

# VISION ENGINEERING + OUR DIFFERENCE

Vision Engineering Ltd. has been designing and manufacturing high quality ergonomic microscopes, digital instruments, inspection and non-contact measuring systems for over 60 years.

#### Innovation

With a philosophy of design innovation, Vision Engineering holds world patents for a number of optical / digital techniques, significantly improving viewing ergonomics and enabling customer quality and productivity improvements.

To see our focused quality, please contact your Vision Engineering branch, local authorized distributor, or visit our website: visioneng.us



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pdate, without notice, the design, materials or specification of any products, the information contained within this brochure/datasheet and to discontinue production or distribution of any of the products described.

Vision Engineering prides itself on quality products, electronics, mechanics and optics and is certified for the quality management system ISO 9001:2015. Quality is as important to us as our customers. Our systems have proved themselves many times over and are chosen by the world's best companies.

#### Global

Vision Engineering has manufacturing and design facilities in the UK and USA, plus sales and support offices throughout Europe, the Far East, Asia and the Americas. We support our customers with close technical and service support anywhere in the world.

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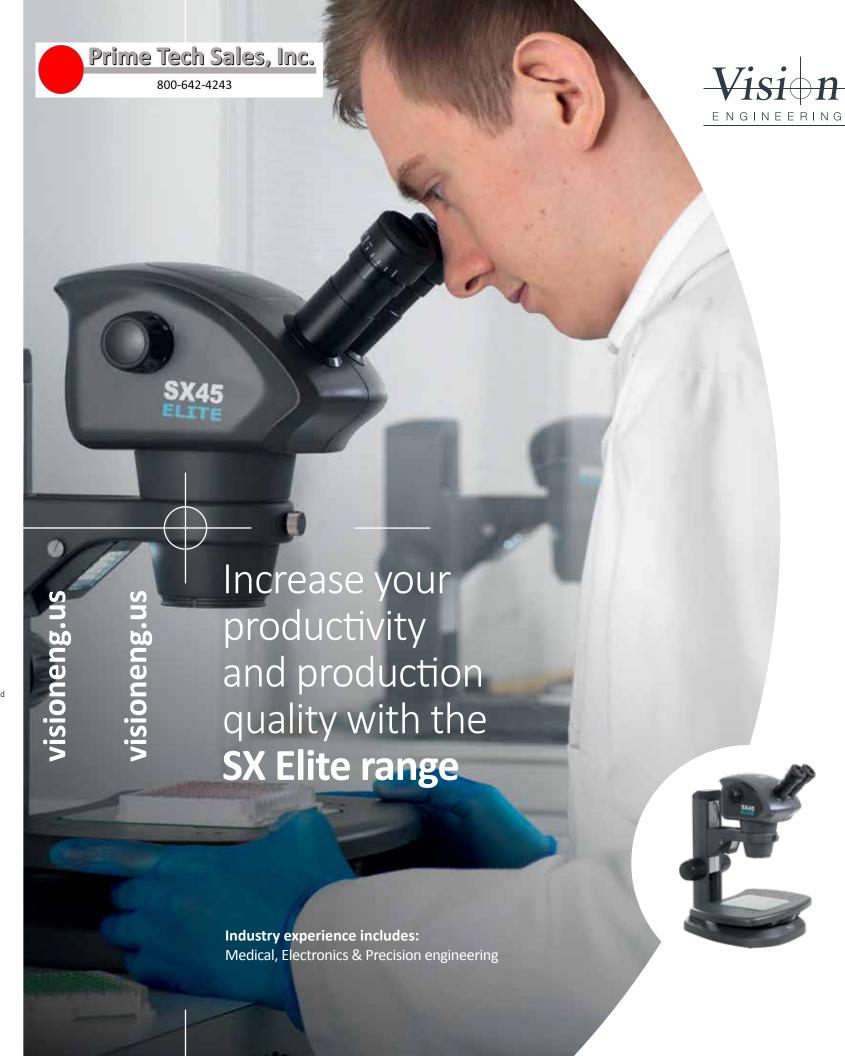
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FM 557119 Vision Engineering Ltd. has been certified for the quality management system

