INSTRUCTIONS 1010-I00 e

Section	1010
Effective	March 2018
Replaces	March 2017

Translation of the original instructions

Submerged AM Unit on plate

INSTALLATION

OPERATION

MAINTENANCE

WARRANTY :

Submerged AM units on plate are covered 24 months by warranty within the limits mentioned in our General Sales Conditions. In case of a use other than that mentioned in the Instructions manual, and without preliminary agreement of MOUVEX, warranty will be canceled.

a DOVER company

Z.I. La Plaine des Isles - F 89000 AUXERRE - FRANCE
Tel. : +33 (0)3.86.49.86.30 - Fax : +33 (0)3.86.49.87.17
contact@mouvex.com - www.mouvex.com

Your distributor :

TANK TRUCK PUMP

SAFETY, STORAGE, INSTALLATION AND MAINTENANCE INSTRUCTIONS

MODEL : SUBMERGED AM UNIT ON PLATE

Definition of safety symbols

This is a SAFETY ALERT SYMBOL.
When you see this symbol on the product, or in the manual, look for one of the following signal words and be alert to the potential for personal injury, death or major property damage.

DANGER

Warns of hazards that WILL cause serious personal injury, death or major property damage.

WARNING

Warns of hazards that CAN cause serious personal injury, death or major property damage.

CAUTION

Warns of hazards that CAN cause personal injury or property damage.

NOTICE

Indicates special instructions which are very important and must be followed.

REMARKS :

Submerged AM pumps MUST be installed in systems designed by qualified personnel. The installation MUST be in compliance with local standards, national regulations and rules of safety.

This manual is designed to permit installation and commissioning of Submerged AM pumps and MUST accompany the pump.

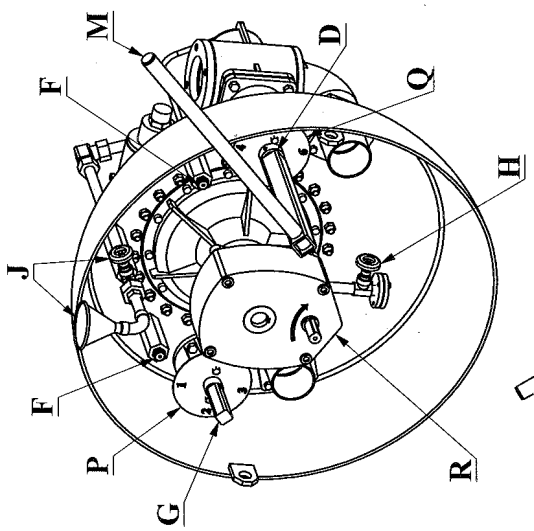
Maintenance of Submerged AM pumps must ONLY be carried out by qualified technicians. This maintenance must meet local and national standards as well as all safety regulations. Read this manual, including all instructions and warnings, in full BEFORE any use of Submerged AM pumps.

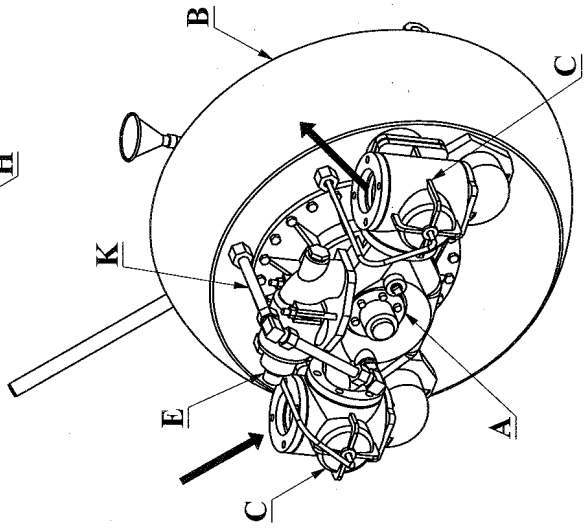
Do not remove the warning and use label stickers that are found on the Submerged AM pumps.

NOTE :
The numbers after part names correspond to items in the spare parts lists.

