



Long Reach for Big Projects

Leica's three new Swingarm Stands bring the stereomicroscope to you

Leica
MICROSYSTEMS

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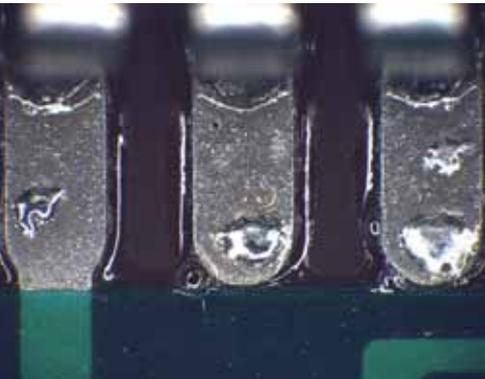


Detail of an albumen print from approximately 1880.
(Courtesy of Stephen Harwood)

Flexibility for every application

In the electronics industry, stereomicroscopes are required for visual inspection of large printed circuit boards. The surfaces of cylindrical bearings in motors are visually inspected for quality during the automotive production process. Biologists conduct surgeries on mice and rat brains to research how nerves conduct signals and regenerate after trauma. These are just a few examples of how large specimens, or the tools required to test or manipulate these specimens, require a special type of stereomicroscope stand.

Leica Microsystems offers the perfect solution: a new Swingarm Stand Series. The wide extension range of the swingarm, heavy load capacity, ability to connect a focus arm with a wide variety of adaptation options, outstanding vibration-dissipation – these are just a few of the many convenient features. Even in unusual work situations, Leica Swingarm Stands provide ergonomic conditions for examination and afford plenty of room for specimens, tools, and equipment.



Examination of a defective solder joint

Antistatic protection for sensitive electronics

When inspecting printed circuit boards and their extremely sensitive components, it is essential to eliminate the risk of damage and catastrophic product failure caused by electrostatic discharges. A chief strength of the three new Leica Swingarm Stands is their antistatic design that prevents the buildup of electrostatic charges and thus, protects electronic components.

Stability and smooth maneuverability for routine inspection

Material testing and quality control are important in all phases of industrial production. Only continual inspection during manufacturing ensures perfect quality and eliminates risks. In doing so, it is particularly important to always maintain a stable field of vision despite frequent changes in viewing perspective. Leica Swingarm Stands combine smooth movement with a wide extension range of the horizontal arm. They can be repositioned effortlessly and, with a table clamp or flange, offer a variety of installation options for every work situation. Their carefully thought-out designs, using highly durable materials, withstand even the most rugged everyday working conditions of industrial production.

Versatility and ergonomics for every work situation

Various components can be combined (see assembly diagram on page 10/11) to provide a perfect solution for every conceivable inspection situation. From the five focus drives, motorized focus, choice of bases, as well as Leica ErgoModules™ and ErgoTubes™, a wide range of configurations is available to suit every task. Leica Microsystems is the only manufacturer that offers a carefully matched system of Swingarm Stands, stereomicroscopes, digital cameras, and software to meet your complete imaging needs.



Leica MZ16 Stereomicroscope with ErgoTube™
(10 445 822) and Coarse/fine Focus Drive
with Inclined Column (10 447 257)

A variety of possible configurations is presented on the following pages. For assistance in finding a solution for your specific requirements, please contact your local Leica sales representative. Contact information is available online at www.stereomicroscopy.com.

ESD Horizontal Swingarm Stand (10 447 097)
with Small Base (10 447 260)
Standard Horizontal Swingarm Stand (10 447 098)
with Midsize Base (10 446 436)
Large Horizontal Swingarm Stand (10 447 099)
with Vertical Column 560/57mm (10 447 230)



Economical Versatility: ESD Horizontal Swingarm

Together with a small base plate, Leica's ESD Horizontal Swingarm Stand is ideal for the inspection of large specimens that require ESD protection. Its antistatic coating, variety of adaptation options, and free working area make it the perfect building block for your research or production work.

Versatile mounting options

Focus drives can be mounted to the ESD Horizontal Swingarm in either a horizontal or vertical direction. A safety retaining screw protects each adapter from accidentally disengaging.

