Operating instructions ISI Series Peristaltic pump





Congratulations! And welcome to the world of realax 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 realax pump simple, troublefree 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. or course this manual is available in your language.

Please download it from the attached USB flash drive.



TABLE OF CONTENTS

1	Introduction	4
2	Safety	6
3	Functional description	.11
4	Description	.12
5	Construction	.13
6	Pump hose	.14
7	Transport & storage	14
8	Assembly, commissioning & installation	16
9	Maintenance	25
10	Troubleshooting	.32
11	Spare parts	34
12	End of life	.52
13	Declaration of Conformity	.53
14	Warranty	.54
15	Where to buy	55



1 INTRODUCTION

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

The ISI 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.

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 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

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 that 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 Realax 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.

3 FUNCTIONAL DESCRIPTION

The ISI 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.)

NB: Maximum pressure on suction/inlet side is 0.5 bar (7.25 psi approx.) for ISI 19.

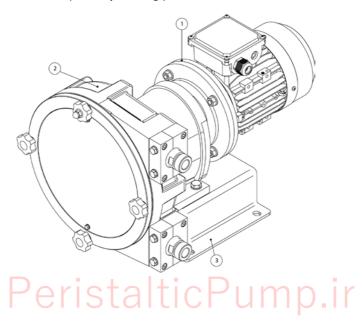
The ISI Series has been designed for safe and uncomplicated operation, as well as straightforward maintenance.

The ISI 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 Main modules

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





Key performance data and noice levels

DESCRIPTION	UNIT	ISI 10	ISI 13	ISI 16	ISI 19	ISI 22
Max. Capacity	m³/h	0.10	0.16	0.38	0.52	1
Continuous Duty	GPM	0.42	0.70	1.67	2.29	4.40
Max. Capacity	m³/h	0.13	0.19	0.44	0.78	1.15
Intermittent Duty	GPM	0.55	0.82	1.94	3.43	5.06
Capacity per	l/rev	0.02	0.04	0.09	0.12	0.25
Revolution	Gal/rev	0.01	0.01	0.02	0.03	0.07
Max. Permissable Working Pressure	bar	8			2	8
Permissable Ambient Temperature	°C	-40 to +40			+40	-40 to +40
Permissable Product Temperature	°C	-10 to +80			+90	-10 to +80
Sound Level at 1m	dB (A)	70				

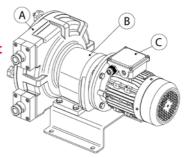
4 DESCRIPTION

4.1 Identification of the product

A: Pump head

B: Gearbox

C: Electric motor



4.2 Identification of the pump

MOD: Type number

Nº: 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 rollers 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 rollers against the pump hose. This serves to suck the media and convey it into the metering line.

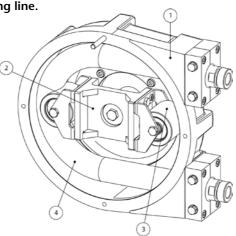


Fig. 1: Diagram of functional principle

1. Pump housing | 2. Rotor| 3. Rollers | 4. Hose

В

C



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
NR-A (Available for ISI 10 and ISI 13)	Natural rubber (food grade)	Black

TUBE TYPE	TUBE MATERIAL	COLOUR STRIPE
NORPRENE	Norprene (food)	N/A
SILICONE	Silicone	N/A
TYGON (only ISI 19)	Tygon	N/A

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 rollers (see also section 9.4.1 for instructions):
 - Remove the front cover
 - Remove the roller 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 roller 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

ISI pumps sizes can be lifted manually. ISI 22 pumps must be lifted by two people. It is the customer's responsibility to adhere to local workplace legislation.

WEIGHTS	ISI 10 / 13	ISI 16	ISI 19	ISI 22
Total pump weight	14 kg 30 lbs	23 kg 50 lbs	23 kg 50 lbs	49 kg 108 lbs
Lifting		2 people		



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

Hose Material	Min. Temp. (°C) Feed liquid	Max. Temp (°C) Feed liquid	Min. Temp (°C) Environment	Max. Pressure (bar)
NR, NBR, EPDM, CSM, NBR-A, NR-A	-10	80*	-20	8

Tube Material	Min. Temp. (°C) Feed chemical	Max. Temp (°C) Feed chemical	Min. Temp (°C) Environment	Max. Pressure (bar)	
NORPRENE, SILICONE	-10	90*	-20	2	
TYGON (only ISI 19)	-10	70*	-20	2	

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

8.2 Commissioning

8.2.1 Testing prior to commissioning the pump

The following tests are to be carried out:

- Check that the rollers 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

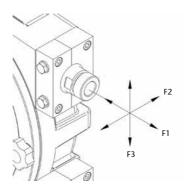
- Install a manometer in the pressure line if the back-pressure value is unknown. Maximum pressure on suction/inlet side is 3 bar (45 psi approx.).
- The pump is to be positioned as near as possible to the liquid container, so that the suction side is kept as short and straight as possible.
- The suction 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	ISI 10	ISI 13	ISI 16	ISI 19	ISI 22
F1	N			600		
FI	lb-f			135		
F2	Ν	300				
FZ	lb-f	67				
F3 N 300						
L2	lb-f			67		

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.

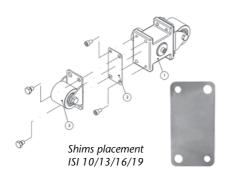


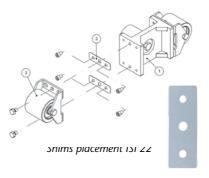
8.4 Adjusting the roller pressure

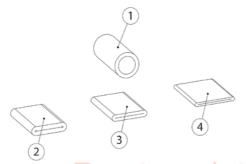
- The peristaltic pump is equipped with shims, in order to adjust the precise distance from the axis of rotation to the roller for correct hose compression (also dependent on speed and operating pressure).
- In order to achieve optimal life of the pump hose, the compression force of the pump hose can be adjusted by placing a number of shims under the pressing rollers. The shims (2) are



fitted between the rotor (1) and the pressing roller (3). The number of shims will vary for each counter pressure situation.







Hose compression

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. Slight variations in colour of polyurethane rollers is normal.

8.4.1 Model ISI 10

Hose materials – NR, NBR, EPDM, CSM, NR-A and NBR-A: Number of shims of 0.5 mm thickness (part number AX102.01.49). NOTE: for fluid temperatures > 60 °C: reduce shim quantities by 1.

B	Revolutions/minute							
Bar	0-19	20-39	40-59	60-79	80-99			
0.5	1	1	1	1	1			
2.0	1	1	1	1	1	r of s		
4.0*	2	1	1	1	1	nbe him		
6.0	2	2	2	N/A	N/A	Number shims		
8.0	3	2	N/A	N/A	N/A	_		

^{*}Factory default setting if working pressure is not specified. N/A: Outside standard operating range of pump.