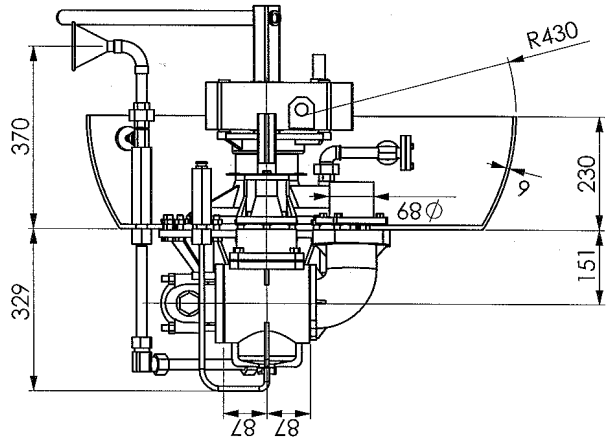
TABLE OF CONTENTS *Page*

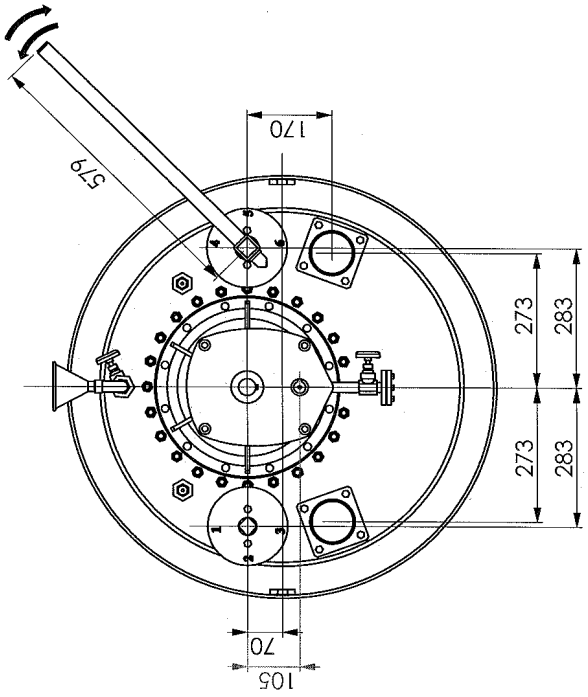
1. OVERALL DIMENSIONS

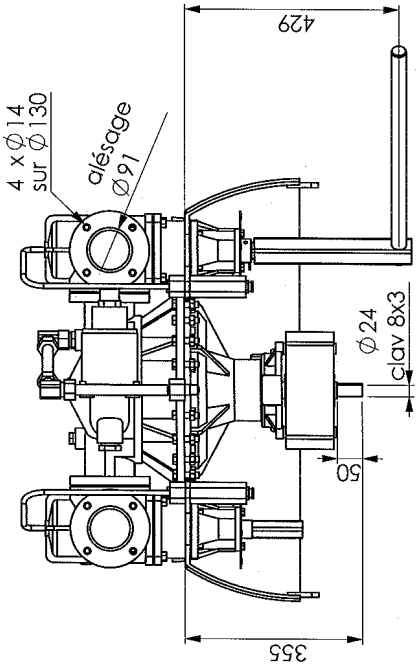




Item	Nb	Description
R	1	Gear reducer GT3 (Ratio 1/8)
Q	1	Right valve positioning plate
P	1	Left valve positioning plate
M	1	Operating lever
K	1	Flush pipe
J	1	Funnel + flushing valve
H	1	Pump draining device
F	2	Valve grease nipple
E	1	Bypass cap
G	2	Left valve rod
D	2	Right valve rod
C	2	3 ways valve T with C/flanges + gaskets
B	1	Spherical frame
A	1	AM pump flanged







Weight : 225 kg

2. OPERATING LIMITS

Temperature range allowed : -20°C à +200°C

Products authorised : Bitumen

Other products : Consult us.

Speed (rpm)	Flowrate (m^3/h)	Power (Kw)
350	28	5
400	32	6
500	40	7,5

3. INSTALLATION

3.1 Choice of pump

To obtain the service expected from a MOUVEX pump, regarding both performance and longevity, it is vital that the type of pump, its speed and the materials used for its construction are determined as a function of the pump output, its installation and operating conditions.
You can contact our Technical Services at any time to ask for the information you require.

3.2 Direction of rotation

The pump is shown on the drawing (see § OVERALL DIMENSIONS) direction of rotation anticlockwise. This pump is reversible. By reversing the direction of rotation, the suction and discharge ports are also reversed. The bypass, the pipe "K", the inlet and outlet have to be fitted in the opposite direction of the drawing. The bypass cap "E" must always be turned on the suction side.

To connect the pump draining device "H" to the outlet thanks to a pipe welded on the discharge pipe.

