

## **Cluster receptacle, complete**

- for TopFlow, OviTwin and CapriTwin

**Instruction Manual / Installation Instructions / Parts List**

7036-9001-017

11-2006

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**1 Preface****1.1 Information on the instructions**

These instructions are supplied with the product.

They should be kept close at hand and remain with the equipment even if the equipment is sold.

This manual is not covered by an amendment service. The current version can be obtained through your technical dealer or directly from WestfaliaSurge.

We reserve the right to make changes due to technical developments in the data and images given in this manual.

Reproduction, translation or copying in any form, including extracts, requires written authorization from WestfaliaSurge.

Abbreviations, units, specialist terms, special names or specialist terminology are explained in more detail in the "Appendix".

**Pictograms used**

This pictogram indicates information that will help towards a better understanding of the working processes.



A correction bar in the margin indicates changes to the previous edition.



This pictogram refers to another document or chapter.

If a manual number is given, the middle 4 figures indicate the language, as follows:

|   | Language                |        | Language          |        | Language                |
|---|-------------------------|--------|-------------------|--------|-------------------------|
| -9000-  | German                  | -9010- | Greek             | -9027- | Bulgarian               |
| -9001-  | English (Great Britain) | -9013- | Dutch             | -9029- | Slovene                 |
| -9002-  | French (France)         | -9015- | English (America) | -9032- | Serbian                 |
| -9003-  | Italian                 | -9016- | Polish            | -9034- | Slovakian               |
| -9004-  | Romanian                | -9021- | Danish            | -9036- | Lithuanian              |
| -9005-  | Spanish                 | -9022- | Hungarian         | -9038- | Portuguese (Brazil)     |
| -9007-  | Swedish                 | -9023- | Czech             | -9039- | French (Canada)         |
| -9008-  | Norwegian               | -9024- | Finnish           | -9041- | Estonian                |
| -9009-  | Russian                 | -9025- | Croatian          | -9043- | Spanish (North America) |
| Possibly not all above-mentioned languages are available. |                         |        |                   |        |                         |

## 1.2 Manufacturer's address

**WestfaliaSurge GmbH**  
**Siemensstraße 25-27**  
**D-59199 Bönen**  
**Deutschland**  
Tel.: +49 (0) 2383 / 93-70  
Fax: +49 (0) 2383 / 93-80  
e-mail: [contact@westfalia.com](mailto:contact@westfalia.com)  
[www.westfaliasurge.com](http://www.westfaliasurge.com)

## 1.3 Customer service

If necessary, please contact your nearest authorised technical dealer.

## 1.4 Guidelines, Laws, Standards

The content and instructions of the following guidelines and regulations have been observed in the design and construction of this machine:

|             |  |
|-------------|--|
| RL 98/37 EG | Machinery Directive  |
| EN 12100-1  | Machine safety, basic terms, general design guidelines.<br>Part 1: Basic terminology, methods              |
| EN 12100-2  | Machine safety, basic terms, general design guidelines.<br>Part 2: Technical guidelines and specifications |

### 1.4.1 Manufacturer's declaration

in accordance with Appendix II B of the EC Machinery Directive (98/37/EC)

|   |   |
|---|---|
| Name of supplier:   | <b>WestfaliaSurge GmbH<br/>Siemensstraße 25-27<br/>D-59199 Bönen (Germany)</b>  |
| Product category:   | <b>Clawpiece</b>  |
| Name / Model:   | <b>for TopFlow, OviTwin and CapriTwin</b>   |
| The named product is in conformity with the requirements of the following European directives:<br><b>Machinery Directive 98/37/EC</b>   |   |
| Conformity with the requirements of these directives is testified by complete adherence to the following standards:<br><br>Harmonized European standards: <b>EN 12100-1, EN 12100-2</b><br>National Standards:                              |   |
| <b>Attention!</b><br><b>We would point out that start-up is not permitted until it has been established that the machine/installation in which this product is installed, meets the requirements of the guideline on which it is based.</b> |   |
| Bönen, 04.08.2006   | <div style="text-align: right;"> <br/>             Andreas Hölderlin<br/>             (Head of Research and Development)           </div> |
| The undersigned acts on behalf and by authorization of the Executive Board of WestfaliaSurge GmbH, Siemensstraße 25-27, D-59199 Bönen (Germany).  |   |
| This declaration certifies compliance with the guidelines indicated, but does not establish any guarantee in the sense of paragraphs 443, 444 BGB.  |   |

## 2 Safety

### 2.1 Owner's obligation of care

The product has been designed and constructed while taking account of a potential risk analysis and after careful selection of the harmonized standards and other technical specifications to be complied with. It therefore guarantees a maximum level of safety.