Maximum ease of use

The vertical column's retaining ring allows the stand to be quickly swung away from the work area with a simple push. At the same time, it prevents the horizontal arm from accidentally loosening or falling.

Safety for your work specimens

The horizontal arm of this stand is made of black anodized aluminum. It is flattened on the side to prevent it from accidentally rotating. To minimize the risk of contaminating specimens, the ESD Swingarm Stand uses no lubricants whatsoever.



Configuration example

Combining the Vertical Column 470/35mm (10 447 008) with the Focus Drive for the S-series (10 447 255) results in the following max. values for the configuration, including Stereomicroscope and Accessories:

	W _{max}	E _{max}
Baseplate, small (10 447 260)	3.2kg	640mm
Baseplate, midsize (10 446 436)	6.6kg	640mm

W_{max} = Maximum equipment weight
E_{max} = Maximum extension



1 Connection to the focus mechanism

- Allows connection of five different focus drives with standard pin diameter 15.8mm (5/8"), motordrive not suggested
- Includes retaining screw for fixing a stereomicroscope in place

2 Horizontal arm

- Made of black anodized aluminum, corrosion-protected
- Grease-free movement prevents specimen contamination
- Smooth, easy adjustment
- Flattened arm surface prevents accidental rotation of the stereomicroscope

3 Cross-member

- Made of black anodized aluminum
- Features ergonomic handles
- Includes retaining ring

4 Vertical column

- Made of chrome-plated steel
- Height/diameter: 470/35 mm

5 Base

- Heavy-duty design
- Antistatic surface prevents electrostatic damage
- Optional table clamp, made of black anodized aluminum, available for tables with a thickness of 21-70mm
- Optional flange available for fastening to work equipment, tables, and 'breadboards'

Accurate Positioning Made Easy: Standard Horizontal Swingarm

Leica's Standard Horizontal Swingarm Stand makes working with heavy microscope equipment effortless. The horizontal arm with ball bearings slides smoothly, so even frequent horizontal position changes are easy and accurate. Should you need to clear your workstation for other tasks, the stereomicroscope can be swung to the side in a matter of seconds.

Adjustable extension limit stop

Using the adjustable stop, you can define a precise position for the horizontal arm, swing the arm elsewhere, and return it back to the original position at any time. You also have the option of mounting the stop so that the stereomicroscope can be retracted to a certain point only. Further, you can define a horizontal 90° swivel range using Leica's special retaining ring.

Ergonomic in every situation

The control elements of the Standard Horizontal Swingarm Stand are ergonomically designed to help to make work intuitive and fatigue-free, which is especially beneficial for users who spend long periods of time at the microscope. One rotary knob is used for horizontal adjustment and rotation and the other can be used to smoothly adjust the braking resistance for extension.

Stable imaging with vibration-dissipating feet

The midsize base is equipped with special vibration-dissipating feet that significantly lessen system vibrations. This ensures that the image always remains stable when viewing specimens, even if there are sources of frequent vibration in the work area. This provides the benefit of fatigue-free work with almost no disturbances, even at high magnification levels.



Configuration example

Combining the Vertical Column 470/35mm (10 447 008) with the Midsize Base (10 446 436) and the Coarse/fine Focus Drive (10 447 257) results in a maximum extension of 700mm and a maximum weight, including the Stereomicroscope Equipment, of 4.6kg.

Pictured illumination accessories

Leica L2 Cold Light Source (10 446 385)
Double-armed Gooseneck (10 446 389)
L2 adapter for Swingarm Stand (10 446 375)



1 Connection to the focus mechanism

- Allows connection of five different focus drives with standard pin diameter 15.8mm (5/8"), motor drive not suggested
- Retaining lever fixes the stereomicroscope equipment in place
- Durable bearings allow frequent movement of equipment

2 Swingarm

- Made of black anodized aluminum, corrosion-protected
- Grease-free movement prevents specimen contamination
- Limit stop for reproducible microscope positioning
- Ball bearings allow smooth, easy adjustment
- Retaining ring made of black anodized aluminum