Hose materials - NORPRENE / SILICONE:

One 2.5 mm shim can be used (part number AX102.01.16), alternatively five 0.5 mm shims can be used (part number AX102.01.49) for a total of 2.5 mm.

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

Bar		Revol					
Dai	0-19	20-39	40-59	60-79	80-99		
0.5	1	1	1	1	1	Number of shims	
2.0	1	1	1	1	1		

^{*}Factory default setting if working pressure is not specified. N/A: Outside standard operating range of pump.



8.4.2 Model ISI 13

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

Number of shims of 0.5 mm thickness (part number AX102.01.49).

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

Dou:	Revolutions/minute							
Bar	0-19	20-39	40-59	60-79	80-99			
0.5	1	1	1	1	1			
2.0	1	1	1	1	1	r of s		
4.0*	2	1	1	1	1	nbe him		
6.0	2	2	2	N/A	N/A	Number shims		
8.0	3	2	N/A	N/A	N/A	_		

^{*}Factory default setting if working pressure is not specified. N/A: Outside standard operating range of pump.

Hose materials - NORPRENE / SILICONE:

One 2.5 mm shim can be used (part number AX102.01.16), alternatively five 0.5 mm shims can be used (part number AX102.01.49) for a total of 2.5 mm.

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

D		Revol					
Bar	0-19	20-39	40-59	60-79	80-99		
0.5	1	1	1	1	1	Number of shims	
2.0	1	1	1	1	1		

^{*}Factory default setting if working pressure is not specified. N/A: Outside standard operating range of pump.

8.4.3 Model ISI 16

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

Number of shims of 0.5 mm thickness (part number AX101.02.35).

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

Bar	Revolutions/minute						
	0-19	20-39	40-59	60-79	80-99		
0.5	1	1	1	1	1		
2.0	1	1	1	1	1	r of s	
4.0*	2	1	1	1	1	nbe him	
6.0	2	2	2	N/A	N/A	Number shims	
8.0	3	3	N/A	N/A	N/A	_	

^{*}Factory default setting if working pressure is not specified. N/A: Outside standard operating range of pump.

Hose materials - NORPRENE / SILICONE:

One 2.5 mm shim can be used (part number AX101.02.42) plus four 0.5 mm shims can be used (part number AX101.02.35) for a total of 4.5 mm.

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

D	Revolutions/minute					
Bar	0-19	20-39	40-59	60-79	80-99	
0.5	1+4	1+4	1+4	1+4	1+4	Number of chime
2.0*	1+4	1+4	1+4	1+4	1+4	Number of shims

^{*}Factory default setting if working pressure is not specified. N/A: Outside standard operating range of pump.

8.4.4 Model ISI 19

Hose materials - NORPRENE / TYGON:

One 2.5 mm shim is used (part number AX101.02.42).

Dan.		Revol	utions/mir	nute		
Bar	0-19	20-39	40-59	60-79	80-99	
0.5	1	1	1	1	1	Number of shims
2.0*	1	1	1	1	1	

^{*}Factoring default setting if working pressure is not informed.



8.4.5 Model ISI 22

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

Number of shims of 0.5 mm thickness (part number AX101.02.35). NOTE: for fluid temperatures > 60 °C: reduce shim quantities by 1.

D	Revolutions/minute						
Bar	0-19	20-39	40-59	60-79	80-99		
0.5	2	2	1	1	1		
2.0	2	2	2	2	2	r of s	
4.0*	3	3	2	2	2	nbe him	
6.0	3	3	3	N/A	N/A	Number shims	
8.0	4	3	N/A	N/A	N/A	_	

^{*}Factory default setting if working pressure is not specified. N/A: Outside standard operating range of pump.

Hose materials – NORPRENE / SILICONE:

One 5 mm shim (part number AX113.00.37) plus two 0.5 mm shims (part number AX113.00.33) can be used for a total of 6 mm.

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

Pau.		Revol	utions/mir	nute		
Bar	0-19	20-39	40-59	60-79	80-99	
0.5	1+2	1+2	1+2	1+2	1+2	Number of shims
2.0*	1+2	1+2	1+2	1+2	1+2	Number of shims

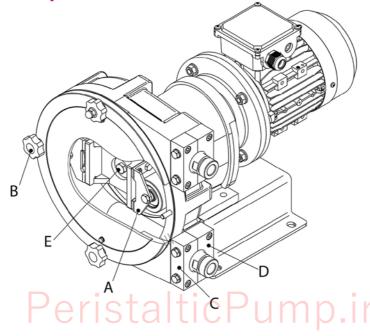
^{*}Factory default setting if working pressure is not specified. N/A: Outside standard operating range of pump.

9 MAINTENANCE

9.1 Components weights

DESCRIPTION	ISI 10 / 13	ISI 16	ISI 19	ISI 22
Total weight 14 kg 30 lbs		23 kg 50 lbs		49 kg 108 lbs
Pump cover 0.11 kg 0.24 lbs		3.26 kg 7.19 lbs		3.58 kg 7.89 lbs
Roller subassembly	0.30 kg 0.66 lbs	0.60 kg 1.32 lbs		1.06 kg 2.34 lbs
Connection 0.08 kg 0.18 lbs		0.14 kg 0.31 lbs		0.20 kg 0.44 lbs
Press flange 0.05 kg 0.11 lbs		0.07 kg 0.15 lbs		0.10 kg 0.22 lbs
Hose	0.16 kg 0.35 lbs	0.33 kg 0.73 lbs		0.70 kg 1.54 lbs







D	ESCRIPTION	UNITS	ISI 10 / 13	ISI 16	ISI 19	ISI 22
A	Roller support bolts	Nm	7 M5 8 mm Spanner	18 M8 13 mm Spanner		18 M8 13 mm Spanner
В	Cover bolts	Nm	Manual, no bolts	Manual, no bolts		Manual, no bolts
С	Hose clamp	Nm	1 M6 10 mm Spanner	2 M8 13 mm Spanner		2 M8 13 mm Spanner
D	Flange bracket bolts	Nm	2 M6 Allen Key, Size 5	4 M8 Allen Key, Size 6		4 M8 Allen Key, Size 6
E	Drive shaft bolts	Nm	33 M6 Allen Key, Size 5	33 M6 Allen Key, Size 5		43 M10 17 mm Spanner

9.3 Lubrication and cooling

ISI Pumps only require a thin film of grease to reduce the friction between the roller and the outer surface of the Hose or Tube. No other lubrication is necessary.

