



INDUSTRIAL MICROSCOPES

2010

OPTIKA

M I C R O S C O P E S

I T A L Y



 **LAB SERIES** - Entry-level professional stereomicroscopes

 **SZM SERIES** - Professional stereozoom microscopes

 **SZR SERIES** - Laboratory stereozoom microscopes

 **MODULAR SERIES** - Modular stereozoom microscopes for Industry

 **SZM-SMD** - Stereozoom Microscope for SMD Inspection

 **ACCESSORIES** - Illumination and Sample Positioning

 **OPTIGEM** - Gemological Stereomicroscopes

 **INDUSTRY SERIES** - Metallurgical and measuring microscopes

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LAB SERIES

Entry-level professional stereomicroscopes



OPTIKA Microscopes belongs to the group “M.A.D. Apparecchiature Scientifiche” and, with its almost 40 years experience in the field of scientific instrumentation, is worldwide known as a leading Company for optical microscopes’ production and distribution.

The Company, a team of 70 people in 3 different European locations, is engaged in the development of new models, production, quality control, sales and after-sales service.

OPTIKA microscopes excellence, concerning quality, innovation, competitive prices and customer assistance, reaches the end users through a wide network of national and international distributors.

LAB SERIES

The series

The LAB series can be considered as the entry-level of the OPTIKA professional stereomicroscopes range. The two models have been designed for end users who need professional quality at low cost.

Optical system

WF10x/20mm widefield eyepieces; LAB 1 with double objectives 2x-4x and LAB 2 with 1x...4x zoom objectives. Higher magnifications are possible by using additional eyepieces and additional lenses.

Specimen stage

Specimen table fitted with a black/white disc, a frosted glass disc for transmitted light and specimen clamps.

Focusing

Focus adjustment by means of a pair of knobs located on each side of the stand.

Head

Binocular heads, 360° rotating, 45° inclined. Interpupillary distance adjustable between 51 and 75 mm. Dioptric compensation adjustable on the eyepiece tube (LAB 2: on both eyepiece tubes).

Illuminator

Double illuminator for incident and transmitted light fitted with two 12V/10W halogen bulbs. Brightness control.



LAB SERIES - Technical specifications

Models	Head	Objectives	Working Distance	Illumination
LAB 1	Binocular	2x - 4x selectable by rotating	80 mm	Double for incident and transmitted light. 12V/10W halogen bulbs
LAB 2	Binocular	Continuous increment zoom 1x ...4x	85 mm	Double for incident and transmitted light. 12V/10W halogen bulbs

Heads

Binocular heads, 360° rotating and 45° inclined.

Interpupillary distance

Adjustable between 51 and 75 mm.

Eyepieces

WF10x/20 mm.

Specimen stage

Fitted with a black/white disc and a frosted glass disc for transmitted light with specimen clamps.

Objectives

LAB 1 double 2x-4x that can be selected by rotating the lens body; LAB 2 with continuous increment zoom 1x ...4x.

Focusing

By means of a rack and pinion controlled by a pair of knobs placed on both sides.

Illumination

Double adjustable illuminator for incident and transmitted light fitted with two 12V/10W halogen bulbs. The angle of the incident illumination is adjustable.



LAB-1



LAB-2

LAB SERIES - Accessories



- ST-001 Eyepieces (pair) WF5x/22mm
- ST-002 Eyepieces (pair) WF10x/20mm
- ST-003 Eyepieces (pair) WF15x/15mm
- ST-004 Eyepieces (pair) WF20x/13mm
- ST-005 Micrometric eyepiece WF10x
- ST-023 Additional lens 0,5x for LAB 2 (w.d. 170 mm)
- ST-024 Additional lens 1,5x for LAB 2 (w.d. 42 mm)
- ST-040 Darkfield condenser
- ST-041 Sample clip
- ST-100 Hand moving stage
- ST-032 Eye cups (pair) type 1
- ST-012 White/black object-plate, type 2 dia. 95 mm
- ST-014 Glass stage, type 2, dia. 95 mm
- ST-028 12V/10W halogen bulb
- M-013 12V/10W halogen bulb, with dichroic mirror
- ST-029 Dust cover type 12



SZM SERIES

Professional stereozoom microscopes

OPTIKA

Italian headquarters



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SZM SERIES

THE SERIES

The stereomicroscopes of the SZM series are instruments specifically designed for laboratory and industry applications.

Their optical and mechanical qualities place them at the top of their sought-after category of appliances and the price/quality ratio is exceptionally good. Sharing the same optical system consisting of binocular and trinocular heads with zoom objectives, the four models of the SZM series find their proper application wherever professional instruments are required at a particularly contained cost.

The numerous accessories provide an ample choice of possible configurations and extend the flexible use of the instruments.



SZM-1

Binocular with pillar stand

SZM-2

Trinocular with pillar stand

SZM-3

Binocular with overhanging stand

SZM-4

Trinocular with overhanging stand

SZM SERIES - Technical specifications

Models	Head	Objective	Working Distance	Stand	Illumination
SZM-1	Binocular	0,7 4,5x Zoom	100 mm	Pillar stand	Incident and transmitted 12V/15W halogen
SZM-2	Trinocular	0,7 4,5x Zoom	100 mm	Pillar stand	Incident and transmitted 12V/15W halogen
SZM-3	Binocular	0,7 4,5x Zoom	100 mm	Overhanging	-----
SZM-4	Trinocular	0,7 4,5x Zoom	100 mm	Overhanging	-----

Heads

Binocular and trinocular 360° rotating and 45° inclined.

Interpupillary distance

Adjustable between 51 and 75 mm.

Dioptric compensation

On both eyepiece tubes (bino & trino).

Eyepieces

EWF10x/20 mm

Objectives

Parafoveal achromatic zoom 0,7x...4,5x (6,428:1 zoom factor).

