

Note: Document originally drafted in the English language.  
注释：文件最初用英语起草。

**Product Description**

The Diamond® housing is designed for Varex Imaging rotating anode inserts having 71 mm (2.8 inches) or 80 mm (3 inches) diameter targets.

IEC Classification ..... Class 1

Weight, Approximate:  
Housing & Tube ..... 17 kg (37.4 lbs)

Mounting ..... Port plate or Trunnion  
Standard Housing - 1/4-20 Screws  
Metric Housing - M6-1 screws

**产品说明**

Diamond® 管套是为具有 71 mm (2.8 in.) 或 80 mm (3 in.) 直径靶盘的万睿视影像旋转阳极管芯而设计的。

IEC 分级 ..... 1类

近似重量:  
管与管套: ..... 17 kg (37.4 lbs)

安装 ..... 配流盘或管箍  
标准管套 - 1/4-20 螺钉  
米制管套 - M6-1 螺钉

**Product Description**

Maximum Peak Voltage ..... 150 kV  
 Cathode to Ground ..... 82.5 kV  
 Anode to Ground ..... 82.5 kV

Maximum X-Ray Tube Assembly Heat Content ..... 930 kJ (1.3 MHU)

Nominal Continuous Input Power  
 (maximum housing temperature 78°C) ..... 200 W (278 HU/sec)  
 IEC 60613:2010 @ Sea Level

X-Ray tube assembly cooling is provided by ambient air flow.

X-Ray Tube Assembly (Insert and Housing)  
 Permanent Filtration ..... 0.7mm Al/75kV IEC 60522/1999

Loading Factors for Leakage Radiation ..... 150 kV, 3.3 mA

Temperature Limits for Storage and Transport ..... -20°C to +75°C  
 Humidity ..... +10% to +90%  
 Atmospheric Pressure Range ..... 70 kPa to 106 kPa

Thermal Switch ..... Normally Closed  
 Contact Rating - 7A @ 120Vac  
 Open ..... 85°C ±3.9°C (185°F ±7°F)

High Voltage Receptacle Cables ..... Complies to IEC 60526  
 NEMA Standard XR7-1979 (R1984, 1990)

X-Ray Tube Assembly (Complies to) ..... IEC 60601-2-28

**产品说明**

最大峰值电压 ..... 150 kV  
 阴极到地 ..... 82.5 kV  
 阳极到地 ..... 82.5 kV

X 射线管组件最大热含量 ..... 930 kJ (1.3 MHU)