3.3 Pipe diameter

In order to achieve the best usage conditions, it is important to take the following recommendations into account when it comes to pipe dimensions :

- The pipe diameter should be chosen as a function of pipe length and the flow rate and viscosity of the pumped liquid, so that any head loss remains within the permissible limits for the motor/pump unit. Therefore it is difficult to give general and precise directions. However, it is never a disadvantage to over-dimension pipe diameters, especially for the section on the inlet side.
- In the case of thin liquids and the piping on the discharge side, one can generally allow a diameter equal to that of the ports on the pump and a larger diameter for the piping on the inlet side, if the value for the inlet power of the pump is negative or especially high.
- In the case of viscous liquids, special care should be given to choosing pipe diameters. In fact, the variation in head loss is proportional to viscosity and inversely proportional to the diameter as power of 3. A slight reduction in the pipe diameter could have serious consequences for the operating conditions of the pump.

Our Technical Services are always available to provide you with precise data if you give them accurate information or, better still, the installation plans.

4. DIRECT DRIVE BY MOTOR

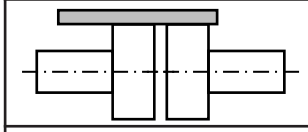
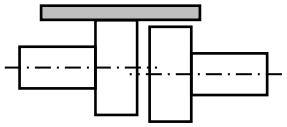
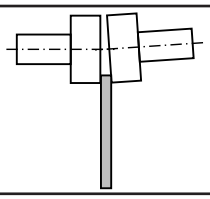
4.1 Alignment of motor/pump and reduction gearbox/pump shafts

WARNING	
 Do not operate without guard in place.	OPERATION WITHOUT THE SHAFT PROTECTOR CAN CAUSE SERIOUS PERSONAL INJURY, MAJOR PROPERTY DAMAGE OR DEATH.

WARNING	
 Dangerous voltage. Can cause injury and death.	DISCONNECT THE ELECTRICITY SUPPLY BEFORE ANY MAINTENANCE OPERATION.

The motor and pump shafts are accurately aligned at the factory before dispatch, but they should be checked carefully when received at the site and realigned if necessary. To align the coupling and the shaft, use a straight-edge to check the concentricity and thickness gauges for the angular misalignment.

The 3 figures below show the procedure in detail and the admissible deviations :

Carry out the control at four points : at the top - at the bottom - left - right	
	*Correct*
	*Bad alignment*
	*Angular fault*

Controlling the alignment at each stage of the installation is important to be sure that none of the following procedures has generated stresses on the unit or the pump :

- after fastening on the foundations.
- after fastening the pipes.
- after the pump has been operated at the normal operating temperature.

REMINDER :

You cannot rely on the coupling to compensate for misalignment.

NEVER START A UNIT IF THE COUPLING ALIGNMENT IS INCORRECT. THIS WILL RENDER OUR WARRANTY INVALID.

4.2 Electric motors

WARNING	
 Dangerous voltage. Can cause injury and death.	DISCONNECT THE ELECTRICITY SUPPLY BEFORE ANY MAINTENANCE OPERATION.

Check that the supply voltage matches the indications on the motor rating plate.

Comply with the wiring diagram, make sure the wires are rated for the power and take care with the contacts, which must be thoroughly tightened. The motors must be protected by appropriate circuit breakers and fuses. Connect the regulatory ground connections.

Check the direction of rotation.

WARNING	
 Any unforeseen start-up can cause serious injuries or important material damages.	TAKE ALL NECESSARY MEASURES TO RENDER ANY START-UP, EVEN ACCIDENTAL, OF THE PUMP DURING THE WORK IMPOSSIBLE.

WARNING	
 Hazardous pressure can cause personal injury or property damage.	PUMPS OPERATING AGAINST A CLOSED VALVE CAN CAUSE SYSTEM FAILURE, PERSONAL INJURY AND PROPERTY DAMAGE.

WARNING	
 Do not operate without guard in place.	OPERATION WITHOUT THE SHAFT PROTECTOR CAN CAUSE SERIOUS PERSONAL INJURY, MAJOR PROPERTY DAMAGE OR DEATH.

This check should be done with no liquid being pumped, and both the inlet and discharge circuits vented to avoid generating unexpected pressure (on the inlet side, for example). This will avoid damaging either the pump or the system.

4. DIRECT DRIVE BY MOTOR (continued)

Start the pump empty to check that the connections are good and that the direction of rotation corresponds to the system intake and discharge directions. If it is necessary to reverse the direction of rotation, follow the instructions below :

Three-phase motor : switch any 2 current input wires.

Bi-phase motor : switch two same phase wires.

Single-phase motor : follow the instructions on the notice supplied with the motor.

4.3 Diesel engines drive

CAUTION	
	THE SURFACES OF THE PUMP CAN BE AT A TEMPERATURE LIABLE TO CAUSE INJURY OR SEVERE DAMAGE.
Excessive temperature- can cause injury or severe damage.	

