

# Dimensions® Platform

Better Detection. Clinically Superior<sup>†</sup>. Low Dose.

The Hologic's 3Dimensions™ mammography system represents the next evolution of our 3D™ platform. It is based on the Selenia® Dimensions® platform so that customers can continue to benefit from more than 10 years of real-world learnings, as well as the clinical evidence and functional enhancements acquired over this time. In addition to all of the current benefits, the latest system includes additional advantages in terms of improved image clarity, personalised patient experience and enhanced workflow that are available as upgrades to existing Selenia® Dimensions® systems.\*

## 3Dimensions™ Mammography System

To keep you and your patients at the forefront of breast cancer screening, 3Dimensions™ is our latest and most advanced system. The system is designed to increase clinical confidence with improved image clarity and enhanced workflow features, while transforming your patients breast imaging experience.

## Selenia® Dimensions® System

For a time-tested and flexible solution, Hologic offers you the Selenia® Dimensions® system, the **#1** 3D Mammography™ system in the world\*\* used by over 7000 clinical sites. The system comes in two main configurations and a range of options to meet every need.



\*Some product enhancements may not be available to all Selenia® Dimensions® systems. Some 3Dimensions™ workflow enhancements are not backward-compatible with Selenia® Dimensions® systems. The comfort and clarity enhancements are available to Selenia® Dimensions® systems as an upgrade option. Consult your local Hologic representative for additional details.

\*\* Number 1 in US, UK, Spain, Italy, Netherlands based on commercial data, October 2022.

# Imaging, Workflow and Acquisition Workstation Features

	Dimensions Package				
	3Dimensions™ 3D	3Dimensions™ 2D	6000 3D™	6000 2D	Avia™ 3000 2D
Screening and Diagnostic					
2D Screening	●	●	●	●	●
3D™ Screening	●	○	●	○	◆
2D Diagnostic	●	●	●	●	○
3D™ Diagnostic	●	○	●	○	◆
3D Mammography™ exam imaging options					
Hologic Clarity HD license (high-resolution tomosynthesis))	●	○	○	○	◆
Tomosynthesis imaging license (standard resolution)	●	○	●	○	◆
Synthesised 2D Imaging options					
C-View software license	○	○	○	○	◆
Intelligent 2D imaging technology license	○	○	○	○	◆
Comfort					
SmartCurve™ Breast Stabilization System	●	●	○	○	○
SmartCurve Mini Paddle	●	●	○	○	○
Ergonomics					
Smart positioning in MLO	●	●	◆	◆	◆
X-ray exposure foot switch	●	●	●	●	○
Powered height adjustment	●	●	●	●	○
Powered memory height adjustment	○	○	○	○	○
Biometric login	○	○	○	○	○
Barcode reader	○	○	○	○	○
Flat work surface	●	●	●	●	●
Stowable keyboard and mouse	●	●	●	●	●
Included gantry foot switches (2)	●	●	●	●	●
AWS Console					
High-performance computer	●	●	○	○	○
Standard computer	◆	◆	●	●	●
Control monitor tilt adjustment	●	●	●	●	●
LCD touchscreen controls	●	●	○	○	○
Non-Touch Screen Control Monitor	◆	◆	●	●	●
System control keyboard and mouse	●	●	●	●	●
Image Monitor					
3 MP medical-grade color LCD display▽	●	●	★	★	★
2 MP medical-grade color LCD display	◆	◆	★	★	★
Image monitor tilt and swivel	●	●	●	●	●
Dual-articulating swing-arm▽	●	●	★	★	★
Fixed arm	○	○	★	★	★
Left/right image monitor position selection	●	●	●	●	●

