

**Operating instructions**  
**IP 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.

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## **1 INTRODUCTION**

This manual forms an integral part of the pump and must accompany it until its demolition. The series IP peristaltic pump is a machine destined to work in industrial areas and as such the instruction manual must form part of the legislative dispositions and the applicable technical standards and does not substitute any installation standard or eventual additional standard.

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## 1.1 Explanation of the safety information



The instructions of this manual, whose inobservance is determined as a failure to meet safety standards, are identified by this symbol .



The instructions of this manual, whose inobservance compromises electrical safety.

**CAUTION**

The instructions of this manual, whose inobservance compromises the correct working of the pump, are identified with this symbol.

## 1.2 Users' qualifications

Pumps are machines that due to their functioning under pressure and moving parts can present dangers.

- Improper use.
- Removing the protections and/or disconnecting the protection device.
- The lack of inspections and maintenance.

They can cause serious damage or injury.

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

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

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 destined to form part of an installation, it is the responsibility of whoever supervises the installation to guarantee absolute safety, adopting the necessary measures of additional protection.

## 2 SAFETY AND RESPONSIBILITY

### 2.1 General safety information



#### **Live parts**

Possible consequence: Fatal or very serious injuries.

- Measure: 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.



#### **Emergency stop switch**

Possible consequence: Fatal or very serious injuries.

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



#### **Unauthorized access**

Possible consequence: Fatal or very serious injuries.

- Measure: Ensure that there can be no unauthorized access to the unit.



#### **Hazardous media/contamination of persons and equipment**

Possible consequence: Fatal or very serious injuries  
material damage.

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

**CAUTION****Correct and proper 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.
- 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.
- The system is not designed for use in areas of risk from explosion.
- 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, relubricate, 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 operational lifetime of the pump hoses cannot be precisely specified. For this reason, the possibility of fracture and consequential leakage of liquids must be accounted for. If the hose rupture alarm (optional) is fitted, then the pump can be stopped and / or an electrical valve can be actuated.

In addition, as 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 e.g. 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 right through to 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.

You may only carry out work on the pump after it has previously been switched off and disconnected from the mains.



### **Environmental influences**

Possible consequence: Material damage right through to destruction of the unit.

- The device is not suitable for outdoor operation
- Take suitable measures to protect the device from environmental influences such as:
  - UV rays.
  - Moisture.
  - Frost, etc.



### 3 FUNCTIONAL DESCRIPTION

The IP Series is a positive displacement pump. The process fluid 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 process fluid.

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

The IP 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. 8 bar).

#### 3.1 Construction

Main modules: – Drive Unit, – Housing, – Base frame

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

The motor serves to drive the rotor. Two rollers at the ends of the rotor serve to press the pump hose against the pump housing.

The rotary movement of the rotors alternately press and relax the rollers in relation to the pump hose. This serves to suck the media and convey it into the process line.

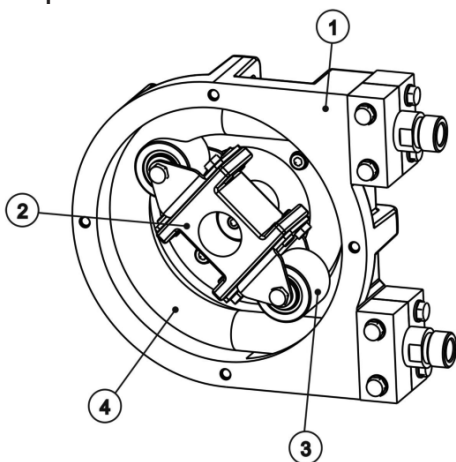


Fig. 1: Diagram of functional principle.

1 Casing

2 Rotor

3 Rollers

4 Hose

## 4 TRANSPORT AND STORAGE

### 4.1 Transport

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

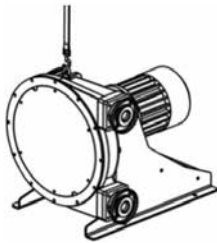
### 4.2 Storage

- The pump should be in a resting position. (The hose should not be compressed).
- Avoid areas open to harsh weather or excessive humidity.
- For storage periods of longer than 60 days, protect the coupling surfaces (clamps, reducers, motors) with adequate anti-oxidant products.
- Spare hoses should be stored in a dry place away from direct light.

### 4.3 Lifting

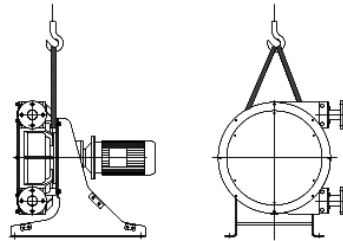
Models IP-30, IP-40, IP-50

- To lift the pump use the eye bolt.



Models IP-60, IP-70, IP-70D

- To lift the pump, it's necessary to use lifting slings.



## 5 ASSEMBLY AND INSTALLATION

### 5.1 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 chemical	Max. Temp (°C) Feed chemical	Min. Temp (°C) Environment	Max. Pressure (Bar)
NR	-20	80*	-40	8
NBR	-10	80*	-40	8
EPDM	-10	80*	-40	8
NR-A	-10	80*	-40	8
NBR-A	-10	80*	-40	8
NORPRENE <sup>1</sup>	-10	120*	-40	2

<sup>1</sup> Only available for IP-40

\* At max. temperature, the life of hose is drastically reduced. Please contact authorized relax distributor for high temperature application.

### 5.2 Correct installation of the pump

#### 5.2.1 Suction side

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 is not squeezed together 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 connection can therefore comprise of one of two options. Normally the option is selected which is best suited to the physical conditions of the installation. It is recommended to use a flexible transition between two fixed pipes and the hydraulic connection of the pump, in order to avoid the transmission of vibrations.

### 5.2.2 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. A larger diameter is recommended in the event of viscose liquids. It is recommended to use a flexible transition between two fixed pipes and the hydraulic connection of the pump, in order to avoid the transmission of vibrations.

