

Maintenance and Operating Instructions

Large area sprinkler

Type: P2M

PERROT



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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.

1.1. Application

The sprinkler is used for the uniform distribution of the water. The water should be pre-cleaned, and free of coarse and fibrous impurities.

Max. water temperature 50°C.

Max. ambient temperature 75 °C

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 installer as well as by the customer's authorized staff, prior to the installation and commissioning.

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

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



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

WARNING

2.2. Dangers if the safety instructions are not observed

Non-observance of 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.

2.3



Operator / Owner has to guarantee that there are no persons in the operation area during running of the system.



Build in or erection of large area sprinkler over height of head. If not possible the use of other safety measures has to be taken.

3. Description

Recommended operating pressure 5 to 7 bars

Permissible operating pressure 4 to 10 bars

WARNING The pressure at the sprinkler must not exceed 10 bars.

For further data please refer to the separate spec sheet.

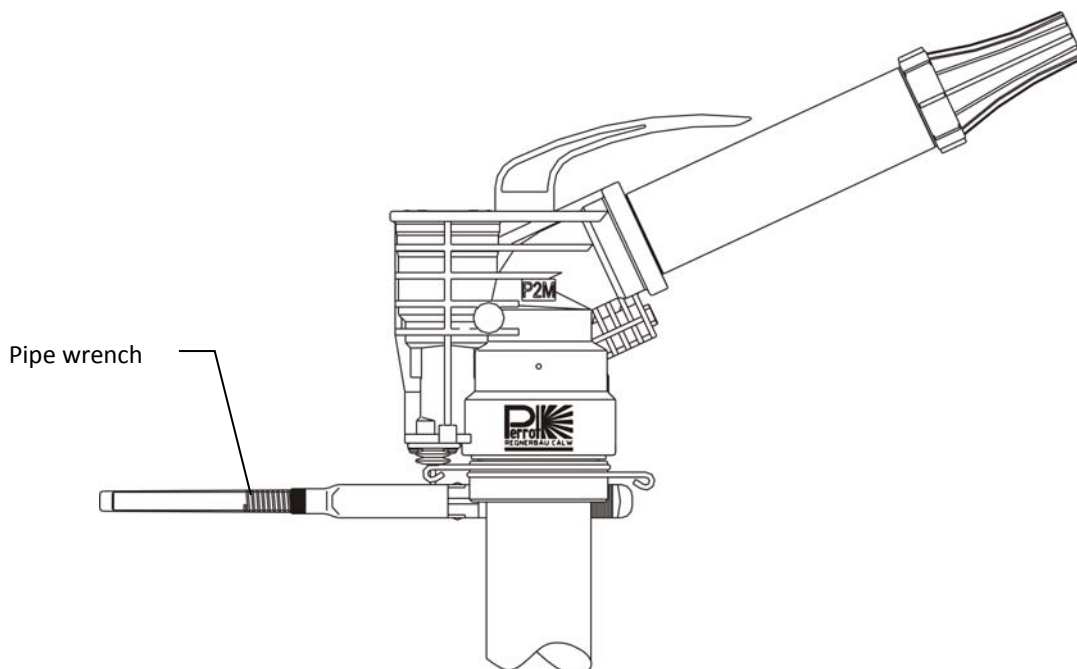
4. Assembly

- ☆ Threaded connection on the sprinkler is 3"female thread.
- ☆ For sealing the thread, hemp and a jointing compound has to be used e.g. Fermit special
- ☆ To screw on the sprinkler, always use a pipe wrench size 3". Tighten the sprinkler with around 30Nm.

WARNING *Do not turn the sprinkler by using the jet pipe.*



Sprinklers should be installed above head-height, respectively adopt any alternative safety measures.



picture.1

Screw on the connection socket as far as it will go, so that the sprinkler cannot unscrew during operation.

5. Commissioning

There are no special measures necessary for commissioning.

Only the rotating speed of the sprinkler has to be adjusted as well as the part circle operation for the sector, which has to be irrigated.

