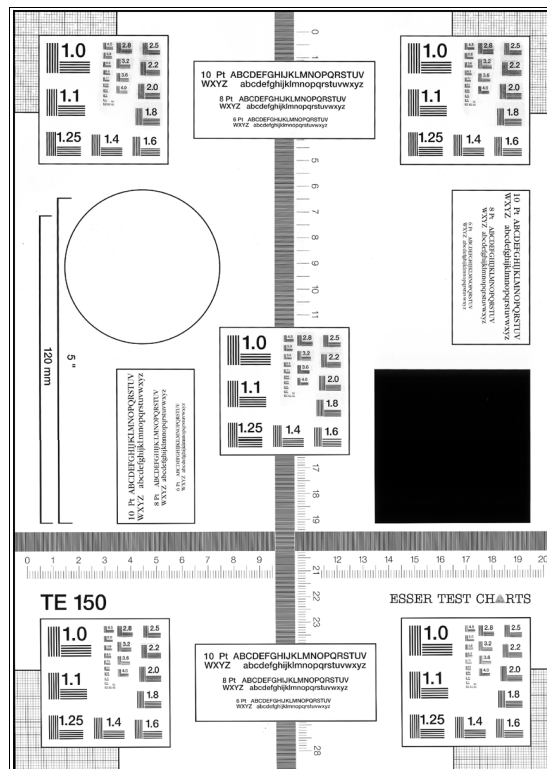




TEST CHART FOR ROTATIVE SCANNING

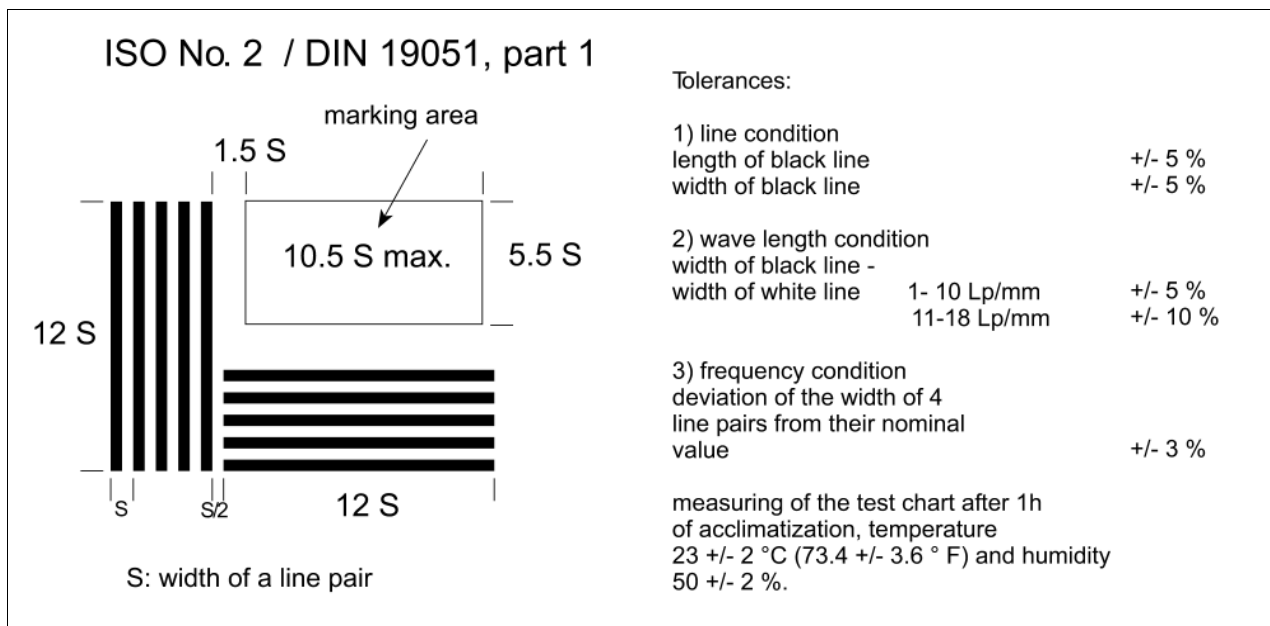
REFLECTANCE



The test chart can be supplied as a foil or a reflectance chart, alternatively positive (see fig.) or negative. The foil is available in 0.10 or 0.18mm thickness. Image size is 297x210mm (DIN A4), external size is 303x216 +/- 1 mm.

The test chart is composed of

- 5 test arrays with ISO test pattern no. 2
- a line grid of 7.5 mm width with 2 lp/mm, each in horizontal and vertical direction
- a mm measuring scale of 21 resp. 28 cm length in horizontal and vertical direction each
- a circular transparent (white) and a square opaque (black) area
- 4 text fields in different type in 3 different type sizes each
- two vertical length markings of 120 mm and 5"
- mm-grids of 40 mm side length in the 4 image corners



The ISO test pattern no. 2 consists of 26 groups of 2 x 5 line pairs which are arranged at right angle to each other. The line pairs have a nominal value of 1.0 to 18 lp/mm. The nominal value increases by factor 1.225 ($\sqrt[6]{2}$) from one group to the other, i.e. the lp/mm value doubles after each 6 groups.

The test chart fulfills the three conditions that are given in ISO/DIN 19051 (see box above)*.

The test pattern is designed for assessment of the image quality of scanning devices.

Note: The line pairs with the width S can be equated to the local frequencies with the wavelength $\lambda = S$ according to the transmission gamma. The measured limit of the local frequencies allows the determination of a characteristic value for the resolution power (in lp/mm) for a micro image.

The line grid and the mm measuring scale serve to assess possible distortion during scanning. The line grid makes distortions optically visible, with the mm scale they can be measured.

The circular transparent (white) and the square opaque (black) areas serve to measure the density of the image.

The text fields allow assessment of text reproduction of the image. A secondary bold grotesque type (sans serif) and a roman type are used. The type sizes are 10.08 and 6 point. The type sizes follow the American point system.

The length marking of 120 mm resp. 5" are used to check reduction ratio selected for the image. The mm grids in the corners allow the assessment of distortions at the image edges.

Densities of the test chart are:

transparent test foil: transparent image areas 0.04; black image areas > 3.0
reflectance test chart: picture white 0.07, black 1.6

* On the test chart TE150 the ISO test pattern shows the following deviations (within the allowable tolerance): The length of the bars is 11.75 S. The marking group "1.25" exceeds the maximum width of 10.5 S.