Helianthus C

ENTRY-LEVEL DIGITAL MAMMOGRAPHY

METALTRONICA

Metaltronica takes full advantage of many decades of experience in the diagnostic imaging field and believes in engaging in a continuous dialogue with clinicians and technologists to ensure that its systems address their most demanding requirements.

Helianthus C

is the direct result of the recent and significant redesign of the company's entire product line. This compact unit represents the basic model of a standardized platform and exemplifies the fastest and most cost-effective transition to digital mammography.

OPTIMAL PRICE-PERFORMANCE RATIO

Helianthus C was engineered for the sole purpose of acquiring 2D digital images. While this system is not upgradable, it can be integrated with a wide range of accessories configured to suit most routine mammography procedures.

The unit is available with three different digital detectors with both amorphous selenium and amorphous silicon technology. All panels have the same resolution (85 microns) and guarantee the acquisition of images of excellent diagnostic quality.

The difference between them is only the procedures' execution times and the cost, thereby allowing the user to configure the setup of the system based upon his/her specific needs.


C-arm with isocentric movements
2 MP Medical display (3-5 MP optional)
Protective screen
Integrated Acquisition Workstation
Potter-Bucky with anti-scatter grid
Foot-control
Integrated X-Ray generator
Helianthus

IMPROVED SAFETY FOR BOTH PATIENT AND OPERATOR

The redesign of the new Helianthus C has resulted in a further improvement in terms of the system's ergonomics thanks to the isocentric servo assisted movements of the isocentric C-arm that enables smoother and more controlled movements. Extensive manual (motorized as an option) rotational and translation movements (up to 91 cm vertical travel) allow a quick and easy positioning of the patient, even for those with impaired or limited mobility.

Three multi-switches placed on the sides of the C-arm and the front of the X-ray tube assist the operator in managing the motorized movements of the arm.

Two 7" color touchscreen displays placed on the C-arm's sides assist the technician in viewing and managing all the exam parameters.

When rotating the C-arm, a sensitive and precise obstacle detection system ensures maximum patient safety.

STATE-OF-THE-ART FEATURES FOR ACCURATE DIAGNOSIS

Automatic collimation

Helianthus C is outfitted with a size and position recognition device for the compression paddle that automatically adapts to the X-ray beam collimation in all procedure modes.

As a safety measure that prevents exposures that do not comply with the used accessories, the operator can manually select the collimation setup.

"Smart µPress" compression system

The image quality directly correlates to the correct compression of the breast. Helianthus C lets the mammography technician perform this operation automatically or in a motorized mode with manual fine adjustments via rotary controllers or fully manually.

"POEt" Processing for Optimal Enhancement

Helianthus C employs a powerful "POEt" software that generates diagnostic images directly from the acquired data.

The software processes the images in a "For processing" format and displays them in a "For Presentation" format that enhances the tissue structure and reduces noise.

Extremely versatile, the software includes a set of filters dedicated to the study of breasts with prosthesis or with metal findings or anatomical samples.

THE PROPER RADIATION DOSE FOR EACH KIND OF BREAST TISSUE

SensROI – Pre-exposure mode

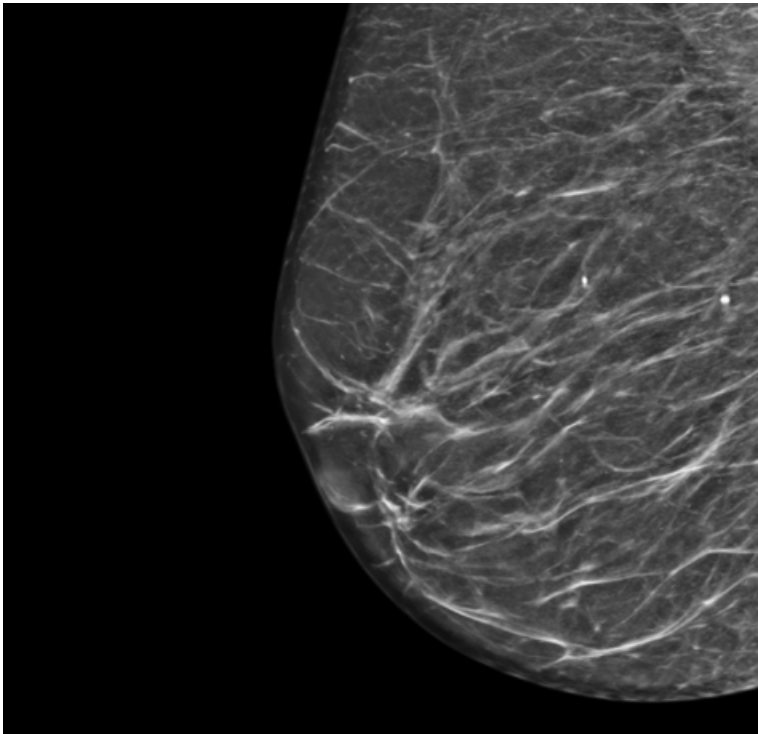
In the Helianthus C unit, the digital detector is also used to set optimal exposure parameters in an automatic or semi-automatic mode. According to the compression paddle employed, a continuous portion of the sensitive area of the detector is selected for a particular procedure and the actual density of the tissue to be examined is determined using a short pre-exposure pulse.