5.1 Adjustment of Rotation Speed (for agricultural applications)

Turning the regulation screw to the right will lower the rotation speed



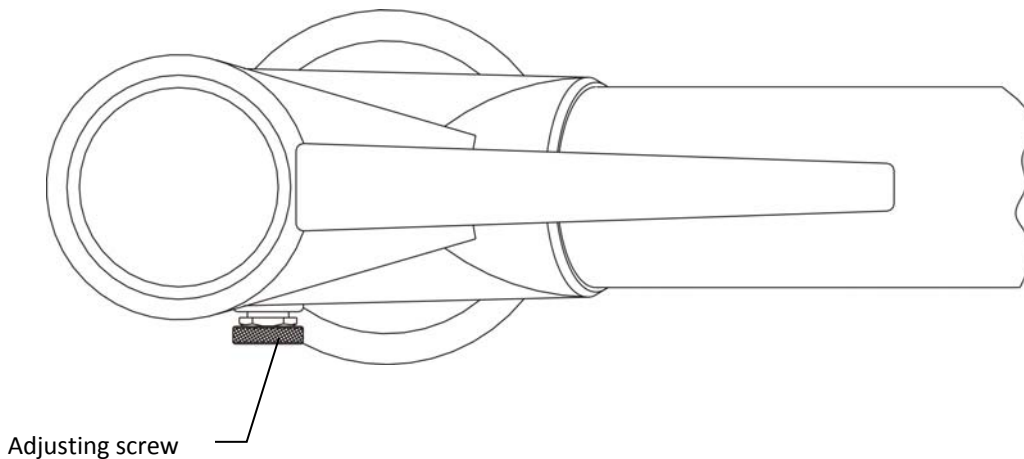
Option:

If a "K" is stamped in the speed regulation screw, the sprinkler can be stopped completely by turning the speed regulation screw to the right (from year of manufacture 2013).

By turning the regulation screw to the left the rotation speed is increased.

WARNING

*For minimal speed, the use of clear water is required.
In case dirty water is used, the regulation screw has to be opened completely; otherwise the sprinkler can stop its operation.*



picture 2

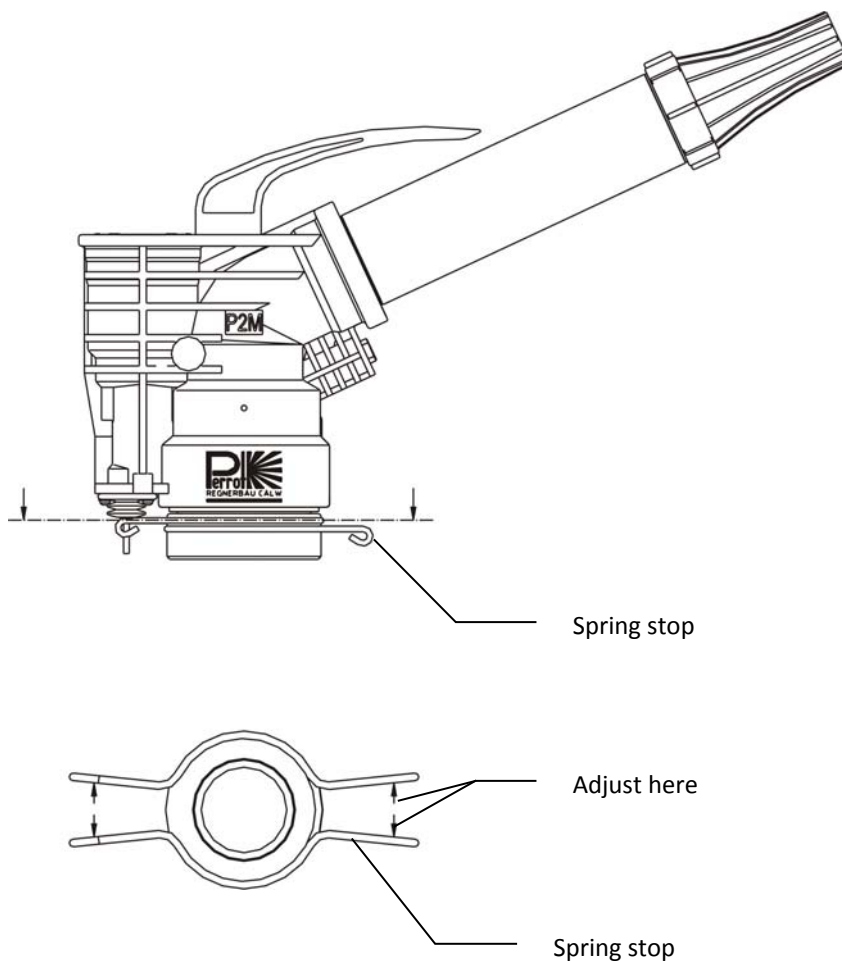
5.2 Sector Setting

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

WARNING

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



picture 3

5.3 Full circle irrigation

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

WARNING

Pull spring stops only so far apart that they can be stripped off easily. In case of overstretching, they cannot be used again for part circle operation.

