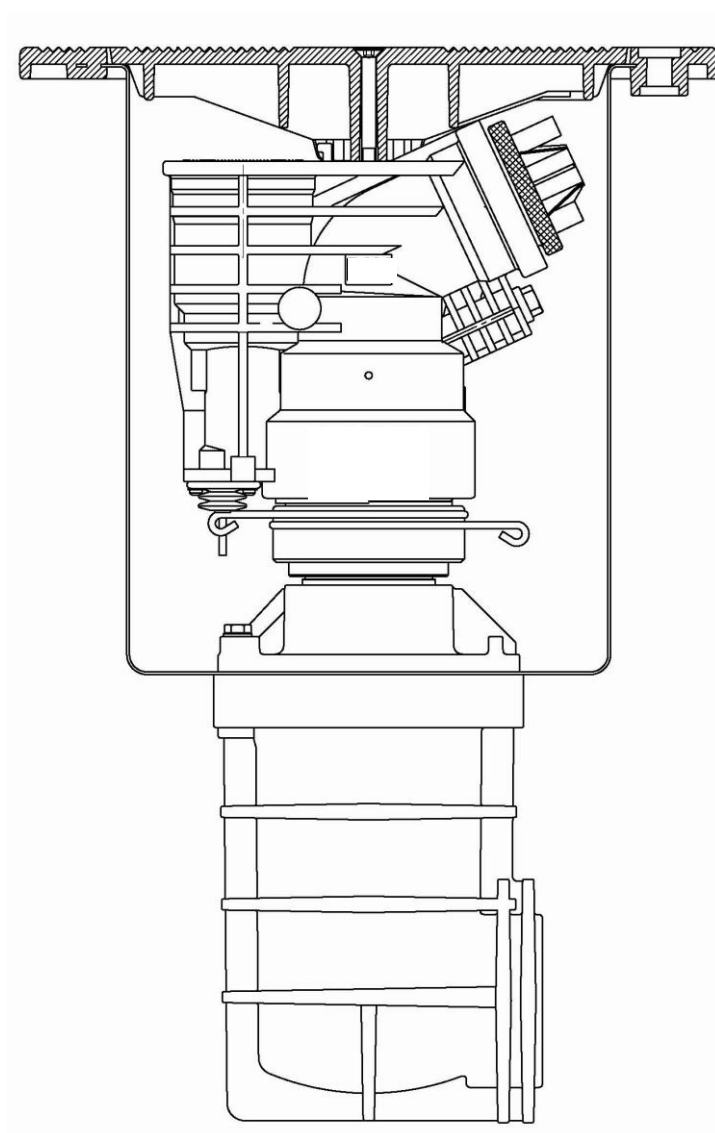


Operating Instructions

Large area sprinkler

SPS 175

IRRITROL



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- 5. Commissioning**
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1. General

We presume, that you are experienced in the field of irrigation. Therefore we have kept this instruction as brief as possible, and have included only such information which you must have for the use of this product.

A guarantee can be accepted only, if the sprinkler has been operated in accordance with these instructions, and if the defect occurs within the guarantee period.

Data subject to alteration without prior notice.

2. Safety

These operation and safety instructions include basic remarks and hints for the assembly, installation, operation, maintenance, inspection and repair. For this reason these instructions must be read by the fitter, as well as by the customers authorised staff, prior to the installation and commissioning.

Apart from the general safety instructions of this paragraph special safety instructions included in other paragraphs of these operating instructions have to be observed too.

2.1. Symbols of hints given in these operating instructions

The non-observance of the safety instructions mentioned in these operating instructions can endanger persons and is marked

with the general danger symbol



Caution of hand injuries



Caution by automatic start up process

Safety instructions which can endanger the sprinkler and its function, if not observed, are specially marked with

ATTENTION

2.2 Use according to regulations

The sprinkler is used for constant spreading of water on green corridors and sports fields with nature grass or artificial turfs. The water should be cleaned and be free of crude and fibrous contamination. The water and ambient temperature should lie beneath the limit, which are indicated in the technical data.

2.3 Obvious abuse use

- ☆ Operation of the pop-up sprinkler through non-authorized staff (in case the control unit is free access able).
- ☆ Operation of the pop-up sprinkler with a wrong adjustment due to vandalism. Thereby the water jet may irrigate the wrong side of the sports field.

2.4 Security advice



Please first read the operation instructions, in particular the security advice, before you start working with the sprinkler.

The specific security advices are placed in front of the individual chapters.