	Dimensions Package				
	3Dimensions™ 3D	3Dimensions™ 2D	6000 3D™	6000 2D	Avia™ 3000 2D
Software Licenses					
Advanced Connectivity license Package: MPPS license Radiation Dose license	●	●	○	○	○
Notices license	●	●	○	○	○
Diagnostic Imaging license	●	●	●	●	○
Dynamic Tube Head Motion license	●	●	●	●	○
Additional license options					
3DQuorum imaging technology license	○	○	○	○	◆
Genius AI™ Detection license*	○	○	○	○	◆
I-View 2.0 software license for Contrast Enhanced imaging	○	○	○	○	○
Quantra 2.2 Breast Density Assessment software license	○	○	○	○	○
ImageChecker® CAD software license	○	○	○	○	○
Affirm® Upright Biopsy	○	○	○	○	○
Affirm® Lateral Arm	○	○	○	○	○
Affirm® Contrast Biopsy	○	○	○	○	○
Safety Features					
Emergency stop button	●	●	●	●	●
Emergency compression release button	●	●	●	●	●
Retractable face shield	●	○	●	○	○
Radiation Protection					
Integrated leaded acrylic X-ray shield; H x W: 203 cm x 86 cm (80 in x 34 in)	●	●	●	●	●
Lead equivalence: 0.5 mm	●	●	●	●	●

3Dimensions system ergonomic package includes: Biometric login, powered memory height adjustment and bar code scanner.

\* When available in EMEAC. Genius AI Detection is not CE marked. Not for sale in EMEAC.

- Standard
- Optional capability, sold separately
- ◆ Not Available.
- ★ At time of initial order only.

# System Options and Accessories

	Dimensions Package				
	3Dimensions™ 3D	3Dimensions™ 2D	6000 3D™	6000 2D	Avia™ 3000 2D
Screening Paddles					
Small Breast Screening Paddle	●	●	●	●	●
18x24 cm Screening Paddle	●	●	●	●	●
24x29 cm Screening Paddle	●	●	●	●	●
Diagnostic Paddles					
Frameless Spot Contact Paddle	●	●	○	○	○
7.5 cm Spot Contact Paddle	●	●	○	○	○
10 cm Contact Paddle	●	●	●	●	○
15 cm Contact Paddle	○	○	○	○	○
Magnification Paddles					
7.5 cm Spot Magnification Paddle	●	●	○	○	○
10 cm Magnification Paddle	●	●	●	●	○
15 cm Magnification Paddle	○	○	○	○	○
Localization Paddles					
10 cm Open Localization Paddle	○	○	○	○	○
15 cm Open Localization Paddle	○	○	○	○	○
10 cm Open Magnification Localization Paddle	○	○	○	○	○
10 cm Perforated Localization Paddle	○	○	○	○	○
15 cm Perforated Localization Paddle	○	○	○	○	○
10 cm Perforated Magnification Localization Paddle	○	○	○	○	○
Ultrasound Paddle					
15 cm Ultrasound Paddle	○	○	○	○	○
Imaging Accessories					
Magnification Platform	●	●	●	●	○
Localization Cross-hairs	○	○	○	○	○
Magnification Localization Cross-hairs	○	○	○	○	○
Other Accessories					
Integrated UPS	●	●	●	●	○
Mobile Kit	★	★	★	★	★

## Software/Connectivity

DICOM Services
Print
Query
Storage
Storage Commitment
Worklist
IHE Profiles
Mammography Image
Patient Information Reconciliation
Scheduled Workflow

## Additional Options

Workflow Management
Advanced Workflow Manager server and license package
Advanced Workflow Manager additional licenses

	Imaging Modes					
	2D	3D™	Combo	TomoHD	ComboHD	CE2D
Parameters						
3D™ exam Scan Angle (°)		15°	15°	15°	15°	
3D™ exam Projection Images		15	15	15	15	
3D™ exam Scan Time		3.7s	3.7s	3.7s	3.7s	
Cycle Time, Exposure to Exposure	26s	30s	40s	30s	40s	33s
Time to 3D™ Image View	10s		22s		22s	11s
Time to 3D™ exam Slice View		11s	11s	11s	11s	
Time to C-View 2D Image View			21s			
Time to CEM Subtraction Image View						14s
Based on ACR phantom 4.2 cm compressed breast.						