标称持续输入功率  
 (最大管套温度 78°C) ..... 200 W (278 HU/sec)  
 IEC 60613:2010 @ 海平面

X射线管组件通过其周围空气流进行冷却。

X 射线管组件 (管芯和管套)  
 固有滤过 ..... 0.7mm Al/75kV IEC 60522/1999

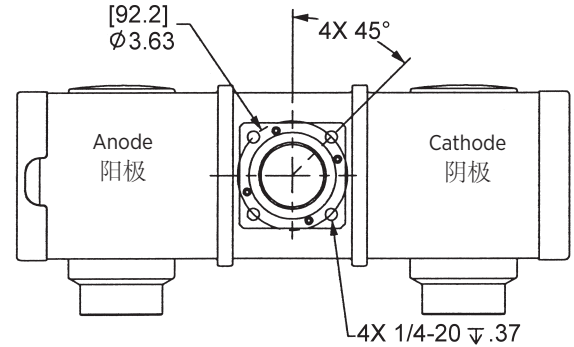
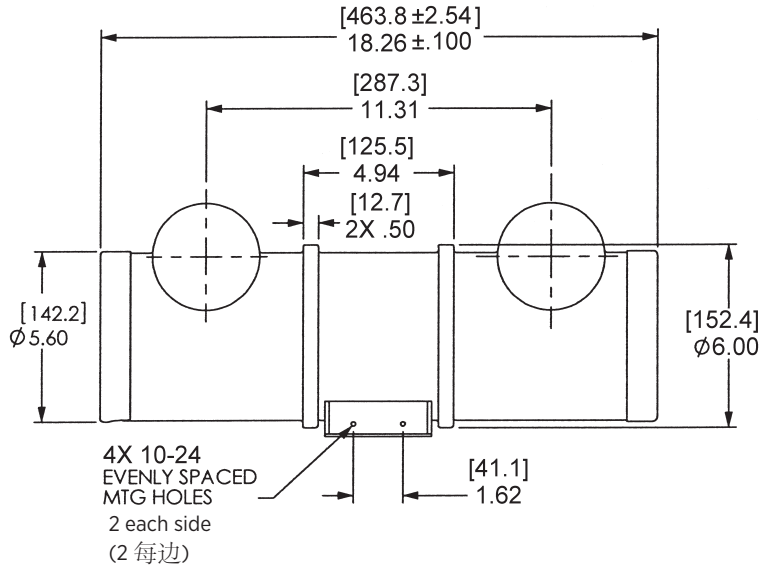
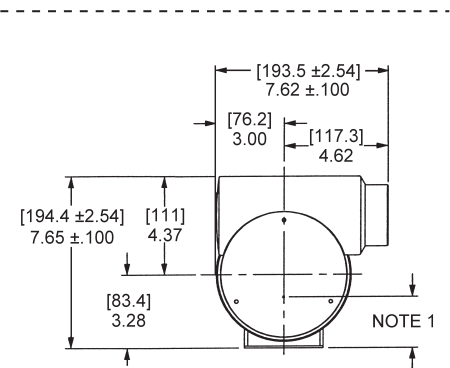
泄漏辐射测试条件 ..... 150 kV, 3.3 mA

存储与运输温度限值: ..... -20°C ~ +75°C  
 湿度 ..... +10% ~ +90%  
 大气压范围 ..... 70 kPa ~ 106 kPa

热控开关 ..... 正常闭合  
 触点额定值 - 7A @ 120Vac  
 打开 ..... 85°C ±3.9°C (185°F ±7°F)

高压插座缆绳 ..... 符合 IEC 60526  
 NEMA 标准 XR7-1979 (R1984, 1990)

X 射线管组件 (符合) ..... IEC 60601-2-28

**Standard Port Housing**  
 标准端口管套

 Dimensions are for Reference only  
 维度是供仅供参考

**Note 1**

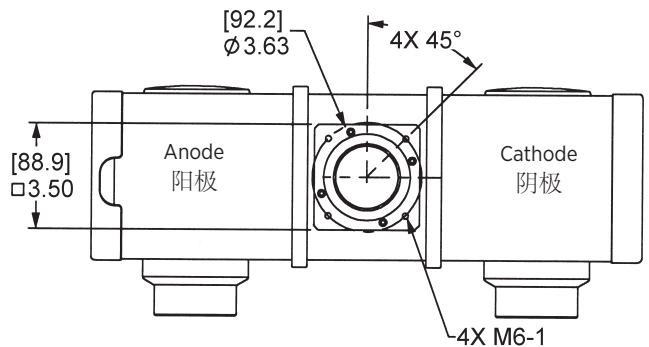
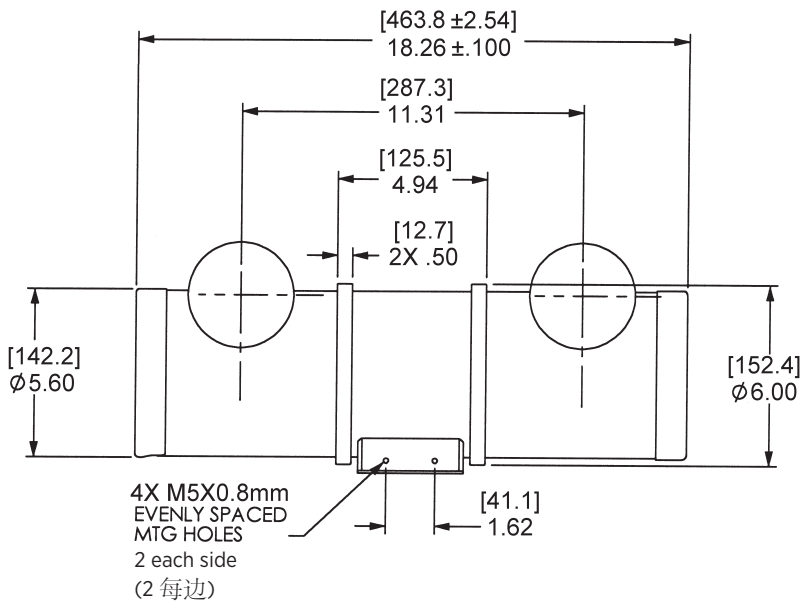
Focal Spot to Port Distance

