OPERATING INSTRUCTIONS AND SAFETY NOTES

Suction and pressure syringe 2014.1

single acting
double acting









88 914 932 A401 GB

PRESSOL

Pressol Schmiergeräte GmbH

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Operating instructions translation

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We reserve the right to make design and product modifications, which serve to improve the product.

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1. Introduction

1.1. Preface



IMPORTANT

- Read and observe the operating instructions carefully before use.

Our staff will be pleased to provide support if you have any questions about the product.

Yours sincerely, Pressol Schmiergeräte GmbH

1.2. Obligations of the personnel

Before they start to work, all persons who are entrusted to work with the suction and pressure syringe are obliged:

- to follow all applicable regulations on occupational safety and accident prevention.
- to read and to comply with all safety instructions and warning notes contained in these operating instructions.

Please observe the following instructions in the interest of all concerned:

- Refrain from any unsafe working methods!
- Adhere to all hazard and warning notes contained in this manual!
- In addition to this documentation, keep to all generally accepted safety rules, legal provisions as well as all other binding rules regarding occupational safety, accident prevention and environmental protection!
- Wear appropriate protective clothing in accordance with the work to be done!
- Perform only work for which you have been sufficiently trained and instructed!
- Only genuine spare parts as well as original tools and auxiliaries of the manufacturer are allowed to be used in order to ensure the functional safety and maintain the warranty coverage.

1.3. Symbols in this manual

1.3.1. Structure of the safety notes

The warning notes have the following structure:



SIGNAL WORD

Type and source of the hazard
– Consquences of non-compliance with the notes
– Measures to avoid that risk

Depending on the danger level, different signal words are used:

Signal word	Danger level	Consequences of non-compliance
DANGER	Imminent threat of danger	Death or serious bodily injury
WARNING	Possible threat of danger	Death or serious bodily injury
CAUTION	Possibly dangerous situation	Minor bodily injury



Note

Indicates further information or tips which facilitate work

1.3.2. Hazard symbols

Symbol	Meaning
	General hazard symbol. The warning note marked in this way contains supplementary information on the type of hazard.
	This symbol warns of a hazardous explosive atmosphere

1.3.3. General symbols

Symbol	Meaning
■	A small black square indicates the work you have to perform
–	The dash denotes lists

2. Safety instructions

Various dangers may occur if the suction and pressure syringe is improperly handled during installation, commissioning and daily operation.



WARNING

Risk of injury and damage to material property because of improper handling

- Hold the manual at the disposal of the operating staff at the usage site of the unit.
- Country-specific safety measures and accident prevention regulations must be observed.

2.1. Authorized personnel

Only qualified and authorized persons are allowed to operate and to work on the suction and pressure syringe.

Persons are qualified if they are, due to their training, experience, instruction and knowledge of the relevant standards, able to assess assigned tasks and to identify potentially hazardous situations.

All persons charged with installation, operation, maintenance and repair work, must have read and understood this operation manual.

2.2. Intended conditions of use

The suction and pressure syringe is an indispensable tool in workshop and industry and may only be used for sucking in and discharging appropriate media (refer to chapter 4 - Technical data and chapter 4.1 Resistances).

Thanks to its compact design and the ergonomic T-handle, the suction and pressure syringe is easy to use and facilitates work in areas with difficult access.

Applications:

- Especially suited for fluid changes, e.g. for oil changes on vehicles and machines.
- In case of overfilling, the excess media can easily flow back.
- Safe supply and removal of media without the risk of contaminating the environment due to the direct feed into the suction and discharge body.
- Only genuine replacement parts are to be used for any repairs, because otherwise the warranty will be invalidated.

2.3. Reasonably foreseeable misuse

Any departure from the usage stipulations (other fluid media, use of force) or user modifications (changes, use of non-original parts) can be dangerous and are considered as non-intended usage.

The user is liable for any damage resulting from non-intended use.

Do not use with acidic or alkaline fluids.

Not allowed to be used in the food industry.

3. Risks in handling fuels, oils and antifreeze

Improper use of fuels, oils and antifreeze agents may constitute a risk to humans and environment. Provide adequate ventilation and avoid splashing in the working area.