ISO 9001:2015



# Whether looking for molding defects, surface finish, machining residue, correct assembly or much more, quality assurance is enhanced. Reducing cost and increasing quality. SX45 Inspect easier Share information **Easier training**

# REDUCED COSTS + INCREASED QUALITY —

Nature has designed our visual system to be so dominant that our bodies adapt to accommodate any deficiency in the way we see. By **enhancing the visual sense** we extend the body's capability.

SEE BIGGER

IMPROVE QUALITY

**BETTER** 

REDUCE COST

INCREASE PRODUCTIVITY

#### **Looking at details**

Inspection of small details in finished items or supplied components is made easier and more efficient at the right magnification. Whether looking for moulding defects, surface finish, machining residue, correct assembly or much more, quality assurance is enhanced, reducing cost and increasing quality.

#### **Working with tools**

Depth perception is often required when working with tools. This is especially important when working with sensitive or delicate subjects or when working with small components. SX Elite provides the necessary depth perception allowing easier working, increasing efficiency and reducing errors.

#### **Reporting results**

Swift and accurate communication is vital in the modern working environment. SX Elite's camera system gives you the ability to quickly and efficiently capture and share images with suppliers, customers and team members, saving money and reducing waste.

#### Work quicker and easier

Enables easy access for reworking and sample manipulation. View more of the subject with easier location of points of interest, efficient inspecting and working with tools.

#### See more detail

Different subjects require different illumination. SX Elite offers direct, oblique, quadrant, ultra violet and sub-stage illumination for optimal lighting for each subject type. By lighting subjects correctly more details can be seen clearly, increasing speed and confidence of inspections and rework.

#### **Share information, communicate** SX Elite's camera option comes efficiently and extend ability

Pictures aid accurate and efficient communication. View, capture and annotate images easily and quickly for training, archiving, communicating with colleagues, suppliers and customers.

Communicate effectively with suppliers increasing speed of issue resolution, increasing product quality and reducing down time. The easy-to-use software supports custom overlays and image enhancements, extending inspection capability.

complete with ViCapture, Vision Engineering's intuitive imaging software. SX Elite's camera is also compatible with Vision Engineering's entire suite of inspection software.



#### **Key features**

- Stereo zoom microscope
- Available magnification range: x4 x200

# MAGNIFICATION + FLEXIBILITY

SX Elite's **easy-to-use zoom control** combines speedy access to greater visual data with flexibility of operation. Click stop magnification points allow users to recall magnifications quickly, easily and repeatably. The addition of magnifying eyepieces and external objectives enable precise magnification adjustment to meet user's needs.



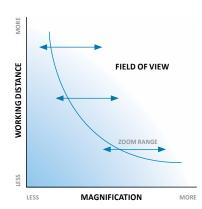
# STAND OPTIONS + TECHNICAL INFORMATION

There are several factors that are inseparable when selecting **working magnification**. As magnification increases, **field of view** and **working distance** decrease.

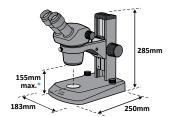
#### **Stand selection**

Select the stand that best meets the needs of the task. Require space for large samples, special equipment or clean/clear work area?

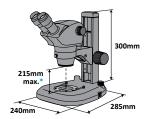
Then select a boom stand or articulated arm. If light from below is required, choose a bench stand.