Do not forget that these engines are not reversible. It is therefore vital to carefully check the inlet and outlet sides of the pump before connecting the pump unit to the piping.

The use of diesel engines drive is now well known. Nevertheless, we strongly recommend that you carefully read the technical manuals concerning them.

5. DRIVE BY HYDRAULIC MOTOR

• Motor provided as an option.
- Technology : internal gear, Gerotor
- Capacity : 100 cm^3
- Flowrate requested : 57 l/min
- Pressure requested : 130 bar

6. USE

The operator should remain nearby the equipment throughout the use to ensure the proper functioning of the system.

6.1 Pumping hot liquids

CAUTION	
	THE SURFACES OF THE PUMP CAN BE AT A TEMPERATURE LIABLE TO CAUSE INJURY OR SEVERE DAMAGE.
Excessive temperature- can cause injury or severe damage.	

When pumping hot liquids, make your you retighten screws and bolts after starting for the first time in order to compensate for contraction.

6.2 Pump full of liquid when stopped

WARNING	
	FAILURE TO INSTALL ADEQUATELY SIZED PRESSURE RELIEF VALVE(S) CAN CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.
Hazardous pressure can cause personal injury or property damage.	

WARNING	
	IF PUMPING HAZARDOUS OR TOXIC FLUIDS, THE SYSTEM MUST BE FLUSHED PRIOR TO PERFORMING ANY SERVICE OPERATION.
Toxic or hazardous fluids can cause serious injury.	

If the pump circuit is to be located between valves and/or a non-return valve, you need to take account of the variations in temperature that can lead to contraction of the liquid in the circuit. In this case, you need to provide some means of compensating for the contraction. A discharge valve may be sufficient. The opening pressure for this valve should be compatible with the permitted pressure for the other components in the circuit.

It is also advisable to fit a discharge device to allow the circuit to be completely emptied for any maintenance work.

In the case of liquids containing particles settling on shut-down, it is necessary to make sure the consistency of the deposit will not impede restarting the pump.

6.3 Starting-up the pump

WARNING	
	FAILURE TO RELIEVE SYSTEM PRESSURE PRIOR TO PERFORMING PUMP SERVICE OR MAINTENANCE CAN CAUSE PERSONAL INJURY OR PROPERTY DAMAGE.
Hazardous pressure can cause personal injury or property damage.	

WARNING	
	OPERATION WITHOUT THE SHAFT PROTECTOR CAN CAUSE SERIOUS PERSONAL INJURY, MAJOR PROPERTY DAMAGE OR DEATH.
Do not operate without guard in place.	

Before starting the pump, make sure that the following conditions are met :

- The circuit should be in one of its pumping configurations, with the appropriate valves open, especially on the intake side.
- For products requiring heating, they must be brought to their pumping temperature before starting the pump.

6.4 Running without liquid in the pump

MOUVEX Submerged AM pumps can run without liquid in the pump for 5 minutes without causing damage, in particular during pump priming.

6.5 Using of the pump with a valve closed on the discharge line

The using of the pump with a valve closed on the discharge line implies the liquid is not renewed which generates a heating up. In consequence, that operating way must not exceed 3 minutes.

6.6 Shutting down the pump

When shutting down the pump, we recommend waiting for it to stop completely before closing the valves, especially the inlet valve.

6. USE (continued)

6.7 Protection from frost

Drain the pump : see § PUMP EMPTYING.

6.8 Restarting

Follow the standard start-up procedure for the pump/ motor-driven pump, as well as the instructions below.

Turn the pump by hand to make sure the parts move freely.

Replace the grease used to lubricate the bearing.

If the pump has a safety bypass, remove it and inspect the parts and make sure they move freely.