Do not allow to enter sewage or ground water. Comply with all country-specific statutory water pollution control stipulations.

Diesel fuels and heating oils are flammable liquids. This must be also taken into consideration regarding the storage.



DANGER

Use of fuels

- Vapours and mist may form explosive mixtures with air.
- Do not smoke, do not use open fire and do not weld when handling fuel.



DANGER

Use of fuels

- May be fatal if swallowed and enters airways.
- Fuels may cause lung damage if swallowed.

Use of heating oil and mineral oil

- Heating oil and mineral oil may cause lung damage if swallowed.



CAUTION

- Avoid skin and eye contact!
- In case of contact with eyes, rinse immediately with plenty of clean water and seek medical advice!
- When using the suction and pressure syringe, wear suitable protective equipment such as safety gloves and eye guards!
- Keep at hand and observe the material data safety sheet.

4. Technical data

Designation	Suction and pressure syringe 2014.1 single acting-aluminium 12 962 / 12 963 / 12 964	Suction and pressure syringe 2014.1 single acting-PVC 12 972 / 12 973 /12974
Capacity (ml)	500 / 750 / 1000	
Suction volume (%)	100	
Diameter tubing outside (mm)	60	
Tube thickness (mm)	1,5	3
Stroke length (mm)	300 / 400 / 500	
Diameter flexible hose outside (mm)	18	
Length flexible hose (mm)	600	
Media	Mineral, synthetic and organic oils Standard fuels, petrol*, diesel, ethanol*, fuel oil, parrafin Antifreeze agents for windshields and engines 10 % urea solution Water and seawater	
Dimensions LxWxH (mm)	95 x 65 x 335	
	95 x 65 x 435	
	95 x 65 x 540	
Weight (kg)	0,73 / 0,85 / 0,96	0,74 / 0,87 / 0,99
Materials of parts in contact with liquid		
Head and cover	PAGF 30 (PP glass-fibre reinforced)	
Tube	Aluminium	PVC
Piston	FKM (Viton®)	
Piston rod	Stainless steel	
Valves / connection	Aluminium	
Suction hose	PVC	

*only suction and pressure syringe aluminium

Tab. 4.1: Technical data

Designation	Suction and pressure syringe 2014.1 double acting-aluminium 12 980 / 12 981	Suction and pressure syringe 2014.1 double acting-PVC 12 985 / 12 986
Capacity (ml)	500 / 750	
Suction volume (%)	100	
Diameter tubing outside (mm)	60	
Tube thickness (mm)	1,5	3
Stroke length (mm)	300/400	
Suction hose diameter outside (mm)	18	
Suction hose length (mm)	600	
Discharge hose diameter outside (mm)	20	
Length of discharge hose (mm)	600	
Media	Mineral, synthetic and organic oils Standard fuels, petrol*, diesel, ethanol*, fuel oil, parrafin Antifreeze agents for windshields and engines 10 % urea solution Water and seawater	
Dimensions LxWxH (mm)	95 x 65 x 335	
	95 x 65 x 435	
Weight (kg)	0,83 / 0,95	0,84 / 0,96

Materials of parts in contact with liquid

Head and cover	PAGF 30 (PP glass-fibre reinforced)	
Tube	Aluminium	PVC
Piston	FKM (Viton®)	
Piston rod	Stainless steel	
Valves / connection	Aluminium	
Valve ball	PTFE	
Suction hose	PVC	
Discharge hose	PVC	

*only suction and pressure syringe aluminium

Tab. 4.2: Technical data

4.1. Resistances

Media	Suction and pressure syringe **aluminium**	Suction and pressure syringe **PVC**
Alcohol	--	--
Diesel fuel	+	+
Heating oil	+	+
Petrol 80, benzene 20	+	--
Ethanol 85	+	--
Benzene	+	--
Parrafin	+	+
Kerosene	+	+
Oil vegetable/animal	+	+
Oil mineral/synthetic	+	+
Engine oil Total HDX SYN 10W40 max. 60° C	+	+
Gear oil Avialub MZ140 max. 60° C	+	+
Hydraulic oil max. 60° C	+	+
Waste oil (from diesel engine) max. 60 °C	+	+
Silicone oil	+	+
Glycerine	+	+
Glycol	+	+
Frost protection motor	+	+
Urea acqueous 10 %	+	+
Water max. 60° C	+	+
Seawater	+	+
Brake fluid DBV BF DOT 4 fully synthetic	--	--
Universal thinner	--	--
Nitro thinner	--	--
+ resistant		
-- not resistant		

Tab. 4.1-1: Resistances

5. Assembly

The suction and pressure syringe is delivered fully assembled.