- Standard
- Optional capability, sold separately
- ◆ Not Available.
- ★ At time of initial order only.

# X-ray Gantry Specifications

## Gantry Mechanics

C-Arm	
Design▼	Split C-arm, biopsy and tomosynthesis capable
Vertical Range	70.5 cm +5.1/-0 cm (27.75 in +2.0/-0 in) to 141 cm +0/-17.8 cm (55.5 in +0/-7.0 in)
Vertical Travel	Motorized
Rotation	2D: +195° to -155° Biopsy and 3D™ exam: +180° to -140°
Source-Image Distance (SID)	70 cm
Patient Face Shield	2D: Removable 3D™ exam: Retractable and removable
Breast Compression	
Modes of Operation	Selected by Operator
Pre-compression Range	67 to 134 N (15 lbs to 30 lbs)
Full-compression Range	89 to 178 N (20 lbs to 40 lbs)
Dual-compression Function	1st activation: pre-compression Subsequent activations: incremental increase up to full-compression
Manual-compression Force Limit	300 N (67.4 lbs) maximum
Compression Tilt	Standard or FAST paddle™ mode, User-selectable
Magnification	
Platform	Lightweight carbon fiber with frame
Magnification Factors	1.5x, 1.8x
X-ray Collimation	
Collimation Modes	Fully-automatic or User-selectable
Pre-defined Collimation Sizes	24x29 cm, 18x24 cm 15x15 cm, 10x10 cm, 7x8.5 cm^, 18x29 cm^

## Digital Image Receptor

Technology	
Type	TFT-based direct capture
X-ray Absorption Material	Amorphous selenium
Image Receptor Size	Single plate 24 cm x 29 cm
Pixel Size	70 microns FFDM, 70 microns (high-resolution tomo), 100 microns (standard resolution tomo)
Limiting Spatial Resolution	2D: 7.1 lp/mm 3D™ exam: 3.5 lp/mm
Dynamic Range	Linear response over 400:1 in X-ray exposure
Captured Image Bit Depth	14-bits
Saturation X-ray Exposure Level	> 500 mR
Image Capture Geometry	
Non-magnified	24 cm x 29 cm (3328 x 4096) center position 18 cm x 24 cm (2560 x 3328) left, center and right positions
Magnified	18 cm x 24 cm (2560 x 3328) center position
Anti-scatter Grid	
Grid Structure	Linear grid (3Dimensions™ and new Selenia® Dimensions®)
Grid Behavior	Auto-retracts for magnified 2D and all 3D™ exam views
Storage Environment	
Storage Temperature Range	10° C to 30° C (50° F to 86° F)
Maximum Rate of Temperature Change	< 10° C per hour
Relative Humidity Range	10% to 80%, non-condensing

## X-ray Subsystem

Integrated Generator	
Design	Zero footprint, fully integrated
Type	Constant Potential High Frequency Inverter
Rating	7.0 kW max. (ISOWatt); 200 mA @ 35 kV
Electrical Power Capacity	9.0 kW max.
kV Range	2D: 20 to 39 kV, 2D, 1 kV steps (0.5 kV steps option) 3D™: 20 to 49 kV, 2D, 1 kV steps
mAs Range	3.0 to 500 mAs
mA Range	200 mA, large focal spot 50 mA, small focal spot★
X-ray Tube	
Anode Type	Tungsten, rotating
Anode Design	Bi-angular
Anode Speed	9500 RPM (high speed)
Heat Capacity	222 kJ (300,000 HU)
Target Tube Angle	16°, large focal spot; 10°, small focal spot★
Focal Spot Size	0.3 mm, large focal spot; 0.1 mm, small focal spot★
Filtration	0.05 mm Rhodium (Rh) 0.05 mm Silver (Ag) 0.70 mm Aluminum (Al) (3D™ exam) 0.30 mm Copper (Cu) (CE2D)
Port	0.63 mm Beryllium
Electrical Requirements	
Input Line Voltage	200/209/220/230/240 VAC
Input Current	3.5 A standby 65 A for 5 s at 208 VAC 40 A max. breaker rating
Frequency	50/60 Hz ± 5%
Number of Phases	Single, permanently wired

