

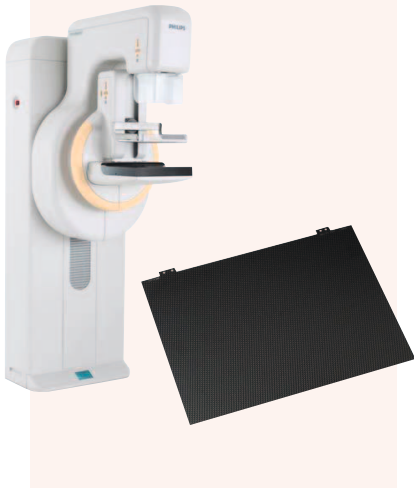
Grid application areas

Moving grids (bucky systems)

Static images

Mammo bucky

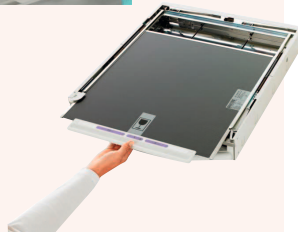
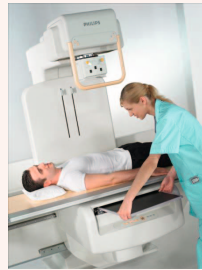
- 31 lp/cm or 41 lp/cm
- R 5:1 or R 6:1
- FFD appr: 60/65 cm.



General rad bucky

Film / CR / DR

- 36 lines/cm
- R 8:1/10:1/12:1
- FFD 80-280 cm.



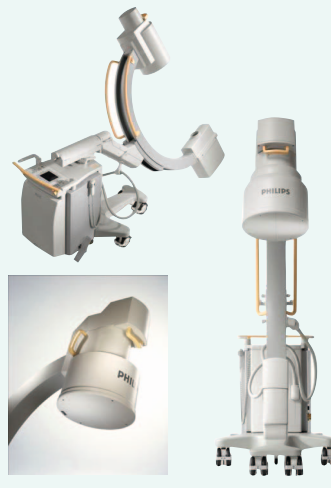
Stationary grids

Static and dynamic images

Image Intensifiers

Fluoroscopy, lithotripsy or surgery C-arms: Circular grids

Mostly 9" or 12" sizes surgery 16" often for Urology II's



DR / CR

Flat panel detectors (DR) / Computed Radiography (CR)

High line grids, or low line grids with software correction

Grid depending on:

- Pixelsize/Resolution (#pixels/cm or inch)



Film

Rarely without bucky.

Fiberspacer: For high X-ray transparency = higher SNR

Frame: most common = 10 mm. aluminum frame around: e.g. effective area 430x430 mm. means gross dimensions of 450x450 mm.

Minimum frame width to guarantee protection is 6-7 mm. / mammo has only 3-sided frame, 1 side is epoxy layer

Carbon fiber (cf) cover: more rigid and 3-5% better x-ray transparency than aluminum cover

Painted (lacquering) grid: 0,5% more absorption, color is in 98% of the cases mushroom because that's general system color

Centerline: Indicates center grid line, can be painted on lacquered or non-lacquered grid

Ratio: depending on application, higher ratio means better absorption

$$\text{Ratio} = \frac{h}{D} = \frac{1,5 \text{ mm}}{0,3} = 5$$