5.4 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 frost damages. When the sprinkler is put into operation again, although there is still ice in the piston area, it will take about 15 minutes to defrost the drive unit at an ice temperature of approx. -20°C .

5.5 Putting into service in spring

The sprinkling head of the piston drive sprinkler is, due to the load alterations and the different installation conditions (humid, dry), exposed to extreme tensions. Under these conditions the piston can get axial play. In order to avoid interruptions of service, the piston cover should be tightened up at the putting into service in spring during its first and second year of operation as described below.

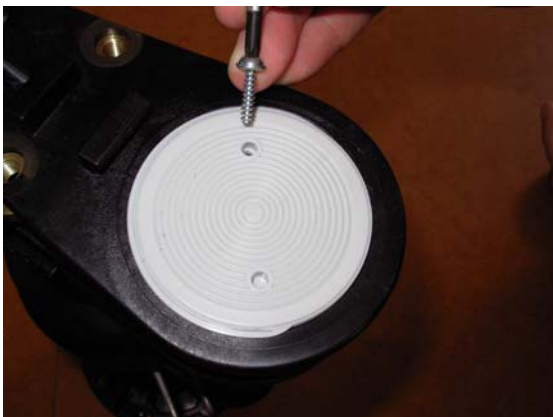


The cover has to be tightened up with the face spanner ZB98236 and an effort of approx. 10Nm. This means at a lever length of 10cm you have to mobilize a strength of 100N on the spanner.



Note:

After the 3rd and 4th winter there shouldn't be any more expansions.



Option:

Before tightening up the grey cover, the safety screw has to be removed. After the adjusting of the grey cover, the safety screw has to be screwed in again.



The safety screw prevents an independent loosening of the grey cover.



Stiffening ribs



Attention:

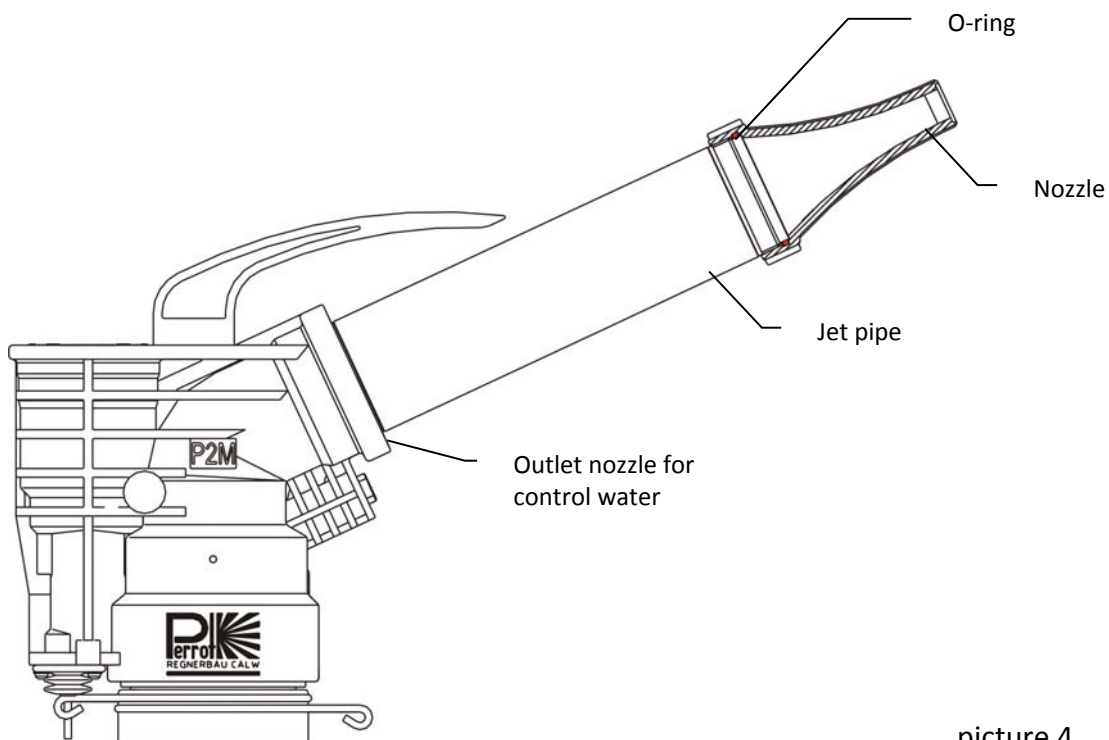
If the safety screw can't be tightened up, it hits a stiffening rib of the piston drive! In this case, the grey cover has to be pulled tighter, so that the safety screw passes the stiffening rib.

