

RT-LINAC, VAMC WASHINGTON, DC

PO# 688-B40608

- Performance per RAD 10094
- High speed, real time network control
- Synchronous, high precision motion, imaging, and dose trajectory management
- Patented variable beam energy generation
- Dual independent jaw collimator system, supporting dynamic jaw tracking and dynamic collimator rotation
- Enhanced dynamic wedge
- Electronic Accessory Detection and Verification system
- Treatment couch base with sub-millimetric positioning accuracy to isocenter
- LaserGuard II system, a laser protection zone-based proximity sensor that is used to alert the user of system proximity to the patient, associated immobilization devices, and to other parts of the system and limit motion if necessary
- Full remote motion control with software-selectable motion axis disable
- Autofield sequencing and full treatment delivery automation
- Radiation-hardened digital CCTV camera system for patient and motion monitoring
- 3D motion monitoring and touch detector systems
- Integrated controls with visual action prompts
- Two 27 inch monitors for treatment room viewing of system and patient information
- Soft light illumination and decorative curtain wall design elements
- Two 21 inch high performance monitors
- Integrated audio system, including intercom, respiration coaching, input for music
- Low profile console packaging with optional small footprint stacking
- Software-selectable IEC601 and IEC 1217 scale convention
- Basic quality assurance and performance test kit, including front pointer set and collimator crosshair
- Standard spare parts
- Smart connect remote access ready
- One (1) year full warranty
- Shipping (Shipment is pending regulatory clearance of this product in the ship-to country. Lead times after receipt of order may vary greatly by country.)

NOTE: The TrueBeam STx only supports IEC 601 or IEC 1217 scales. Conical collimator accessories (sometimes called "cones") must not be used for treating patients on this device without also using the Barcode Conical Collimator Verification (BCCV) product. Failure to use BCCV with conical collimators may result in serious injury or death due to a lack of verification that the correct conical

collimator and field size for that collimator are in place for that patient's treatment plan.

**PREREQUISITES:**

- ARIA Practice Management, Version 8.8.15, or comparable third party oncology information system.
- ARIA Rad Onc, including Eclipse, Version 8.9.09.1, or comparable third party oncology information / treatment planning system

Includes static and arc X-ray treatment delivery license, supports maximum dose per field of 2500 MU for static fields and 7200 MU for intensity modulated fields

Access to the TrueBeam™ Online Marketing Program which provides a broad range of advertising, educational, promotional, and public relations materials targeted to referring physicians, patients, and the media.

The following Education Course is included with the purchase of a TrueBeam.

- Includes Tuition and Materials for ONE person
- Customer is responsible for all travel expenses (airfare, hotel, rental car, meals and travel incidentals)
- Training is non-refundable and non-transferable
- Offer is valid for 18 months after installation of product

**TrueBeam Physics and Administration**

TrueBeam Physics and Administration course is designed for those personnel responsible for the acceptance, commissioning and QA program development of the TrueBeam in the clinical environment. It is directed primarily towards Medical Physicists. It is recommended that the student attend the TrueBeam Physics and Administration course shortly before the installation of the TrueBeam.

The course provides instruction of the basic delivery components, basic imaging components and a general overview of the motion management system components. Machine commissioning, calibration, QA and the responsibilities of Customer Acceptance Procedure (CAP) of the machine are included. The course subject matter is presented from a clinical use perspective. The primary emphasis is on the overall commissioning, calibration, and QA of the TrueBeam and its components. Extensive hands-on laboratory exercises are included.

**PREREQUISITES:** None

- Includes support for TrueBeam
- Support is non-refundable and non-transferable
- Offer is valid for 18 months after purchase

On site follow-up review of the TrueBeam components to include imaging and motion management for support of patient treatment. The emphasis of this support is to ensure that the therapists that attended the TrueBeam Operations (on-site) training are able to operate the TrueBeam in a safe and effective manner in the clinical environment.

