



*Comfortable work, not harder!*

# Huvitz Stereo Microscope HSZ-700 / HSZ-600

# HUVITZ OPTILUTION

## Most Optimized Optical Solution!

As one of the world leading ophthalmology equipment manufacturer, the professionalism of Huvitz engineering guarantees upscaled satisfaction for any R&D and production environment providing a more precise and optimized optical solution.

## Powerful Performance

Optical system with high resolution, true color reproduction and low distortion is one of the key characteristic of Huvitz microscopes which provide with clear images for better analysis. Optimized task analysis can be achieved with the Huvitz optimized optical solution!

## Advanced Design

Ergonomic design has been carefully implemented to improve efficient usage and minimize operators' fatigue. Ideal position and angle of each module, compact size and high quality provide users friendly environment for any task given. Helps to reduce fatigue in long-duration inspection.

## Improved Flexibility

Variety of objective lenses and eyepieces allow user to combine the optical system for any propose and work or R&D environment. Customized stand and digital application guarantee the best resolution in any environment.



HSZ-645

HSZ-660

HSZ-645TR

HSZ-730TR

## Contents

HSZ-700 .....	2	Application Accessories .....	12
HSZ-600 .....	4	Digital Application .....	14
High Performance .....	6	System Overview .....	16
Ergonomic Design .....	8	Specifications .....	17
Lighting Accessories .....	10		

## HSZ-700 Series

Wisely optimized zooming and color reproduction offer you stable and high quality images.

Interchangeable objective lenses and accessories can be implemented to provide a guaranteed satisfaction for any given inspection environment and task.



HSZ-STP7



HSZ-700, the best solution where high precision Galilean optic system is required!

### Galilean Optical System

This not only change easily objective lens but also produce real image. It is possible to use wide range of research required high precision and wide range of accessories for Quality Control.

### Wide 7:1 Zoom

It offers the highest zooming specification among the competitor's model. The 8x to 56x zooming range provide the easiness for any task execution. Longer working distance is another factor of consideration of the HSZ-700.

### Superior optic system

Live color reproducibility and high resolution power are just a result of superior optic design minimizing distortion and aberration offering a clear image on wide range and variety of samples.

### Effective task execution

HSZ-700's speed, accuracy and effectiveness offer the best solution for any challenging task. High resolution and power lenses can be interchanged easily to obtain better results for any routine tasks given.



## HSZ-600 Series

The improved performance is much easier to work by simple and intuitive structure.

To provide the convenience of user-centered design and compact design creates and ideal combination



HSZ-645TR / HSZ-ILST6



HSZ-645TR / 645 / 660



HSZ-645 / Focus Mount Combination



Auxiliary objective lens

HSZ-600, A Greenough system to provide a wide range of inspection field demanding safety and comfortability

### Greenough Optical System

Efficient Greenough Optical System offers you more superior flatness and outstanding depth of focus. Lens coating and material are carefully selected to provide the best result to minimize the distortion and color aberration.

### Compact Design

Compact microscope with large base for variety of specimens offer you optimized inspection environment. Ergonomic design optimizes the comfort during the operation.

### Effective 6.7:1 Zoom

Most widely used and broadly accepted 6.7:1 zooming design provide more effective working environment. Higher working distance offers you better quality control of specimens and samples.

### Effective task execution

Carefully selected lens and coating materials can improve the operation efficiency and minimize eye fatigue drastically. Most optimized observation angle of HSZ-660 is best for multiply customized environments.

## High Performance based stable system.

Powerful Performance with upscaled color reproducibility.



Highly stringent criteria design to minimize aberration and distortion with ideal coating technology and lens materials.

### High resolving power objective lens

Low distortion, longer working distance, ideal lens combination and design offer you a better observation environment for any specimen. Ideal selection of lens and coating materials guarantee the fidelity of color reproducibility and their longevity. Interchangeable objective lens can adapt the microscope for any working environment.

### Eyepiece with Comfort View

High eye point design and aberration correction are another advantages of Huvitz microscope eyepieces. They provide with the optimal visual field for low acuity power users.