3 Cross-member

- Black anodized and coated aluminum
- Features ergonomic handles
- Retaining ring with limit stop for sideways swivel (90°, can be positioned as desired)
- Infinitely adjustable braking resistance

4 Vertical column

- Made of chrome-plated steel
- Height/diameter: 470/35 mm

5 Base

- Heavy-duty design
- Antistatic surface prevents electrostatic damage
- Optional table clamp, made of black anodized aluminum, available for tables with a thickness of 21-70mm
- Optional flange available for fastening to work equipment, tables, and 'breadboards'
- Special vibration-dissipating feet on the midsize baseplate shorten oscillation period by approximately 50%

Maximum Load Capacity - Minimum Effort: Large Swingarm

There are several reasons why Leica's Large Swingarm Stand is ideal for heavy stereomicroscope equipment. Its horizontal arm with ball bearings moves smoothly and easily, with infinitely adjustable braking resistance. In addition to the adjustable stop on the horizontal arm, the stand column has an adjustment mechanism that can define a 90° swivel range for the horizontal arm.

Adjustable swivel range to reproduce examination settings

The vertical column has an adjustable stop that defines a 90° range through which the stand can be swiveled on the base. This allows you to return the stand to its exact original position after a pause in your work for maximum reproducibility. You are always free to work without the swivel limit stop.

Easy adjustment, even for heavy microscope equipment

The vertical drive allows you to position the stereomicroscope quickly and accurately. The resistance can be varied using a screw, and the crank provides millimeter resolution height adjustment. With the smooth-moving Large Swingarm Stand with ball bearings, even heavy stereomicroscopes with multiple accessories can be easily maneuvered over your specimens.

Maximum stability despite small dimensions

The base of the Large Swingarm Stand provides maximum stability, while also allowing ample room for the specimen and tools. It ensures a consistently stable image and so provides the foundation for successful documentation of your examinations. Thanks to the semicircular cutout, the base takes up minimal space in your work area.



Configuration example

Combined with the Coarse/fine Focus Drive, (10 447 257) the following are the maximum values for the configuration with Stereomicroscope and Accessories:

	W _{max}	E _{max}
Vertical Column 800/57mm (10 447 230)	11kg	790mm

W_{max} = Maximum equipment weight
E_{max} = Maximum extension



1 Connection to the focus mechanism

- Allows connection of six different focus drives and motorized focus with standard pin diameter 15.8mm (5/8")
- Retaining lever prevents the stereomicroscope equipment from accidentally loosening

2 Horizontal arm

- Made of black anodized aluminum, corrosion-protected
- Grease-free movement prevents specimen contamination
- Smooth, easy adjustment
- Limit stop provides reproducible microscope positioning

3 Cross-member

- Made of black coated aluminum
- Features ergonomic handles
- **Toothed rail and crank allow easy height positioning, even for heavy stereomicroscopes**
- Ball bearings allow smooth, easy adjustment
- Infinitely adjustable braking resistance
- Limit stop for reproducible microscope positioning