### 5.3 Adjusting the roller pressure

The peristaltic pump is equipped with shims, in order to adjust the precise pressure distance to the roller (dependent on speed and operating pressure).

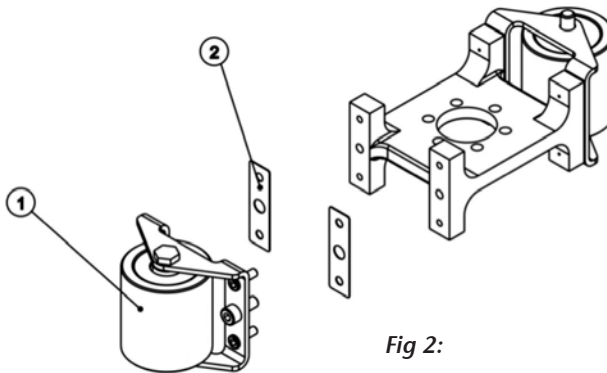
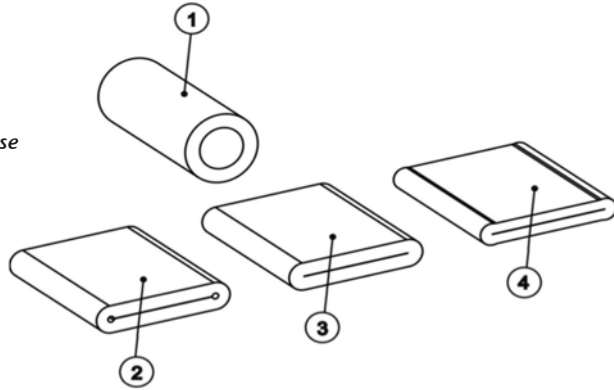


Fig 2:

1- Roller / 2- Shims

Fig 3:

Squeezing the hose



1. Hose in normal shape.
2. Insufficient squeezing (back flowing media in the cavity will destroy the hose within a short period of time).
3. Perfect squeezing.
4. Excessive squeezing (increased wear and tear to pump and hose).

The shims are fitted in the factory. You can adapt the number of shims to the actual operating conditions according to the following table.

### 5.3.1 IP-30 Model (Number of shims of 0.5 mm thickness):

a) NR, NBR, EPDM, HYPALON, NR-A and NBR-A:

Bar	l/min				
	0-19	20-39	40-59	60-79	80-99
0.5	2	2	1	1	1
2.0	2	2	2	2	2
4.0*	3	2	2	2	2
6.0	3	3	3	2	—
8.0	4	3	3	—	—

\*Factoring default setting if working pressure is not informed.

### 5.3.2 IP-40 Model (Number of shims of 1 mm thickness):

a) NR, NBR, EPDM, HYPALON, NR-A and NBR-A:

Bar	1/min				
	0-19	20-39	40-59	60-79	80-99
0.5	4	4	4	4	3
2.0	5	4	4	4	4
4.0*	5	5	5	4	4
6.0	6	5	5	–	–
8.0	6	6	–	–	–

\*Factoring default setting if working pressure is not informed.

b) Norprene:

Bar	1/min				
	0-19	20-39	40-59	60-79	80-99
0.5	14	14	14	14	14
2.0*	14	14	14	14	14

\*Factoring default setting if working pressure is not informed.

### 5.3.3 IP-50 Model (Number of shims of 1 mm thickness):

a) NR, NBR, EPDM, HYPALON, NR-A and NBR-A:

Bar	1/min				
	0-19	20-39	40-59	60-79	80-99
0.5	1	1	1	0	0
2.0	2	1	1	1	1
4.0*	2	2	2	2	2
6.0	3	3	3	3	–
8.0	4	3	–	–	–

\*Factoring default setting if working pressure is not informed.

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### 5.3.4 IP-60 Model (Number of shims of 1 mm thickness):

a) NR, NBR, EPDM, NR-A and NBR-A:

Bar	1/min				
	0-19	20-39	40-59	60-79	80-99
0.5	6	5	5	5	5
2.0	6	6	6	6	5
4.0*	6	6	6	6	6
6.0	7	6	6	6	6
8.0	7	7	7	7	–

*\*Factoring default setting if working pressure is not informed.*

### 5.3.5 IP-70 Model (Number of shims of 1 mm thickness):

a) NR, NBR, EPDM, HYPALON, NR-A and NBR-A:

Bar	1/min				
	0-19	20-39	40-59	60-79	80-99
0.5	1	1	0	0	0
2.0	1	1	1	0	0
4.0*	2	2	2	1	1
6.0	3	3	2	–	–
8.0	4	3	3	–	–

*\*Factoring default setting if working pressure is not informed.*

### 5.3.6 IP-70D Model (Number of shims of 1 mm thickness):

Each of the two pump bodies is fitted with the following configuration:

a) NR, NBR, EPDM, HYPALON, NR-A and NBR-A:

Bar	1/min				
	0-19	20-39	40-59	60-79	80-99
0.5	1	1	0	0	0
2.5	1	1	1	0	0
3.0*	2	2	2	1	1

\*Factoring default setting if working pressure is not informed.

## 6 COMMISSIONING

### 6.1 Testing prior to commissioning the pump

The following tests are to be carried out:

- Ensure that the pump has not been damaged during transportation or storage. Immediately report any damage to the supplier.
- Check that the mains voltage is suitable for the motor.
- 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.
- Only switch the pump on if the front cover has been properly attached.
- Check that the rollers are correctly fitted and fastened.
- Check that the pump drive and the inner of the rollers are correctly greased. The specially formulated grease can be obtained the authorised realax pump distributor.
- Check that the thermal overload protection (not included in the delivery scope) corresponds to the value specified on the motor type plate.
- Check whether the direction of rotation is correctly adjusted.
- Check that the optional electrical components are connected and are working properly.
- Install a manometer in the pressure line if the back-pressure value is unknown.
- Check the operating instructions in order to ensure that the flow values, pressures and power consumption of the motor do not exceed the rated values.
- Install a pressure relief valve 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.



