

**Operating instructions**  
**RP Series**  
**Peristaltic pump**

**realax**

**ALL THE HOSE PUMP YOU'LL EVER NEED**



## **Congratulations!** **And welcome to the world of relax** **hose pumps.**

Drawing on extensive interaction with real users of peristaltic pumping technology and examining applications as diverse as food, water and wastewater, chemicals and pharmaceuticals, construction and mining, we have tried to tailor our range of pumps more precisely to your needs.

Our range of hoses and accessories reflect what hose pump customers really need and use – after all, best is what you want, second best should never be an option.

We hope you'll find using your relax pump simple, trouble-free and that it makes a positive contribution to the success of your process. If you have any questions you can't find answers to in these pages, check our website or call your local representative on the number on the contact page of this guide.

*Of course this manual is available in your language.  
Please download it from the attached USB flash drive.*

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## 1 INTRODUCTION

This instruction manual must accompany the pump at all times for as long as it is in use.

The RP series peristaltic pump is a machine for fluid handling intended to be used in industrial areas, as such the instruction manual is part of the legislative provisions for the safe and correct use of the pump.

This instruction manual does not substitute any installation standard or any additional future standard.

### 1.1 How to use this manual

This manual is intended as a reference book by means of which qualified users are able to install, commission and maintain the hose pumps mentioned on the front cover.

### 1.2 Original instructions

The original instructions for this manual have been written in English. Other language versions of this manual are a translation of the original instructions.

### 1.3 Other supplied documentation

Documentation of components such as motors and inverters is normally not included in this manual. However, if additional documentation is supplied, you must follow the instructions in this additional documentation.

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## 1.4 Service and support

For information with respect to specific adjustments, installation, maintenance or repair jobs which fall beyond the scope of this manual, contact your AxFlow representative. Make sure you have the serial number of the hose pump at hand.

## 1.5 Environment and disposal of waste

Enquire within your local government about the possibilities for reuse or environment friendly processing of packaging materials, (contaminated) lubricant.



### CAUTION

Always observe the local rules and regulations with respect to processing (non reusable) parts of the hose pump.

## 2 SAFETY

### 2.1 Explanation of the safety information

In this manual the following symbols are used:



This symbol identifies the instructions of this manual, which must be observed to avoid failure to meet safety standards.



This symbol identifies the instructions of this manual, which must be observed to avoid compromising electrical safety.



This symbol identifies the instructions of this manual, which must be observed to guarantee the correct operation of the pump.

### 2.2 Intended use

The hose pump is exclusively designed for pumping suitable products. Every other or further use is not in conformance with the intended use. In case of doubt it is the use which appears to be its intended use judging from the construction, execution and function of the product. Observing the instructions in the user's documentation also belongs to intended use. Only use the pump in conformance with the intended use described above. The manufacturer cannot be held responsible for damage or harm resulting from use that is not in conformance with the intended use. If you want to change the application of your hose pump, contact your AxFlow representative first.

### 2.3 Responsibility

The manufacturer does not accept any responsibility for damage or harm caused by not (strictly) observing the safety regulations and instructions in this manual and the also supplied documentation, or by negligence during installation, use, maintenance and repair of the hose pumps mentioned on

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the front cover. Depending on the specific working conditions or accessories used, additional safety instructions can be required.

## **2.4 User qualifications**

Pumps are machines that can present dangers due to moving parts and the presence of a pressurised fluid within the hose.

### **THE FOLLOWING CAN CAUSE SERIOUS DAMAGE AND INJURY**

- Improper use
- Removal of the protections and/or disconnection of protective devices
- Lack of inspections and maintenance

The person responsible for safety should therefore guarantee that the pump is transported, installed, put in service, used, maintained and repaired by qualified personnel who should possess:

- Specific training and sufficient experience for the tasks.
- Knowledge of the technical standards and applicable laws.
- Knowledge of the national and local safety and installation standards.

Any work carried out on the electrical part of the pump should be authorized by the person responsible for safety.

Given that the pump is intended to form part of a system, it is the responsibility of whoever supervises the installation of the entire system to guarantee absolute safety, adopting the necessary measures of additional protection.

## 2.5 General safety information



### Live parts

Possible consequence: fatal or very serious injuries.

- Risk mitigation: the device must be disconnected from the power supply before it is opened.
- Isolate damaged, faulty or manipulated devices from the mains in order to de-energise.



### Lack of emergency stop switch

Possible consequence: fatal or very serious injuries.

- An emergency stop switch must be connected for the entire system. This should enable the entire system to be shut down in the event of an emergency in such a way that the overall System can be brought into a safe condition.



### Unauthorized access

Possible consequence: fatal or very serious injuries.

- Risk mitigation: ensure that there can be no unauthorized access to the pump or to the system.



### Hazardous media/contamination of persons and equipment

Possible consequences: fatal/serious injuries. Material damage.

- Ensure that the pump hoses are chemically resistant against the media being handled.
- Always observe the safety data sheets for the media to be handled. The system operator must ensure that these safety data sheets are available and kept up-to-date.
- The safety data sheets for the fluid being handled are always decisive for initiating countermeasures and/or first aid in the event of leakage of the fluid.
- Observe the general restrictions in relation to viscosity limits, chemical resistance and density.
- Always switch the pump off before exchanging the pump hose.



**CAUTION****Incorrect and improper use**

Possible consequence: fatal or very serious injuries.

- The unit is not intended to convey or regulate gases or solid media
- Do not exceed the rated pressure, speed or temperature for the pump
- Maximum pressure on suction/inlet side is 3 bar (45 psi approx.).
- The unit may only be used in accordance with the technical data and specifications provided in these operating instructions and in the operating instructions for the individual components.
- This pump is NOT supplied for use in areas of risk from explosion. ATEX versions of relax pumps are available and they are supplied with a special ATEX version of the instruction manual.
- Only switch the pump on if it has been properly fastened to the floor.
- Only switch the pump on if the front cover has been attached.
- Do not carry out any maintenance operations or dismantle the pump without first making sure that the pipes are not under pressure and are empty or isolated.
- In the case of the hose becoming stuck during extraction or fitting it is necessary to reverse the direction of the pump, re-lubricate, and then repeat the operation.
- As the peristaltic pump is volumetric and its functioning is positive displacement, it is necessary to prevent a possible overload of pressure, due to for example the accidental closure of a valve. For this reason it is advisable to fit a safety device such as: a safety valve, pressure limiter, etc.

**CAUTION****Operational lifetime of the pump hoses**

Possible consequence: fatal or very serious injuries.

- The hose has an indeterminate life and due to the possibility of its breakage or deterioration, the user is responsible for the prevention of a possible

(although most unlikely) incorporation of particles from the hose into the product being pumped. This can be achieved by means of filtration, a hose rupture alarm or other means suitable for the respective process.



**CIP cleaning**

- In the event of CIP cleaning, it is necessary to obtain information from the manufacturer about correct installation of the pump (a special installation is required) as well as regarding the compatibility of the cleaning agents with the pump hoses and the hydraulic connections.
- Cleaning should be undertaken at the recommended maximum temperature.



**Direction of rotation/flow direction**

Possible consequence: material damage, destruction of the unit.

- The pump's direction of rotation in relation to the desired flow direction must be checked prior to every start.



**Disconnect the pump from the mains**

Possible consequence: personal injury.

- Work may only be carried out on the pump after it has previously been switched off and disconnected from the mains.



**Environmental influences**

Possible consequence: material damage up to destruction of the unit.

- The device is suitable for outdoor operation once it is covered and protected from rain and direct sunlight. Ambient conditions must also be respected (*see section 8.1*).
- Take suitable measures to protect the device from environmental influences such as: UV rays | moisture | frost | etc.

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### 3 FUNCTIONAL DESCRIPTION

The RP Series is a positive displacement pump. The feed liquid is conveyed by the rotor squeezing the hose in the direction of flow. No valves are needed for this. This ensures gentle handling of the metered media.

Maximum pressure on suction/inlet side is 3 bar (45 psi approx.)

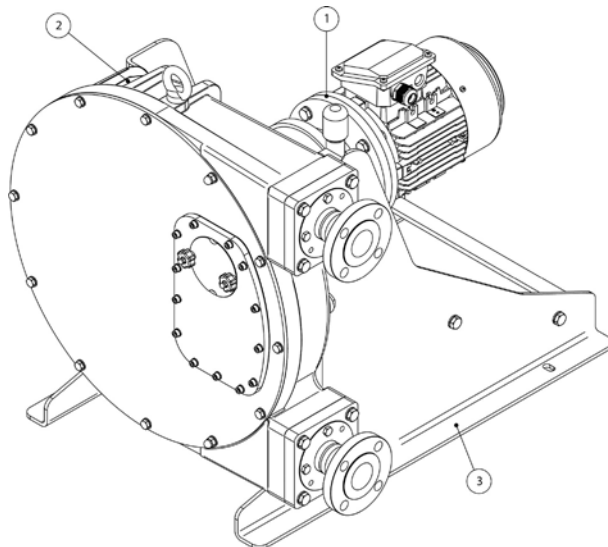
The RP Series has been designed for safe and uncomplicated operation, as well as straightforward maintenance.

The RP Series can be used for many different media. However, this pump type is often the optimal solution for abrasive, shear-sensitive and viscous media.

Typical areas of use include processes where only a low discharge pressure is required (max. 15 bar).

#### 3.1 Main modules

1. Drive unit | 2. Pump housing | 3. Base frame



## Key performance data and noise levels

DESCRIPTION	UNIT	RP 25	RP 32	RP 40	RP 60	RP 70	RP 80	RP 100
Max. Capacity Continuous Duty	m <sup>3</sup> /h	1.08	1.86	4.79	10.83	18.09	28.08	36.00
	GPM	4.76	8.19	21.09	47.68	79.65	123.63	158.50
Max. Capacity Intermittent Duty	m <sup>3</sup> /h	1.44	2.98	6.38	12.99	24.12	42.12	48.00
	GPM	6.34	13.12	28.09	57.19	106.20	185.45	211.34
Capacity per Revolution	l/rev	0.30	0.62	1.33	2.90	6.70	11.70	20.00
	Gal/rev	0.08	0.16	0.35	0.95	1.77	3.09	5.28
Max. Permissible Working Pressure	bar	15						
Permissible Ambient Temperature	°C	-20 to +45						
Permissible Product Temperature	°C	-10 to +80						
Sound Level at 1m	dB (A)	70						

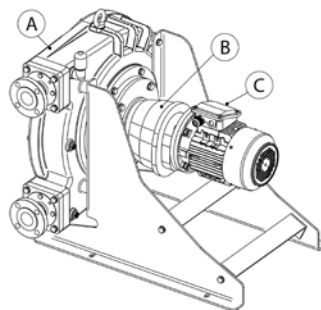
## 4 DESCRIPTION

### 4.1 Identification of the product

A: Pump head

B: Gearbox

C: Electric motor



### 4.2 Identification of the pump

MOD: Type number

N°: Serial number

YEAR: Year of manufacture



### 4.3 Identification of the gearbox (B)

The gearbox has an identity plate with the model, serial number and manufacturer's details as well as information relevant to its' function such as reduction ratio.

### 4.4 Identification of the electric motor (C)

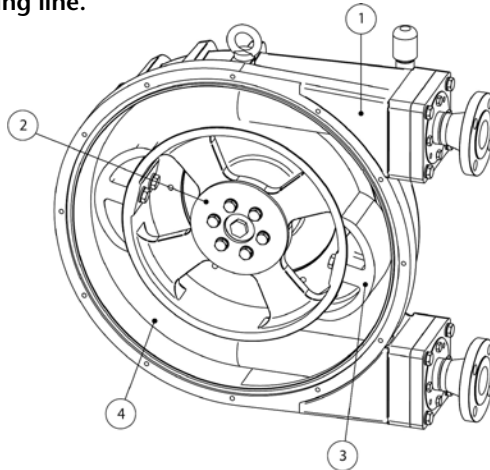
The motor has an identity plate with the model, serial number and manufacturer's details as well as information relevant to its' function such as electric power.

## 5 CONSTRUCTION

The pump housing is closed off with a bolted front cover in order to avoid the risk of injury.

The motor serves to drive the rotor. Two shoes attached to the rotor serve to press the pump hose against the pump housing.

The rotary movement of the rotor alternately presses and releases the shoes against the pump hose. This serves to suck the media and convey it into the metering line.



*Fig. 1: Diagram of functional principle*  
1. Pump housing | 2. Rotor | 3. Shoes | 4. Hose

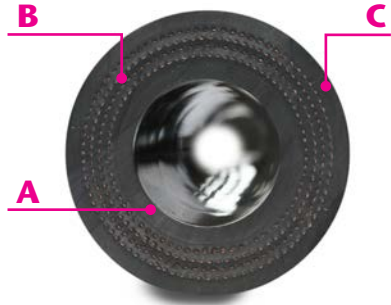
## 6 PUMP HOSE

### 6.1 General description

A: Inner layer

B: Nylon reinforcement layers

C: Outer layer



The pump hose liner material should be chemically resistant with the product to be pumped. Depending on the specific requirements of your application a corresponding pump hose must be selected. For each pump model various hose types are available.