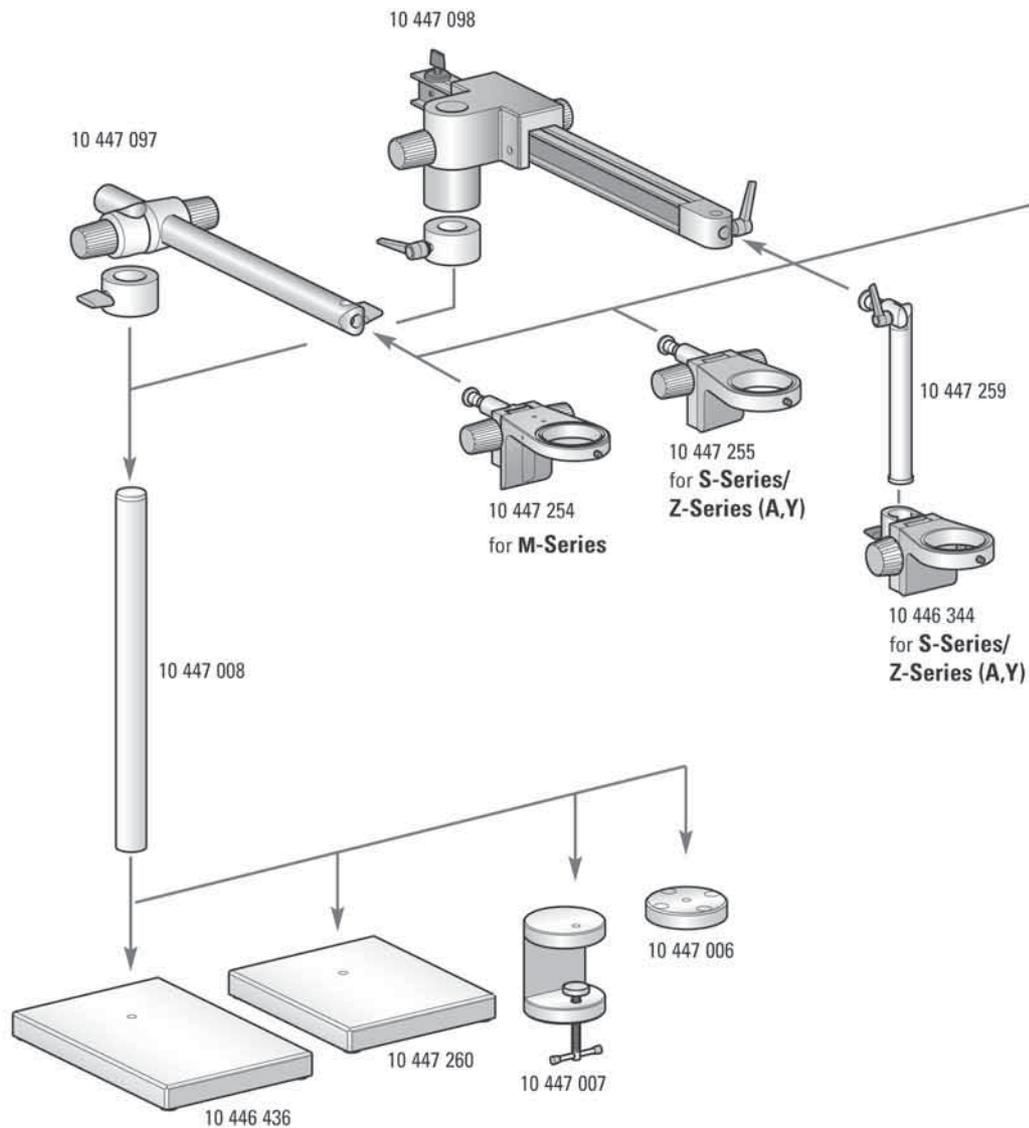
4 Vertical column

- Made of black anodized aluminum
- Height of the column: 800mm or 560mm at a diameter of 57mm
- Features ergonomic handles
- Limit stop for sideways swivel (90°, can be positioned as desired)

