

# Madden Boiler BD Orifice Meters

VS.

# Automated Boiler BD 'Systems'



Madden boiler blowdown orifice meters are extremely durable, manual flow rate control valves. An internal high temperature stainless steel orifice plate offers (17) orifices to choose from, providing the operator a wide range of blowdown flow control.

### PRO's:

- Service life is typically 15+ years. Utilizes integral SS filter and cleanout drain.
- Steady, continuous flow rate increases blowdown heat recovery performance and efficiency (when applicable).
- PRESSURE: good for boilers operating up to 650 PSI.

### CON's:

- Requires manual adjustment to change blowdown rate. Ideal for applications with steady steam production, less ideal for frequently varying steam production.
- Requires operator to regularly sample and record boiler water properties.

Retail Cost: ~ \$3,540 – 3,900 per valve.  
1 valve (meter) per boiler required.

Automated surface blowdown systems utilize a controller, conductivity sensing probe, and motorized ball valve to test boiler water properties and then blowdown if needed. This is typically set up to run every hour, blowing down only if conductivity is high.

### PRO's:

- Timed and automated blowdown process.
- Dynamic blowdown process is a more efficient way to blowdown surface wastewater if boiler room does not also utilize a heat recovery system.

### CON's:

- Less reliable, valves and sensing probes often need to be replaced regularly.
- Intermittent nature is not efficient for boiler blowdown heat recovery systems (when applicable).
- High pressure options become very costly.

Retail Cost: ~ \$2,500 – 6,500 per 'system'.  
1 'system' per boiler required.