Lubricant quantity table

	UNIT	ISI 10 / 13	ISI 16	ISI 19	ISI 22
Lubricant	-	realax	realax	realax	realax
Required	gram		50 – 70		100
quantity	ounce		3.5		

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. Remove the front cover.

 Front covers of ISI Series can be removed manually (< 3 kg).
- 3. Remove the roller incl. roller support (the roller that is not touching the hose). Check the roller. Ensure that the roller surfaces are not damaged. Otherwise, please substitute the roller.







PeristalticPu

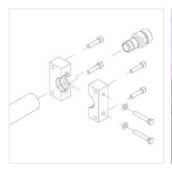




4. Rotate the rotor 180° to liberate the hose.



5. Remove the press and connection and hydraulic connections from pump housing.

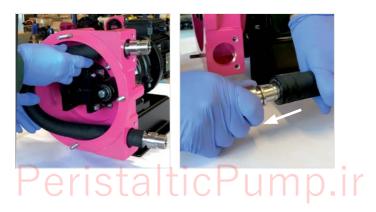






Flange connection

- 6. Remove the pump hose to be exchanged.
- 7. Dismount the connections of the hose.

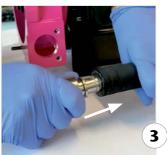


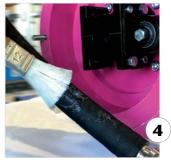
9.4.2 Installation of the new hose

- 1. Clean the interior surfaces of the pump housing with a clean dry cloth.
- 2. Lubricate with our original lubricant the internal surfaces of the pump housing.
- 3. Before lubricating, insert the connections into the replaced tube.
- Lubricate with our original lubricant the hose and at the contact surfaces between the pump hose and the external part of the new hose.
- 5. Lay the pump hose into the pump housing through the connection holes.

The hoses of the ISI pumps must be manually inserted through the lower opening up to the point where the hose begins to be compressed by the rotor.





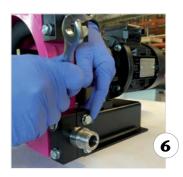




Peristaltic



- 6. Assemble the flanges.
- 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.
- Re-attach the second roller with shims back onto the rotor.
- 11. Apply grease manually to the new hose, as shown in the photo. Rollers will spread grease evenly over hose when rotor rotates.









- 12. Mount back the front cover.
- 13. Mount the pipes from both discharge and suction sides.
- 14. Open all of the valves.



9.5 Replacement of electric motor

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.



9.6 Addition of leak detection sensor

Detection sensor must be requested in initial order so that an additional hole is drilled in the pump housing.

Standard ISI pump housing is not prepared for retrofitting of leak detection sensor.





10 TROUBLESHOOTING

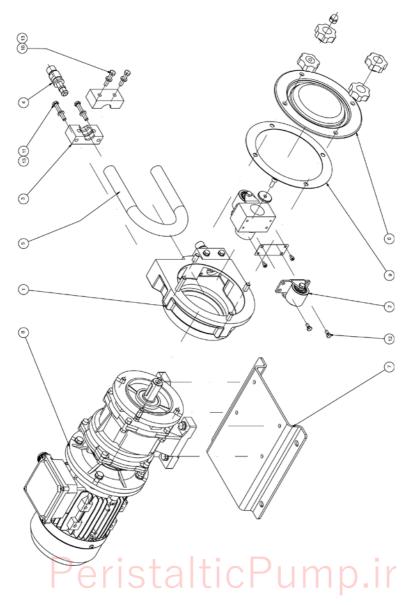
PROBLEM	POSSIBLE CAUSE	SOLUTION			
	Pump hose has no lubricant	Lubricate pump hose			
Increased	Increased product temperature	Reduce product temperature			
pump temperature	Insufficient or poor suction conditions	Check suction line condition			
	Pump speed too high	Reduce pump speed			
	Valves on discharge 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			
Reduced flow	Insufficient product quantity in storage container	Fill storage container or exchange pump			
or pressure	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.)			
	The pipes are not correctly fastened	Fasten pipes correctly (e.g. wall brackets)			
	Pump speed too high	Reduce pump speed			
Vibrations on pumps and pipelines	Insufficient nominal width of the pipes	Increase nominal width			
pipeinies	Pump base plate loose	Fasten base plate			
	Pulsation dampers insufficient or missing	Install pulsation dampers on suction and / or discharge side			
PeristalticPump.ir					

PROBLEM	POSSIBLE CAUSE	SOLUTION		
	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		
Short	High conveying temperature	Reduce product temperature		
operational lifetime of	High operating pressure	Reduce operating pressure		
the hoses	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		
	High inlet pressure (> 3 bar)	Reduce inlet pressure		
Pump hose pulled into	Pump hose filled with deposits	Clean or replace the pump hose		
the pump	Holder (press connection) insufficiently tightened	Re-tighten holder (press connection)		
	Insufficient grease	Reapply lubricant		
	Insufficient motor performance	Check motor and replace if necessary		
The pump	Insufficient output from frequency converter	The frequency converter must match the motor		
start up	Blockage in the pump	Check voltage. Start occurs at minimum 10 Hz		
	поскаде птите риттр	Check if the suction or discharge side is blocked. Rectify blockage		