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## **7 MAINTENANCE, REPAIR, MALFUNCTIONS, DISPOSAL AND SPARE PARTS**

### **7.1 Lubrification**

Check that the rollers and the hose are sufficiently lubricated. Use only the original relax silicone grease.

- Check every 300 operating hours.

Model	Silicon grease quantity (gr)
IP-30	150
IP-40	200
IP-50	250
IP-60	400
IP-70	500

Gear reducers.

- Exchange the oil at regular intervals and make sure that the gear is lubricated in accordance with the instructions in the gearbox manual.

### **7.2 Exchanging the pump hoses**

#### **7.2.1 Exchanging the pump hoses (refer to section 8 for parts lists and drawings)**

##### **7.2.1.1 Models IP-30, IP-40, IP-50, IP-70 and IP-70D**

- 1 Close off all valves, in order to prevent leakage of the feed chemical.
- 2 Dismantle the pipes from both discharge and suction sides
- 3 Remove the front cover.
- 4 Remove a roller (the roller that is not touching the pump hose).
- 5 Mount the front cover.
- 6 Turn the rotor with the help of the motor so that the remaining roller is not pressing against the pump hose.
- 7 Dismount the front cover.
- 8 Remove the press flange and connections from the pump housing.
- 9 Remove the press rings.
- 10 Remove the pump hose to be exchanged.

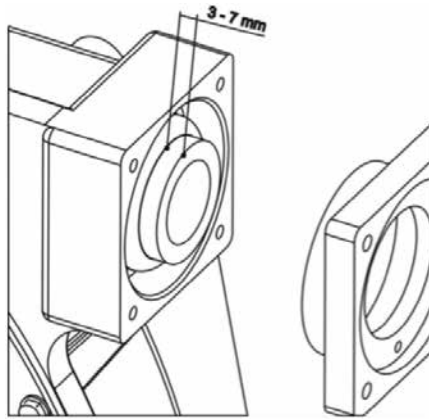
### 7.2.1.2 Model IP-60

- 1 Close off all valves, in order to prevent leakage of the feed chemical.
- 2 Dismantle the pipes from both discharge and suction sides
- 3 Remove the front cover.
- 4 Remove a roller (the roller that is not touching the pump hose).
- 5 Mount the front cover.
- 6 Turn the rotor with the help of the motor so that the remaining roller is not pressing against the pump hose.
- 7 Dismount the front cover.
- 8 Remove the connections.
- 9 Remove the press flange from the pump casing.
- 10 Remove the pump hose to be exchanged.
- 11 Dismantle the inserts from both pump hose ends.

## 7.2.2 Exchanging the pump hoses- installation

### 7.2.2.1 Models IP-30, IP-40, IP-50, IP-70 and IP-70D

- 1 Clean the interior surfaces of the pump housing.
- 2 Lubricate the internal surfaces of the pump housing at the contact surfaces to the pump hose with original silicon grease.
- 3 Check the rollers. Ensure that the roller surfaces are not damaged.
- 4 Lay the pump hose into the pump housing.
- 5 Lay the press rings. Between the end of the hose and the press ring, it has to be a distance of 3-7 mm.



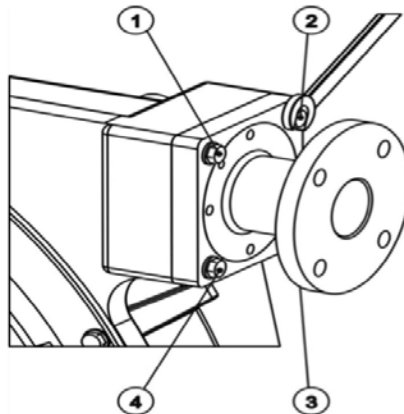
**Fig 4:**

*Required distance between the end of the hose and the press ring.*

- 6** Fasten the press flange and the connections to the pump casing, tightening progressive the bolts in clock wise (1, 3, 2, 4, 1, 3, 2, 4, etc.), until the flange becomes totally tighten.

**Torque setting**

Model	IP-30	IP-40	IP-50	IP-60	IP-70
Press flange	25 Nm	30 Nm	35 Nm	55 Nm	40 Nm
Connection	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm



**Fig 5:**

*Way to proceed with the screws tightening.*

- 7 Mount the front cover.
- 8 Turn the rotor with the help of the motor so that the remaining roller presses against the pump hose.
- 9 Dismount the front cover.
- 10 Re-attach the second roller with shims back onto the rotor.
- 11 Lubricate the pump hose and the rollers.
- 12 Attach the front cover to the pump housing.
- 13 Mount the pipes from both discharge and suction sides.
- 14 Open all of the valves.

### 7.2.2.2 Model IP-60

- 1 Clean the interior surfaces of the pump casing.
- 2 Lubricate the internal surfaces of the pump casing at the contact surfaces to the pump hose with original silicon grease.
- 3 Check the rollers. Ensure that the roller surfaces are not damaged.
- 4 Lay the pump hose into the pump casing.
- 5 Attach the inserts at both hose ends with the help of the press flange.
- 6 Fasten the two parts of press flanges us the base.
- 7 Fasten the press flange to the pump casing.
- 8 Fasten the connections to the press flange.
- 9 Mount the front cover.
- 10 Turn the rotor with the help of the motor so that the remaining roller presses against the pump hose.
- 11 Dismount the front cover.
- 12 Re-attach the second roller with shims back onto the rotor.
- 13 Lubricate the pump hose and the rollers.
- 14 Attach the front cover to the pump casing.
- 15 Mount the pipes from both discharge and suction sides.
- 16 Open all of the valves.