6. Maintenance

6.1 Lubricate thread of jet pipe

When changing the main nozzle, the thread at the jet pipe and the O-ring seat should be cleaned and lubricated.

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

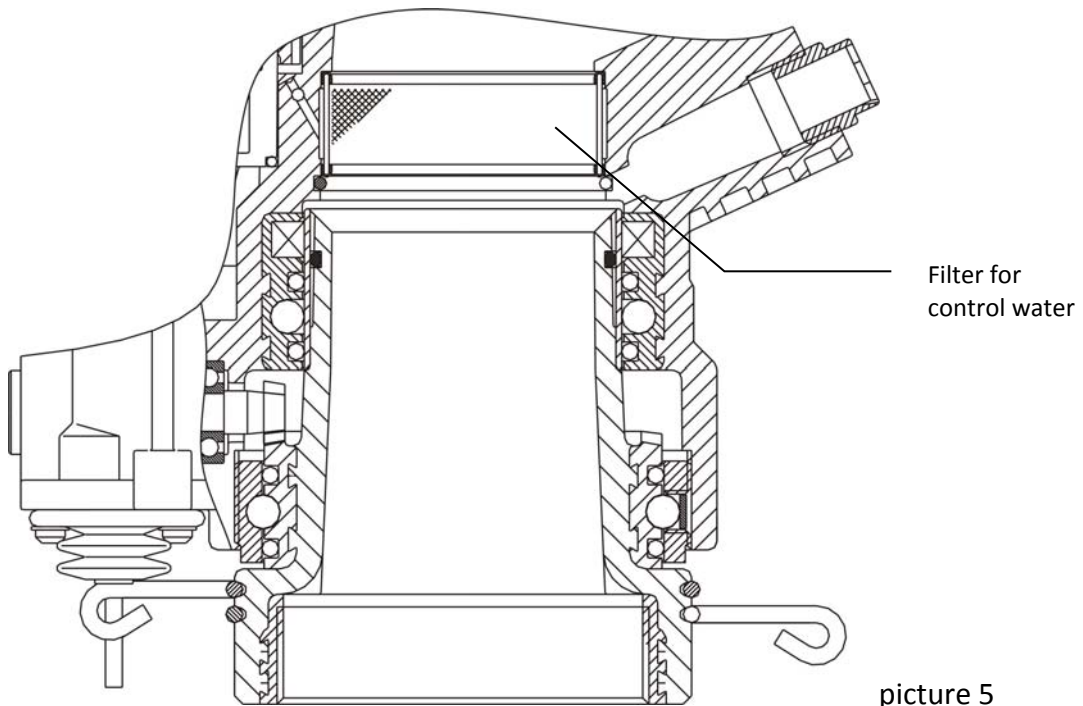


picture 4

6.2 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



6.3 Clean piston drive and piston drive area

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

6.3.1 Remove piston drive: (see TDP055e-rep)

7. 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 6.2 and 6.3
Sprinkler with poor water jet.	Nozzle or jet straightener is blocked.	Remove nozzle. Clean jet pipe. Lubricate thread of jet pipe.
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

Subject to change without prior notice.

CE-declaration of conformity

According to machinery directive (2014/35/EU)

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

Explains hereby that the following product:

Product description: Large area sprinkler P2M
Year of launch: 2009

Corresponds to the regulations of the guidelines designated above.



Following harmonizing standards were used:

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

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.

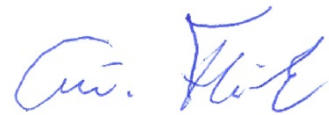
Althengstett,

14.06.2018

Date

Günther Flik, Director of Engineering

Signatory and data to the signatory



Signature