

**High Pressure Acetylene ball valves as per DIN EN ISO 15615****MN
20001**

This Instruction is meant as supplementary information for qualified persons installing and operating ball valves. It matches with the use for type tested ball valves of high pressure acetylene plants for high pressure acetylene.

1. Intended use

- Quick closing valve manually operated in acetylene high pressure pipe lines as per DIN EN ISO 15615:2002-01, No. 5.3.2 (former TRAC 206 No. 5.13, paragraph 1 and 3).
- Shut-off valve for acetylene high pressure pipe lines as per DIN EN ISO 15615:2002-01, Nr. 5.3.7 (former TRAC 204 No. 5.3 and TRAC 206 No. 5.11).
- The informations given in the documents enclosed to the delivery, have to be adhered to. PS 25 bar, TS - 20°C to + 60°C.

2. Allowable Connections

Ball valves with 24° internal cone ports as per DIN EN ISO 8443-1:2008-02 Nr. 16, heavy series (former DIN 2353) or as per DIN 3861:2002-11, port form 11, heavy series respectively, are to be exclusively installed in high pressure acetylene pipe lines with 24° external cone type fittings as per DIN EN ISO 8434-1:2008 Nr. 16, heavy series, or as per DIN 3865:2002-04, heavy series respectively. O-rings are to be made out of EPDM rubber.

3. Storage

The ball valves must be stored in dry and dust free environment. The ball must be in open position and the dust caps shall not be removed.

4. Installation, Start up

- The installation is to be executed by trained personnel only.
- If required the plant has to be flushed before ball valve installation.
- On ball valves being installed pressure and tightness tests are allowed to be executed with neutral gases (N₂, CO₂) only.
- The following limits must be adhered to during pressure test:
 - maximum test pressure 30 bar on ball valve ball being fully closed
 - maximum test pressure 315 bar on ball valve ball being half open
- The valve ball shall not be turned during pressure test on test pressure being above 25 bars to prevent gasket damages
- Water is not allowed as pressure test fluid as water residues can cause internal corrosion.

5. Operation

The ball valve must be either fully open or fully closed during operation. An intermediate position of the ball causes unintended reduction of flow through and could cause damages to the soft ball seals.

Ball valves open and close by turning the stem 90° each. The handle will be inline with the ball-port position letting see the valve's position.

6. Ball valve use after acetylene decomposition

- Ball valves which were exposed to acetylene decomposition are not allowed to be used. There is a risk of not performing as designed for safe plant operation.
- Such a valve check and a possible repair shall be executed in manufacturers work shop.
- It is recommended to contact the manufacturer prior returning such a ball valve, as repair might not be feasible.

7. Supplementary notes

- For automatic or remote operation ball valves can be equipped by manufacturer with ports to fit valve actuators on request.
- None authorized ball valve modifications causes the loss of guarantee.