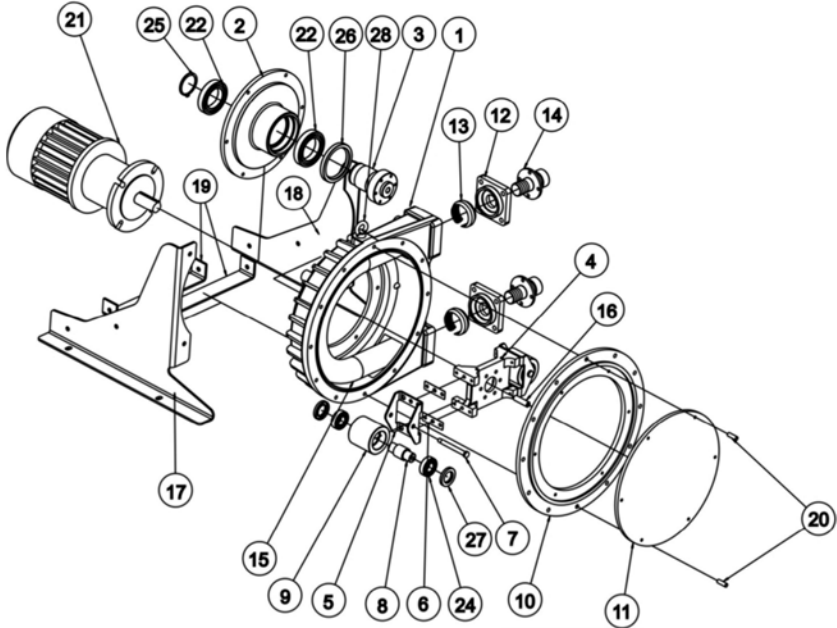
## 7.3 Troubleshooting

<b>Problem</b>	<b>Possible cause</b>	<b>Solution</b>
Increased pump temperature	Pump hose has no lubricant	Lubricate pump hose
	Increased product temperature	Reduce product temperature
	Insufficient or poor suction conditions	Check suction line for blockages
	Pump speed too high	Reduce pump speed
Reduced flow or pressure	Valves on discharge and or suction side completely or partially closed	Open valves
	Pump hose insufficiently compressed	Check number – See section 5.3
	Pump hose rupture (the product leaks out into the housing)	Exchange pump hose – See section 7.2.2
	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
	Suction line too long	Shorten the suction line, as far as possible
	High viscosity of medium	Reduce viscosity, as far as possible, reduce speed or reconsider application
Reduced flow or pressure	Air introduction in the suction connections	Check connections and accessories for air tightness
	High pulsation on suction	Tighten connections and accessories. Mount antipulsation equipment. Reconsider application (speed, etc.)

Vibrations on pumps and pipelines	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
Short operational lifetime of the hoses	Chemical exposure	Check the compatibility of the hose with the liquid being conveyed, the cleaning fluid and the lubricant. If in doubt, always consult your realax distributor
	High pump speed	Reduce pump speed
	High conveying temperature	Reduce product temperature. If in doubt, always consult your realax distributor
	High operating pressure	Reduce operating pressure. If in doubt, always consult your realax distributor
	Pump cavitation	Check the suction conditions. If in doubt, always consult your realax distributor
	Abnormal elevation of temperature	Check rollers shaft mounting
	Unsuitable lubricant	Always consult your realax distributor for correct lubricant
	Insufficient quantity of grease	Top up lubricate hose with suitable grease
Pump hose pulled into the pump housing	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	Top lubricate hose with suitable grease
The pump does not start up	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 power supply. Start occurs at minimum 10 Hz
	Blockage in the pump	Check if the suction or discharge side is blocked. Remove blockage

## 8 SPARE PARTS

### 8.1 Spare parts exploded IP-30 Model

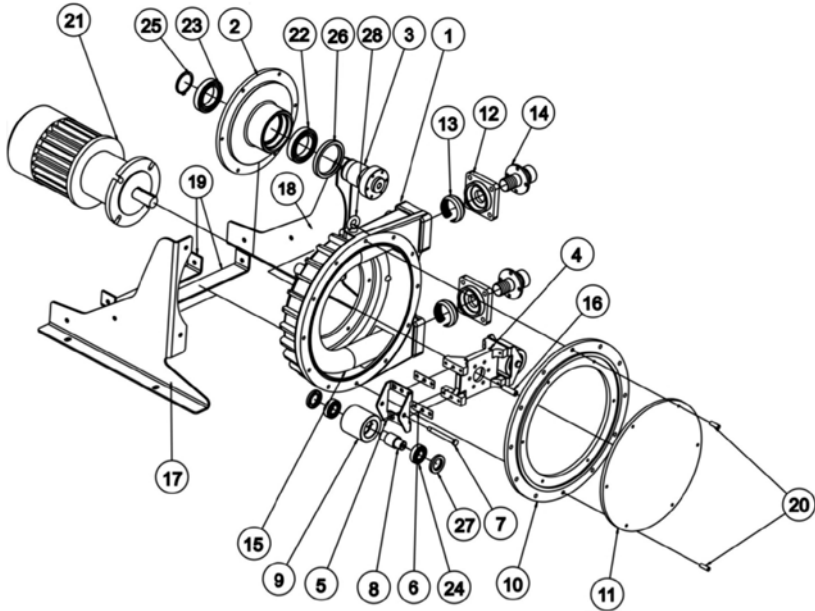


Pos.	Description	Quantity	Reference
1	Casing	1	107.00.01
2	Ball bearing box	1	107.00.03
3	Rotor shaft	1	107.00.04
4	Rotor	1	107.00.05
5	Roller support	2	107.00.06
6	Shim		107.00.07
7	Shaft screw	2	107.00.08
8	Roller shaft	2	107.00.09
9	Roller	2	107.00.11

