

# Seifert ISOVOLT X-Ray Tube Housings

Waygate Technologies' metal-ceramic X-ray tube portfolio covers the most industrial applications for radiography by enlarged display, small structures with extremely small film-focus distance and radioscopy with extreme geometric magnification and high resolution from small portable units to large fixed modules.

In combination with Seifert ISOVOLT generators and high voltage cables you can benefit from Waygate Technologies' solutions for radiographic and radioscopy inspection. The Seifert ISOVOLT portfolio also offers solutions for radiometric applications and dosimetry.



## Unipolar Tubes

Maximum tube voltage	100 kV	160 kV	160 kV		160 kV		160 kV		160 kV		160 kV	
<b>Maximum anode dissipation</b>	1500 W	320 W	800 W	1800 W	640 W	640 W	1000 W	1000 W	640 W	1600 W	640 W	3000 W
<b>Tube current at max. tube voltage</b>	45.0 mA	2.0 mA	5 mA	11 mA	4 mA	4 mA	4 mA	4 mA	4 mA	10 mA	4 mA	19 mA
<b>Focal spot size (EN 12 543)</b>	3.0 mm	<0.5 mm	0.4 mm (threshold: 30%)	1.0 mm	1.0 mm	1.0 mm	1.0 mm	1.0 mm	1.0 mm	3.0 mm	1.0 mm	5.5 mm
<b>Emergent beam angle</b>	40°	30° (10° + 20°)	30° x 40° asymmetric		40°		40°		40°		40°	
<b>Inherent filtration</b>	1 mm Be; selectable filters 2 mm Al and 4 mm Pb	0.8 mm (±0.1 mm) Be + 2 mm Al (removable)	0.8 mm (±0.1 mm) Be + 2 mm Al (removable)		0.8 mm (±0.1 mm) Be + 2 mm Al (removable)		0.8 mm (±0.1 mm) Be + 2 mm Al (removable)		0.8 mm (±0.1 mm) Be + 2 mm Al (removable)		0.8 mm (±0.1 mm) Be + 2 mm Al (removable)	
<b>High voltage connection</b>	Plug socket for rubber cone plug R24 with flange	Plug socket for rubber cone plug R24 with optional quick-lock cable flange	Plug socket for rubber cone plug R24 with optional quick-lock cable flange		Plug socket for rubber cone plug R24 with optional quick-lock cable flange		Plug socket for rubber cone plug R24 with optional quick-lock cable flange		Plug socket for rubber cone plug R24 with optional quick-lock cable flange		Plug socket for rubber cone plug R24 with optional quick-lock cable flange	
<b>Cooling water flow rate</b>	min. 4 l/min	min. 4 l/min	min. 4 l/min		min. 4 l/min		min. 4 l/min		min. 4 l/min		min. 4 l/min	
<b>Cooling water temperature</b>	max. 35°C	max. 40°C	max. 35°C		max. 40°C		max. 35°C		max. 40°C		max. 40°C	
<b>Cooling water pressure</b>	max. 6 bar	max. 6 bar	max. 6 bar		max. 6 bar		max. 6 bar		max. 6 bar		max. 6 bar	
<b>Weight (with optional cable quick-lock)</b>	6 kg	8.5 kg	8.5 kg		8.5 kg		8.5 kg		8.5 kg		8.5 kg	
<b>Dimensions (Length x Dia) (without cable quick-lock)</b>	267 mm x 70 mm	304 mm x 100 mm	304 mm x 100 mm		304 mm x 100 mm		304 mm x 100 mm		304 mm x 100 mm		304 mm x 100 mm	