Specimen stage:

Models with illumination are fitted with a black/white disc for contrast, specimen clamps and a frosted glass disc for transmitted light.

Focusing

By means of a rack and pinion controlled by a pair of knobs placed on both sides.

Microscope stand

Pillar stand 30 mm and 25 cm high, base 26x20x6h cm.
Overhanging stand 42 cm high, 23x23 cm base and 45 cm horizontal arm length.

Illumination

Double adjustable illuminator for incident and transmitted light fitted with two 12V/15W halogen bulbs. The angle of the incident illumination is adjustable.

SZM-2



SZM-3



SZM SERIES - Accessories



- ST-081 Eyepieces (pair) WF10x/20 mm
- ST-082 Eyepieces (pair) WF15x/15 mm
- ST-083 Eyepieces (pair) WF20x/10 mm
- ST-084 Micrometric eyepiece WF10x/20 mm
- ST-085 Additional lens 0,5x (w.d. 165mm)
- ST-091 Additional lens 0,75x (w.d. 117mm)
- ST-086 Additional lens 1,5x (w.d. 47mm)
- ST-087 Additional lens 2x (w.d. 26mm)
- ST-088 Polarising set (filters and rotating stage)
- ST-040 Darkfield condenser
- ST-041 Sample clip
- ST-100 Hand moving stage
- ST-089 Reflex camera adapter
- ST-090 CCD camera adapter (for 1/3" sensors)
- ST-090.1 CCD camera adapter (for 1/2" sensors)
- ST-036 Eye cups (pair) type 2
- ST-012 White/black object-plate, type 2 dia. 95 mm
- ST-014 Glass stage, type 2, dia. 95 mm
- ST-038 Halogen bulb, 12V/15W
- ST-037 Halogen bulb, 12V/15W, with dichroic mirror
- ST-033 Dust cover type 13



SERIE SZR

Stereomicroscopi da laboratorio

Italian headquarters



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SZR SERIES

THE SERIES

The SZR stereomicroscope series is specifically intended for research workers. Its functional features and its optical and mechanical qualities make it a reference point in the scientific research instruments market. It comprises 14 models typified by the technical solutions devised to meet the specific needs of the user.

The binocular and trinocular heads provided with zoom optics represent the heart of the SZR series. These are backed by numerous types of bases and stands suitable for any type of use. A wide range of accessories considerably increases the potential of these instruments.



SZR SERIES - Technical specifications

Part	Description
Heads	Bino or trinocular, 360° rotating and 45° inclined.
Interpupillary distance	Adjustable between 52 and 75 mm.
Dioptic compensation	On both eyepiece tubes.
Eyepieces	EWF10x/22mm, high-point type for glasses.
Working distance	110 mm.
Objective	Parfocal achromatic zoom 0,67x...4,5x with continuously variable magnification (max. 45x in the standard configuration, can be increased to 180x).
Specimen stage	Except overhanging models, the instruments are fitted with a black/white disc for contrast and specimen clamps. Models with transmitted illumination also fitted with frosted glass disc.
Focusing	By means of rack and pinion system, controlled by a pair of knobs.
Illumination	12V/15W halogen bulbs with light intensity adjustments. SZR-9 and SZR-10 models are the only ones with built-in illumination system. All others models with illumination have a system based on external power supply unit.
Stands	The series have 5 kinds of stands for every requirement. Simple for vision without transmitted illumination; simple + trans-illuminator base for incident and transmitted illumination; with incorporated illumination system in the base; the last ones with overhanging stands (simple or hinged), that allow very large objects to be viewed and to be handled or worked.

The models

Model	Head	Eyepieces	Objective	Stand	Illuminator (s)
SZR-1	Binocular	EWF10x/22	0,67...4,5x	Simple base	-----
SZR-2	Trinocular	EWF10x/22	0,67...4,5x	Simple base	-----
SZR-3	Binocular	EWF10x/22	0,67...4,5x	Simple base	Incident halogen 12V/15W, external power supply
SZR-4	Trinocular	EWF10x/22	0,67...4,5x	Simple base	Incident halogen 12V/15W, external power supply
SZR-5	Binocular	EWF10x/22	0,67...4,5x	Trans-illuminator base	Incid. or transm., halogen 12V/15W, external power supply
SZR-6	Trinocular	EWF10x/22	0,67...4,5x	Trans-illuminator base	Incid. or transm., halogen 12V/15W, external power supply
SZR-7	Binocular	EWF10x/22	0,67...4,5x	Trans-illuminator base	Incid. and transm., halogen 12V/15W, external power supply
SZR-8	Trinocular	EWF10x/22	0,67...4,5x	Trans-illuminator base	Incid. and transm., halogen 12V/15W, external power supply
SZR-9	Binocular	EWF10x/22	0,67...4,5x	Pillar, base with illuminators	Incid. and transm., halogen 12V/15W, internal power supply
SZR-10	Trinocular	EWF10x/22	0,67...4,5x	Pillar, base with illuminators	Incid. and transm., halogen 12V/15W, internal power supply
SZR-11	Binocular	EWF10x/22	0,67...4,5x	Simple overhanging	-----
SZR-12	Trinocular	EWF10x/22	0,67...4,5x	Simple overhanging	-----
SZR-13	Binocular	EWF10x/22	0,67...4,5x	Hinged overhanging	-----
SZR-14	Trinocular	EWF10x/22	0,67...4,5x	Hinged overhanging	-----

SZR SERIES



SZR-2



SZR-6



SZR-10

SZR SERIES

SZR-12



SZR-14



SZR SERIES**Photo/video applications**

For microphotography with SRL 35mm type or digital type cameras, a model fitted with a trinocular head and the following optional accessories are required for taking pictures:

- SRL 35mm cameras: SZ-PH (photo tube, adapter for T/2 ring and 4x photo eyepiece). Purchase of the T/2 ring suitable to the type of SRL camera used is also indispensable.