 80 mm Anode ..... [53.0 ± 1.0] 2.10 ± 0.040  
 71 mm Anode (RAD-8 & 12) ... [56.0 ± 1.0] 2.20 ± 0.040

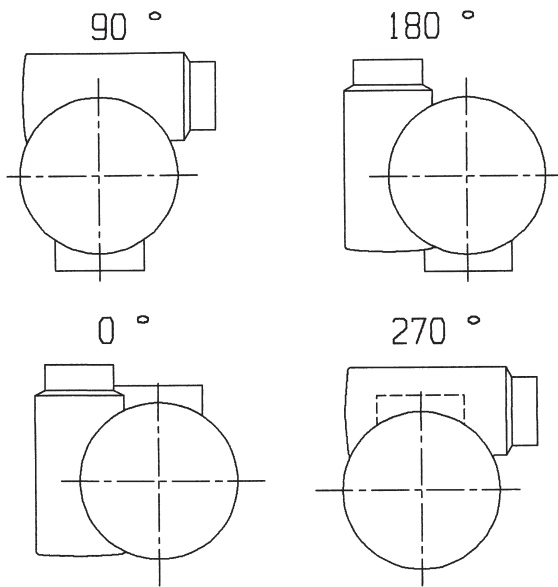
## 注释 1

焦点到端口距离

 80 mm 阳极 ..... [53.0 ± 1.0] 2.10 ± 0.040  
 71 mm 阳极 (RAD-8 & 12) ... [56.0 ± 1.0] 2.20 ± 0.040

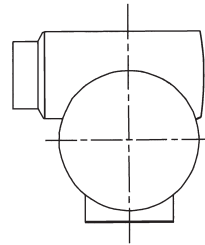
**Metric Port Housing**  
 米制端口管套


## Housing Horn Angles 管套号形角

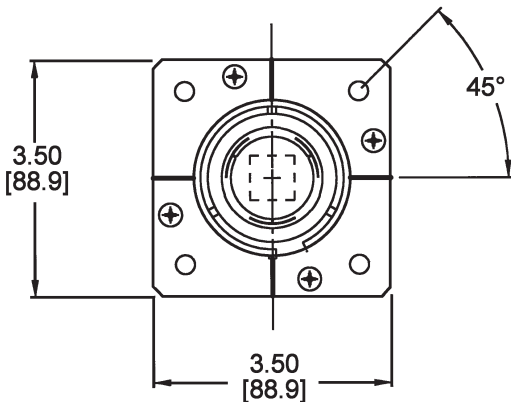


Cathode End View  
阴极端部视图

DIAMOND-M (ONLY)  
REVERSED 90°



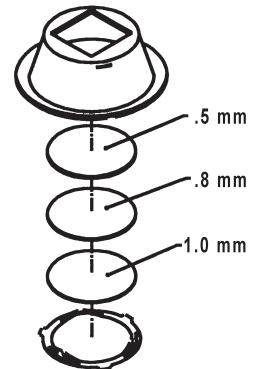
Dimensions are for Reference only  
维度是供仅供参考