## X-ray Control

Exposure Modes	
Manual	User selects all parameters
Auto-Time	System selects mAs; User selects filter, kV
Auto-kV	System selects kV, mAs; User selects filter
Auto-Filter	System selects filter, kV, mAs
X-ray Activation	Single exposure, either table-top button or Integrated footswitch★

- - Standard
- - Optional capability, sold separately
- ◆ - Not available
- ★ - At time of initial order only.

## Product Information

Optional imaging technology, image analytics and diagnostic solutions.

### Dimensions Advanced Connectivity License

Provides MPPS to report the current state of an exam and RDSR capabilities to send dosage to third-party applications.

### 3DQuorum™ powered by Genius A.I.™

Provides communication between the technologist at the AWS and the radiologist at the SecurView® workstation.

## Imaging Technology:

### 3Dimensions™ Mammography System

- The 3Dimensions™ system is available for purchase as a 2D or 3D configuration, with 2D imaging capabilities.\*
- File sizes will increase with the higher-resolution imaging mode. Larger file size may require additional hardware or software. Consult your local Hologic representative.
- Clarity HD™ high-resolution 3D Mammography™ imaging is a standard on 3Dimensions 3D systems.\*

### Clarity HD™ high-resolution 3D™ imaging

- Standard with all 3Dimensions 3D systems.\*\*
- Being a combination of both software and hardware, Clarity HD™ is an upgradeable option for existing Selenia® Dimensions® systems.
- Clarity HD™ is a prerequisite for Intelligent 2D™ imaging technology - it is not compatible with C-View™ software.
- Requires minimum Selenia Dimensions software v1.9 and 3Dimensions software v2.0.
- File sizes will increase with the higher resolution imaging mode. Larger file size may require additional hardware or software. Consult your local Hologic representative.

### Intelligent 2D™ Imaging Technology, powered by A.I.

*As with any innovation and technology update, planning and education is essential. Visit [www.hologiced.com/breast-health](http://www.hologiced.com/breast-health) for more details.*

Requirements:

- 3D Mammography™ system with Clarity HD™ high-resolution 3D™ imaging at software level v1.9 or higher for Selenia Dimensions software and v2.0 or higher for 3Dimensions systems. The 3D Mammography™ system acquisition workstation hardware minimums apply.
- Output: DICOM Digital Mammography Image (MG) or DICOM Breast Tomosynthesis Image (BTO).
- Flexible Configurations: Output to SecurView® DX diagnostic workstation and PACS.

Options:

- Intelligent 2D™ Imaging Technology is an option within Hologic 3D Mammography™ exams and its 2D images are always read together with the Clarity HD™ high-resolution 3D images.

### 3DQuorum™ powered by Genius A.I.™

3DQuorum™ technology utilises Genius AI™. Powered analytics to reconstruct high-resolution 3D Mammography™ data to produce 6mm SmartSlices. 3DQuorum™ technology reduces the typical Hologic Clarity HD™ and Intelligent 2D™ study size, bringing the storage space and network impact down to that of standard resolution 3D™ imaging.

Requirements:

- 3DQuorum™ is available only on Selenia® Dimensions® systems with minimum software v1.10 and Clarity HD™ 3D Mammography™ imaging and 3Dimensions™ systems with minimum software v2.1 and Clarity HD™ 3D Mammography™ imaging
- Minimum requirements: Windows 10, high performance (CMP-01598/CMP-01834/CMP-01816) Computer, Dimensions software v1.10, Reading workstation: Securview® v10.4.
- Customers using PACS are recommended to work with individual PACS vendor to ensure successful integration.