The material of inner layer is the part in contact with the media.

HOSE TYPE	MATERIAL INNER LAYER	COLOUR STRAP
NR	Natural rubber	No one (black)
NBR	Nitrile rubber	Red
EPDM	EPDM	Blue
CSM	Hypalon	Green
NBR-A	Nitrile rubber (food grade)	White

## 7 TRANSPORT AND STORAGE

### 7.1 Transport

- The pump is protected by cardboard packaging or a wooden crate.
- The packaging materials are recyclable.

### 7.2 Storage for less than 1 month

- The pump should be in a resting position, rotor in horizontal position.
- Avoid areas open to harsh weather or excessive humidity and temperatures lower than 0 °C or higher than 30 °C.
- Spare hoses should be stored in a dry place away from direct light.

### 7.3 Storage for more than 1 month

- Avoid areas open to harsh weather or excessive humidity and temperatures lower than 0 °C or higher than 30 °C.
- **IMPORTANT!** Disassemble one of the shoes (see also section 9.4.1 for instructions):
  - Remove the front cover
  - Remove the shoe that is not touching the pump hose
  - Mount back the front cover
  - Turn the rotor with the help of the motor so that the remaining shoe is not pressing against the pump hose
  - For storage periods of longer than 30 days, protect the coupling surfaces (clamps, reducers, motors) with adequate anti-rust protection
- For storage periods longer than 6 months rotate the rotor a few turns to prevent damage to bearings and oil seals and to prevent grease migration.
- Spare hoses should be stored in a dry place away from direct light.

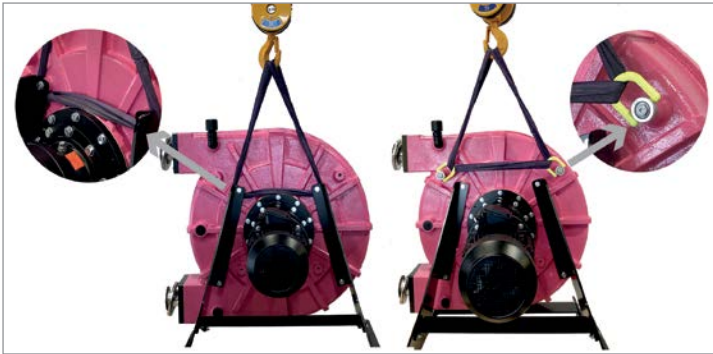
### 7.4 Elevation

Models RP 25, RP 32, RP 40: Use the eye bolt to elevate the pump.



WEIGHTS	RP 25	RP 32	RP 40
Total pump weight	96 kg 211 lbs	145 kg 319 lbs	196 kg 432 lbs
Max rating of the lifting point	170 kg 374 lbs	170 kg 374 lbs	240 kg 529 lbs
Safety factor	6		

**Models RP 60, RP 70, RP 80 and RP 100:**  
*Use lifting equipment to elevate the pump.*



WEIGHTS	RP 60	RP 70	RP 80	RP 100
Total pump weight	346 kg 762 lbs	642 kg 1,415 lbs	1,150 kg 2,535 lbs	1,375 kg 3,031 lbs
Max rating of the lifting point	400 kg 881 lbs	750 kg 1,653 lbs	1,280 kg 2,821 lbs	1,525 kg 3,362 lbs
Safety Factor	> 6		6	5

## 8 ASSEMBLY, COMISSIONING AND INSTALLATION

### 8.1 Ambient conditions

Assembly is to be carried out in the following order.  
 If the pump has to be installed outdoors, then it is to be equipped with protection against sunlight and weather influences.  
 When positioning the pump, ensure that sufficient room for access is provided for all types of maintenance work.

#### Limit values for hose temperature and pressure

Material Hose	Min. Temp. (°C) Feed liquid	Max. Temp (°C) Feed liquid	Min. Temp (°C) Environment	Max. Pressure (bar)
NR, NBR, EPDM, CSM, NBR-A	-10	80*	-20	15

\* At max. temperature., the life of hose is drastically reduced. Please contact authorized distributor for applications in temperature range higher than 60 °C.



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## 8.2 Commissioning

### 8.2.1 Testing prior to commissioning the pump

The following tests are to be carried out:

- Check that the shoes are correctly fitted and fastened.
- Check that the drive and the Pump Housing are properly lubricated. The specially formulated lubricant can be obtained from the authorized distributor.
- Only switch the pump on if the front cover has been properly attached.
- Check that the mains voltage is suitable for the motor.
- Check that the thermal overload protection (not included in the delivery scope) corresponds to the value specified on the motor type plate.
- Confirm that pump has been properly earthed
- Connect the electric motor according to local applicable rules and regulations. The electrical installation work must be carried out by qualified personnel.
- Check that the optional electrical components are connected and are working properly.
- Check whether the direction of rotation is correctly adjusted.

### 8.3 Correct installation of the pump

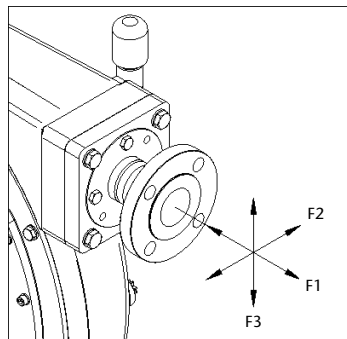
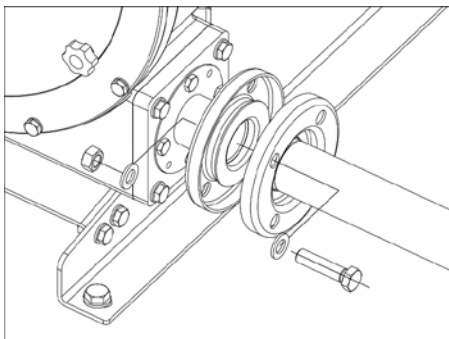
- Ensure that the pump has not been damaged during transportation or storage. Immediately report any damage to the supplier.
- Ensure that all the packaging has been removed.
- Check that the information printed on the identification plate corresponds with the order.
- Check the operating instructions in order to ensure that the flow values, pressures & power consumption of the motor do not exceed rated values.
- Ensure that the hose is suitable for the fluid to be conveyed and that it is not damaged.
- Make sure that the temperature of the liquid does not exceed the recommended temperature range.
- Ensure that there is enough space for free airflow around the motor.
- Ensure that no nearby objects or direct sunshine radiate additional heat to the motor.

### 8.3.1 Suction side

- Install a manometer in the pressure line if the back-pressure value is unknown. Maximum pressure on suction/inlet side is 3 bar (45 psi approx.).
- The pump is to be positioned as near as possible to the liquid container, so that the suction side is kept as short and straight as possible.
- The suction line must be absolutely airtight and made of a suitable material, so that it does not collapse under vacuum.
- The diameter must correspond to the rated diameter of the pump hose. A larger diameter is recommended in the event of viscous liquids.
- The pump is self-priming and does not require an admission valve.
- The pump is reversible and the suction side can be connected to either hydraulic connection of the pump. Normally the option is selected which is best suited to the physical conditions of the rest of the installation.
- It is recommended to use flexible piping between the fixed pipes and the hydraulic connections of the pump, in order to avoid the transmission of vibrations.
- Maximum pressure on suction/inlet side is 3 bar (45 psi approx.).

### 8.3.2 Maximum permissible loads on the pump flange

Pump must be bolted to floor before applying loads to connections/flanges.



## Maximum permissible loads on the pump flange

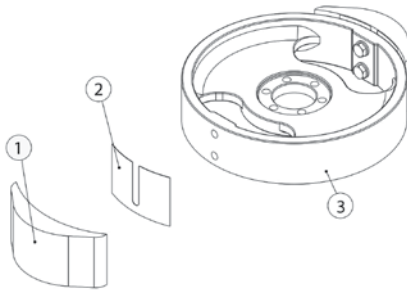
FORCE	UNIT	RP 25	RP 32	RP 40	RP 60	RP 70	RP 80	RP 100
F1	N	600		900	1,200	1,300	1,500	1,700
	lb-f	135		202	270	292	337	382
F2	N	300		450	600	650	750	850
	lb-f	67		101	135	146	167	191
F3	N	120		450	600	650	750	850
	lb-f	27		101	135	146	167	191

### 8.3.3 Discharge side

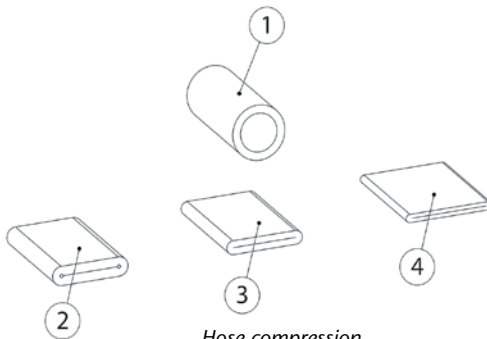
- The discharge line is to be kept as straight and short as possible, in order to avoid performance reduction.
- The diameter must correspond to the rated diameter of the pump hose. Larger diameter is recommended in the event of viscous liquids.
- It is recommended to use flexible piping between the fixed pipes and the hydraulic connections of the pump, in order to avoid the transmission of vibrations.
- Install a pressure relief valve or a pressure switch (or similar device) in the pressure line in order to protect the pump in the event that a valve is unintentionally closed off or the line is blocked in another way.

## 8.4 Adjusting the shoe pressure

- The peristaltic pump is equipped with shims, in order to adjust the precise distance from the axis of rotation to the shoe for correct hose compression (also dependent on speed and operating pressure).
- In order to achieve optimal life of the pump hose, the compression force of the pump hose can be adjusted by placing a number of shims under the pressing shoes. The shims (2) are fitted between the rotor (1) and the pressing shoe (3). The number of shims will vary for each counter pressure situation.



Shims placement



- 1 Hose without compression
- 2 Insufficient compression (back flowing media in the cavity will destroy the hose within a short period of time)
- 3 Optimum compression
- 4 Excessive compression (increased wear and tear to the pump and the hose)

The shims are fitted in the factory. The number of shims can be adapted to the actual operating conditions according to the following tables.

### 8.4.1 Model RP 25

Hose materials – NR, NBR, EPDM, CSM and NBR-A:

Number of shims of 0.5 mm thickness (part number AX100.01.13) **in each location** (i.e. multiply by 2 for total quantity).

**NOTE:** for fluid temperatures > 60 °C: reduce shim quantities by 1.

Bar	Revolutions/minute					Number of shims
	0-19	20-39	40-59	60-79	80-99	
0,5	1	1	1	0	0	
2,5	1	1	1	1	1	
5,0*	2	2	2	2	2	
7,5	4	3	3	3	3	
10,0	5	4	4	4	4	
12,5	6	5	5	5	4	
15,0	7	6	6	6	–	

*\*Factory default setting if working pressure is not specified.*

### 8.4.2 Model RP 32

Hose materials - NR, NBR, EPDM, CSM and NBR-A:

Number of shims of 0.5 mm thickness (part number AX104.01.13) **in each location** (i.e. multiply by 2 for total quantity).

**NOTE:** for fluid temperatures > 60 °C: reduce shim quantities by 1.

Bar	Revolutions/minute					Number of shims
	0-19	20-39	40-59	60-79	80-99	
0.5	0	0	0	0	0	
2.5	0	0	0	0	0	
5.0*	1	1	1	0	0	
7.5	2	1	1	1	0	
10	2	2	2	1	1	
12.5	3	3	3	2	2	
15	4	4	4	3	–	

*\*Factory default setting if working pressure is not specified.*

### 8.4.3 Model RP 40

Hose materials – NR, NBR, EPDM, CSM and NBR-A:

Number of shims of 0.5 mm thickness (part number AX109.00.04)

**in each location** (i.e. multiply by 2 for total quantity).

**NOTE:** for fluid temperatures > 60 °C: reduce shim quantities by 1.

Bar	Revolutions/minute					Number of shims
	0-19	20-39	40-59	60-79	80-99	
0.5	3	3	2	2	2	
2.5	4	3	3	3	–	
5.0*	5	4	4	4	–	
7.5	5	5	5	–	–	
10	6	6	5	–	–	
12.5	7	7	6	–	–	
15	8	8	–	–	–	

*\*Factory default setting if working pressure is not specified.*

### 8.4.4 Model RP 60

Hose materials - NR, NBR, EPDM, CSM and NBR-A:

Number of shims of 0.5 mm thickness (part number AX111.00.47)

**in each location** (i.e. multiply by 2 for total quantity).

**NOTE:** for fluid temperatures > 60 °C: reduce shim quantities by 1.

Bar	Revolutions/minute					Number of shims
	0-19	20-39	40-59	60-79	80-99	
0.5	0	0	0	0	0	
2.5	0	0	0	0	0	
5.0*	2	2	0	0	0	
7.5	2	2	2	2	2	
10	4	4	2	2	–	
12.5	4	4	4	4	–	
15	4	4	4	–	–	

*\*Factory default setting if working pressure is not specified.*

### 8.4.5 Model RP 70

Hose materials – NR, NBR, EPDM, CSM and NBR-A:

Number of shims of 0.5 mm thickness (part number AX114.00.03)

**in each location** (i.e. multiply by 2 for total quantity).

**NOTE:** for fluid temperatures > 60 °C: reduce shim quantities by 1.

Bar	Revolutions/minute					Number of shims
	0-19	20-39	40-59	60-79	80-99	
0.5	1	1	1	0	0	
2.5	2	2	2	1	–	
5.0*	3	3	3	2	–	
7.5	4	4	4	–	–	
10	5	5	5	–	–	
12.5	6	6	6	–	–	
15	7	7	–	–	–	

\*Factory default setting if working pressure is not specified.

