

Article-No.	Description	
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13 40020

KOWOLUX 3 Film Viewer

High intensity film viewer, 62.000 cd/m² for film densities up to 4.4 D, according to DIN 54116. Screen area is 400 x 85 mm. 1500 W long life halogen lamp. A second lamp lights up via push button if very dark films are viewed. Both main light and basic background light have a stepless intensity control. The main light is switched on-off via a large foot switch. Optical filters keep the film cool. Inside cooling via two thermostatically controlled blowers. One sturdy reduction mask with a viewing area 100 x 480 mm is standard. Masks for other films sizes may be ordered. Masks are held by quick release devices, fitted on viewing area and on rear of housing. Supply required: 230 V / 50 Hz
Size: 520 x 260 x 150 mm, 9 kg



Additional Reduction Mask for K 3

- 13 40023 for Films 6 x 48 cm, area 5 x 41 cm
- 13 40040 for Films 10 x 24 cm, area 8 x 20 cm
- 13 40041 for Films 6 x 24 cm, area 5 x 20 cm
- 13 40045 for Films 7 cm, area 6 x 40 cm

13 40049

Rollfilm Viewing Stand

Winds and unwinds rollfilms up to 5 m long. The two pieces are simply placed right and left of the viewer, the two coils are conveniently rolled by fingertips of the operators hand resting on the viewing table.
Weight : 6 kg

13 40042

Upper Film Guide for K 3 and K 4

attached magnetically above viewing area to guide rollfilms.
Weight: 170 g

13 40048

Mask with Aperture

30 mm Ø is simply placed on ledge of a reduction mask

13 40021

Reduction mask, adjustable diamond shaped window segment for viewing smaller areas
Betrachtung kleiner Filmsegmente. 900 g

13 40022

Spare Lamp for KOWOLUX 3, 1500 W

Article-No.	Description	
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13 40050

KOWOLUX 4 Film Viewer

High intensity film viewer, 50.000 cd/m² for film densities up to 3.7 D, according to DIN 54116. Screen area is 205 x 85 mm. 1000 W very long life halogen lamp. Both main light and basic background light have a stepless intensity control. The main light is switched on-off via a large foot switch or by separate switch for permanent light. Optical filters keep the film cool, inside cooling via one blower. One sturdy reduction mask with a viewing area 200 x 80 mm for films 10 x 24 cm is standard. Supply required: 230 V / 50 Hz
Size : 270 x 230 x 150 mm, 5.25 kg



13 40070

KOWOLUX 4 S Film Viewer

High intensity film viewer, 170.000 cd/m² for film densities up to 4.2 D, according to DIN 54116. Screen area is 205 x 85 mm. Two 1000 W long life halogen lamp. If very dark films are viewed a second lamp lights up via push button. Both main light and basic background light have a stepless intensity control. The main light is switched on-off via a large foot switch or by separate switch for permanent light. Optical filters keep the film cool. inside cooling via one blower. One sturdy reduction mask with a viewing area 200 x 80 mm for films 10 x 24 cm is standard. Supply required: 230 V / 50 Hz
Size : 270 x 230 x 150 mm, : 230 V / 50 Hz



Additional Reduction Mask for K 4

- 13 40055 Reduction mask for films 6/24 cm, area 200 x 50mm
- 13 40053 Reduction mask for films 10/48 cm, area 410 x 80mm
- 13 40054 Reduction mask for films 6/48 cm, area 410 x 50mm
- 13 40058 IRIS-mask with dm of 2 -47 mm adjustable
- 13 40068 Reduction mask for films 7 cm
- 13 40051 Reduction mask, adjustable diamond shaped window segment for viewing smaller areas

13 40042

Upper Film Guide for K 3 and K 4

attached magnetically above viewing area to guide rollfilms.

13 40057

Mask with Aperture

30 mm Ø is simply placed on ledge of a reduction mask



Spare Lamp

- 13 40052 for KOWOLUX 4, 1000 W
- 13 40071 for KOWOLUX 4 S, 1000 W

Article-No.	Description	
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13 40150

KOWOLUX 6 Film Viewer

High intensity film viewer, 31.000 cd/m² for film densities up to 3.5 D, according to DIN 54116. With stepless brightness control, three forced air cooled 1.500 W halogen lamps. High performance optical filters; adjustable, anti-dazzle basic background light intensity; footswitch. The casing is made out of plastic coated chemical resistant steel. Complete with lamps.

Screen area : 270 x 370 mm
 Supply required : 415 V, three phase
 Size : 640 x 410 x 210 mm
 Weight : 29 kg



13 40155

KOWOLUX 6 Film Viewer

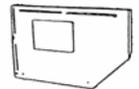
same as Code 13 40150, but with 230 V, one-phase

13 40151

Reduction Mask for KOWOLUX 6

Reduce screen size from 225 x 170 mm to very small screen area.

Abmessungen: 620 x 420 x 40 mm, 6 kg



13 40152

Spare Lamp for KOWOLUX 6

Halogen lamp, 1500 W

13 40170

KOWOLUX 7 Film Viewer

Very high intensity film viewer, 340.000 cd/m² for film densities up to 4.6 D, according to DIN 54116. 650 W halogen lamp.

