

# ProSPECT

A Professional Solution for Cardiac Imaging  
Dual Head Dedicated Cardiac SPECT

## Conformance Statement

- Quality management system operated by Parto Negar Persia (PNP) Imaging Systems.
- Product design, development, production and services comply with ISO 13485, ISO 9001, IEC 60601-1-1, IEC 60601-1-2, IEC 62304 and NEMA NU1
- Safety labels are attached to appropriate places on equipment and appeared in all operation manuals.
- The supplied software complies with DICOM standard.
- The technical information provided here is not a detailed specification.
- For more details and up to date information please contact PNP Medical Imaging Systems Company.



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Parto Negar Persia Co.  
Pioneer in Healthcare Technology



# ProSPECT

## Overview

ProSPECT system has an optimized design in nuclear cardiology. The system gives you all information needed for confident diagnosis and myocardium imaging.

The gantry and table of the system are designed with a variety of scans in mind and in a comfort manner specially for patients with claustrophobia disorder. The ProSPECT system equipped with two detectors with small FOV to minimize extra cardiac activity.



## Designed with a variety of patients in mind

ProSPECT system can scan a variety of patients with all sizes because of a 76 cm bore of the gantry.

Also, table designed to comfortably accommodate the patients and to provide dual patients positioning (supine and prone).



The system provides a wide range of SPECT scans such as supine, prone, dextrocardia, 180 degrees and 360 degrees arcs.



### Handling patients of all sizes

Design for easy access of patient with any size (150 kg, 210 cm)

### Providing a wide variety of SPECT scans

Possibility of SPECT scans in different modes including supine, prone, dextrocardia, 180 degrees and 360 degrees arcs.



### Optimal Field of View

Optimizing FOV to minimize inappropriate activity uptake of other organs

### Portable acquisition console

User-Friendly acquisition software with predefined acquisition protocols

### Hand controller

Easy to control gantry operations and body contour learnings



### Optimal detector design for cardiology

Dual-detectors with fixed 90° angles and minimum dead zone

### Designed with patient comfort in mind

Patient-friendly design specially patients with claustrophobia disorders

### Light-weight collimators

Easy to change collimators manually

**ProSPECT**

## Detector Specifications Based on NEMA Standards

Intrinsic spatial resolution	
FWHM in UFOV	≤ 3.5 mm
FWTM in UFOV	≤ 7.4 mm
Intrinsic spatial linearity	
Absolute in UFOV	≤ 0.8 mm
Differential in UFOV	≤ 0.2 mm
Energy resolution	
UFOV	9.3 %
Intrinsic flood field uniformity	
Integral in UFOV	≤ 2.2 %
Differential in UFOV	≤ 1.2 %
System spatial resolution w/o scatter at 10 cm	
LEHR	≤ 7.6 mm
LEAP	≤ 9.8 mm
Sensitivity	
LEHR	175 cpm/μCi
LEAP	295 cpm/μCi
ECG Gating	
Mode	List Mode
Max. number of frames per R-R Interval	32

Gantry Physical Specifications	
Height	160 cm
Width	140 cm
Length	365 cm
Weight (with detectors and collimators)	900 kg

System Specifications	
Field of View (FOV)	37x22 cm <sup>2</sup>
Useful Field of View (UFOV)	36x21 cm <sup>2</sup>
Detector respective angle	90 Degrees
Gantry rotation range	360 Degrees
Radius of Rotation (ROR)	18-33 cm
Range of up/down movement of bed	73-85 cm
Range of in/out movement of bed	150 cm

ProSPECT

IEC 60601-1-1: 2012  
 IEC 60601-1-2: 2014  
 IEC 62304: 2006  
 NEMA NU1: 2007

- Optimized field of view for cardiac imaging
- Supine and prone imaging
- Variety in patient size
- List mode gated SPECT acquisition
- Motion artifact reduction
- Advanced Cedars-Sinai software for quantification
- Minimal dead zone in detectors
- User-friendly acquisition station
- Easy-to-use hand controller
- Portable acquisition console
- Appealing colors

