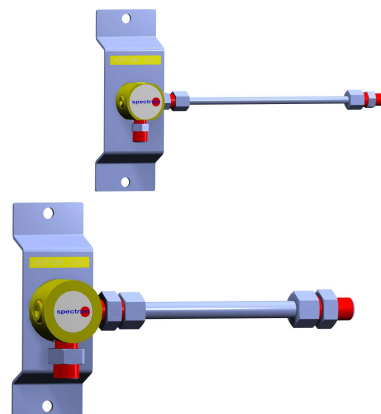


## Contents

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



## 1 Use

The extension is designed for use with a BT 2000-AC or BU13-AC pressure control panel. It allows the connection of further gas cylinders to an existing supply system.

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

The extensions 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 Extensions for acetylene

Max. permissible pressure P<sub>V</sub>: max.25 bar

Materials:

Distributor: brass

Screw fittings and pipe: zinc-plated steel

Mounting plate: stainless steel

Weight:

Extension DN5 1.0 kg

Extension DN10 1.9 kg

Connections:

Shut-off unit DN5 (inlet / outlet) ¼" NPT / M16x1.5 (Ermeto)

Shut-off unit DN10 Inlet: ½" NPT / M24x1.5

Outlet: ½" NPT / G ¾"-LH

Article numbers:

one-sided extension DN5 718.34163

one-sided extension DN10 718.34162 (straight pipe)

one-sided extension DN10 718.34171 (bent pipe)

one-sided extension DN5 718.34173

two-sided extension DN10 718.34172

## 1.2 Labelling

On the baseplate of the extension, there is a type plate with information on the gas type.

### Inspection sticker

Prior to delivery, all extensions 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.

**RK 11**

*geprüft / tested / testé*

## 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 extensions 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.

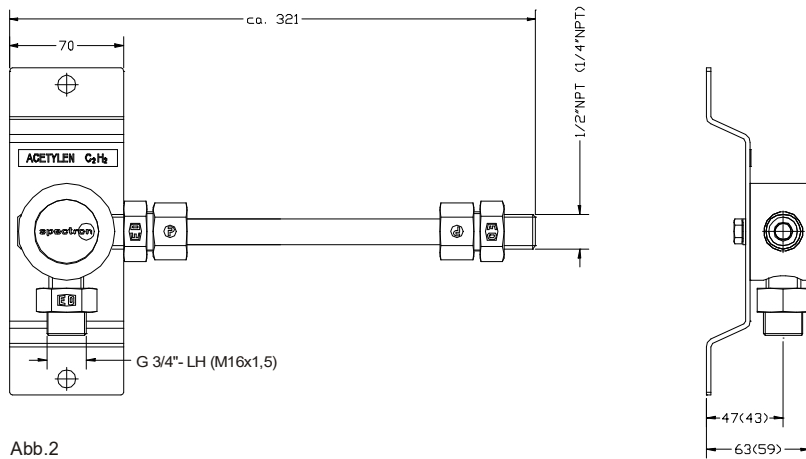


Abb.2  
Einseitige Erweiterung DN 10  
(Maße für Erweiterung DN 5 in Klammern)