<b>Pos.</b>	<b>Description</b>	<b>Quantity</b>	<b>Reference</b>
10	Metallic cover	1	107.00.13
11	Polycarbonate cover	1	107.00.14
12	Press flange	2	107.00.15
13	Press ring	2	100.00.05
14	Connection SS 1 1/4" BSP	2	107.00.17
	Connection SS 1 1/4" NPT	2	107.00.34
	Connection DIN 11851 NW32	2	107.00.35
	Connection TRI-CLAMP	2	107.00.36
	Connection flange DIN DN32 INOX	2	107.00.37
	Connection flange ANSI DN32 INOX	2	107.00.38
	Connection polypropylene 1 1/4" BSP	2	107.00.39
15	Peristaltic hose NR	1	107.00.18
	Peristaltic hose NR-A	1	107.00.19
	Peristaltic hose NBR	1	107.00.20
	Peristaltic hose NBR-A	1	107.00.21
	Peristaltic hose EPDM	1	107.00.22
16	Shaft cap	1	110.00.23
17	Base left	1	100.01.24
	Base left S.S	1	100.01.34
18	Base right	1	100.01.25
	Base right S.S		100.01.35
19	Base middle	2	100.01.26
	Base middle S.S		100.01.36
20	Stud	2	102.00.14
21	Driver	1	
22	Ball bearings	2	100.01.28
24	Ball bearings roller	4	107.00.30
25	Ring for shaft	1	100.01.31
26	Lip seal box	1	100.01.32
27	Lip seal roller	4	107.00.33
28	Eye bolt	1	106.00.40
29	Drain plug IP	3	107.00.41



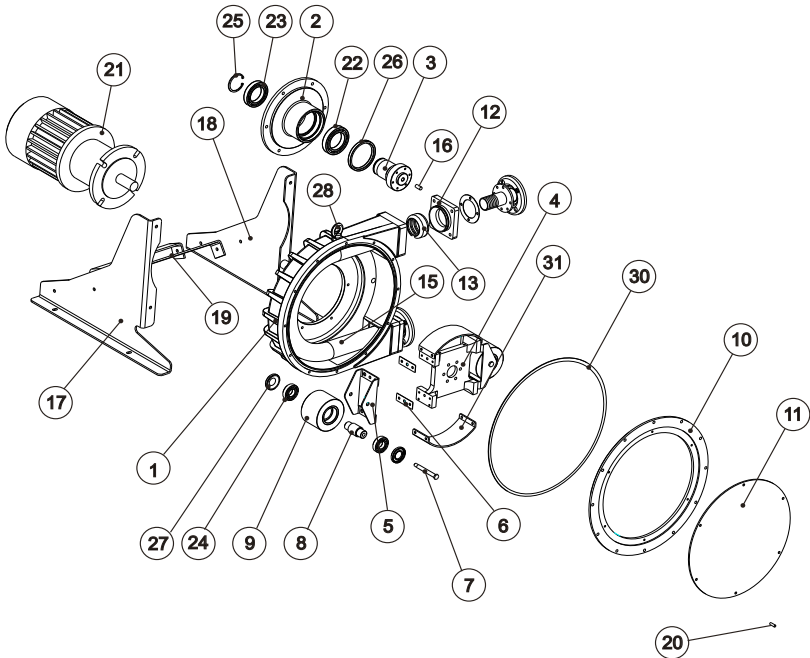
## 8.2 Spare parts exploded IP-40 Model



Pos.	Description	Quantity	Reference
1	Casing	1	106.00.01
2	Ball bearing box	1	106.00.03
3	Rotor shaft	1	106.00.04
4	Rotor	1	106.00.05
5	Roller support	2	106.00.06
6	Shim 1mm		106.00.07
	Shim 4mm		106.00.49
7	Shaft screw	2	106.00.08
8	Roller shaft	2	106.00.09
9	Roller	2	106.00.11
10	Metallic cover	1	106.00.13
	Metallic cover vacuum equipment	1	106.00.43
11	Polycarbonate cover	1	106.00.14
12	Press flange	2	106.00.15
13	Press ring	2	104.00.05
	Press ring for NORPRENE hose	2	106.00.51

Pos.	Description	Quantity	Reference
14	Connection SS 1 1/2" BSP	2	106.00.17
	Connection SS 1 1/2" NPT	2	106.00.34
	Connection DIN 11851 NW40	2	106.00.35
	Connection TRI-CLAMP	2	106.00.36
	Connection flange DIN DN40 INOX	2	106.00.37
	Connection flange ANSI DN40 INOX	2	106.00.38
	Connection Polypropylene 1 1/2" BSP	2	106.00.39
	Connection PVDF 1 1/2" BSP	2	106.00.41
	Connection Polypropylene 1 1/2" NPT	2	106.00.47
	Connection SMS-38	2	106.00.42
15	Peristaltic hose NR	1	106.00.18
	Peristaltic hose NR-A	1	106.00.19
	Peristaltic hose NBR	1	106.00.20
	Peristaltic hose NBR-A	1	106.00.21
	Peristaltic hose EPDM	1	106.00.22
	Peristaltic hose HYPALON	1	106.00.48
	Peristaltic hose NORPRENE	1	106.00.50
16	Shaft cap	1	106.00.23
17	Base left	1	106.00.24
	Base left S.S	1	106.00.44
	Base left trolley steel	1	106.00.52
	Base left trolley S.S	1	106.00.54
18	Base right	1	106.00.25
	Base right S.S	1	106.00.45
	Base right trolley steel	1	106.00.53
	Base right trolley S.S	1	106.00.55
19	Base middle	2	106.00.26
	Base middle S.S	2	106.00.46
20	Stud	2	106.00.27
21	Driver	1	
22	Ball bearing anterior	1	106.00.28
23	Ball bearing posterior	1	106.00.29
24	Ball bearing roller	4	106.00.30
25	Ring for shaft	1	106.00.31
26	Lip seal box	1	106.00.32
27	Lip seal roller	4	106.00.33
28	Eye bolt	1	106.00.40
29	Drain plug IP	3	107.00.41