Stepless control; ventilator. Adjustable anti-dazzle basic background light intensity, adjustable screen circle from 5 - 75 mm, footswitch, ultra high performance optical filters.

The housing has a non-conductive, anti-corrosive coating, inside cooling via one blower. One sturdy

Screen area : IRIS mask 5 to 75 mm Ø
 Supply required : 230 V
 Size : 280 x 260 x 180 mm
 Weight : 5.5 kg



13 40171

Spare lamp for KOWOLUX 7

13 40175

Magnetic Film Guide for K 7

May be set at any distance to the center of the circular screen area. Two magnets are linked by a ledge to hold the film. Weight: 160 g

Article-No.	Description	
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13 40190

Film Viewer Large, Typ L 40

for viewing large sheet films or comparing several smaller films up to density 3.1 according to DIN 54 116. By two horizontal and vertical shutters each the screen may be reduced from 40 x 43 cm to a minute area. Films are held by the top bar or the sliding nylon rope across the screen. Ledge with clip for wet films. 10 fluorescent tubes switched by 4 stage switch.
 Supply required : 180 W, 230 V, 50 Hz
 Luminance : 10.000 cd/qm
 Size : 670 x 640 x 120 mm
 Weight : 28 kg



13 40510

Densitometer X 301, Table Top Model

A precision instrument with a well lit base plate 9 x 21 cm. The depth range is 180 mm. To measure the density of a film placed on the base the head fitted into the measuring arm is pressed down gently. After about one second the 15 mm high LED-display will tell the density. Zero calibration is effected semi-automatically by push button. It may also be set on any point of a step wedge and will then tell the plus or minus deviation. Complete with three apertures (1, 2 and 3 diam.), calibrated step wedge and mains cable 1.4 m long
 Range : 0 - 5 D
 Accuracy : +/- 0.02
 Repeatability : +/- 0.01
 Supply required : 230 V, 80 VA
 Working temp. : + 10 to +40 C°
 Size : 270 x 380 x 160 mm
 Weight : 3.8 kg



13 40520

Densitometer X 331

Small hand-held compact instrument
 Zeroing is automatic on the constant light source inside the lower part of the throat. Films may be inserted in depth of 14 cm either side. By swinging down the upper part of the throat the density is instantly shown on the display.
 Range : 0 - 4 D
 Accuracy : +/- 0.02
 Repeatability : +/- 0.01
 Supply required : 230 V, 80 VA
 Working temp. : + 10 to +40 C°
 Size : 178 x 75 x 50 mm
 Weight : 700 g



Article-No.	Description	
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13 40240 **Measuring Magnifier x10**
 The image of both object and 1 mm scale (with 0.1 mm division) shows equal sharpness and enlargement
 Adjustable eye piece



13 40241 **Measuring Magnifier x8**
 0,1 mm division, 10 mm skale

13 43110 **Hand-Lens, x2.8**
 Aspherical lightweight lens. Supplied complete with black leather case. Mounted in white plastic
 Complete with case

13 43120 **Viewing Goggles, 2.5 fach**
 Light weight adjustable headband and case.
 Foldable lens and light protection from above.
 Arbeitsabstand 180 mm

13 43200 **Film Marking Pens, White**
 Set of three white marking pens to mark radiograph removed by strong rubbing without left overs.



13 43205 **Film Marking Pens**
 set of six pens, each 3 red and yellow

Paper Folds for Film Storage

To insert and store processed films. The orange coloured paper is free from any components that may effect the film over extended periods of storage. It may easily be stamped or signed.
 Lots of 200 each for films of the following sizes

- 13 40318 6 x 12 cm
- 13 40320 6 x 16 cm
- 13 40321 6 x 24 cm
- 13 40319 6 x 32 cm
- 13 40322 6 x 48 cm
- 13 40317 9 x 12 cm
- 13 40328 10 x 12 cm
- 13 40329 10 x 16 cm
- 13 40323 10 x 24 cm
- 13 40324 10 x 48 cm
- 13 40326 18 x 24 cm
- 13 40327 24 x 30 cm
- 13 40325 30 x 40 cm

Protective Pockets for Storage

For the long time storage of radiographs.
 Sold in lots of thousands. For film sizes:

- 13 40300 6 x 24 cm 1000 Stück
- 13 40302 6 x 48 cm 1000 Stück
- 13 40304 10 x 24 cm 1000 Stück
- 13 40305 10 x 48 cm 1000 Stück
- 13 40307 30 x 40 cm 1000 Stück