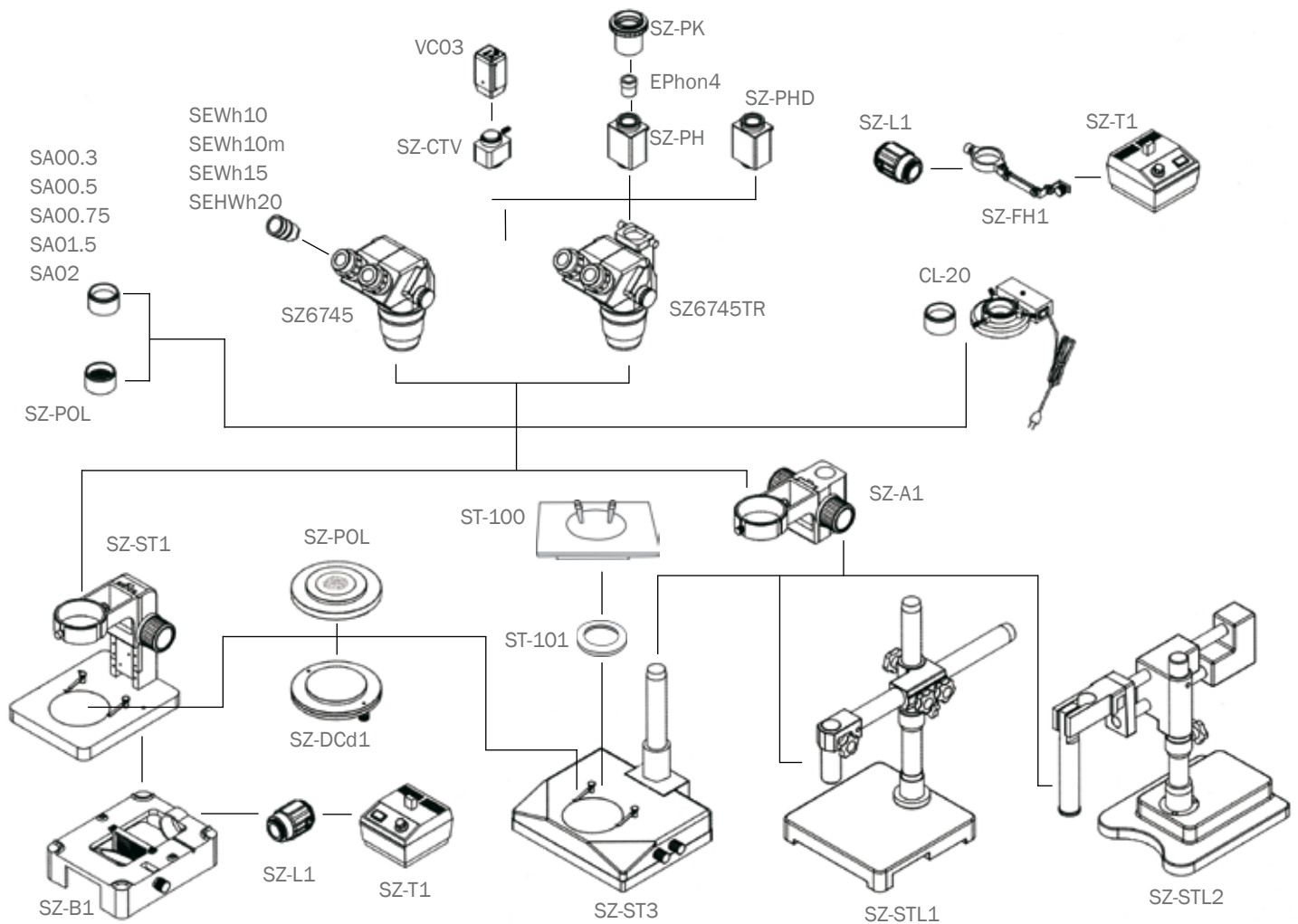
- DIGI digital camera set: SZ-PHD tube adapter. The optical adapter is included in DIGI set. For video microscopy, a model fitted with a trinocular head and the following optional accessories are required for shooting with a CCD video camera: SZ-CTV CCD camera adapter and VC03 high-resolution CCD colour video camera. VC03 is supplied complete with built-in transformer, monitor connection cable, SCART adapter for TV connection and instruction manual.



SZR SERIES - Optional accessories and spare components

Optional accessories

A wide range of optional accessories is available in order to extend the possibilities offered by the SZR series instruments: additional optics; accessories for all photography/video applications, including the possibility of using DIGI digital camera set; darkfield & polarizing light.



SZR SERIES - Accessories



SZ6745	Zoom binocular head, with eyepieces
SZ6745TR	Zoom trinocular head, with eyepieces
SZ-ST1	Simple base
SZ-B1	Slide projection base
SZ-ST3	Pillar stand
SZ-STL1	Simple overhanging stand
SZ-STL2	Hinged overhanging stand
SZ-A1	Focusing system
SZ-DCd1	Darkfield condenser
SZ-POL	Polarising set (filters and rotating stage)
SZ-L1	12V/15W halogen illuminator
SZ-FH1	Arm for illuminator SZ-L1
SZ-T1	Transformer for SZ-L1
SZ-PH	Photo tube complete with SZ-PK T/2 ring adapter and SEPhon4 photo eyepiece
SZ-PHD	Adapter for digital cameras DIGI series
SZ-CTV	CCD camera adapter
SEWh15	Eyepieces (pair) WF15x/16mm
SEWh20	Eyepieces (pair) WF20x/12mm
SEWh10m	Micrometric eyepiece WF10x/22mm
SA00.3	Additional lens 0,3x (w.d. 287mm)
SA00.5	Additional lens 0,5x (w.d. 185mm)
SA00.75	Additional lens 0,7x (w.d. 120mm)
SA01.5	Additional lens 1,5x (w.d. 49mm)
SA02	Additional lens 2x (w.d. 28mm)
ST-100	Hand moving stage
ST-101	Ring adapter for mounting ST-100 on SZR series
ST-036	Eye cups (pair) type 2
ST-042	White/black object-plate, type 3, dia. 100 mm
ST-043	Glass stage, type 3, dia. 100 mm
ST-038	Halogen bulb, 12V/15W
ST-037	Halogen bulb, 12V/15W, with dichroic mirror
ST-039	Dust cover type 14



MODULAR SERIES

Modular stereozoom microscopes for Industry

OPTIKA

Italian headquarters



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MODULAR SERIES

THE SERIES

The MODULAR series has been designed to match professional needs in industrial fields.