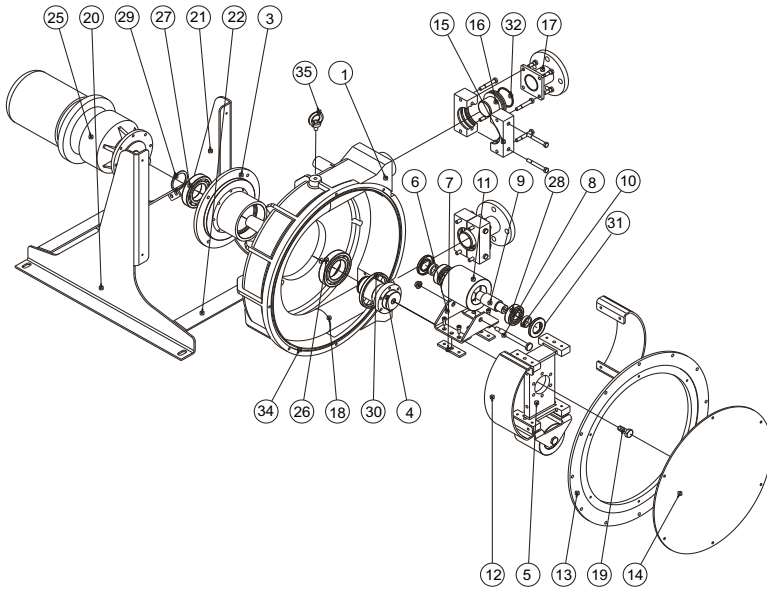
### 8.3 Spare parts exploded IP-50 Model



Pos.	Description	Quantity	Reference
1	Casing	1	108.00.01
2	Ball bearing box	1	108.00.02
3	Rotor shaft	1	108.00.03
4	Rotor	1	108.00.04
5	Roller support	2	108.00.05
6	Shim		108.00.06
7	Shaft screw	2	108.00.07
8	Roller shaft	2	108.00.08
9	Roller	2	108.00.09
10	Metallic cover	1	108.00.10
11	Polycarbonate cover	1	108.00.39
12	Press flange	2	108.00.11
13	Press ring	2	108.00.12

<b>Pos.</b>	<b>Description</b>	<b>Quantity</b>	<b>Reference</b>
14	Connection flange DN50 S.S	2	108.00.13
	Connection ANSI flange DN-50 SS	2	108.00.14
	Connection flange DN50 PP	2	108.00.16
	Connection ANSI flange DN-50 PP	2	108.00.17
	Connection flange DN-50 PVDF	2	108.00.18
	Connection ANSI flange DN-50 PVDF	2	108.00.19
	Connection DIN 11851 NW-50	2	108.00.15
	Connection TRI-CLAMP	2	
15	Peristaltic hose NR	1	108.00.20
	Peristaltic hose NR-A	1	108.00.21
	Peristaltic hose NBR	1	108.00.22
	Peristaltic hose NBR-A	1	108.00.23
	Peristaltic hose EPDM	1	108.00.24
	Peristaltic hose HYPALON	1	108.00.25
16	Shaft cap	1	
17	Base left	1	108.00.26
	Base left S.S	1	108.00.36
18	Base right	1	108.00.27
	Base right S.S	1	108.00.37
19	Base middle	2	108.00.28
	Base middle S.S	2	108.00.38
20	Stud	2	
21	Driver	1	
22	Ball bearing anterior	1	108.00.29
23	Ball bearing posterior	1	108.00.30
24	Ball bearing roller	4	108.00.31
25	Ring for shaft	1	108.00.32
26	Lip seal box	1	108.00.33
27	Lip seal roller	4	108.00.34
28	Eye bolt	1	
29	Drain plug IP-50	3	
30	O-Ring front cover	1	108.00.35
31	Lateral rotor	2	108.00.44

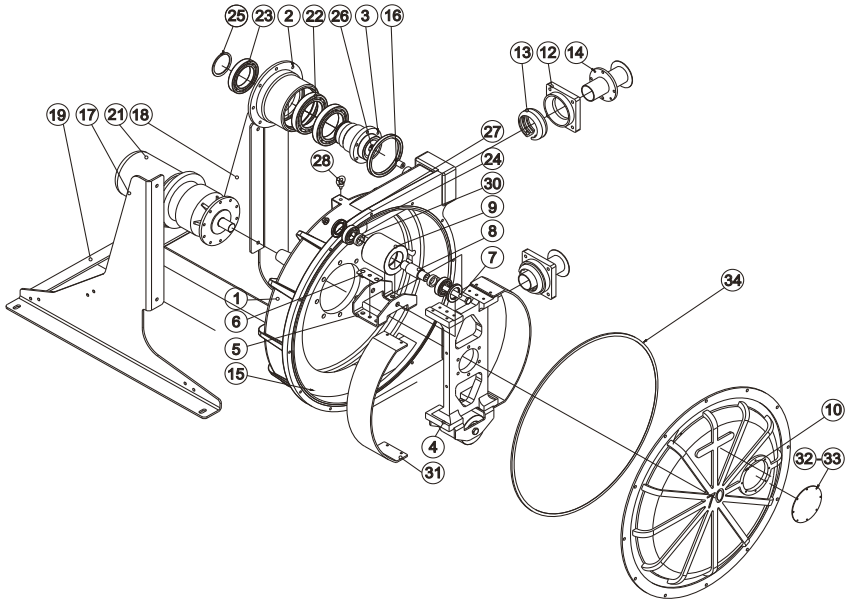
## 8.4 Spare parts exploded IP-60 Model



Pos.	Description	Quantity	Reference
1	Casing	1	110.00.01
3	Ball bearing box	1	110.00.03
4	Rotor shaft	1	110.00.04
5	Rotor	1	110.00.05
6	Roller support	2	110.00.06
7	Shim 1 mm		110.00.07
	Shim 7 mm		110.00.55
	Shim 5 mm		110.00.56
8	Shaft screw	2	110.00.08
9	Roller shaft	2	110.00.09
10	Separator	4	110.00.10
11	Roller	2	110.00.11
12	Lateral rotor	2	110.00.12
13	O-ring cover	1	110.00.13
14	Front cover transparent	1	110.00.14
15	Press flange	2	110.00.15

