

HEXTRON

 Granpect Company Limited

# HEXTRON

 固鸿科技  
GRANPECT



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[WWW.GRANPECT.COM](http://WWW.GRANPECT.COM)

# HEXTRON<sup>®</sup>

LINEAR ACCELERATOR FOR NON DESTRUCTIVE INSPECTION

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# HEXTRON® LINEAR ACCELERATORS FOR NON-DESTRUCTIVE TESTING

GRANPECT offers a series of HEXTRON LINAC products, which can be configured to fit a wide range of NDT applications, coupled to digital radiography and computer tomography

## SMALL FOCUS ACCELERATOR

Specifications	HEXTRON 4	HEXTRON 6	HEXTRON 9
<i>X-ray beam energy</i>	4MeV	6MeV	9MeV
<i>X-ray beam dose rate (min@1m)</i>	≥100cGy/	≥200cGy	≥800cGy
<i>X-ray beam focal spot size</i>	<0.5mm	<0.5mm	<0.5mm
<i>X-ray flatness</i>	≥75%	≥62%	≥55%
<i>X-ray asymmetry</i>	≤ 3%	≤ 3%	≤ 3%
<i>90% X-ray stability</i>	≤ 5s	≤ 5s	≤ 5s
<i>Leakage radiation</i>	≤ 0.1%	≤ 0.1%	≤ 0.1%
<i>Thickness of steel (mm)</i>	50-250	50-280	76-380
<i>Radiographic quality</i>	Better than1%		
<i>Hole type penetrometer</i>	ASTM E94-04 1-2T		

1. X-ray homogeneity\*: X-ray homogeneity shall be measured at 7.5° away from X-ray beam center axis when the X-ray beam energy is less than or equal to 9 MeV; X-ray homogeneity shall be measured at 6° away from X-ray beam center axis when X-ray beam energy is higher than 9 MeV.

# SWITCHABLE LINEAR ACCELERATORS

X-ray field size 1. A standard 30° cone defines the field 3. Horizontal or vertical fan beam field with a customizable angle.

## SINGLE ENERGY ACCELERATOR

Specifications	HEXTRON 1/15	HEXTRON 2/200	HEXTRON 4/500	HEXTRON 6/1000	HEXTRON 9/3000	HEXTRON 15/20000
<i>X-ray beam energy</i>	1MeV	2MeV	4MeV	6MeV	9MeV	15MeV
<i>X-ray beam dose rate (min@1m)</i>	≥15cGy	≥200cGy	≥500cGy	≥1000cGy	≥3000cGy	≥20000cGy
<i>X-ray beam focal spot size</i>	< 2mm	< 2mm	< 2mm	< 2mm	< 2mm	< 3mm
<i>X-ray flatness</i>	≥ 80%	≥ 78%	≥ 75%	≥62%	≥55%	≥45%
<i>X-ray asymmetry</i>	≤ 3%	≤ 3%	≤ 3%	≤ 3%	≤ 3%	≤ 5%
<i>90% X-ray stability</i>	≤ 5s	≤ 5s	≤ 5s	≤ 5s	≤ 5s	≤ 15s
<i>Leakage radiation</i>	≤ 0.1%	≤ 0.1	≤ 0.1%	≤ 0.1%	≤ 0.1%	≤ 0.1%
<i>Thickness of steel(mm)</i>	40-100	40-200	50-250	50-280	76-380	100-460
<i>Radiographic quality</i>	Better than1%					
<i>Hole type penetrometer</i>	ASTM E94-04 1-2T					

2. X-ray beam asymmetry\*\*: X-ray beam asymmetry shall be less than 3 % at 7.5°away from X-ray beam center axis when the X-ray beam energy is less than or equal to 9 MeV; X-ray beam asymmetry shall be less than 5% at 6 °away from X-ray beam center axis when X-ray beam energy is higher than 9 MeV.  
 3. X-Ray dose leakage\*\*\*: A measure of leakage is given by the ratio of X-ray dose rate 1 m away from the target in a variety of directions to the X-ray dose rate on the central beam axis. This shall be expressed as a percentage and shall be less than 0.1 %.

**EQUIPMENT DESCRIPTION**

**TEMPERATURE CONTROL UNIT**

**POWERSUPPLY AND ENVIRONMENT REQUIREMENT**

**X-RAY HEAD**



**POWER SUPPLY**

**ENVIRONMENT**

Voltage: 380 VAC ±10 % three-phase five-wire AC system

The operating environment temperature for all components can be working from 5° C and 40°C, with 90% maximum relative humidity. The storing environment temperature for all components can be working from -15°C and 55°C, with 95% maximum relative humidity. All the components should be installed in ventilative place.

Frequency: 50 Hz ±2 % / 60 Hz ±2 %

Grounding resistance: special grounding resistance of modulator is less than 4 Ω

A separate power source is recommended. The power capacity is shown in the following table.

