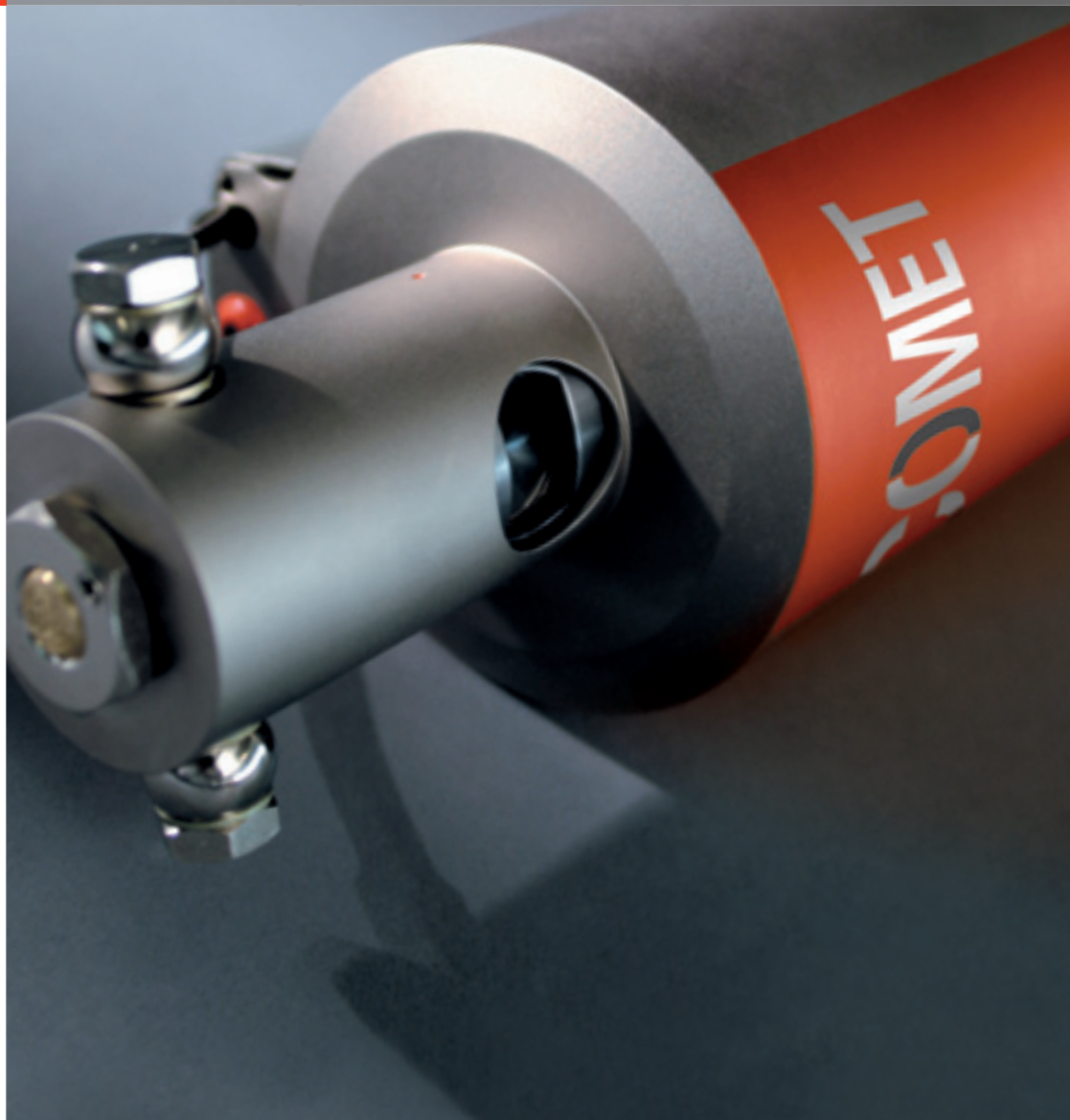
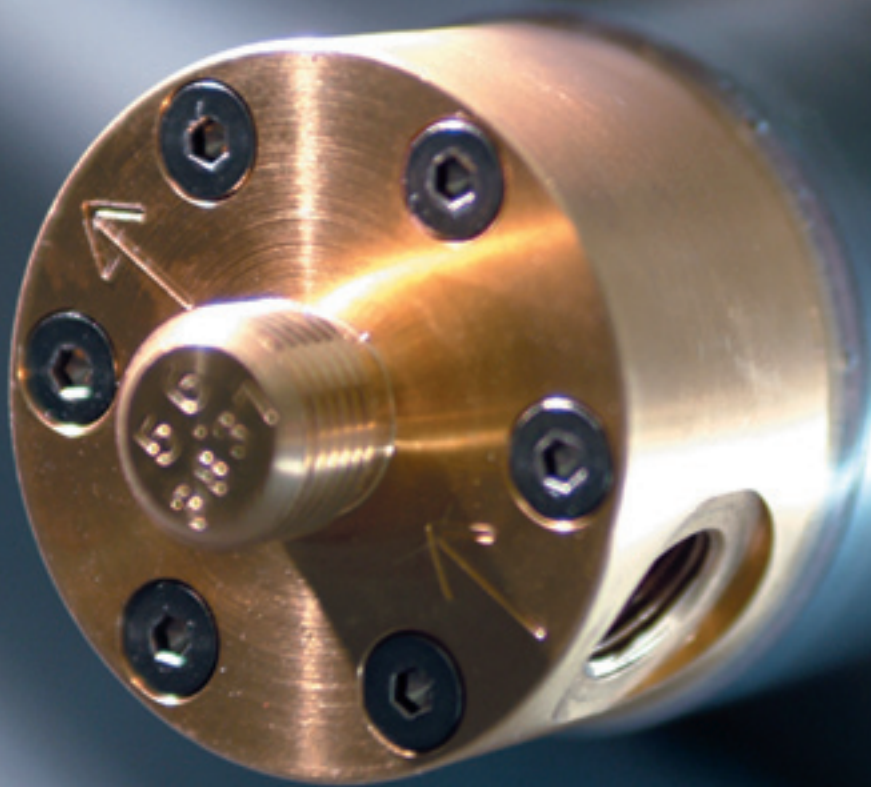


