



SR 160

oem-xray-components.siemens.com

Features and Benefits

Siemens Healthineers X-ray tube SR 160

The X-ray tube of SR 160/5 is special designed for luggage scanning and food inspection. The high quality tube with glass design has single focal spot and an elevated anode heat storage capacity. The larger cooling rate design ensures a wide range of applications for routine X-ray exposure procedures especially in combination with single tank generators in conventional or MF-technique.

The tube design ensures high- voltage stability within a wide voltage range for consistent techniques.

- High quality tungsten target
- Increased anode heat storage capacity
- Optimized cooling
- Excellent durability
- High dose yield

Technical Data

Technical Data	SR 160/5	IEC
Nominal voltage	160 kV*	IEC 60 613 : 2010
Nominal focal spot value	0.8	IEC 60 336 : 2005
Operating voltage	20~160 kV	
Max. tube current	5 mA @160kV	
Max. anode input power	800 W	
Target angle	25°	
Target material	Tungsten	
Beam angle	60°x 80°	
Cooling method	Oil immersed and convection type oil cooling (Max. oil temperature 60°C)	
Total inherent filtration	0.8 mm Be, 1.7 mm glass	
Weight	≈ 1.45 kg	
Maximum anode heat dissipation rate	800 W (with cooler)	

Operation Limits (with dielectric oil with a dielectric strength of ≥ 50 kV/2,5 mm)

Oil temperature 10 to 60 °C
Oil pressure 70 to 106 kPa

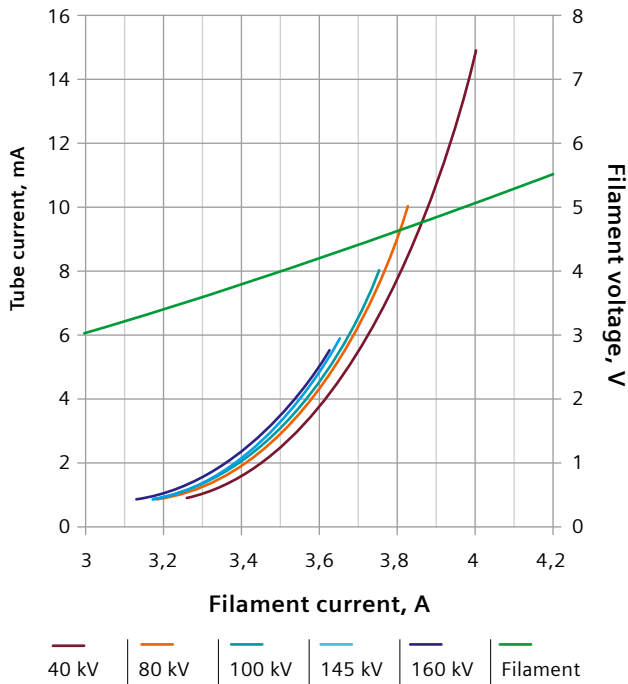
Transport and Storage Limits

Temperature -40 to 70°C
Humidity 10 to 90% (No condensation)
Atmospheric pressure 50 to 106 kPa

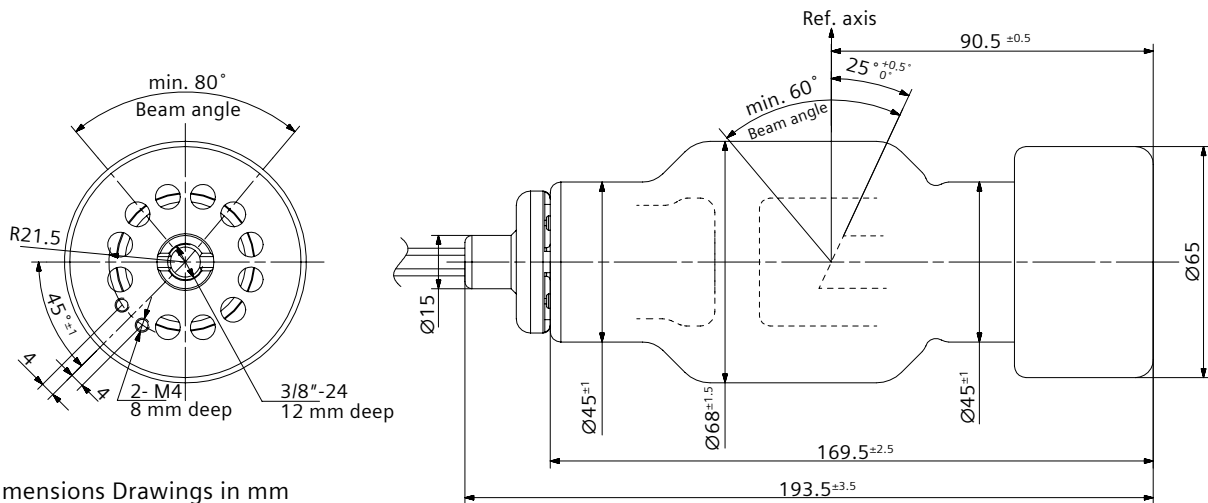
* Symmetrical or asymmetrical voltage applicable

Technical Chart

Filament and Emission Chart



Dimensions



Dimensions Drawings in mm

Company Information

The Technology Centers of Siemens Healthcare GmbH are major manufacturers of components for medical and industrial applications, supplying most divisions of Siemens Healthcare and a large number of OEM partners worldwide.