<b>Pos.</b>	<b>Description</b>	<b>Quantity</b>	<b>Reference</b>
16	Insert S.S	2	110.00.16
	Insert Polypropylene	2	110.00.46
	Insert PVDF	2	110.00.47
17	Connection flange DIN	2	110.00.17
	Connection flange ANSI	2	110.00.41
	Connection TRI-CLAMP	2	110.00.42
	Connection DIN 11851	2	110.00.43
	Connection flange DIN (Halar)	2	110.00.44
	Connection flange ANSI (Halar)	2	110.00.45
18	Peristaltic hose NR	1	110.00.18
	Peristaltic hose NR-A	1	110.00.19
	Peristaltic hose NBR	1	110.00.20
	Peristaltic hose NBR-A	1	110.00.21
	Peristaltic hose EPDM	1	110.00.22
	Peristaltic hose HYPALON	1	110.00.54
19	Bearing box cap	1	110.00.23
20	Base left	1	110.00.37
	Base left S.S	1	110.00.48
21	Base right	1	110.00.38
	Base right S.S	1	110.00.49
22	Base middle 100 mm	1	110.00.39
	Base middle S.S 100 mm	1	110.00.50
23	Base middle 60mm	2	110.00.40
	Base middle S.S 60mm	2	110.00.51
24	Stud	2	106.00.27
25	Driver	1	
26	Ball bearing anterior	1	110.00.26
27	Ball bearing posterior	1	110.00.27
28	Roller ball bearing	4	110.00.28
29	Elastic Ring for shaft	1	110.00.29
30	Bearing box lip seal	1	110.00.30
31	Roller lip seal	1	110.00.31
32	O-ring connection	2	110.00.32
34	O-ring cover	1	110.00.33
35	Eye bolt	1	110.00.34
36	Nut	2	110.00.35
37	Nut	2	110.00.36
38	Drain plug IP	3	107.00.41
39	Check valve	1	110.00.53

## 8.5 Spare parts exploded IP-70 Model

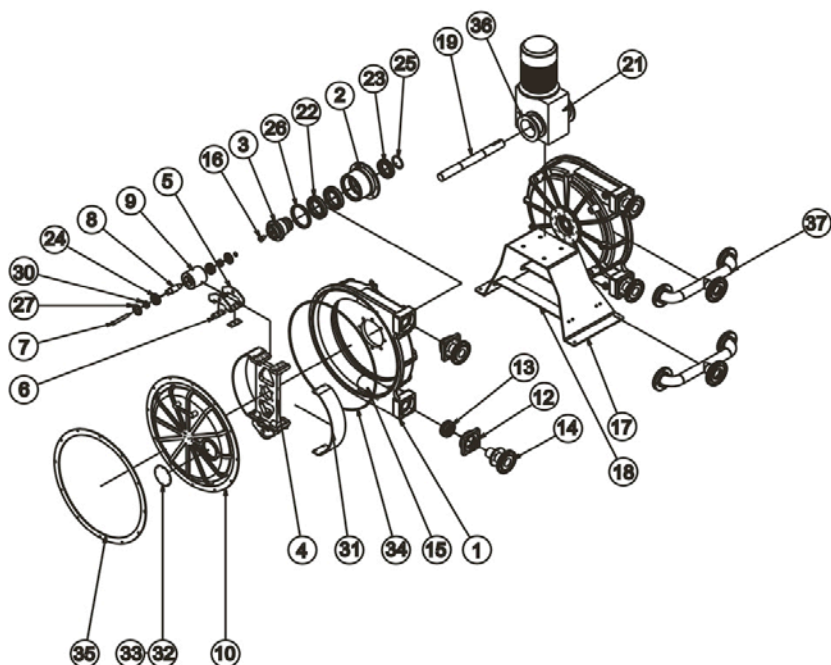


Pos.	Description	Quantity	Reference
1	Casing	1	112.00.01
2	Ball bearing box	1	111.00.03
3	Rotor shaft	1	111.00.04
4	Rotor	1	112.00.02
5	Roller support	2	112.00.03
6	Shim		112.00.04
7	Shaft screw	2	112.00.05
8	Roller shaft	2	112.00.06
9	Roller	2	112.00.07
10	Front cover	1	112.00.08
12	Press flange	2	112.00.09
13	Press ring	2	112.00.10

<b>Pos.</b>	<b>Description</b>	<b>Quantity</b>	<b>Reference</b>
14	Connection DIN flange S.S	2	112.00.11
	Connection ANSI flange S.S	2	112.00.12
	Connection DIN 11851 NW-65	2	112.00.13
	Connection DIN flange PP	2	112.00.14
	Connection ANSI flange PP	2	112.00.15
	Connection DIN flange PVDF	2	112.00.16
	Connection ANSI flange PVDF	2	112.00.17
	Connection TRI-CLAMP	2	112.00.43
15	Peristaltic hose NR	1	112.00.18
	Peristaltic hose NR-A	1	112.00.19
	Peristaltic hose NBR	1	112.00.20
	Peristaltic hose NBR-A	1	112.00.21
	Peristaltic hose EPDM	1	112.00.22
	Peristaltic hose HYPALON	1	112.00.23
16	Shaft cap	1	111.00.08
17	Base left	1	112.00.24
	Base left S.S		112.00.36
18	Base right	1	112.00.25
	Base right S.S	1	112.00.37
19	Base middle	2	112.00.26
	Base middle S.S	2	112.00.38
20	Stud	2	112.00.44
21	Driver	1	
22	Ball bearing anterior	2	111.00.28
23	Ball bearing posterior	1	111.00.29
24	Ball bearing roller	4	112.00.27
25	Ring for shaft	1	111.00.30
26	Lip seal box	1	111.00.31
27	Lip seal roller	4	112.00.28
28	Eye bolt	1	112.00.29
29	Drain plug IP-70	3	112.00.30
30	Roller ferrule	2	112.00.31
31	Lateral rotor	2	112.00.32
32	Inspection window (fixed model)	1	112.00.33
33	Inspection window (movil model)	1	112.00.34
34	O-ring front cover	1	112.00.35