This safety can only be achieved in practice on the farm however when all of the necessary measures have been taken. It is part of the owner's obligation of care to plan these measures and check that they are carried out.

#### In particular, the owner must ensure that

- Everyone who works with or performs activities in connection with the product must carefully read the instructions (especially the safety instructions and warnings) and sign to confirm that they have understood them and will act in accordance with them!
- A full set of legible instructions is always kept by the product.
- Anyone who has to carry out work on the product can look at the instructions at any time.
- The instructions in the section entitled "Basic safety instructions" are observed.
- The legal requirements are observed.
- The owner has to produce operating instructions for the farm which are especially adapted to the conditions of his business, once again expressly taking account of the safety aspects.
- The product
  - Should only be used for its intended purpose.
  - Should only be used if it is in perfect operating condition and, in particular, the safety equipment should be regularly checked to make sure it is in perfect operating condition.
- The work to be carried out is performed by a sufficiently qualified person!



#### **Note!**

In this respect, please also read the section on "Personnel Qualification".

- These personnel will be regularly instructed in all relevant matters of safety at work and protection of the environment and be familiar with the manual, particularly the safety instructions it contains.
- Operating personnel who require training may only work on the product under the supervision of an experienced person. The successful completion of training is to be confirmed in writing.
- Unauthorised persons (e.g. children) are not allowed in hazardous areas and do not have access to cleaning agents or disinfectants.

## 2.2 Explanation of the safety symbols used

Safety symbols draw attention to the importance of the adjacent text.

### Safety symbols and signaling word

**Attention!**

The word "Attention" together with a symbol signals a danger for product, material or the environment.

## 2.3 Basic safety instructions

**Attention!**

If the work requires special qualifications, these are described in the corresponding chapters!

- There are risks involved in the operation and maintenance of equipment for dairy farms. For your own safety, read and follow the operating manual carefully (especially the section entitled "Safety information")!
- Do not remove any protective devices (risk of injury)!
- When working with cleaning and disinfecting agents observe the notes on dangers and protective measures (risk of caustic burns)!

## 2.4 Personnel qualification

All personnel who perform work on or with the product must carefully read and understand the instructions and act in accordance with them!

**Attention!**

Particular qualifications are described in the corresponding chapters!

### 3 Description

There are different cluster CIP types:

- Sheep  
(7036-6227-050)
- Goats  
(7036-6227-100)

| Cluster    | Clawpiece<br>(7036-6227- . . .) |      |
|------------|---------------------------------|------|
|            | -050                            | -100 |
| TopFlow S  | ●                               |      |
| TopFlow Z  |                                 | ●    |
| TopFlow ZS |                                 | ●    |
| OviTwin    | ●                               |      |
| CapriTwin  |                                 | ●    |

#### 3.1 Correct applications

WestfaliaSurge products and equipment are designed exclusively for agricultural (mostly dairy) farms.

The cluster CIP unit is intended only for:

- holding and rinsing TopFlow, OviTwin or CapriTwin clusters, depending on the type

Any applications that are not listed here are not part of the intended purpose and are therefore considered as improper use!

The manufacturer/supplier is not liable for any resulting damage. The user alone bears the risk.

Correct use also includes reading the instructions and observing the inspection and maintenance conditions.

- Original WestfaliaSurge parts and accessories are specially designed for WestfaliaSurge components.
- We would specifically like to point out that parts or accessories not supplied by ourselves and setting instructions not provided by WestfaliaSurge are not checked or released by us either.
- The installation or use of such products can have a negative effect on the specified characteristics of WestfaliaSurge products and can put people and animals at risk.
- The manufacturer cannot be held liable for injury to people and animals or damage to WestfaliaSurge products caused as a result of using non-original parts or accessories or by incorrect settings.

#### 3.2 Changes to the product

For safety reasons, do not carry out any unauthorized changes!

WestfaliaSurge must approve any planned changes in writing.

Parts and special equipment which have been obtained elsewhere must be expressly authorized by WestfaliaSurge, in writing, for use in WestfaliaSurge components and installations.



## 4 Transport

### 4.1 Safety instructions for transport

To prevent damage to property and/or life-threatening injury to personnel always observe the following:

- Projecting sharp edges may cause cuts.
- Parts which are stacked too high can collapse.
- There is a fire hazard due to the highly inflammable packing material - naked flames and smoking prohibited!