Depending on the model, accessories can or must be fitted.

6. Commissioning

- Prior to commissioning, check the suction and pressure syringe for proper assembly and ensure that there is no apparent damage.

The suction and pressure syringe is now ready for use.

7. Care/maintenance

The suction and pressure syringe is completely demountable and thus easy to clean.

After use, empty the device. Never leave the fluid in the device.

Unscrew the suction and pressure syringe and empty the device.

8. Disposal

The operating company is responsible for the proper disposal of the suction and pressure syringe.

Dispose of the different materials in accordance with all industry-specific, local, regional and federal regulations.

Only qualified personnel is authorized to disassemble and dispose of the suction and pressure syringe.

9. Repair/service

The suction and pressure syringe was developed and produced according to the highest quality standards.

Should a problem develop, despite all quality controls, please contact our customer service:

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10. Exploded view suction and pressure syringe 2014.1 single acting

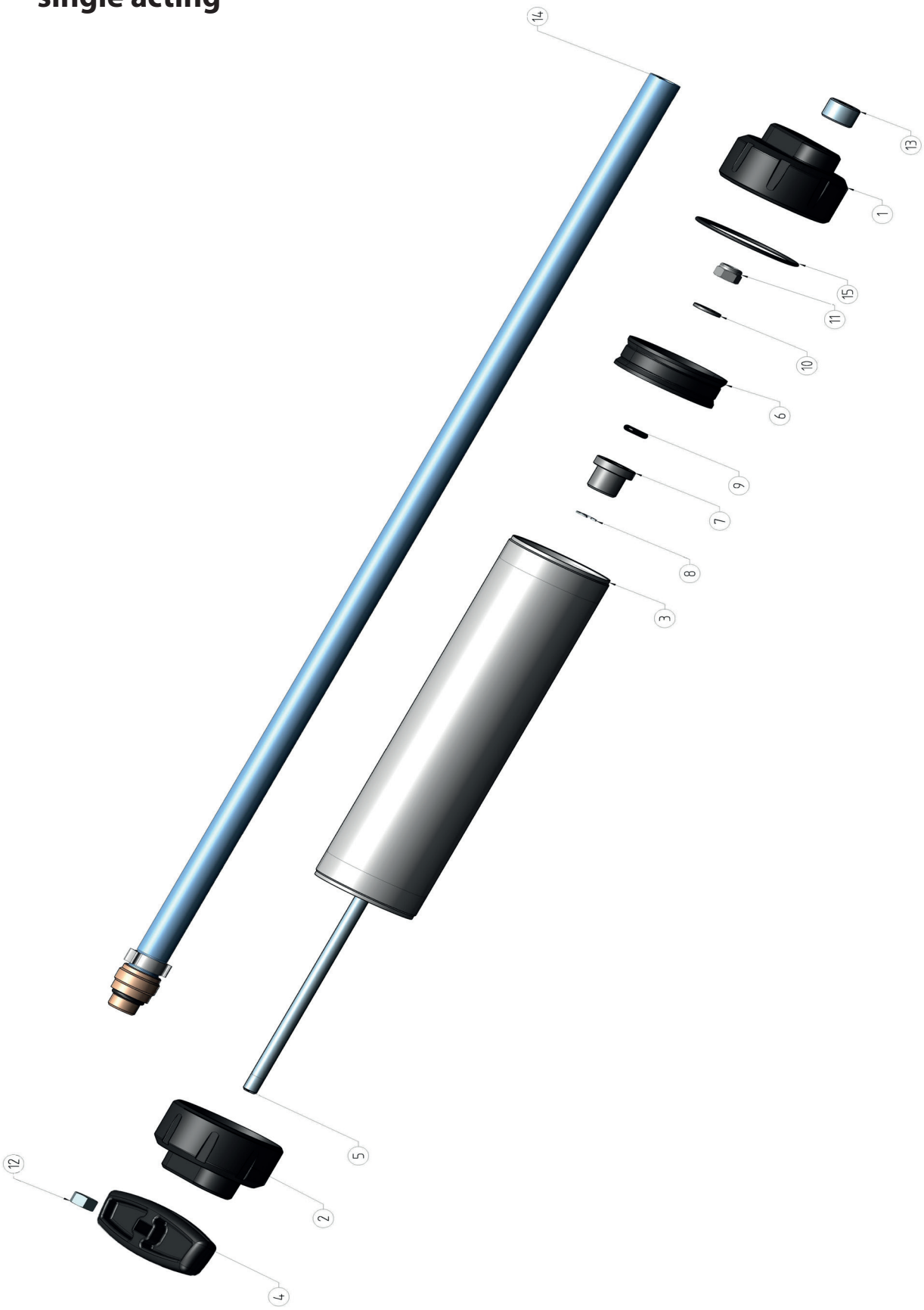


Fig. 10.-1: Exploded view suction and pressure syringe 2014.1 single acting

Pos.	Quantity	Designation	Item number
1	1	Pump head	85 093
2	1	Cap	85 102
3	1	Tube, aluminium 500 ml	85 094
	1	Tube, aluminium 750 ml	85 095
	1	Tube, aluminium 1000 ml	85 738
	1	Tube, PVC 500 ml	86 183
	1	Tube, PVC 750 ml	85 101
	1	Tube, PVC 1000 ml	86 184
4	1	Handle	85 105
5	1	Piston rod 500 ml for aluminium	85 108
	1	Piston rod 750 ml for aluminium	85 109
	1	Piston rod 1000 ml for aluminium	85 739
	1	Piston rod 500 ml for PVC	86 185
	1	Piston rod 750 ml for PVC	86 186
	1	Piston rod 1000 ml for PVC	86 187
6	1	Complete piston 57x18x8 for aluminium	85 193
	1	Complete piston 54x18x8 for PVC	85 192
7	1	Piston adapter	85 106
8	1	Locking washer	85 190
9	1	O-ring-FKM 80-8x3	87 887
10	1	Washer 8,4 x 1,6	84 754
11	1	Nut, self-locking M8	82 489
12	1	Hexagon nut M8	85 130
13	1	Plug	85 188
14	1	Suction hose	12 996
15	1	O-ring-FPM 80-58x2	86 734