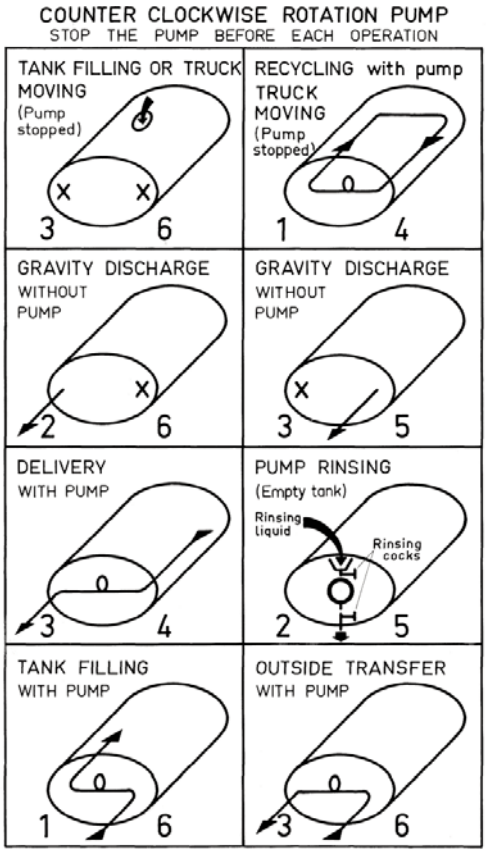
6.9 Operation limits

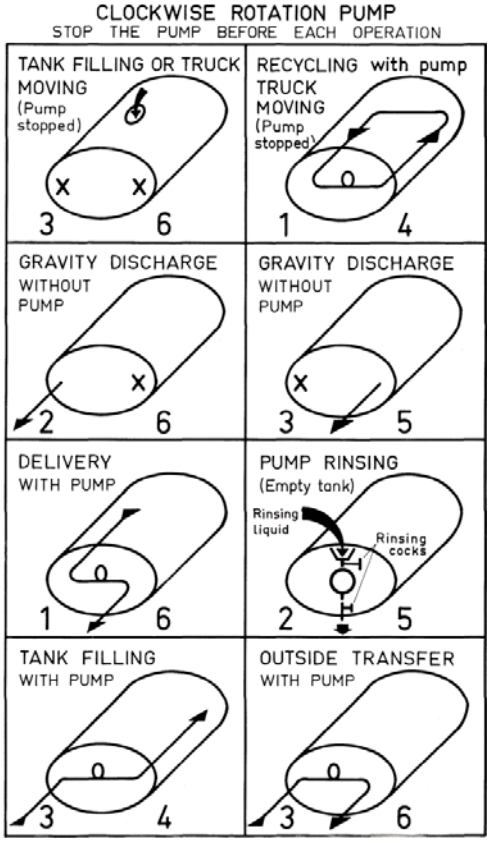
The maximum temperature of the product during the pump's operation must not exceed 200°C.

6.10 3-way valve operation

The instruction plate supplied with the equipement is be attached by the fitter on the vehicle, in full view of the operator.

It shows how to position the 3-way valves according to pump direction of rotation in order to perform different operations such as tank emptying, product recycling and tank filling.





6.11 Clutch

Engage the the clutch very slowly. If clutch is engaged roughly, damage to equipment may result (breaking of shaft…).

If resistance is encountered due to ”sticking” of the pump, stop the engine and carry out the procedure described in § CHECK OF PUMP RINSING AND "UNSTICKING".

6.12 Tank emptying with pump

Make sure all the valves in the delivery system are open before coupling the engine.

6.13 Change of product

If the event of a change of product makes it necessary to rinsing the pump so as to prevent sticking for example (scooler or even cold fluid substituted for a hot fluid) or to avoid a undesirable reaction between new and previous fluid (colouring…) proceed as follows :

6.14 Pump emptying

As soon as tank is empty, perform the following steps with engine still running and 3-way suction valve positioned to TANK EMPTYING WITH PUMP :

1. Unclutch the pump.
2. Place 3-way delivery valve in position shown on instruction plate.
3. Open pump drain cock a bottom of pump.
4. Clutch back the pump.

6.15 Pump filling (solvent)

When pump is emptied, leave 3-way delivery valve in the position show on the instruction plate :

5. Unclutch the pump.
6. Place 3-way suction valve in position show on instruction plate.
7. Shut pump drain cock at bottom of pump.
8. Put the funnel in the up position, so it can be filled with flushing fluid. Open the pump filling cock on the pump and put through the funnel a solvent to flush the hot fluid pumped previously.
9. When the pump is filled with solvent, shut the pump filling cock on the top of the pump and put the funnel in the bottom position, to avoid its filling with rain water, dusts...

6.16 Pump rinsing

10. Clutch back the pump to the engine to circulate the solvent and flush out the pump.
11. Operate slightly from bottom to top each of 3-way suction and delivery valve control levers to allow the rinsing the valve shells.

6.17 Pump emptying (solvent evacuation)

After rinsing is completed, empty the solvent from the pump as follows :

12. Unclutch the pump.
13. Open the pump drain cock at bottom of pump.
14. Place 3-way suction valve in position shown on instruction plate.
15. Clutch back the pump.
16. When pump is emptyed, unclutch the pump from the engine.
17. Position the suction and delivery valves on OFF, close the pump drain cock stop the engine.