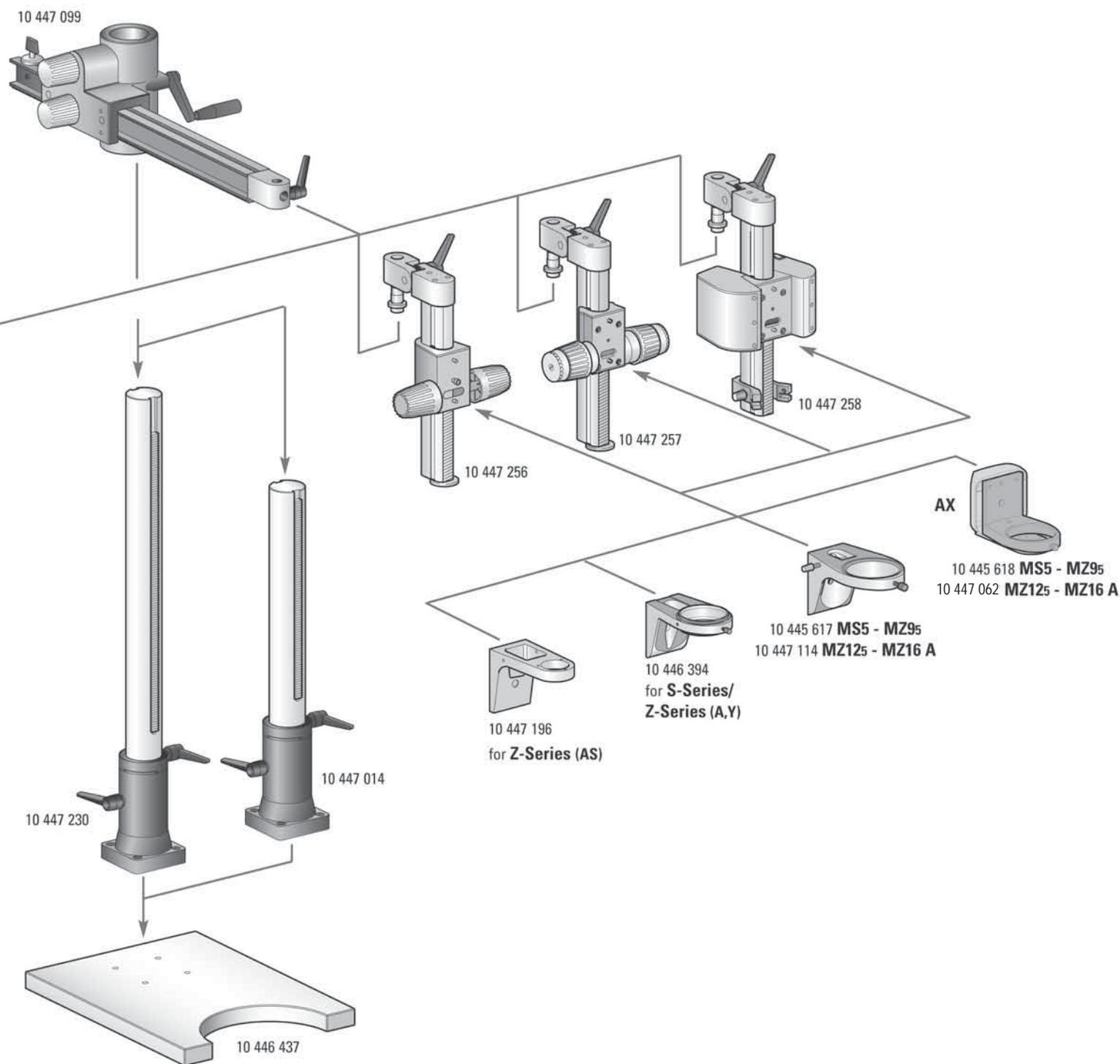
5 Base

- Heavy-duty black finish
- Antistatic surface
- Large, stable footprint with cutout provides optimum stability with minimum space requirements