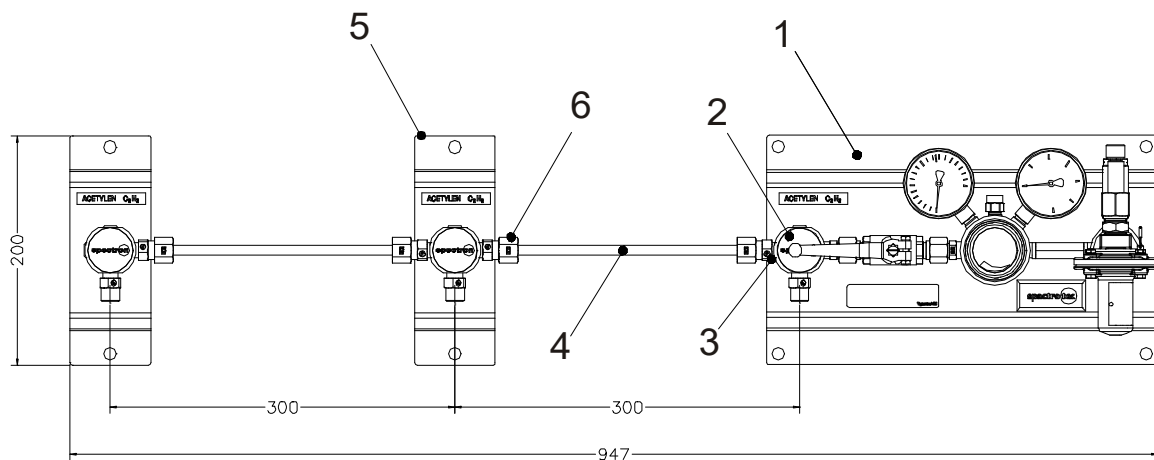


Abb.3  
Entspannungsstation BT 2000-AC mit beidseitiger Erweiterung DN 5

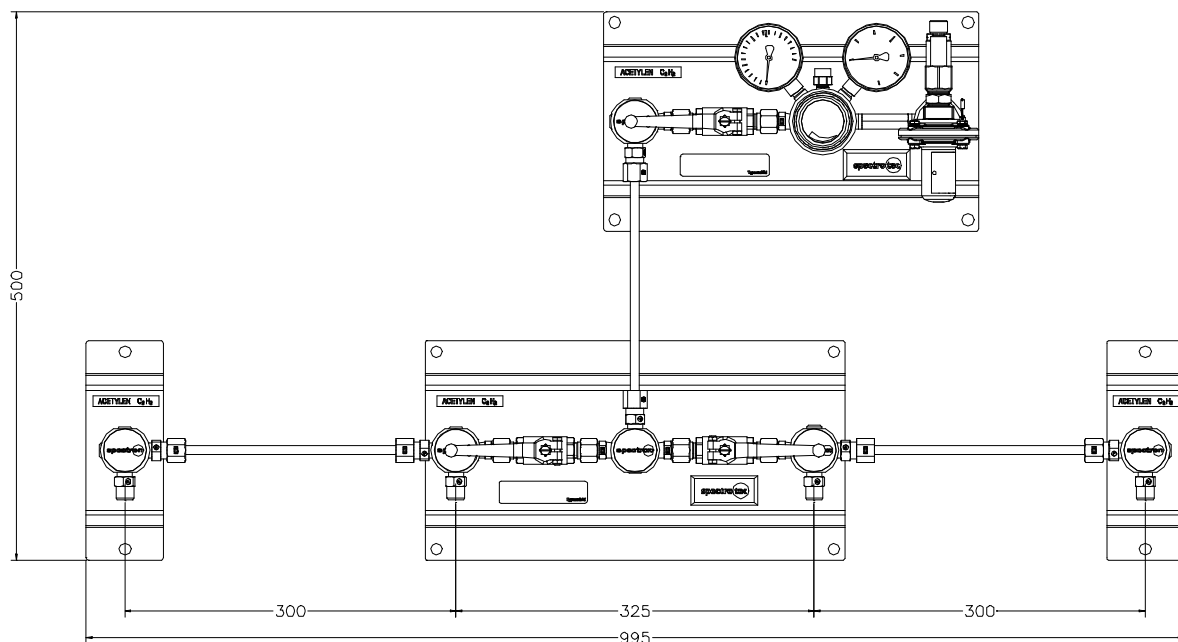


Abb.4  
Entspannungsstation BT 2000-AC mit Absperrereinheit und beidseitiger Erweiterung DN 5

### 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 Remove the sealing plug (not shown here) of the distributor block (2) and screw in the NPT fitting (3) of the connection pipe (4) in its place. To do this, wrap PTFE tape (Teflon tape, Part No. 0321422) around it approximately 5 to 10 times in anti-clockwise direction, leaving the first thread turn free and pressing the end of the tape down tightly. Screw the parts together so that the connection is gastight.
- 3.5 Connect the extension (5) to the connection pipe (4). **Here, to ensure adequate stability of the Ermeto screwed connection, it is essential to tighten the pre-assembled union nut (6) in accordance with the installation instructions for pre-assembled Ermeto screw fittings (Document No. 770.53378).**
- 3.6 Attach the baseplate of the extension (5) and cylinder brackets (not shown here) to the wall using the screws provided.
- 3.7 Place the cylinders in front of the bracket and secure 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.