Also read the chapter on "Safety".

### 4.2 Includes

Check the goods supplied against the packing list enclosed for completeness and damage.

### 4.3 Storage conditions



#### Attention!

Danger of corrosion!

Do not store stainless steel together with steel!

When storing the goods supplied, the location must provide protection against:

- Moisture
- Frost
- External damage (jolts, knocks, rodents, insects, . . . )

### 4.4 Information on disposing of packing material

After unpacking, the packing material is to be handled properly and disposed of carefully in accordance with the valid local regulations on waste disposal and utilisation.

## 5 Installation

If necessary, please contact your nearest authorised technical dealer.

### 5.1 Special personnel qualification required for installation

Installation may only be carried out by specially qualified personnel in accordance with the safety instructions.



Also see the section on "Personnel qualification".

### 5.2 Safety instructions for installation

To prevent damage to property and/or life-threatening injury to personnel always observe the following:

- Before installation, look for any damage caused during transport. Do not use damaged components!



Also read the chapter on "Safety".

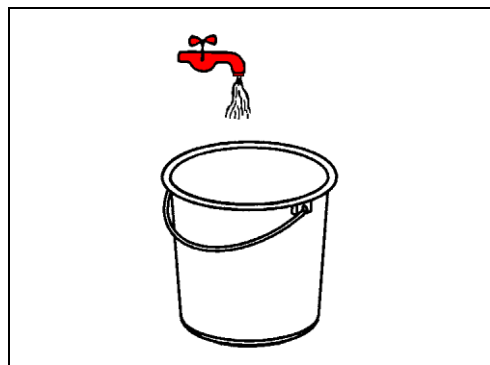
### 5.3 Assembly preparations

#### Necessary documents

- Plans showing water inlets and outlets etc.

#### Equipment

- Fill the bucket with hot water.

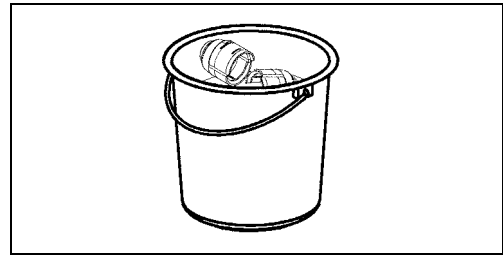


### 5.4 Environmental prerequisites for setting up

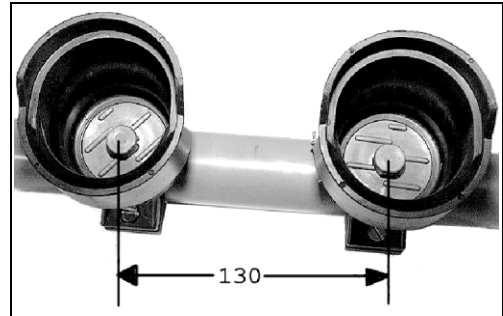
The product must be installed in a well ventilated frost-free room.

**5.5 Installing the cluster CIP unit****Note!**

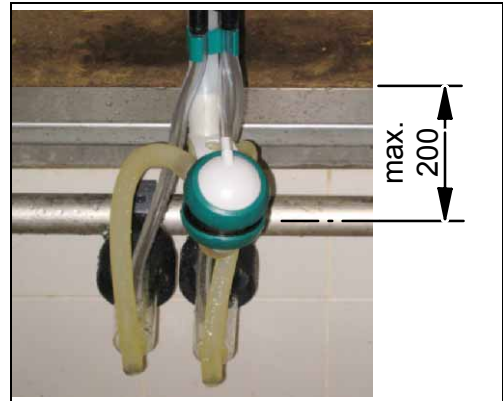
Installation is easier if the rubber caps are first laid in hot water.



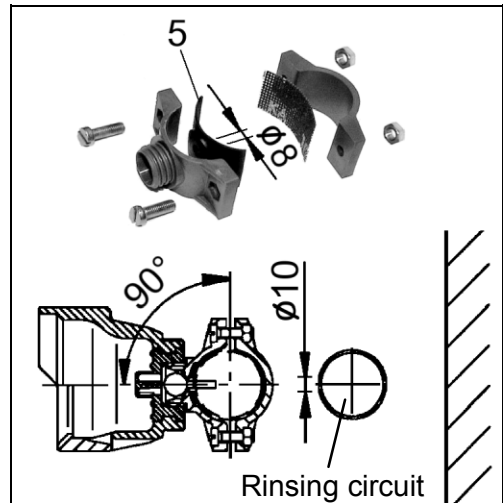
Milking cup shell CIP rinsing units are installed in a horizontal position 130 mm apart on the wash line. Make a (10 mm) hole in the wash line and then fit as shown in the figures.



