

DirectRay® Chest System

Model DR 1000C

Featuring . . .

DirectRay
TECHNOLOGY

The DirectRay® Chest System is a dedicated direct-to-digital chest imaging system. The system consists of five major components:

- DirectRay x-ray capture system
- DirectRay Console
- Servo-linked chest and tube stand
- 80 kW x-ray generator
- 400,000-heat unit x-ray tube

The dedicated chest system is built to optimize DirectRay® amorphous selenium (a-Se) technology.

The servo-linked chest stand and x-ray tube afford a wide range of capabilities, from procedures with patients in wheelchairs to routine ambulatory chest exams. With a 50 inch/127 cm range of vertical motion, the system permits upright chest radiography of any patient from a small child to a tall adult.

DirectRay x-ray capture system

- Digital detector with full field, 14 x 17 inch/ 35 x 43 cm nominal active image area
- 139 μ m detector element pitch

- Amorphous selenium semiconductor x-ray absorber coating over thin-film transistor detector element matrix
- 3.6 cycles/mm detector Nyquist frequency
- Operated at exposures routinely used for screen-film
- Detail equivalent to high-resolution screen-film systems
- Wide dynamic range—14-bit data captures; 12-bit output to PACS and film printers



The servo-linked chest stand

HOLOGIC

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DirectRay Chest System Product Specifications:

DirectRay® Console

The DirectRay Console allows rapid, accurate patient data entry, exposure control, image QA, and image destination selection. The console displays preview images in seconds while allowing the technologist to continually keep his/her eyes on the patient.

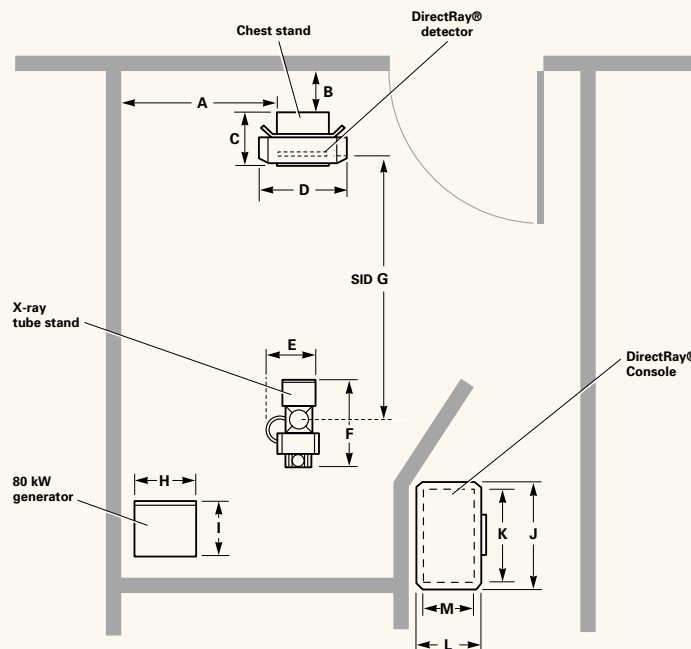
Please refer to the separate data sheet on the DirectRay Console.

Servo-linked chest and tube stand

- Ergonomically designed chest stand
- Fully counterbalanced receptor houses the DirectRay detector
- Motorized detector orientation
 - 14 x 17 inch/35 x 43 cm portrait orientation
 - 17 x 14 inch/43 x 35 cm landscape orientation
- 10:1, 103 lines per inch/40 lines per cm reciprocating grid
- One-touch vertical lock release for receptor
- Center of detector can be positioned from 18.5 to 68.5 inches/47 to 174 cm from the floor
- Fixed 72 inch or 180 cm source-to-image detector distance
- Floor-mounted tube stand with servo-linked tube/collimator keeps the radiation field centered on the detector



The primary screen of the DirectRay Console showing the actual technique factors along with a thumbnail image of the completed exams.



- Auto-collimation (with manual override) for both orientations of the detector
- Dual speed starter
- Line voltage range $\pm 10\%$
- 380, 440, and 480 VAC, 3 phase

X-ray generator

- 80 kW high frequency output
 - 1000 mA @ 80 kVP
 - 800 mA @ 100 kVP
 - 500 mA @ 150 kVP
 - 40-150 kVP
 - 25-1000 mA
- Generator control integrated into DirectRay Console
- Anatomically programmed radiography (APR) and automatic exposure control (AEC)
- Two-point and three-point manual techniques and manual APR/AEC override capabilities

Length and width

	in.	cm
A	48	122
B	12	30
C	14	36
D	27	69
E	24	61
F	38	97
G	72	183
H	24	61
I	21	53
J	33	84
K	28	71
L	22	56
M	19	48

Height

	in.	cm
Chest stand	89	226
X-ray tube stand	87	221
80 kW digital generator	71	180
DirectRay Console with	59	150
and w/o display	39	99

Weight (fully installed)

	lb	kg	BTU/hr
Generator	500	227	6000
Tube stand	350	158	1500
Chest stand	440	198	350
Console	275	124	

NOTE: Recommended minimum ceiling height is 114 in. / 290 cm.



HOLOGIC, INC.

North and South America, Pacific Rim, Middle East, Africa

35 Crosby Drive
Bedford, MA 01730-1401 USA
Phone: 781.999.7300
Fax: 781.280.0668
www.hologic.com

Europe

Horizon Park
Leuvensesteenweg
510, BUS 31
1930 Zaventem, Belgium
Phone: 32.2.711.4680
Fax: 32.2.725.2087
E-mail: info@hologic.be