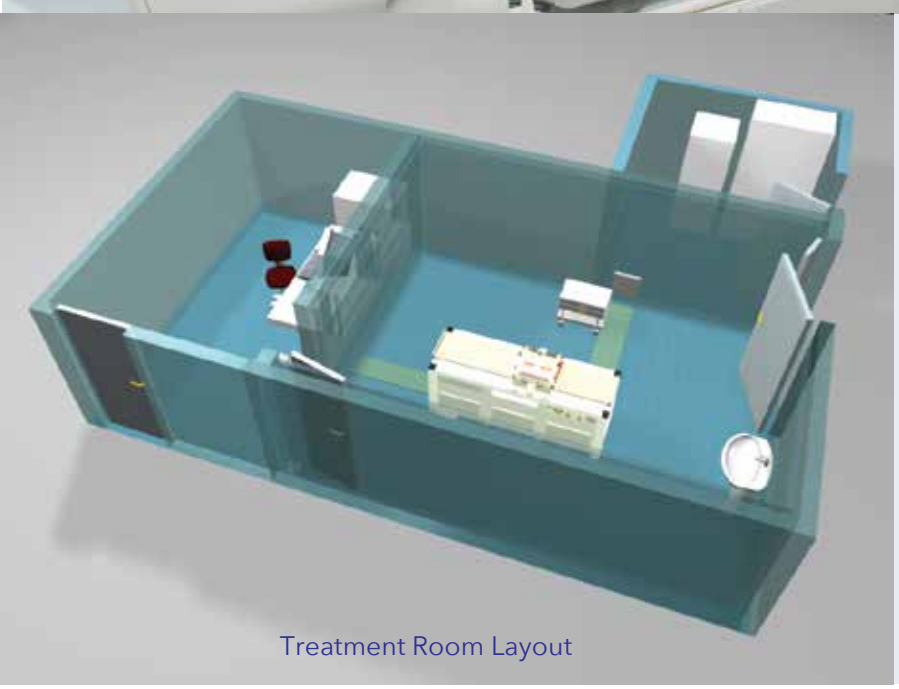
BSD-2000 Deep Regional Hyperthermia System Family

BSD-2000 3D/MR
on Philips Ingenia MRI 1.5 Tesla
**available only outside US*



Treatment Room Layout

What is Deep Regional Hyperthermia?

The BSD-2000 provides deep regional therapeutic hyperthermia to solid tumors by applying radio-frequency (RF) energy at the frequency range of 75 to 120 MHz. The system delivers energy to a patient using a power source and an array of multiple antennae that surround the patient's body. The patented design provides an optimized heating zone targeted to the tumor region by utilizing the adjustment of frequency, phase and amplitude from multiple power sources. Energy can be focused electronically to the tumor region, thus providing dynamic control of the heating by the operator.

FEATURES

Annular Phased Array
RF Power Delivery System
Treatment Planning & Control Software
Applicator Subsystem
4 or 12* Channel Configurations
8-port Temperature Monitoring
Built-in Water Circulation System

BSD-2000 with Sigma 60 Applicator

Pyrexar® MEDICAL

FEATURES

Touch Screen Control System

System provides step-by-step guide for setup and treatment procedure. Easy to understand Icons for selectable adjustments of the treatment parameters. A closed-loop feedback system provides automatic monitoring and control of treatment parameters, including power output, frequency, amplitude and phase, tissue temperatures, core temperature, and treatment time.

Thermometry

Non-perturbing, electromagnetically insensitive, temperature sensors with an accuracy of ±0.2°C over the treatment range. An automated positioning system allows the operator to map the sensor along the length of the catheter in order to determine the temperature profile. Precise calibration provides reference sensor to an accuracy of ±0.05°C over a range of 0 to 60°C.

Power Delivery

Solid-state amplifier with 4-channel independent phase and amplitude adjustment capability. A maximum power output of 0 to 325 watts per channel with phase accuracy within a 10 degree tolerance. 12-channel version used for 3D power steering.

Computer Control

Computer automatically monitors and controls the RF power and phase for each channel. Optimized treatment settings are calculated through the use of treatment planning software tools provided with the system.

Applicator and Patient Support System

Optimized for patient comfort, the fabric sling comfortably supports patient inside the applicator. The water system fills the bolus and controls the bolus water temperature. A quick drain capability allows fast access to the patient within 15 seconds.

Indication for Use

Humanitarian Use Device. In the U.S., the BSD- 2000 has a Humanitarian Device Exemption (HDE) approval for use in conjunction with radiation therapy in the treatment of cervical carcinoma patients who would normally be treated with combined chemotherapy and radiation but are ineligible for chemotherapy due to patient related factors.

Sigma 60 Applicator

Power Amplifier