Carton

Stereo Microscopes

MACRO ZOOM LENSES
SHOP MICROSCOPES
LOUPES

ZOOM STEREO MICROSCOPES
MODEL *SPZ-50* SERIES
Binocular type

Model **SPZ-50** series offers the highest zoom ratio 7.5:1 in this class and the total zoom magnification from 6.7x to 50x with standard eyepiece DHW10x. A wide range of the magnification extending from 3.35x to 200x is available with its optional lenses to meet various demands for application. The SPZ-50's newly developed DHW10x eyepiece having the high eye point of 17mm creates comfortable use even for operators with eye-glasses. Pole type stands and universal type boom stand are prepared as standard configurations.

STAND TYPE PFM
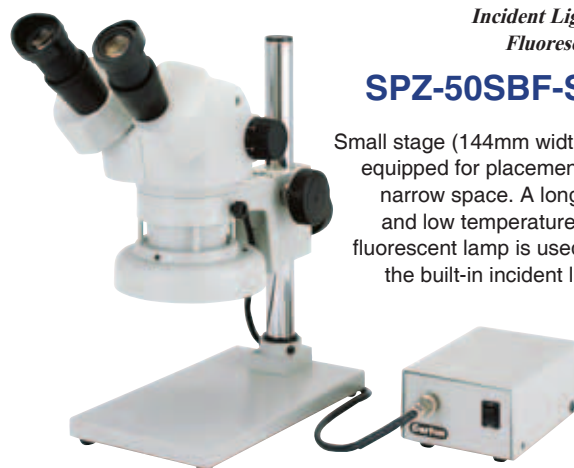**Incident Light : Fluorescent**

SPZ-50PFM

Large stage is equipped for convenience of work.
A long life and low temperature 9W fluorescent lamp is used for the built-in incident light.

STAND TYPE SBF-SM
Incident Light : Fluorescent

SPZ-50SBF-SM

Small stage (144mm width) is equipped for placement on narrow space. A long life and low temperature 9W fluorescent lamp is used for the built-in incident light.

STAND TYPE P

SPZ-50P

Large stage is equipped for convenience of work.
The stand is suitable for use of the existing or optional illuminator.

STAND TYPE UN

SPZ-50UN

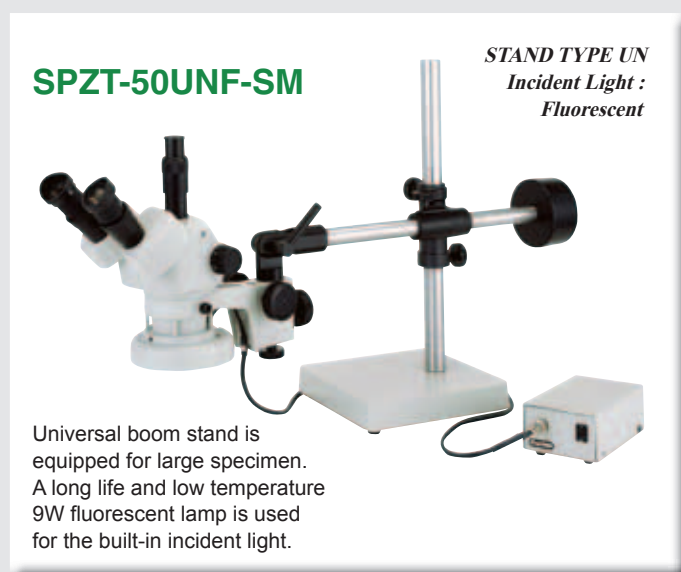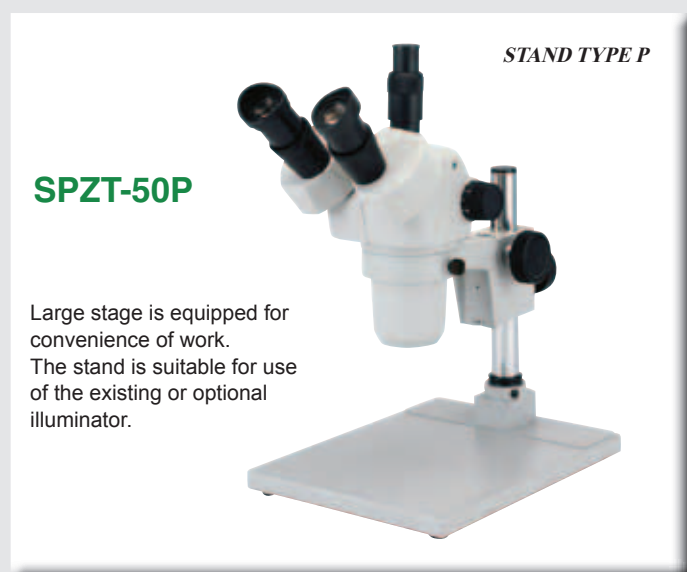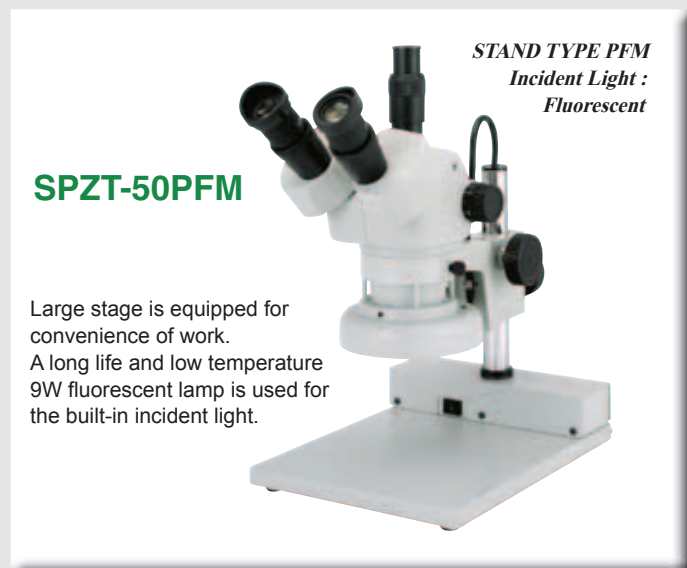Universal boom stand is equipped for large specimen.