2.5 Dangers if the safety instructions are not observed

Non-observance of the safety instructions can endanger persons as well as the environment and the sprinkler. Non-observance of the safety instructions can result in a loss of all claims for indemnity.

3. Technical data

Recommended operating pressure 4 to 8 bar
Permissible operating pressure 4 to 10 bar

Attention

The pressure at the sprinkler should not be more than 10bar

Inlet	G 2 ½"
Liquid	acqua
Liquid temperature	Max 40°C
Ambiente temperatura	Max 60°C

4. Installation, mounting



In case that contamination acquires into the sprinkler, the sprinkler can be destroyed and the assembly personnel can be hurt. Therefore flush the piping thoroughly before you connect the sprinkler to the water supply.

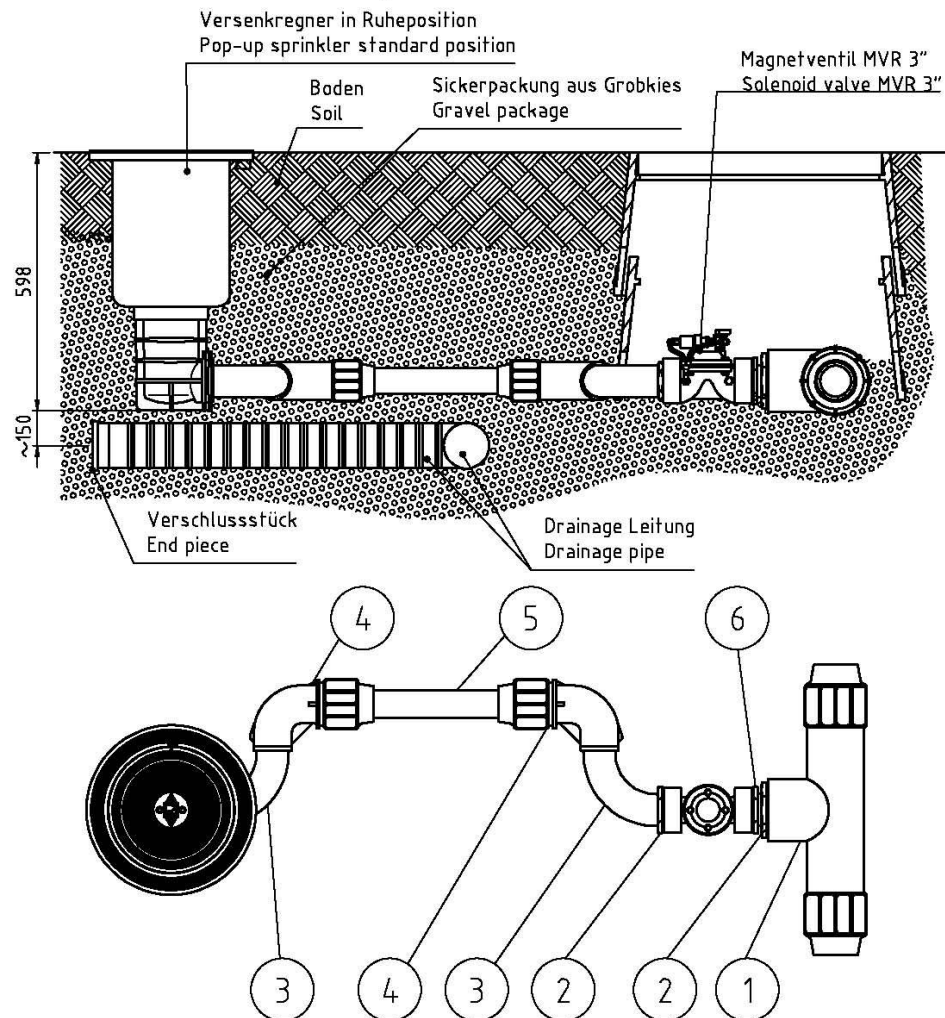


Unexpected appearance of a water jet can lead to severe injuries, therefore please ensure that the assembly was completely accomplished, before the water supply is opened.

- ☆ Connecting thread at the pop-up sprinkler is 2½" female thread
- ☆ For thread sealing please use hemp and sealing compound e.g. Fermit special.
- ☆ Installation of the sprinkler should take place in accordance with "the installation pattern for pop-up sprinklers PERROT VP 2 (see next page)
For avoiding burden pressures on the main line, a flexible connection is highly recommended
- ☆ Installation of a seeping water drain packing with direct connection to the drainage, as shown in the installation drawing, is highly recommended.
- ☆ In order to fit clamp connectors, the pop-in sprinkler can be held or clamped at the housing or on the edge of the housing.