### 8.4.6 Model RP 80

Hose materials – NR, NBR, EPDM, CSM and NBR-A:

Number of shims of 0.5 mm thickness (part number AX118.00.49)

**in each location** (i.e. multiply by 2 for total quantity).

**NOTE:** for fluid temperatures > 60 °C: reduce shim quantities by 1.

Bar	Revolutions/minute			Number of shims
	0-19	20-39	40-59**	
0.5	2	2	–	
2.5	2	4	–	
5.0*	4	4	–	
7.5	4	4	–	
10	6	6	–	
12.5	8	–	–	
15	8	–	–	

\*Factory default setting if working pressure is not specified.

\*\*In case of a need for higher speed, please consult your relax distributor.

### 8.4.7 Model RP 100

Hose materials - NR, NBR, EPDM, CSM and NBR-A:

Number of shims of 0.5 mm thickness (part number AX119.00.07) **in each location** (i.e. multiply by 2 for total quantity).

**NOTE:** for fluid temperatures > 60 °C: reduce shim quantities by 1.

Bar	Revolutions/min			Number of shims
	0-19	20-39	40-59**	
0.5	1	1	–	
2.5	1	1	–	
5.0*	2	2	–	
7.5	2	2	–	
10	3	2	–	
12.5	3	–	–	
15	4	–	–	

\*Factory default setting if working pressure is not specified.

\*\*In case of a need for higher speed, please consult your relax distributor.

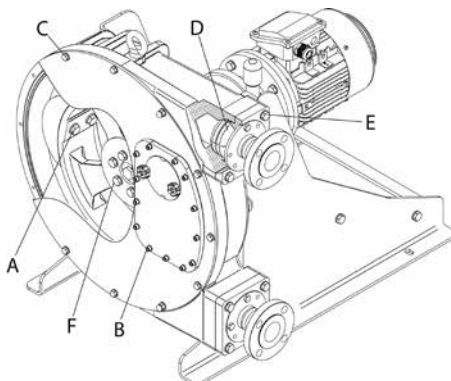
## 9 MAINTENANCE

### 9.1 Components weights

	RP 25	RP 32	RP 40	RP 60	RP 70	RP 80	RP 100
<b>Total weight</b>	96 kg 211 lbs	145 kg 319 lbs	196 kg 432 lbs	346 kg 762 lbs	642 kg 1,415 lbs	1,150 kg 2,535 lbs	1,375 kg 3,031 lbs
<b>Pump cover</b>	5.1 kg 11 lbs	7.7 kg 16 lbs	10.6 kg 23 lbs	14.5 kg 31 lbs	32.4 kg 71 lbs	42.8 kg 94 lbs	58.3 kg 1,170 lbs
<b>Shoe</b>	0.4 kg 0.9 lbs	0.6 kg 1.3 lbs	1.6 kg 3.5 lbs	3.4 kg 7.5 lbs	6.5 kg 14.3 lbs	14.2 kg 31.3 lbs	21.9 kg 48.3 lbs
<b>Connection</b>	0.2 kg 0.4 lbs	0.2 kg 0.4 lbs	1.4 kg 3.1 lbs	1.9 kg 4.2 lbs	3.2 kg 7.1 lbs	5.4 kg 11.9 lbs	7.0 kg 15.4 lbs
<b>Press flange</b>	2.3 kg 5.1 lbs	2.8 kg 6.2 lbs	2.0 kg 4.4 lbs	3.9 kg 8.6 lbs	3.9 kg 8.6 lbs	9.0 kg 19.8 lbs	12.9 kg 28.4 lbs
<b>Hose</b>	1.8 kg 3.9 lbs	2.7 kg 5.6 lbs	3.1 kg 6.8 lbs	6.3 kg 13.9 lbs	11.2 kg 24.7 lbs	19 kg 42 lbs	28 kg 62 lbs



## 9.2 Torque values



DESCRIPTION		UNITS	RP 25	RP 32	RP 40	RP 60	RP 70	RP 80	RP 100
A	Shoe support bolts	Nm	29 M8 13 mm spanner	46 M12 19 mm spanner	46 M12 19 mm spanner	53 M16 10.9 24 mm spanner	53 M16 10.9 24 mm spanner	59 M18 10.9 27 mm spanner	59 M18 10.9 27 mm spanner
B	Inspection cover bolts	Nm	2 M6 5 mm A/F allen key	2 M6 5 mm A/F allen key	2 M6 5 mm A/F allen key	4 M8 6 mm A/F allen key	2 M6 5 mm A/F allen key	2 M6 5 mm A/F allen key	4 M8 6 mm A/F allen key
C	Cover bolts	Nm	29 M8 13 mm spanner	43 M10 17 mm spanner	29 M8 13 mm spanner	43 M10 17 mm spanner	46 M12 19 mm spanner	46 M12 19 mm spanner	46 M12 19 mm spanner
D	Hose clamp	Nm	Manual, no bolts	Manual, no bolts	Manual, no bolts	Manual, no bolts	Manual, no bolts	Manual, no bolts	Manual, no bolts
E	Flange bracket bolts	Nm	29 M8 13 mm spanner	43 M10 17 mm spanner	43 M10 17 mm spanner	46 M12 19 mm spanner	46 M12 19 mm spanner	49 M14 22 mm spanner	49 M14 22 mm spanner
F	Drive shaft bolts	Nm	29 M8 13 mm spanner	29 M8 13 mm spanner	37 M8 10.9 13 mm spanner	46 M12 10.9 19 mm spanner	46 M12 10.9 19 mm spanner	59 M18 8.8 27 mm spanner	59 M18 10.9 27 mm spanner

## 9.3 Lubrication and cooling

The pump head is filled with our genuine hose lubricant. This lubricant lubricates and disperses the heat generated by the movement of the pressing shoes against the pump hose. The lubricant is food grade.

## Lubricant quantity table

	UNIT	RP 25	RP 32	RP 40	RP 60	RP 70	RP 80	RP 100
Lubricant	-	realax	realax	realax	realax	realax	realax	realax
Required quantity	Liters	2	3	5	10	30	45	70
	Gallons	0.5	0.8	1.3	2.6	7.9	11.9	18.5

Check that the level of lubricant in the casing of the pump is correct

- The correct level is shown on the inspection window cover installed on the front cover. Add lubricant if necessary.
- The lubricant must be replaced each time that pump hose is replaced.
- The specially formulated lubricant can be obtained from authorized distributor. The use of this lubricant ensures a longer life of the hose.

### 9.3.1 Changing oil in gearbox

The instructions manual of the gearbox is delivered separately attached to this realax manual.

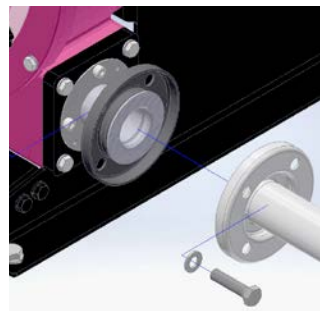
Some models of gearbox are lubricated for life, other models of gear reducers require regular maintenance according to the instructions manual of the gear reducer manufacturer.

In case of doubt, please contact the gearbox manufacturer or their authorised distributor in your country.

## 9.4 Exchanging the pump hose

### 9.4.1 Dismantling

Close off all valves, in order to prevent leakage of the feed liquid.



1. Dismantle the pipes from both discharge and suction sides.
2. Empty all lubricating liquid from the pump housing by removing the lower drain plug. There are 3 drain plugs located at the rear of the pump housing. Remove the lower drain plug, located behind the lower connection.



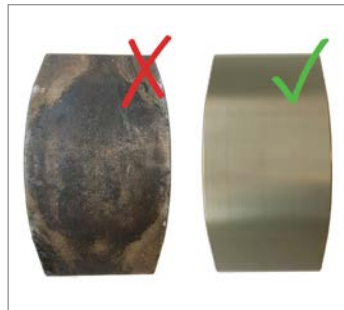
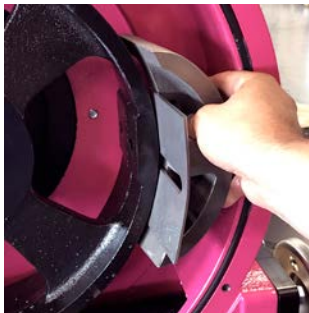
3. Remove the front cover.

Front Covers of RP 25, RP 32, RP 40 and RP 60 can be removed manually (< 20 kg).

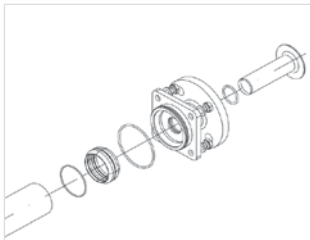
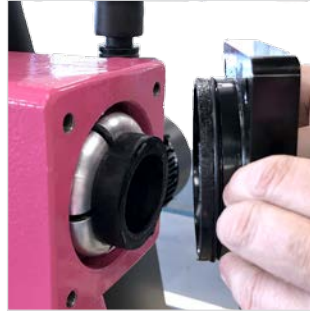
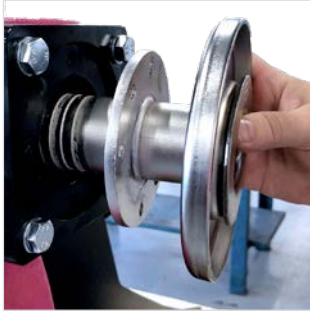
Lifting equipment must be used to remove the front covers of RP 70, RP 80 and RP 100.



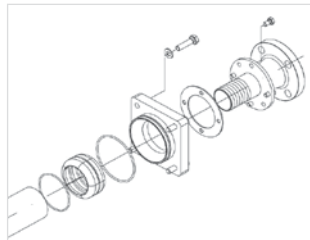
4. Remove the shoe including the shims (the shoe that is not touching the hose). Check the shoe. Ensure that the shoe surfaces are not damaged. Otherwise, please replace the shoe.



5. Remove the press flange and hydraulic connections from pump housing:
  - a. RP 25, RP 32 have flanges and Inserts.
  - b. RP 40, RP 60, RP 70, RP 80, RP 100 have flanges.

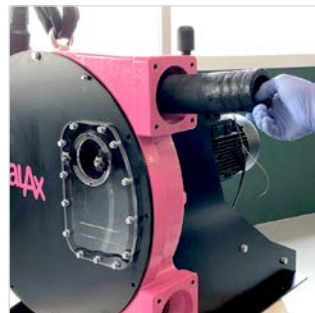


*a) flange connection with Insert*



*b) flange connection*

6. Mount back the front cover.
7. Turn the rotor with the help of the motor so that the hose is pushed out through one of the openings.
8. Remove the pump hose to be exchanged.
9. Dismount the front cover.



## 9.4.2 Installation of the new hose

1. Rotate the rotor 180° so that the shoe that is still assembled no longer presses the hose.
2. Clean the interior surfaces of the pump housing with a clean dry cloth.
3. Lubricate with our original lubricant the hose and the internal surfaces of the pump housing at the contact surfaces to the pump hose and the external part of the new hose.



4. Mount front cover.
5. Lay the pump hose into the pump housing through the connection holes. The hoses of the RP pumps must be manually inserted through the lower opening up to the point where the hose begins to be compressed by the rotor. Turn the rotor with the help of the motor until the hose has been pulled through the lower opening and until the end of the hose is correctly positioned in the upper opening. The rotor must only have one shoe attached to safely perform this operation.