Models	SPZ-50PFM	SPZ-50SBF-SM	SPZ-50P	SPZ-50UNF-SM	SPZ-50UN
Magnification	6.7x to 50x (field of view : 34.3mm to 4.6mm)				
Objective Lenses	0.67x to 5.0x (zoom ratio : 7.5:1)				
Eyepieces	Wide Field 10x (DHW10x) (field number : 23)				
Optical Body	360° rotatable binocular type, 45° inclined eyepiece tube				
Working Distance	108mm				
Interpupillary Distance	52mm to 75mm				
Diopter Adjustment	±7.2D on both eyepiece tubes				
Stand Type	Pole type (250mm)	Pole type (303mm)	Pole Type (250mm)	Universal type (544mm)	
Incident Light	Fluorescent Lamp 9W (YH9RZ/FCL9EX-N)	Nil		Fluorescent Lamp 9W (YH9RZ/FCL9EX-N)	Nil
Base	220mm x 284mm	144mm x 260mm	220mm x 284mm	230mm x 230mm	
Height	372mm	372mm	372mm	544mm	544mm
Net Weight	5.6kg	5.9kg	4.9kg	24.2kg	22kg
Accessories	Rubber eyeguards, C wrench, Dust cover				

Model **SPZT-50** series is same as the **SPZ-50** except for trinocular type. It has a vartical tube for the purpose of TV monitoring and photomicrography. The image on the monitor or camera is focusable with the dioptor adjustment ring provided on the vertical tube as well as the focusing knobs provided on the holder.

SPZT-50PFM

STAND TYPE PFM
Incident Light : Fluorescent

Large stage is equipped for convenience of work.
A long life and low temperature 9W fluorescent lamp is used for the built-in incident light.

SPZT-50SBF-SM

STAND TYPE SBF-SM
Incident Light : Fluorescent

Small stage (144mm width) is equipped for placement on narrow space. A long life and low temperature 9W fluorescent lamp is used for the built-in incident light.

SPZT-50P

STAND TYPE P

Large stage is equipped for convenience of work.
The stand is suitable for use of the existing or optional illuminator.

SPZT-50UNF-SM

STAND TYPE UN
Incident Light : Fluorescent

Universal boom stand is equipped for large specimen.
A long life and low temperature 9W fluorescent lamp is used for the built-in incident light.

Models	SPZT-50PFM	SPZT-50SBF-SM	SPZT-50P	SPZT-50UNF-SM	SPZT-50UN
Magnification	6.7x to 50x (field of view : 34.3mm to 4.6mm)				
Objective Lenses	0.67x to 5.0x (zoom ratio : 7.5:1)				
Eyepieces	Wide Field 10x (DHW10x) (field number : 23)				
Optical Body	360° rotatable trinocular type, 45° inclined eyepiece tube & vertical tube				
Working Distance	108mm				
Interpupillary Distance	52mm to 75mm				
Diopter Adjustment	±7.2D on both eyepiece tubes &±6mm on vertical tube				
Stand Type	Pole type (250mm)	Pole type (303mm)	Pole Type (250mm)	Universal type (544mm)	
Incident Light	Fluorescent Lamp 9W (YH9RZ/FCL9EX-N)		Nil	Fluorescent Lamp 9W (YH9RZ/FCL9EX-N)	Nil
Base	220mm x 284mm	144mm x 260mm	220mm x 284mm	230mm x 230mm	
Height	405mm	405mm	405mm	544mm	544mm
Net Weight	5.8kg	6.1kg	5.1kg	24.4kg	22.2kg
Accessories	Rubber eyeguards, C wrench, Dust cover, Photo-eyepiece with ring				

ZOOM STEREO MICROSCOPES
MODEL *DSZ-44* SERIES
Binocular type

Model **DSZ-44** series offers superior quality optics and reliable mechanical components. This exceptional quality allows users to efficiently perform tasks and maintain high productivity.
A wide variety of stands and illuminators are available to suite many different applications. The DSZ-44 series features a zoom magnification of 10x to 44x (zoom ratio 4.4:1) with standard eye-pieces 10x. A wide range of magnification from 4.5x to 140.8x is available with optional lenses.

STAND TYPE T
Incident Light :
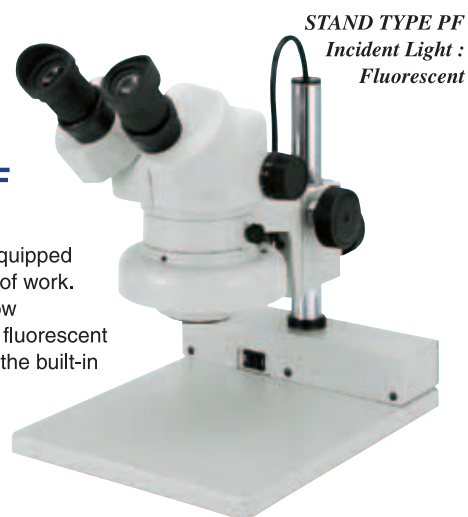*Fluorescent*
Transmitted Light :
Tungsten

DSZ-44T

Transmitted & incident lights are built in the stand. The incident light is composed of 9W fluorescent lamp having a long life and a low temperature.

STAND TYPE PF
Incident Light :
Fluorescent

DSZ-44PF

Large stage is equipped for convenience of work. A long life and low temperature 9W fluorescent lamp is used for the built-in incident light.

STAND TYPE SBF-S
Incident Light :
Fluorescent

DSZ-44SBF-S

Small stage (144mm width) is equipped for placement on narrow space. A long life and low temperature 9W fluorescent lamp is used for the built-in incident light.

STAND TYPE P

DSZ-44P

Large stage is equipped for convenience of work. The stand is suitable for use of the existing or optional illuminator.

Models	DSZ-44T	DSZ-44PF	DSZ-44SBF-S	DSZ-44P
Magnification	10x to 44x (field of view : 23mm to 5.2mm)			
Objective Lenses	1.0x to 4.4x (zoom ratio : 4.4:1)			
Eyepieces	Wide Field 10x (DSW10x) (field number : 23)			
Optical Body	360° rotatable binocular type, 45° inclined eyepiece tube			
Working Distance	90mm			
Interpupillary Distance	52mm to 75mm			
Diopter Adjustment	±7.2D on both eyepiece tubes			
Stand Type	Regular type	Pole type (250mm)	Pole type (303mm)	Pole type (250mm)
Incident Light	Fluorescent Lamp 9W (YH9RZ/FCL9EX-N)			Nil
Transmitted Light	Tungsten Lamp 120V or 230V 20W	Nil		
Stage Plate	Frosted glass plate (φ=80mm), Frosted blue filter (φ=37mm)	Nil		
Base	160mm x 219mm	220mm x 284mm	144mm x 260mm	220mm x 284mm
Height	352mm	327mm	328mm	327mm
Net Weight	4.4kg	5.4kg	5.0kg	4.7kg
Accessories	Rubber eyeguards, C wrench, Dust cover, Spare bulb (Tungsten Lamp only)	Rubber eyeguards, C wrench, Dust cover		

Model **DSZT-44** series is provided with trinocular body for TV microscopy and photomicrography.
It features the same zoom magnification of 10x to 44x as the DSZ-44 series.