Unipolar Ceramic Tubes

Industrial X-Ray

Overview







About Unipolar Ceramic X-Ray Tubes

The COMET Unipolar Ceramic tubes are designed for use in demanding industrial applications like Non-Destructive Testing and Food Inspection.

The tube assembly consists of an Unipolar X-Ray tube with cooled anode at ground potential and a high voltage receptacle socket. The shielded tube housing has fittings for water hose connections. The main advantages are high power, small dimensions, low weight and rugged mechanical design.

“One Stop Shop” for Industrial X-Ray Sources:

COMET’s XRS Subsystems

COMET is pleased to offer all of the necessary components for a customized X-Ray Source: The new XRS subsystems each contain a COMET X-Ray tube, high voltage generator with cables and coolers designed for easy integration that will optimize system performance.

All XRS subsystems are factory prepared and tested for hassle free installation and operation.

This novel solution demonstrates COMET’s continuous commitment and investment in delivering real added value to our worldwide customer base.

About the Business Unit Industrial X-Ray

COMET Industrial X-Ray is an experienced supplier of components and modules for industrial X-Ray applications and is proud of its reputation as the preferred engineering partner in terms of innovation potential, know how, flexibility and speed. Our product range features X-Ray tubes and sources with small focal spot resolution ($< 1 \mu\text{m}$) up to 6 kW in output for more power demanding requirements: from the smallest footprint for use in portable units to 800 kV fixed gantry systems that are suitable for cargo screening.