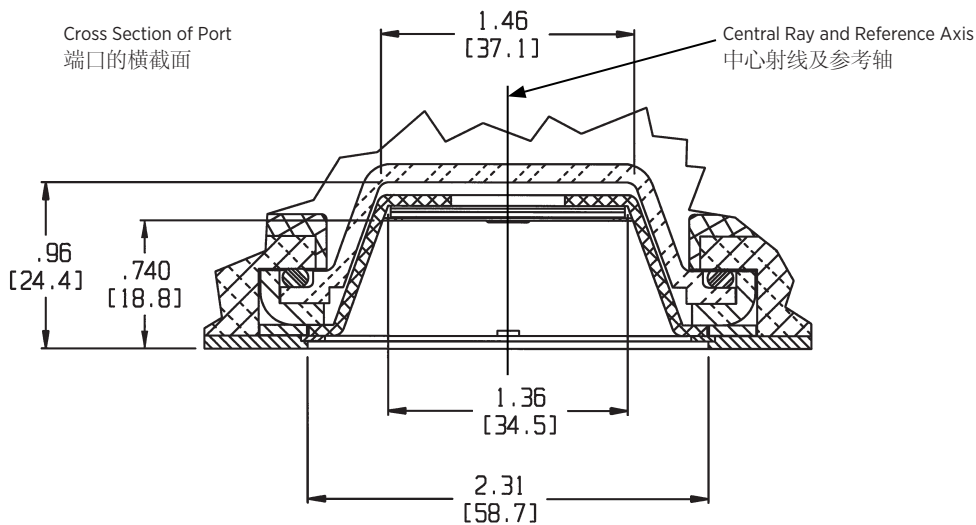
Note: Window aperture is .875" (22mm) square on 16° anode and .656" (16.7mm) square on 10° and 12° anodes.

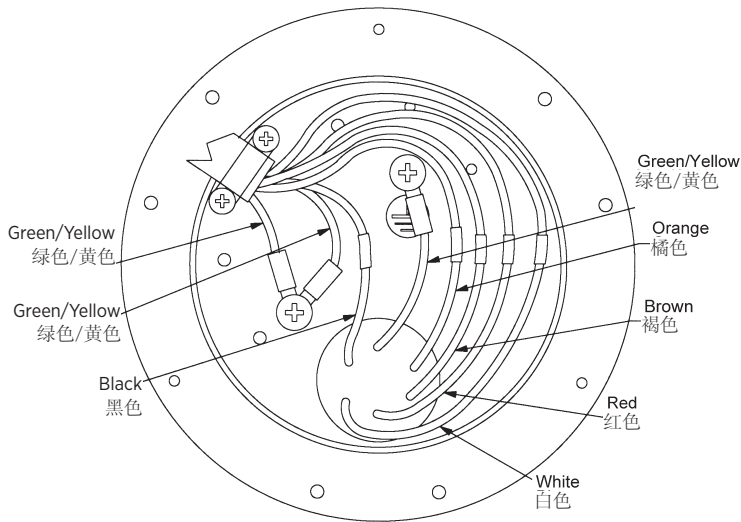
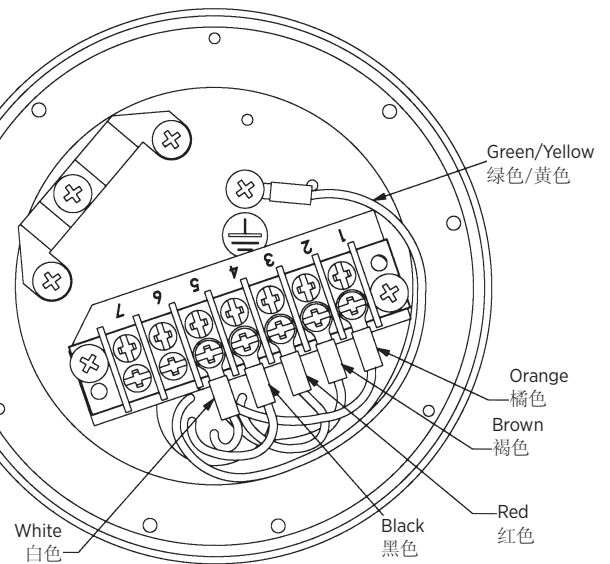
注释: 16° 阳极的窗口孔径是边长为 0.875" (22 mm) 的正方形, 10° 和 12° 阳极的窗口孔径是边长为 0.656" (16.7 mm) 的正方形。

Filter Assembly  
过滤组件



可选  
过滤套件 - IK163  
P/N 7576



**Standard Wiring**  
**标准连线**

**Optional Wiring**  
**可选连线**


Stator Drive Frequency 定子驱动频率	RPM
50 Hz	2800 - 3000
60 Hz	3400 - 3600
150 Hz	8500 - 9000
180 Hz	9500 - 10,800