Installation layout for Irritrol pop-up sprinkler SPS 175 with independent valve

Einbauschema für Irritrol SPS 175 Versenkregner mit Blockventil



Pos.	Benennung / Description	ØPE-Hauptleitung / dia Main Pipe		
		Ø110	Ø90	Ø75
①	T-Stück PE 110 x 4" IG x 110	1		
	T-Piece PE 110 x 4" FT x 110		1	
	T-Stück PE 90 x 3" IG x 90			1
	T-Piece PE 90 x 3" FT x 90			
②	Red. Nippel Nr. 241 4"x3"	1		
	Reduction Socket No. 241 4"x3"			
③	Red. Nippel Nr. 241 3"x2½"	1	2	1
	Reduction Socket No. 241 3"x2½"			
④	Bogen Lang Nr.3 2½" AGxAG	2	2	2
	Elbow No.3 2½" MTxMT			
⑤	Winkel Anschlussverschraubung 75x2½" IG	2	2	2
	Elbow Clamp Connection 75x2½" FT			
⑥	Rohrstück PE-HD 12,5 Ø75	1	1	1
	pipe PE-HD 12,5 Ø75			
⑦	Doppelnippel Nr.280 2½"	1	1	1
	Nipple No. 280 2½"			
		D110	D90	D75

Wir behalten uns Änderungen nach dem Stand der Technik auch ohne besondere Ankündigung vor.

Subject to change without prior notice.

Einbau- schema Nr.	9
Erstellt	27.06.2006
Rev.	Datum
a	26.05.2008 kd
b	
c	
d	
e	
f	

5. Commissioning

5.1

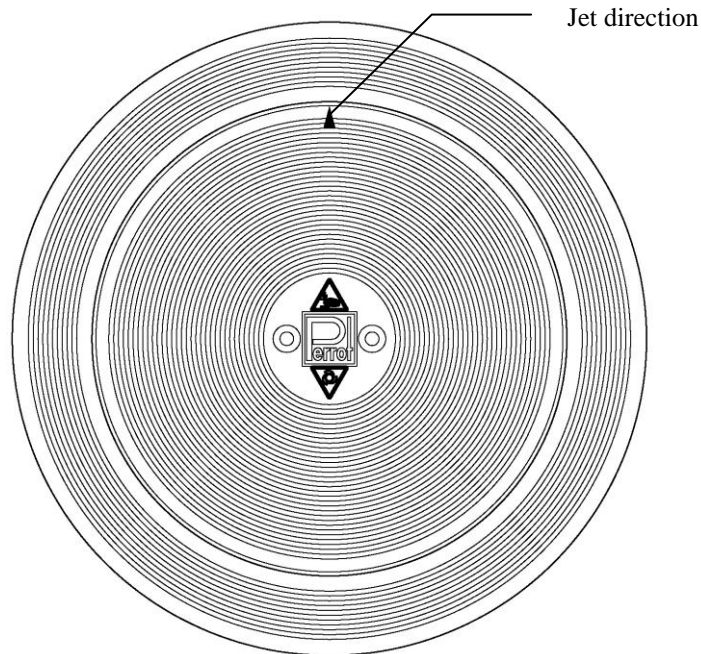
Hazard note



When starting the pop-up sprinkler it lifts and builds up his full pressure within approx. 5 seconds. The water jet can cause injuries. For this reason, the following advices are to be considered during the commissioning of the sprinkler:



- ☆ **During the automatic operation of the sprinkler no persons are allowed to stay in this area.**
- ☆ **Service personnel must not stay in jet direction of the sprinkler.** The jet direction is marked on the cover of the sprinkler by an arrow.



picture 1



In case the sprinkler is not flat with the basement, persons may be hurt by stumbling or getting caught. Therefore please check before starting operation and at regular intervals if the cover is flat with the basement.

