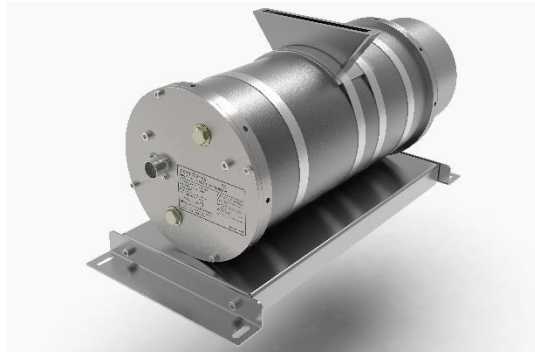




## RAXON160HPO



**RAXON160HPO** is a high-power industrial X-ray source for producing a beam of high intensity X-rays with small focal spot and high stability which ensures uniform beam intensities and dose rate throughout its fan/cone-shaped beam. Stable voltage and electrical power applied to the X-ray tube guarantees stable dose exposure and high-quality images in digital radiography applications.

### Applications

- Industrial Radiography
- X-ray Imaging
- X-ray Irradiation
- Non-Destructive Testing
- Food Inspection
- Security Inspection
- Densitometry and Thickness Measurement

### Specifications

#### X-ray Characteristics:

Tube Type: Stationary anode, Glass tube, Tungsten target, Be filter

Focal Spot: 0.8mm (IEC 336)

Beam Filter: 3mm thick 6061 Al,  $\pm 0.01$

Beam Geometry: Symmetrical fan up to  $75^\circ$  x  $30^\circ$ , cone up to  $40^\circ$

#### Input Voltage:

$220 \pm 10\%$  Vac, 50/60Hz, 5A maximum

#### X-ray Tube Voltage:

Nominal X-ray tube voltage is adjustable between 80kV to 160kV with 10kV step.

#### X-ray Tube Current:

0.2mA to 3mA over specified tube voltage range

#### X-ray Tube Power:

320W, continuous mode

#### Voltage Regulation:

Line:  $\pm 0.1\%$  for a  $\pm 10\%$  input line change of nominal input line voltage

Load:  $\pm 0.1\%$  for a 0.2mA to 3mA load change

#### Voltage Accuracy:

Voltage measured across the X-ray tube is within  $\pm 2\%$  of the programmed value

#### Voltage Risetime:

Ramp time shall be  $< 300\text{ms}$  from 10% to 90% of rated output

#### Voltage Overshoot:

Within 5% of rated voltage in  $< 10\text{ms}$

#### Voltage Ripple:

Up to 1% pp of rated voltage

#### Current Regulation:

Line:  $\pm 0.1\%$  for a  $\pm 10\%$  input line change of nominal input line voltage

Load: 0.5% @ 80-160kV, 0.2mA to 3mA



## Current Accuracy:

Current measured through the X-ray tube is within  $\pm 5\%$  of the programmed value

## Current Risetime:

<300ms from 10% to 90% of rated output

## Arc Intervention:

4 arcs in 10 seconds with a 200ms quench = Shutdown

## Filament Configuration:

Internal high frequency AC filament drive with closed loop filament emission control

## Digital Interface:

RS-232/USB/Ethernet Interface selectable port

## Control Software:

A demo GUI for engineering evaluations will be provided for the RS-232/USB/Ethernet digital interface and Encoded Command Port for customized software

## Emergency Stop:

A physical emergency stop is embedded for prompt shut down in case of emergency independent of software and microcontroller modules

## Operating Temperature:

0°C to +40°C

## Storage Temperature:

-40°C to +70°C

## Humidity:

10% to 95% relative humidity, non-condensing

## Tube Cooling:

Oil circulation and cooling (Optional)

## Motherboard Cooling:

Natural convection augmented by customer provided 250cfm cooling fans for continuous operation

## Input Power Line Connector:

Standard 3pin Line-Null-Earth connector

## Dimensions:

635mm x 350mm x 300mm

## Weight (Approx.):

70 kg

## Installation Orientation:

Can be mounted in any orientation.