Stator Motor Ratings: 定子电机额定值:	Frequency (Hz.) 频率 (赫兹)	Volts 伏特	White Lead Amperes (Typical) 白色导线电流 (典型)
<b>Diamond</b>	<b>50/60 Hz</b>	50 - 60*	1.5 - 2.0
		120	3.5 - 4.2
		220	6.5 - 8.2
<b>Diamond</b>	<b>150/180 Hz</b>	100*	1.5 - 2.0
		220	3.8 - 4.0
		290	5.0 - 6.0
		320	6.0 - 7.0

\*Operating Voltage (Run)  
\*工作电压 (运行)

Wire Color 导线颜色	Description 描述
White 白色	Stator Common 定子公共
Black 黑色	Stator Phase (Main) 定子相 (干线)
Red 红色	Stator Phase Shift 定子相移
Orange 橘色	Thermal Switch 热控开关
Brown 褐色	Thermal Switch 热控开关
Green/Yellow 绿色/黄色	Housing Ground 管套接地线

"R" Stators "R" 定子	标称	可接受
Black - White 黑色 - 白色	20 Ω	18 - 22
White - Red 白色 - 红色	50 Ω	45 - 55
Black - Red 黑色 - 红色	70 Ω	63 - 77
180 Hz Cap 180 Hz 电容	6 μF	
150 Hz Cap 150 Hz 电容	9 μF	
60 Hz Cap 60 Hz 电容	30 μF	
50 Hz Cap 50 Hz 电容	43 μF	

**Stator Cord:**

A six wire shield-grounded stator cord should be connected from the stator terminal to the motor control. All listed voltage and amperage measurements should be taken at the housing end.

If the stator cord is not provided, the cord used must be UL listed or a UL recognized component for all products used in the USA. Outside the USA, the cord used must comply with all applicable regulatory and statutory requirements for electrical and safety. The cord must have the following characteristics: six conductor, 18AWG (0.9mm<sup>2</sup>) Cu, rated 600V, 90°C minimum, shielded cable with PVC jacket 0.032 inch (0.081mm) thick minimum. Lead terminations are provided and must be used with wire that matches the above description.

**Stator Power:**

Time to full speed of the anode is a function of the power rating of the “starter” and the weight / diameter of the anode. All Varex Imaging stator types are rated for regular speed and high speed starters. Time to full speed for 71mm (2.8 inch) and 80mm (3.0 inch) anode series tubes is between 1.3 and 2.0 seconds.

Immediately following high speed anode rotation, the rotor speed must be reduced to 4000 r/min or less within 10 seconds using a suitable dynamic braking device.

No more than two high speed starts per minute are permissible. The starting voltage must never exceed 500 volts rms.

**定子电缆:**

六导线接地屏蔽定子电缆应该从定子端连接到电机控制装置。在管套端，应该采用所列的所有电压和电流测量。如果未提供定子电缆，则所用的电缆必须是 UL 所列或经 UL 验证适用于美国所用全部产品的组件。

如果不在美国，则所用的电缆必须符合所有适用的电气和安全法规要求。此电缆必须拥有下列特性：六根导线，18 AWG (0.9mm<sup>2</sup>) 铜制，额定电压 600V，最低温度90°C，电缆上覆有最低厚度为 0.032 in. (0.081 mm) 的 PVC 护套。提供了导线端子，并且必须将其与符合上述说明的电线结合使用。