The pump should now be ready to operate with the new product. However, it is advisable to check rinsing efficiency by proceeding as described in § CHECK OF PUMP RINSING AND "UNSTICKING".

6.18 Check of pump rinsing and "unsticking"

Whenever a rinsing operation in necessary (change of product, pumping of especially viscous fluid) and in any case where it is not absolutely certain that it has been performed (different operator…) **always check that pump was rinsed by rotating the pump by hand before allowing new fluid to enter the pump.**

If the pump sticks perform steps 8 and 9 above mentioned, and then, **before performing steps 10, 11, 12, 13, 15 and 16 be sure that the solvent has unstuck the pump by rotating the pump by hand.**

This procedure prevents deterioration (shaft breaking, packing removal,…). Do not omit to close the pump drain cock when the procedure is completed.

6.19 Rotation speed

Always it is necessary to choose a pump rotation speed suited to the pumped product viscosity and do not exceed the maximum speed indicated in the attached table for a fluid of given viscosity :

Product viscosity		Pump max. speed (rpm)
cP	(°E)	
70	10	500
150	20	450
370	50	400
730	100	300
1400	190	300
2200	300	250
3700	500	200
7300	1000	150

The appropriate speed will be obtained, according to the reduction gear ration, by acrefully selecting the engine speed.

6.20 Valves lubrication

For valve sealing and smooth operation, lightly grease the valves after-each operation unsing the special grease pump provided with the equipment and filled with grease suited to the fluid pumped and at is temperature.

Actuate the valves when greasing them.

The valve lubricating instructions plate supplied with the equipment should be attached by the fitter on the vehicle in full view of the operator.

If a 3-way valve sticks, grease it before operating it.

NOTE - As the bypass is factory adjusted, the adjustment should not normally be modified. However, if because of special operating conditions, the flow rate is lower than desired flow rate, and providing the engine permits, it is possible to increase the flow rate by increasing normal adjustment (8 full rurns of adjusting nut from completly unscrewed position), by tightening this nut accessible by removing the bypass valve cap.

7. NECESSARY TOOLS

- Flat wrenches 8 - 10 - 13 - 14 - 16 - 17 - 19
- Screwdriver

Makeup torques :

- M12 .....81 Nm
- M10 .....47 Nm
- M 8 .....23 Nm
- M 6 .....10 Nm

8. DISMANTLING AND REASSEMBLY

WARNING	
 Dangerous voltage. Can cause injury and death.	DISCONNECT THE ELECTRICITY SUPPLY BEFORE ANY MAINTENANCE OPERATION.

WARNING	
 Hazardous pressure can cause personal injury or property damage.	DISCONNECTING THE FLUID OR PRESSURE CONTAINMENT COMPONENTS DURING PUMP OPERATION CAN CAUSE SERIOUS PERSONAL INJURY, DEATH OR MAJOR PROPERTY DAMAGE.

WARNING	
 Hazardous pressure can cause personal injury or property damage.	FAILURE TO RELEASE ALL SYSTEM AIR AND WHEN EQUIPPED, HYDRAULIC PRESSURE, CAN CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.

WARNING	
 Hazardous or toxic fluids can cause serious injury.	IF PUMPING HAZARDOUS OR TOXIC FLUIDS, THE SYSTEM MUST BE FLUSHED PRIOR TO PERFORMING ANY SERVICE OPERATION.

WARNING	
 The weight ot the parts can be dangerous and may provoke bodily injuries or material damages.	BE CAREFUL WITH THE WEIGHT OF THE PARTS WHEN THEY ARE BEING REMOVED.

CAUTION	
 Slippery lubricant. Spills should be cleaned up.	THE PUMP LUBRICANT IS VERY SLIPPERY AND MAY CAUSE SERIOUS INJURY. ANY SPILLS MUST BE CLEANED UP.

CAUTION	
 Excessive temperature- can cause injury or severe damage.	THE SURFACES OF THE PUMP CAN BE AT A TEMPERATURE LIABLE TO CAUSE INJURY OR SEVERE DAMAGE.

WARNING	
 Any unforeseen start-up can cause serious injuries or important material damages.	TAKE ALL NECESSARY MEASURES TO RENDER ANY START-UP, EVEN ACCIDENTAL, OF THE PUMP DURING THE WORK IMPOSSIBLE.

Before any disassembly, make sure that the pump has been drained and take all the necessary precautions to prevent it from starting up. The pump must not start up, even accidentally.

8. DISMANTLING AND REASSEMBLY (continued)

8.1 Cover dismountling

Remove bolts of flange **58** from drain valve **53**.