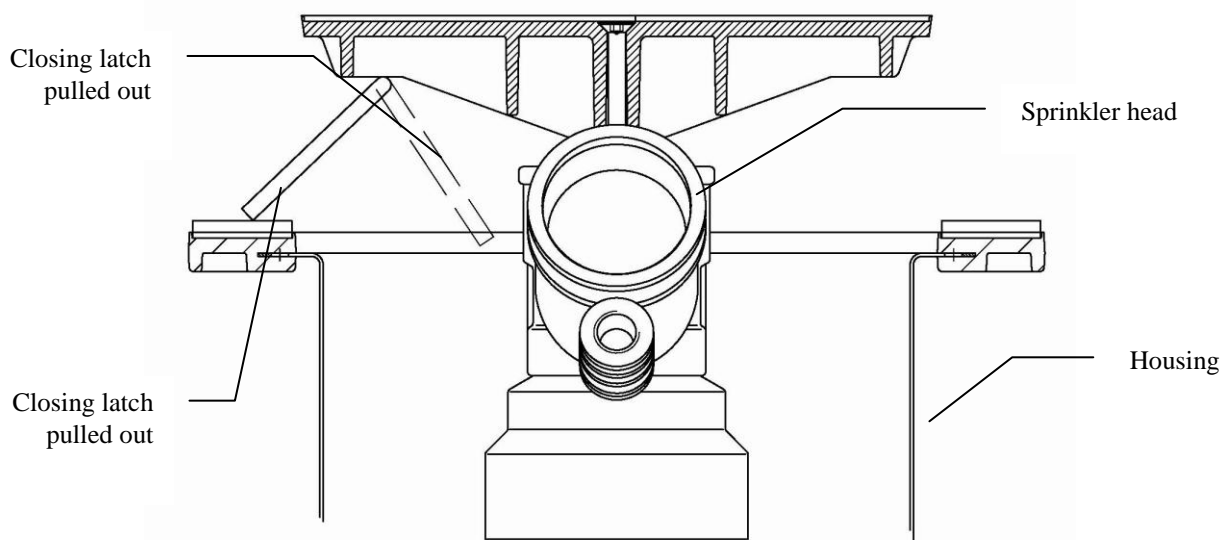
5.2 Commissioning

- a) Open water supply to the pop-up sprinkler slowly, until operating pressure is built up.
- b) After the water supply is opened and the max operating pressure is built up, all connection points are to be examined for leakage.
- c) Sprinkler will start rotation after rising.
- d) Make sure sprinkler rotates constantly and turns correctly



Succeeding points 5.3, 5.4 and 5.5 are preferably carried out on the operating sprinkler.

First pull out lateral closing latch of the sprinkler head (see picture 3), so that no extremities are jammed, in case the sprinkler closes unexpectedly.



picture 2

For the adjustment of the sprinkler no special procedure is required. Rotation speed and sector setting have to be adjusted.