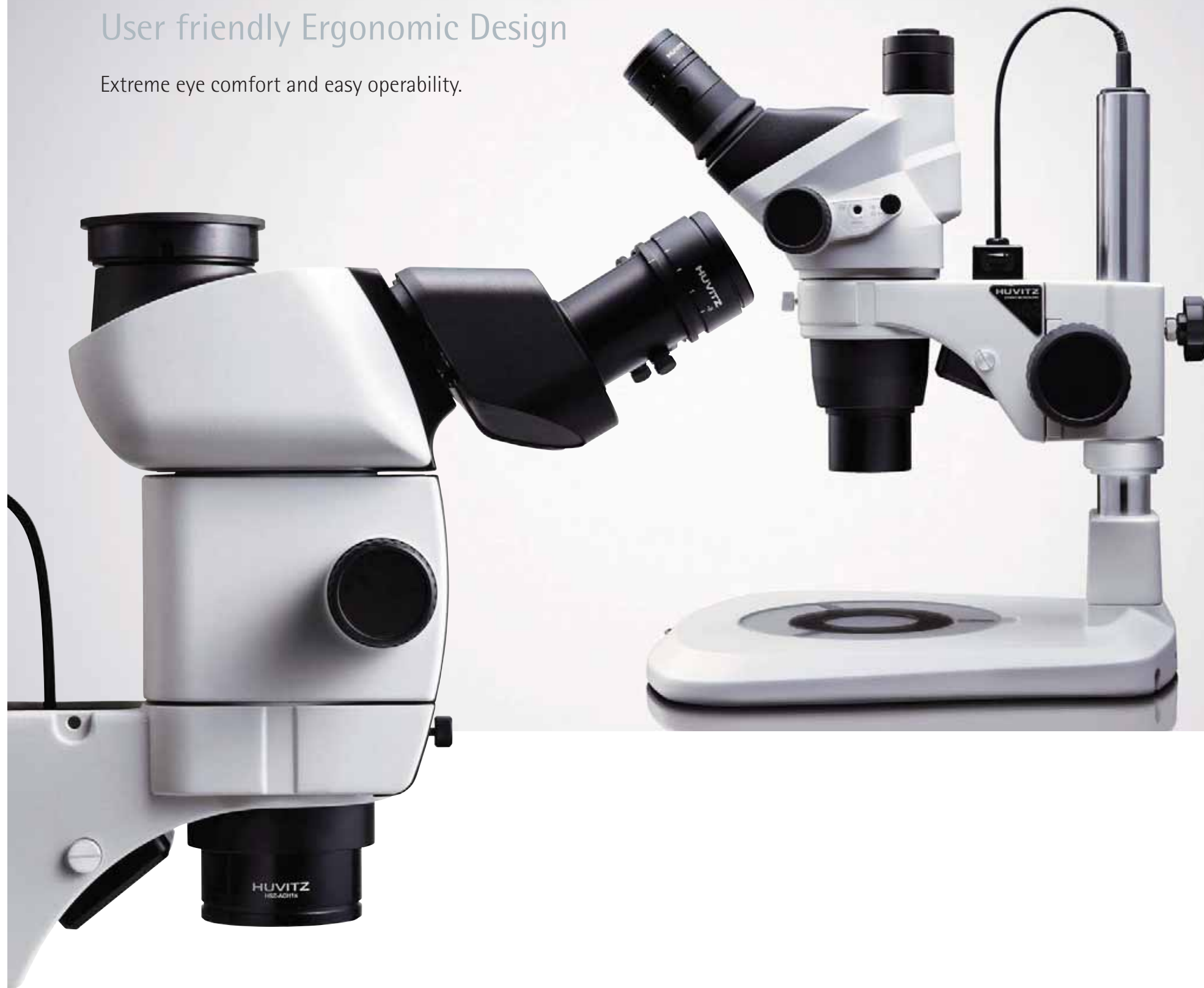
### Flexibility of Observation Tube

Observation tube is designed to be adaptable for any kind of observation needs. Huvitz Trinocular Tube, HSZ-645 and HSZ-730 are suitable for video port output for digital application. 60 degree inclination tube is also available to meet special and customized need. (HSZ-660)



## User friendly Ergonomic Design

Extreme eye comfort and easy operability.