## 8.6 Spare parts exploded IP-70D Model



Pos.	Description	Quantity	Reference
1	Casing	2	112.00.01
2	Ball bearing box	2	111.00.03
3	Rotor shaft	2	111.00.04
4	Rotor	2	112.00.02
5	Roller support	4	112.00.03
6	Shim		112.00.04
7	Shaft screw	4	112.00.05
8	Roller shaft	4	112.00.06
9	Roller	4	112.00.07
10	Front cover	2	112.00.08
12	Press flange	4	112.00.09
13	Press ring	4	112.00.10

<b>Pos.</b>	<b>Description</b>	<b>Quantity</b>	<b>Reference</b>
14	Connection DIN flange S.S	4	112.00.11
	Connection ANSI flange S.S	4	112.00.12
15	Peristaltic hose NR	2	112.00.18
	Peristaltic hose NR-A	2	112.00.19
	Peristaltic hose NBR	2	112.00.20
	Peristaltic hose NBR-A	2	112.00.21
	Peristaltic hose EPDM	2	112.00.22
	Peristaltic hose HYPALON	2	112.00.23
16	Shaft cap	2	111.00.08
17	Base	1	112.00.48
	Base S.S	1	112.00.53
18	Base middle	2	112.00.49
	Base middle S.S	2	112.00.54
19	Dual shaft	1	112.00.46
20	Stud	4	112.00.44
21	Driver	1	
22	Ball bearing anterior	4	111.00.28
23	Ball bearing posterior	1	111.00.29
24	Ball bearing roller	4	112.00.27
25	Ring for shaft	2	111.00.30
26	Lip seal box	2	111.00.31
27	Lip seal roller	8	112.00.28
28	Eye bolt	2	112.00.29
29	Drain plug IP-70	6	112.00.30
30	Roller ferrule	4	112.00.31
31	Lateral rotor	4	112.00.32
32	Inspection window (fixed model)	2	112.00.33
33	Inspection window (mobile model)	2	112.00.34
34	O-ring front cover	2	112.00.35
35	Metallic cover ring	1	112.00.51
36	Gear reducer coupling	2	112.00.47
37	Collector DIN S.S	2	112.00.50
	Collector ANSI S.S	2	112.00.53

## 9 DECLARATION OF CONFORMITY

- Original -

### EC Declaration of Conformity

We hereby declare, **AxFlow Holding AB**  
**Wenner-Gren Center**  
**Sveavaegen 166, floor 14**  
**SE-113 46 Stockholm**  
**Sweden**

That the following designated product complies with the pertinent fundamental safety and health requirements of the EC Directive in terms of its design and construction and in terms 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 IP  
**Product type:** IP-30, IP-40, IP-50/B, IP-60, IP-70, IP-70D  
**Serial no.:** Refer to nameplate on the device  
**Pertinent EC Directives:** CE Declaration of Conformity (Ann. II. A, 2006/42/CE): The pump is conform 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 amendments.

**Signature:**  
**Details of the signatory:**

  
**Hakan Bjerner**

## 10 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.

**DK**

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

AxFlow A/S

Omstillingen: +45 7010 3550

Telefax: +45 7010 3555

Bestillinger, forespørgsler og almene spørgsmål kan mailes til os på:

[axflow@axflow.dk](mailto:axflow@axflow.dk)

**Kontor og lager:**

AxFlow A/S

Kong Svends Vej 65A

DK-2765 Smørum

[www.axflow.dk](http://www.axflow.dk)

**FR**

**Pour le service et l'assistance technique contactez :**

AxFlow Services

Tél. 0 810 005 202

E-mail: [info@axflow.fr](mailto:info@axflow.fr)

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

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AxFlow SAS

87, rue des Poiriers

Sainte Apolline

BP 72

78 372 PLAISIR CEDEX

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Dublin 12

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Fax : +353(0)1 4504887

[www.axflow.ie](http://www.axflow.ie)

**IT**

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Reparto di assistenza AxFlow

Axflow SpA

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Fax: 0039 02 48401926

E-mail: [service@axflow.it](mailto:service@axflow.it)

**Per maggiori informazioni sulle pompe peristaltiche realax, contattate:**

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[www.axflow.it](http://www.axflow.it)

**PL**

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04-664 Warszawa  
Telefon centrala: +48 (22) 613 00 12

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wewn. 254 lub kom. +48 667 856 565

**Wsparcie techniczne części zamienne:**

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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:**

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[www.axflow.pl](http://www.axflow.pl)

**SE**

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E-post: [kundservice@axflow.se](mailto:kundservice@axflow.se)  
[www.axflow.se](http://www.axflow.se)

**SRB**

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

AxFlow GesmbH Austria  
Seering 2/2  
8141 Unterpremstätten  
Tel.: +43 316/68 35 09-0  
Fax: +43 316/68 34 92-20  
E-mail: [office@axflow.at](mailto:office@axflow.at)

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

Regionalni menadžer prodaje  
Đorđe Bebić  
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Tel: +381 21/63 64 728  
Fax: +381 21/63 69 366  
E-mail: [djordje.bebic@axflow.at](mailto:djordje.bebic@axflow.at)  
[www.axflow.rs](http://www.axflow.rs)

**UK**

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

AxFlow Services  
Phone: +44(0)1484 543649  
Fax: +44(0)1484 512608  
E-mail: [service@axflow.co.uk](mailto:service@axflow.co.uk)

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**AxFlow Scotland**

Unit 3, Harlaw Centre, Howe Moss  
Crescent, Kirkhill Industrial Estate,  
Dyce, Aberdeen, AB21 OGN  
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**AxFlow Huddersfield**

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