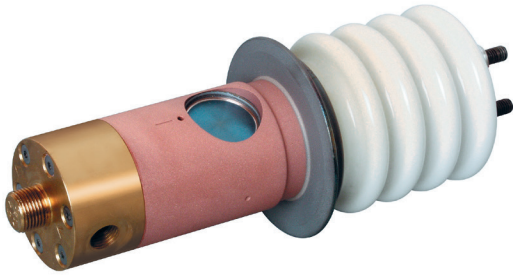


CIR-105



Product Description

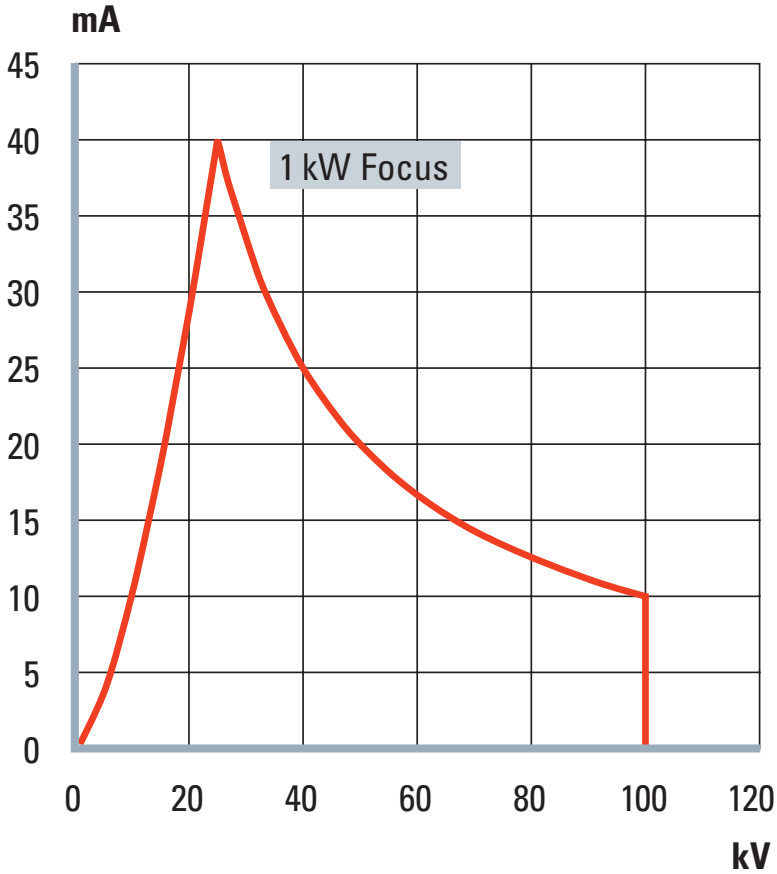
The CIR-105 is an unipolar water-cooled X-Ray tube insert without integrated radiation protection. It comprises a single focal spot, a tungsten anode and a directional beam. The tube is specifically designed for non-destructive imaging applications.

Product Specifications

Nominal tube voltage.....	100 kV
Continuous rating	1000 W
Focal spot acc. EN 12543.....	d = 3.0 mm
Focal spot acc. ASTM E1165-12.....	N/A
Filament current, max.	3.2 A
Filament voltage, typical	4.6 V
Inherent filtration	0.8 ± 0.1 mm Be
Target material	W
Target angle.....	20°
Radiation coverage.....	40°
Weight.....	0.96 kg