11 SPARE PARTS

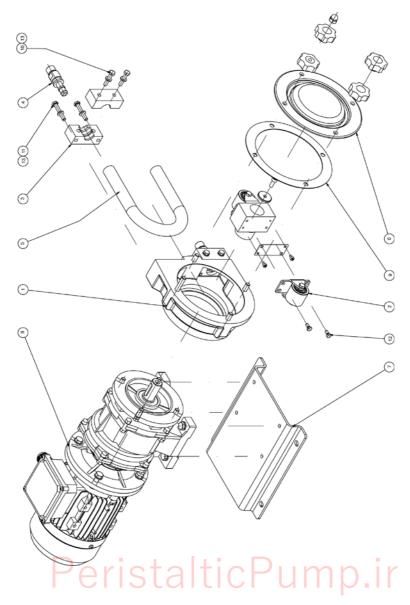
11.1 Spare parts exploded ISI 10 Model



POS.	DESCRIPTION	QUANTITY	REFERENCE
1	Pump Housing	1	AX102.01.01
2	Roller Kit ISI 10 / 13	2	AX102.99.01
3	Press flange standard	2	AX102.00.11
	Connection S.S. BSP 3/8" ISI 10	2	AX102.00.10
	Connection P.P. BSP 3/8" ISI 10	2	AX102.00.15
	Connection PVDF BSP 3/8" ISI 10	2	AX102.00.16
4	Connection S.S. NPT 3/8"ISI 10	2	AX102.00.17
4	Connection PVC NPT 3/8" ISI 10	2	AX102.00.36
	Connection PVDF NPT 3/8" ISI 10	2	AX102.00.19
	Connection S.S. TRI-CLAMP 1/2" ISI 10		AX102.00.22
	Connection DIN 11851 NW-10 ISI 10	2	AX102.00.20
	Peristaltic Hose NR ISI 10	1	AX102.00.27
	Peristaltic Hose NR-A ISI 10	1	AX102.00.32
5	Peristaltic Hose NBR ISI 10	1	AX102.00.28
3	Peristaltic Hose NBR-A ISI 10	1	AX102.00.29
	Peristaltic Hose EPDM ISI 10	1	AX102.00.30
	Peristaltic Hose CSM ISI 10	1	AX102.00.33
6	Plastic Cover	1	AX102.02.08
7	Base plate	1	AX102.00.12
_ ′	Base plate S.S.	1	AX102.00.24
8	Drive	1	
9	Cover Gasket	1	AX102.01.05
10	DIN 931 Hexagonal Head Partially-threaded Cap Screw M6x30	4	AXTORDIN931M6X30
11	DIN 931 Hexagonal Head Partially-threaded Cap Screw M6x40	4	AXTORDIN931M6X40
12	DIN 933 Hexagonal Head Cap Screw M5x10 Grade 8.8	4	AXTORDIN933M5X10
13	DIN 125A Flat Washer M6 Grade 8.8	8	AXARANDIN125AM6



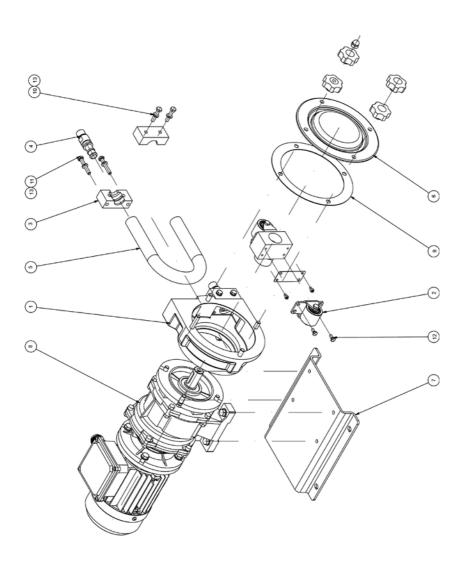
11.2 Spare parts exploded ISI 10 Model - NORPRENE / SILICONE



POS.	DESCRIPTION	QUANTITY	REFERENCE
1	Pump Housing	1	AX102.01.01
2	Roller Kit ISI 10 / 13	2	AX102.99.01
3	Press flange (Thermoplastic Hose)	2	AX102.00.23
	Connection S.S. BSP 3/8" ISI 10	2	AX102.00.10
	Connection P.P. BSP 3/8" ISI 10	2	AX102.00.15
	Connection PVDF BSP 3/8" ISI 10	2	AX102.00.16
	Connection S.S. NPT 3/8"ISI 10	2	AX102.00.17
4	Connection PVC NPT 3/8" ISI 10	2	AX102.00.36
	Connection PVDF NPT 3/8" ISI 10	2	AX102.00.19
	Connection S.S. TRI-CLAMP 1/2" ISI 10	2	AX102.00.22
	Connection SS SMS25 ISI 10B	2	AX102.00.21
	Connection DIN 11851 NW-10 ISI 10	2	AX102.00.20
5	Peristaltic Hose NORPRENE ISI 10	1	AX102.00.31
	Peristaltic Hose SILICONE ISI 10	1	AX102.00.45
6	Plastic Cover	1	AX102.02.08
7	Base plate	1	AX102.00.12
	Base plate S.S.	1	AX102.00.24
8	Drive	1	
9	Cover Gasket	1	AX102.01.05
10	DIN 931 Hexagonal Head Partially-threaded Cap Screw M6x30	4	AXTORDIN931M6X30
11	DIN 931 Hexagonal Head Partially-threaded Cap Screw M6x40	4	AXTORDIN931M6X40
12	DIN 933 Hexagonal Head Cap Screw M5x10 Grade 8.8	4	AXTORDIN933M5X10
13	DIN 125A Flat Washer M6 Grade 8.8	8	AXARANDIN125AM6



