

# OZONE GENERATOR BMT 803 BT

*Laboratory Ozone Source  
Bench Top Model  
Air Cooled, Oxygen Fed  
High Concentration*



## FEATURES

- More than 8 g/h of ozone @ 100 g/Nm<sup>3</sup>
- Ozone content up to 250 g/Nm<sup>3</sup>
- Complete control environment built in, including: two check valves, thermal mass flow meter, two particle filters, three pressure gauges, power control selectable: manual or remote
- WxHxD only 255x200x385 mm (10"x8"x15"), 10 kg
- Life expectancy of many years

## APPLICATIONS

- Ozone generation in the laboratory
- Pilot plants for ozone processes
- High concentration ozone experiments

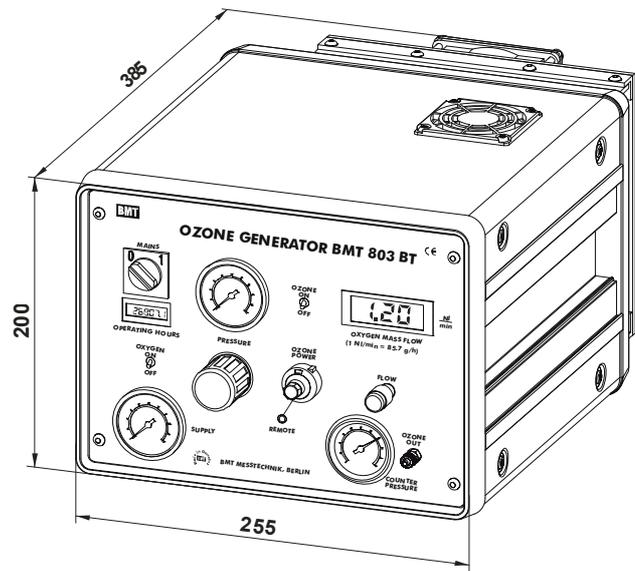
The OZONE GENERATOR BMT 803 BT (Bench Top) is a small, air cooled ozone source for laboratory applications. Operation is from oxygen. The instrument contains every controls and displays necessary, and desirable, for operating the ozone generator, except of an ozone analyser. A special external ozone analyser BMT 964 can be connected to two sample gas fittings at the rear of the BMT 803 BT. This in-line ozone analyser carries the complete ozone gas flow and thus does not consume any ozone gas for its operation.

The oxygen mass flow meter is independent of the pressure and temperature of the oxygen. Displayed is the oxygen flow in NI/min, one NI/min equaling 85.7 g/h.

The ozone-resistant pressure gauge behind the outlet needle valve shows the ozone system counter pressure, the pressure into which the ozone gas is flowing.

## SPECIFICATIONS

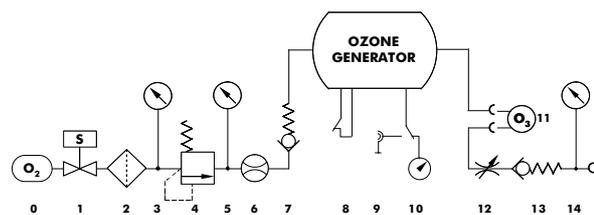
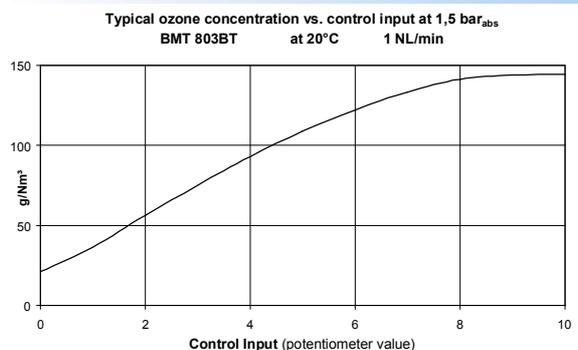
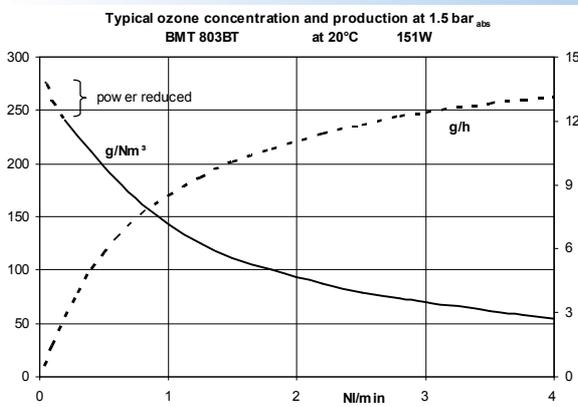
feed gas	oxygen
cooling	ambient air
oxygen flow rate	0.1 to 4 NL/min
flow measurement	mass flow meter 0 to 2 NL/min optional: 0 to 5 NL/min
ozone production	> 8 g/h @ 100 g/Nm <sup>3</sup>
max. O <sub>3</sub> concentration	> 250 g/Nm <sup>3</sup>
adjustment range	15 to 100% ozone output at 0 to 100% control input
max. feed gas pressure	4 barg
max. ozone gas pressure	1 barg
life expectancy of fans	40,000 hours
ambient temperature	0 to 30°C
temperature effect	output decreasing by approx. 0.8% / K
gas ports	oxygen inlet: for 4x6mm PTFE tubing ozone outlet: for 3x5mm (1/8"x3/16") PTFE two in-line ports for optional ozone analyser
power	230 or 115 VAC, 170 W, 50/60 Hz
dimensions (WxHxD)	255 x 200 x 385 mm (10" x 8" x 15")
weight	10 kg



dimensions

Dimensions of the OZONE GENERATOR BMT 803 BT are 255 x 200 x 385 mm (10" x 8" x 15"). The weight is 10 kg. Input voltage is 230 VAC, or 115 VAC. The oxygen inlet fitting (on the rear) is for 4 x 6 mm (or 1/4" x 5/32") PTFE tubing. The ozone gas outlet fitting (on the front panel) is for 3 x 5 mm (or 1/8" x 3/16") PTFE tubing. Power consumption is 170 W max.

The following piping and instrumentation diagram illustrates the functioning of the ozone source:



- |   |                                       |
|---|---------------------------------------|
| <b>0 oxygen source (4 bar max.)</b>           | <b>8 ozone off</b>                    |
| <b>1 solenoid valve: O<sub>2</sub> on/off</b> | <b>9 remote control input</b>         |
| <b>2 particle filter</b>                      | <b>10 internal power control</b>      |
| <b>3 oxygen supply pressure</b>               | <b>11 external BMT 964 (optional)</b> |
| <b>4 pressure regulator (self relieving)</b>  | <b>12 needle valve</b>                |
| <b>5 operating pressure</b>                   | <b>13 check valve</b>                 |
| <b>6 thermal mass flow meter</b>              | <b>14 counter pressure</b>            |
| <b>7 check valve</b>                          |                                       |

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