With a wide range of stereozoom heads and special stands, it allows to build your own model on the basis of your own needs.

MODULAR SERIES - Heads

LAB-2BH BINOCULAR STEREOZOOM HEAD

45° inclined, 360° rotatable;
 WF10x/20mm widefield eyepieces;
 Interpupillary distance: 51-75 mm;
 Dioptic adjustment: +/-5 dp;
 1x...4x zoom objective;
 Zoom ratio: 4:1
 Working distance: 85 mm.



LAB-3TH TRINOCULAR STEREOZOOM HEAD

45° inclined, 360° rotatable;
 WF10x/20mm widefield eyepieces;
 Interpupillary distance: 51-75 mm;
 Dioptic adjustment: +/-5 dp;
 1x...4x zoom objective;
 Zoom ratio: 4:1
 Working distance: 85 mm.



EYEPIECES

ST-001 Eyepieces (pair) WF5x/22mm
 ST-002 Eyepieces (pair) WF10x/20mm
 ST-003 Eyepieces (pair) WF15x/15mm
 ST-004 Eyepieces (pair) WF20x/13mm
 ST-005 Micrometric eyepiece WF10x

ADDITIONAL LENSES

ST-023 Additional lens 0,5x for LAB 2 (w.d. 170 mm)
 ST-024 Additional lens 1,5x for LAB 2 (w.d. 42 mm)

PHOTO & VIDEO ADAPTERS

ST-089 SRL Reflex camera adapter
 ST-090 CCD camera adapter (for 1/3" sensors)
 ST-090.1 CCD camera adapter (for 1/2" sensors)



MODULAR SERIES - Heads



SZM-B BINOCULAR STEREOZOOM HEAD

45° inclined, 360° rotatable;
 WF10x/20mm high-point widefield eyepieces;
 Interpupillary distance: 51-75 mm;
 Dioptic adjustment: +/-5 dp;
 0,7x...4,5x zoom objective;
 Zoom ratio: 6,43:1
 Working distance: 100 mm.



SZM-T TRINOCULAR STEREOZOOM HEAD

45° inclined, 360° rotatable;
 WF10x/20mm high-point widefield eyepieces;
 Interpupillary distance: 51-75 mm;
 Dioptic adjustment: +/-5 dp;
 0,7x...4,5x zoom objective;
 Zoom ratio: 6,43:1
 Working distance: 100 mm.

EYEPIECES

- ST-081 Eyepieces (pair) WF10x/20 mm
- ST-082 Eyepieces (pair) WF15x/15 mm
- ST-083 Eyepieces (pair) WF20x/10 mm
- ST-084 Micrometric eyepiece WF10x/20 mm

ADDITIONAL LENSES

- ST-085 Additional lens 0,5x (w.d. 165 mm)
- ST-091 Additional lens 0,75x (w.d. 117 mm)
- ST-086 Additional lens 1,5x (w.d. 47 mm)
- ST-087 Additional lens 2x (w.d. 26 mm)

PHOTO & VIDEO ADAPTERS

- ST-089 SRL Reflex camera adapter
- ST-090 CCD camera adapter (for 1/3" sensors)
- ST-090.1 CCD camera adapter (for 1/2" sensors)



MODULAR SERIES - Heads

SZN-B BINOCULAR STEREOZOOM HEAD

45° inclined, 360° rotatable;
 WF10x/22mm high-point widefield eyepieces;
 Interpupillary distance: 55-75 mm;
 Dioptic adjustment: +/-5 dp;
 0,67x....4,5x zoom objective;
 Zoom ratio: 6,72;
 Working distance: 110 mm.



SZN-T TRINOCULAR STEREOZOOM HEAD

45° inclined, 360° rotatable;
 WF10x/22mm high-point widefield eyepieces;
 Interpupillary distance: 55-75 mm;
 Dioptic adjustment: +/-5 dp;
 0,67x....4,5x zoom objective;
 Zoom ratio: 6,72;
 Working distance: 110 mm.



EYEPIECES

ST-141 Eyepieces (pair) WF10x/22mm
 ST-142 Eyepieces (pair) WF15x/16mm
 ST-143 Eyepieces (pair) WF20x/12mm
 ST-144 Eyepieces (pair) WF25x/9mm
 ST-145 Micrometric eyepiece WF10x/22mm

ADDITIONAL LENSES

SA00.3 Additional lens 0,3x (w.d. 287 mm)
 SA00.5 Additional lens 0,5x (w.d. 185mm)
 SA00.75 Additional lens 0,7x (w.d. 120mm)
 SA01.5 Additional lens 1,5x (w.d. 49mm)
 SA02 Additional lens 2x (w.d. 28mm)

PHOTO & VIDEO ADAPTERS

ST-146 SRL Reflex camera adapter
 ST-147 CCD camera adapter (for 1/3" sensors)
 ST-147.1 CCD camera adapter (for 1/2" sensors)



MODULAR SERIES - Heads

SZP-6 BINOCULAR STEREOZOOM HEAD

30° inclined, 360° rotatable;
WF10x/22mm high-point widefield eyepieces;
Interpupillary distance: 55-75 mm;
Dioptric adjustment: +/-5 dp;
0,8x....5x zoom objective;
Zoom ratio: 6:1;
Working distance: 80 mm.