DSZT-44T

STAND TYPE T
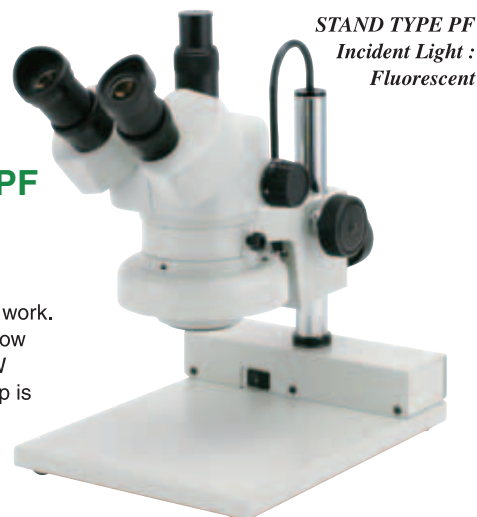*Incident Light :*
Fluorescent
Transmitted Light :
Tungsten

Transmitted & incident lights are built in the stand. The incident light is composed of 9W fluorescent lamp having a long life and a low temperature.

DSZT-44PF

STAND TYPE PF
Incident Light :
Fluorescent

Large stage is equipped for convenience of work. A long life and low temperature 9W fluorescent lamp is used for the built-in incident light.

DSZT-44SBF-S

STAND TYPE SBF-S
Incident Light :
Fluorescent

Small stage (144mm width) is equipped for placement on narrow space. A long life and low temperature 9W fluorescent lamp is used for the built-in incident light.

DSZT-44P

STAND TYPE P

Large stage is equipped for convenience of work. The stand is suitable for use of the existing or optional illuminator.

| Models	DSZT-44T	DSZT-44PF	DSZT-44SBF-S	DSZT-44P
Magnification	10x to 44x (field of view : 23mm to 5.2mm)			
Objective Lenses	1.0x to 4.4x (zoom ratio : 4.4:1)			
Eyepieces	Wide Field 10x (DSW10x) (field number : 23)			
Optical Body	360° rotatable trinocular type, 45° inclined eyepiece tube & vertical tube			
Working Distance	90mm			
Interpupillary Distance	52mm to 75mm			
Diopter Adjustment	±7.2D on both eyepiece tubes & ±6mm on vertical tube			
Stand Type	Regular type	Pole type (250mm)	Pole type (303mm)	Pole type (250mm)
Incident Light	Fluorescent Lamp 9W (YH9RZ/FCL9EX-N)			Nil
Transmitted Light	Tungsten Lamp 120V or 230V 20W	Nil		
Stage Plate	Frosted glass plate (φ=80mm), Frosted blue filter (φ=37mm)	Nil		
Base	160mm x 219mm	220mm x 284mm	144mm x 260mm	220mm x 284mm
Height	379mm	353mm	354mm	353mm
Net Weight	4.6kg	5.6kg	5.2kg	4.9kg
Accessories	Rubber eyeguards, C wrench, Dust cover, Spare bulb (Tungsten lamp only), Photo-eyepiece with ring	Rubber eyeguards, C wrench, Dust cover, Photo-eyepiece with ring		

Model **DSZ-70** series offers a high power range, and it features a zoom magnification of 20x to 70x (zoom ratio 3.5:1) with standard eyepieces 10x. A wide range of magnification from 9x to 224x is also available with optional lenses.

STAND TYPE TL
Incident Light :
Fluorescent
Transmitted Light :
Tungsten

DSZ-70TL

Transmitted & incident lights are built in the stand. The incident light is composed of 9W fluorescent lamp at low position.
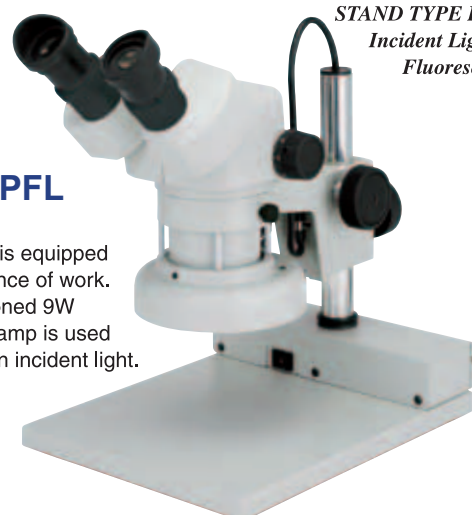
STAND TYPE PFL
Incident Light :
Fluorescent

DSZ-70PFL

Large stage is equipped for convenience of work. A low-positioned 9W fluorescent lamp is used for the built-in incident light.

STAND TYPE SBF-SL
Incident Light :
Fluorescent

DSZ-70SBF-SL

Small stage (144mm width) is equipped for placement on narrow space. A low-positioned 9W fluorescent lamp is used for the built-in incident light.
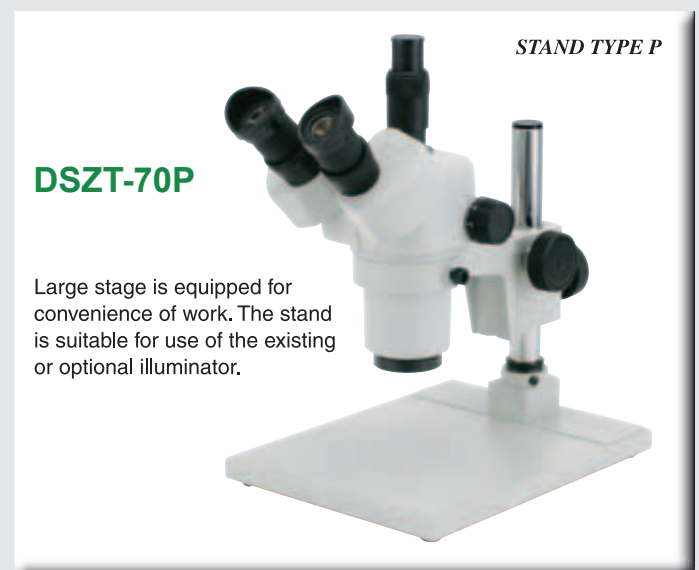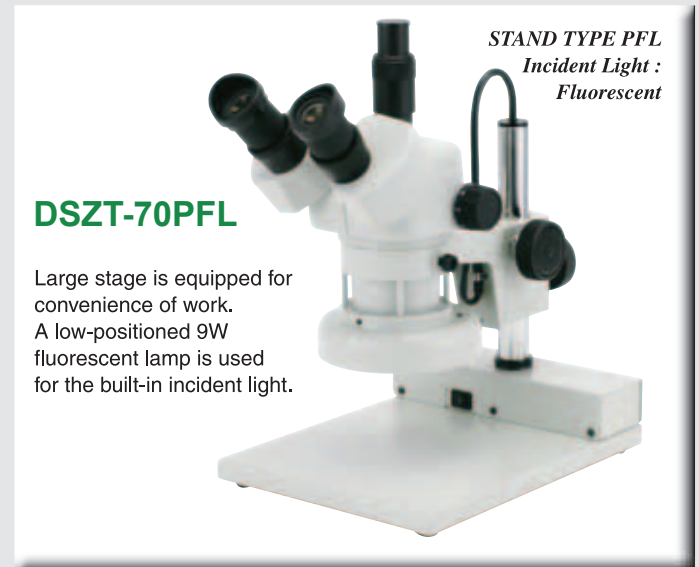
STAND TYPE P

DSZ-70P

Large stage is equipped for convenience of work. The stand is suitable for use of the existing or optional illuminator.