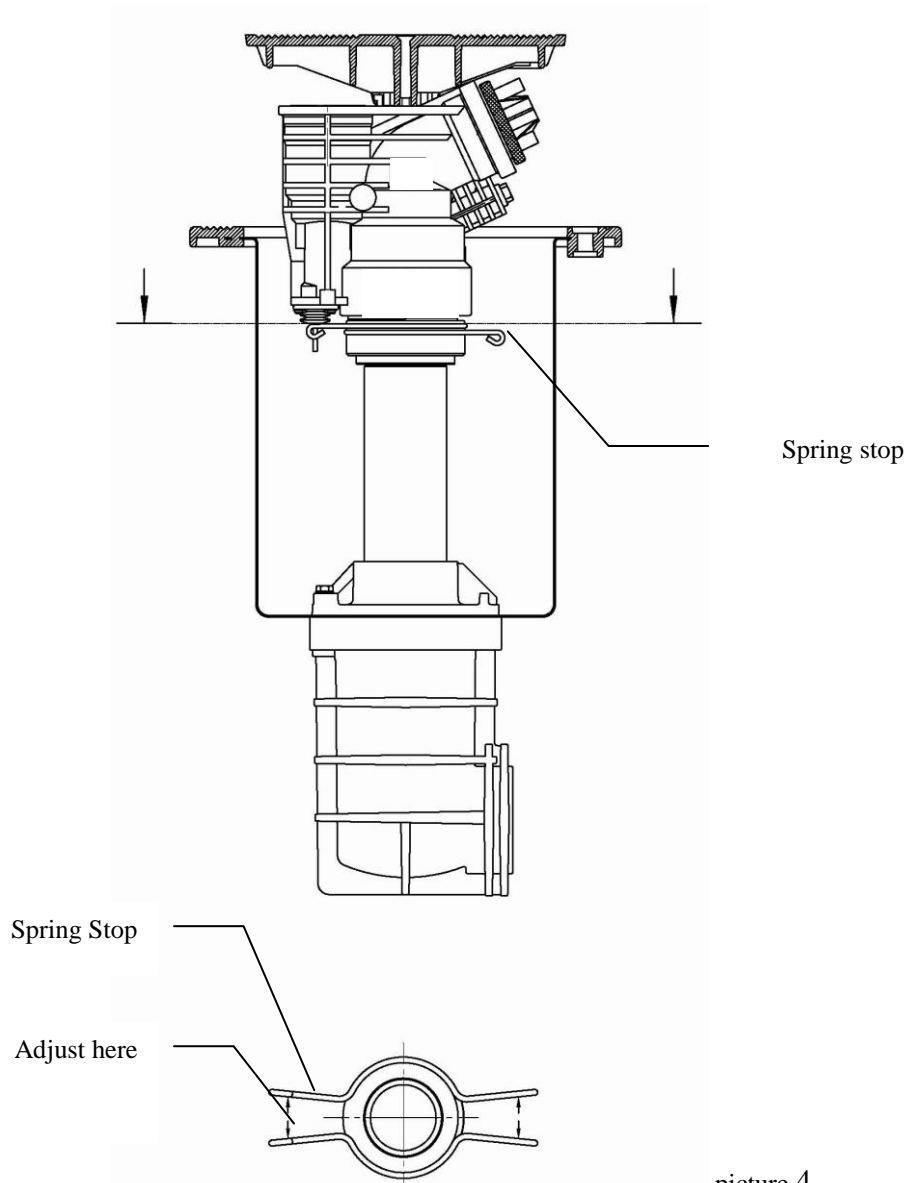
5.3 Sector Setting

The sector setting is infinitely adjustable by pulling (not pressing) the relevant end of the upper or lower spring stop. The irrigated part circle has to be adjusted by the spring stops (see sketch).

Setting part circle angle

ATTENTION

Infinitely adjustable by pulling (not pressing) the relevant end of the upper or lower spring stop.



picture 4

5.4 Full circle irrigation

For full circle irrigation the spring stops have to be removed.

ATTENTION

Pull spring stops only so far apart that they can be stripped off easily.

In case of overstretching, they can not be used again for part circle operation.

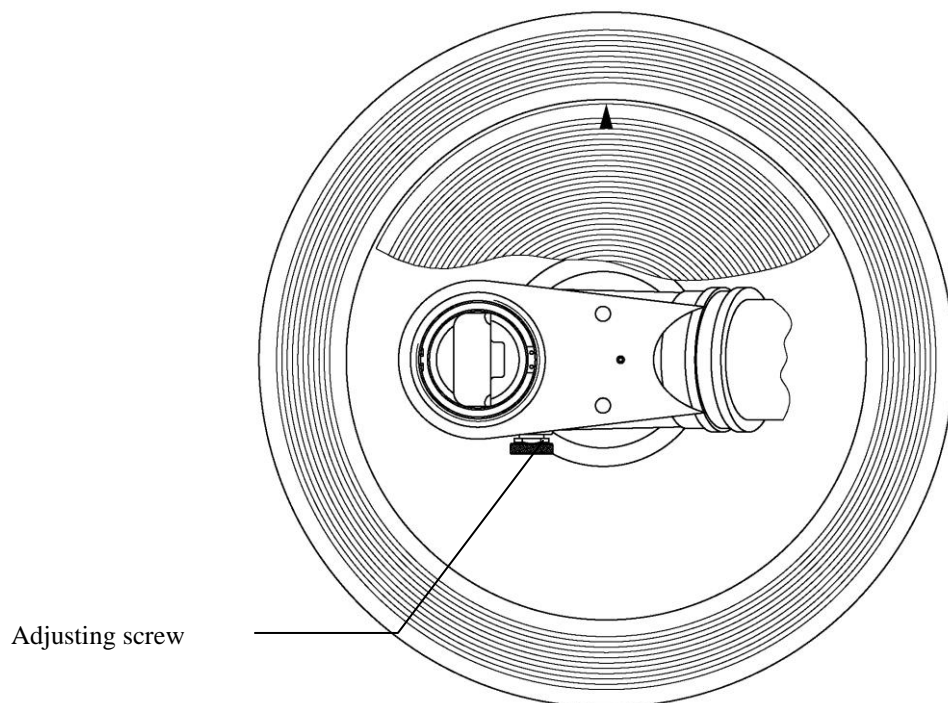
5.5 Adjustment of the rotation speed

By turning adjusting screw to the right, lower speed, by turning to the left, higher speed..

