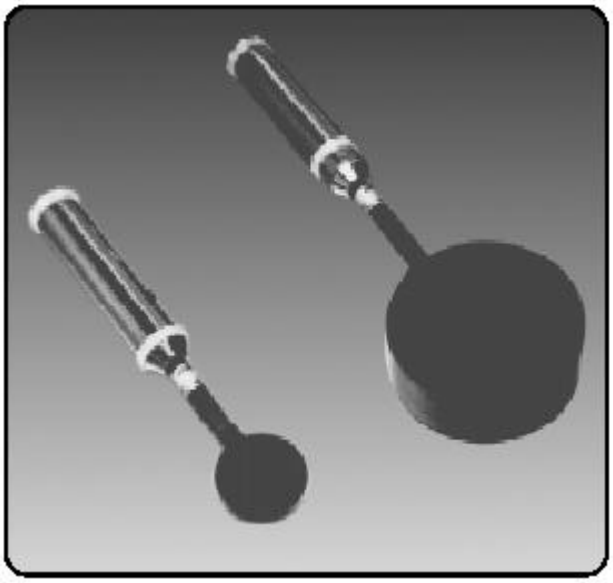
Victoreen Model 660 Series

Parallel Plate Ion Chamber



For diagnostic beam measurements
For scatter radiation measurements
Compatible with 660 readout
Ambient Dose Equivalent versions available

INTRODUCTION

The 660 series probes feature a circuit concept which provides a noise free transmission of data. The ion chamber current output is converted to a low impedance digital pulse train in the probe handle, so that cable flexing has no effect on the measurement. These probes are intended for use with the Model 660 instrument only, which supplies the operating voltages, senses individual probe sensitivity, and converts the digital pulse frequency into units of radiation. Model numbers 660-3, 660-4A, and 660-5 are read in Roentgens. Model numbers 660-3-DE, 660-4A-DE, and 660-5-DE are read in Sieverts and are dose equivalent versions. They have typical energy dependence curves per ICRP recommendations for ambient dose equivalent.

APPLICATIONS

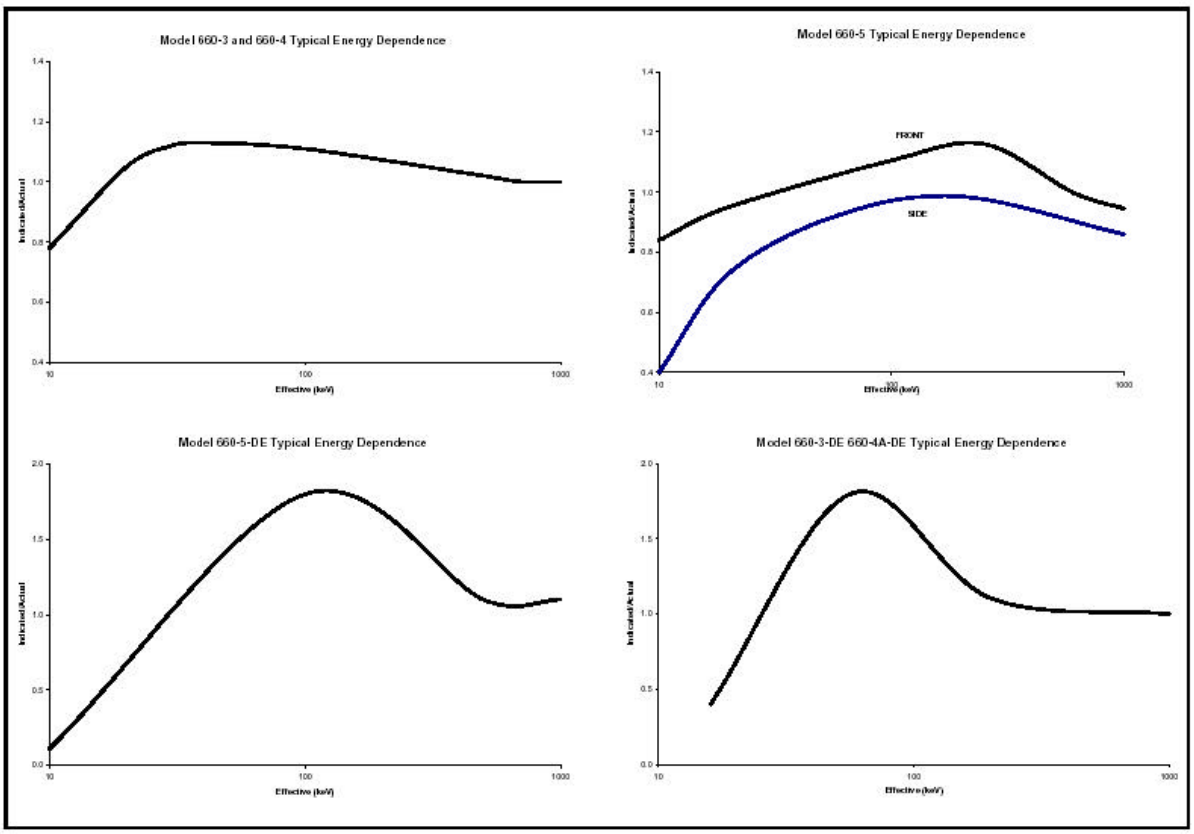
The 660 probes make use of ion chamber technology, ideal for use in standard radiology, fluoroscopy, and mammography quality assurance programs where inbeam
exposure and exposure rate measurements over a broad range of kVp energies are required. The 660-5 Scatter Probe is designed primarily for Health Physics exposure assessments of scattered radiation.

FEATURES

- Circular parallel plate ion chambers have assured atmospheric communication
- The 660 family of chambers also maintain precision within 1% short term and 2% per year at 20°C exclusive of air density or energy response
- The 660 series converts the ion chamber current to a pulse train thereby eliminating effects from flexing cables
- Ambient Dose Equivalent versions of these probes have energy response curves per the ICRP recommendations

SPECIFICATIONS

Series Number	**660-3** **660-3-DE**	**660-4A** **660-4A-DE**	**660-5** **660-5-DE**
Application	Diagnostic Beam Measurement	Diagnostic Beam Measurement	Scatter
Probe Volume	4cc	4cc	400 cc
Measurement Area	10 cm2	10 cm2	100 cm2
Maximum Rate	999 R/min	99.9 R/min	9.99 R/hr
Maximum Exposure	99.9 R	99.9 R	99.9 mR
Resolution on most sensitive range Rate	10 mR/min	1 mR/min	0.1 mR/hr
Resolution on most sensitive range Exposure	1 mR	0.1 mR	1 µR
Intensity Limit for 99% Collection Efficiency	4 R/sec	1.8 R/sec	10.8 R/hr



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