SZP-8 BINOCULAR STEREOZOOM HEAD

30° inclined, 360° rotatable;
WF10x/22mm high-point widefield eyepieces;
Interpupillary distance: 55-75 mm;
Dioptric adjustment: +/-5 dp;
0,8x....6,4x zoom objective;
Zoom ratio: 8:1;
Working distance: 80 mm.

SZP-10 BINOCULAR STEREOZOOM HEAD

30° inclined, 360° rotatable;
WF10x/22mm high-point widefield eyepieces;
Interpupillary distance: 55-75 mm;
Dioptric adjustment: +/-5 dp;
0,8x....8x zoom objective;
Zoom ratio: 10:1;
Working distance: 80 mm.

EYEPIECES

ST-161	Eyepieces (pair) WF15x/15 mm
ST-162	Eyepieces (pair) WF20x/12 mm
ST-163	Micrometric eyepiece WF10x/22 mm

ADDITIONAL LENSES

ST-165	Additional lens 0,3x (w.d. 280 mm)
ST-166	Additional lens 0,5x (w.d. 165 mm)
ST-167	Additional lens 2x (w.d. 32,5 mm)

PHOTO & VIDEO ATTACHMENTS AND ADAPTERS

ST-170	Photo/Video beam splitter - 1 port
ST-171	Photo/Video beam splitter - 2 ports
ST-172	Iris diaphragm
ST-173	SRL Reflex camera adapter
ST-174	CCD camera adapter (for 1/3" sensors)
ST-175	CCD camera adapter (for 1/2" sensors)



MODULAR SERIES - Stands



ST-150 Large plain stand with head holder and focusing mechanism. Pillar type. Base: 320x280mm; pillar: \varnothing 32x360mm.



ST-151 Large plain stand with head holder and focusing mechanism. LED trans-illuminator with intensity control. Pillar type. Base: 320x280mm; pillar: \varnothing 32x360mm.



ST-152 Large plain stand with head holder and focusing mechanism. Fixed arm type. Base: 320x280mm; fixed arm: 360mm.



ST-153 Large plain stand with head holder and focusing mechanism. LED trans-illuminator with intensity control. Fixed arm type. Base: 320x280mm; fixed arm: 360mm.



SZ-STL1H Simple overhanging stand with head holder. Base dimensions: 230x230mm; pillar: \varnothing 32x380mm; horizontal arm: 430mm.

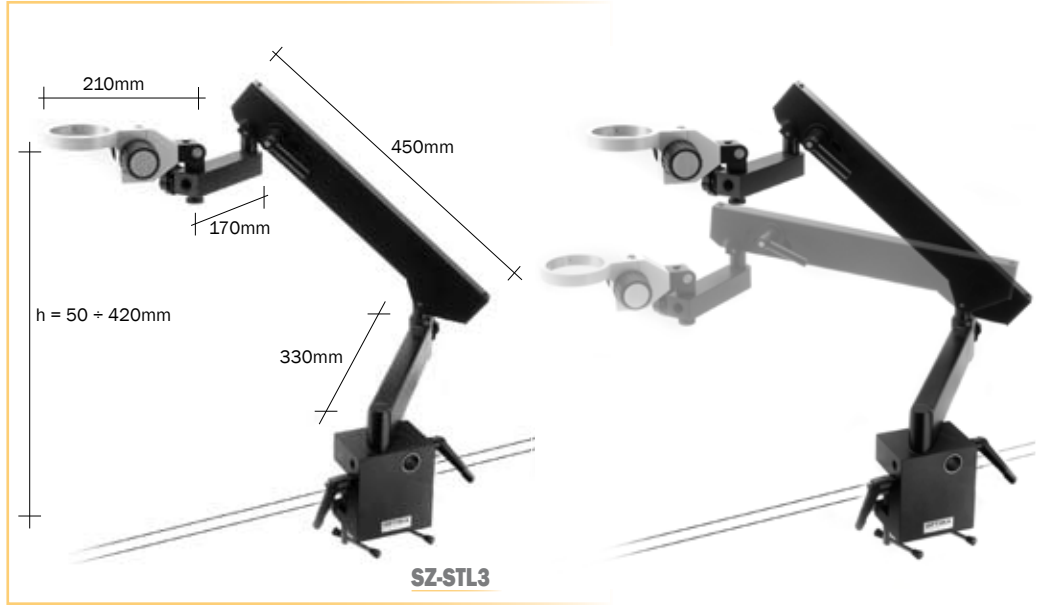


SZ-STL2H Hinged overhanging stand with head holder. Base dimensions: 260x210mm; pillar: \varnothing 32x380mm; horizontal arm: 550mm.

MODULAR SERIES - Stands



SZ-STL3Led



SZ-STL3



SZ-STL4



SZ-STL8

Modern stand with small base. With 2 incident X-LED illuminators on flexible arms.



ST-155 Modern stand with large base. LED trans-illuminator and LED incident illuminator, both with intensity control.

ST-156 Same as ST-155 but with coaxial coarse and fine focusing system.





SZM-SMD

Stereozoom Microscope for SMD Inspection

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SZM-SMD

THE INSTRUMENT

The SZM-SMD has been designed specifically for the inspection of solder connections, rework and repair of electronic circuits and for mounting small electronic components. One-touch sliding movement allows the user to quickly change from vertical to oblique viewing.

SZM-SMD - Technical specifications

SZM-SMD Trinocular Stereozoom Microscope for SMD Inspection

Head:	Trinocular, 45° inclined, 360° rotating
Eyepieces:	WF10X/20mm, high-point
Objective:	Zoom 0,7x...4,5x,
Magnification:	7x...45x
Stand:	Universal overhanging stand
Illumination:	Optional
SMD attachment:	Rotatable 360°. vertical working distance 103mm. Oblique working distance 103mm. With inclination adjusting mechanism.