6. Lay the press rings. Between the end of the hose and the press ring, there must be a specific distance (see fig. 1 and fig. 2).

realax model	Approximate distance outside press ring
RP 25	3–7 mm
RP 32	3–7 mm

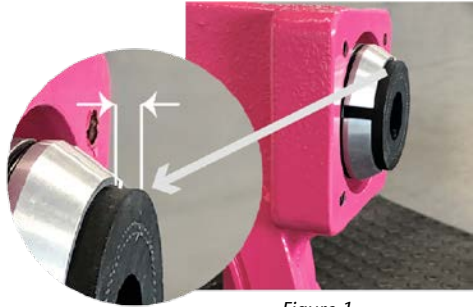


Figure 1

realax model	Approximate distance inside press flange
RP 40	5 mm
RP 60	6 mm
RP 70	7 mm
RP 80	10 mm
RP 100	10 mm

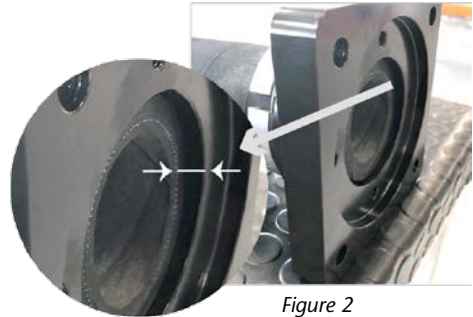
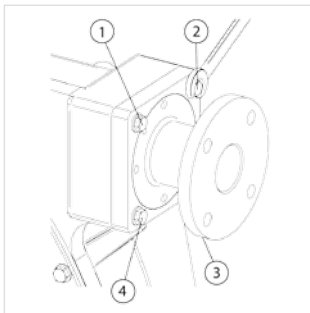


Figure 2

7. Push the shaft of the connection into the hose (apply a little grease on the shaft if there is too much interference). Tighten the four allen bolts.

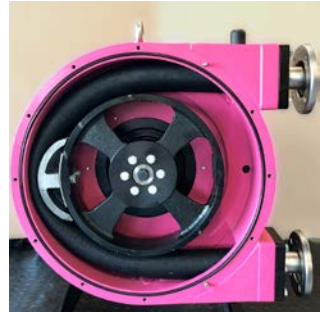


*Way to proceed with the screws tightening*

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Fasten the press flange and the connections to the pump casing and tighten progressively the bolts in a star pattern (1, 3, 2, 4 & 1, 3, 2, 4, etc.), until the flange is fully tightened.

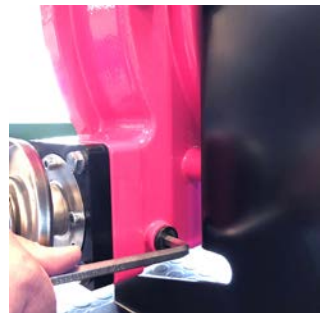
8. Mount the front cover.
9. Turn the rotor with the help of the motor so that the remaining shoe presses against the pump hose.
10. Dismount the front cover.



11. Re-attach the second shoe with shims back onto the rotor.



12. Fix the lower drain plug.





13. Attach the front cover to the pump housing.
14. Fill the body of the pump with lubricant up to the marked level via the upper filling or inspection cover.
15. Mount the pipes from both discharge and suction sides.
16. Open all of the valves.



## 9.5 Replacement of electric motor and/or gear reducer

For repair or replacement of the electric motor and the gear reducer they could be disassembled from the pump housing. The pump is stable on its baseplate and will not fall over when the electric motor and gear reducer are disassembled. No support set is necessary.



Follow the picture sequence from left to right (1, 2, 3):

1. Unbolt and separate motor from gear reducer
2. Unbolt the gear reducer from the pump's shaft
3. Unbolt and separate gear reducer from pump housing



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## 9.6 Addition of high-level sensor

The standard breather supplied with the RP pump should be removed from the pump housing.

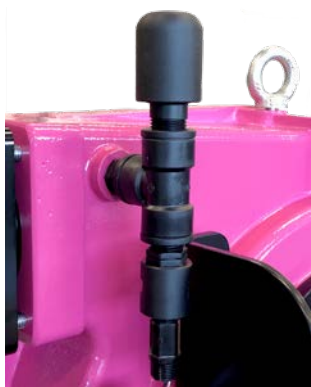
Dismantle and replace elbow with the T-fitting.

Screw electro-optical detector to cap, then attach cap to T-fitting.

Reassemble the breather and detector assembly to the pump housing.



*Standard breather*



*High level sensor with T-fitting  
and breather*

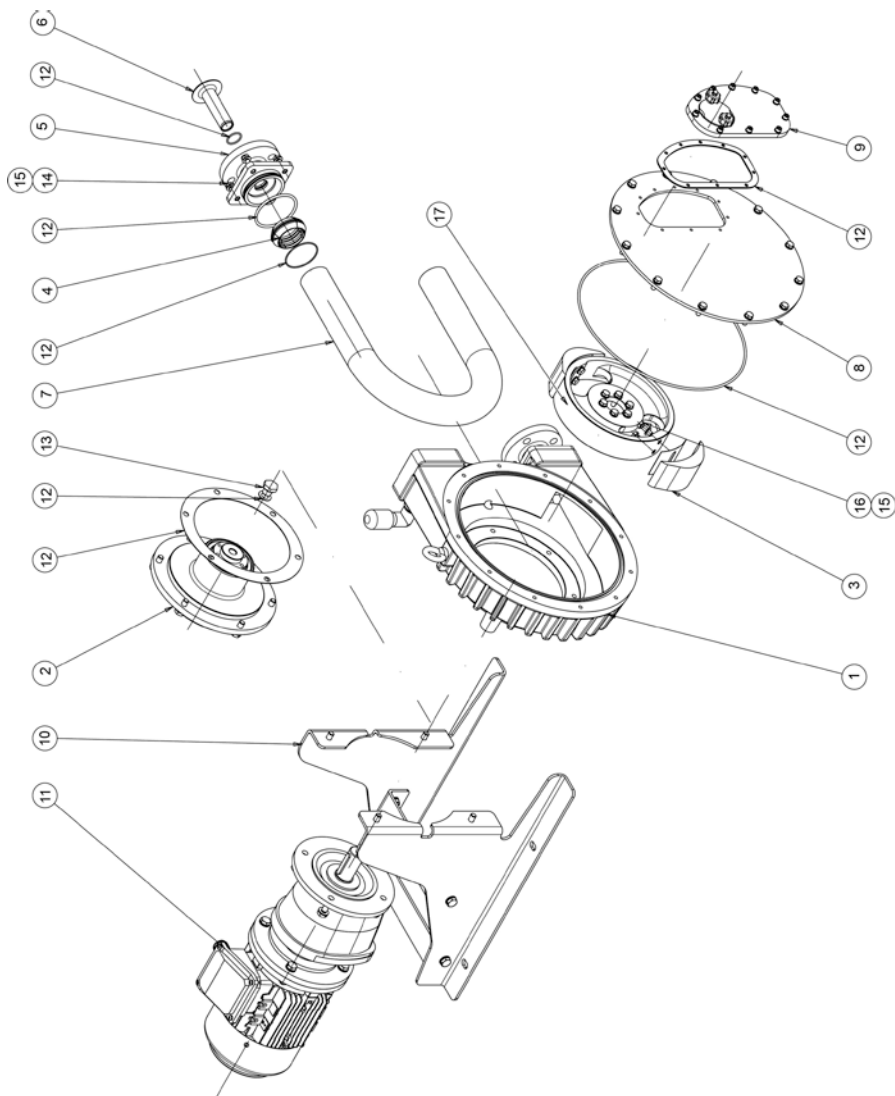
## 10 TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
<b>Increased pump temperature</b>	Pump hose has no lubricant	Lubricate pump hose
	Increased product temperature	Reduce product temperature
	Insufficient or poor suction conditions	Check suction line condition
	Pump speed too high	Reduce pump speed
<b>Reduced flow or pressure</b>	Valves on discharge and or suction side completely or partially closed	Open valves
	Pump hose insufficiently compressed	Check number of shims
	Pump hose rupture (the product leaks out into the housing)	Exchange pump hose and clean pump
	Partial blockage of the suction line	Clean pipe
	Insufficient product quantity in storage container	Fill storage container or exchange pump
	Insufficient diameter on the suction side	Increase the diameter on the suction side, as far as possible
	Suction line too long	Shorten the suction line, as far as possible
	High viscosity of medium	Reduce viscosity, as far as possible
	Air introduction in the suction connections	Check connections and accessories for air tightness
High pulsation on suction	Tighten connections and accessories Mount anti-pulsation equipment Reconsider application (speed, etc.)	
<b>Vibrations on pumps and pipelines</b>	The pipes are not correctly fastened	Fasten pipes correctly (e.g. wall brackets)
	Pump speed too high	Reduce pump speed
	Insufficient nominal width of the pipes	Increase nominal width
	Pump base plate loose	Fasten base plate
	Pulsation dampers insufficient or missing	Install pulsation dampers on suction and / or discharge side
<b>Short operational lifetime of the hoses</b>	Chemical exposure	Check the compatibility of the hose with the liquid being conveyed, the cleaning fluid and the lubricant
	High pump speed	Reduce pump speed

<b>PROBLEM</b>	<b>POSSIBLE CAUSE</b>	<b>SOLUTION</b>
<b>Short operational lifetime of the hoses</b>	High conveying temperature	Reduce product temperature
	High operating pressure	Reduce operating pressure
	Pump cavitation	Check the suction conditions
	Abnormal elevation of temperature	Check number of shims
	Unsuitable lubricant	Use realAx lubricant
	Insufficient quantity of grease	Reapply lubricant
<b>Pump hose pulled into the pump housing</b>	High inlet pressure (> 3 bar)	Reduce inlet pressure
	Pump hose filled with deposits	Clean or replace the pump hose
	Holder (press flange) insufficiently tightened	Re-tighten holder (press flange)
	Insufficient grease	Reapply lubricant
<b>The pump does not start up</b>	Insufficient motor performance	Check motor and replace if necessary
	Insufficient output from frequency converter	The frequency converter must match the motor
	Blockage in the pump	Check voltage. Start occurs at minimum 10 Hz
		Check if the suction or discharge side is blocked. Rectify blockage

