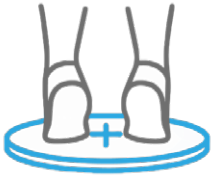
CurveBeam AI HiRise™

The HiRise™ is CE Marking approved and FDA 510(k) cleared

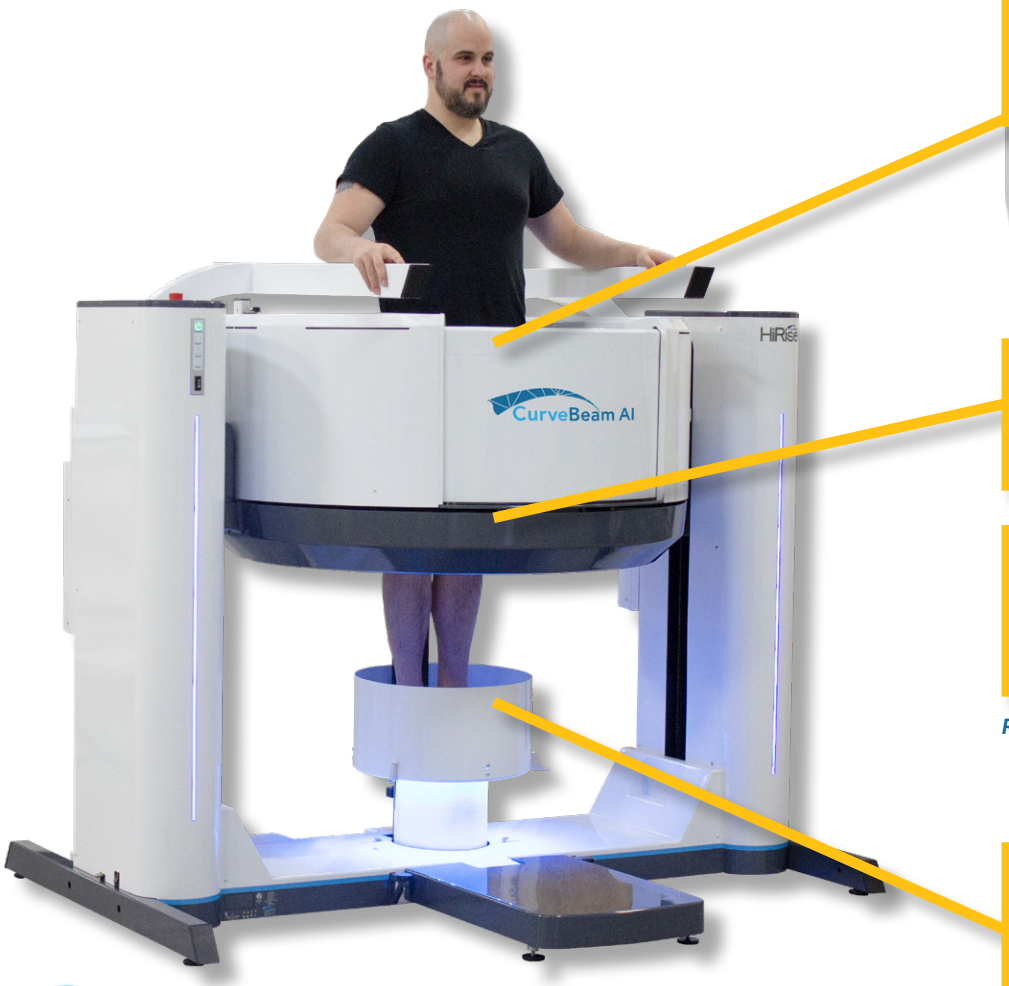
Small device foot print; 58”x73”; Self-shielded; Runs off standard 230VAC/30A outlet; 33-55 seconds per orbit.

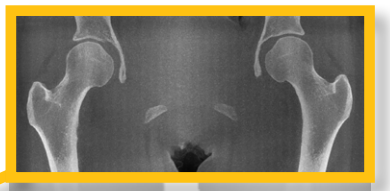
Radiation dose is significantly lower than standard MDCT protocols[1].