PREREQUISITES: TrueBeam Operations (on-site) training

The following Education Course is included with the purchase of a TrueBeam:

- Includes Tuition and Materials for ONE person
- Customer is responsible for all travel expenses (airfare, hotel, rental car, meals and travel incidentals)
- Training is non-refundable and non-transferable
- Offer is valid for 18 months after installation of product

TrueBeam Operations is a course designed for those personnel responsible for the routine operation and clinical use of the TrueBeam. It is directed primarily towards Radiation Therapists. It is recommended that both students attend the TrueBeam Operations course shortly before clinical use and the commencement of patient treatments.

The course provides instruction of the basic delivery components, basic imaging components and a general overview of the motion management system components. The course subject matter is presented from a clinical use perspective. The primary emphasis is on the overall understanding of the TrueBeam function and operation to include imaging and respiratory gating. Extensive hands-on laboratory exercises are included. The attendees of this class will be provided tools to allow them to instruct other clinical staff upon their return.

PREREQUISITES: None

Length:  
4 days

SRS / SABR Multidisciplinary Training - UPMC Course

Who Should Attend: Surgeons (Neurosurgeons, Thoracic Surgeons, Head & Neck

Surgeons), Radiation Oncologists and Medical Physicists

Prerequisites: None.

Course Scope: The SRS/SABR multidisciplinary training program covers Stereotactic Radiosurgery and/or Stereotactic Ablative Radiotherapy (also known as SBRT - Stereotactic Body Radiotherapy) for radiosurgical ablative treatment of intracranial and extracranial tumors and/or lesions. These include:

- i) brain lesions & targets: including primary benign & malignant tumors, metastatic tumors from extracranial sites, and non-cancerous targets such as arteriovenous malformations & trigeminal neuralgia,
- ii) head & neck tumors: such as squamous cell tumors and glomus tumors,
- iii) spine tumors: such as metastatic lesions to vertebral bodies and primary spine tumors),
- iv) thoracic lesions: primarily non-small cell lung cancer and cancers of the mediastinum,
- v) upper and lower GI lesions: including pancreas, primary and metastatic liver, adrenals and lymph nodes.

This multidisciplinary course modeled after the mock tumor board method involves multiple surgical disciplines, radiation oncologists and physicists from UPMC. Each course will be tailored to the surgical discipline(s) in attendance at any given course and will utilize both lecture and a hands-on lab environment covering topics such as SRS clinical considerations and patient immobilization, 4DCT and pre-treatment QA of SRS. Students will participate in a hands-on lab session for both dosimetric QA of SRS plans and the pre-treatment QA. In addition, students will have the opportunity to observe 1 to 2 clinical SRS/SRT cases, including immobilization, imaging, treatment planning, pre-treatment QA and treatment delivery.

40 cm x 40 cm maximum field size, dose rate range 0-600 MU/Min

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40cm x 40cm maximum field size, dose rate range 400-1400 MU/Min

**Catalog #:** LB3001005000

40cm x 40cm maximum field size, dose rate range 400-2400 MU/Min

6cm x6cm, 6cmx10cm, 10cmx10cm, 15cmx15cm, 20cmx20cm, 25cmx25cm  
Includes electron arc applicator and final defining aperture mold frame set

25 cm x 25 cm maximum field size, dose range range 0-1000 MU/Min

25cm x 25cm maximum field size, dose rate range 0-1000 MU/Min

25cm x 25cm maximum field size, dose rate range 0-1000 MU/Min

25cm x 25cm maximum field size, dose rate range 0-1000 MU/Min

25cm x 25cm maximum field size, dose rate range 0-1000 MU/Min

- Performance per RAD 10094
- High resolution leaf width of 2.5 mm (projected at isocenter) for central 8 cm
- Leaf width of 5 mm (projected at isocenter) for outer 14 cm

Capability to simultaneously modulate aperture shape with dose delivery for a static gantry beam

FEATURES:

- Simultaneous modulation of MLC aperture shape and dose delivery for a static gantry beam
- Supports dynamic jaw tracking and collimator rotation with supporting treatment planning system
- Includes large field IMRT

Required for delivery of hypofractionated or radiosurgical X-ray treatments

FEATURES:

- Provides the capability to deliver high dose fields for any X-ray treatment
- Supports delivery of up to 6000 MU for a static aperture beam
- Supports delivery of up to 10800 MU for an intensity or volumetric modulated beam

NOTE:

For total body irradiation treatments, the Total Body Treatment Delivery License is required

Capability to simultaneously modulate aperture shape, dose rate, and gantry angle and speed continuously for up to 360 degrees of gantry rotation, with delivery as an arc beam.