Click-stop mechanism(HSZ-645TR)



Soft focus dial



LED Transmitted / Reflected dial

Compact design providing multiple functions reducing eye fatigue.

### Slim and Compact Design

Achievement of the most ergonomic design multiple computer simulation minimizes the operators' fatigue and maximizes the work efficiency.

### Comfortable Zoom Knob / Focus Knob / Click Stop

Careful polyurethane material selection in zoom knobs and focus dials to assure the comfort in any operation.  
To achieve repetitive zooming change Click Stop function has been implemented to improve work efficiency.

### High Eye Point and Diopter function

High Eye Point eyepiece design provides comfort view with operation with a pair of glasses or with low visual acuity.  
The diopter control is easily achieved from the eyepieces.

## Lighting Accessories

Fidelity in Real Color Reproduction  
and Active illumination Control.



LED Four-Part Ring Illumination HSZ-LRLS



Flexible angle of LED light

High Intensity LED implemented.

### High Intensity LED

Low energy consumable and durable LED provide suitable transmission or reflection.

LED lighting has been proved to reproduce real color without affecting specimen by its excess of color temperature providing longer lifetime and low energy cost.

### 4 Split LED ring light

Compact 4 split right LED illumination can simulate different lighting environment for a better observation.

Light intensity can be easily optimized for any glossy samples or specimens.

### LED Transmitted / Reflected light

Other external light is not needed as light angle can be regulated from stand arm.

Transmitted light is designed to be used with stand base without any discomfort.



## Easy Application Accessories

Wide range of accessories can be attached without alternating the optical system.



Application with easy operability, wider working space and ESD

### Wider Base Stand

Variety of stand can be chosen depending on the work environments' needs. Hybrid transmitted and reflected light base is also available with very compact design and universal stand is also available for large specimens or samples.

### Variety of Video Ports

Huvitz exclusive video port lenses assure better quality video images for any digital camera systems.

### ESD and surge protection

Huvitz Unique ESD and surge protection system comply with the UL and CL standards and regulations: another advantage of Huvitz system for electronic and electric quality control usage.



## Easy Digital Application

Clarity image, color analysis easy image and word processing are integral part of Huvitz image system.



Huvitz Panasis : High compatibility in hardware and software. Easy for every usage.

### Digital Camera

Panasis integrates all Huvitz HSZ microscopes and displays the image observed in any computer or digital imaging system.

