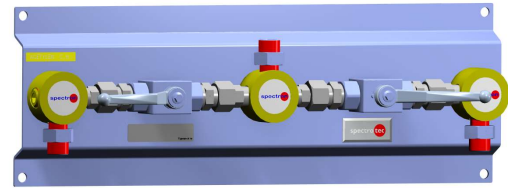
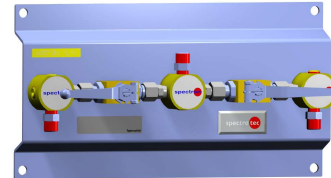


## Contents

	Page
1 Use	1
1.1 Technical data	2
1.2 Labelling	2
2 Safety information	3
3 Installation	5
4 Repairs	6



## 1 Use

The shut-off units are designed exclusively for use with a BT 2000-AC or BU13-AC pressure control panel. They allow bilateral expansion of the existing supply system with further gas cylinders and separate shut-off of the two supply lines.

All stipulations valid for the pressure control panel BT 2000-AC and BU13-AC must also be observed during operation and use of the shut-off units.

The shut-off unit may only be used for the gas type acetylene.

### Note

The materials and production processes used are tailored to the intended use.

All components represent the technical state of the art, comply with the recognised engineering standards and meet the requirements of the standards and regulations applicable in this field, in particular the acetylene regulations.

The components are manufactured with the utmost care and under clean conditions in special workshops, where they are subject to continuous quality controls throughout the production process.

Each complete system and its individual components are tested for correct functioning and leak-tightness, thus ensuring compliance with the exacting Spectron quality standards.

***Compliance with this instruction manual, and in particular the safety instructions, is mandatory when handling the articles listed above.***

## 1.1 Technical data

SPECTROTEC	Shut-off unit for acetylene
Max. permissible pressure P <sub>V</sub> :	max.25 bar
Materials:	
Distributor:	brass
Screw fittings, ball valve and pipe:	zinc-plated steel
Mounting plate:	stainless steel
Weight:	
Shut-off unit DN5	4.3 kg
Shut-off unit DN10	5.9 kg
Connections:	
Shut-off unit DN5 (inlet+outlet)	M16x1.5 (Ermeto)
Shut-off unit DN10 (inlet+outlet)	Inlet: M24x1.5 (Ermeto) Outlet: G3/4"-LH
Article numbers:	
Shut-off unit DN5	718.34151
Connection kit DN5	718.34174 (straight pipe)
Shut-off unit DN10	718.34150
Connection kit DN10	718.34168 (bent pipe)

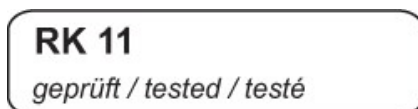
## 1.2 Labelling

On the baseplate of the shut-off unit, there is a type plate with information on:

- Type
- Part number
- Date of manufacture
- Max. permissible pressure
- Gas type

### Inspection sticker

Prior to delivery, all shut-off units undergo a 100% leak and function test. To document this, an inspection sticker is attached on the mounting plate on the back of each panel.



## 2 Safety information

### 2.1 Handling combustible gases

Specialist knowledge is required when handling acetylene, and the instructions in this manual and existing regulations must be complied with.

Training and regular safety training for operating personnel on the correct procedures for handling this system, combustible gases and pressurised gas vessels is mandatory and must be repeated annually. Incorrect handling and/or use of the system can endanger operating personnel and other persons, and can lead to damage to the system and the surrounding area. This instruction manual must be available to operating personnel at all times.

### 2.2 Manifold size and output

The withdrawal rate per acetylene cylinder should not exceed 500 l/h in continuous operation. This prevents solvent being withdrawn from the cylinders. For brief periods, the withdrawal quantity can be increased to 1000 l/h.

### 2.3 Gas-specific design

The shut-off unit may only be used for acetylene. Alternating use for other gases is not permitted. It is also prohibited to attach adapters to the cylinder connection. The materials and seals have been selected for gas type "acetylene."

### 2.4 Resistance of the materials

The resistance of the materials can only be guaranteed with the use of dry gas and if lines and fittings are dry-purged. Incorrect installation and leaking screw fittings can reduce the service life of the equipment.