35% improved fracture detection and 2-fold improved identification of complex fracture over X-Ray[2].

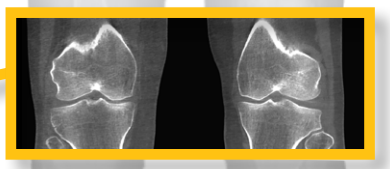


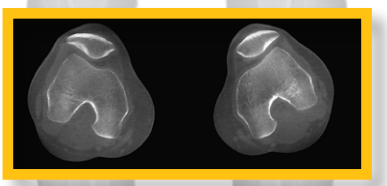
Largest field-of-view in its class - 20cm x 43cm - FOV can be narrowed to reduce exposure.



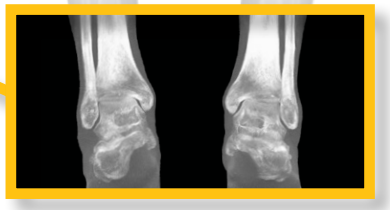


Assess total leg alignment with 0.3mm slices.*





Review joint space in three dimensions.



Bilateral weight bearing foot scans allow for more accurate diagnosis.

Rx

(1) Jaydev Dave, PhD. Effective Dose Associated With Weight-Bearing Cone Beam Computed Tomography Imaging of the Hip and Extremities. Poster presented at: IUPESM World Congress on Medical Physics and Biomedical Engineering; June 12 - 17, 2022; Singapore.

(2) Diagnostic Value of Cone Beam Computed Tomography (CBCT) in Occult Scaphoid and Wrist Fractures Christophe Borel et al, https://pubmed.ncbi.nlm.nih.gov/29153368/.

** Certain patient profiles, such as those with a larger body habitus, fall outside of the optimal range for hip and pelvis imaging in the HiRise.*

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The HiRise's™ flexible gantry can be easily positioned to scan the upper extremities.

Rotate the gantry to vertical orientation to facilitate scans of the hand, wrist and elbow as well as non-weight bearing feet, ankles and knees.

Lower the gantry for patients who are restricted to a wheelchair or unable to stand.

The HiRise's™ chair accommodates patients up to 450 pounds (204 kg), and has been thoughtfully designed for easy maneuvering and compact storage.

Low Dose

Most HiRise™ protocols deliver an effective dose below the amount of radiation the average person in the U.S. is exposed to from naturally occurring "background" sources, such as cosmic radiation from outer space.

Technique	MilliSieverts
HiRise Hand/Wrist Protocol	0.002(1)
HiRise Knee Protocols	0.004 - 0.007(1)
HiRise Foot/Ankle Protocols	0.004 - 0.007(1)
Extremity X-Ray	> 0.001(2)
Daily Background Radiation Exposure of Average US Citizen	0.008(2)
HiRise Hip Protocol	0.9-1.5(1)
Low Dose MDCT Hip Protocol	0.97(3)
MDCT Hip Protocol	3.5(1)

(1) Jaydev Dave, PhD. Effective Dose Associated With Weight-Bearing Cone Beam Computed Tomography Imaging of the Hip and Extremities. Poster presented at: IUPESM World Congress on Medical Physics and Biomedical Engineering; June 12 - 17, 2022; Singapore.
(2) RadiologyInfo.org. (2022, April 15). Radiation dose. Radiologyinfo.org. Retrieved May 25, 2022, from https://www.radiologyinfo.org/en/info/safety-xray
(3) Arthroscopycopyjournal.org (2019, May 01). Low-Dose Computed Tomography... Retrieved Oct. 20, 2022, from https://www.arthroscopyjournal.org/article/S0749-8063(18)31067-3/fulltext

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Specifications

All specifications are subject to change.