Unipolar Ceramic Tubes – Configuration Information

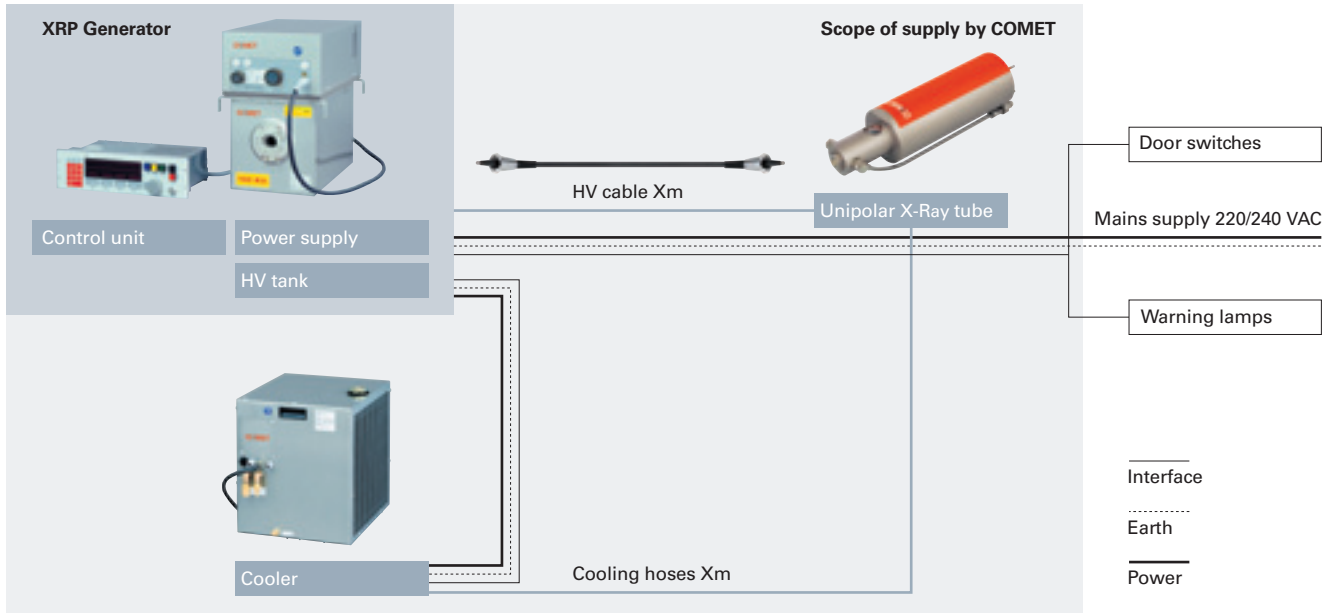
Overview of all tubes and fitting subsystem components; high voltage generator, high voltage cable and cooler.

TUBE

Type	Ordering No.	Nominal tube voltage	Continuous rating	Focal spot acc. EN 12543	Terminal type
CXR-102	915102.51	100 kV	600 W	d = 2.0 mm	R10
CXR-105	915110.51	100 kV	1000 W	d = 3.0 mm	R10
CXR-150	915200.51	150 kV	1000 W	d = 2.0 mm	R24

Unipolar X-Ray Source

Diagram of a Unipolar X-Ray Source XRS and its environment.



GENERATOR		HIGH VOLTAGE CABLE	COOLER	
Type	Ordering No.	Type/Xm	Type	Ordering No.
XRP-100/2250/2	10008861	U3/100-R10-R10-Xm	XRC-3001-WA	10008640
XRP-100/2250/2	10008861	U3/100-R10-R10-Xm	XRC-3001-WA	10008640
XRP-160/2250/2	10008863	N3/160-R24SL-R24SL-Xm	XRC-3001-WA	10008640



CXR-102

CIR-102

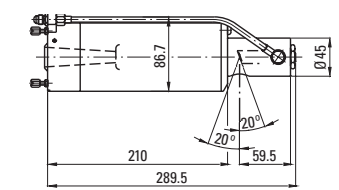
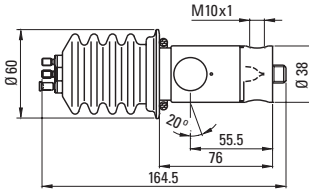
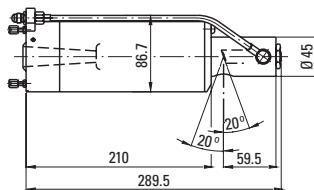
CXR-105

Ordering No.	915102.51
Nominal tube voltage	100 kV
Continuous rating	600 W
Focal spot acc. EN 12543	d = 2.0 mm
Former focal spot design.	0.6
Filament current, max.	3.2 A
Filament voltage, typical	3.0 V
Inherent filtration	0.8 mm Be
Target material	W
Target angle	20°
Radiation coverage	40°
Leakage radiation, max.	2.5 mSv/h
Cooling medium	Water
Cooling medium flow, min.	4 l/min
Temperature at inlet, max.	35° C
Weight	3.5 kg
Terminal type	R10
Mounting flange	10001700