When coupled with RapidArc Planning and a RapidArc-compatible information system, provides the capability to generate IMRT-quality dose distributions in a single, optimized arc around the patient. When coupled with the Optical Imager, provides the capability for Gated RapidArc.

FEATURES:

- Simultaneous modulation of MLC aperture shape, beam dose rate, and gantry angle and rotation speed during beam delivery
- Supports dynamic jaw tracking and collimator rotation with supporting treatment planning system
- Provides IMRT-quality dose distributions in a single arc delivery in less than 2 minutes

Capability to deliver High Dose Total Skin Electron Treatment, Total Body Electron Irradiation, and Total Body X-ray Irradiation treatments

FEATURES:

- Supports delivery of up to 6000 MU for Total Body Irradiation treatments
- Supports delivery of up to 9000 MU for High Dose Total Skin Electron treatments

For electron based treatments, 6 MeV and/or 9 MeV and corresponding 6 MeV HDTSE and/or 9 MeV HDTSE must be selected.

MV image acquisition and data analysis for target localization, patient positioning and motion management

FEATURES:

- Performance per RAD 10094
- High precision, isocenter-aligned positioning system
- aS1000 detector system for low dose, high resolution imaging
- 2D image acquisition before, after, and during treatment delivery
- Online image review and analysis

Provides capability for radiographic and cine imaging and basic imaging matching for treatment verification

Provides capability for 2D radiographic imaging, image analysis, and marker match

Provides capability for respiration-synchronized MV radiographic image acquisition

PRE-REQUISITE:

Optical Imager and accompanying Respiratory Gating Licence

Provides capability for portal dose image acquisition

Set of upper and lower port film graticules

kV Image acquisition and data analysis, analysis for target localization, patient positioning and motion management.

FEATURES:

- Performance per RAD 10094
- High precision, isocenter-aligned positioning system

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- X-Ray source and detector
  - 2D image acquisition before, after, or during treatment delivery
  - Online image review and analysis

Provides capability for 2D kV radiographic image acquisition and analysis, pretreatment fluoroscopic verification imaging and analysis, 2D marker matching, 2D MV/kV imaging and analysis, fluoroscopic image acquisition during treatment delivery

Provides capability to acquire, process, and analyze in 3D a cone-beam volumetric CT dataset

Provides capability for respiratory gating-triggered kV radiographic image acquisition, during, after, and before treatment delivery.

**PRE-REQUISITE:**

Optical Imager and accompanying Respiratory Gating License

Stereoscopic optical imaging system for monitoring patient respiratory motion and 3D patient position

Performance per RAD 10094

Respiratory Gating License

**FEATURES:**

- Provides the capability to synchronize image acquisition and treatment delivery with respiration
- 3D patient position monitoring
- Capability for gated arc therapy



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- Includes Tuition and materials for ONE person.
  - Attendees will be responsible for their own, airfare, hotel, rental car, meals and other travel incidentals.
  - Training is non-refundable and non-transferable.
  - Offer is valid for 18 months after installation of product.

The RPM course provides training for physicists, or therapists, to obtain knowledge of the principles and practice of respiratory gating in radiation oncology for clinical implementation.