Fast exposure mode

In the presence of implants or when it is difficult to carry out a correct compression of the breast, it is still possible to optimize the dose delivered with another mode of exposure, called FAST, based on the thickness of the tissue to be examined.

The exposure parameters are always set to satisfy the requirements of the European Guidelines.

The Average Glandular Dose (AGD) is updated in real-time on all displays and appropriately recorded. A user-friendly interface (GUI) guides the operator in every phase of preparation and acquisition. This interface allows the technician to select the exposure method (automatic, semi-automatic, or fully manual), the dose profile, and the processing filter to obtain the best possible image based on the type of breast to be examined.



STANDARD EQUIPMENT

Anti-Scatter grid

The standard linear grid mounted inside the Potter Bucky drastically reduces scattered radiation, contributing to the acquisition of sharp and high-quality breast images.

Compression paddles

The basic configuration of Helianthus C includes two standard compression paddles: 24x30 cm and 18x24 cm (for smaller breast).

Protective screen

The Helianthus C is equipped with a polycarbonate screen to protect the X-ray beam from other parts extraneous to the exam procedure

OPTIONS

Compression paddles

In addition to the standard equipment, several other compression paddles are available as options (i.e., for the geometric magnification, the examination of details, and perforated for two-dimensional biopsy procedures).

Geometric magnification kit

As an option, a geometric magnification kit is available. It includes a platform (with 1.5x or 1.8x or 2x factors) and a 9 x 21 cm compression paddle without an anti-diffusion grid.

INTEGRATED ACQUISITION WORKSTATION

In the standard configuration, Helianthus C is supplied with an integrated acquisition and control workstation (AWS).

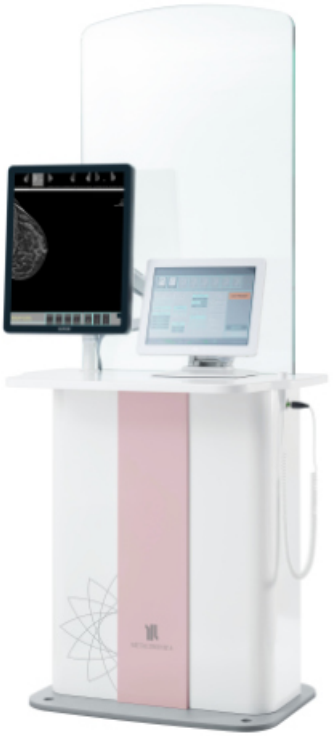
In this case, according to the customer's preference, the medical display monitor is directly fixed on the mammography system, on the left or right side.

On the console, a touchpad keyboard is available. A CD/DVD burner and a USB port are positioned on the side of the console. All the AWS electronics, including the Personal Computer, is installed inside the mammography unit.

The exposure button, provided with a spiral cable, allows the operator to perform radiation exposures in complete safety behind an appropriate protective barrier.

STAND-ALONE ACQUISITION WORKSTATION

The Helianthus C acquisition and control workstation (AWS) can be offered as a stand-alone unit equipped with a transparent anti-X Ray protection barrier that allows the operator to optimize and manage the workflow remotely.



This configuration includes a a 15" display monitor, keyboard, and mouse that facilitates the complete control of the mammography system.

It is possible to supply the display monitor with a resolution of 2, 3, or 5 MP.

VISUALIZATION AND REPORTING

As an option, a dedicated and independent review station for the high-resolution visualization of diagnostic imaging is supplied. It includes:

- Tools to manage operations, process, and analyze images
- Workstation with a DVD burner
- Dual 5 MP LCD monochrome monitors
- Color LCD service monitor, keyboard, mouse, and a dedicated keypad

Drawings and images in this document are to be considered indicative and do not bind the manufacturer, who may avail himself of the right to make changes at any time and without prior notice.

HELIC-Z175-U-01

METALTRONICA

For a brighter future.

METALTRONICA S.p.A.
Via delle Monachelle, 66-70 • Pomezia (Roma) Italy • ph. +39 06 66 160 206
www.metaltronica.com