SZM-SMD - Accessories

EYEPIECES

ST-081	Eyepieces (pair) WF10x/20 mm
ST-082	Eyepieces (pair) WF15x/15 mm
ST-083	Eyepieces (pair) WF20x/10 mm
ST-084	Micrometric eyepiece WF10x/20 mm

PHOTO & VIDEO ADAPTERS

ST-089	SRL Reflex camera adapter
ST-090	CCD camera adapter (for 1/3" sensors)
ST-090.1	CCD camera adapter (for 1/2" sensors)





ACCESSORIES

Illumination and Sample Positioning



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ACCESSORIES

CL-30 2-arm LED illuminator

With 2W high efficiency LEDs.
Light sources: LED (x2);
Chromaticity coordinates (x,y): 0.320, 0.320 (typical);
Luminous flux: 80 lm each arm (typical);
Emission angle: 35°;
Power supply: 12 V DC, 300 mA;
Without Brightness control.

CL-31 2-arm LED illuminator

Same than CL-30, but with Brightness control.



ACCESSORIES

CL-01 Cold light generator

100W cold light generator, extra-high efficiency 12V halogen dichroic lamp. Brightness adjustment on remote control panel.



CL-11 Double-arm optic fiber guide

Length 500 mm, diameter 13 mm. Fitted with two fixed condensers (lenses) at the ends of the arms.



CL-12 Ring optic fiber guide

Length 700 mm, diameter 16 mm. The circular end is suitable for all series, by using the three locking screws. Diameter of the fixing ring: 55mm.



CL-15.1 LED Ring light illuminator

Led ring light illuminator. Suitable for all series. Intensity light control. Diameter of the diameter fixing ring 60mm.



CL-20 Ring light illuminator

Fluorescence ring light illuminator, 8W. Suitable for all series. Diameter of the fixing ring: 60mm.



ACCESSORIES



ST-100 Moving stage

Manual positioning stage, by hand.
Dimensions: 185x145mm.
Range: 56mm (X) x 35mm (Y)



ST-110 Moving stage, with knobs

Manual positioning stage, with knobs for X-Y movements.
Dimensions: 180x155mm.
Range: 75mm (X) x 54mm (Y).



ST-111 Moving stage, with micrometer screws

Manual positioning stage, with micrometer screws.
Dimensions: 185x145mm.
Range: 25mm (X) x 25mm (Y).
Micrometer screws resolution: 0.01mm



OPTIGEM

Gemological Stereomicroscopes

OPTIKA

Italian headquarters



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The Company, a team of 70 people in 3 different European locations, is engaged in the development of new models, production, quality control, sales and after-sales service.

OPTIKA microscopes excellence, concerning quality, innovation, competitive prices and customer assistance, reaches the end users through a wide network of national and international distributors.

OPTIGEM

SZM-GEM-1/2 MODELS

These models are two typical gem microscopes with fixed stand.

A special ultrabright LED-based electronic condenser, with intensity control, and yet always perfectly colour-matched to sunlight, allows to switch from bright to dark field at the flip of a switch.

The condenser uses a novel optical configuration for an impressive dark field usability range, that will make you totally forget those uncomfortable hours spent “looking for light”.



OPTIGEM

Specifications:

Zoom head magnification: 0.7x - 4.5x
(binocular and trinocular).

Trans-Illumination: LED intensity controlled bright field and dark field, both sunlight-matched.

Epi-illumination: 15W halogen, with dichroic mirror.

Eyepieces: WF10x/20mm, high-point type.

Head rotation: 360° rotating.

Gemology clips.

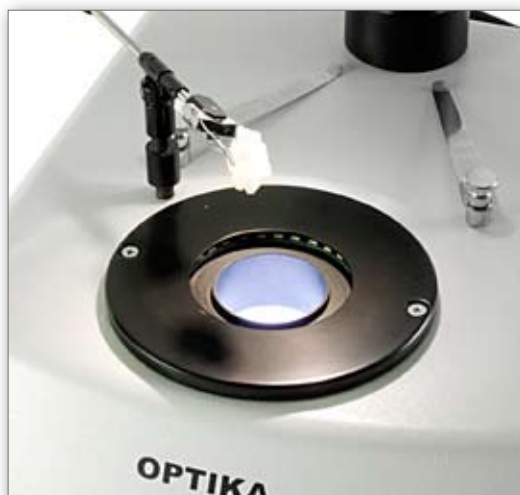
MODELS

SZM-GEM-1: with binocular head

SZM-GEM-2: with trinocular head



SZM-GEM-2



OPTIGEM

OPTIGEM-3/4 MODELS

These models are classic gem microscopes with tilting stand.

The darkfield condenser uses a typical optical configuration, based on an halogen illumination system and a classic reflecting system.

A flexible arm with a fluorescent tube simulates north facing daylight for accurate color grading.



OPTIGEM

Specifications:

Zoom head magnification: 0.67x – 4.5x (binocular and trinocular).

Trans-Illumination: intensity controlled bright field and dark field.
Iris diaphragm mounted on the top of darkfield condenser.

Epi-illumination: fluorescent tube mounted on a flexible arm, sunlight-matched.

Eyepieces: WF10x/22mm, high-point type.

Head rotation: 360° rotating.

Gemology clips.

MODELS

OPTIGEM-3: with binocular head

OPTIGEM-4: with trinocular head



OPTIGEM-4





OPTIGEM-1/2 MODELS

The OPTIGEM-1 and OPTIGEM-2 Microscopes are a revolutionary 2-in-1 gemology instruments that can be used both as a vertical and as horizontal microscopes, at the turn of a knob and without disassembling any part.

