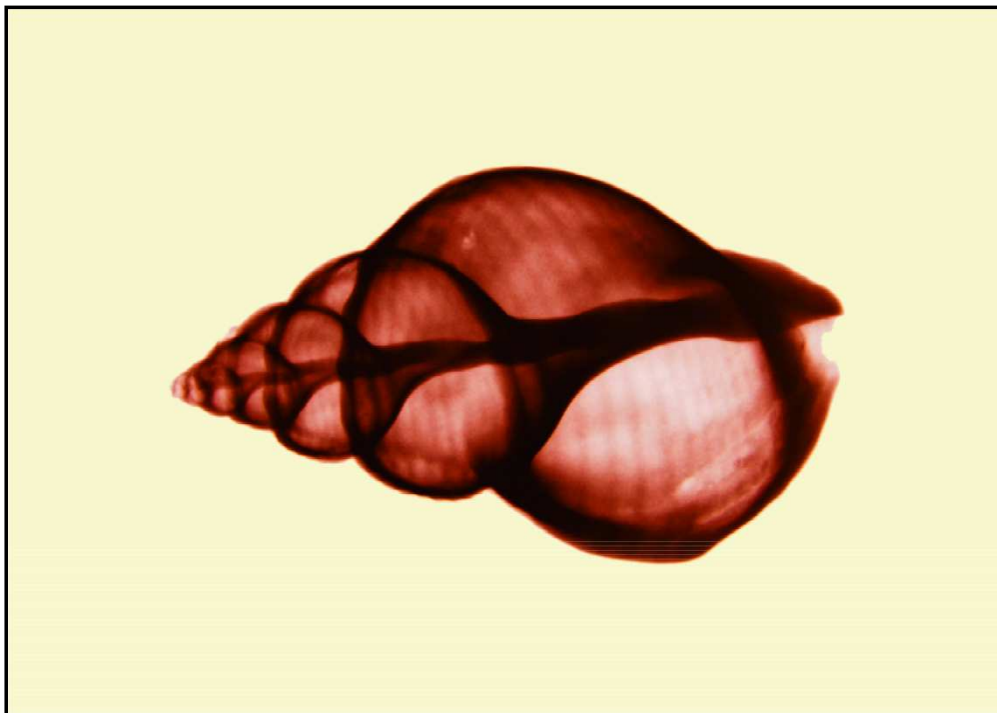


CAWO Secondary Radiation Grids



...realising optimum x-ray image quality

 **Solutions**

Focused grids

L/cm	Ratio	FFD
30	8	105, 180
30	10	105, 180
40	8	105, 180
40	10	105, 180
40	12	105, 180
70	8	105, 180
70	10	105, 180
70	12	105, 180
70	16	105, 180

Parallel grids

L/cm	Ratio	FFD
30	6	∞
30	8	∞
40	8	∞
40	10	∞
70	6	∞

Secondary radiation grids

The use of a grid to eliminate scattered radiation is an important way of achieving optimum image quality. The CAWO full metal grids consist of a series of absorbent lead strips interspaced by aluminium strips. Primary radiation will, provided a perfect alignment between x-ray source and grid, pass unhindered onto the image receptor while the scattered radiation to a large extent will be absorbed by the grids lead strips. The number of strips and the height and distance (e.g. ratio) between lead strip and interspace medium will determine the performance of the grid. CAWO secondary radiation grids are among the best available in the world.

A perfectly aligned focused grid will provide the most effective means of absorbing scatter radiation. This is however not always possible to obtain. In that situation CAWO will offer the best possible alternative solution - the parallel grid. That grid is more forgiving to a slight misalignment. By allowing a relatively large film/focus distance the parallel grid will provide a very satisfactory result.

In the case of stationary grids CAWO recommends the use of a grid with a high number of lines (70 lines/cm or more) in order to eliminate a disturbing gridline pattern to be visible on the image. In addition, a high line grid will, in most cases, help eliminating moiré pattern that sometimes appear on digital radiography (DR) images.

Minimum and maximum focus grid distances according to IEC 60627 for focused grids

Width	Ratio 8	Ratio 8	Ratio 10	Ratio 10	Ratio 12	Ratio 12
	FFD 105	FFD 180	FFD 105	FFD 180	FFD 105	FFD 180
18 cm	66-250		71-198	100-900	76-172	108-545
24 cm	73-187	103-720	78-162	112-450	81-148	120-360
30 cm	77-162	112-450	82-146	122-346	85-136	129-300
35 cm	81-150	199-370	85-138	128-305	87-131	134-273
43 cm	84-139	127-310	88-130	135-269	90-125	141-250

Thickness of secondary radiation grids in mm

	Ratio 6	Ratio 8	Ratio 10	Ratio 12	Ratio 16
N30	2.25	2.75	3.25		
N40	1.80	2.15	2.55	2.95	
N70	1.20	1.40	1.55	1.75	2.20

L/cm:

Lines per cm

FFD:

Film-Focus-Distance

Conformity: CAWO X-ray cassettes and secondary radiation grids comply with the requirements of the Council Directive 93/42/EEC concerning medical devices and carry the CE label.