Description	Specification
Anatomical coverage	Upper extremities (excluding shoulder), lower extremities, hip & pelvis. Certain patient profiles, such as those with a larger body habitus, fall outside of the optimal range for hip and pelvis imaging in the HiRise.
Indications for Use	Indicated for patients 40 - 450 lbs (18 - 204 kg).
Shielding	System covers lined with .38mm lead; included attachments reduce patient dose
Software	CubeVue Visualization Software; PACS/DICOM Compliant
Reconstruction features	Metal artefact reduction, Motion correction, Composition-based scatter correction
CBCT scan times per joint*	33 - 55 sec
CBCT procedure time (Defined as patient enters to patient exits)	Foot/Feet: 76 sec.; Knees: 120 sec.; Hip + Pelvis: 305 sec.; Hip + Knees + Feet: 330 sec.; Upper Extremity: 76 sec.; Supine Feet/Ankles/Knees: 76 sec. *Total procedure times can take up to 12 minutes for a full leg exam.*
Max Height - Top of FOV/ Center of FOV	46.85” (119cm)/ 42.91” (109cm)
Radiation exposure time (based on typical pulse width)	5.76 - 13.5 sec
Reconstruction time	1-3 minutes per 20cm orbit
Image detector	Amorphous Silicon flat panel
Image gray scale	16 bit
CBCT imaging volume	**Large FOV:** 7.8” (20cm) h x 16.9” (43cm) dia **Medium FOV:** 7.8” (20cm) h x 10.2” (26cm) dia
Resolution	LFOV: 0.3mm, MFOV: 0.25mm
Dataset file size	300MB - 1200MB
System size: height x depth x width	57”x58”x73” (145cm x 147cm x 185cm)
Weight	Scanner: 850lb (385kg), Patient Chair: 250lb (113kg)
Power requirements	230VAC/30A outlet
Tube voltage	100 kVp, 120 kVp, 130 kVp
Tube current	5.5 mA, 6.5 mA

*Scan time is defined as the duration in which the exposure button is suppressed and the patient must remain still.

