Table 2:

Conversion of screen dot enlargement percentage for various screen widths, based on measurement values from 60 line screen

Screen width	Screen dot enlargement	
40 lines/cm	measured value 60 line screen minus 1/3	(-33%)
48 lines/cm	measured value 60 line screen minus 1/5	(-20%)
54 lines/cm	measured value 60 line screen minus 1/10	(-10%)
70 lines/cm	measured value 60 line screen plus 1/6	(+16%)
80 lines/cm	measured value 60 line screen plus 1/3	(+33%)
90 lines/cm	measured value 60 line screen plus 1/2	(+50%)
100 lines/cm	measured value 60 line screen plus 2/3	(+66%)
120 lines/cm	measured value 60 lines doubled	(+100%)

Most important surface increase with largest dots

The question of at what tone step screen dot enlargement is most important can be answered here. Since dot enlargement is directly dependent on the length of the outline, it follows that the highest percentage of dot enlargement is found with the biggest screen dots. And screen dots reach their maximum surface just before they get in touch with each other. Marginal areas reach their largest extent during the contact phase and will then diminish again. The point of maximum marginal area depends on the shape of the screen dots. Square screen dots in connected dots join at 5%. Circular dots can still be detached at 70%. Theoretical junction of round screen dots occurs at the surprisingly high level of 78,5. Elliptical screen dots with their typical two-stage connection have a rather low maximum of marginal areas. Line screens do not have a maximum marginal area. Table 2 visualizes the different lengths of marginal areas of the various screen dots from 5% to 95%. The dot shapes as there are, circular and square, roughly correspond to a standard screen structure of connected dots.