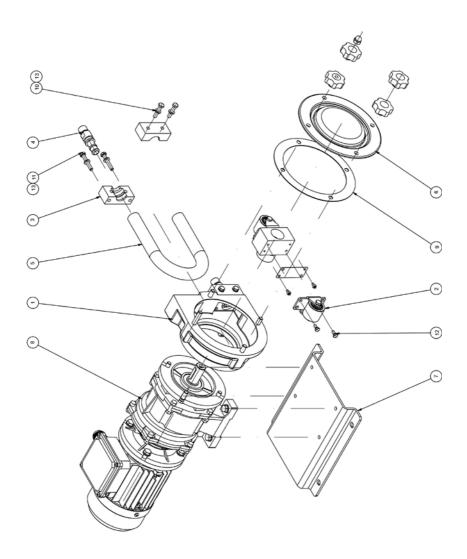
11.3 Spare parts exploded ISI 13 Model



1	POS.	DESCRIPTION	QUANTITY	REFERENCE
Press flange standard	1	Pump Housing	1	AX102.01.01
Connection S.S. BSP 3/8" ISI 13	2	Roller Kit ISI 10 / 13	2	AX102.99.01
Connection P.P. BSP 3/8" ISI 13	3	Press flange standard	2	AX103.00.11
Connection PVDF BSP 3/8" ISI 13 2 AX103.00.16 Connection S.S. NPT 3/8" ISI 13 2 AX103.00.17 Connection PVC NPT 3/8" ISI 13 2 AX103.00.37 Connection PVDF NPT 3/8" ISI 13 2 AX103.00.19 Connection S.S. TRI-CLAMP 3/4" ISI 13 2 AX103.00.22 Connection S.S. DIN 11851 NW-15 ISI 13 2 AX103.00.20 Peristaltic Hose NR ISI 13 1 AX103.00.20 Peristaltic Hose NR-A ISI 13 1 AX103.00.27 Peristaltic Hose NBR ISI 13 1 AX103.00.28 Peristaltic Hose NBR-A ISI 13 1 AX103.00.28 Peristaltic Hose SMR ISI 13 1 AX103.00.29 Peristaltic Hose CSM ISI 13 1 AX103.00.29 Peristaltic Hose EPDM ISI 13 1 AX103.00.30 Peristaltic Hose CSM ISI 13 1 AX103.00.32 6 Plastic cover 1 AX102.00.28 7 Base plate 1 AX102.00.12 Base plate 1 AX102.00.24 8 Drive 1 AX102.00.24 8 Drive 1 AX102.00.24 10 DIN 931 Hexagonal Head Partially-threaded Cap Screw M6x30 4 AXTORDIN931M6X30 11 DIN 931 Hexagonal Head Partially-threaded Cap Screw M6x40 4 AXTORDIN931M6X40 12 DIN 933 Hexagonal Head Cap Screw M5x10 Grade 8.8		Connection S.S. BSP 3/8" ISI 13	2	AX103.00.10
Connection S.S. NPT 3/8" ISI 13 2 AX103.00.17 Connection PVC NPT 3/8" ISI 13 2 AX103.00.37 Connection PVDF NPT 3/8" ISI 13 2 AX103.00.19 Connection S.S. TRI-CLAMP 3/4" ISI 13 2 AX103.00.22 Connection S.S. DIN 11851 NW-15 ISI 13 2 AX103.00.20 Peristaltic Hose NR ISI 13 1 AX103.00.27 Peristaltic Hose NR-A ISI 13 1 AX103.00.28 Peristaltic Hose NBR-A ISI 13 1 AX103.00.28 Peristaltic Hose NBR-A ISI 13 1 AX103.00.29 Peristaltic Hose CSM ISI 13 1 AX103.00.29 Peristaltic Hose CSM ISI 13 1 AX103.00.29 Peristaltic Hose EPDM ISI 13 1 AX103.00.30 Peristaltic Hose CSM ISI 13 1 AX103.00.32 6 Plastic cover 1 AX102.00.88 6 Plastic cover 1 AX102.00.12 Base plate 1 AX102.00.12 Base plate 1 AX102.00.12 Base plate 1 AX102.00.24 Drive 1 AX102.01.05 10 DIN 931 Hexagonal Head Partially-threaded Cap Screw M6x30 4 AXTORDIN931M6X30 11 DIN 931 Hexagonal Head Cap Screw M5x10 Grade 8.8 4 AXTORDIN933M5X10		Connection P.P. BSP 3/8" ISI 13	2	AX103.00.15
Connection PVC NPT 3/8" ISI 13		Connection PVDF BSP 3/8" ISI 13	2	AX103.00.16
Connection PVC NPT 3/8" ISI 13		Connection S.S. NPT 3/8" ISI 13	2	AX103.00.17
Connection S.S. TRI-CLAMP 3/4" ISI 13 2	4	Connection PVC NPT 3/8" ISI 13	2	AX103.00.37
Connection S.S. DIN 11851 NW-15 ISI 13 2		Connection PVDF NPT 3/8" ISI 13	2	AX103.00.19
Peristaltic Hose NR ISI 13		Connection S.S. TRI-CLAMP 3/4" ISI 13	2	AX103.00.22
Peristaltic Hose NR-A ISI 13		Connection S.S. DIN 11851 NW-15 ISI 13	2	AX103.00.20
Peristaltic Hose NBR ISI 13		Peristaltic Hose NR ISI 13	1	AX103.00.27
5 Peristaltic Hose NBR-A ISI 13 1 AX103.00.29 Peristaltic Hose EPDM ISI 13 1 AX103.00.30 Peristaltic Hose CSM ISI 13 1 AX103.00.32 6 Plastic cover 1 AX102.02.08 7 Base plate 1 AX102.00.12 Base plate S.S. 1 AX102.00.24 8 Drive 1 9 Cover Gasket 1 AX102.01.05 10 DIN 931 Hexagonal Head Partially-threaded Cap Screw M6x30 4 AXTORDIN931M6X30 11 DIN 931 Hexagonal Head Partially-threaded Cap Screw M6x40 4 AXTORDIN931M6X40 12 DIN 933 Hexagonal Head Cap Screw M5x10 Grade 8.8 4 AXTORDIN933M5X10		Peristaltic Hose NR-A ISI 13	1	AX103.00.33
Peristaltic Hose NBR-A ISI 13 1 AX103.00.29 Peristaltic Hose EPDM ISI 13 1 AX103.00.30 Peristaltic Hose CSM ISI 13 1 AX103.00.32 6 Plastic cover 1 AX102.02.08 7 Base plate 1 AX102.00.12 Base plate S.S. 1 AX102.00.24 8 Drive 1 9 Cover Gasket 1 AX102.01.05 10 DIN 931 Hexagonal Head Partially-threaded Cap Screw M6x30 4 AXTORDIN931M6X30 11 DIN 931 Hexagonal Head Partially-threaded Cap Screw M6x40 4 AXTORDIN931M6X40 12 DIN 933 Hexagonal Head Cap Screw M5x10 Grade 8.8 4 AXTORDIN933M5X10	_	Peristaltic Hose NBR ISI 13	1	AX103.00.28
Peristaltic Hose CSM ISI 13 1 AX103.00.32 6 Plastic cover 1 AX102.02.08 7 Base plate 1 AX102.00.12 8 Base plate S.S. 1 AX102.00.24 9 Cover Gasket 1 AX102.01.05 10 DIN 931 Hexagonal Head Partially-threaded Cap Screw M6x30 4 AXTORDIN931M6X30 11 DIN 931 Hexagonal Head Partially-threaded Cap Screw M6x40 4 AXTORDIN931M6X40 12 DIN 933 Hexagonal Head Cap Screw M5x10 Grade 8.8 4 AXTORDIN933M5X10)	Peristaltic Hose NBR-A ISI 13	1	AX103.00.29
6 Plastic cover 1 AX102.02.08 7 Base plate 1 AX102.00.12 8 Base plate S.S. 1 AX102.00.24 8 Drive 1 9 Cover Gasket 1 AX102.01.05 10 DIN 931 Hexagonal Head Partially-threaded Cap Screw M6x30 4 AXTORDIN931M6X30 11 DIN 931 Hexagonal Head Partially-threaded Cap Screw M6x40 4 AXTORDIN931M6X40 12 DIN 933 Hexagonal Head Cap Screw M5x10 Grade 8.8 4 AXTORDIN933M5X10		Peristaltic Hose EPDM ISI 13	1	AX103.00.30
7 Base plate 1 AX102.00.12 Base plate S.S. 1 AX102.00.24 8 Drive 1 9 Cover Gasket 1 AX102.01.05 10 DIN 931 Hexagonal Head Partially-threaded Cap Screw M6x30 4 AXTORDIN931M6X30 11 DIN 931 Hexagonal Head Partially-threaded Cap Screw M6x40 4 AXTORDIN931M6X40 12 DIN 933 Hexagonal Head Cap Screw M5x10 Grade 8.8 4 AXTORDIN933M5X10		Peristaltic Hose CSM ISI 13	1	AX103.00.32
7 Base plate S.S. 1 AX102.00.24 8 Drive 1 1 9 Cover Gasket 1 AX102.01.05 10 DIN 931 Hexagonal Head Partially-threaded Cap Screw M6x30 4 AXTORDIN931M6X30 11 DIN 931 Hexagonal Head Partially-threaded Cap Screw M6x40 4 AXTORDIN931M6X40 12 DIN 933 Hexagonal Head Cap Screw M5x10 Grade 8.8 4 AXTORDIN933M5X10	6	Plastic cover	1	AX102.02.08
Base plate S.S. 1 AX102.00.24 8 Drive 1 9 Cover Gasket 1 AX102.01.05 10 DIN 931 Hexagonal Head Partially-threaded Cap Screw M6x30 4 AXTORDIN931M6X30 11 DIN 931 Hexagonal Head Partially-threaded Cap Screw M6x40 4 AXTORDIN931M6X40 12 DIN 933 Hexagonal Head Cap Screw M5x10 Grade 8.8 4 AXTORDIN933M5X10	7	Base plate	1	AX102.00.12
9 Cover Gasket 1 AX102.01.05 10 DIN 931 Hexagonal Head Partially-threaded Cap Screw M6x30 4 AXTORDIN931M6X30 11 DIN 931 Hexagonal Head Partially-threaded Cap Screw M6x40 4 AXTORDIN931M6X40 12 DIN 933 Hexagonal Head Cap Screw M5x10 Grade 8.8 4 AXTORDIN933M5X10	/	Base plate S.S.	1	AX102.00.24
10 DIN 931 Hexagonal Head Partially-threaded Cap Screw M6x30 4 AXTORDIN931M6X30 11 DIN 931 Hexagonal Head Partially-threaded Cap Screw M6x40 4 AXTORDIN931M6X40 12 DIN 933 Hexagonal Head Cap Screw M5x10 AXTORDIN933M5X10 Grade 8.8	8	Drive	1	
Cap Screw M6x30 4 AXTORDIN931M6X30 11 DIN 931 Hexagonal Head Partially-threaded Cap Screw M6x40 4 AXTORDIN931M6X40 12 DIN 933 Hexagonal Head Cap Screw M5x10 AXTORDIN933M5X10 Grade 8.8	9	Cover Gasket	1	AX102.01.05
11 Cap Screw M6x40 4 AXTORDIN931M6X40 12 DIN 933 Hexagonal Head Cap Screw M5x10 Grade 8.8 4 AXTORDIN933M5X10	10	,	4	AXTORDIN931M6X30
12 Grade 8.8 4 AXTORDIN933M5X10	11	,	4	AXTORDIN931M6X40
13 DIN 125A Flat Washer M6 Grade 8.8 8 AXARANDIN125AM6	12		4	AXTORDIN933M5X10
	13	DIN 125A Flat Washer M6 Grade 8.8	8	AXARANDIN125AM6