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System Dimensions

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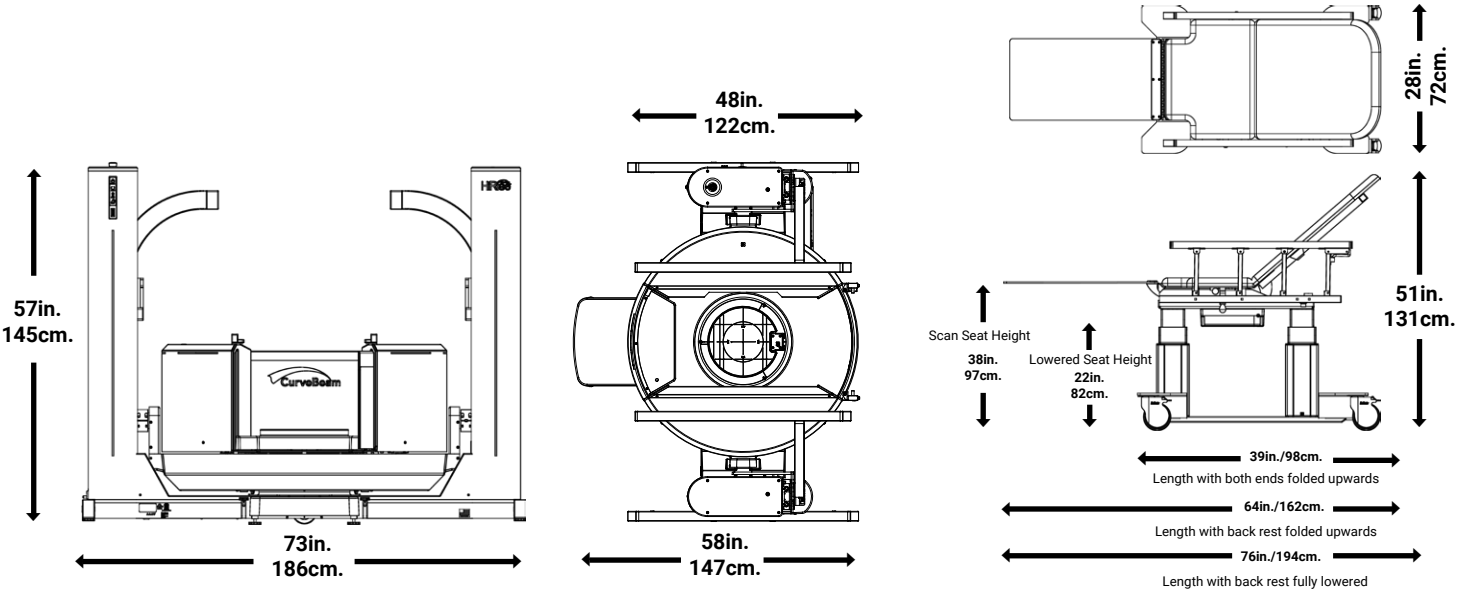
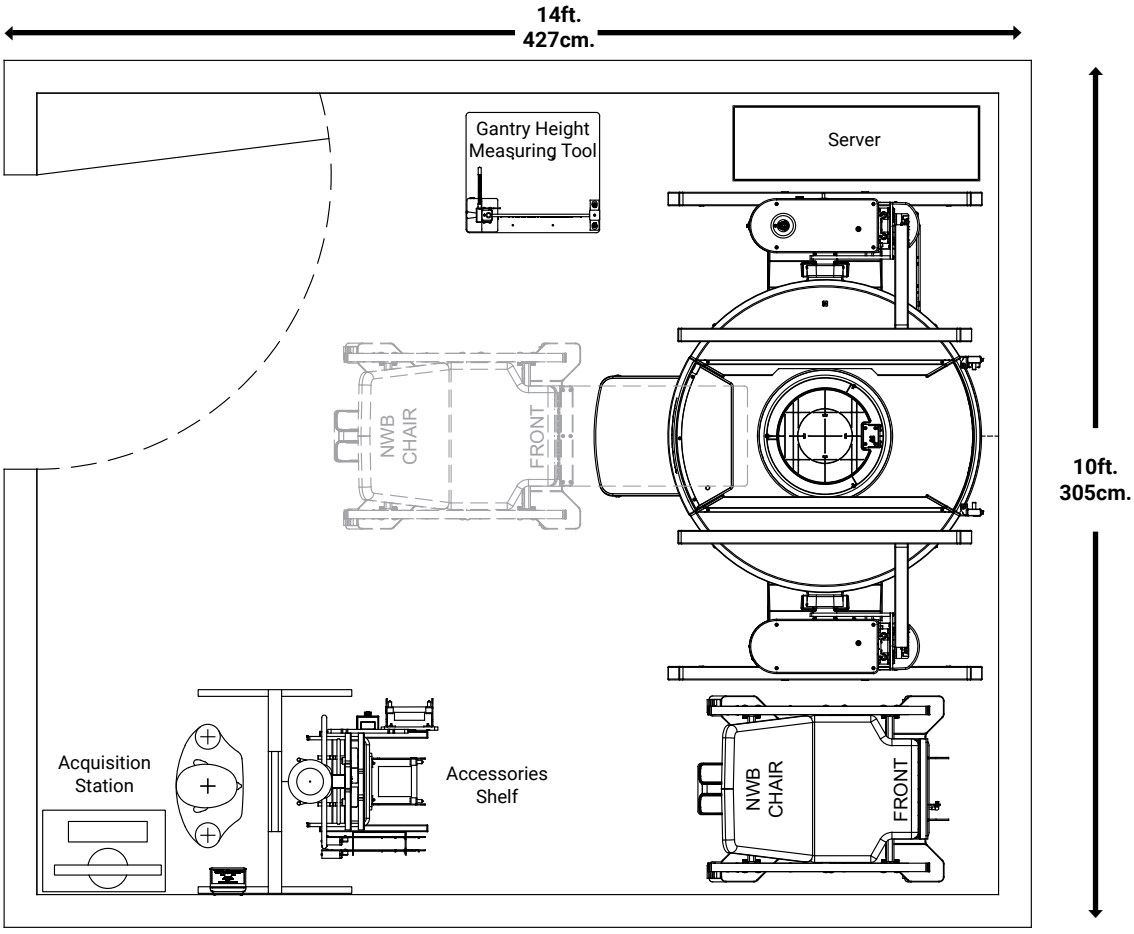


- Fits in 150 sq ft
- System plugs into a standard 230VAC/30A outlet
- System is self-shielded; some additional external shielding typically required



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