Remove circular flap door in insulation so as to gain access to pump cover.

Remove nuts from cover studs **206**.

Remove cover **401** by slowly disengaging it from pump housing, using the 2 threaded holes proved in cover if required.

The cover is removed with piston **301**, shaft **501** and packing.

8.2 Piston dismountling

Remove binding hoop **521** using binding hoop nut to loosen it.

Free piston **301** sliding it along the shaft.

8.3 Shaft an packing dismountling

Remove screws **706** and washers **721**.

Remove cover **705** with its seal **707**.

Remove shaft by rapping it slightly with a mallet on its end opposite the drive side.

Remove spacer **746**, retaining ring **704** and washer **731**, in that order, then remove the assembly including bearing cage **701**, bearing **703**, protection ring **733** by tapping on shaft drive end.

Then remove seal **605**, counterplate **604** and afterwards one-piece rotary assembly **697**.

8.4 Reassembly

Check seals of one-piece rotary assembly **697**, seals **605** and **707** for good condition.

Check new parts for condition of mating faces of counterplace **604** and one-piece rotary assembly **697**.

Install all parts on shaft in reverse order from dismounting.

Be careful to fit the two tongues of one-piece rotary assembly **697** in the slots on shaft **501**.

Make sure stop in **627** fits into the housing provided on counterplace **604**.

Place in position retaining ring **704**.

Install packing and shaft-bearing assembly on pump together with seal **717**. Do not omit it, being careful to position one of the leak evacuation connection downwards.

Place in position cover **705** with its seal **707**, being careful not to cut the lip of this seal on shaft hey-groove, then install screws **706** with washers **721**.

9. MAINTENANCE

9.1 Bearing lubrication

Lightly grease the ball bearing on the pump output shaft during periodical lubrication of the vehicle.

Use high quality ball bearing grease, at high drop point.

NOTE - For submerged AM on plate units supplied with reduction gear flanged to the pump, the reduction gear is supplied greased for 10.000 running hours and requires no maintenance.

9.2 3-way valve lubrication

Indicative list of greases for high temperatures

STATERMA 2	ELF
BP ENERGREASE HTG2	BP
UNIREX N°3	ESSO
UPTON 260	LABO INDUSTRIE
MOBIL TEMPS N°1	MOBIL OIL
DARINA GREASE R2	SHELL
CALORIS M 53	TOTAL

10. STORAGE

10.1 Short duration (≤ 1 month)

WARNING	
	**IF PUMPING HAZARDOUS OR TOXIC FLUIDS, THE SYSTEM MUST BE FLUSHED PRIOR TO PERFORMING ANY SERVICE OPERATION.**
Toxic or hazardous fluids can cause serious injury.	

MOUVEX pumps and motor-driven pumps are well lubricated when delivered to protect the internal parts during brief storage in a building where :

- the temperature remains between 10°C and 50°C.
- the relative humidity does not exceed 60%.
- exposure to vibration is limited.
- pump is stored in an area sheltered from bad weather and sun.

10.2 Long duration (> 1 month)

The recommendations from the manufacturer should be followed if the pump is stored with its gear motor.

Pump ports should be filled with a non-corrosive liquid that it compatible with the pump components in order to prevent corrosion.

Unpainted external surfaces of the pump (e.g. shafts, couplings, etc.) should be covered in some form of anti-corrosion protection.

The bearing should be well greased. If the pump is to be stored for more than the life of the grease, this one should be replaced in time to prevent an excessive degradation of its qualities.

Grease the valves : see § VALVES LUBRICATION.

The best storage conditions are inside a building that meets the conditions set out above.

If inside storage is not possible, the materials should be covered to prevent direct exposure to sun and bad weather. This protection should also prevent condensation.

The pump should be turned a few revolutions manually every two months.

11. SCRAPPING

The pump must be scrapped in compliance with the regulations in force.

During this operation, particular care must be paid to the drainage stages of the pump.

