





# Stereo Microscope BOOM STANDS



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# **OVERVIEW**

## Get the Proper Stand for your task...

#### SMS15/16 Standard Boom Stands

- Small to Medium Microscopes or Cameras
- Fixed Observation Position or Swing In, Swing Out (x)
- Adjustable Height (z) and In /Out (y) Position
- Lowest Price

#### SMS6B Standard Ball Bearing Boom Stands

- Small to Medium Microscopes or Cameras
- Changing Observation Position in Horizontal Plane (x,y)
- Adjustable Height (z) Position
- Moderate Price

#### SMS20 Heavy Duty Ball Bearing Boom Stands

- Large Microscopes with Cameras
- Changing Observation Position in Horizontal Plane (x,y)
- Adjustable Height (z) Position
- High Magnification Work
- Premium Price

#### SMS25 Articulating Arm Boom Stands

- Small to Medium Microscopes or Cameras
- Changing Observation Position in All Three Dimensions (x,y,z)
- Maximum Compactness, No Need for Clearance Behind Boom
- Moderate to Premium Price

#### **Base Options**

- Accommodate Your Mounting Requirements
- Allow Existing Stands to be Mounted in New Locations

#### **Microscope Mounting Options**

- Allow Quick Adjustment of Microscope Tilt
- Adapters for Most Current and Older Microscopes









# SMS15/16 Standard Boom Stand

### Features of the SMS15/16 Stand

- Made to resist corrosion
- Nylon bearing surfaces avoid wear and slide easily
- Adjustable lever handles and "Soft-Grip" knobs

#### SMS15/16 Boom Stands

Low cost combined with high quality and unique safety features make the SMS15/16 Boom Stand an unmatched value in its class. Its height and long reach create ample room to work on and inspect large parts under the microscope.

The "Bonder Mount Socket" at the end of the horizontal arm accepts the industry standard 5/8 " diameter microscope mounting dowel. Focus drives with this mounting dowel are commonly available from microscope manufacturers. Microscopes that do not have the standard 5/8" mounting dowel can be mounted with a SPOT Imaging tilting or non-tilting microscope mount (see page 12). A lever knob adjusts a friction collar that captures the 5/8" mounting dowel and allows the microscope to rotate around a vertical axis. The microscope then can be easily aligned to the user's eyes when repositioned.

Anti-rotation is accomplished via a delrin plug and a flatted horizontal arm. The vertical and horizontal movements can be securely locked into position with "Soft-Grip" knobs. Vertical column lengths of 15.75" and 24" are available. The extra length column is used to compensate for work space lost when microscope mounts are used. Select the appropriate base option for your application (see page 3). For a detailed description of the base options see page 10.



SMS15 and SMS16 Boom Stands



SMS15 and SMS16 Features



Stand with TC2 Table Clamp		
Catalog Number	Shipping Wt.	
SMS15A (153/4" Verticle Pole)	20 lbs.(9 kgs.)	
SMS15B (24" Verticle Pole)	24 lbs.(11 kgs.)	

## SMS6B Standard Ball Bearing Boom Stand

### Features of the SMS6B Stand

- Linear ball bearing support of the dual shaft horizontal arm creates a smooth, gliding movement
- Many of the same features found on the most expensive stands available at a moderate price
- Adjustable lever handles and "Soft-Grip" knobs for your convenience

#### **SMS6B Boom Stands**

The SMS6B stand was designed for people who are using smaller stereo microscopes for inspection work and want a boom stand that gives them smoother horizontal arm movement than our SMS16 and is less expensive than our large SMS20 stand.

Combining the best of both worlds, the SMS6B, like the SMS20, has a ball bearing supported dual shaft horizontal arm that allows it to move smoothly with none of the "slip-stick" that is common with bushing supported horizontal arms. Ball bearing guides are used on both shafts for extra smooth operation. Like the SMS16, the SMS6B needs no adapter if your microscope focus mount has the industry standard 5/8" Ø mounting dowel.

The 5/8" diameter dowel on a "Bonder Mount" fits into a vertical socket in the end of the horizontal arm. A lever knob adjusts a friction collar that traps the "Bonder Dowel" and allows the microscope to rotate around a vertical axis. This allows the microscope to be aligned to the user's eyes when repositioned. Microscopes that do not have this 5/8" dowel can be mounted with adapters listed on page 13.

Details of the available base/mounting options are outlined on pages 5, 10 & 11.



SMS6B and SMS6B-TC Boom Stands



SMS6B Features



\*Subcomponent Catalog Number

# SMS20 Large Ball Bearing Boom Stand

### Features of the SMS20

- Linear ball bearing support of the dual shaft horizontal arm creates a smooth, gliding movement
- Supports large research grade stereo microscopes with full camera systems
- Offers great resistance to tipover

#### SMS20 Boom Stands

The SMS20 uses linear ball bearings to support the horizontal arm, allowing it to glide over the work surface with none of the binding inherent in other boom stands. It is now possible to scan a large flat area, such as a printed circuit board, by simply guiding the microscope with your hands.