### SmartCurve™ Breast Stabilization System

- The SmartCurve breast stabilization system is intended for screening and should not be used for biopsy procedures or for contrast enhanced mammography (I-View™) procedures. It is not recommended for cleavage views, rolled views, or mosaic views of very large breasts. The standard screening paddles are always included with the system and should be used for cases where the SmartCurve™ system is not appropriate.
- The SmartCurve™ breast stabilization system is a standard on 3Dimensions™ systems.
- Now, with the addition of the SmartCurve™ Mini paddle it will be easier to accommodate small-breast patients, including men, and to image implant displacement views.

Requires minimum software v1.9.

\* Available to purchase as a 2D configuration in International markets, with the option to upgrade to the 3D™ configuration in the future.

## Image Analytics:

### Quantra™ 2.2 Breast Density Assessment Software, powered by machine learning

Requirements:

- Integrable on the Selenia® Dimensions® / 3Dimensions™ acquisition workstation with software versions 1.10/2.1 or later
- Cenova™ customers will need Cenova 3.0 to run Quantra™ 2.2 for Dimensions systems with software versions 1.10/2.1 or older.
- Minimum requirements: Windows 10, 2 GHz Processor Speed, 4 GB Memory, 130 GB HDD Free Disk Space, DVD-ROM, and a 100 Mbps-capable Network Interface Controller. Quantra 2.2 requires minimum software v1.10/2.1.
- Quantra 2.2 breast density score is now available on the 3Dimensions™ and Selenia Dimensions® systems' AWS\* allowing breast density score at the point of care and eliminating the need for a separate server for customers with minimum 3Dimensions™ 2.1 or Dimensions® 1.10 software.

### ImageChecker® CAD

- ImageChecker® CAD markings provides detection for conventional 2D images as well as C-View™ and Intelligent 2D™ synthesized images derived from a tomosynthesis dataset.
- ImageChecker® CAD is now available on the 3Dimensions™ and Dimensions® systems' AWS\* allowing image review at the point of care and eliminating the need for a separate server for customers with minimum 3Dimensions™ 2.1 or Dimensions® 1.10 software.
- DICOM compatible results can be sent directly to the radiologist workstation or PACS upon completion of the exam.

## Diagnostic Imaging solutions:

### I-View™ Contrast Enhanced Mammography Imaging

I-View™ 2.0 Contrast Enhanced Mammography (CEM) imaging is an imaging modality option to any Selenia® Dimensions® and 3Dimensions™ system, giving breast imaging practices diagnostic capabilities.

