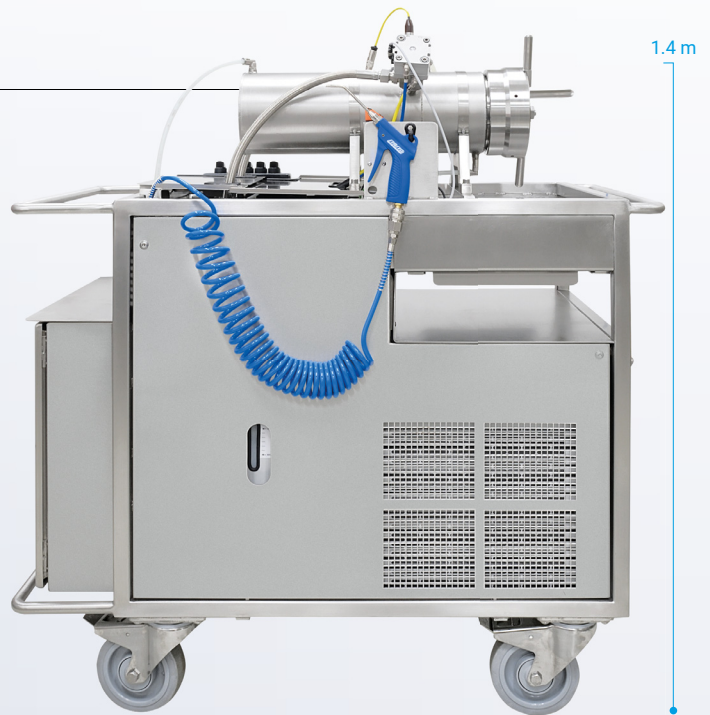


MBP

MINIMUM BURNING PRESSURE APPARATUS

The MBP™ (Minimum Burning Pressure Apparatus) is used for the determination of the minimum burning pressure of emulsion explosives ignited by a hot wire in a closed vessel under high pressure conditions. The MBP is a completely new approach to advanced stability and sensitivity testing of emulsion explosives, developed in cooperation between OZM Research and the Canadian Explosives Research Laboratory (CERL).

The MBP was the very first equipment of its kind on the market and it represents a huge step forward for the safety improvement of ammonium nitrate based explosives. It's a universal, simple-to-use and easy to evaluate solution made durable for both production and scientific experiments.



APPLICATIONS

While emulsion explosives are normally quite safe for handling, accidents connected with them are still occurring and conventional methods of stability or sensitivity testing are not representative enough to discover their risky behavior. It has been found that most of the accidents happened when the materials were subjected to elevated pressures and temperatures during their pumping, manufacturing or transport. The determination of the minimum burning pressure has therefore become one of the most important safety characteristics of emulsion explosives.

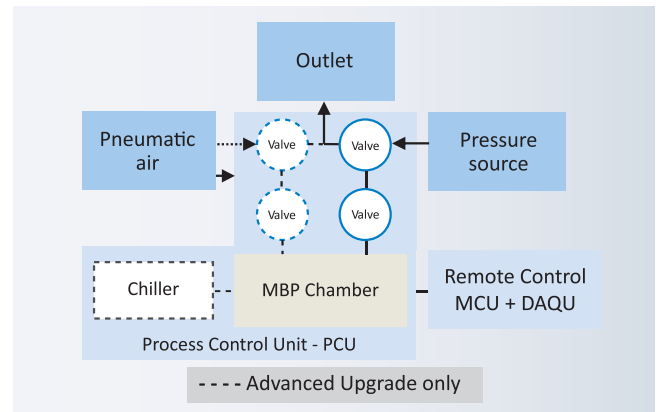
The MBP is primarily designed for testing sensitivity of emulsion explosives during both their development and industrial manufacture. Small-scale tests with MBP can provide very important information about the emulsion explosive safe pumping pressure. The MBP can also be used for other explosives, which are likely to be subjected to pressure and temperature loads.

ADVANTAGES & FEATURES

- ▶ Certified closed vessel from a noncorrosive material
- ▶ Working pressure up to 50 MPa (with a remotely controlled pressure manifold)
- ▶ Precise constant current power supply for thermal ignition of the sample
- ▶ Measurement of time-to-decomposition, terminal pressure of decomposition and decomposition rate
- ▶ Easy to handle, heavy duty, one-box design with simple connectivity and user-friendly software for data processing
- ▶ Advanced version with chiller and stepwise-isochoric mode for more intensive work or research

COMPLIANCE

- UN Recommendation on the Transport of Dangerous Goods, Manual of Tests and Criteria [Test 8(e): CanmetCERL Minimum Burning Pressure (MBP) Test]



MBP apparatus basic scheme



MBP measurement and control unit



OZM Research s.r.o.

Bliznovice 32, 538 62 Hrochuv Tynec
CZECH REPUBLIC / European Union
Mobile: +420 778 456 409
E-mail: ozm@ozm.cz
www.ozm.cz