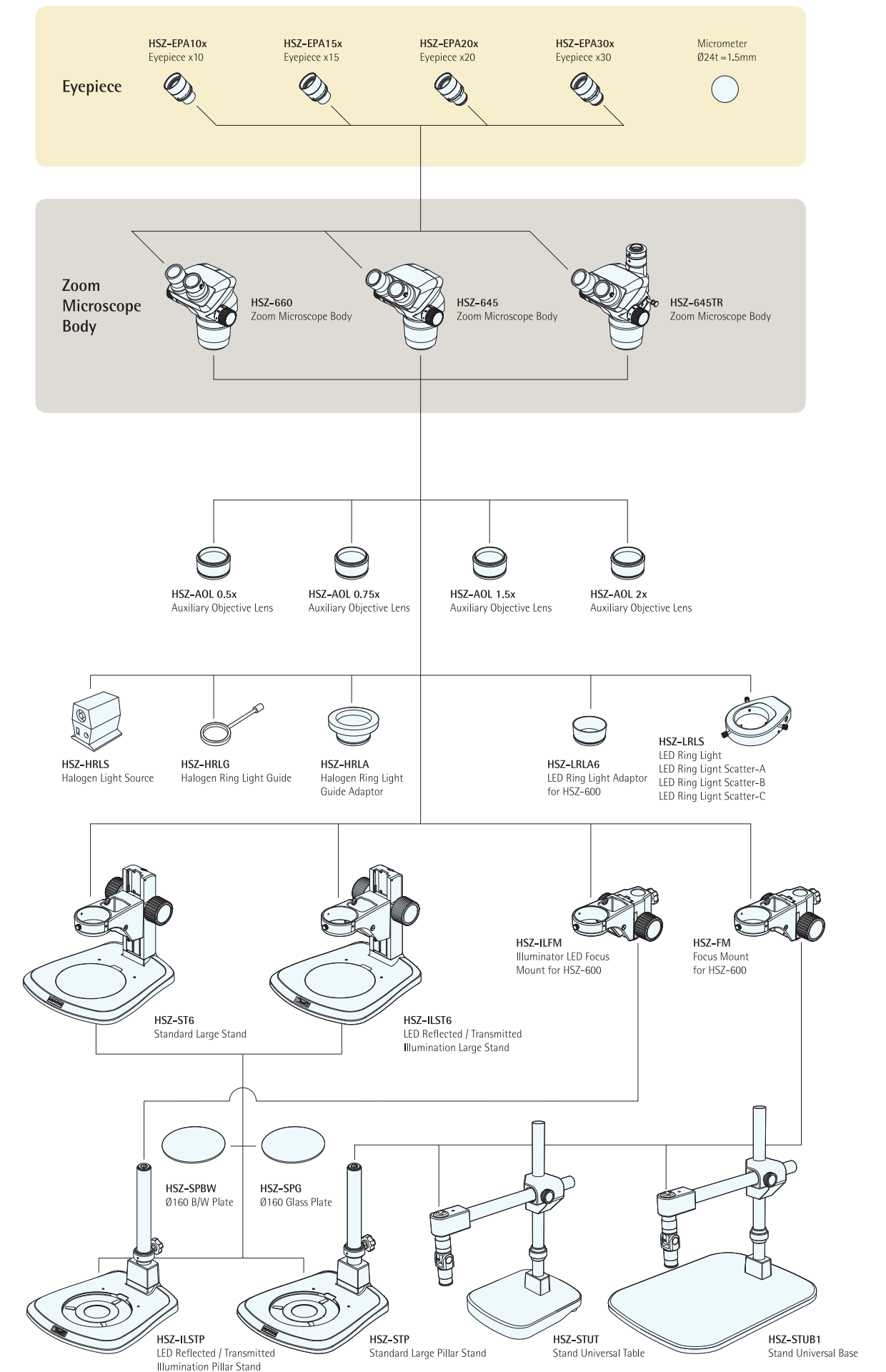
### Enhanced Measurement

It is not enough with just saying that Panasis has 3 dimension acknowledgement and measuring capability. Highly complex metal and bio specimen analysis can be easily achieved with Panasis user friendly analysis tools.

### Characteristic of Panasis Application

- Easy and Intuitive User Interface
- Live measurement : length, area, angle, auto trace, etc
- Microsoft Excel export/import compatibility.
- Focus indicator, color histogram, Multi-focus, Auto tilting
- Wider filter and image processing
- R&D resource dedicated for time to market customization
- SW Upgrade and customer support though Huvitz website.

## System Overview / HSZ-600





Specifications

HSZ-700 Specifications				
Item		Specifications		
Zoom microscope body HSZ-ZB700		Zoom drive : Horizontal knob system Click stop for each zoom magnification: On-Off switching possible Zoom ratio values : 7:1 (0.8~5.6x) Zoom magnification indication : 0.8, 1, 1.25, 1.6, 2, 2.5, 3.2, 4, 5, 5.6. Objective lens mounting : Screw mounting into thread		
Observation tube HSZ-TR30 HSZ-BI30		Trinocular tube(HSZ-TR30), Binocular tube(HSZ-BI30) View inclination angle : 30° Light path selection(only HSZ-TR30) : 2 steps (Binocular 100%, Video 80%-Binocular 20%) Interpupillary distance adjustable range : 55 to 75mm Eyepiece clamping knob provided		
Stand		HSZ-ST7	HSZ-ILSTS7	HSZ-ILST7
HSZ-ST7		Standard large stand	LED reflected / transmitted illumination stand	LED reflected / transmitted illumination large stand
HSZ-ILST7 HSZ-ILSTL7		Mounting diameter : 76mm		
		Knob rotation tension adjustment Focusing stroke : 120mm		
Stage plate		HSZ-SPG HSZ-SPBW	HSZ-SPG100	HSZ-SPG HSZ-SPBW
Light source		Transmitted illumination: LED Reflected illumination: LED Average LED life span: 10,000 hrs. Input rating: AC 100-240V, 50/60Hz, 10W		
Objective lens		Model HSZ-ACH1x HSZ-PLAP01x HSZ-ACH1.5x HSZ-ACH2x	Working distance W/D : 90.5mm W/D : 81mm W/D : 45.5mm W/D : 33.5mm	
Eyepieces		Eyepiece series		
Weight				