### 2.5 Regulations, directives, technical specifications

A series of regulations must be observed when installing and operating acetylene cylinder manifolds. For example, the systems created must comply with the following regulations and rules.

#### 2.5.1 Accident prevention regulations

BGR 500 (Sections 2.26, 2.31, 2.33)

#### 2.5.2 Laws, ordinances, technical regulations

- German acetylene ordinance with technical rules for acetylene (TRAC), e. g. TRAC 204, 206,207 etc.
- Explosion protection directives Ex RL
- Guidelines for the prevention of ignition hazards as a result of electrostatic charging.
- The installation of electrical equipment in potentially explosive atmospheres. VDE 0170/DIN 57 165
- Employers' liability insurance association leaflet on preventing the explosion of acetylene cylinders.

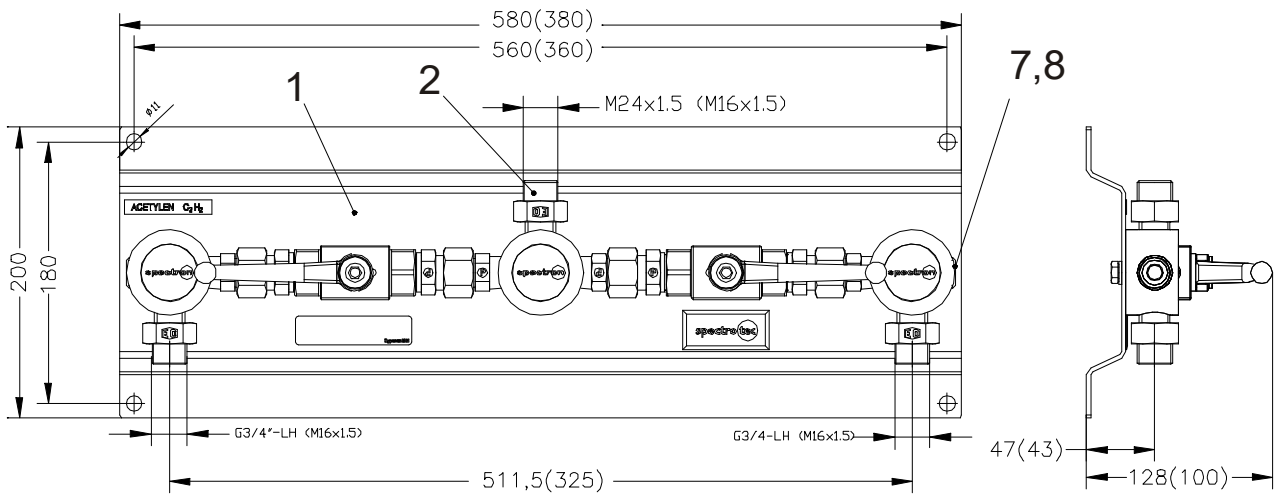


Abb.2  
 Absperrereinheit DN 10  
 (Maße für Absperrereinheit DN 5 in Klammern)