Power rating charts

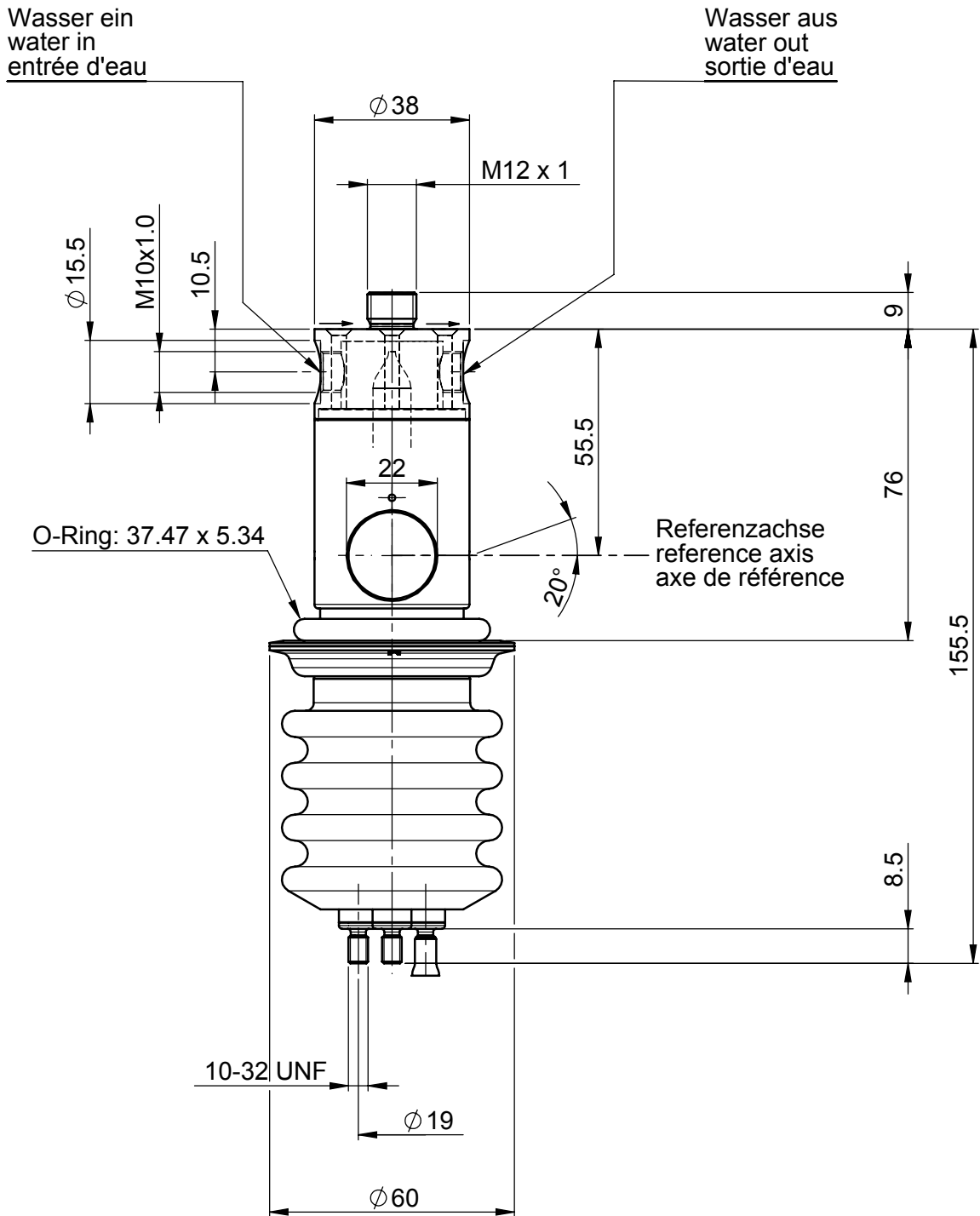
Power rating at given filament current



Cooling

Cooling medium	Water
Cooling medium flow, min.	4 l/min
Cooling medium temperature at inlet, max.	35°C
Pressure at cooling medium inlet, max.	6 bar
Post-cooling time after switchoff, min.	2 min

Outline drawing



General information

General

This X-ray tube contains no protective shielding. X-ray protection must be part of the design of the equipment. The control of the high voltage and the filament current as well as the design of the cooling system and the radiation protection are within the responsibility of the original equipment manufacturer (OEM). For detailed instructions refer to our „X-Ray Tube Manual“. Provisions in the generator must assure that the X-Ray tube will be protected against overcurrent, overvoltage and lack of cooling. Otherwise the tube and/or the radiation protection may be damaged and become a hazard.

Connection of the X-ray tube

It is the responsibility of the user that the tube is mounted into a suitable protective grounded tube housing including the connectors for the high voltage, the filament current, and the cooling. It has to be done by qualified personnel and supervision. The X-ray tube insert must be insulated with an X-ray resistant high voltage insulating oil with high dielectric strength. COMET recommends SHELL DIALA S4 ZX-I. It is necessary that the oil has a dielectric strength of 20 kV/mm and is free of gas bubbles.

Return of Goods to COMET

Prior to shipment to COMET a Field Failure Report (FFR) will be required. The completed FFR has to be added to the shipping documents. The FFR can be downloaded from: www.comet-xray.com/Service

Conditioning

Attention! This tube has been conditioned at COMET up to the nominal voltage. The user has the responsibility that the final conditioning in the tube housing will be performed by trained personnel only and according to an approved scheme. The voltage during conditioning is limited to the nominal voltage.

Cooling

The cooling system is not supplied by COMET. Prior to operating the tube the coolant must be turned on. The customer has to make sure that the coolant flow meets the required cooling conditions. When the tube is switched off, the coolant flow must continue for at least 2 minutes in order to protect the anode from overheating.

Radiation protection

When installing an X-ray tube into an X-ray equipment and/or operating an X-ray equipment, the responsibility for radiation protection and the use of collimators and filters is with the user. Compliance with local regulatory requirements must be assured.