Models	DSZ-70TL	DSZ-70PFL	DSZ-70SBF-SL	DSZ-70P
Magnification	20x to 70x (field of view : 10mm to 2.8mm)			
Objective Lenses	2.0x to 7.0x (zoom ratio : 3.5:1)			
Eyepieces	Wide Field 10x (DSW10xZ) (field number : 20)			
Optical Body	360° rotatable binocular type, 45° inclined eyepiece tube			
Working Distance	80mm			
Interpupillary Distance	52mm to 75mm			
Diopter Adjustment	±7.2D on both eyepiece tubes			
Stand Type	Regular type	Pole type (250mm)	Pole type (303mm)	Pole type (250mm)
Incident Light	Fluorescent Lamp 9W (YH9RZ/FCL9EX-N)			Nil
Transmitted Light	Tungsten Lamp 120V or 230V 20W	Nil		
Stage Plate	Frosted glass plate (φ=80mm), Frosted blue filter (φ=37mm)	Nil		
Base	160mm x 219mm	220mm x 284mm	144mm x 260mm	220mm x 284mm
Height	342mm	317mm	318mm	317mm
Net Weight	4.5kg	5.5kg	5.1kg	4.8kg
Accessories	Rubber eyeguards, C wrench, Dust cover, Spare bulb (Tungsten Lamp only)	Rubber eyeguards, C wrench, Dust cover		

In addition to a pole type stand without light, there are three kinds of stand with built-in fluorescent light specially designed for the high power model. Trinocular type Model **DSZT-70** series is also available for TV microscopy and photomicrography.

STAND TYPE TL
Incident Light :
Fluorescent
Transmitted Light :
Tungsten

DSZT-70TL

Transmitted & incident lights are built in the stand. The incident light is composed of 9W fluorescent lamp at low position.

STAND TYPE PFL
Incident Light :
Fluorescent

DSZT-70PFL

Large stage is equipped for convenience of work. A low-positioned 9W fluorescent lamp is used for the built-in incident light.

STAND TYPE SBF-SL
Incident Light :
Fluorescent

DSZT-70SBF-SL

Small stage (144mm width) is equipped for placement on narrow space. A low-positioned 9W fluorescent lamp is used for the built-in incident light.

STAND TYPE P

DSZT-70P

Large stage is equipped for convenience of work. The stand is suitable for use of the existing or optional illuminator.

Models	DSZT-70TL	DSZT-70PFL	DSZT-70SBF-SL	DSZT-70P
Magnification	20x to 70x (field of view : 10mm to 2.8mm)			
Objective Lenses	2.0x to 7.0x (zoom ratio : 3.5:1)			
Eyepieces	Wide Field 10x (DSW10xZ) (field number : 20)			
Optical Body	360°rotatable trinocular type, 45°inclined eyepiece tube & vertical tube			
Working Distance	80mm			
Interpupillary Distance	52mm to 75mm			
Diopter Adjustment	±7.2D on both eyepiece tubes & ±6mm on vertical tube			
Stand Type	Regular type	Pole type (250mm)	Pole type (303mm)	Pole type (250mm)
Incident Light	Fluorescent Lamp 9W (YH9RZ/FCL9EX-N)			Nil
Transmitted Light	Tungsten Lamp 120V or 230V 20W	Nil		
Stage Plate	Frosted glass plate (φ=80mm), Frosted blue filter (φ=37mm)	Nil		
Base	160mm x 219mm	220mm x 284mm	144mm x 260mm	220mm x 284mm
Height	379mm	353mm	354mm	353mm
Net Weight	4.7kg	5.7kg	5.3kg	5.0kg
Accessories	Rubber eyeguards, C wrench, Dust cover, Spare bulb (Tungsten lamp only), Photo-eyepiece with ring	Rubber eyeguards, C wrench, Dust cover, Photo-eyepiece with ring		

Model **NSW** series features a dual magnification of 10x & 20x, 10x & 30x or 20x & 40x, and a fixed magnification of 10x or 20x, with standard eyepieces 10x. A wide variety of stands and illuminators are available to suit many different applications.

STAND TYPE PF
Incident Light :
Fluorescent

NSW-30PF

Large stage is equipped for convenience of work. A long life and low temperature 9W fluorescent lamp is used for the built-in incident light.

STAND TYPE P

NSW-20P

Large stage is equipped for convenience of work. The stand is suitable for use of the existing or optional illuminator.

Models	NSW-1PF	NSW-2PF	NSW-20PF	NSW-30PF	NSW-40PF	NSW-1P	NSW-2P	NSW-20P	NSW-30P	NSW-40P
Magnification (Field of View)	10x (23.0mm)	20x (11.5mm)	10x(23.0mm) 20x(11.5mm)	10x(23.0mm) 30x(7.6mm)	20x(11.5mm) 40x(5.7mm)	10x (23.0mm)	20x (11.5mm)	10x(23.0mm) 20x(11.5mm)	10x(23.0mm) 30x(7.6mm)	20x(11.5mm) 40x(5.7mm)
Objective Lenses	1x	2x	1x & 2x	1x & 3x	2x & 4x	1x	2x	1x & 2x	1x & 3x	2x & 4x
Eyepieces	Wide Field 10x (DSW10x) (field number : 23)									
Optical Body	360° rotatable binocular type, 45° inclined eyepiece tube									
Working Distance	107.0mm	107.0mm	82.5mm	82.5mm	64.3mm	113.0mm	113.0mm	113.0mm	82.5mm	64.3mm
Interpupillary Distance	52mm to 75mm									
Diopter Adjustment	±7.2D on left eyepiece tubes									
Stand Type	Pole type (250mm)									
Incident Light	Fluorescent Lamp 9W (YH9RZ/FCL9EX-N)					Nil				
Transmitted Light	Nil									
Stage Plate	Nil									
Base	220mm x 284mm									
Height	305mm									
Net Weight	5.1kg					4.3kg				
Accessories	Rubber eyeguards, C wrench, Dust cover									

QUADRUPLE MONOCULAR LENS

Model MM-1234PFM

Monocular lens with switchable 0.8x, 1.6x, 2.4x and 3.2x magnifications. C-mount is provided to accept various kinds of camera connecting to TV monitor or PC. An eyepiece 10x is included to enable users to see through the eyepiece like normal monocular microscope as well.