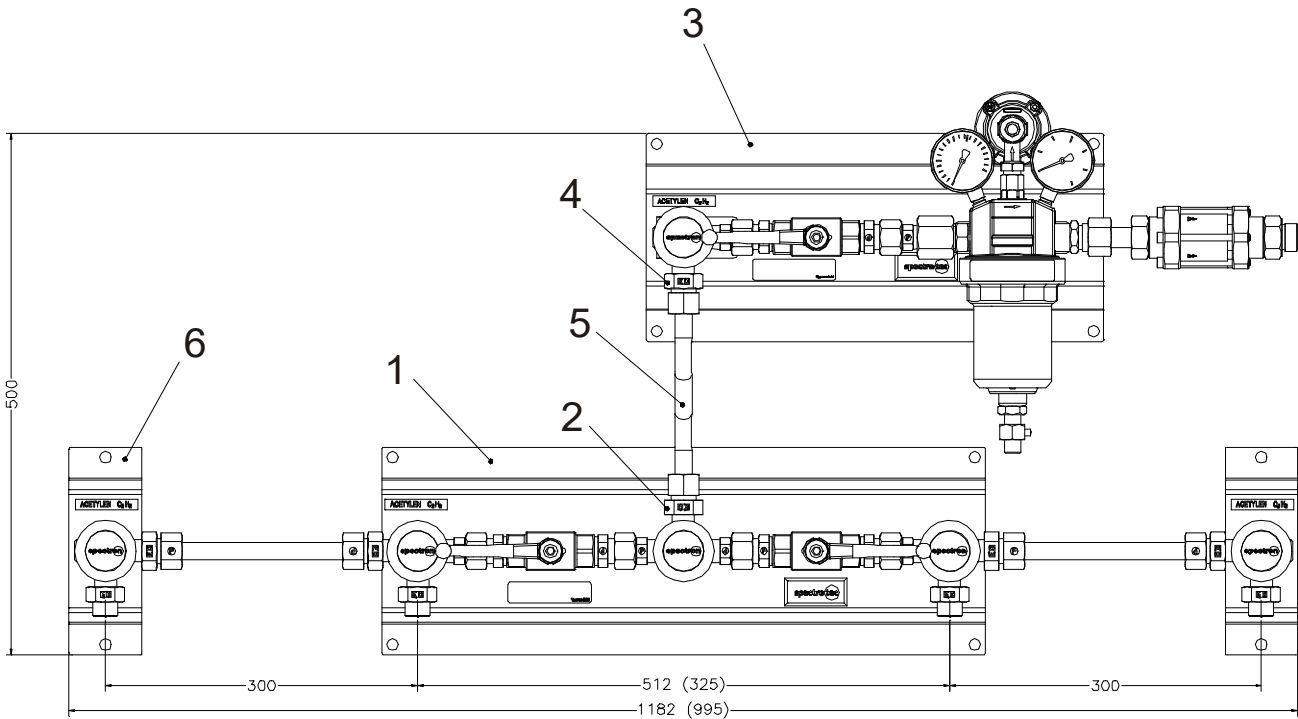


Abb.3  
 Entspannungsstation BU 13-AC mit Anschlußkrümmer (, Absperrereinheit und beidseitiger Erweiterung DN 10

### 3 Installation

- 3.1 Installation must be performed by personnel with the requisite expertise and who have received the appropriate training and instruction on safety engineering.
- 3.2 All components of the shut-off unit are tested for correct functioning and leak-tightness prior to delivery. All apertures are closed off.
- 3.3 Before commencing installation, check that connections and threads are undamaged (possibly by briefly blowing them out). If damage is ascertained, the extension must not be connected.
- 3.4 Screw connection kit in the case of BT2000-AC or pipe elbow of BU13-AC (5) to the connector (2) of the shut-off unit (1) and the connector (4) of the pressure control panel (3).  
**To ensure adequate stability of the Ermeto screwed connection, it is essential to tighten the pre-assembled union nut in accordance with the installation instructions for pre-assembled Ermeto screw fittings (Document No. 770.53378).**
- 3.5 Attach the baseplate of the shut-off unit (5) and where applicable cylinder brackets (not shown here) to the wall using the screws provided.
- 3.6 If further extensions (6) are to be added, the screw plug (7) must be removed from the respective distributor block (8) and the extension installed as specified in the instruction manual included in the scope of delivery of the extension modules.
- 3.7 Place the cylinders in front of the brackets, connect them and secure them with safety chain or strap.
- 3.8 When all screws, screw fittings and connections have been tightened, slowly supply the system with gas and carry out leakage testing on all newly installed, gas-bearing connections.

## 4 Repairs

- 4.1 For safety reasons, repairs must be carried out in authorised workshops, by the manufacturer or suitably qualified personnel.
- 4.2 Only original spare parts may be used.
- 4.3 After every repair, the panel must be checked for correct functioning and leak-tightness.
- 4.4 The manufacturer accepts no liability for repairs not effected in authorised workshops, if the panels are modified or if non-original spare parts are used, and in such cases, the warranty is rendered null and void with immediate effect.
- 4.5 The system should be tested for correct functioning and operational safety once per year by the manufacturer.
- 4.6 Annual inspection of the flashback arrestors and other safety devices attached to the tapping points downstream of the pressure control panel is prescribed by law. The operator must provide verification of this.