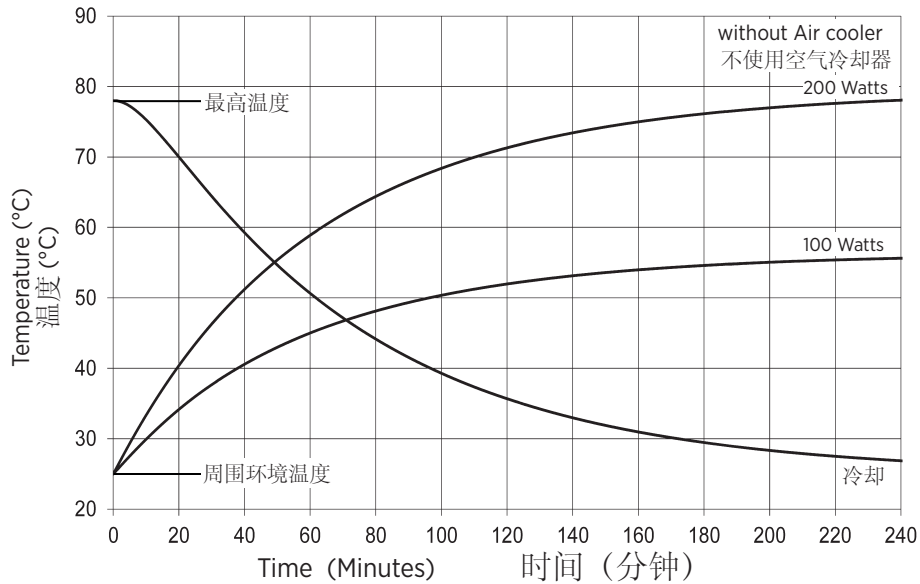
**定子功率:**

阳极达到全速的时间是“启动器”的额定功率以及阳极重量和直径的函数。万睿视影像所有型号的定子都按常速和高速启动器进行了检定。71 mm (2.8 in.) 和 80 mm (3.0 in.) 阳极系列管达到全速的时间在 1.3 到 2.0 秒之间。

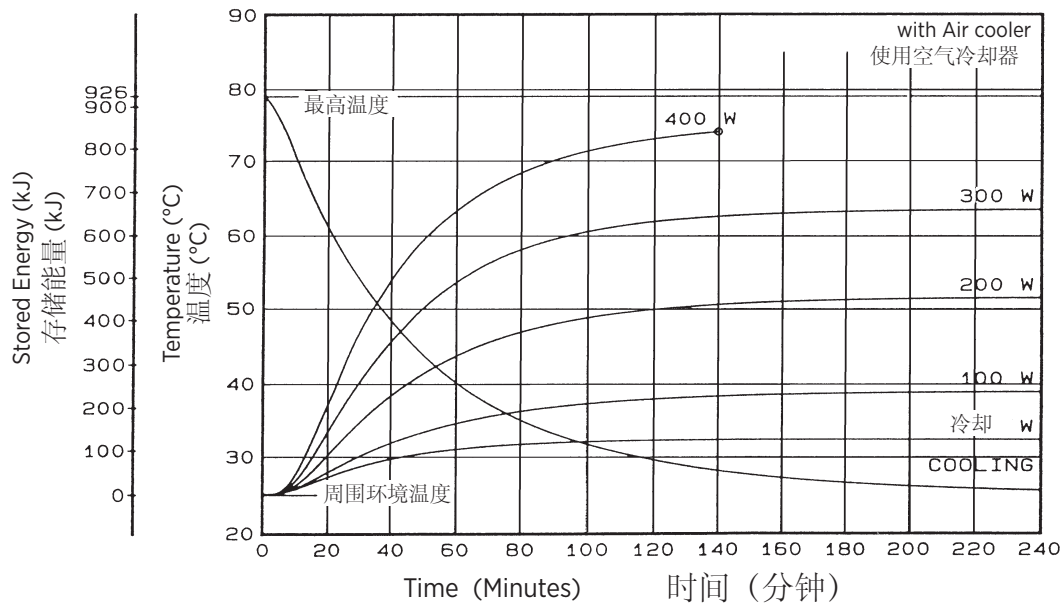
高速阳极旋转后，转子的速度必须立即下降到 4000 转/分钟，或使用合适的电动制动装置在 10 秒内减速。

每分钟不允许有两次以上的高速启动。启动电压决不能高于500 伏 rms。

X-Ray Tube Assembly Heating and Cooling Curve  
X 射线管汇编热化/冷却的曲线



X-Ray Tube Assembly Heating and Cooling Curve  
X 射线管汇编热化/冷却的曲线



**Note:**  
Heat inputs into housing include tube power, filament power, and stator power. Heating curves based on no restrictions of natural convection around tube housing assembly.

**注释:**  
向管套的热量输入包括管功率、灯丝功率和定子功率。加热曲线以管套组件周围无自然对流的限制为根据。

Tube Coverage Chart  
Source to Receptor Distance (centimeters)  
射线管覆盖范围图  
射线源到接收器之间的距离 (厘米)