In addition, Model **NSW-620PF** and **NSW-620P** are available featuring a wider field of view 38.3mm at 6x that enables operators to aim at an object more easily looking through eyepieces. The NSW-620 has another magnification of 20x to see more fine details of the object.

NSW-620PF

STAND TYPE PF
Incident Light: Fluorescent

Large stage is equipped for convenience of work.
A long life and low temperature 9W fluorescent lamp is used for the built-in incident light.

NSW-20T

STAND TYPE T
Incident Light : Fluorescent
Transmitted Light : Tungsten

Transmitted & incident lights are built in the stand type T.
The incident light is composed of 9W fluorescent lamp having a long life and a low temperature.

Models	NSW-620P	NSW-620PF	NSW-1T	NSW-2T	NSW-20T	NSW-30T	NSW-40T
Magnification (Field of View)	6x(38.3mm) 20x(11.5mm)		10x (23.0mm)	20x (11.5mm)	10x(23.0mm) 20x(11.5mm)	10x(23.0mm) 30x(7.6mm)	20x(11.5mm) 40x(5.7mm)
Objective Lenses	0.6x & 2x		1x	2x	1x & 2x	1x & 3x	2x & 4x
Eyepieces	Wide Field 10x (DSW10x) (field number : 23)						
Optical Body	360°rotatable binocular type, 45°inclined eyepiece tube						
Working Distance	113.0mm	82.5mm	107.0mm	107.0mm	82.5mm	82.5mm	64.3mm
Interpupillary Distance	52mm to 75mm						
Diopter Adjustment	±7.2D on left eyepiece tube						
Stand Type	Pole type (250mm)		Regular type				
Incident Light	Nil	Fluorescent Lamp 9W (YH9RZ/FCL9EX-N)					
Transmitted Light	Nil		Tungsten Lamp 120V or 230V 20W				
Stage Plate	Nil		Frosted glass plate (φ=80mm), Frosted blue filter (φ=37mm)				
Base	220mm x 284mm		160mm x 219mm				
Height	305mm		325mm				
Net Weight	4.3kg	5.1kg	4.1kg				
Accessories	Rubber eyeguards, C wrench, Dust cover		Rubber eyeguards, C wrench, Dust cover, Spare bulb (Tungsten Lamp only)				

ZOOM MONOCULAR LENS

Model MZL-745PF

Zoom Monocular lens with 0.7x-4.5x magnifications. C-mount is provided to accept various kinds of camera connecting to TV monitor or PC. An eyepiece 10x is included to enable operators to see through the eyepiece like normal zoom monocular microscope as well.

Eco-Friendly illuminated microscope stand (SCW-PG) is compatible with all Carton stereo microscopes. Daylight color LED (light-emitting diode) ring light offering long life, low power consumption, color consistency when dimming and flicker-free.

DSZ-44PG

SPZ-50PG

NSW-30PG

DSZ-70PG

Models	SPZ-50PG	DSZ-44PG	DSZ-70PG	NSW-20PG / NSW-30PG
Magnification	6.7x to 50x (F.O.V : 34.3mm to 4.6mm)	10x to 44x (F.O.V : 23mm to 5.2mm)	20x to 70x (F.O.V : 10mm to 2.8mm)	10x&20x / 10x&30x (F.O.V : 23&11.5mm / 23&7.6mm)
Objective Lenses	0.67x to 5x (zoom ratio : 7.5:1)	1x to 4.4x (zoom ratio : 4.4:1)	2x to 7x (zoom ratio : 3.5:1)	1x&2x / 1x&3x
Eyepieces	WF10x (DHW10x), FN: 23	WF10x (DSW10x), FN: 23	WF10x (DSW10xZ), FN: 20	WF10x (DSW10x), FN: 23
Optical Body	Binocular type			
Working Distance	108mm	90mm	80mm	82.5mm
Diopter Adjustment	±7.2D on both eyepiece tubes			
Stand Type	Pole type (250mm)			
Incident Light	Built-in ring LED illuminator with dimming control			
Base	220mm x 284mm			
Accessories	Rubber eyeguards, C wrench, Dust cover			

Its "built-in" design secures the full working distance between objectives and specimen unlike optional illuminator equipped under objectives. Trinocular body has a short vertical tube with CS or C mount to accept a camera without optional adapter.

SPZT-50APG / SPZT-50ACPG

with PO-913U CCD camera (option)

MULTI-VIEWING MODELS
DSZV-44PG / DSZV-44CPG

with CCD camera, LCD moitor & Z1016 monitor holder (all options)

SPZV-50, DSZV-44 and DSZV-44C

employ multi-viewing system by means of its internal beam splitter making it possible to observe specimen both through eyepieces and on screen simultaneously.

PO-913U

1/3 type CCD camera with video output and USB output

MD130

Digital Eyepiece with USB output

Z1016

Monitor holder

Models	SPZT-50APG	SPZT-50ACPG	SPZV-50PG	DSZV-44PG	DSZV-44CPG
Magnification	6.7x to 50x (F.O.V : 34.3mm to 4.6mm)			10x to 44x (F.O.V : 23mm to 5.2mm)	
Objective Lenses	0.67x to 5x (zoom ratio : 7.5:1)			1x to 4.4x (zoom ratio : 4.4:1)	
Eyepieces	WF10x (DHW10x), FN: 23			WF10x (DHW10x), FN: 23	
Optical Body	Trinocular type with CS mount for 1/3 type CCD (CMOS)	Trinocular type with C mount for 1/3 type CCD (CMOS)	Trinocular type with C mount for 1/3 type CCD (CMOS), **multi-viewing**	Trinocular type with CS mount for 1/3 type CCD (CMOS), **multi-viewing**	Trinocular type with C mount for 1/2 type CCD (CMOS), **multi-viewing**
Working Distance	108mm			90mm	
Diopter Adjustment	±7.2D on both eyepiece tubes				
Stand Type	Pole Type (250mm)				
Incident Light	Built-in ring LED illuminator with dimming control				
Base	220mm x 284mm				
Accessories	Rubber eyeguards, C wrench, Dust cover				

OPTIONAL ACCESSORIES

EYEPIECE LENSES

Model DHW10X
10x, F.N. 23
(For SPZ-50 / SPZT-50 / SPZV-50)

Model DSW10X
10x, F.N. 23
(For DSZ-44 / DSZT-44 / DSZV-44 / NSW)

Model DSW10XZ
10x, F.N. 20
(For DSZ-70 / DSZT-70)

Model DHW15X
15x, F.N. 15
(For SPZ-50 / SPZT-50 / SPZV-50)

Model DSW15X
15x, F.N. 15
(For DSZ-44 / DSZT-44 / DSZV-44 / NSW
/ DSZ-70 / DSZT-70)