## X-ray Leakage:

Not to be greater than  $5\mu\text{S/hr}$  at 5cm outside the external surface (EN61010-1)

## Accessories:

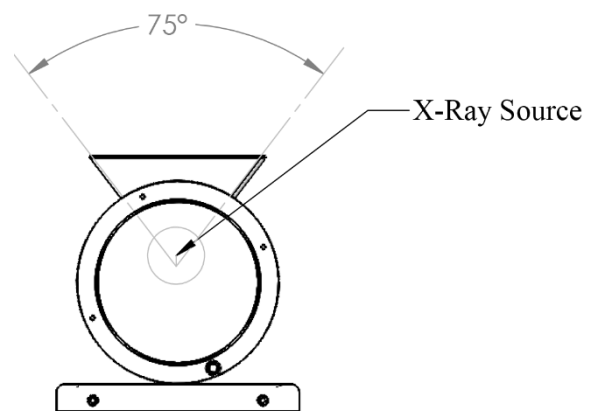
RS-232/USB connection cable

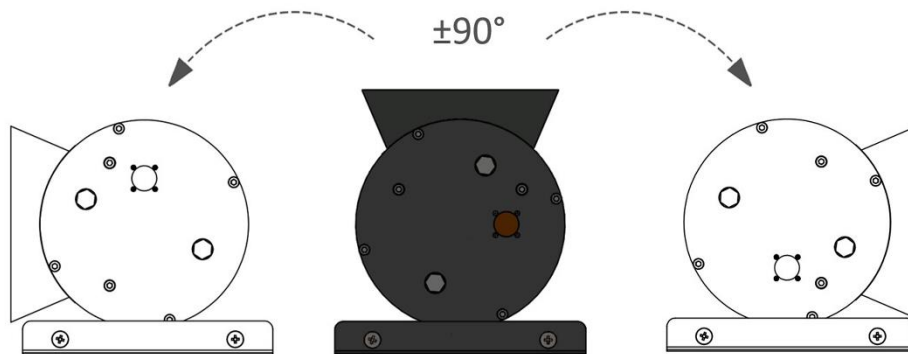
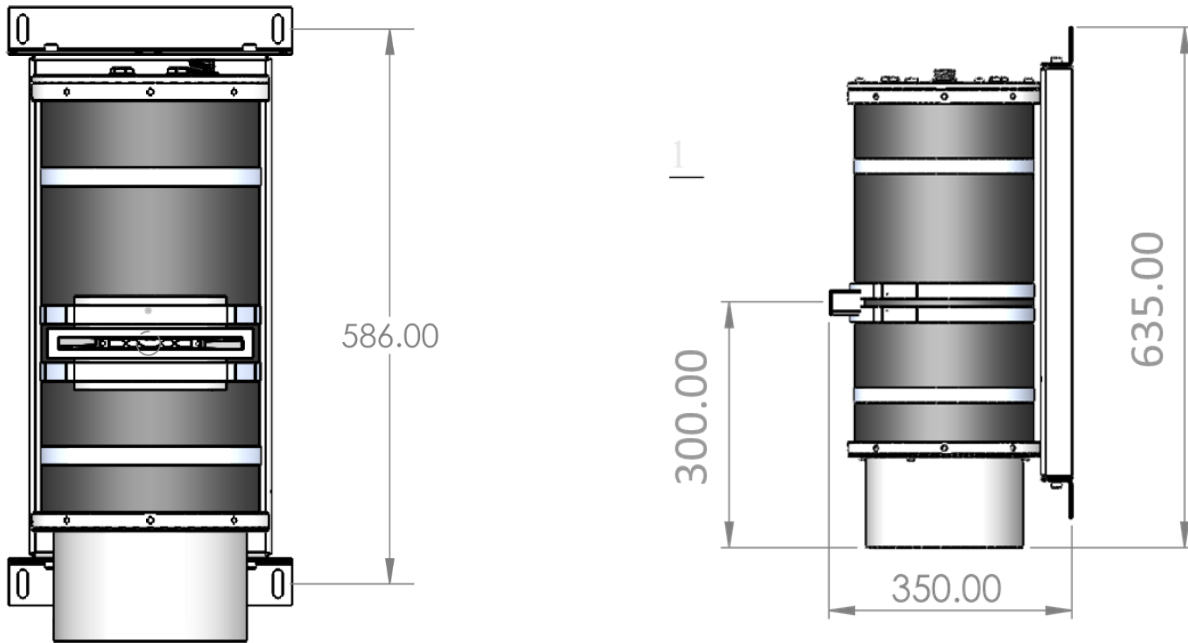
Ethernet connection cable

User Manual

Software

Fan Beam External Collimator (Cone Beam optional)





Dimensions are in millimeters