

SERIAL NUMBER:

QUALITY CONTROL:

PERFORMANCE DATA OF ANTI-SCATTER GRIDS:

In publication IEC 60627 2001 Second Edition definitions, determination and indication of characteristics of anti-scatter grids are described.

All our grids comply to this standard.

Engraved on the grids are:

- number of strips per centimeter
- grid ratio (r)
- focusing distance (fo) in centimeters
- serial number and type number

Absorber material:

Our grids are manufactured with lead strips.

Interspace material:

The interspace material is fiber

Table 1

Linerate (l/cm) /ratio	Tp	B (±10%)	K (±10%)	S (±10%)	Q (±10%)
25 / 15	66%	7.1	4.7	12.4	3.1
36 / 8	76%	4.5	3.4	5.9	2.6
36 / 10	76%	5.0	3.8	7.2	2.9
36 / 12	75%	5.5	4.1	8.6	3.1
36 / 21	70%	6.7	4.7	11.9	3.4
40 / 8	78%	4.3	3.4	5.6	2.6
40 / 10	77%	4.7	3.6	6.4	2.8
40 / 12	75%	5.2	3.9	7.8	2.9
40 / 15	74%	5.8	4.3	9.7	3.1
44 / 8	78%	4.1	3.2	5.0	2.6
44 / 10	77%	4.7	3.6	6.4	2.9
44 / 12	75%	5.2	3.9	7.9	3.0
44 / 15	74%	5.7	4.2	9.4	3.1
50 / 10	73%	4.9	3.6	6.5	2.6
50 / 12	72%	5.6	4.0	8.5	2.9
52 / 10	73%	5.0	3.6	6.7	2.6
52 / 12	72%	5.7	4.1	8.7	2.9
60 / 10	72%	5.3	3.8	7.4	2.7
60 / 13	71%	5.7	4.1	8.5	2.9
60 / 15	70%	6.1	4.2	9.7	2.9
70 / 13	72%	5.1	3.7	6.8	2.7
70 / 17	71%	5.7	4.1	8.8	2.9
80 / 15	70%	5.4	3.8	7.3	2.6

Primary Transmission, Bucky factor, Contrast Improvement, Selectivity, (Tp, B, K, S, Q) see table 1.

The primary, total and scatter transmission (Tp, Tt and Ts) are measured according to IEC 60627.

Contrast improvement ratio K: (contrast factor)

$$K = \frac{\text{Transmission of primary radiation}}{\text{Transmission of total radiation}} = \frac{T_p}{T_t}$$

Selectivity S:

$$S = \frac{\text{Transmission of primary radiation}}{\text{Transmission of scattered radiation}} = \frac{T_p}{T_s}$$

Grid exposure factor B: (Bucky-factor)

$$B = \frac{1}{\text{Transmission of total radiation}} = \frac{1}{T_t}$$

Grid Quality factor Q:

$$Q = K \times T_p$$

Application limits

These are the focus distance limits for use of a grid, where the loss of primary radiation at the edge of the grid is less than 40%, compared to the primary radiation at the grid centre.

The limits are a function of grid width, focusing distance and grid ratio.

For the various grid ratios, dimensions and focusing distances the application limits are shown in table 2.

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Application Limits

Table 2

Ratio 6 : 1	Grid Width					
	f0	18 cm	24 cm	30 cm	36 cm	43 cm
80 cm	50 - 196 cm	55 - 144 cm	59 - 124 cm	62 - 114 cm	64 - 106 cm	
100 cm	57 - 386 cm	64 - 225 cm	69 - 180 cm	73 - 159 cm	76 - 145 cm	
140 cm	69 - ∞ cm	79 - 630 cm	86 - 371 cm	92 - 291 cm	98 - 247 cm	
180 cm	77 - ∞ cm	90 - ∞ cm	100 - 90 cm	108 - 540 cm	116 - 407 cm	

Ratio 8 : 1	Grid Width					
	f0	18 cm	24 cm	30 cm	36 cm	43 cm
80 cm	55 - 144 cm	60 - 120 cm	63 - 109 cm	65 - 103 cm	67 - 98 cm	
100 cm	64 - 225 cm	71 - 171 cm	75 - 150 cm	78 - 138 cm	81 - 130 cm	
140 cm	79 - 630 cm	88 - 336 cm	95 - 263 cm	101 - 229 cm	106 - 208 cm	
180 cm	90 - ∞ cm	103 - 720 cm	113 - 450 cm	120 - 360 cm	127 - 310 cm	

Ratio 10 : 1	Grid Width					
	f0	18 cm	24 cm	30 cm	36 cm	43 cm
80 cm	59 - 124 cm	63 - 109 cm	66 - 102 cm	68 - 97 cm	70 - 94 cm	
100 cm	69 - 180 cm	75 - 150 cm	79 - 136 cm	82 - 129 cm	84 - 123 cm	
140 cm	86 - 371 cm	95 - 263 cm	102 - 223 cm	107 - 203 cm	111 - 189 cm	
180 cm	100 - 900 cm	113 - 450 cm	122 - 346 cm	129 - 300 cm	135 - 271 cm	

Ratio 12 : 1	Grid Width					
	f0	18 cm	24 cm	30 cm	36 cm	43 cm
80 cm	62 - 114 cm	65 - 103 cm	68 - 97 cm	70 - 94 cm	71 - 91 cm	
100 cm	73 - 159 cm	78 - 138 cm	82 - 129 cm	84 - 123 cm	87 - 118 cm	
140 cm	92 - 291 cm	101 - 229 cm	107 - 203 cm	111 - 189 cm	115 - 179 cm	
180 cm	108 - 540 cm	120 - 360 cm	129 - 300 cm	135 - 270 cm	141 - 250 cm	

Ratio 14 : 1	Grid Width					
	f0	18 cm	24 cm	30 cm	36 cm	43 cm
80 cm	64 - 107 cm	67 - 99 cm	69 - 94 cm	71 - 92 cm	72 - 90 cm	
100 cm	76 - 147 cm	81 - 131 cm	84 - 124 cm	86 - 119 cm	88 - 115 cm	
140 cm	97 - 252 cm	105 - 210 cm	111 - 191 cm	115 - 180 cm	118 - 172 cm	
180 cm	115 - 420 cm	126 - 315 cm	134 - 274 cm	140 - 252 cm	145 - 237 cm	