HSZ-600 Specifications					
Item		Specifications			
Microscopy body		HSZ-645		HSZ-660	HSZ-645TR
HSZ-645	Magnification				0.67x ~ 4.5x
HSZ-660	Zoom ritio				6.7 : 1
HSZ-645TR	Working distance				110mm
	Tube inclination angle	45°	60°		45°
	Interpupillary distance adjustment	Left / right interlocked Adjustment range : 55 to 75mm			
	Viedo camera adaptability	-		C-mount(0.5x built in)	
	Click stop	-		Click stop for each zoom magnification: On-Off switching possible	
Auxiliary objective lens		Mounting by screwing into the thread at the bottom of frame(M48 thread x0.8)			
Stand		HSZ-ST6		HSZ-ILST6	
HSZ-ST6	Standard large stand		LED reflected / transmitted illumination large stand		
HSZ-ILST6	Frame installation	Mounting diameter : 76mm			
	Focusing adjustment	Knob rotation tension adjustment Focusing stroke : 120mm			
	Stage plate	HSZ-SPG HSZ-SPBW		HSZ-SPG	
	Light source	Transmitted illumination: LED Reflected illumination: LED Average LED life span: 10,000 hrs. Input rating: AC 100-240V, 50/60Hz, 10W			
Eyepieces	HSZ-EPA10x	10x / FN 22 / Diopter adjustment : -8D ~+5D / Eyepiece micrometer dist mountable			
	HSZ-EPA15x	15x / FN 16 / Diopter adjustment : -8D ~+5D / Eyepiece micrometer dist mountable			
	HSZ-EPA20x	20x / FN 12.5 / Diopter adjustment : -8D ~+5D / Eyepiece micrometer dist mountable			
	HSZ-EPA30x	30x / FN 7 / Diopter adjustment : -8D ~+5D / Eyepiece micrometer dist mountable			
Dimensions / Weight		Dimension (W*D*H) : 289.9 x 329.9 x 371.3 / Weight: 5.2Kg			

Eyepieces				
Model	F.N. : 22	Diopter adjustment	Reticle	Focal magnification
HSZ-EPA10x	22	-8 ~+5	Yes	-
HSZ-EPA15x	16	-8 ~+5	Yes	-
HSZ-EPA20x	12.5	-8 ~+5	Yes	1.3x
HSZ-EPA30x	7	-8 ~+5	Yes	2x

Auxiliary objective lens for HSZ-600	
Model	Working distance(mm)
HSZ-AOL0.5x	200
HSZ-AOL0.75x	130
HSZ-AOL1.5x	64
HSZ-AOL2x	39.5

Hologen ring illumination	
Model	Details
HSZ-HRLS	Halogen ring light source
HSZ-HRLG	Halogen ring light guide
HSZ-HRLA	Halogen ring light adapter