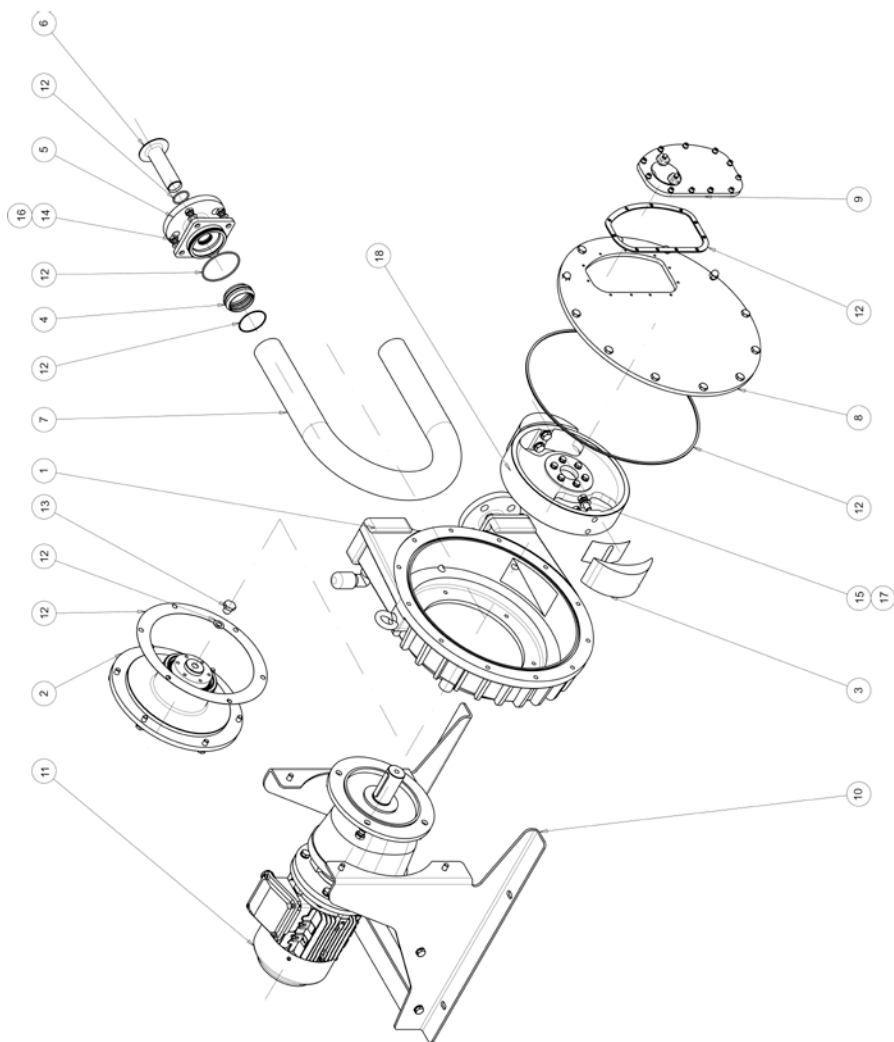
## 11 SPARE PARTS

### 11.1 Spare parts exploded view RP 25 Model



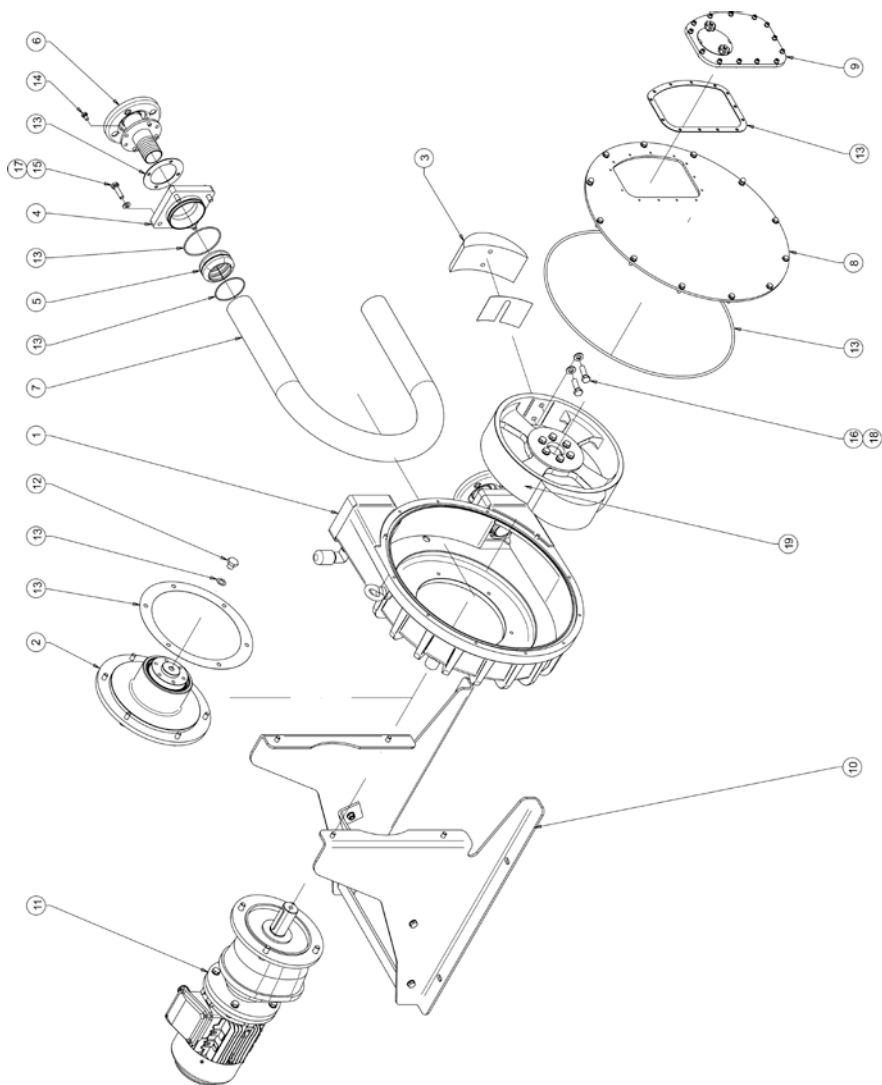
POS.	DESCRIPTION	QUANTITY	REFERENCE
1	Pump Housing RP 25	1	AX100.01.01
2	Bearing Housing Kit RP 25	1	AX100.99.05
3	Shoe RP 25	2	AX100.01.17
4	Press Ring	2	AX100.02.05
5	Press Flange DIN RP 25	2	AX100.00.06
	Press Flange ANSI 1" RP 25	2	AX100.00.40
6	Insert S.S. RP 25	2	AX100.00.04
	Insert P.P. RP 25	2	AX100.00.15
	Insert PVDF RP 25	2	AX100.00.34
7	Peristaltic Hose NR RP 25	1	AX100.01.08
	Peristaltic Hose NBR RP 25	1	AX100.01.09
	Peristaltic Hose NBR-A RP 25	1	AX100.01.12
	Peristaltic Hose EPDM RP 25	1	AX100.01.10
	Peristaltic Hose CSM RP 25	1	AX100.01.37
8	Front cover RP 25	1	AX100.01.50
9	Inspection window kit RP 25	1	AX100.99.30
10	Base plate	1	Contact relax distributor
	Base plate S.S.	1	Contact relax distributor
11	Drive	1	
12	Seal Kit RP 25	1	AX100.99.10
13	Seal Screw	1	AX104.01.23
14	DIN 933 Hexagonal Head Cap Screw M8x30 Grade 8.8	8	AXTORDIN933M8X30
15	DIN 125A Flat Washer M8 Grade 8.8	8	AXARANDIN125AM8
16	DIN 933 Hexagonal Head Cap Screw M8x25 Grade 8.8	4	AXTORDIN933M8X25
17	Rotor	1	AX100.01.16

## 11.2 Spare parts exploded view RP 32 Model



POS.	DESCRIPTION	QUANTITY	REFERENCE
1	Pump Housing RP 32	1	AX106.00.01
2	Bearing Housing Kit RP 32	1	AX104.99.05
3	Shoe RP 32	2	AX104.02.17
4	Press Ring RP 32	2	AX106.01.16
5	Press Flange DIN RP 32	2	AX104.00.06
	Press Flange ANSI 1 ¼" RP 32	2	AX104.00.40
6	Insert S.S. RP 32	2	AX104.00.04
	Insert PP RP 32	2	AX104.00.15
	Insert PVDF RP 32	2	AX104.00.34
7	Peristaltic Hose NR RP 32	1	AX104.01.08
	Peristaltic Hose NBR RP 32	1	AX104.01.09
	Peristaltic Hose NBR-A RP 32	1	AX104.01.12
	Peristaltic Hose EPDM RP 32	1	AX104.01.10
	Peristaltic Hose CSM RP 32	1	AX104.01.21
8	Front cover RP 32	1	AX104.00.50
9	Inspection Window Kit RP 32	1	AX104.99.30
10	Base plate	1	Contact relax distributor
	Base plate S.S.	1	Contact relax distributor
11	Drive	1	
12	Seal Kit RP 32	1	AX104.99.20
13	Seal Screw	1	AX104.01.23
14	DIN 933 Hexagonal Head Cap Screw M10x35 Grade 8.8	8	AXTORDIN933M10X35
15	DIN 933 Hexagonal Head Cap Screw M12x30 Grade 8.8	4	AXTORDIN933M12X30
16	DIN 125A Flat Washer M10 Grade 8.8	8	AXARANDIN125AM10
17	DIN 125A Flat Washer M12 Grade 8.8	4	AXARANDIN125AM12
18	Rotor	1	AX104.01.14

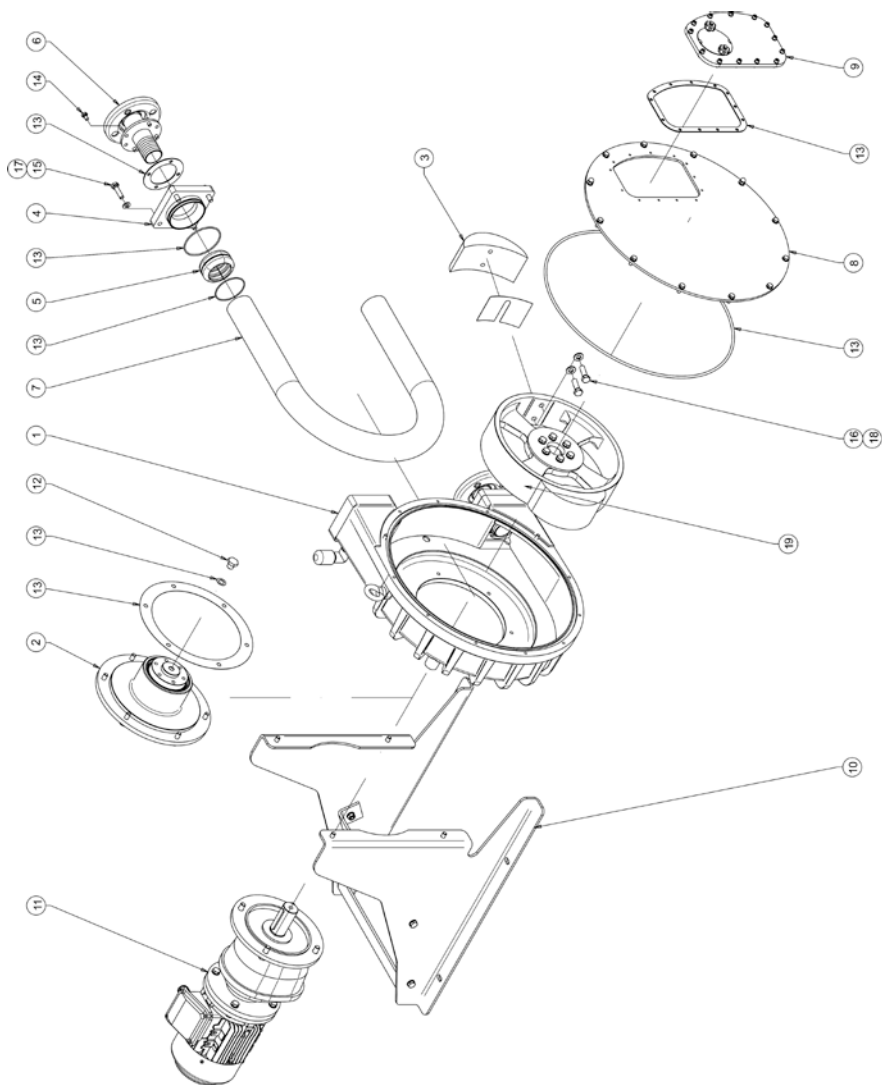
### 11.3 Spare parts exploded view RP 40 Model





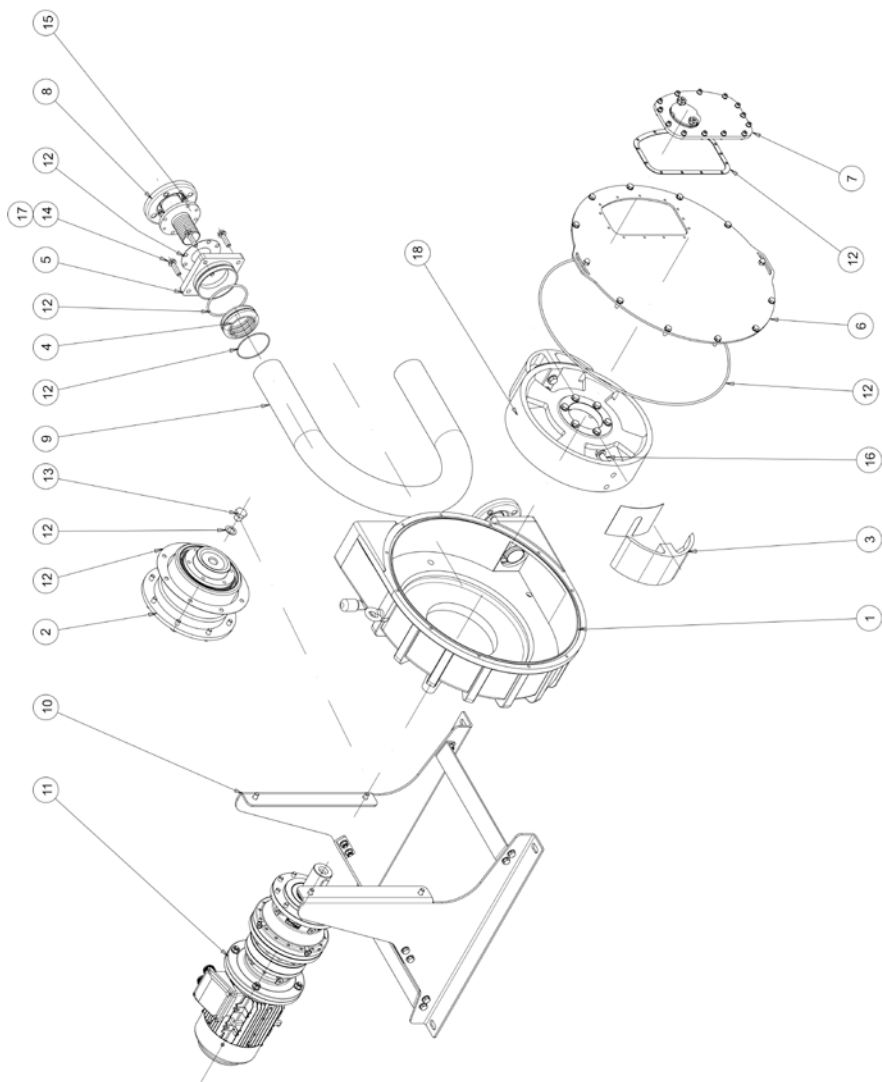
POS.	DESCRIPTION	QUANTITY	REFERENCE
1	Pump Housing RP 40	1	AX108.01.01
2	Bearing Housing Kit RP 40	1	AX108.99.05
3	Shoe RP 40	2	AX109.01.03
4	Press Flange RP 40	2	AX108.00.11
5	Press Ring RP 40	2	AX108.01.12
6	Flange Connection S.S. DIN DN40 RP 40	2	AX108.00.13
	Flange Connection PP DIN DN40 RP 40	2	AX108.00.16
	Flange Connection PVDF DIN DN40 RP 40	2	AX108.00.18
	Flange Connection S.S. ANSI 1 1/2" RP 40	2	AX108.00.14
	Flange Connection PP ANSI 1 1/2" RP 40	2	AX108.00.17
	Flange Connection PVDF ANSI 1 1/2" RP 40	2	AX108.00.19
7	Peristaltic Hose NR RP 40	1	AX108.00.20
	Peristaltic Hose NBR RP 40	1	AX108.00.22
	Peristaltic Hose EPDM RP 40	1	AX108.00.24
	Peristaltic Hose CSM RP 40	1	AX108.00.25
8	Front cover RP 40	1	AX109.00.50
9	Inspection Window Kit RP 40	1	AX109.99.30
10	Base plate	1	Contact relax distributor
	Base plate S.S.	1	Contact relax distributor
11	Drive	1	
12	Seal screw	1	AX104.01.23
13	Seal Kit RP 40	1	AX109.99.20
14	DIN 933 Hexagonal Head Cap Screw M8x14 Grade 8.8	8	AXTORDIN933M8X14
15	DIN 933 Hexagonal Head Cap Screw M10x40 Grade 8.8	8	AXTORDIN933M10X40
16	DIN 933 Hexagonal Head Cap Screw M12x40 Grade 10.9	4	AXTORDIN933 M12X40 10 9
17	DIN 125A Flat Washer M10 Grade 8.8	8	AXARANDIN125AM10
18	DIN 125A Flat Washer M12 Grade 8.8	4	AXARANDIN125AM12
19	Rotor	1	AX109.00.02