Model HW-REG
Rubber Eyeguard
For DHW eyepieces

Model DHW20X
20x, F.N. 11.4
(For SPZ-50 / SPZT-50 / SPZV-50)

Model DSW20X
20x, F.N. 11.4
(For DSZ-44 / DSZT-44 / DSZV-44 / NSW
/ DSZ-70 / DSZT-70)

Model SW-REG
Rubber Eyeguard
For DSW eyepieces

FOCUSING EYEPIECE 10x WITH RETICLE

DFHW10X
F.N.23
(For SPZ)

DFSW10X
F.N.23
(For DSZ/NSW)

Model DFHW10X10/100   Model DFSW10X10/100
Focusing eyepiece 10x with 10:100mm scale

Model DFHW10X5/100   Model DFSW10X5/100
Focusing eyepiece 10x with 5:100mm scale

Model DFHW10XH10/20   Model DFSW10XH10/20
Focusing eyepiece 10x with 20x20 0.5mm squares

Model DFHW10XH10/10   Model DFSW10XH10/10
Focusing eyepiece 10x with 10x10 1mm squares

Model DFHW10XH5/5   Model DFSW10XH5/5
Focusing eyepiece 10x with 5x5 1mm squares

Model DFHW10XCROSS   Model DFSW10XCROSS
Focusing eyepiece 10x with 10:100mm scale w/cross line

Model DFHW10XLINE   Model DFSW10XLINE
Focusing eyepiece 10x with cross line
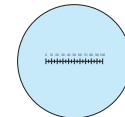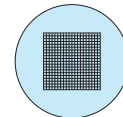
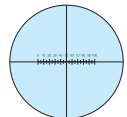10:100mm scale   20x20 0.5mm squares   5x5 1mm squares
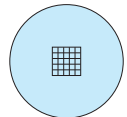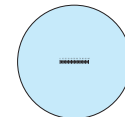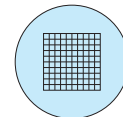
5:100mm scale   10x10 1mm squares   10:100mm scale with cross line

AUXILIARY OBJECTIVE LENSES

Model NSAL 0.5X
AUXILIARY OBJECTIVE LENS 0.5x
(not available for SPZ-50 / SPZT-50 /
SPZV-50 with stand PFM / P)

Model NSAL 1.6X
AUXILIARY OBJECTIVE LENS 1.6x

Model NSAL 0.7X
AUXILIARY OBJECTIVE LENS 0.7x
＊Available upon special order

Model NSAL 0.75X
AUXILIARY OBJECTIVE LENS 0.75x

Model NSAL 0.45X
AUXILIARY OBJECTIVE LENS 0.45x

Model NSAL 2X
AUXILIARY OBJECTIVE LENS 2x
(not available for DSZ /
NSW series & others on
remarks 1)

Model NSCG49
COVER GLASS
(for protection of objectives)

Model NSCG49 / D
COVER GLASS
with screw threads on both sides

＊Remarks : 1)Auxiliary objective lenses are not available for stand type T and TL,
and NSW-1P, NSW-2P, NSW-20P and NSW-620P.
2)Magnification decreases while working distance increases with 0.45x, 0.5x,
0.7x and 0.75x.
3)Magnification increases while working distance decreases with 1.6x and 2x.

OPTICAL DATA FOR SPZ-50 / SPZT-50 / SPZV-50

Eyepiece	DHW10X (F.N.23)					DHW15X (F.N.15)					DHW20X (F.N.11.4)				
Auxiliary Lens	Nil	W/0.5x	W/0.75x	W/1.6x	W/2x	Nil	W/0.5x	W/0.75x	W/1.6x	W/2x	Nil	W/0.5x	W/0.75x	W/1.6x	W/2x
Magnifications	6.7x-50x	3.35x-25x	5x-37.5	10.72x-80x	13.4x-100x	10.05x-75x	5.02x-37.5x	7.53x-56.25x	16.08x-120x	20.1x-150x	13.4x-100x	6.7x-50x	10.05x-75x	21.44x-160x	26.8x-200x
Working Distance	108mm	240mm	132mm	50mm	41mm	108mm	240mm	132mm	50mm	41mm	108mm	240mm	132mm	50mm	41mm
Feild of view	34.3-4.6mm	68.9-9.2mm	45.7-6.1mm	21.4-2.8mm	17.1-2.3mm	22.3-3mm	44.7-6mm	29.8-4mm	16-1.8mm	11.1-1.5mm	17-2.2mm	34-4.5mm	22.6-3mm	10.6-1.4mm	8.5-1.1mm

OPTICAL DATA FOR DSZ-44 / DSZT-44 / DSZV-44

Eyepiece	DSW10X (F.N.23)					DSW15X (F.N.15)					DSW20X (F.N.11.4)				
Auxiliary Lens	Nil	W/0.45x	W/0.5x	W/0.75x	W/1.6x	Nil	W/0.45x	W/0.5x	W/0.75x	W/1.6x	Nil	W/0.45x	W/0.5x	W/0.75x	W/1.6x
Magnifications	10x-44x	4.5x-19.8x	5x-22x	7.5x-33x	16x-70.4x	15x-66x	6.75x-29.7x	7.5x-33x	11.25x-49.5x	24x-105.6x	20x-88x	9x-39.6x	10x-44x	15x-66x	32x-140.8x
Working Distance	90mm	170mm	150mm	105mm	45mm	90mm	170mm	150mm	105mm	45mm	90mm	170mm	150mm	105mm	45mm
Feild of view	23-5.2mm	51.1-11.6mm	46-10.4mm	30.6-6.9mm	14.3-3.2mm	15-3.4mm	33.3-7.5mm	30-6.8mm	20-49.5mm	9.3-2.1mm	11.4-2.5mm	25.3-5.7mm	22.8-5.1mm	15.2-3.45mm	7.1-1.6mm

OPTICAL DATA FOR DSZ-70 / DSZT-70

Eyepiece	DSW10XZ (F.N.20)					DSW15X (F.N.15)					DSW20X (F.N.11.4)				
Auxiliary Lens	Nil	W/0.45x	W/0.5x	W/0.75x	W/1.6x	Nil	W/0.45x	W/0.5x	W/0.75x	W/1.6x	Nil	W/0.45x	W/0.5x	W/0.75x	W/1.6x
Magnifications	20x-70x	9x-31.5x	10x-35x	15x-52.5x	32x-112x	30x-105x	13.5x-47.2x	15x-52.5x	22.5x-78.75x	48x-168x	40x-140x	18x-63x	20x-70x	30x-105x	64x-224x
Working Distance	80mm	125mm	120mm	85mm	41mm	80mm	125mm	120mm	85mm	41mm	80mm	125mm	120mm	85mm	41mm
Feild of view	10-2.8mm	22.2-6.3mm	20-5.7mm	13.3-3.8mm	6.2-1.7mm	7.5-2.1mm	16.6-4.7mm	15-4.2mm	10-2.8mm	4.6-1.3mm	5.7-1.6mm	12.6-3.6mm	11.4-3.2mm	7.6-2.1mm	3.5-1mm