Leica's Modular Swingarm Stands



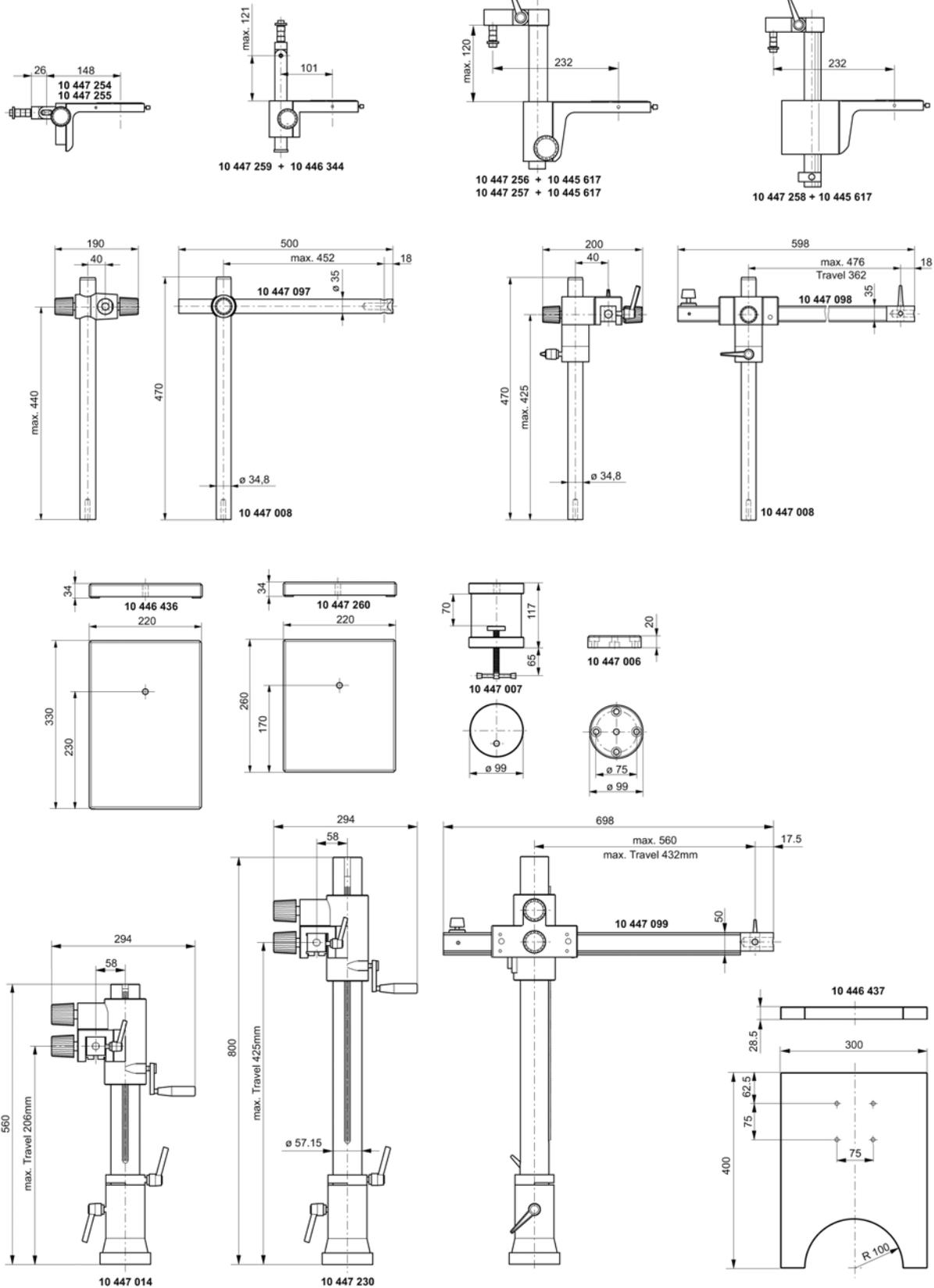
10 447 097	ESD horizontal swingarm	10 447 006	Flange
10 447 098	Standard horizontal swingarm	10 447 007	Table clamp
10 447 008	Vertical column 470/35mm	10 447 254	Focus drive, inclinable, M-series
10 447 260	Baseplate, small	10 447 255	Focus drive, inclinable, S-series/ Z-Series
10 446 436	Baseplate, midsize	10 447 259	Carrier rod, inclinable, Ø 25mm
		10 446 344	Focus arm, for columns Ø 25mm



10 447 099 Horizontal swingarm, large
 10 447 014 Vertical column 560/57mm
 10 447 230 Vertical column 800/57mm
 10 446 437 Baseplate, large
 10 447 256 Focus drive, inclinable
 10 447 257 Coarse/fine focus drive, inclinable

10 447 258 Motor focus drive, inclinable, 300mm
 10 447 196 Microscope carrier for Z-series
 10 446 394 Microscope carrier for S-series/ Z-series
 10 445 617 Microscope carrier for MS5 - MZ95
 10 447 114 Microscope carrier for MZ125 - MZ16 A
 10 445 618 Microscope carrier AX for MS5 - MZ95
 10 447 062 Microscope carrier AX for MZ125 - MZ16 A

Dimensions



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