Safety and general notes

(Read carefully prior to product use. For handling following items have to be taken in consideration.)

- The X-ray tube is a high vacuum product that is produced according to state-of-the-art technology.
 - This tube must not be used without taking measures of X-ray protection. Qualified personal is obligated to observe applicable regulations and standards, for example concerning requirements of minimum source-skin distance (SSD) and required filtration to safe beam quality parameters.
 - The envelope of this tube is made of glass. To prevent implosion please handle with care during transport, storage, mounting and operation. Use protective devices for your own safety, e.g. protection glasses!
 - Avoid shocks and vibrations.
 - Overloading of tube will damage the product. Operate this tube only within the parameters of this data sheet. Charts and characteristics are based on average values. Adjustment of parameters should be done carefully.
 - If you find any irregularity at the product please don't use it without prior contact with our service.
 - If you find any irregularity in operation switch off power supply of equipment immediately and contact responsible service.
 - This product contains Be material, do not dispose carelessly. The manufacturer possesses the required technical knowledge for disposal.
 - For any product related questions please contact us.
-
- Tubes used in high voltage condition, electrical shock protection should be taken.
 - Be careful of high temperature during or after work.
 - This tube must not be used without taking measures of X-ray protection. All operations must be carried out exclusively by trained service person and operator.
 - In the interest of complying with legal requirements concerning the environmental compatibility of our products (protection of natural resources, avoidance of waste) we endeavor to reuse components and to return them to the production cycle. We guarantee the functioning, quality and life of these components by taking extensive quality assurance measures, just as for factory-new components.

Operating condition

For the installation of a new X-ray tube, the tube is recommended to be trained before operation according to the following steps:

Tube Voltage (kV)	Tube Power (W)	Exp. Time (S)
80	480	1200
90	480	1200
100	480	1200
110	480	1200
120	480	1200
130	480	1200
140	480	1200
150	480	1200
160	480	1200
165	480	1200

For the tube extended idle time more than 2 weeks:

Tube Voltage (kV)	Tube Power (W)	Exp. Time (S)
80	480	60
90	480	60
100	480	60
110	480	60
120	480	60
130	480	60
140	480	60
150	480	60
160	480	60
165	480	60

If the Monoblock power is less than 480W, use full power of the Monoblock for tube seasoning.

If the tube current is not stable, the tube voltage should be reduced first and increased after it becomes stable.

If the tube tends to repeatedly and strongly "arc", abort the procedure.

This document is not considered to be a contractual specification. Kindly contact Siemens Healthcare GmbH prior to using this information for equipment design.

These components and configurations are not finished medical devices. Compliance with all laws and regulations that are applicable to finished medical devices are the responsibility of the manufacturer of the finished medical device.

The information in this document contains general descriptions of the technical options available, which do not always have to be present in individual cases. The required features should therefore be specified in each individual case at the time of closing the contract.

The components are maybe branded "Siemens Healthineers". However, the buyer shall not market the components using the "Siemens Healthineers" brand name and/or trademark. The buyer may integrate these components into a system using its own brands and labels. The product names and/or brands referred to are the property of their respective trademark holders.

This document shall not be made available to healthcare professionals or to the general public.

The Technology Centers of Siemens Healthcare GmbH (TCs) are ISO 13485 certified. Components and products are manufactured in accordance with the Quality System Regulations (QSR) as defined by the U.S. Food and Drug Administration (FDA). The TCs endeavor to comply with legal requirements concerning the environmental compatibility of their products.

The reproduction, transmission or use of this document or its contents is not permitted without express written consent. Offenders will be liable for damages.

Siemens Healthineers reserves the right to modify the design and specifications contained herein without prior notice. All rights reserved, particularly in connection with patent applications or registrations of utility model or design.

Siemens Healthineers Headquarters

Siemens Healthcare GmbH
Henkestr. 127
91052 Erlangen, Germany
Phone: +49 9131 84-0
siemens-healthineers.com

Legal Manufacturer

Siemens X-Ray Vacuum
Technology Ltd., Wuxi
No.112, Meiyu Road
214028 Wuxi, Jiangsu
P.R. China

Local Contact Information

Siemens Healthcare GmbH
Power & Vacuum Products
Allee am Roethelheimpark 2
91052 Erlangen
Germany
Phone: +49 9131 84-6911
oem-xray-components.siemens.com

Publisher for USA

Siemens Medical Solutions USA, Inc.
40 Liberty Boulevard
Malvern, PA 19355
United States of America