TAGARNO
seeing solutions

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MAGNUS HD TREND

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MAGNUS HD TREND

Quick Image Capture

Split Screen Function

Magnification up to 320x

Easy Height Adjustment

SD-card

Non-contact Measurements

User-friendly Applications

Better Working Posture

ESD Security

Multi-viewer Option

Measurement Software

Superb HD Image Quality

TAGARNO

SUPERB
IMAGE QUALITY

MAGNUS HD TREND is the latest magnification system from TAGARNO. It combines superb HD image quality with the magnification features of a microscope.

Magnification up to 320x

Providing superb HD image quality, magnification up to 320 times and live imaging at 60 fps, MAGNUS HD TREND enables you to see extremely small details very clearly.

Features

- MAGNUS HD TREND is easy to position in the right height depending on the size of the object you are inspecting. It is equipped with a quick adjustment button and an ultra fine height adjustment in 1/100 mm.
- Images of the objects can be captured with a single click and stored on your PC or an SD card.
- The camera head can be rotated 90 degrees and tilted 45 degrees allowing the operator to inspect at various angles with as little contact with the object as possible.
- The laser diode indicates the center of the camera. The diode hits the center regardless of the camera height because it is focused through the close-up lens.
- New type of powerful LED light.
- Measurements can be made directly on the images captured.

Application

MAGNUS HD TREND is developed to optimize the processes of visual inspection in the industries today. Whether you are seeking to diminish the number of false rejects from an AOI system or to create an overall improvement of your quality processes, MAGNUS HD TREND is a strong partner.
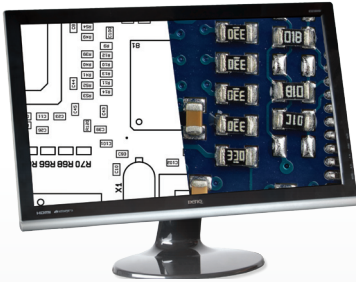
MAGNUS HD TREND can with a range of accessories be perfectly adopted for the following processes:
Manual optical inspection
Assembly of products
Repair and rework
Quality control
Non-contact 2D measurements
Documentation

DOCUMENTATION

Split Screen for Comparative Viewing

The split screen function makes it possible to divide the monitor between what you are looking at under the camera and what you are working on on your PC. This feature enables you to look at a reference object or technical document from your PC and compare it to the inspection object under the camera.

Go Pro with our New Software

MAGNUS HD TREND can be delivered with an XLINK control box which controls magnification and focus. Or you can choose the XPRO control box which provides you with a PC connection, split screen and access to a series of advanced camera settings. You need the XPRO box to use our new measurement software MILLI and MICRO.

Image Capture

With MAGNUS HD TREND, your documentation work is made easy. The measurement software allows you to capture images, measure different objects and then save the documents on your PC. Or you can store your pictures directly on an SD-card without connecting your PC and then transfer the images later.

Enhanced Cooperation

An added bonus of MAGNUS HD TREND is the multi-viewer option which allows more than one person to view the magnified object at the same time. This feature is ideal for training of new operators, sparring between operators or supervision sessions. The option of dialogue and cooperation brings new and more dynamic ways of working and easier quality control.
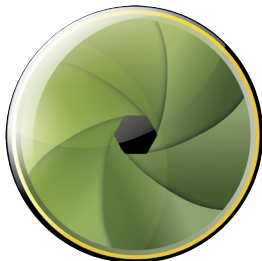

Display of Magnification Degree

When inspecting your objects, you can choose to have the magnification degree displayed on the screen. This way you always know the current magnification degree. The MAGNUS HD TREND can magnify up to 320 times.

MEASURING WITH MAGNUS HD TREND

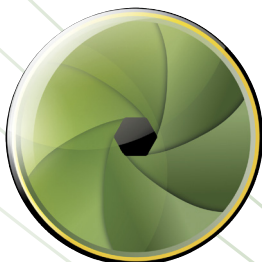**TAGARNO introduces the possibility to carry out precise and advanced measurements of inspected items.**

The MILLI and MICRO software packages provide precise and user-friendly tools for 2D measurement.
MILLI offers a linear calibration, whereas MICRO provides an advanced, automatic calibration.
Both types of software add valuable tools for non-contact testing and measurement purposes as well as for documentation.
The Measurement Software Packages include the following features:

Camera Control:
Zoom
Manual focus
Autofocus (on/off)
Exposure settings
IR filter (on/off)
Snapshot

Drawing Tools
You can draw and comment on the captured images.