ATTENTION

Only irrigate with clear water at reduced speed.

In case dirty water is used, the regulation screw has to be opened completely, otherwise the sprinkler can stop its operation.



picture 5

6. Removal from service and winterizing

To remove from service the water supply and the current supply have to be switched off.

6.1 Winterizing

During the frost period please take care, that there is no water standing in the sprinkler. Remaining water in the piston drive unit, does not cause problems during frost. When the sprinkler is put into operation again, although there is still ice in the piston, it will take about 15 minutes to defrost the drive unit, at an ice temperature of approx. -20°C .

7. Maintenance and repair work



An unexpected water jet can cause heavy injuries. Therefore, make sure that the water supply is surely switched off before maintenance and repair work.

7.1 Maintenance

- ☆ Clean interior of sprinkler housing with an industrial vacuum cleaner or similar equipment (if required).
- ☆ Remove over-growing grass of sprinkler housing. These works should be done before spring.
- ☆ Examine regularly that sprinkler is flat to surrounding.

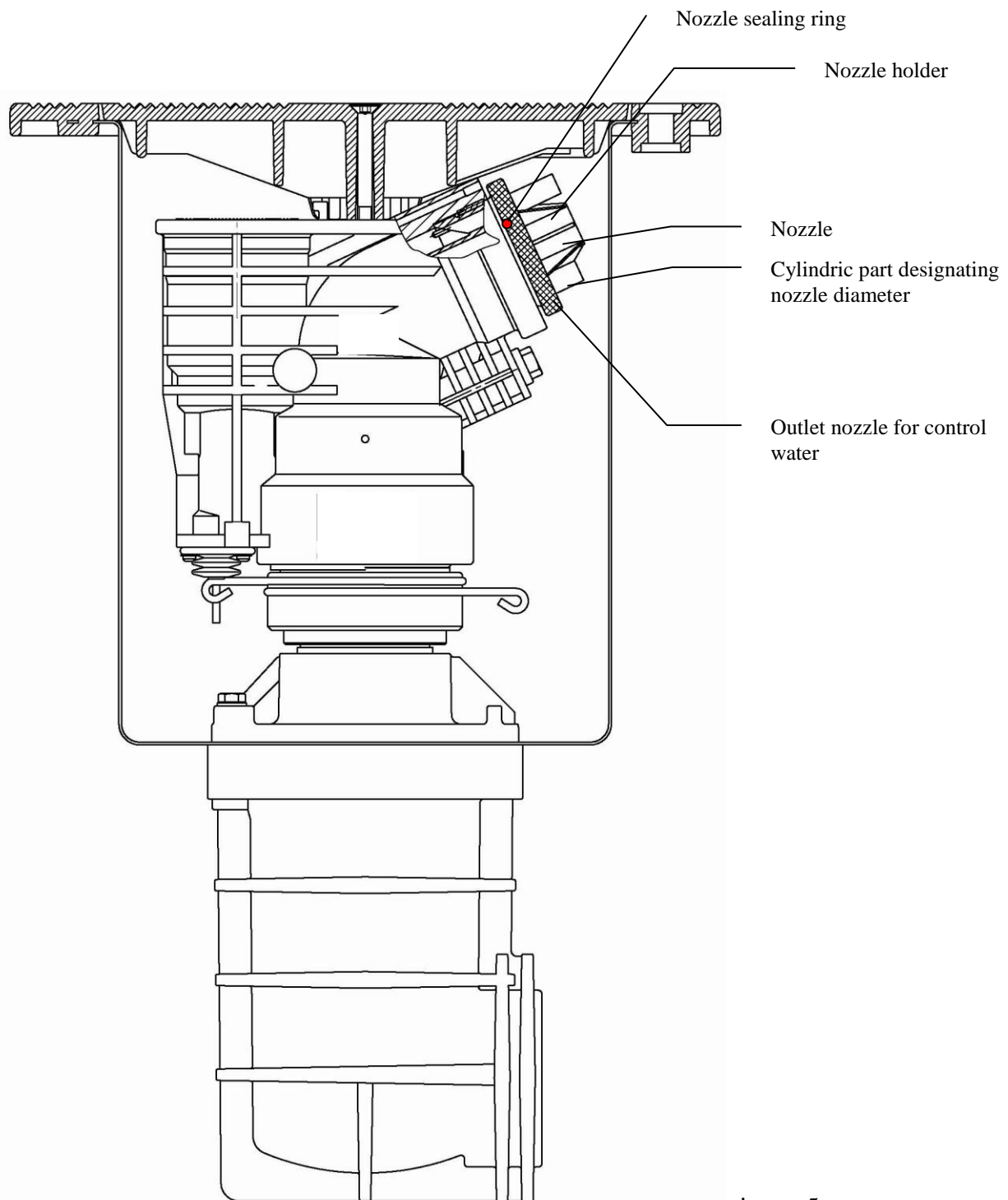
Lubricate the thread on the steel pipe and on the nozzle holder

When changing the main nozzle, the thread on the steel pipe and on the nozzle holder should be cleaned and lubricated.