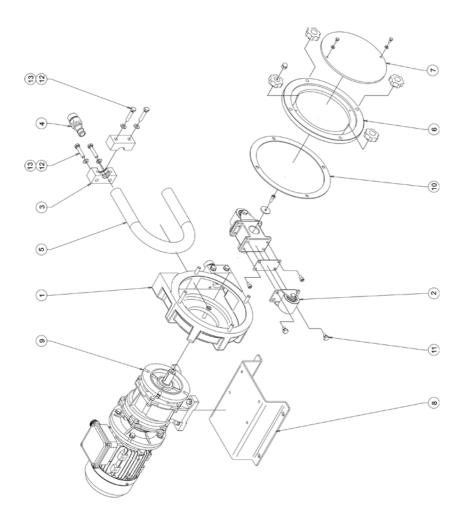
11.4 Spare parts exploded ISI 13 Model - NORPRENE / SILICONE



POS.	DESCRIPTION	QUANTITY	REFERENCE
1	Pump Housing	1	AX102.01.01
2	Roller Kit ISI 10 / 13	2	AX102.99.01
3	Press flange standard	2	AX102.00.11
	Connection S.S. BSP 3/8" ISI 13	2	AX103.00.10
	Connection P.P. BSP 3/8" ISI 13	2	AX103.00.15
	Connection PVDF BSP 3/8" ISI 13	2	AX103.00.16
4	Connection S.S. NPT 3/8" ISI 13	2	AX103.00.17
7	Connection PVC NPT 3/8" ISI 13	2	AX103.00.37
	Connection PVDF NPT 3/8" ISI 13	2	AX103.00.19
	Connection S.S. TRI-CLAMP 3/4" ISI 13	2	AX103.00.22
	Connection S.S. DIN 11851 NW-15 ISI 13	2	AX103.00.20
5	Peristaltic Hose NORPRENE ISI 13	1	AX103.00.31
	Peristaltic Hose SILICONE ISI 13	1	AX103.00.38
6	Plastic cover	1	AX102.02.08
7	Base plate	1	AX102.00.12
_ ′	Base plate S.S.	1	AX102.00.24
8	Drive	1	
9	Cover Gasket	1	AX102.01.05
10	DIN 931 Hexagonal Head Partially-threaded Cap Screw M6x30	4	AXTORDIN931M6X30
11	DIN 931 Hexagonal Head Partially-threaded Cap Screw M6x40	4	AXTORDIN931M6X40
12	DIN 933 Hexagonal Head Cap Screw M5x10 Grade 8.8	4	AXTORDIN933M5X10
13	DIN 125A Flat Washer M6 Grade 8.8	8	AXARANDIN125AM6