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**Unipolar Tubes**

Maximum tube voltage	225 kV	225 kV		225 kV		225 kV		225 kV		225 kV	
<b>Maximum anode dissipation</b>	320 W	800 W	1800 W	640 W	640 W	640 W	1600 W	640 W	3000 W	600 W	4500 W
<b>Tube current at max. tube voltage</b>	1.4 mA	3.5 mA	8 mA	3mA	3mA	3mA	7 mA	3 mA	13 mA	2.6 mA	13 mA
<b>Focal spot size (EN 12 543)</b>	< 0.5 mm	0.4 mm (threshold: 30%)	1.0 mm	1.0 mm	1.0 mm	1.0 mm	3.0 mm	1.0 mm	5.5 mm	1.2 mm	5.5 mm
<b>Emergent beam angle</b>	30° x 40° asymmetric	30° x 40° asymmetric		40°		40°		40°		40°	
<b>Inherent filtration</b>	0.8 mm (±0.1 mm) Be + 2 mm Al (removable)	0.8 mm (±0.1 mm) Be + 2 mm Al (removable)		0.8 mm (±0.1 mm) Be + 2 mm Al (removable)		0.8 mm (±0.1 mm) Be + 2 mm Al (removable)		0.8 mm (±0.1 mm) Be + 2 mm Al (removable)		2.0 mm (±0.1 mm) Be + 2 mm Al (removable)	
<b>High voltage connection</b>	Plug socket for rubber cone plug R24 with optional quick-lock cable flange	Plug socket for rubber cone plug R24 with optional quick-lock cable flange		Plug socket for rubber cone plug R24 with optional quick-lock cable flange		Plug socket for rubber cone plug R24 with optional quick-lock cable flange		Plug socket for rubber cone plug R24 with optional quick-lock cable flange		Plug socket for rubber cone plug R24 with optional quick-lock cable flange	
<b>Cooling water flow rate</b>	min. 4 l/min	min. 4 l/min		min. 4 l/min		min. 4 l/min		min. 4 l/min		min. 4 l/min	
<b>Cooling water temperature</b>	max. 40°C	max. 35°C		max. 40°C		max. 40°C		max. 40°C		max. 35°C	
<b>Cooling water pressure</b>	max. 6 bar	max. 6 bar		max. 6 bar		max. 6 bar		max. 6 bar		max. 6 bar	
<b>Weight (with optional cable quick-lock)</b>	12 kg	12 kg		12 kg		12 kg		12 kg		11.9 kg (26.2 lbs) with optional quick-lock cable flange	
<b>Dimensions (Length x Dia) (without cable quick-lock)</b>	279 mm x 124 mm	279 mm x 124 mm		279 mm x 124 mm		279 mm x 124 mm		279 mm x 124 mm		279 mm x 124 mm	

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**Bipolar Tubes**

Maximum tube voltage	320 kV		320 kV		320 kV		450kV		450kV	
<b>Maximum anode dissipation</b>	800 W	1800 W	640 W	1600 W	1500 W	4200 W	700 W	1500 W	900 W	4500 W
<b>Tube current at max. tube voltage</b>	2.5 mA	5.6 mA	2 mA	5 mA	4.5mA	13mA	1.5 mA	3.3 mA	2 mA	10 mA
<b>Focal spot size (EN 12 543)</b>	0.4 mm	1.0 mm	1.9 mm	3.6 mm	3.0 mm	5.5 mm	0.4 mm	1.0 mm	2.5 mm	5.5 mm
<b>Emergent beam angle</b>	30° x 40° asymmetric		40°		40°		30° x 40° asymmetric		40°	
<b>Inherent filtration</b>	3 mm Be + 2 mm Al (removable)		3 mm Be + 2 mm Al (removable)		3 mm Be + 2 mm Al (removable)		5 mm Be + 2 mm Al (removable)		5 mm Be + 2 mm Al (removable)	
<b>High voltage connection</b>	2 Plug sockets for rubber cone plugs R24		2 plug sockets for rubber cone plugs R24 with cable quick-locks alternatively with 2 maintenance-free flat connectors FS300		2 plug sockets for rubber cone plugs R24 with cable quick-locks alternatively with 2 maintenance-free flat connectors FS300		2 maintenance-free angle plug connections		2 maintenance-free angle plug connections	
<b>Cooling oil flow rate</b>	min. 14 l/min		min. 14 l/min		min. 14 l/min		min. 14 l/min		min. 14 l/min	
<b>Cooling oil temperature</b>	max. 50°C		max. 50°C		max. 50°C		max. 50°C		max. 50°C	
<b>Cooling oil pressure</b>	max. 6 bar		max. 7 bar		max. 7 bar		max. 7 bar		max. 10 bar	
<b>Weight</b>	51 kg		51 kg		51 kg		90 kg		90 kg	
<b>Dimensions (Length x Dia)</b>	1075 mm x 180 mm (with cable quick-locks)		1075 mm x 180 mm (with cable quick-locks)		1075 mm x 180 mm (with cable quick-locks)		814 mm x 350 mm (incl. angle plugs and carry rings)		814 mm x 350 mm (incl. angle plugs and carry rings)	

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**Panoramic Tubes**

Maximum tube voltage	120 kV	160 kV
Maximum anode dissipation	360 W	1000 W
Tube current at max. tube voltage	4.0 mA	6.0 mA
Focal spot size (EN 12 543)	2.5 mm	0.4 mm x 4.0 mm (at radiated angle of 0°)
Emergent beam angle	40° x 360°	40° x 360°
Inherent filtration	1.5 mm Ti + 2 mm H2O	0.5 mm Ti + 2 mm Al + 2 mm H2O
High voltage connection	Plug socket for rubber cone plug R24 with flange	Plug socket for rubber cone plug R24 with optional quick-lock cable flange
Cooling water flow rate	min. 3 l/min	min. 4 l/min
Cooling water temperature	max. 35°C	max. 40°C
Cooling water pressure	max. 6 bar	max. 6 bar
Weight (with optional cable quick-lock)	6 kg	8.5 kg
Dimensions (Length x Dia)	252 mm x 70 mm	282 mm x 100 mm