## 11.4 Spare parts exploded view RP 40 NBR-A Version



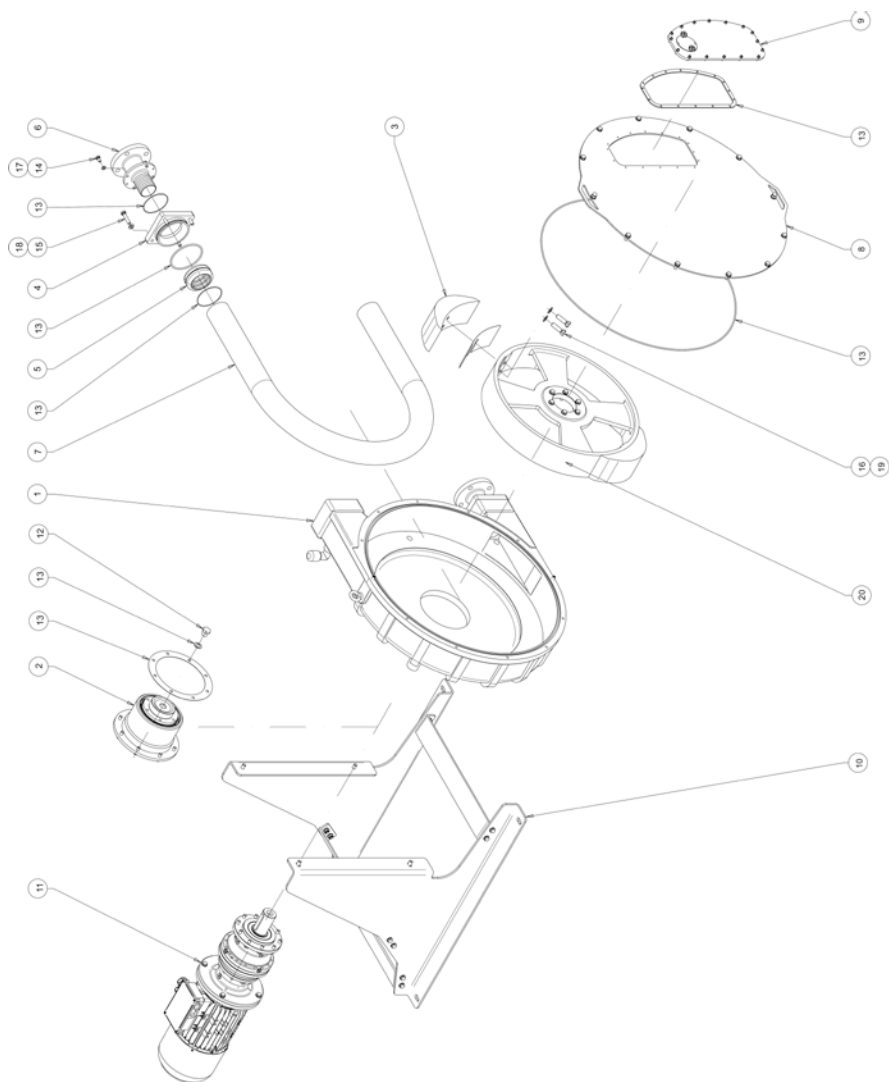
POS.	DESCRIPTION	QUANTITY	REFERENCE
1	Pump Housing RP 40	1	AX108.01.01
2	Bearing Housing Kit RP 40	1	AX108.99.05
3	Shoe RP 40	2	AX109.01.03
4	Press Flange RP 40	2	AX108.00.11
5	Press Ring RP 40	2	AX108.01.12
6	Connection S.S. DIN 11851 RP 40 NBR-A	2	AX108.00.52
	Connection S.S. Tri-clamp 2" RP 40 NBR-A	2	AX108.00.53
7	Peristaltic Hose NBR-A RP 40	1	AX108.01.23
8	Front cover RP 40	1	AX109.00.50
9	Inspection Window Kit RP 40	1	AX109.99.30
10	Base plate	1	Contact relax distributor
	Base plate S.S.	1	Contact relax distributor
11	Drive	1	
12	Seal screw	1	AX104.01.23
13	Seal Kit RP 40	1	AX109.99.20
14	DIN 933 Hexagonal Head Cap Screw M8x14 Grade 8.8	8	AXTORDIN933M8X14
15	DIN 933 Hexagonal Head Cap Screw M10x40 Grade 8.8	8	AXTORDIN933M10X40
16	DIN 933 Hexagonal Head Cap Screw M12x40 Grade 10.9	4	AXTORDIN933 M12X40 10 9
17	DIN 125A Flat Washer M10 Grade 8.8	8	AXARANDIN125AM10
18	DIN 125A Flat Washer M12 Grade 8.8	4	AXARANDIN125AM12
19	Rotor	1	AX109.00.02

## 11.5 Spare parts exploded view RP 60



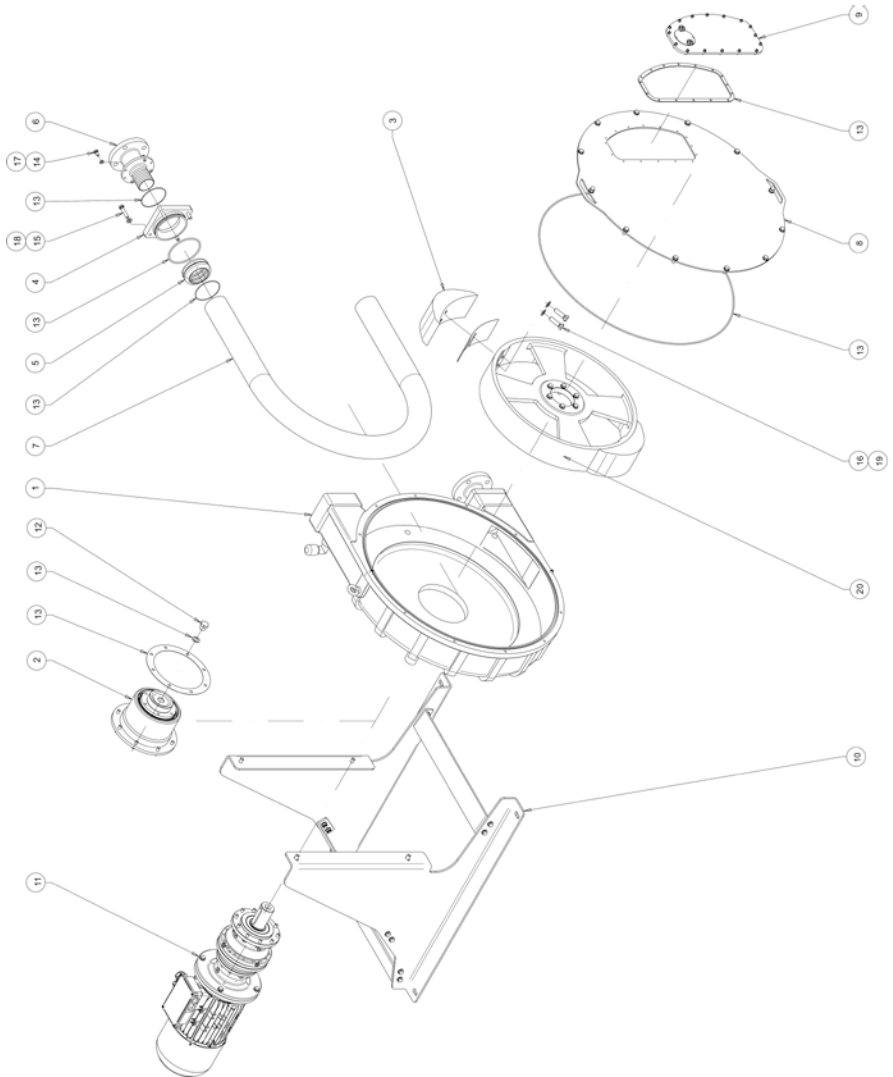
POS.	DESCRIPTION	QUANTITY	REFERENCE
1	Pump Housing RP 60	1	AX110.01.01
2	Bearing Housing Kit RP 60	1	AX111.99.05
3	Shoe RP 60	2	AX111.01.06
4	Press Ring RP 60	2	AX110.01.16
5	Press Flange RP 60	2	AX110.01.15
6	Front cover RP 60	1	AX111.01.52
7	Inspection Windows Kit RP 60	1	AX111.99.30
8	Flange Connection S.S. DIN DN50 RP 60	2	AX110.01.17
	Flange Connection PP DIN DN50 RP 60	2	AX110.01.64
	Flange Connection PVDF DIN DN50 RP 60	2	AX110.01.72
	Flange Connection S.S. ANSI 2" RP 60	2	AX110.01.41
	Flange Connection PP ANSI 2" RP 60	2	AX110.01.63
	Flange Connection PVDF ANSI 2" RP 60	2	AX110.01.65
9	Peristaltic Hose NR RP 60	1	AX111.00.18
	Peristaltic Hose NBR RP 60	1	AX111.00.20
	Peristaltic Hose NBR-A RP 60	1	AX111.00.21
	Peristaltic Hose EPDM RP 60	1	AX111.00.22
	Peristaltic Hose CSM RP 60	1	AX111.00.57
10	Base plate	1	Contact relax distributor
	Base plate S.S.	1	Contact relax distributor
11	Drive	1	
12	Seal Kit RP 60	1	AX111.99.20
13	Seal Screw	1	AX111.00.08
14	DIN 933 Hexagonal Head Cap Screw M12x50 Grade 8.8	8	AXTORDIN 933M12X50
15	DIN 933 Hexagonal Head Cap Screw M10x20 Grade 8.8	8	AXTORDIN933 M10X20
16	DIN 933 Hexagonal Head Cap Screw M16x55 Grade 10.9	4	AXTORDIN933 M16X55 10 9
17	DIN 125A Flat Washer M12 Grade 8.8	8	AXARANDIN125AM12
18	Rotor	1	AX111.00.05