A special ultrabright LED-based electronic condenser, with intensity control, and yet always perfectly colour-matched to sunlight, allows to switch from bright to dark field at the flip of a switch.

The condenser uses a novel optical configuration for an impressive dark field usability range, that will make you totally forget those uncomfortable hours spent "looking for light". An additional flexible arm and velvet-field slider allow for extra contrast, for crisp and vibrant images even in a brightly lit environment.

A modular optional accessory range, that includes gemology clips, an iris aperture diaphragm, a polarization analysis kit, an optical unit to switch the dark field from a "sharp" (gem exhibition) to a "soft" (diamond analysis) mode and a translating cell holder with vacuum pick-up and quartz immersion cells complete and enhance the instrument usability.

All the accessories can be stacked, in any order, both when the microscope is being used as a horizontal unit and when it is in its vertical configuration.

The microscope body can be rotated through a full 360°, yet keeping the base sturdily fixed on the table, to show gems to a potential customer, or to share opinions with a colleague.



OPTIGEM

Specifications:

Zoom head magnification: 0.7x – 4.5x (binocular and trinocular).
 Observation angle: the microscope can be inclined through full 90°
 from vertical to horizontal.

Illumination: intensity controlled bright field, dark field and flexible arm, all sunlight-matched.

Eyepieces: WF10x/22mm, high-point type.

Microscope rotation: 360° rotating (vertical configuration only)

Gemology clips.

Stage: with 3 attachment points for gemology clips.

MODELS

OPTIGEM-1: with binocular head

OPTIGEM-2: with trinocular head



OPTIGEM-2

OPTIGEM - Accessories



Accessories for SZM-GEM-1/2:

ST-230	Polarizing analysis kit
ST-206	Diamond proportion analysis kit
ST-082	Eyepieces (pair) WF15x/15 mm
ST-083	Eyepieces (pair) WF20x/10 mm
ST-084	Micrometric eyepiece WF10x/20 mm
ST-086	Additional lens 1,5x
ST-087	Additional lens 2x
ST-089	Reflex camera adapter
ST-090	CCD camera adapter (for 1/3" sensors)
ST-090.1	CCD camera adapter (for 1/2" sensors)

Accessories for OPTIGEM-3/4:

ST-231	Polarizing analysis kit
ST-142	Eyepieces (pair) WF15x/16mm
ST-143	Eyepieces (pair) WF20x/12mm
ST-144	Eyepieces (pair) WF25x/9mm
ST-145	Micrometric eyepiece WF10x/22mm
SA01.5	Additional lens 1,5x
SA02	Additional lens 2x
ST-146	SRL Reflex camera adapter
ST-147	CCD camera adapter (for 1/3" sensors)
ST-147.1	CCD camera adapter (for 1/2" sensors)

Accessories for OPTIGEM-1/2:

ST-201	Iris aperture diaphragm for darkfield
ST-202	Polarizing analysis kit
ST-203	Quartz immersion cell
ST-204	Translating cell holder
ST-205	Vacuum pick-up
ST-082	Eyepieces (pair) WF15x/15 mm
ST-083	Eyepieces (pair) WF20x/10 mm
ST-084	Micrometric eyepiece WF10x/20 mm
ST-086	Additional lens 1,5x
ST-087	Additional lens 2x
ST-089	Reflex camera adapter
ST-090	CCD camera adapter (for 1/3" sensors)
ST-090.1	CCD camera adapter (for 1/2" sensors)

OPTIKA

M I C R O S C O P E S

I T A L Y



INDUSTRY SERIES

Metallurgical and measuring microscopes

OPTIKA

Italian headquarters



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INDUSTRY SERIES

XC-100L

Portable microscope for measurements. Fitted with WF10x/18mm micrometric eyepiece with cross divided into tenths of a millimetre.

10x achromatic objective (total magnification 100); focusing controlled by a rack and pinion mechanism; adjustable battery powered penlight lighting unit.



INDUSTRY SERIES - XC-100L and XZ-1

XZ-1

Bench microscope for measuring and viewing surfaces with a zoom objective.

Fitted with WF10x/18mm micrometric eyepiece with cross divided into tenths of a millimetre. 0.7x...4.5x achromatic zoom objective (max. magnification 45).

Focusing controlled by a rack and pinion mechanism.

Double lighting unit for incident and transmitted light fitted with low voltage halogen bulbs (12V/10W).

Working distance 90 mm.



XZ-2

Bench microscope for measuring and viewing surfaces with a zoom objective and TFT LCD screen (8").

0.7x...4.5x achromatic zoom objective.

Focusing controlled by a rack and pinion mechanism.

Working distance: 96 mm

LED ring light generator with brightness control.

CCD colour camera (380 TVlines).

8" TFT LCD screen with electronic graduated measuring cross.



INDUSTRY SERIES - B-353MET**B-353MET****Upright metallurgical microscope**

Head:	Trinocular, 30° inclined, 360° rotating.
Eyepieces:	WF10X/20mm.
Nosepiece:	5-positions.
Objectives:	PLAN IOS 4x/0.10, 10x/0.25, 20x/0.40, 50x/0.75 (no cover slide).
Magnifications:	40x, 100x, 200x, 500x.
Focusing system:	Coaxial coarse and fine.
Stage:	Double layer with mechanical sliding stage, 160x142 mm, moving range 76x52 mm.
Condenser:	1.25 N.A., with iris diaphragm, focusable.
Illumination:	3,6W white LED with intensity control.
Metallurgical Attachment:	High-power white LED; field and aperture diaphragm.
Filters:	Blue, yellow, frosted, polariser & analyser.