For OviTwin and CapriTwin clusters the wash line may not be more than 200 mm below the surface on which the animals stand.



- Fit pipe connector nozzle, casing seal, support and pipe clip and adjust so that they are horizontal. Make sure that the (8 mm) hole in the casing seal (5) is not blocked.



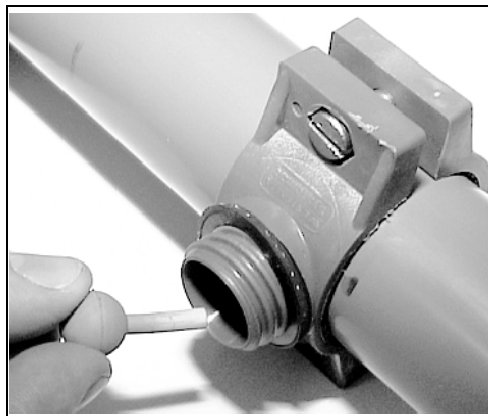


**Attention!**

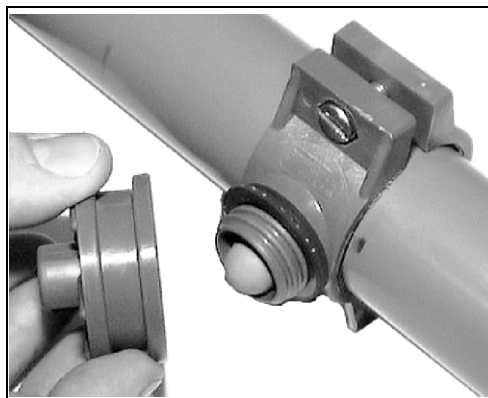
All screws and nuts made of stainless steel are to be greased thoroughly to prevent them from seizing during tightening!



- Push the gasket supplied over the thread of the pipe connector nozzle as far as the flange and insert the valve ball into the hole.



- Now screw the spray head onto the thread of the pipe connector nozzle (DN 40) and tighten by hand.



- Push the hose clip onto the rubber cap.
- Now press and turn the rubber cap until its drainage hole is at the bottom. This is made easier by slightly compressing the cap.
- Then tighten the hose clip.



**5.6 Information on disposing of installation material after installation is finished.**

Handle unused installation material properly and dispose in accordance with current valid local regulations on waste disposal and utilization.

## 6 Operation

### 6.1 Special personnel qualification required for operation

Operation may only be performed by specially qualified personnel in accordance with the safety instructions.

The operator may only carry out work on the AutoRotor Global 90/70 Automation package if he has been trained, instructed and authorized to do so by the owner.



Also see the section on "Personnel qualification".

### 6.2 Safety instructions for operation

To prevent damage to property and/or life-threatening injury to personnel always observe the following:

- Only fit or use the product for its intended purpose.



Also read the chapter on "Safety".

#### **Special dangers involved in operation and normal operation:**

- Incorrect use may lead to serious damage to property and/or life-threatening injury to people.
- Danger from animals

#### **Before operating, make sure you are adequately familiar with the following:**

- the operating and control elements
- the equipment
- The method of operation
- The immediate environment