Thus, the nozzle holder can be removed and fixed again easily by hand.

ATTENTION

When mounting a new nozzle take care, that the cylindric part designating the nozzle diameter is faced upwards (12:00 position) (picture 5).

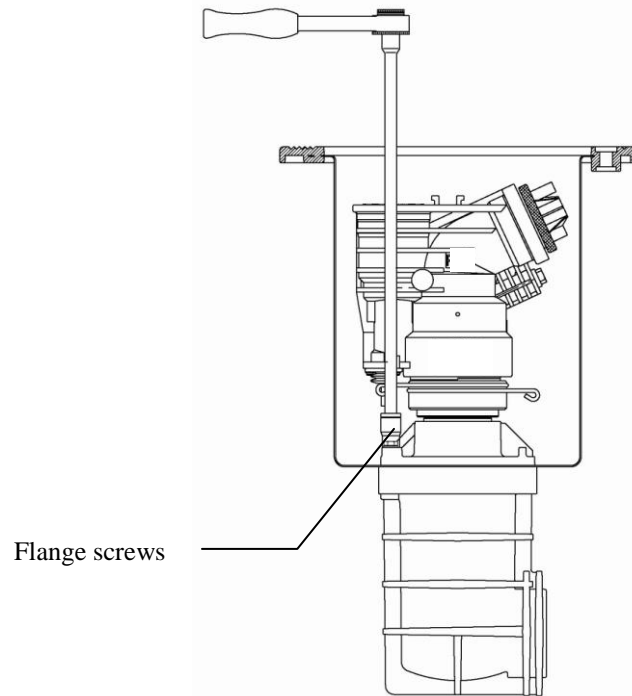


picture 5

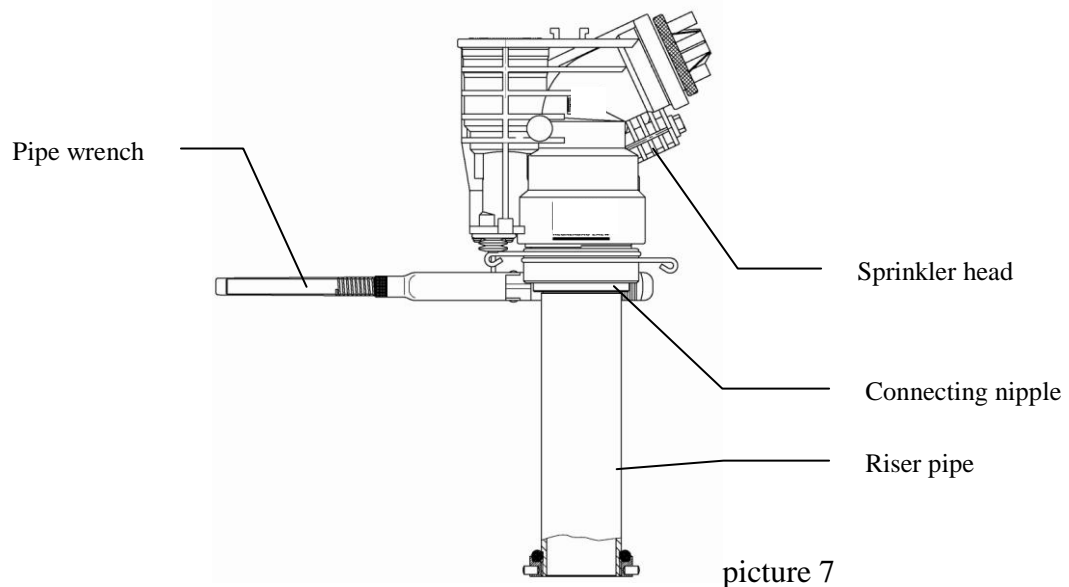
7.2 Repair

The sprinkler insert must be dismantled for in the following maintenance and repair works

- ☆ Unscrew cover with Allen key SW 5.
- ☆ Remove 8 flange screws with socket wrench SW 13.