Duration:  
1 1/2 days

#### Novalis Planning Platform

10958 iPLAN WORKSTATION PREMIUM WITH FLATSCREEN AND PRINTER 1

B33503 DICOM IMPORT 1

B33504 STANDARD DICOM RT IMPORT PACKAGE 1

B33501 ADVANCED DICOM RT EXPORT PACKAGE 1

#### Novalis Planning Software

21386 iPLAN RT IMAGE SOFTWARE 4.1 1

21221 iPLAN RT ANGIOGRAPHIC REGISTRATION 1

21223 iPLAN RT DSA PROCESSING 1

21340 iPLAN AUTOMATIC IMAGE FUSION SOFTWARE 1

21220 iPLAN SMART BRUSH AND SMART SHAPER SEGMENTATION SOFTWARE 1

B32100 iPLAN AUTOMATIC SEGMENTATION PACKAGE 1

21387 iPLAN RT DOSE SOFTWARE 4.5 1

20630 CIRCULAR ARC SRS/SRT PLANNING 1

23015 CONFORMAL AND DYNAMIC CONFORMAL SRS / SRT 1

23060 IMRS/IMRT INVERSE PLANNING 1

43800 SRT PLANNING FOR VARIAN MLCS 1

#### Novalis Treatment Hardware

40210 NOVALIS COUCHMOUNT 1

41200 STEREOTACTIC HEADRING 1

41350 CT/X-RAY LOCALIZER & SUPPORT 1

40700-0 STEREOTACTIC TARGET POSITIONER 1

40952 NOVALIS QA EQUIPMENT 1

41611 NOVALIS CONICAL COLLIMATOR SET 1

#### Novalis Services

82993-10 PRE-INSTALLATION VISIT NOVALIS 5

82011-01 iPLAN WORKSTATION CONFIGURATION 1

82011-02 iPLAN RT SOFTWARE INSTALLATION 1

82020-08 EXACTRAC X-RAY 6D INSTALLATION 1

82032-01 BLA CC: CASE COVERAGE (1 DAY BL APPL.TRAINER) 4  
 82012-01 BLA: TREATMENT PLANNING AND PHYSICS (1 PERSON/ 5 DAYS) 4  
  
 82012-12 BRAINLAB ACADEMY Onsite Applications Training: STEREOTAXY (2 DAYS) 1  
 82022-01 BRAINLAB ACADEMY Onsite Applications Training: EXACTRAC (3 DAYS) 1  
 82039-01 NOVALIS FREIGHT INSURANCE AND FEES 1

#### Novalis X-Ray Positioning

B34905 EXACTRAC INFRARED PACKAGE TRUEBEAM STX 1  
 49907 EXACTRAC CEILING MOUNTED MONITOR ARM 1  
 B34906 EXACTRAC X-RAY PACKAGE TRUEBEAM STX 1  
 49951 ET PREINSTALLATION KIT INFRARED / X-RAY 1  
 49915 EXACTRAC X-RAY FLOOR CASING 12" 1  
 49102 EXACTRAC AUTOPOSITIONING FOR TRUEBEAM1  
 49601 IMAGING COUCH TOP FOR VARIAN EXACT INCL. FRAMELESS EXTENSION 1  
 B34340 FRAMELESS SRS PACKAGE 1  
 49700 EXACTRAC ROBOTICS FOR VARIAN EXACT/TRUEBEAM1  
 49577 EXACTRAC VERIFICATION PHANTOM 1  
 20821 EXACTRAC DATA PUSH TO ARIA/ IMPAC / LANTIS 1  
 20822 EXACTRAC INTRA-FRACTION SNAP VERIFICATION 1  
 B34800 ET DATA/REMOTE/REVIEW/APPROVAL SOFTWARE 1

#### Novalis iPlan NET

10911 iPLAN NET SERVER 2  
 21254 iPLAN NET SOFTWARE (5 USER LICENSES) 2  
 21249 iPLAN NET LOAD BALANCING 1  
 21248 iPLAN NET SESSION SHARING 2  
 81001-07 iPLAN NET SERVER INSTALLATION 2

Carbon fiber treatment couch top, free of metal or other radiation-opaque materials, thereby reducing imaging artifacts

#### FEATURES:

- Clinically usable section of 120.0 cm
- Supports patients up to 500 lbs (227 kg)
- Indexed Immobilization® for compatible accessories
- Head extension with interface for alternative patient immobilization and positioning device

The Exact IGRT bar is designed specifically to facilitate increased positive attachment of compatible accessories, such as the Patient Fixation vacuum form cushions. The bar is compatible with the Exact Couch Patient Fixation. While compatible with the vacuum form cushions of Patient Fixation with BF14 Baseplate, the lock bars will not secure the BF14 baseplate to the Exact IGRT couch top.