**SOLID-STATE MODULATOR**



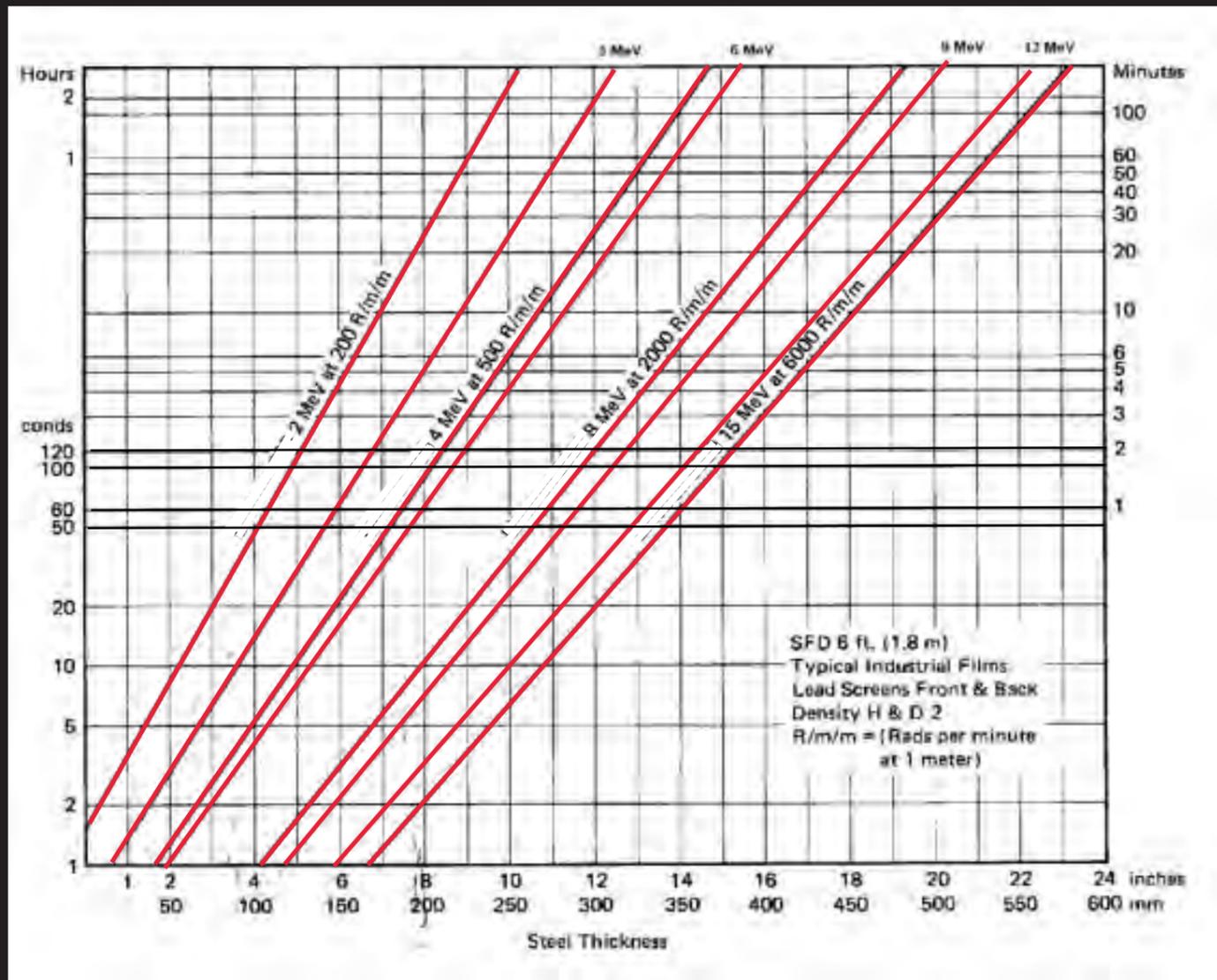
Model	HEXTRON -1/15	HEXTRON -2/200	HEXTRON -4/500	HEXTRON -6/1000	HEXTRON -9/3000	HEXTRON -15/20000
kVA)	10	10	12	12	15	55

**EXTRA EXTERNAL CONSOLE (OPTIONAL)**

## APPLICATIONS OF ACCELERATORS

- Industrial CT Non-Destructive Testing systems
- Industrial radiography Non-Destructive Testing systems
- Industrial digital imaging Non-Destructive Testing Systems

## EXPOSITION CURVES



## STRICT QUALITY STANDARD & FULLY CUSTOMER SERVICE



GRANPECT has been certificated by ISO9001 and Radiation Safety Certification authorized by Environment Organization. The accelerator products of GRANPECT have also been certificated by CE. The whole procedures of a product, including design, material purchase, production, testing, installation, check and accept, and after-sales service, can be guaran-teeed.



ISO9001 Certificate



CE Certificate