INDUSTRY SERIES - B-600MET

B-600MET

Upright metallurgical microscope

Head:	Trinocular, 30° inclined, 360° rotating.
Eyepieces:	WF10X/22mm.
Nosepiece:	5-positions.
Objectives:	PLAN IOS MET (no cover slide) IOS 5x/0.14, 10x/0.25, 20x/0.4, 50x/0.7, 100x/0.9 (dry).
Magnifications:	50x, 100x, 200x, 500x, 1000x.
Focusing system:	Coaxial coarse and fine.
Stage:	Double layer with mechanical sliding stage, 175x145 mm, moving range 76x52 mm.
Condenser:	0,7 N.A. swing-out type, with iris diaphragm, centrabale and focusable.
Illumination:	12V/50W halogen bulb in external case or X-LED8™ illumination system In both systems the light is centrabale and brightness is adjustable.
Metallurgical Attachment:	High-power white X-LED™ system with brightness control; field and aperture diaphragms (centrabale). Simple sliding darkfield system.
Filters:	Blue, polariser & analyser.



INDUSTRY SERIES - XDS-3MET**XDS-3MET****Inverted metallurgical microscope**

Head:	Trinocular, 45° inclined
Eyepieces:	WF10X/22mm.
Nosespiece:	5-positions.
Objectives:	LWD PLAN IOS MET (no cover slide): 5x/0.14, 10x/0.25, 20x/0.4, 50x/0.7.
Magnifications:	50x, 100x, 200x, 500x.
Focusing system:	Coaxial coarse and fine.
Stage:	250x230mm; mechanical stage with lowered ergonomic coaxial controls. X-Y range: 114x81mm.
Diaphragms:	field and aperture diaphragms (centrable).
Illumination:	12V/50W halogen bulb in external case. Centrable bulb and brightness control.
Filters:	Blue, polariser & analyser.



INDUSTRY SERIES - Accessories

XC-100L Measuring microscope

M-899 Pen illuminator

XZ-1 Measuring monozoom microscope

M-001 H5x Eyepiece
 M-003 WF16x/12mm Eyepiece
 M-005 26x76mm micrometric slide. Range 1mm, div. 0.01mm.
 ST-012 White/black object-plate, type 2 dia. 95 mm
 ST-014 Glass stage, type 2, dia. 95 mm
 ST-028 12V/10W halogen bulb
 M-013 12V/10W halogen bulb, with dichroic mirror
 ST-029 Dust cover type 12

XZ-2 Measuring monozoom videomicroscope

M-001 H5x Eyepiece
 M-003 WF16x/12mm Eyepiece
 M-004 WF10x/18mm Micrometer Eyepiece.
 M-005 26x76mm micrometric slide. Range 1mm, div. 0.01mm.

B-353MET Upright metallurgical microscope

M-301 WF10x/20mm high-point Eyepiece
 M-302 WF16x/12mm high-point Eyepiece
 M-303 WF10x/20mm high-point Micrometer Eyepiece
 M-005 26x76 mm micrometric slide. Range 1 mm, div. 0,01mm
 M-330 4x/0.10 IOS Plan Achromatic Objective
 M-331 10x/0.25 IOS Plan Achromatic Objective
 M-332 20x/0.40 IOS Plan Achromatic Objective
 M-333 40x/0.65 IOS Plan Achromatic Objective
 M-335 50x/0.75 IOS Plan Achromatic Objective (no cover glass)
 M-334 100x IOS Plan Achromatic Objective
 M-365 Photo tube adapter for SRL cameras
 M-366 CCD camera adapter
 M-031 Dust cover type 3

INDUSTRY SERIES**B-600MET Upright metallurgical microscope**

M-680	30°-60° Ergo Binocular Head
M-625	EWF10x/22mm Eyepiece
M-601	WF15x/16mm Eyepiece
M-602	Micrometer Eyepiece EWF10x/22mm
M-005	26x76 mm micrometric slide. Range 1mm, div. 0,01mm
M-693.1	5x/0.14 IOS plan achromatic objective (no cover slide)
M-694.1	10x/0.25 IOS plan achromatic objective (no cover slide)
M-695.1	20x/0.40 IOS plan achromatic objective (no cover slide)
M-696.1	50x/0.70 IOS plan achromatic objective (no cover slide)
M-698.2	100x/0.90 IOS plan achromatic objective DRY (no cover slide)
M-613	Polarising set (filters only) for transmitted light
M-615	Lambda filter for polarising set for transmitted light
M-614	Rotating table for polarising set
M-619	Photo tube adapter for SRL cameras
M-699	Photo tube adapter for DIGI digital camera series
M-620	CCD camera adapter (for 1/3" sensors)
M-620.1	CCD camera adapter (for 1/2" sensors)
M-622	12V/50W halogen bulb
M-034	Dust cover type 5
M-975	Blue filter, 45 mm diameter for transmitted light
M-977	Green filter, 45 mm diameter for transmitted light
M-979	Yellow filter, 45 mm diameter for transmitted light
M-989	Frosted glass filter, 45 mm diameter
M-690	Eyecup (pair)

XDS-3MET Inverted metallurgical microscope

M-625	EWF10x/22mm Eyepiece
M-601	WF15x/16mm Eyepiece
M-602	Micrometer Eyepiece EWF10x/22mm
M-005	26x76 mm micrometric slide. Range 1mm, div. 0,01mm
M-735	LWD 5x/0.14 IOS plan achromatic objective (no cover slide)
M-736	LWD 10x/0.25 IOS plan achromatic objective (no cover slide)
M-737	LWD 20x/0.40 IOS plan achromatic objective (no cover slide)
M-738	LWD 50x/0.70 IOS plan achromatic objective (no cover slide)
M-746	LWD 100x/0.80 IOS plan achromatic objective (no cover slide)
M-619	Photo tube adapter for SRL cameras
M-699	Photo tube adapter for DIGI digital camera series
M-789	CCD camera adapter
M-622	12V/50W halogen bulb
M-036	Dust cover type 7

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INDUSTRIAL MICROSCOPE - STAND September 2009 - Printed in Italy - Illustrations, descriptions and technical data are not binding and may be changed without notice.

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