## 11.6 Spare parts exploded view RP 70



POS.	DESCRIPTION	QUANTITY	REFERENCE
1	Pump Housing RP 70	1	AX112.01.01
2	Bearing Housing Kit RP 70	1	AX111.99.05
3	Shoe RP 70	2	AX114.01.02
4	Press Flange RP 70	2	AX114.00.05
5	Press Ring RP 70	2	AX112.00.10
6	Flange Connection S.S. DIN DN65 RP 70	2	AX112.00.11
	Flange Connection PP DIN DN65 RP 70	2	AX112.00.14
	Flange Connection S.S. ANSI 2 ½" RP 70	2	AX112.00.12
	Flange Connection PP ANSI 2 ½" RP 70	2	AX112.00.15
7	Peristaltic Hose NR RP 70	1	AX112.00.18
	Peristaltic Hose NBR RP 70	1	AX112.00.20
	Peristaltic Hose EPDM RP 70	1	AX112.00.22
	Peristaltic Hose CSM RP 70	1	AX112.00.23
8	Front cover RP 70	1	AX114.01.53
9	Inspection Window Kit RP 70	1	AX114.99.30
10	Base plate	1	Contact relax distributor
	Base plate S.S.	1	Contact relax distributor
11	Drive	1	
12	Seal Screw	1	AX111.00.08
13	Seal Kit RP 70	1	AX114.99.20
14	DIN 933 Hexagonal Head Cap Screw M10x20 Grade 8.8	8	AXTORDIN933M10X20
15	DIN 933 Hexagonal Head Cap Screw M12x60 Grade 8.8	8	AXTORDIN933M12X60
16	DIN 933 Hexagonal Head Cap Screw M16x55 Grade 10.9	4	AXTTORDIN933 M16X55 10 9
17	DIN 125A Flat Washer M10 Grade 8.8	8	AXARANDIN125AM10
18	DIN 125A Flat Washer M12 Grade 8.8	8	AXARANDIN125AM12
19	DIN 125A Flat Washer M16 Grade 8.8	4	AXARANDIN125AM16
20	Rotor	1	AX114.00.01

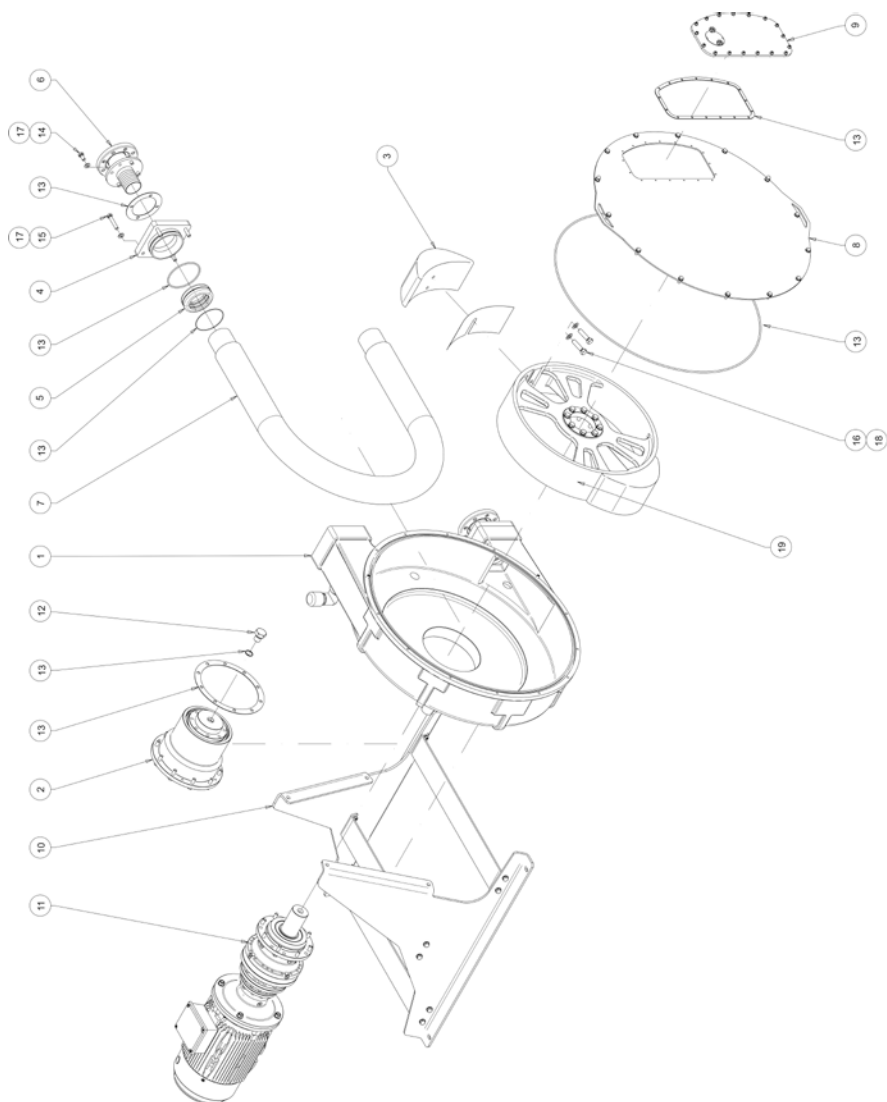
## 11.7 Spare parts exploded view RP 70 NBR-A Version





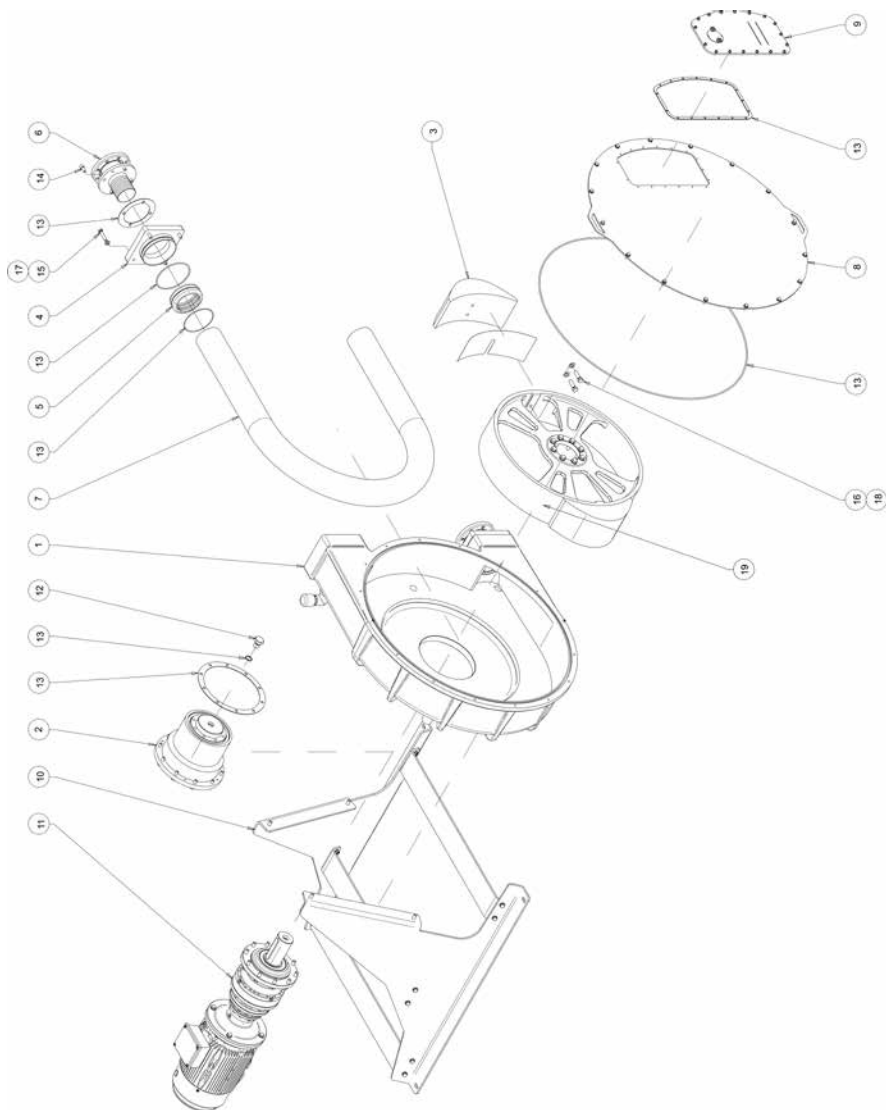
POS.	DESCRIPTION	QUANTITY	REFERENCE
1	Pump Housing RP 70	1	AX112.01.01
2	Bearing Housing Kit RP 70	1	AX111.99.05
3	Shoe RP 70	2	AX114.01.02
4	Press Flange RP 70	2	AX114.00.05
5	Press Ring RP 70	2	AX112.00.10
6	Connection NW-65 S.S. DIN 11851 RP 70 NBR-A	2	AX112.00.58
	Connection S.S. TRI CLAMP 3" RP 70 NBR-A	2	AX112.00.59
7	Peristaltic Hose NBR-A RP 70	1	AX112.00.21
8	Front cover RP 70	1	AX114.01.53
9	Inspection Window Kit RP 70	1	AX114.99.30
10	Base plate	1	Contact realax distributor
	Base plate S.S.	1	Contact realax distributor
11	Drive	1	
12	Seal Screw	1	AX111.00.08
13	Seal Kit RP 70	1	AX114.99.20
14	DIN 933 Hexagonal Head Cap Screw M10x20 Grade 8.8	8	AXTORDIN933M10X20
15	DIN 933 Hexagonal Head Cap Screw M12x60 Grade 8.8	8	AXTORDIN933M12X60
16	DIN 933 Hexagonal Head Cap Screw M16x55 Grade 10.9	4	AXTORDIN933 M16X55 10 9
17	DIN 125A Flat Washer M10 Grade 8.8	8	AXARANDIN125AM10
18	DIN 125A Flat Washer M12 Grade 8.8	8	AXARANDIN125AM12
19	DIN 125A Flat Washer M16 Grade 8.8	4	AXARANDIN125AM16
20	Rotor	1	AX114.00.01

## 11.8 Spare parts exploded view RP 80



POS.	DESCRIPTION	QUANTITY	REFERENCE
1	Pump Housing RP 80	1	AX120.00.01
2	Bearing Housing Kit RP 80	1	AX120.99.05
3	Shoe RP 80	2	AX118.00.03
4	Press Flange RP 80	2	AX118.00.04
5	Press Ring RP 80	2	AX118.00.06
6	Flange Connection S.S. DIN DN80 RP 80	2	AX118.00.05
	Flange Connection PP DIN DN80 RP 80	2	AX118.00.28
	Flange Connection S.S. ANSI 3" RP 80	2	AX118.00.27
	Flange Connection PP ANSI 3" RP 80	2	AX118.00.29
7	Peristaltic Hose NR RP 80	1	AX118.00.12
	Peristaltic Hose NBR RP 80	1	AX118.00.13
	Peristaltic Hose NBR-A RP 80	1	AX118.00.16
	Peristaltic Hose EPDM RP 80	1	AX118.00.14
	Peristaltic Hose CSM RP 80	1	AX118.00.17
8	Front cover RP 80	1	AX120.00.60
9	Inspection Window Kit RP 80	1	AX118.99.30
10	Base plate	1	Contact relax distributor
	Base plate S.S.	1	Contact relax distributor
11	Drive	1	
12	Seal Screw	1	AX119.00.45
13	Seal Kit RP 80	1	AX120.99.20
14	DIN 933 Hexagonal Head Cap Screw M14x30 Grade 8.8	8	AXTORDIN933M14X30
15	DIN 933 Hexagonal Head Cap Screw M14x70 Grade 8.8	8	AXTORDIN933M14X70
16	DIN 933 Hexagonal Head Cap Screw M18x70 Grade 10.9	4	AXTORDIN933 M18X70 10 9
17	DIN 125A Flat Washer M14 Grade 8.8	16	AXARANDIN125AM14
18	DIN 125A Flat Washer M18 Grade 8.8	4	AXARANDIN125AM18
19	Rotor	1	AX118.00.02

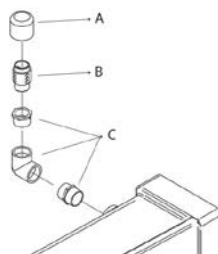
## 11.9 Spare parts exploded view RP 100



POS.	DESCRIPTION	QUANTITY	REFERENCE
1	Pump Housing RP 100	1	AX119.00.01
2	Bearing Housing Kit RP 100	1	AX119.99.05
3	Shoe RP 100	2	AX119.00.06
4	Press Flange RP 100	2	AX119.00.09
5	Press Ring RP 100	2	AX119.00.10
6	Flange Connection S.S. DIN DN100 RP 100	2	AX119.00.11
	Flange Connection PP DIN DN100 RP 100	2	AX119.00.13
	Flange Connection S.S. ANSI 4" RP 100	2	AX119.00.12
	Flange Connection PP ANSI 4" RP 100	2	AX119.00.14
7	Peristaltic Hose NR RP 100	1	AX119.00.19
	Peristaltic Hose NBR RP 100	1	AX119.00.20
	Peristaltic Hose NBR-A RP 100	1	AX119.00.23
	Peristaltic Hose EPDM RP 100	1	AX119.00.21
	Peristaltic Hose CSM RP 100	1	AX119.00.24
8	Front cover RP 100	1	AX119.00.52
9	Inspection Window Kit RP 100	1	AX119.99.30
10	Base plate	1	Contact relax distributor
	Base plate S.S.	1	Contact relax distributor
11	Drive	1	
12	Seal Screw	1	AX119.00.45
13	Seal Kit RP 100	1	AX119.99.20
14	DIN 912 Socket Cap Screw M14x30 Grade 8.8	8	AXTORDIN912M14X30
15	DIN 933 Hexagonal Head Cap Screw M14x70 Grade 8.8	8	AXTORDIN933M14X70
16	DIN 933 Hexagonal Head Cap Screw M18x60 Grade 10.9	4	AXTORDIN933 M18X60 10 9
17	DIN 125A Flat Washer M14 Grade 8.8	8	AXARANDIN125AM14
18	DIN 125A Flat Washer M18 Grade 8.8	4	AXARANDIN125AM18
19	Rotor	1	AX119.00.05

## 11.10 Breathers

realax pump model	Breather cap A	Breather B	Elbow Components C
RP 25	AX100.01.39	AX100.01.38	RAC500H12H12PP & RAC200M12M12PP
RP 32			RAC500M12H12
RP 40			
RP 60			
RP 70	AX114.00.25	AX114.00.24	RAC500H34H34PP & RAC200M34M34PP
RP 80	AX119.00.49	AX119.00.48	RAC500H112H112PP & RAC400M112M114PP & RAC200M112M112PP
RP 100			



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## 12. END-OF-LIFE



**WARNING!** Danger from hazardous substances!  
Possible consequence: Fatal or very serious injuries.  
Customer must decontaminate the pump with suitable agents (refer to the material safety data sheet for the fluid).