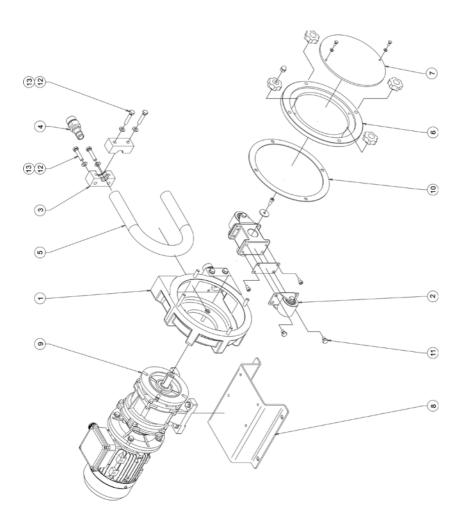
11.5 Spare parts exploded ISI 16 Model



POS.	DESCRIPTION	QUANTITY	REFERENCE
1	Pump Housing	1	AX101.03.01
2	Roller Kit ISI 16 / 19	2	AX101.99.01
3	Press flange standard	2	AX101.03.22
	Connection S.S. BSP ¾" ISI 16	2	AX101.00.13
	Connection P.P. BSP 3/4" ISI 16	2	AX101.00.14
	Connection PVDF BSP 3/4" ISI 16	2	AX101.00.15
	Connection S.S. NPT 3/4" ISI 16	2	AX101.00.16
4	Connection PVC NPT ¾" ISI 16	2	AX101.00.34
	Connection PVDF NPT ¾" ISI 16	2	AX101.00.18
	Connection S.S. TRI-CLAMP 1" ISI 16	2	AX101.00.21
	Connection S.S. SMS 25 ISI 16	2	AX101.00.20
	Connection S.S. DIN 11851 NW20 ISI 16	2	AX101.00.19
	Peristaltic Hose NR ISI 16	1	AX101.00.26
	Peristaltic Hose NBR ISI 16	1	AX101.00.27
5	Peristaltic Hose NBR-A ISI 16	1	AX101.00.32
	Peristaltic Hose EPDM ISI 16	1	AX101.00.28
	Peristaltic Hose CSM ISI 16	1	AX101.00.33
6	Metallic cover	1	AX101.03.11
7	Plastic cover	1	AX101.00.12
	Base plate	1	AX101.00.24
8	Base plate S.S.	1	AX101.00.25
9	Drive	1	
10	Cover gasket	1	AX101.02.40
11	DIN 933 Hexagonal Head Cap Screw M8x10 Grade 8.8	4	AXTORDIN933M8X10
12	DIN 933 Hexagonal Head Cap Screw M8x40 Grade 8.8	8	AXTORDIN933M8X40
13	DIN 125A Flat Washer M8 Grade 8.8	8	AXARANDIN125AM8



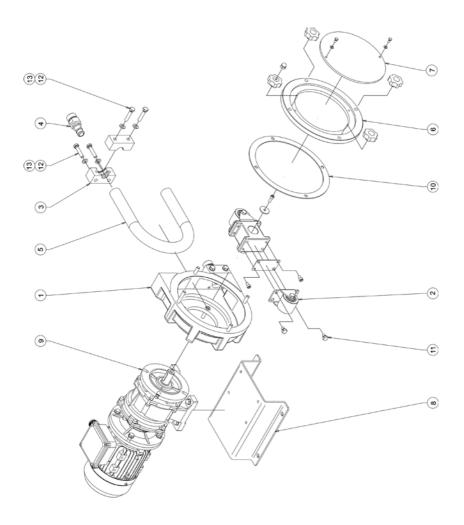
11.6 Spare parts exploded ISI 16 Model - NORPRENE / SILICONE



POS.	DESCRIPTION	QUANTITY	REFERENCE
1	Pump Housing	1	AX101.03.01
2	Roller Kit ISI 16 / 19	2	AX101.99.01
3	Press flange Thermoplastic Hose	2	AX101.03.23
	Connection S.S. BSP ¾" ISI 16	2	AX101.00.13
	Connection P.P. BSP 3/4" ISI 16	2	AX101.00.14
	Connection PVDF BSP 3/4" ISI 16	2	AX101.00.15
	Connection S.S. NPT ¾" ISI 16	2	AX101.00.16
4	Connection PVC NPT ¾" ISI 16	2	AX101.00.34
	Connection PVDF NPT ¾" ISI 16	2	AX101.00.18
	Connection S.S. TRI-CLAMP 1" ISI 16	2	AX101.00.21
	Connection S.S. SMS 25 ISI 16	2	AX101.00.20
	Connection S.S. DIN 11851 NW20 ISI 16	2	AX101.00.19
5	Peristaltic Hose NORPRENE ISI 16	1	AX101.00.30
	Peristaltic Hose SILICONE ISI 16	1	AX101.00.54
6	Metallic cover	1	AX101.03.11
7	Plastic cover	1	AX101.00.12
8	Base plate	1	AX101.00.24
	Base plate S.S.	1	AX101.00.25
9	Drive	1	
10	Cover gasket	1	AX101.02.40
11	DIN 933 Hexagonal Head Cap Screw M8x10 Grade 8.8	4	AXTORDIN933M8X10
12	DIN 933 Hexagonal Head Cap Screw M8x40 Grade 8.8	8	AXTORDIN933M8X40
13	DIN 125A Flat Washer M8 Grade 8.8	8	AXARANDIN125AM8



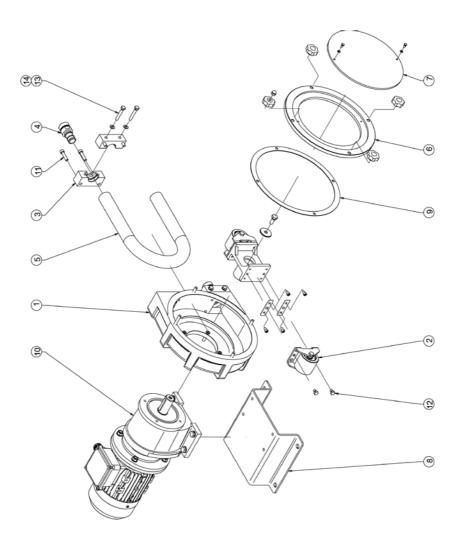
11.7 Spare parts exploded ISI 19 Model NORPRENE / TYGON



POS.	DESCRIPTION	QUANTITY	REFERENCE
1	Pump Housing	1	AX101.03.01
2	Roller Kit ISI 16 / 19	2	AX101.99.01
3	Press flange ISI 19	2	AX101.03.22
	Connection S.S. BSP 1" ISI 19	2	AX105.00.13
	Connection P.P. BSP 1" ISI 19	2	AX105.00.14
	Connection PVDF BSP 1" ISI 19	2	AX105.00.15
	Connection S.S. NPT 1" ISI 19	2	AX105.00.16
4	Connection P.P. NPT 1" ISI 19	2	AX105.00.17
	Connection PVDF NPT 1" ISI 19	2	AX105.00.18
	Connection PVC NPT 1" ISI 19	2	AX105.00.22
	Connection S.S. TRI-CLAMP 1" ISI 19	2	AX105.00.21
	Connection S.S. DIN 11851 NW25 ISI 19	2	AX105.00.19
5	Peristaltic Tube NORPRENE ISI 19	1	AX105.00.27
	Peristaltic Tube TYGON ISI 19	1	AX105.00.26
6	Metallic cover	1	AX101.03.11
7	Plastic cover	1	AX101.00.12
8	Base plate	1	AX101.00.24
	Base plate S.S.	1	AX101.00.25
9	Drive	1	
10	Cover gasket	1	AX101.02.40
11	DIN 933 Hexagonal Head Cap Screw M8x10 Grade 8.8	4	AXTORDIN933M8X10
12	DIN 933 Hexagonal Head Cap Screw M8x40 Grade 8.8	8	AXTORDIN933M8X40
13	DIN 125A Flat Washer M8 Grade 8.8	8	AXARANDIN125AM8