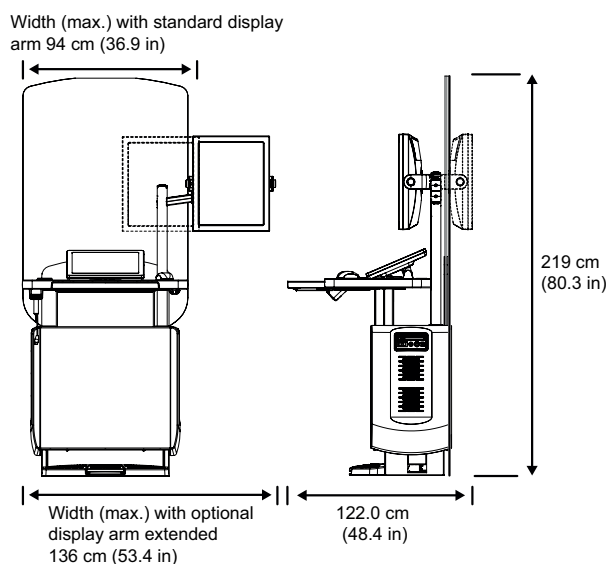
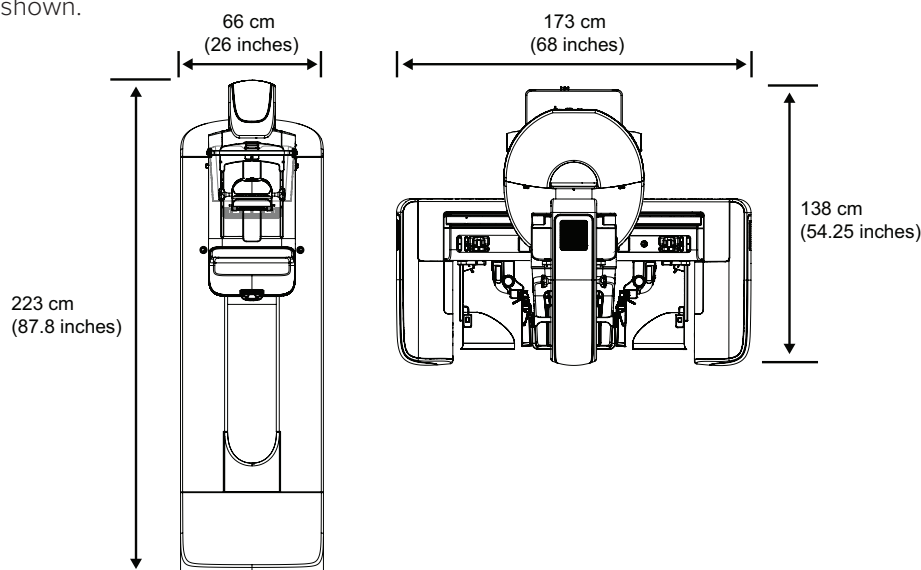
Requirements:

- I-View 2.0™ software license
- Hardware upgrade - the incorporation of a copper filter
- 3Dimensions™ 2.1 or Selenia® Dimensions® 1.10 software at a minimum
- Minimum hardware and software version requirements apply
- Possible detector required for older Selenia® Dimensions® systems
- A power injector is recommended (Hologic does not provide this, a third party needs to be contacted to obtain a basic single head power injector).

For smooth implementation of I-View™ software, please contact your local Hologic Representative.

## Dimensions System

Optional equipment shown.



Complementary site planning is available with your purchase, including connectivity planning and custom room drawings.

**NOTE:** The Dimensions platform includes the Selenia® Dimensions® and 3Dimensions™ mammography systems.

Reference:

1. Compared to other standard models. Rocha Garcia, A.M., Mera Fernandez, D. Breast tomosynthesis: State of the art. Radiologia. 2019;61(4):274-285



2797

EC REP Hologic BV, Da Vincilaan 5, 1930 Zaventem, Belgium

Notified Body number whenever applicable  
EC Representative information wherever applicable

DS-05534-EUR-EN Rev.006 (03/23) ©2023 Hologic, Inc. All rights reserved. Specifications are subject to change without prior notice. Hologic, 3D, 3Dimensions, 3D Mammography, Affirm, Avia, C-View, Dimensions, FAST Paddle, HTC, Intelligent 2D, I-View, ImageChecker, MammoPad, Quantra, Clarity HD, 3DQuorum, SmartCurve, Selenia, The Science of Sure and associated logos are trademarks and/or registered trademarks of Hologic, Inc. and/or its subsidiaries in the United States and/or other countries. This information is intended for medical professionals and is not intended as a product solicitation or promotion where such activities are promoted. Because Hologic materials are distributed through websites, eBroadcasts and tradeshow, it is not always possible to control where such materials appear. For specific information on what products are available for sale in a particular country, please contact your local Hologic representative or write to [womenshealth@hologic.com](mailto:womenshealth@hologic.com)

[www.hologic.com](http://www.hologic.com) | [info@hologic.com](mailto:info@hologic.com) | +32.2.711.4680

No Compromise. No Comparison.