#### **HP High Precision Mount**

Our heavy-duty tilting and swiveling microscope mount incorporates two degrees of freedom. One allows the scope to swivel 360° around a vertical axis. The second permits 90° of tilt from vertical to horizontal positions. In addition, the heavy duty mount can securely lock the microscope in any orientation, even when loaded down with a large camera system. This mount also features a friction adjustment on the tilting motion to prevent unexpected "flip-over" of the microscope upon release of the tilting lock.

#### **Multiple Base Options**

Details of the available base options are outlined on pages 7, 10 & 11.



SMS20 and SMS20-TC Boom Stands



SMS20 Features



Description	Model Designator Number (-XX-)
Industry Standard	
5/8" Bonder Socket	-20 -
Leica/ Wild	
S, MZ series; 10:445-615, 10:445-616, 10:450-171, or 10:450-299 focus drives (focus drive sent in by customer and shortened)	-28-
S, MZ series; 10-445-615, 10-445-616, 10-450-171, or 10-450-299 focus drives (focus drive sent in by customer)	-29-
Meji	
EMZ, EMT, EMF, EMX with F, FX and FC focus mounts (20mm Ø mounting column)	-16-
RZ series	-18-
Nikon	
SMZ-1, -2B, -2T (24.5mm Ø mounting column), SMZ-10 (76265 focus mount required)	-2-
SMZ-U, SMZ-10A, SMZ 645, SMZ 660, SMZ 800, SMZ 1000, SMZ 1500 (32mm Ø mounting column) (for focus mount A, C or D)	-19-
Olympus	
SD/SF series, SZX, SZH, SZ with SZ-STS focus mount, BXFM (32mm x 203mm mounting column)	-18-
SZX10 and SZX16 with SZX2-RFA16 focus mount drives (32mm x 340mm mounting column)	-30-*
SZX10 and SZX16 with SZX2-F0, SZX2-F0F, SZX2-F0FH, SZX2-A02 focus drives (32mm x 239mm mounting column)	-31-
Unitron	
ZST, ZSB (24.5mm Ø mounting column)	- 3-

### SMS25 Articulating Arm Boom Stand

### Features of the SMS25

- Adjustable counter-balance arm allows easy, hand guided, up and down movement
- Works in spaces where a conventional boom stand will not fit
- Accepts standard 5/8"bonder mount

#### SMS25 Boom Stands

The SMS25 is a light duty, articulating arm boom stand designed for use with smaller microscopes at lower magnifications without cameras. Ideal for crowded labs or repetitive movement, the articulating arm gives free range of motion without the clearance behind the mounting location that is required by

standard boom arms.

The adjustable, counter-balance arm moves up and down through 14.5" of vertical travel while stretching over 29.5" from arm mount center to microscope mount center. The vertical position can be locked via a lever at the end of the arm. The adjustment range of the counter-balanced section is 4-20 lbs. allowing optimization of the lift assist for the microscope.

The "Bonder Mount Socket" at the end of the horizontal arm accepts the industry standard 5/8" diameter microscope mounting dowel. Focus drives with this mounting dowel are commonly available from the microscope manufacturers. In addition, SPOT Imaging can provide tilting and non-tilting adapters for new and old "post mount" microscope focus drives. The latest socket design incorporates a lever handle that allows for "no-tool" installation and adjustment of the friction in the bonder socket. The vertical orientation of the socket allows for the alignment of the microscope to the operator's eyes when the arm is swung into new positions.

#### **Multiple Base Options**

Details of the available base options are outlined on pages 9, 10 & 11.



SMS25 and SMS25-TC Boom Stands



SMS25 Features



\*Subcomponent Catalog Number

### SB1 Small Base (Not for use with SMS20 or SMS25)

This base option combines economy, quality and portability. The base is made from 10.25" square by 1" thick steel plate which is then machine finished and texture coated with durable catalyzed polyurethane paint. It is supported by non-scuffing, non-oxidizing nylon feet. This base option allows the work station to be easily moved from one bench top to another. The mounting hole accepts a 3/8"-16 socket head cap screw.





### SB3 Large Base

This base option provides the highest tipover resistance, while still providing portability. The base is made from a 12" x 14" x 1.5" thick steel plate which is then machine finished and texture coated with durable catalyzed polyurethane paint.

To facilitate positioning of the base it is equipped with two handles. The base sits on non-scuffing non-oxidizing nylon feet. This base option allows the work station to be easily moved from one bench top to another. The mounting hole accepts a 3/8"-16 socket head cap screw.





# TC2 Table Clamp

The SPOT Imaging Table Clamp is a solid aluminum "C" clamp design with a 1"x 3.5" webb, a 3/4"Ø stainless steel clamping screw, a floating platon and a 3" Ø clamping knob. Unlike competing clamps, this clamp solidly attaches the vertical pole to the table as if it was bolted. This clamp eliminates any tipover worry, without requiring modification of the table. The finish is a texture coated, catalyzed polyurethane paint. The mounting hole accepts a 3/8"-16 socket head cap screw.