4-Way Wedge Set, including 15°, 30°, 45°, 60° wedges

Drilled MEDTEC Star trays, 0.635 cm thickness  
Starting shadow block kit

CCTV Camera Kit

FEATURES:

- Two pan, tilt, zoom CCTV cameras
- Two desktop, 8 1/4 inch LCD displays with built in camera controls
- Adjustable viewing angle for patient privacy
- Push button pan, tilt, zoom, and home position control

LAP Apollo Green Room Laser Kit

FEATURES:

- 1 Apollo Green Remote Controlled Ceiling Crosshair Laser
- 2 Apollo Green Remote Controlled Lateral Crosshair Lasers
- 1 Apollo Green Remote Controlled Sagittal Line Laser

General Electric Co. main circuit breaker panel, interfacing to a single power input feed from the facility Mains. Circuit breakers provide independent over-current protection for equipment at the console and in the treatment room. UL and IEC/CE certified.

Transtector Power Conditioner  
Input: 208V, 240V, 480V or 600V  
Output: 208/120 V and 480/277 V

Description:

This includes a site LMC license for a Varian Clinac

FEATURE(S):

1. Leaf motion calculation software for multiple-static-segment delivery on a Varian Clinac.

LICENSE(S):

1. LMC for Varian Clinac

PRE-REQUIRE(S):

1. Latest software version must be installed on each Eclipse in the network
2. Interactive IMRT Planning and/or Electronic Surface Compensation

Planning for HET Machine

Description:

This includes a site LMC license for a Varian TrueBeam.

FEATURE(S):

1. Leaf motion calculation software for multiple-static-segment and sliding window delivery on a Varian TrueBeam.

LICENSE(S):

1. LMC for Varian Clinac
2. LMC for Varian TrueBeam

PRE-REQUIRE(S):

1. Latest software version must be installed on each Eclipse in the network
2. Interactive IMRT Planning and/or Electronic Surface Compensation
3. Varian TrueBeam

DESCRIPTION: This includes one (1) additional Eclipse Dose Dynamic Arc module for RapidArc planning license

FEATURE(S):

1. Eclipse Dose Dynamic Arc option for RapidArc planning supports dynamic arc treatments produced through volumetric dose optimization.
2. This option uses Dynamic MLC, variable dose rate, and variable gantry speed to generate intensity modulated dose distributions in optimized arcs.
3. Supports coplanar and non-coplanar arcs.
4. Supports full arcs, partial arcs and avoidance sectors.
5. Automated optimization of multiple isocenter plans. (This is available in v10.0 or higher.)
6. Simple collision detection rules. (This is available for v10.0 or higher.)

7. Automatic Normal Tissue Objective. (This is available for v10.0 or higher.)
8. Mean dose objective. (This is available for v10.0 or higher.)

LICENSE(S):

1. Eclipse Dose Dynamic Arc software option and license
2. Conformal Arc for dMLC

PRE-REQUISITE(S):

1. Eclipse version 8.6 or higher must be installed on all Eclipse workstations in the network
2. Interactive IMRT Planning on Eclipse workstations
3. Varian Linear Accelerator with RapidArc Delivery
4. Minimum hardware requirements as per  
[http://www.varian.com/us/oncology/services\\_and\\_support/hardware\\_specifications/](http://www.varian.com/us/oncology/services_and_support/hardware_specifications/)

ARO:

The current best estimate for installation lead time is 150 days.