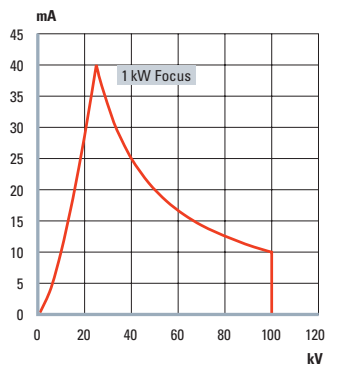
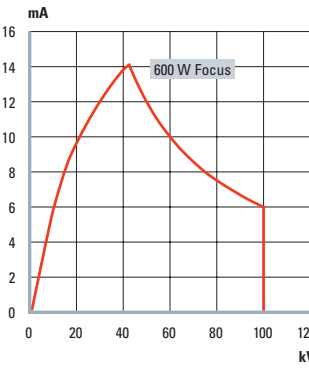
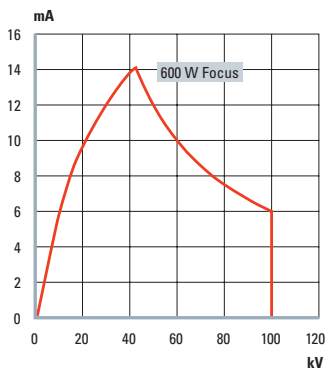
Ordering No.	915102.01
Nominal tube voltage	100 kV
Continuous rating	600 W
Focal spot acc. EN 12543	d = 2.0 mm
Former focal spot design.	0.6
Filament current, max.	3.2 A
Filament voltage, typical	3.0 V
Inherent filtration	0.8 mm Be
Target material	W
Target angle	20°
Radiation coverage	40°
Leakage radiation, max.	–
Cooling medium	Water
Cooling medium flow, min.	4 l/min
Temperature at inlet, max.	35° C
Weight	0.9 kg
Terminal type	–
Mounting flange	–

Ordering No.	915110.51
Nominal tube voltage	100 kV
Continuous rating	1000 W
Focal spot acc. EN 12543	d = 3.0 mm
Former focal spot design.	1.5
Filament current, max.	3.2 A
Filament voltage, typical	4.6 V
Inherent filtration	0.8 mm Be
Target material	W
Target angle	20°
Radiation coverage	40°
Leakage radiation, max.	2.5 mSv/h
Cooling medium	Water
Cooling medium flow, min.	4 l/min
Temperature at inlet, max.	35° C
Weight	3.5 kg
Terminal type	R10
Mounting flange	10001700

Outline drawing



Tube diagram



**CIR-105**

915110.01

100 kV

1000 W

d = 3.0 mm

1.5

3.2 A

4.6 V

0.8 mm Be

W

20°

40°

–

Water

4 l/min

35° C

0.9 kg

–

–

**CXR-150**

915200.51

150 kV

1000 W

d = 2.0 mm

0.6

3.2 A

3.3 V

0.8 mm Be

W

15°

65° x 35°

2.5 mSv/h

Water

4 l/min

35° C

6 kg

R24

10001711

**CIR-150**

915200.04

150 kV

1000 W

d = 2.0 mm

0.6

3.2 A

3.3 V

0.8 mm Be

W

15°

65° x 35°

–

Water

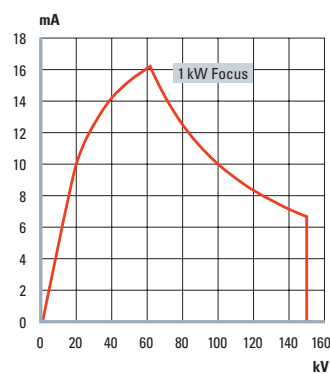
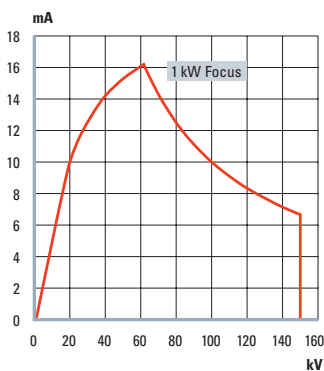
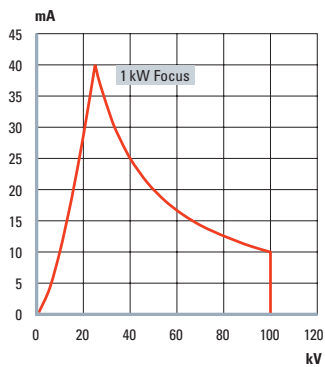
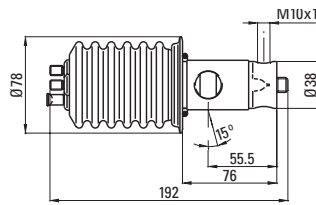
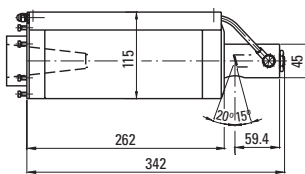
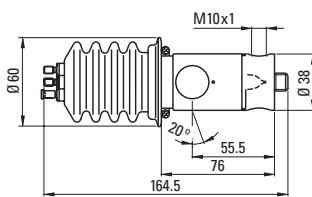
4 l/min

35° C

1.5 kg

–

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12/2010

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Technology with Passion

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