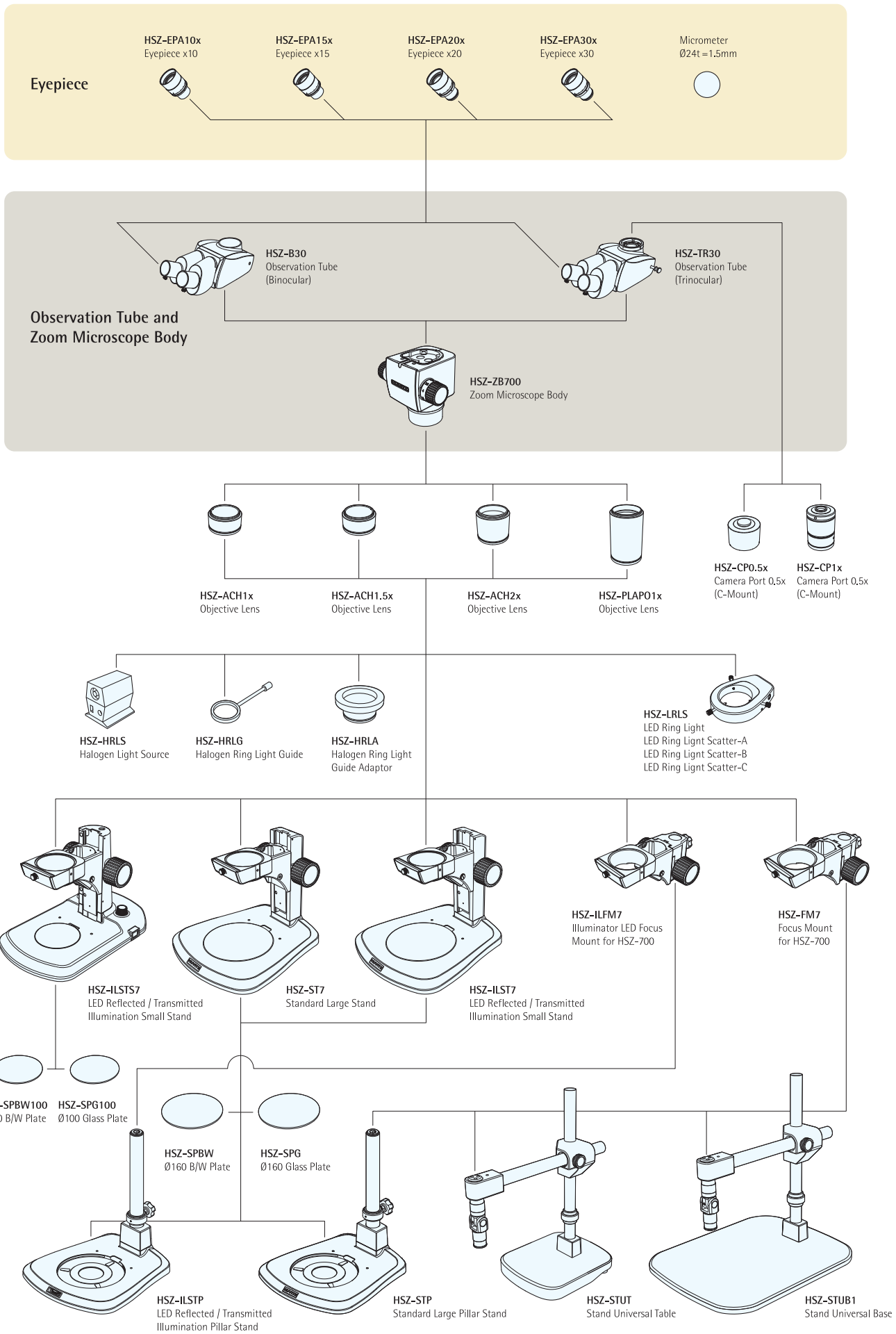
Stage plate	
Model	Details
HSZ-SPG100	Glass plate Ø100
HSZ-SPBW100	Black / White plate Ø100
HSZ-SPG	Glass plate Ø160
HSZ-SPBW	Black / White plate Ø160

HSZ-700 optical performance								
Eyepiece	HSZ-EPA10x		HSZ-EPA15x		HSZ-EPA20x		HSZ-EPA30x	
F.N.	22		16		12.5		7	
Objective lens	Total magnification	Field view (mm)	Total magnification	Field view (mm)	Total magnification	Field view (mm)	Total magnification	Field view (mm)
1x	8x-56x	27.5-3.9	12x-84x	20.0-2.9	16x-112x	15.6-2.2	24x-168x	8.8-1.3
1.5x	12x-84x	18.3-2.6	18x-126x	13.3-1.9	24x-168x	10.4-1.5	36x-252x	5.8-0.83