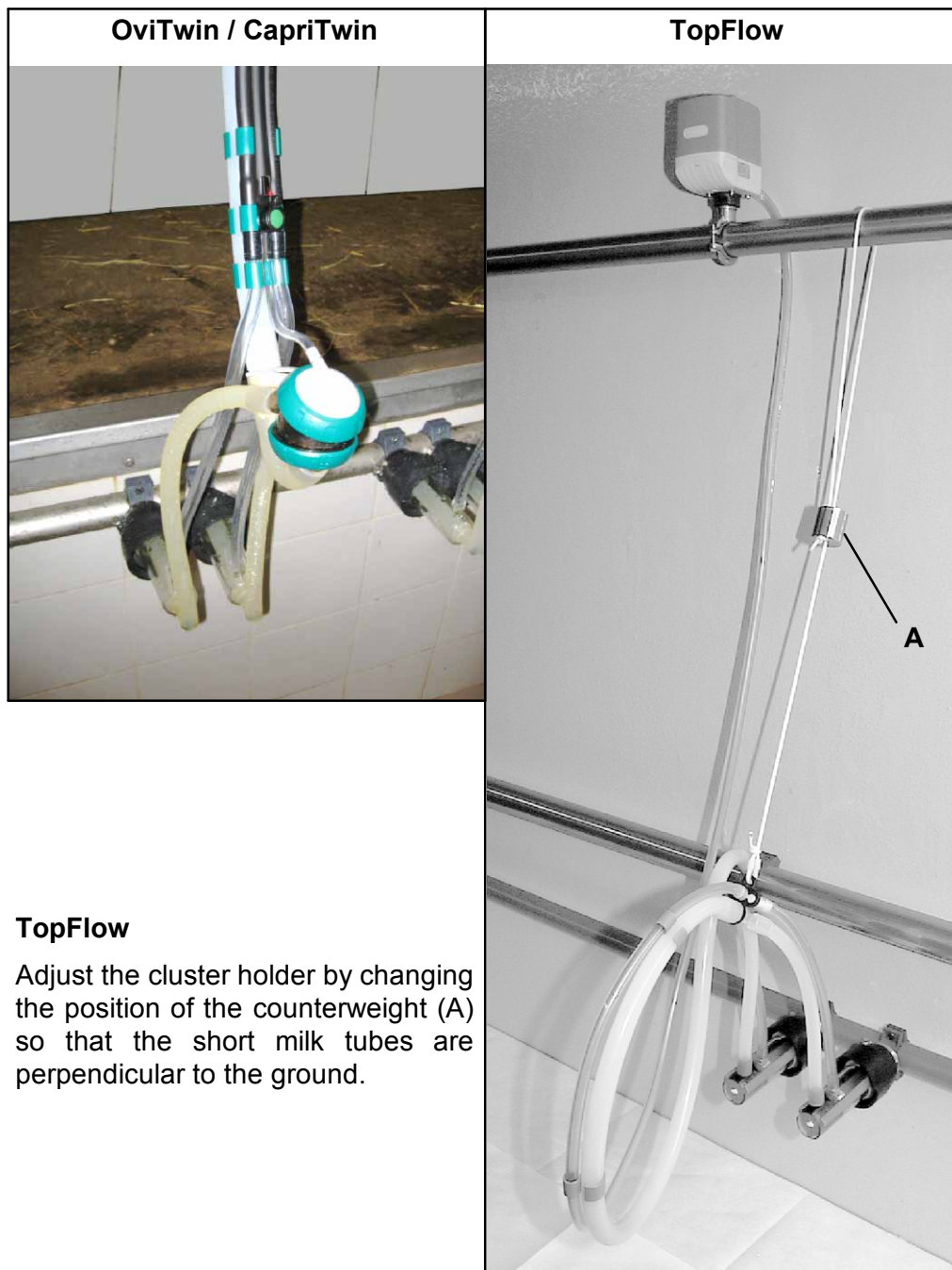
#### **Carry out the following checks before every start:**

- Check the product for visible damage; immediately remove any faults that are found (note personnel qualification required) or send to the specialist dealer - the product may only be used if it is perfect condition.

## 6.3 Operating

### 6.3.1 Clawpiece

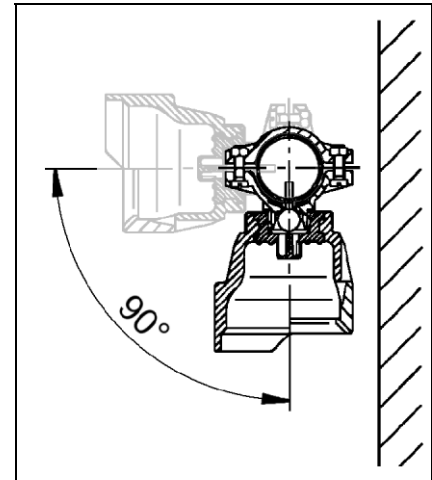
At the end of milking, the cluster to be rinsed (washed) is positioned in the centre above the cluster CIP unit and the milking cups inserted into the rinsing units.