OPTIONAL ACCESSORIES

DIGITAL CAMERA ADAPTERS

ADC25

Model ADC25
DIGITAL
CAMERA ADAPTER
(for small-sized camera)

Z1017

Model Z1017
DIGITAL
CAMERA ADAPTER
(for small-sized camera)

DG

Model DG
ADAPTER FOR SLR
DIGITAL STILL CAMERA
(to be used with T-mount adapter)

TV CAMERA ADAPTER / T-MOUNT ADAPTERS

T-MOUNT ADAPTERS
Model T-PENTAX/K
T-NIKON
T-CANON/EOS
T-OLYMPUS/OM
T-SONY

Model TVA-45
TV CAMERA ADAPTER
(for C-mount CCD/CMOS camera)

MICROSCOPE CAMERA

CMOS cameras with USB interface are optionally prepared easily to convert an analog scope into "Digital Microscope". XR9530E is provided with "CartonScale2" measuring software making it possible to make a measurement of live image before capture. HDCE series include "ScopeImage" image processing software for simple measurement.

XR9530E

"CartonScale2"   HDCE-20C   HDCE-X3   HDCE-X5
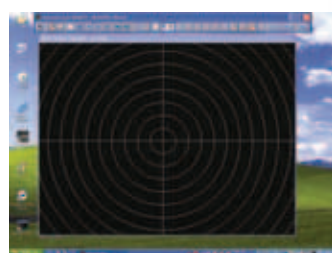
Models	XR9530E	HDCE-20C	HDCE-X3	HDCE-X5
Image Sensor	1/3" CMOS	1/2.5" CMOS	1/2.5" CMOS	1/2.5" CMOS
Number of Pixel	1.3M (1280x1024)	2M (1600x1200)	3M (2048x1536)	5M (2592x1944)
Digital Output	24-bit (color)	24-bit (color)	24-bit (color)	24-bit (color)
Frame Rate	1280x1024 15 f/s	1600x1200 6 f/s	2048x1536 4 f/s	2592x1944 2.5 f/s
	640x480 60 f/s	1024x768 10 f/s	1024x768 10 f/s	1024x768 10 f/s
Sensitivity	1.0V/lux-sec	0.53V/lux-sec	0.53V/lux-sec	0.53V/lux-sec
S/N Ratio	54dB	40dB	40dB	40dB
Exposure	Auto/Manual			
White Balance	Auto/Manual			
Mount Type	C mount (without relay lens) *)TVA-45 adapter is needed.	C mount with relay lens (to be inserted into eyepiece tube without adapter)		
Interface	USB2.0			
Standard Software	"CartonScale2" Measuring Software	"ScopeImage9.0" Image Processing Software		
Working Temperature	0-40°C			
OS	Windows XP/7 32-bit	Windows 2000/XP/Vista/Win 7 32bit or 64bit		

OPTIONAL ACCESSORIES

UNIVERSAL BOOM STANDS / LARGE GLIDING STAGES

Model DSZ-44P-S
DSZ MICROSCOPE 10x-44x
with holder (without stand)

Model DSZ-44PF-S
Same as DSZ-44P-S, but with
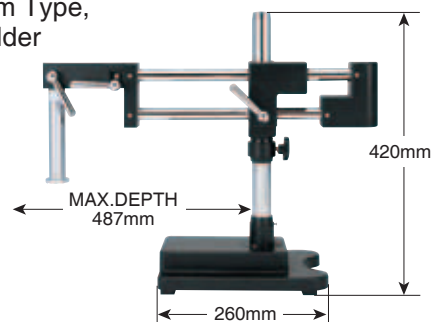built-in ring fluorescent light

Model DSZ-44PG-S
Same as DSZ-44P-S, but with
built-in LED ring light

Model DBS-2
Same as DBS-1,
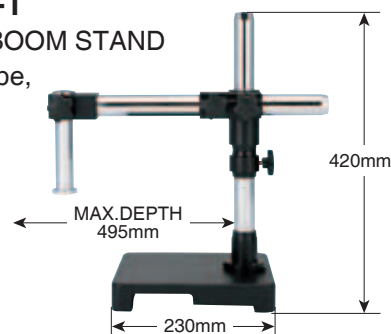but with ball bearings
for smooth horizontal
movement

Model UN-S100
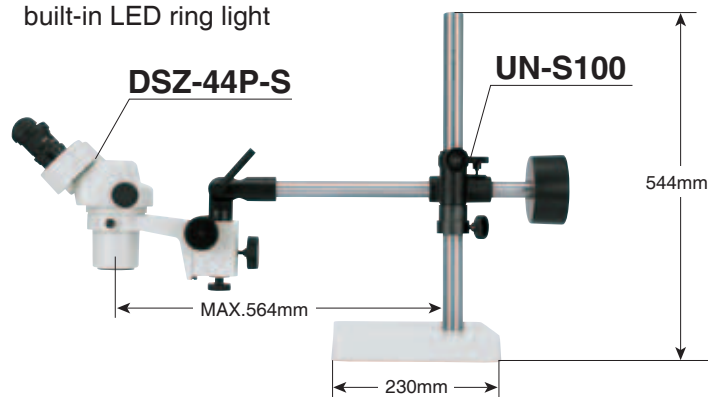UNIVERSAL BOOM STAND
Single Arm Type, without holder

Model DBS-1
UNIVERSAL BOOM STAND
Double Arm Type,
without holder

420mm

MAX.DEPTH
487mm

260mm

Model SBS-1
UNIVERSAL BOOM STAND
Single Arm Type,
without holder

420mm

MAX.DEPTH
495mm

230mm

DSZ-44P-S

UN-S100

MAX.564mm

544mm

230mm

Model UN-S200
UNIVERSAL BOOM STAND
Desk Clamp Type,
without holder

505 mm

MAX 657mm
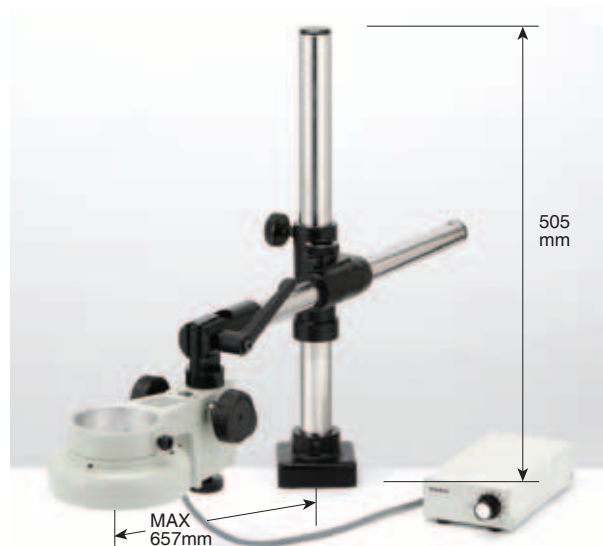
Model V-7C
UNIVERSAL BOOM STAND
Articulated Arm Type, without holder