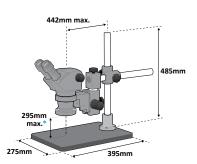
#### SX25 Elite bench stand



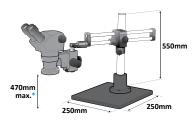
**SX45** Elite bench stand



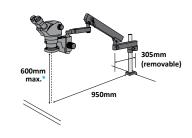
Single arm boom with base



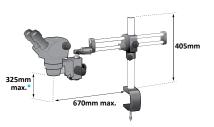
#### **Double arm boom** with base



**Articulated arm boom** with clamp



**Double arm boom** with clamp



less working distance, with x1.0 objective

Stand options	SX25 Elite bench stand	SX45 Elite bench stand	Single arm boom with base	Double arm boom with base	Articulated arm boom with clamp	Double arm boom with clamp
SX25 Elite	✓	✓	✓	✓	✓	✓
SX45 Elite	-	✓	✓	✓	✓	✓
Sub stage illuminator	✓	✓	-	-	-	-
Incident illuminator	✓	✓	-	-	-	-
Height adjust	✓	✓	✓	✓	✓	✓
X/Y adjust	-	-	✓	✓	✓	✓
Floating stage compatible	-	✓	-	-	-	-
Ring light compatible	✓	✓	✓	✓	✓	✓



	SX25 Elite	SX45 Elite	SX45-TR Elite
OPTICAL DATA			
Standard magnification range	x10 - x45	x8 - x50	x8 - x50
Minimum / Maximum capable magnification	x5 - x180	x4 - x200	x4 - x200
Zoom ratio	4.5:1	6.3:1	6.3:1
Working distance (standard)	97mm	115mm	115mm
Working distance (maximum)	180mm	220mm	220mm
Optical principle	Greenough	Greenough	Greenough
FEATURE DATA			
Binocular eyepieces	✓	✓	✓
Trinocular camera port	-	-	✓
Eyepiece options	10x, 15x, 20x	10x, 15x, 20x	10x, 15x, 20x
Additional objective	0.5x, 0.75x, 2.0x	0.5x, 0.7x, 2.0x	0.5x, 0.7x, 2.0x
ACCESSORY OPTIONS			
Image capture	-	-	✓
Imaging software	-	-	✓
Floating stage	-	✓	✓
Measurement comparison graticule	✓	✓	✓
Standard ring-light	✓	✓	✓
Quadrant ring-light	✓	✓	✓

#### **SX25 Elite** optical configurations

SX25 Elite optical configurations				
Eyepieces	Objective Lens	Zoom Range	Working Distance	E
x10/20 E.W.	x0.5	x5 - x22.5	180mm	X.
x10/20 E.W.	x0.75	x7.5 - x33.8	120mm	x
x10/20 E.W.	x1.0*	x10 - x45	97mm	X
x10/20 E.W.	x2.0	x20 - x90	30mm	x
x15/16 W.F.	x0.5	x7.5 - x33.6	180mm	X
x15/16 W.F.	x0.75	x11.3 - x50.6	120mm	x
x15/16 W.F.	x1.0*	x15 - x67.5	97mm	x
x15/16 W.F.	x2.0	x30 - x135	30mm	x
x20/11 W.F.	x0.5	x10 - x45	180mm	x
x20/11 W.F.	x0.75	x15 - x67.5	120mm	*
x20/11 W.F.	x1.0*	x20 - x90	97mm	
x20/11 W.F.	x2.0	x40 - x180	30mm	

#### **SX45 Elite** optical configurations

Eyepieces	Objective Lens	Zoom Range	Working Distance
x10/22 F.N.	x0.5*	x4 - x25	220.6mm
x10/22 F.N.	x1.0	x8 - x50	115.0mm
x10/22 F.N.	x2.0	x16 - x100	57.5mm
x15/16 F.N.	x0.5*	x6 - x37.5	220.6mm
x15/16 F.N.	x1.0	x12 - x75	115.0mm
x15/16 F.N.	x2.0	x24 - x150	57.5mm
x20/13 F.N.	x0.5*	x8 - x50	220.6mm
x20/13 F.N.	x1.0	x16 - x100	115.0mm
x20/13 F.N.	x2.0	x32 - x200	57.5mm
•	ired when using x0.5 objoeased working distance	ective lens with bench sta	and model

\*Standard objective