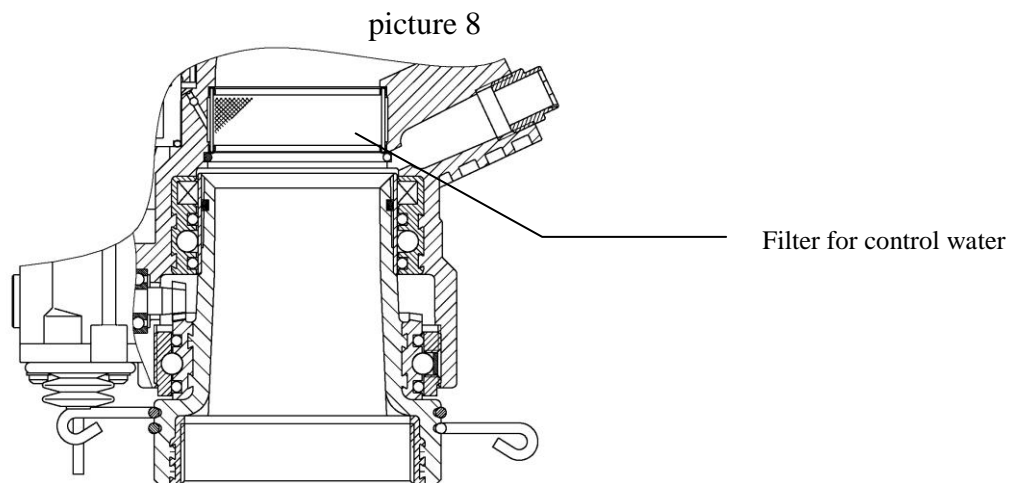
- ☆ Take sprinkler insert out off the housing.
- ☆ Unscrew riser pipe out of connecting nipple. As the connection is glued, the adhesive must be destroyed first. Therefore, heat the riser pipe with a hot air gun to approx. 300°C and unscrew the fixed riser pipe using a wrench pipe with a high torque.



7.2.2 Clean filter for control water

The sprinkler is driven by a cylinder. The control water is pre-cleaned by a filter. The cleaning interval has to be defined against the level of the pollution and operating hours.

To clean the filter use a brush or a high pressure cleaner.



7.2.3 Clean piston drive and piston drive area

If the drive unit does not function due to heavy stains, the piston drive should be removed and cleaned.

Remove piston drive

8. Malfunction and trouble-shooting

8.1 Malfunction and trouble-shooting

Defects	Reasons	Elimination
Sprinkler does not rotate or just very slowly.	The water is dirty. Speed regulation is adjusted at min. Filter is blocked.	Open adjusting screw, dirt is flushed out. Clean filter, as mentioned under 7.2.2
Sprinkler with poor water jet.	Nozzle or jet straightener is blocked.	Remove nozzle holder and nozzle. Clean jet pipe. Take care nozzle is positioned right when reassembling, lubricate thread of jet pipe and nozzle holder.
Sector angle gets bigger during operation	Spring stop is loose. Spring strength is slackened. Spring stop is overstretched.	Assemble new spring stop.
Sprinkler's bearing is leaking.	Grooved ring is worn out	Repair only possible by the manufacturer

EC-declaration of conformity

According to machinery directive (98/37/EG), appendix II A

According to low voltage directive (73/23/EWG)

According to electromagnetic compatibility directive (89/336/EWG)

Manufacturer : Regnerbau Calw GmbH
Industriestrasse 19-29
75382 Althengstett – Germany
Tel. +49-(0)7051-162-0

Explains hereby that the following product:

Product description: Large area pop-up sprinkler SPS 175
Year of manufacture: from 2009

Corresponds to the regulations of the guidelines designated above.

Following harmonizing standards were used:

DIN EN 292-1 EN 12100	Security of machines; fundamental terms, common guidelines; part 1: basic guidelines and specifications
DIN EN 1050	Security of machines; guidelines for assessments of risk
DIN EN 60204-1	Security of machines; Electrical equipment of machines; part 1: generals' requirements (IEC 204-1:1992, modified)

The manual belonging to the machine as well as the technical documentation is present in original version.

This declaration of conformity loses its validity, if changes are made at the machine, which were not coordinated with us before and approved in writing by us.


Althengstett,

28.09.2009

Date

Leiter tech. Büro, Günther Flük

Signatory and data to the signatory



Signature