Water Cooling Options

Water connection options for cooling of Gencoa externally mounted rectangular magnetron

Most rectangular magnetrons are provided with two water-in and two water-out connections for cooling the cathode during operation.

Illustrated below are the various options for water connections on rectangular magnetrons manufactured by Gencoa.

- **Push-in straight**
  - Flow rate: 40 l/min
  - Tube size: 1/2" OD
  - Power: AC, DC, Pulsed DC

- **Push-in elbow**
  - Flow rate: 20-25 l/min
  - Tube size: 1/2" OD
  - Power: AC, DC, Pulsed DC

- **Swagelok PFA elbow**
  - Flow rate: 20 l/min
  - Tube size: 1/2" OD
  - Power: AC, DC, Pulsed DC

- **Swagelok PFA fitting straight**
  - Flow rate: 40 l/min
  - Tube size: 1/2" OD
  - Power: AC, DC, Pulsed DC, RF

- **Quick release auto-shutoff straight**
  - Flow rate: 80 l/min
  - Tube size: 3/4" ID
  - Power: AC, DC, Pulsed DC

- **Plastic tube to suit customer length**
  - Flow rate: 40 l/min
  - Tube size: 1/2" OD
  - Power: AC, DC, Pulsed DC, RF

Rectangular magnetron with two water-in/out connections
Quick release auto shut-off Y type

<table>
<thead>
<tr>
<th>Flow rate</th>
<th>1/2” OD</th>
<th>3/4” OD</th>
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<tbody>
<tr>
<td></td>
<td>12-14 l/min</td>
<td>20 l/min</td>
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<tr>
<td>Tube size</td>
<td>1/2” OD, 3/4” OD</td>
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<tr>
<td>Power</td>
<td>AC, DC, Pulsed DC</td>
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**Single-in single-out connection (≤75mm target width)**

Above-cathode cooling design is used for magnetrons with a width of up to 75mm. Gencoa can provide different connector types for this option.

**Single-in single-out offset connection (≥100mm target width)**

Gencoa can also provide magnetrons with one water in and one water out (offset) connection for small magnetrons (100-150mm width and 500mm max length) and working power of up to 6 kW. Different connector types can be used for this arrangement.

**IMPORTANT:** FOR SAFETY REASONS, ALL WATER FITTINGS ON GENCOA RECTANGULAR MAGNETRONS ARE MADE USING INSULATING MATERIAL, AND SHOULD NOT BE REPLACED WITH OTHER TYPES OF CONNECTORS