**Note!**

With optional accessories, the wash line can be turned 90 degrees down out of the working area for milking (only stainless steel wash lines)  
Order rotary couplings separately:

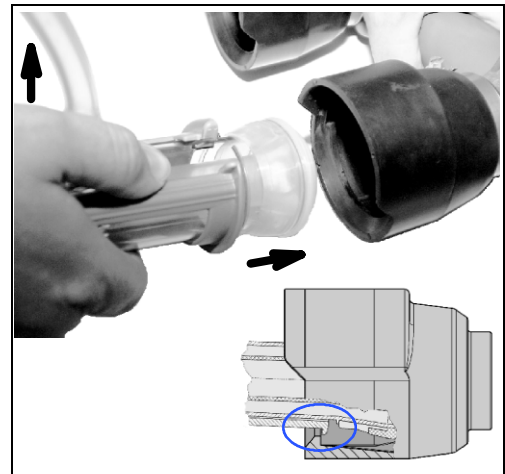
- 7015-4827-000 (ø 40 mm)
- 7015-4827-020 (ø 50 mm)



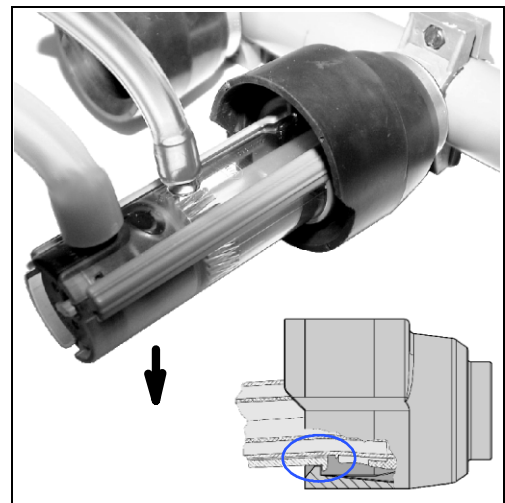
### 6.3.2 Milking cups

#### Inserting and removing the milking shells (TopFlow)

When inserting the milking shells into the rinsing receptacles, lift up the back of the shell slightly so that the protruding ring on the outer shell can grip the securing edge inside the cap.



Then press the milking shell down slightly.  
This will stop the milking shell valve from closing automatically during cleaning.



Remove the milking shell from the receptacle in the same way but in reverse order. Lift up the back of the milking shell slightly and then pull out.



### Inserting and removing the milking shell (OviTwin / CapriTwin)

When inserting the milking shell into the rinsing receptacle, make sure that it goes in as far as the stop.



The milking shells must be inserted horizontally into the rinsing receptacle.



To remove the milking shell from the CIP unit, lift up the back slightly and then pull out.



## 7 Maintenance

If necessary, please contact your nearest authorised technical dealer.

### 7.1 Special personnel qualification required for maintenance work

Maintenance work may only be performed by specially qualified personnel in accordance with the safety instructions.



Also see the section on "Personnel qualification".

### 7.2 Safety instructions for maintenance

To prevent damage to property and/or life-threatening injury to personnel always observe the following:

- Only use original spare parts / original wearing parts / original accessories. It cannot be guaranteed that parts from other manufacturers which have not been approved by WestfaliaSurge have been designed correctly from the point of view of requirements or safety.
- Immediately replace any components that are not in perfect condition.