HSZ-600 optical performance								
Zoom magnification	HSZ-EPA10x		HSZ-EPA15x		HSZ-EPA20x		HSZ-EPA30x	
	Total magnification	Field view (mm)	Total magnification	Field view (mm)	Total magnification	Field view (mm)	Total magnification	Field view (mm)
0.67x	6.7	32.8	10.1	23.9	13.4	18.7	20.1	10.4
1x	10	22	15	16	20	12.5	30	7
2x	20	11	30	8	40	6.3	60	3.5
3x	30	7.3	45	5.3	60	4.2	90	2.3
4.5x	45	4.9	67.5	3.6	90	2.8	135	1.6

Designs and details can be changed without prior notice for the purposes of improvement.

System Overview / HSZ-700

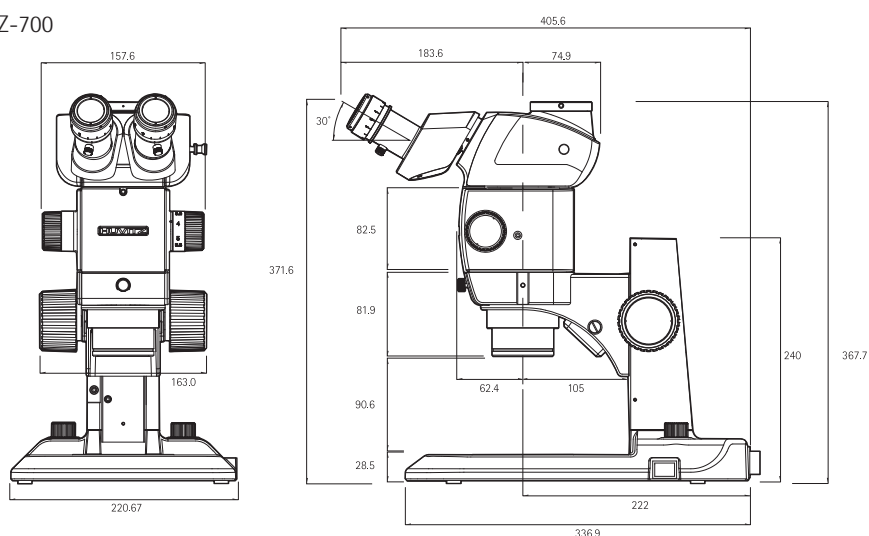




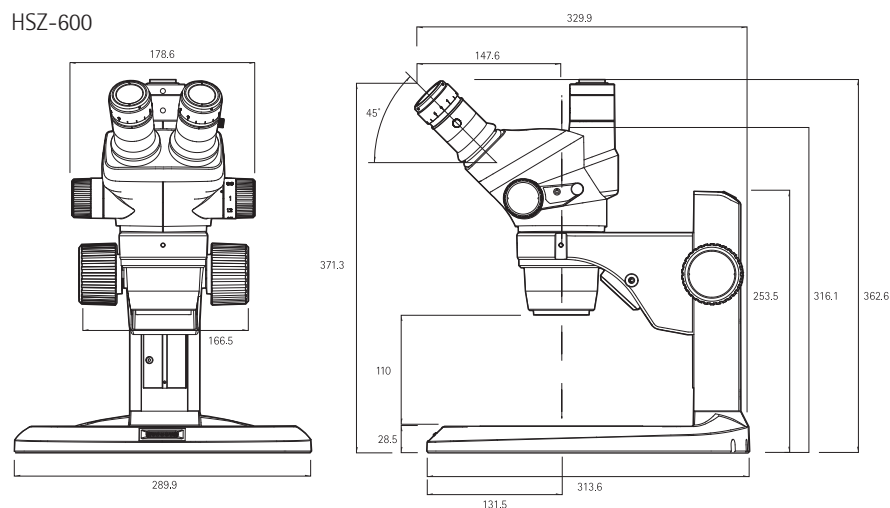
# Huvitz Stereo Microscope HSZ-700 / HSZ-600

## Dimensions

HSZ-700



HSZ-600



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