Model V-7DC
Same as V-7C, but with desk clamp
instead of base

MAX 846mm

462 mm

330 mm

MAX 513mm
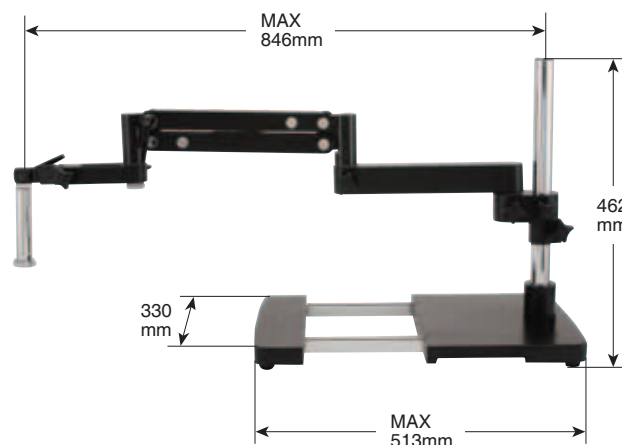
GLIDING STAGES

Model M300-C
GLIDING STAGE with attachments
for micrometers MITUTOYO
No.150-192(MHN1-25)
Size : 114mmx114mm
Range of movement : 25mmx25mm
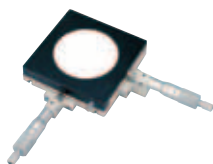
Model M300-R
ROTATABLE
GLIDING STAGE
Size : 135mm
Range of movement : 25mmx25mm

＊Remarks : Micrometer is not included.
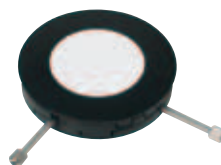
ILLUMINATORS

Model MIC-56
WHITE LED RING ILLUMINATOR
with non-step brightness adjustment

* 54 pcs. LED (light-emitting diode)
* Long life time
* Low temperature
* No change of color temperature
* Flicker-free

Model LED40AR
"COLD LIGHT" 40W OPTICAL FIBER ILLUMINATOR
with Ring Light Guide
-Length 1000mm
-Long life up to 20000H (no guaranteed)

Model LED40AD
"COLD LIGHT" 40W OPTICAL FIBER ILLUMINATOR
with Double Branch Light Guide
-Length 500mm
-Long life up to 20000H (no guaranteed)

*Single Branch Light Guide type also available (Model LED40AS)

Model LED40FL
FOCUSING LENS for LED40AD & LED40AS
-Illumination distance : 20-200mm
-Illumination area : 10-40mm diameter
-External dimensions : 24mm dia. x 69.61mm (max.)

Model LED-60T
WHITE LED RING ILLUMINATOR
with 7-step brightness adjustment & four kinds
of lighting modes (1/4, 2/4, 3/4 & full lighting)

* 60 pcs. LED (light-emitting diode)
* Long life time
* Low temperature
* No change of color temperature
* Flicker-free

Model LTA-1
LED ILLUMINATOR
with flexible twin arm

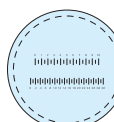## MONITOR HOLDER

Model Z1015
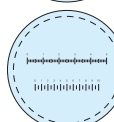MONITOR HOLDER

SHOP MICROSCOPES

Model M1752
Model M1754

For printing,
machining,
inspection,
measurements, etc

M1752
40x, with scale
3.0mm/0.1"

M1754
100x, with scale
1.0mm/0.05"

Model	M1752	M1754
Magnification (Field of View)	40x (4.5mm)	100x (1.8mm)
Objective Lens	4x	10x
Focusable Eyepiece	10x with scale	10x with scale
Measuring Range	3.0mm/0.1"	1.0mm/0.05"
Minimum Graduation	0.02mm/0.001"	0.01mm/0.001"
Working Distance	15mm	5.5mm
Height	200mm	
Width	65mm	
Net Weight	570g	580g
Accessory	Penlight	
Packing	Carton box	

LOUPES

POKCET MICROSCOPE with LED LIGHT

Model M783
40x

Model M784
100x

LOUPE WITH LED RING LAMP

Model M1242
125mm glass lens, 2x,
with 48 pcs. LED
ring lamp

Model M1243
125mm glass lens, 3.5x,
with 48 pcs. LED
ring lamp

LED FLASH LOUPE

Model R7519
26mm, 10x

Model R7526
21mm, 15x

FLEXIBLE LOUPE with LED LIGHT

Model E1991
2x, 98mm acrylic lens (4x, 25mm),
with magnetic end and desk clamp

SWING-OUT INSPECTION LOUPES

Model R2450

18mm, 10x
Triplet lens
No coating for true color
Resolution: 67 lines/mm

Model R7525

20.5mm, 10x
Triplet lens
Resolution: 64 lines/mm

SCALE LOUPES

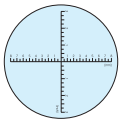For printing, machining, inspection, measurments, etc

Model M1207

Magnification : 7x, Lens diameter : 25mm
Lens : 4 elements, 4 lenses (fully coated)
Eye relief : 12mm, Height : 57mm, Net weight : 90g
Accessory : Vinyl case, Scale size : 33mmφ

Model M1210

Magnification : 10x, Lens diameter : 19mm
Lens : 2 elements, 3 lenses (fully coated)
Eye relief : 12mm, Height : 35mm, Net weight : 40g
Accessory : Vinyl case, Scale size : 33mmφ

Model R7520

18mm, 10x
Triplet lens
Resolution: 64 lines/mm

Model R235

16mm, 10x
Triplet lens
Resolution: 64 lines/mm

Model R230

15mm, 18x
Quodruplet lens

Model R237

12mm, 20x
Triplet lens

Model R232

11mm·6mm, 10x·15x
Doublet lens

Model R231
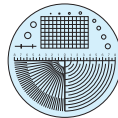
12mm, 10x
Doublet lens

SCALE PATTERNS

No.1
Lengths in either inches or millimeters
can be measured with the appropriate line.
Maximum:0.6" or 16mm
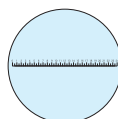
No.2
Lengths can be measured in
0.1 millimeters increments.
Maximum:16mm

No.3
Angles, redius, diameters, widths, etc.
can be measured mainly in inches.

No.4
Angles, redius, diameters, widths, etc.
can be measured mainly in millimeters.

Note)Custom designed scales may be available at extra cost. Contact us for price quotes.

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Please note in advance that specifications may vary without prior notice.