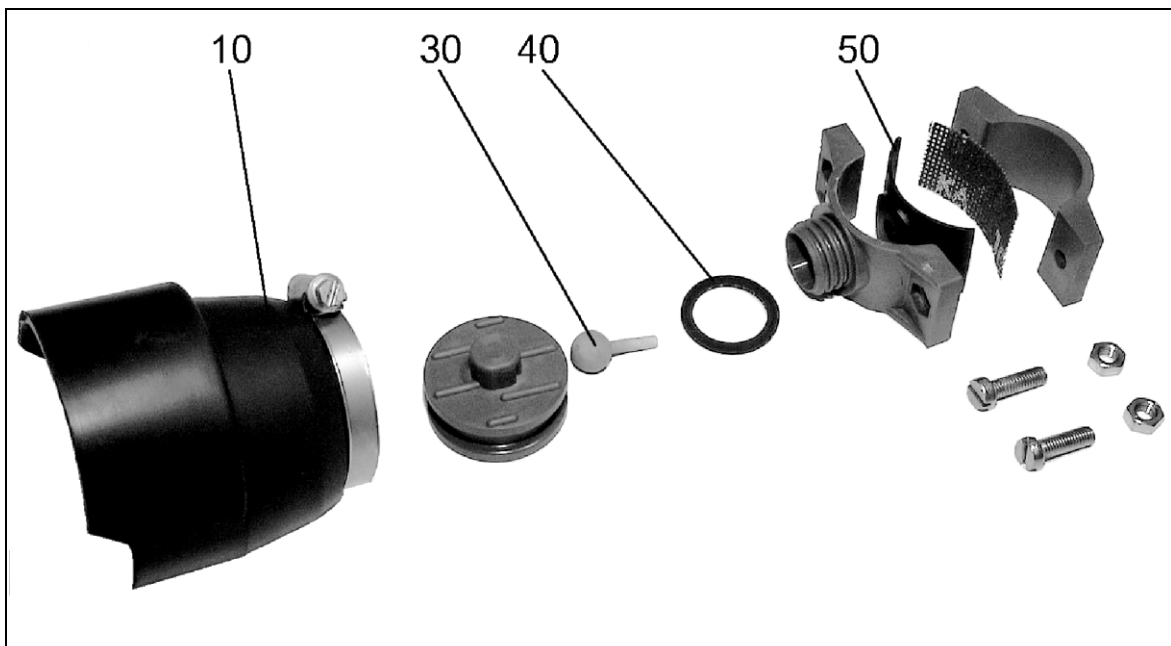


Also read the chapter on "Safety".

#### After completing the maintenance work, check the following:

- The installation values set before the work are not altered by the work (report).
- Any screwed connections that were loosened earlier have been tightened.
- Have all of the tools, materials and other equipment that were used been removed from the working area again?
- The working area has been cleaned.  
(possibly to remove any fluids or similar substances that came out of the machine)

### 7.3 Scheduled maintenance responsibilities



| Interval                | Pos. | Part No.      | Description | Action (by)                              |
|-------------------------|------|---------------|-------------|--|
| After every milking     | 10   | 7036-2347-030 | Cap (sheep) | Clean<br>(Operator)                      |
|                         |      | 7036-2347-050 | Cap (goats) |  |
| 1500 operating hours    | 30   | 7009-5302-000 | Valve ball  | replace / exchange<br>(customer service) |
|                         | 40   | 0007-3513-750 | Gasket      |  |
|                         | 50   | 0007-4794-060 | Casing seal |  |
| 3000 hours of operation | 10   | 7036-2347-030 | Cap (sheep) | replace / exchange<br>(customer service) |
|                         |      | 7036-2347-050 | Cap (goats) |  |

#### Cap

- Regularly check the drain hole in the cluster CIP units to ensure it is not blocked; clean if necessary to ensure that any residual water can run out easily.
- Regularly check the spray head and seat of the valve ball for any foreign bodies; clean if necessary to ensure there are no rinsing problems.

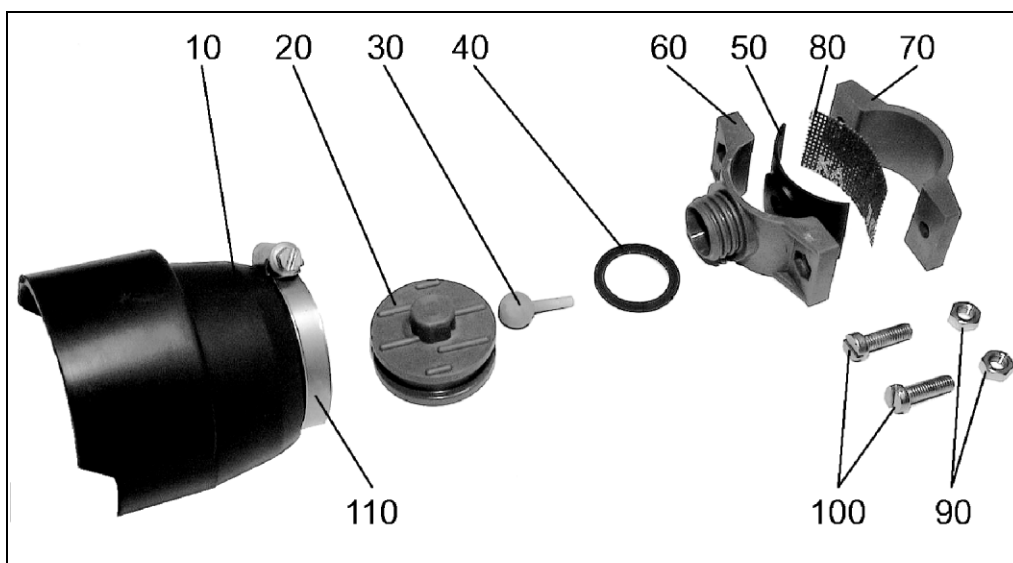


#### Note!

Coarse pieces of dirt in the rinsing water (e.g. straw) can adversely affect the operation of the cluster CIP unit. It is therefore important to fit the automatic rinsing unit with a strainer.

