DUPLEX IQI DLP

Duplex Plate Type IQI - DLP10

Total Image Unsharpness Gage for High Energies according to ASTM E3388



Evaluation of basic spatial resolution and unsharpness of digital images exposed with high energy sources

KOWOTEST
Suppliers of Equipment for Inspection

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Image Quality Indicator for evaluation of Basic Spatial Resolution

The Duplex Plate Type IQI is designed for determining Image Unsharpness and Basic Spatial Resolution in Radiography and Radioscopy according to ASTM E3388.
Applications are same as for Duplex Wire Type IQI but for high energies generated by Linac, Betratron and gamma sources.

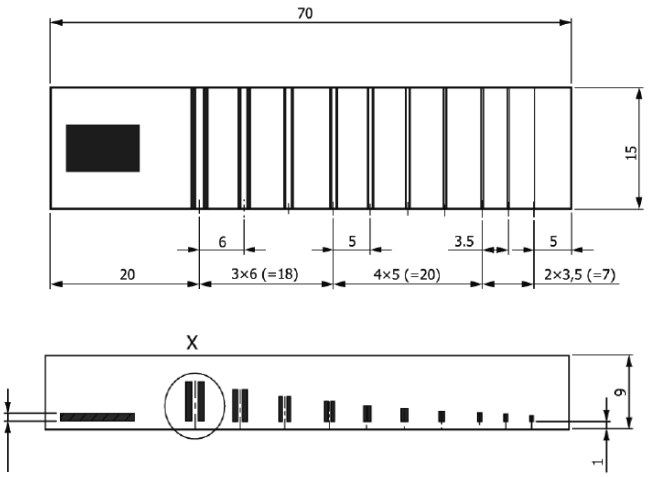
Image evaluation with Duplex Plate Type IQI - DLP10

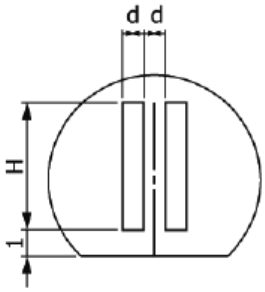
In radiography the plate pair with largest width d has to be identified, which cannot be separated visually.
The radiographic film may be magnified up to 4X.
In digital radiology the separation between plates (Dip) is evaluated. The plate pair with largest d, showing Dip less than 20 percent of the plate pair contrast, identifies total image unsharpness (U = 2d) and basic spatial resolution (SRb = d) of digital image.

Specification:

Duplex Plate Type IQI - DLP10 consists of plate pairs DP1 to DP10
Material for plates DP1 to DP10 is platinum (Pt)
Distance between plates of each plate pair equals exactly width of plates
Plates are casted in a transparent, resistant and dimensional stable plastic
Standard and serial number are indelible casted and shown on each image

DP	H (mm)	d (mm)	U_{lm} (µm)	SR_b (µm)	LP (1/mm)
DP 1	4.80	0.80	1600	800	0.63
DP 2	3.78	0.63	1260	630	0.79
DP 3	3.00	0.50	1000	500	1.00
DP 4	2.40	0.40	800	400	1.25
DP 5	1.92	0.32	640	320	1.56
DP6	1.50	0.25	500	250	2.00
DP 7	1.20	0.20	400	200	2.50
DP 8	0.96	0.16	320	160	3.13
DP 9	0.78	0.13	260	130	3.85
DP 10	0.60	0.10	200	100	5.00





DP Duplex Plate Pair Number
H Plate Height (H = 6 x d)
d Plate Width and Spacing
U_{lm} Corresponding Unsharpness Value
SR_b Corresponding Basic Spatial Resolution
LP Corresponding Line Pair Value (LP per mm)

X Detail X

Duplex Plate Type IQI - DLP10, ASTM E3388

Article No.: 11 00197



Scope of Supply:

Duplex Plate Type IQI - DLP10 in wooden etui
Test Report according to ASTM E3388
Declaration of Conformity according to ISO/IEC 17050-1

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