Article-No.	Description	
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- 13 40234 **IIW-Catalogue, Steel acc. to ISO 5817**
 Ring binder contains 67 radiographs cards acc. to ISO 5817.
 The front side of each card shows in the center a radiograph
 (225 x 50 mm) and one or two macrographs (45 x 35 mm)
 showing the cross-section of the weld.
 Three languages D/E/F.
- 13 40239 **DVS-Reference Catalogue AL**
 Reference cards with interpretation of butt welds radiographs
 for aluminium materials acc. to EN 30 042 / ISO 10042
- 13 40235 **Reference Catalogue Cast Iron**
 30 radiographs of vessels and specimen produced of
 lamellar graphite cast iron show flaws and three major
 inhomogenities, each graded into six categories.
 Useful to agree on quality specs and for film evaluation.
 Radiographs are in cards 210 x 300 mm.
 Cards are held in strong document case.
- 13 40218 **Reference Catalogue ASTM E 155**
 Ring binders with radiographs of light alloys up to
 50 mm thick. Severity of faults in steps and markings are shown.
Volume 1
 23 radiographs divided in two sections,
 one for aluminium, one for magnesium.
- 13 40222 **Volume 2**
 Four cards with radiographs of magnesium
 castings. Each card showing 8 stages of flaw severities.
- 13 40213 **Reference Catalogue ASTM E 186**
 Published by the American Society for Testing and Materials.
 Each ring binder contains 40 radiographs of steel castings
 with wall thickness from 50 to 120 mm. The radiographs are
 accompanied by notes giving exposure data, typical fault
 descriptions and evaluations.
- 13 40214 **Volume 1**
 Reference radiographs taken with Ir-192
 or X-Ray to 1 MeV.
- 13 40215 **Volume 2**
 Reference radiographs taken with X-Ray
 from 1 MeV - 2 MeV.
- 13 40215 **Volume 3**
 Reference radiographs taken with X-Rays
 from 4 MeV - 30 MeV.

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Reference Catalogue ASTM E 280

Published by the American Society for Testing and Materials. Each ring binder contains 37 radiographs of steel castings with wall thickness from 115 to 300 mm. The radiographs are accompanied by notes giving exposure data, typical fault descriptions and evaluations

13 40216

Volume 1

Reference radiographs taken with Co-60 or X-Ray to 2 MeV.

13 40217

Volume 2

Reference radiographs taken with X-Ray from 4 - 30 Mev

Reference Catalogue ASTM E 446

Published by the American Society for Testing and Materials. Each ring binder contains 34 radiographs of steel castings with wall thickness up to 50 mm. The radiographs are accompanied by notes giving exposure data, typical fault descriptions and evaluations.

13 40219

Volume 1

Reference radiographs taken with X-Ray in the range of 250 keV

13 40220

Volume 2

Reference radiographs taken with Ir-192

13 40221

Volume 3

Reference radiographs taken with Co-60

13 40223

Reference Catalogue ASTM E 272

Ring binder with reference radiographs for high-strength copper base and nickel-copper alloy castings. Defects are illustrated and graded according to severity levels. 20 radiographs up to 2" thickness made by X-Ray or Ir-192. 25 apply to 2-6" thickness and are made with 2 MeV or Co-60. Altogether 45 radiographs in groups of five.

13 40224

Reference Catalogue ASTM E 310

Ring binder with reference radiographs of tin bronze castings. 15 are of 1" castings and 7" and 3/4" castings. Covers defects according to those specified in MIL-B 16541, B 16444 and B 16567. Altogether 22 radiographs.

13 40210

Reference Catalogue ASTM-E 1648

Ring binder with reference radiographs of Aluminium welds 39 cards up to 19 mm wall thickness.

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Reference Catalogue ASTM E 390

Reference radiographs for steel fusion welds. These three volumes of reference radiographs are based on seven nominal weld thickness and are applicable to seven thickness range. They may be used with contractual specifications. Each ring binder contains illustrations of representative graded and ungraded discontinuities that might be experienced in steel fusion welding practice.

13 40225

Volume 1

16 plates (8.5 x 11") covers base material up to and including 1/4" (6.3 mm) in thickness

13 40226

Volume 2

29 plates (8.5 x 11") covers base material over 1/4" up to and incl.3" (6.3 - 76.2 mm) in thickness

13 40227

Volume 3

32 plates (8.5 x 11") covers base material over 3" up to and incl.8" (76.2 - 203.2 mm) in thickness

13 40228

Reference Catalogue ASTM E 242

Ring binder with 36 reference cards. Reference radiographs for appearance of radiograph images as certain parameters are changed

13 40229

Reference Catalogue ASTM E 192

18 reference radiographs for investment steel castings for aerospace applications

13 40230

Reference Catalogue ASTM E 505

Reference radiographs for inspection of aluminium and magnesium die castings.

Reference Catalogue ASTM E 802

Reference radiographs for gray iron castings up to 4 1/2" (114 mm) in thickness

Ordner 37,5 x 43 cm unterteilt nach Strahlenquellen.

13 40231

Volume 1 Medium voltage (nominal 250 keV) X-rays

13 40232

Volume 2 Iridium-192 radiation

13 40333

Volume 3 Cobalt-60 radiation

Reference Catalogue ASTM-E 1320

Reference radiographs for Titanium-castings

13 40211

Volume 1 17 cards each 8 references for wall thickness up to 25 mm

13 40212

Volume 2 8 cards each 8 references for wall thickness up to 25 - 50 mm