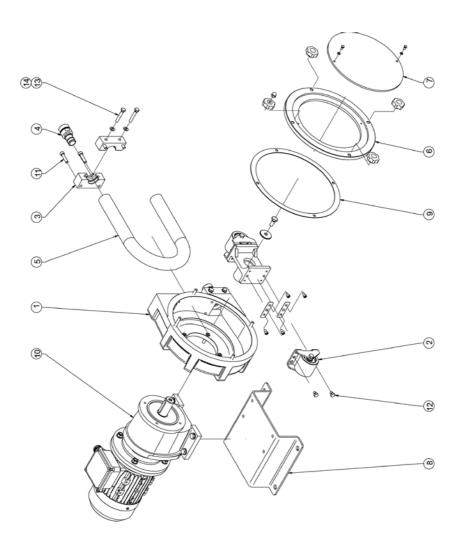
11.8 Spare parts exploded ISI 22 Model



POS.	DESCRIPTION	QUANTITY	REFERENCE
1	Pump Housing	1	AX113.00.01
2	Roller Kit ISI 22	2	AX113.99.01
3	Press flange	2	AX113.00.19
	Connection S.S. BSP 1" ISI 22	2	AX113.00.10
	Connection P.P. BSP 1" ISI 22	2	AX113.00.11
	Connection PVDF BSP 1" ISI 22	2	AX113.00.12
	Connection S.S. NPT 1" ISI 22	2	AX113.00.13
4	Connection PVC NPT 1" ISI 22	2	AX113.00.40
	Connection PVDF NPT 1" ISI 22	2	AX113.00.15
	Connection S.S. TRI-CLAMP 1" ISI 22	2	AX113.00.18
	Connection S.S. SMS 25 ISI 22	2	AX113.00.17
	Connection S.S. DIN 11851 NW 25 ISI 22	2	AX113.00.16
	Peristaltic Hose NR ISI 22	1	AX113.00.24
	Peristaltic Hose NBR ISI 22	1	AX113.00.25
5	Peristaltic Hose NBR-A ISI 22	1	AX113.00.26
	Peristaltic Hose EPDM ISI 22	1	AX113.00.27
	Peristaltic Hose CSM ISI 22	1	AX113.00.30
6	Metallic Cover	1	AX113.01.08
7	Plastic Cover	1	AX113.00.09
8	Base plate	1	AX113.00.21
*	Base plate S.S.	1	AX113.00.22
9	Cover Gasket	1	AX113.00.36
10	Drive	1	
11	DIN 912 Socket Cap Screw M8x35 Grade 8.8	8	AXTORDIN912M8X35
12	DIN 933 Hexagonal Head Cap Screw M8x10 Grade 8.8	4	AXTORDIN933M8X10
13	DIN 933 Hexagonal Head Cap Screw M8x50 Grade 8.8	4	AXTORDIN933M8X50
14	DIN 125A Flat Washer M8 Grade 8.8	4	AXARANDIN125AM8



11.9 Spare parts exploded ISI 22 Model - NORPRENE / SILICONE



POS.	DESCRIPTION	QUANTITY	REFERENCE
1	Pump Housing	1	AX113.00.01
2	Roller Kit ISI 22	2	AX113.99.01
3	Press flange (Thermoplastic)	2	AX113.00.20
	Connection S.S. BSP 1" ISI 22	2	AX113.00.10
	Connection P.P. BSP 1" ISI 22	2	AX113.00.11
	Connection PVDF BSP 1" ISI 22	2	AX113.00.12
	Connection S.S. NPT 1" ISI 22	2	AX113.00.13
4	Connection PVC NPT 1" ISI 22	2	AX113.00.40
	Connection PVDF NPT 1" ISI 22	2	AX113.00.15
	Connection S.S. TRI-CLAMP 1" ISI 22	2	AX113.00.18
	Connection S.S. SMS 25 ISI 22	2	AX113.00.17
	Connection S.S. DIN 11851 NW 25 ISI 22	2	AX113.00.16
5	Peristaltic Hose NORPRENE ISI 22	1	AX113.00.28
3	Peristaltic Hose SILICONE ISI 22	1	AX113.00.42
6	Metallic Cover	1	AX113.01.08
7	Plastic Cover	1	AX113.00.09
8	Base plate	1	AX113.00.21
•	Base plate S.S.	1	AX113.00.22
9	Cover Gasket	1	AX113.00.36
10	Drive	1	
11	DIN 912 Socket Cap Screw M8x35 Grade 8.8	8	AXTORDIN912M8X35
12	DIN 933 Hexagonal Head Cap Screw M8x10 Grade 8.8	4	AXTORDIN933M8X10
13	DIN 933 Hexagonal Head Cap Screw M8x50 Grade 8.8	4	AXTORDIN933M8X50
14	DIN 125A Flat Washer M8 Grade 8.8	4	AXARANDIN125AM8



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 rollers
- 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 ISI

Product Type: ISI-10/B, ISI-13/B, ISI-16/D, ISI-19/D, ISI-22

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



14 WARRANTY

We guarantee against all manufacturing defects and guarantee the materials that compose the realax 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

ΙE

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 Spodnii 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		Warranty			Return		
MATERIAL DELIVERED:	Pump only		Complete u	ınit		Spare part		
UNITS:								
PUMP TYPE:								
PUMP REFERENCE:								
SERIAL NUMBER:								
OPERATION TIME (Years):								
OPERATING HOURS (h/day):								
APPLICATION DATA (* Indicate	units):							
PRODUCT								
VISCOSITY *								
DENSITY *								
FLOW *								
DANGEROUS	Corrosive		Flammable			Toxic		
SPEED (rev/min)	Min.				Max.			
SUCTION PRESSURE (BAR)								
DISCHARGE PRESSURE (BAR)								
TEMPERATURE (°C)								-
TEIVIFENATURE (C)								
TENTENATURE (C)								
TEMPERATURE (C)			<u>(M)</u>					
MEDIA AND WARNINGS	Medium / Concentration	Identifica- tion	Flammable	Toxic	Corrosive	Harmful / Irritant	Other*	Harmless
			Flammable	Toxic	Corrosive		Other*	Harmless
MEDIA AND WARNINGS			Flammable	Toxic	Corrosive		Other*	Harmless
MEDIA AND WARNINGS Process Medium			Flammable	Toxic	Corrosive		Other*	Harmless
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MEDIA AND WARNINGS Process Medium Medium for process cleaning Returned part cleanded with	Concentration erous for the er	tion	Biological R	isk, Radioac		Irritant		
MEDIA AND WARNINGS Process Medium Medium for process cleaning Returned part cleanded with *Explosive; Oxidising; Dang applicable, include MSDS a	Concentration erous for the er	tion	Biological R	isk, Radioac		Irritant		
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www.realaxpumps.com