### TM1 Table Mount

The SPOT Imaging Table Mount is designed to allow boom stand attachment to 1.0"or25mm center to center tapped hole patterns like those seen on vibration isolation tables. It also comes with a backing plate to increase mounting strength on standard table tops. With this type of mount, tipover and rigidity are not concerns. The TM1 is made of solid 300 series stainless steel to match the anti-corrosion characteristics of the boom stands they support. The TM1 includes the top mounting plate, the bottom backing plate, three sets of 1/4-20 mounting fasteners (7/8", 2" and 2-3/4"), and one set of M6 x 20mm mounting fasteners. The mounting hole accepts a 3/8"-16 socket head cap screw.





# **BASE OPTIONS FOR SMS25 SERIES**

### TM25 Table Mount for SMS25

This base option is an economical way to mount the SMS25 arm to table tops. It consists of a mounting socket and a horizontal mounting plate. It should be noted that mounting fasteners are not included due to the infinite mounting possibilities. The customer should supply 3/8" Ø mounting hardware for this purpose. TM25 is texture coated with black polyurethane paint.





## WMT25 Wall Mount for SMS25

This base option is an economical way to mount the SMS25 arm to walls and columns. It consists of a mounting socket and a vertical mounting plate. It should be noted that mounting fasteners are not included due to the infinite mounting possibilities. The customer should supply 3/8" Ø mounting hardware for this purpose. WMT25 is texture coated with black polyurethane paint.





### PD25 Mounting Pedestal for SMS25

The PD25 is a mounting pedestal for the SMS25 arm. It allows the SMS25 arm to be mounted to standard base options such as the TM1, TC2 and SB3. It is also available for OEM mounting of the arm to machine bases. The pedestal is anodized aluminum and comes with a 3/8"-16 x 1-1/4" socket head cap screw.





# VP25 Vertical Column and Slider for SMS25

The VP25 is a vertical column and slider mounted pedestal for the SMS25 arm. It allows the SMS25 arm to be mounted to standard base options such as the TM1, TC2 and SB3. It has the added advantage of allowing greater vertical positioning. The vertical column is precision ground 300 series stainless steel and comes with a 3/8"-16 x 1-1/4" socket head cap screw. The slider mounted pedestal and vertical stop are anodized aluminum and have lever handles for locking the height position.





# MICROSCOPE MOUNTS

Microscopes	Non-Tilting Adapter	Tilting Adapter
Camera 1/4"- 20 Mount		
Non-focus mount	135	137
Focus mount	N/A	136
Leica/Wild		
S, MZ series; 10-445-615, 10-445-616, 10-450-171, or 10-450-299 focus drives (focus drive sent in by customer and shortened to 76mm travel)	149 - N	147 - N
S, MZ series; 10:445-615, 10:445-616, 10:450-171, or 10:450-299 focus drives (focus drive sent in by customer)	150 - N	148 - N
Stereo microscope with 20mm Ø post	143	144
Мејі		
RZ series	128	118
Nikon		
SMZ-1, -2B, -2T (24.5mm Ø mounting column)	126	116
SMZ-U, SMZ-10A, SMZ645, SMZ660, SMZ800, SMZ1000, SMZ1500 (32mm Ø mounting column)	128	118
Olympus		
SZ (STS-STB2 focus mount required) with focus mount (24.5mm Ø mounting column)	126	116
SD/SF series, SZX, SZH, SZ with SZ-STS focus mount (32mm x 203mm mounting column)	128	118
SZX10 and SZX16 with SZX2-F0, SZX2-F0F, SZX2-F0FH, SZX2-A02 focus drives (32mm x 239mm mounting column)	171	161
BXFM	(SMS20 Stand	recommended)
Unitron		
ZSB & ZST	126	116
Zeiss		
SV6, SV8, SV11, SR, DR, DRC, Stemi Series, Discovery, V8, V12, V20	128	118
Miscellaneous		
Bonder focus mount to accept 76 mm stereomicroscope pods	N/A	146



# **Non-Tilting Mount Features**

# **Tilting Mount Features**



# **MICROSCOPE MOUNTS**













# **Bonder Dowel**

The SPOT Imaging SMS15, SMS16, SMS6B, and SMS25 boom stands have a bonder mount socket at the end of their horizontal arm that accepts the industry standard 5/8" bonder dowel found on most stereo microscope focus drives and bonder arms.

If your stereo microscope's bonder dowel doesn't match the industry standard bonder dowel dimensions (shown in Figure 1), you'll need a SPOT Microscope Mount to attach it to SPOT Imaging boom stands.



# **BOOM STAND MODELS**

#### SMS15/16 Boom Stand

The SMS15/16 is a light duty, low cost boom stand available with a weighted base, table clamp or table mount.



#### SMS6B Boom Stand

The SMS6B is a sturdy boom stand providing smooth horizontal arm adjustments. They are available with a weighted base, table clamp or table mount.



#### SMS20 Boom Stand

The SMS20 is a sturdy boom stand providing smooth horizontal arm adjustments.



#### SMS25 Boom Stand

The SMS25 is a light duty boom stand providing smooth horizontal and vertical movement.





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