

# TAGARNO MAGNUS HD



# Innovation and quality

**MAGNUS HD combines HD technology's supremely sharp images and the microscope's ability to magnify with the opportunity of a correct work posture in a safe, ergonomic and flexible digital magnification system.**

MAGNUS HD reproduces what you look at under the camera as an extremely sharp HD image with unsurpassed colour rendition. For the first time ever it is possible to use the monitor as a precise reference. What you see is exactly what is under the camera – without any distortion, delay or interference.

The image quality is unique in that the DVI signals are digital all the way from camera to monitor. This prevents the conversion loss that typically occurs when the signals are to be converted from analogue to digital. TAGARNO has been able to do this because

we have developed a new HD DVI board that can receive and process digital signals from the camera and convert them into standard DVI signals.

MAGNUS HD can magnify up to 105 times, which allows you to view even the most minute details. The HD image quality even makes it possible to use a lower magnification than you are used to if you wish to obtain a better overview of what you are working on. You can see things clearly – even at low magnification.

We have 25 years of experience in developing products that are approved in terms of medico standards, and quality and safety are the key parameters in our products development. Thus MAGNUS HD has been developed with a focus on personal safety, ESD security and life-cycle costs.



# User-friendliness and flexibility

MAGNUS HD is delivered with a user-friendly XLINK control box which controls magnification and focus. The system is intuitive and you do not need time to adjust yourself to using it. It is also easy to find the right focus point.

## Go pro

You can set up a complete work station by upgrading the MAGNUS HD with an XPRO control box and XPRO software. The XPRO control box provides you with a PC connection, a snapshot function and access to a series of advanced camera settings.

The snapshot (image saving) function makes it possible to make a still image of what you see under the camera and save it on the PC for further electronic processing and documentation of what you are working on.

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 the PC. You can, for instance, look at a reference image or diagram on the PC while you are checking a printed circuit board (PCB) under the camera.

## Do it right

MAGNUS HD offers a series of opportunities for individual adaptation. You may choose between a circular tilting table, an XY table, a foot switch, a mounting arm, etc. and construct the solution that best fits your work station. And whenever you please you can adapt your MAGNUS HD solution to new needs that may arise. All elements are easy to set and adjust, and we have made sure that all functions are intuitive and easy to use.

If you prefer to work with two monitors, you can view what you are working on under the camera on the one monitor and what you are working on on the PC on the other.

## Two pairs of eyes see more than one

An added bonus of MAGNUS HD is the option of more than one person viewing what is under the camera at once; this may, for instance, be in connection with quality control, training or the like. The option of dialogue and cooperation brings about new and more dynamic ways of working, greater security of quality and more and better ideas. Consequently, your and your colleagues' work becomes even more rewarding.



# A question of work posture

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

If you have a MAGNUS HD, you can always move the monitor and the control box or regulate the height of your table. Thus you can vary your work position. (Refer to the Danish Working Environment Information Centre's instructions on working with microscopes and magnifiers).

The work height under the camera is 250 mm with a +4 lense. This is significantly higher than under a microscope. It makes it easier to vary your work position, and you obtain greater freedom of movement.

In addition, you gain the opportunity to work with the camera and the monitor in a vertical line right in front of you (in-line work). This way a lesser strain is placed on your neck and your back compared to usual microscope and

magnifier work. This applies also to your sight, which can be unnecessarily strained when you work with traditional magnification tools. By looking at a monitor you obtain more angles to view your work from, and you avoid the discomforts of heat and light that are associated with ordinary microscope work. When you work with MAGNUS HD, you will realize that you become less tired and more efficient.

Furthermore, you do not need expensive special adaptations if you have impaired vision. With MAGNUS HD you will see the image on a monitor, and your glasses will correct what you are seeing in relation to your sight.

By the help of a series of optional products you have the opportunity also to vary your work position. No matter whether you prefer to sit or stand, or work with the monitor in front of you or next to you, you can design your work station to suit your needs.



# Focus on the monitor

In order to obtain the best possible image quality it is important to choose the right monitor. We offer a 22" monitor of high quality when it comes to both image quality and longevity. We recommend a widescreen monitor (16:9 format) with DVI input and 2 ms response time that supports HD 720p to achieve optimum image quality.



# Why Magnus?

The name Magnus is Latin in origin. It is an adjective and means 'great', which is appropriate to a magnification system. Moreover, a few great and not exactly unknown historical figures were also called Magnus – Karl the Great and Alexander the Great – whose Latin names are Carolus Magnus and Alexander Magnus. Naturally, we consider MAGNUS HD to be 'great'. It is a unique product that fills a void in the history of magnification.



## Technical Specifications

### MAGNUS HD

Dimensions:	H: 46 cm, W: 30 cm, D: 48 cm
Weight:	5.1 kg
Power consumption:	14W
Storage:	-20 - +60 C, 5 - 90 % RH
Operation:	0 - +45 C, 5 - 90 % RH
Working height:	Min: 20 cm, max: 41.5 cm
Working depth:	37 cm
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 til F26

### XLINK control box

Dimensions:	H: 1.2 cm, W: 6.9 cm, D: 10.6 cm
Functions:	Zoom with auto focus and manual focus

### XPRO control box and software

Dimensions (box):	H: 4.5 cm, W: 12 cm, D: 15 cm
Functions:	Zoom with auto focus og manual focus Snapshot (image saving) function Iris and Gain adjustment Split screen function Memory function (Programmable key) White balance adjustment

### Lenses

Dimension: Ø 52mm		
Lens	Lens to object distance	Magnification on 22" monitor
+3	330 mm	1,6x - 32,0x
+4	250 mm	2,2x - 41,0x
+5	200 mm	2,8x - 52,0x
+3 and +4	138 mm	3,9x - 73,0x
+3 and +5	120 mm	4,4x - 80,0x
+4 and +5	105 mm	5,0x - 95,0x
+5 and +5	100 mm	6,0x - 105x

### Recommended monitor format

Panel format:	16:9
Connection:	DVI-input
Response time:	2 ms
Signal format:	HD720p

### Accessories

XLINK control box	Table- and wall holder for monitor arm	Circular tilting table
XPRO control box and software	Keyboard holder	XY table
HD 22" widescreen	Lenses, +3, +4, +5	Aluminium case for transportation
Mounting arm for monitor	Foot switch	Cleaning kit