Tab.10.-1: Overview of components for fig. 10.-1

11. Exploded view suction and pressure syringe 2014.1 double acting

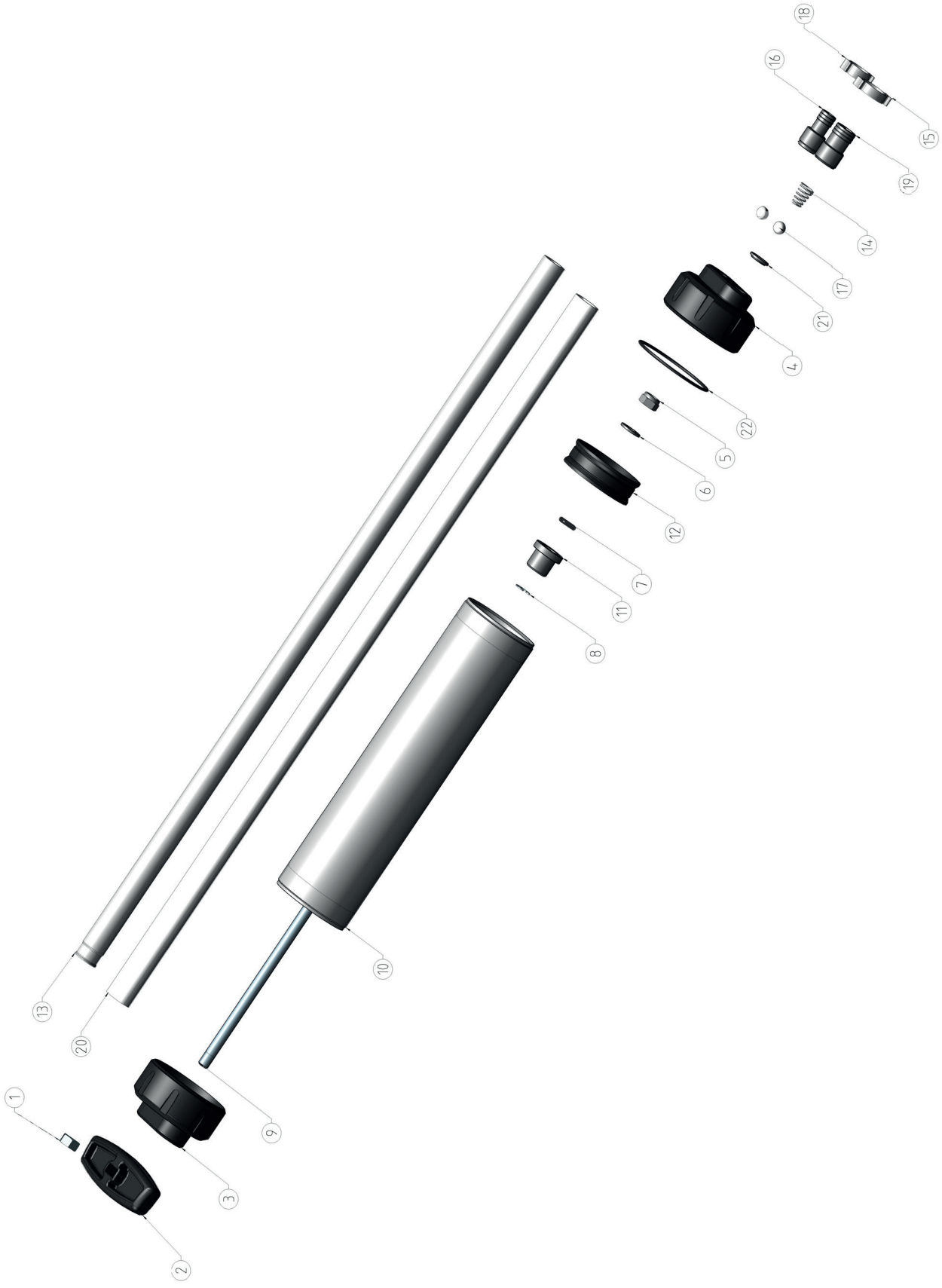


Fig. 11.-1: Exploded view suction and pressure syringe 2014.1 double acting

Pos.	Quantity	Designation	Item number
1	1	Hexagon nut M8	85 130
2	1	Handle	85 105
3	1	Cap	85 102
4	1	Pump head	85 093
5	1	Nut, self lockig M8	82 489
6	1	Washer 8,4 x 1,6	84 754
7	1	O-ring-FKM 80-8x3	87 887
8	1	Locking washer	85 190
9	1	Piston rod 500 ml for aluminium	85 108
	1	Piston rod 750 ml for aluminium	85 109
	1	Piston rod 500 ml for PVC	86 185
	1	Piston rod 750 ml for PVC	86 186
10	1	Tube aluminium 500 ml	85 094
	1	Tube aluminium 750 ml	85 095
	1	Tube PVC 500 ml	86 183
	1	Tube PVC 750 ml	85 101
11	1	Piston adapter	85 106
12	1	Complete piston 57x18x8 for aluminium	85 193
	1	Complete piston 54x18x8 for PVC	85 192
13	1	Suction hose	86 480
14	1	Compression spring conical	85 104
15	1	2 ear hose clamp	85 206
16	1	Suction valve	85 085
17	2	Ball	87 787
18	1	2 ear hose clamp	85 197
19	1	Discharge valve	85 103
20	1	Discharge hose	86 481
21	1	Valve disc	85 110
22	1	O-ring-FPM 80-58x2	86 734

Tab.11.-1: Overview of components for fig. 11.-1

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