Image functions
• Zoom in still image
• Light and contrast

Calibration
Manual calibration (MILLI):
• Image capture of a scaled object
• Draw a line in the picture and enter the line's dimension in the dialogue box, after which the calibration is carried out.

Automatic calibration (MICRO) is based on a well proven technique from an international recognized Machine Vision Software using advanced algorithms in order to ensure an extremely high accuracy. MICRO compensates for lens curve distortion. It requires calibration sheets delivered together with MICRO activation key.
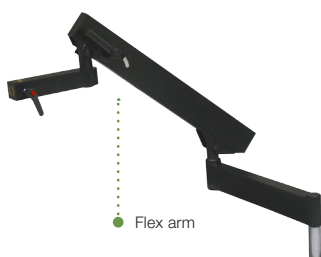
Measurement functions
The software features various tools to draw and measure directly on the picture.
• Guidelines perpendicular to the measurement line
• Cross hair following the curser
• Ruler and scale shown in the picture
• Point to point measurement (the only measurement tool that is included in the MILLI software package)
• Polyline measurement
• Angle measurement
• Radius/diameter measurement
• Area of polygon

Platform
XP/Vista/Win7 (32+64bit)

MILLI
measurement software

MICRO
measurement software

WORKING BETTER AND SAFER

Flex arm

Lens

Ring light

Foot switch

Accessories

We offer a series of opportunities for individual adaptation for MAGNUS HD TREND. You may choose between a flex arm, a foot switch, a ring light etc. to construct the solution that fits your needs. You can always adapt your MAGNUS HD TREND to a new situation that might arise.

A Better Working Posture

A correct approach to ergonomics and a good working environment provide more energy, better results, higher efficiency and less sickness absence.

With a MAGNUS HD TREND you can optimize your work position. You can position the MAGNUS HD TREND, the screen and the control boxes independently. If you prefer inline work, you can place the screen on a flexible arm above the camera to obtain a vertical work place in front of you. The distance to the screen ensures an upright working position so your eyes, neck and back are less strained. So when you work with MAGNUS HD TREND, you will inevitably become less tired and more efficient than if you work with traditional magnification tools.

Two monitors

If you prefer to work with two monitors you can view references on one monitor and what is under the camera on the other.

Safety

We have 40 years of experience in developing products that are approved in terms of medico standards. Quality and safety are key parameters in our product development. MAGNUS HD TREND has been developed with focus on personal safety, ESD security and life-cycle costs.

TECHNICAL SPECIFICATIONS

MAGNUS HD TREND

Dimensions:	H: 460 mm, W: 325 mm, D: 530 mm
Weight:	6,8 kg
Power consumption:	20W
Storage:	-20 – +60 C, 5 – 90 % RH
Operation:	0 – +45 C, 5 – 90 % RH
Working height:	Min: 50 mm, max: 320 mm
Working depth:	385mm
Monitor format detect:	Yes
Connections:	DVI output and DVI input, USB 2.0
	SUB-D 9pol to control box
Zoom:	10x optical + 2x digital
Camera resolution:	HD720p, 1280x720@50/60Hz
Auto focus:	Yes
Iris:	F1.8 to F26

XLINK control box	
Dimensions (box):	H: 120 mm, W: 690 mm, D: 106 mm
Functions:	Zoom with auto and manual focus

XPRO control box	
Dimensions (box):	H: 45 mm, W: 120 mm, D: 150 mm
Functions:	Zoom with auto and manual focus
	Snapshot (image saving) function
	Iris and Gain adjustment
	Split screen function
	Memory function (programmable keys)
	Laser (on/off)
	White balance adjustment

Lenses

Dimension: Ø 58 mm

Lens	Lens to object distance	Magnification on 22" monitor
+4	250 mm	02,2x – 40,0x
+5	200 mm	02,8x – 51,0x
+10	100 mm	05,5x – 101x
+25	40 mm	13,6x – 249x
+32	31 mm	17,7x – 322x

Recommended monitor

Panel format:	16:9
Connection:	DVI or HDMI
Response time:	2ms, GTG
Signal format:	HD720p

Accessories

Lenses:	Fresnel lenses:
+4, +5, +10, +25 and +32	50, 100 and 200 mm for ring light
White, IR and UV ring light	Polarizing set for ring light
Diffuser filter for ring light	Monitor arm
HD 22" widescreen monitor	Aluminium case for transport
Keyboard holder	Measurement software
XY motion system	XY tables
Foot switch	Circular tilting table
XPRO – Control box	XLINK – Control box
Flexarm	