### 12.1 Recycling

Once cleaned the following components can be scrapped/recycled:

- Pump housing
- Rotor and shoes
- Baseplate
- Drive - Some specialist disassembly may be required.

### 12.2 Recycling and/or Repurposing

The following components even when cleaned must still be prepared for special waste disposal.

Customer is responsible to follow local legislation for reuse or environmentally friendly processing of packaging materials, (contaminated) lubricant, oil and the following components.

- Hose
- Plastic

Once the hose has been cleaned it may be disposed of using the same methods as car tyre disposal – *follow local regulations.*

## 13 DECLARATION OF CONFORMITY

- Original -  
EC Declaration of Conformity

We hereby declare,

**AxFlow Holding AB**  
Sveavägen 151, floor 5  
SE-113 46 Stockholm  
Sweden

That the following designated product complies with the pertinent fundamental safety and health requirements of the EC Directive in term of its design and construction and in term of the version marketed by us.

This declaration loses its validity in the event of a modification to the product not agreed with us.

**Description of the product:** Peristaltic pump RealAx RP

**Product Type:** RP25/B, RP32/B, RP40, RP60/B, RP70, RP80, RP100

**Serial no:** Refer to nameplate on the device

**Pertinent EC Directives:** CE Declaration of Conformity (Ann. II. A 2006/42/CE):  
The pump is conformity to the safety requirements according to the 2006/42/CE norms and amendments.

**Manufacture Declaration (Ann. II. B 2006/42/CE):** The pump cannot be operated before the machine in which is assembled the pump, will be declared in conformity with the safety requirements according to the 2006/42/CE norms and requirements.

Signature:



Details of the signatory:

David Lindquist

PLC Peristaltic Pumps, AxFlow Holding AB



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## **14    WARRANTY**

We guarantee against all manufacturing defects and guarantee the materials that compose the relax pump for two years from the date of delivery. This guarantee does not cover the hose or the lubricant as these are elements that have a normal function wear, irrespective of their duration.

This guarantee is valid as long as the equipment is operated in accordance with this document.

This guarantee includes materials and work but not the cost for transportation of the equipment to the authorized repair shop or its return to the customer.

## AT

**Für weitere Informationen über realax Schlauchpumpen und für Service und Support kontaktieren Sie bitte:**

AxFlow GesmbH  
Seering 2/2. OG  
8141 Premstätten, Österreich  
Tel.: +43 316 68 35 09-0  
Fax: +43 316 68 34 92  
E-mail: office@axflow.at  
www.axflow.at

## BG

**For more information about realax hose pumps please contact:**

AxFlow Ltd.  
27 Prof. Kiril Popov Street, ground floor  
Sofia city  
Tel.: +359 (0) 879 380 202  
E-mail: service.bulgaria@axflow.hu

## CH

**Für weitere Informationen und umfassenden Service wenden Sie sich bitte an:**

AxFlow GmbH  
Vertriebsbüro Schweiz  
Eptingerstrasse 41  
4132 Muttenz, Schweiz  
Tel.: +41 61 4619691  
E-mail: info@axflow.ch

## CRO

**Za servisiranje i podršku vaših realax peristaltičkih pumpi sa obratite se na adresu:**

VIP Tehnika d.o.o.  
– Member of AxFlow Group  
Zgornji Duplek 30e  
2241 Spodnji Duplek  
Tel.: +386 2 684 00 60  
Fax: +386 2 681 01 62  
E-Mail: vip.tehnika@siol.net  
www.vip-tehnika.si/

## DE

**Für weitere Informationen und umfassenden Service wenden Sie sich bitte an:**

**Beratung, Verkauf und Service**  
AxFlow GmbH  
Theodorstrasse 105  
40472 Düsseldorf, Deutschland  
Tel.: +49 211 23806-0  
E-mail: info@axflow.de

**Service-Stützpunkt und Werkstatt**

AxFlow Service Süd  
Kiryat-Shmona-Straße 11  
87700 Memmingen, Deutschland  
Tel. +49 8331 3309  
service.sued@axflow.de

## DK

**For service og support til dine realax slangepumper kontakt venligst:**

AxFlow A/S  
Omstillingen: +45 7010 3550  
Bestillinger, forespørgsler og almene spørgsmål kan mailes til os på:  
axflow@axflow.dk

**Kontor og lager:**

AxFlow A/S  
Kong Svends Vej 65A  
DK-2765 Smørum  
www.axflow.dk

## FR

**Pour plus d'informations sur les pompes péristaltiques realax, contactez :**

AxFlow SAS  
87, rue des Poiriers  
ZA Sainte Apolline  
78 372 PLAISIR CEDEX  
Tél: +33 (0) 1 30 68 41 41  
E-mail: info@axflow.fr  
www.axflow.fr

**HU**

**A realax tömlőszivattyúkkal kapcsolatos további információkért forduljon:**

AxFlow Kft.  
Bilk Centre, B1 ép.  
Európa utca 6.  
1239 Budapest  
Tel.: +36 1 454-3080  
Email: axflow@axflow.hu

**IE**

**For more information about realax hose pumps please contact:**

AxFlow Ltd.  
Unit 33, Western Parkway Business Centre  
Ballymount Road  
Dublin 12  
Tel : +353 1 4504522  
Fax : +353 1 4504887  
www.axflow.ie

**IT**

**Per assistenza tecnica e/o maggiori informazioni sulle pompe realax contattare:**

AxFlow S.r.l.  
Via Montefeltro 4  
20156 Milano (MI)  
Telefono: +39 02 484801  
E-mail: info@axflow.it  
www.axflow.it

**PL**

**Aby uzyskać więcej informacji na temat pomp realax węża prosimy o kontakt:**

AxFlow Sp. z o. o.  
ul. Floriana 3/5  
04-664 Warszawa  
Telefon centrala: +48 613 00 12

**Wsparcie techniczne Pompy:**

wewn. 223 lub kom. +48 691 978 211,  
wewn. 254 lub kom. +48 667 856 565

**Wsparcie techniczne części zamienne:**

wewn. 218 lub kom. +48 667 808 878  
Pompy rejon Północ: +48 601 816 003  
Pompy rejon Centrum: +48 601 358 507  
Pompy rejon Południe: +48 605 737 091

**Serwis:**

wewn. 253, lub kom: +48 601 91 27 72

**Realizacje dostaw:**

wewn. 229, 240  
Fax: +48 815 31 16  
E-mail: biuro@axflow.pl  
www.axflow.pl

**RO**

**Pentru mai multe informații despre pompele cu furtun realax vă rugăm să contactați:**

AxFlow SRL  
Str. Henri Barbusse, Nr. 19  
RO 400616 Cluj-Napoca  
Tel.: +40 733072124  
E-mail: axflow.romania@axflow.hu

**SE**

**För mer information om realax slangpumpar vänligen kontakta:**

AxFlow AB  
Ostmästargränd 12  
120 40 Årsta  
(Box 90162, 120 22 Stockholm)  
Telefon: +46 8-602 22 00  
Fax: +46 8-91 66 66  
E-post: kundservice@axflow.se  
www.axflow.se

**SLO**

**Za servisiranje i podršku vaših realax peristaltičkih pumpi sa obratite se na adresu:**

VIP Tehnika d.o.o.  
– Member of AxFlow Group  
Zgornji Duplek 30e  
2241 Spodnji Duplek  
Tel.: +386 2 684 00 60  
Fax: +386 2 681 01 62  
E-Mail: vip.tehnika@siol.net

**SER**

**Za više informacija o realax peristaltičkim pumpama obratite se na adresu:**

Regionalni menadžer prodaje  
Ognjen Nešović  
Mob: +381 64/84 07 079  
E-mail: ognjen.nesovic@axflow.rs  
www.axflow.rs

**UK**

**For service and support to your realax hose pumps please contact:**

AxFlow Services  
Phone: +44 1484 543649  
Fax: +44 1484 512608  
E-mail: service@axflow.co.uk

**For more information about realax hose pumps please contact:**

AxFlow London head office  
Orion Park, Northfield Ave, Ealing,  
London, W13 9SJ  
Phone: +44 20 85792111

**AxFlow Scotland**

Unit 3, Harlaw Centre, Howe Moss  
Crescent, Kirkhill Industrial Estate,  
Dyce, Aberdeen, AB21 OGN  
Phone: +44 1224 729367

**AxFlow Huddersfield**

Unit 9a, Fieldhouse Business Park,  
Old Fieldhouse Lane,  
Huddersfield, HD2 1FA  
Phone: +44 1484 543649

**AxFlow Durham**

Unit 31, Evans Business Centre,  
Aycliffe Business Park, Newton  
Aycliffe, County Durham, DL5 6ZF  
Phone: +44 1325 327322

**AxFlow Windsor**





Unit 5, Millside Park, Crouch Lane,  
Winkfield, Windsor,  
Berkshire, SL4 4PX  
Phone: +44 1344 886633  
www.axflow.co.uk

CUSTOMER:		PHONE:	
CONTACT:		FAX:	

INTENTION:	Repair	<input type="checkbox"/>	Warranty	<input type="checkbox"/>	Return	<input type="checkbox"/>
MATERIAL DELIVERED:	Pump only	<input type="checkbox"/>	Complete unit	<input type="checkbox"/>	Spare part	<input type="checkbox"/>
UNITS:						

PUMP TYPE:	
PUMP REFERENCE:	
SERIAL NUMBER:	
OPERATION TIME (Years):	
OPERATING HOURS (h/day):	

APPLICATION DATA (* Indicate units):						
PRODUCT						
VISCOSITY *						
DENSITY *						
FLOW *						
DANGEROUS	Corrosive	<input type="checkbox"/>	Flammable	<input type="checkbox"/>	Toxic	<input type="checkbox"/>
SPEED (rev/min)	Min.			Max.		
SUCTION PRESSURE (BAR)						
DISCHARGE PRESSURE (BAR)						
TEMPERATURE (°C)						

MEDIA AND WARNINGS	Medium / Concentration	Identification					Other*	Harmless
			Flammable	Toxic	Corrosive	Harmful / Irritant		
Process Medium								
Medium for process cleaning								
Returned part cleaned with...								

\*Explosive; Oxidising; Dangerous for the environment, Biological Risk, Radioactive. Please tick if one of the above is applicable, include MSDS and, if necessary, special handling instructions.

DESCRIPTION OF FAILURE:			

PHOTOS AVAILABLE:	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
-------------------	-----	--------------------------	----	--------------------------

The pump(s) should be emptied and cleaned of any contamination before it is sent. In case of a corrosive, flammable or toxic, product the pumps must be accompanied by a certificate of decontamination. Make sure the cleaning product you use is compatible with the materials that make up the pump and do not cause damage. In case of default we reserve the right to charge the costs of cleaning or returning the pump if necessary. By signing this form you confirm that you have cleaned the pump(s) in accordance with our recommendation.

**We hereby certify that the parts have been carefully cleaned.  
To the best of our knowledge they are free from any residues in dangerous quantities.**

COMPANY/STAMP:		
DATE:	NAME:	SIGNATURE:

# realax

**ALL THE HOSE PUMP YOU'LL EVER NEED**

**[www.realaxpumps.com](http://www.realaxpumps.com)**