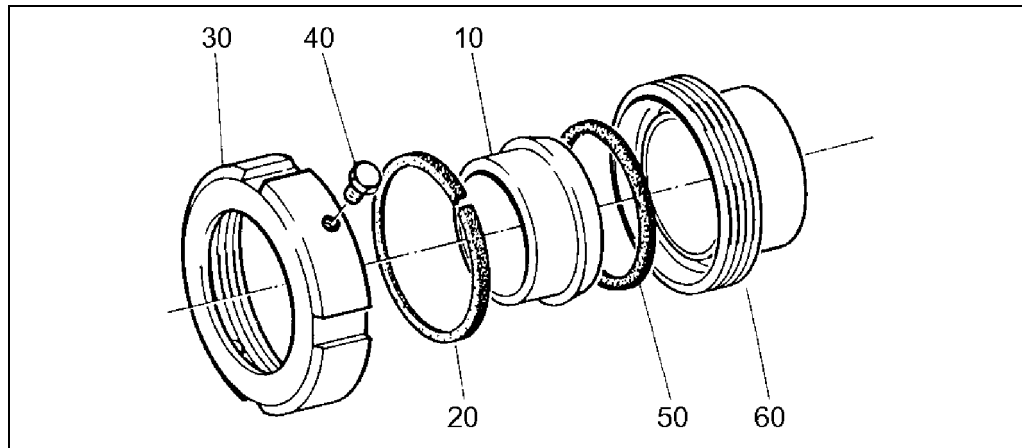
**8 Disposal**

After final decommissioning, handle all components properly and dispose of them in accordance with valid local regulations on waste disposal and utilization.

**9 Spare parts****9.1 Clawpiece**

| Pos.  | Part No.             | Description                    |                   |
|---|----------------------|--------------------------------|-------------------|
|   | <b>7036-6227-050</b> | <b>Cluster holder complete</b> | <b>for sheep</b>  |
|   | <b>7036-6227-100</b> | <b>Cluster holder complete</b> | <b>for goats</b>  |
| 0010  | 7036-2347-030        | x Cap                          | for sheep         |
|   | 7036-2347-050        | x Cap                          | for goats         |
| 0020  | 7036-1797-000        | Spray head                     |                   |
| 0030  | 7009-5302-000        | x Valve ball                   |                   |
| 0040  | 0007-3513-750        | x Gasket                       | 23x29,5x2         |
| 0050  | 7009-4794-060        | x Casing seal                  | ø8                |
| 0060  | 7009-4626-020        | Pipe connector                 | DN 40 with thread |
| 0070  | 7009-4098-040        | Pipe clip                      | DN 40             |
| 0080  | 7009-4018-000        | Shim                           | 30x50x1,2         |
| 0090  | 0013-0276-300        | Hexagon head nut               | M6                |
| 0100  | 0019-2251-300        | Cylindrical head screw         | M6x20             |
| 0110  | 0018-6823-300        | Hose clip                      | 32-50             |
| <b>x - Wear parts, interval of maintenance in chapter Maintenance”.</b> |                      |                                |                   |

## 9.2 Rotary coupling (option)



| Pos.  | Part No.      | Description        |       |
|---|---------------|--------------------|-------|
|   | 7015-4827-000 | Rotary coupling    | ø40   |
|   | 7015-4827-020 | Rotary coupling    | ø50   |
| 0010  | 0018-3949-300 | Taper              | ø40   |
|   | 0018-3955-300 | Taper              | ø50   |
| 0020  | 7015-4829-000 | Clamping ring      | ø40   |
|   | 7015-4829-010 | Clamping ring      | ø50   |
| 0030  | 7015-2401-000 | Grooved cap nut    | ø40   |
|   | 7015-2401-010 | Grooved cap nut    | ø50   |
| 0040  | 0019-6840-300 | Hexagon head bolt  | M6x12 |
| 0050  | 0007-2210-700 | x Gasket           | ø40   |
|   | 0007-2211-700 | x Gasket           | ø50   |
| 0060  | 0018-4114-300 | Threaded connector | ø40   |
|   | 0018-4119-300 | Threaded connector | ø50   |
| x - Wear part. Replace after 1500 hours operation during regular service. |               |                    |       |

## 10 Appendix

### 10.1 Abbreviations

| Term  | Explanation      |
|-------|------------------|
| Ø     | Phase            |
| Units |                  |
| °     | Degrees (angles) |
| mm    | Millimeters      |

#### WestfaliaSurge GmbH

Siemensstraße 25-27  
D-59199 Bönen (Germany)  
Tel.: +49 (0) 2383 / 93-70

Fax: +49 (0) 2383 / 93-80  
contact@westfalia.com  
www.westfaliasurge.com