DECLARATION UE DE CONFORMITE
EU CERTIFICATE OF CONFORMITY – EU KONFORMITÄTSERKLÄRUNG

CE

MOUVEX sas, ZI La Plaine des Isles – 2 Rue des Caillottes – 89000 Auxerre France, déclare que l'équipement suivant / *declares the following equipment / erklärt, dass folgende Ausrüstung:*

Modèle :_____ **N° de série :**_____ (A) Répondant aux spécifications indiquées dans l'ARC N° : _____ (B)

Designation / Bezeichnung *Serial N° / Serien Nr* *According to the specifications recorded in the acknowledgment of order N°: Entsprechend den Spezifikationen aus AB-Nr :*

Pour la Sté MOUVEX sas, fait à Auxerre le : _____
For Mouvex sas company – Date :
Fur die Fa Mouvex sas - Datum :

Responsable Qualité Clients
Customer Quality Manager / Qualitätsbeauftragter

Configuration : *Konfiguration*

☐ Pompe / Compresseur arbre nu *(Pump / Compressor « bare-shaft »)* *(Pumpe / Kompressor, freies Wellenende*

☐ Groupe de pompage / de compression *(Pumping Unit / Compressor Unit)* *(Pumpen- / Kompressoraggregat)*

Type / *Geräteart* :

☐ Pompe à mvt excentré *(Eccentric Disc Pump /* Ringkolbenpumpe*)*
☐ Pompe péristaltique *(Peristaltic Pump /* Schlauchpumpe*)*
☐ Pompe centrifuge *(Centrifugal Pump /* Kreiselpumpe*)*
☐ Pompe à lobes *(Lobes Pump /* Drehkolbenpumpe*)*
☐ Pompe à palettes *(Vanes Pump /* Flügelzellenpumpe*)*
☐ Autre pompe *(Other Pump / Andere Pumpe)*
☐ Compresseur à Vis *(Screws compressor /* Schraubenverdichter*)*
☐ Compresseur à palettes *(Vanes compressor /* Flügelzellenverdichter*)*
☐ Refroidisseur Hydraulique *(Hydraulic oil cooler /* Hydraulikkühler*)*

Est conforme aux dispositions suivantes :

☐ **Directive « MACHINES » 2006/42/CE** et aux législations nationales la transposant, portant sur les dispositifs de sécurité liés aux risques mécaniques et électriques applicables aux machines tournantes.

NF EN 809:2009 NF EN 1672-2:2009 NF EN ISO 13857:2008 NF EN 12162:2009

☐ **Directive « ATEX » 2014/34/UE** du 26 février 2014 et aux législations nationales la transposant, portant sur les appareils destinés à être utilisés en atmosphères explosibles. Conformité obtenue par application des normes :

NF EN 1127-1:1997 NF EN 13463-1:2009 NF EN 13463-5:2009

Certification ATEX délivrée par INERIS*, Organisme Certificateur, et portant le marquage suivant : (C)

Is in conformity with the provisions of the following Directive:

☐ ***« MACHINES » Directive 2006/42/EEC*** *as transposed by the national legislation, concerning safety equipments and arrangements relative to mechanical and electric risks applicable to rotative machines.*

NF EN 809:2009 NF EN 1672-2:2009 NF EN ISO 13857:2008 NF EN 12162:2009

☐ ***« ATEX » Directive 2014/34/EU*** *(26 Feb. 2014) as transposed by the national legislation, concerning equipment intended to be used in explosive atmospheres. Conformity obtained by application of the standards :*

NF EN 1127-1:1997 NF EN 13463-1:2009 NF EN 13463-5:2009

ATEX Certification delivered by INERIS, Notified Body, and with the following marking:* (C)

den Bestimmungen der nachstehenden Richtlinien entspricht:

☐ ***„Maschinen-Richtlinie“ 2006/42/EEC*** *wie umgesetzt im nationalen Recht hinsichtlich der Ausrüstungssicherheit und Sicherheitsvorkehrungen bezogen auf mechanische und elektrische Risiken, die für rotierende Maschinen gelten.*

NF EN 809:2009 NF EN 1672-2:2009 NF EN ISO 13857:2008 NF EN 12162:2009

☐ ***„ATEX“ Richtlinie 2014/34/EU*** *(26. Feb. 2014) wie umgesetzt im nationalen Recht in Bezug auf Ausrüstungen für den Einsatz in explosionsgefährdeter Atmosphäre. Die Konformität hat Geltung durch Anwendung folgender Normen:*

NF EN 1127-1:1997 NF EN 13463-1:2009 NF EN 13463-5:2009

Die ATEX-Zertifizierung wurde von der benannten Stelle INERIS erteilt, und mit folgender Kennzeichnung: (C)*

II __ G ____ II __ – T __ **Temp Max produit pompé / *Max Temp Flow / Max. T° Medium* = _____ °C** (X = voir notice / see IOM / siehe Handbuch)

L'équipement désigné ci-dessus doit impérativement respecter les conditions d'utilisation ATEX décrites dans nos notices d'instruction. Il doit être employé conformément à l'utilisation qui en a été prévue de par sa conception et sa fabrication, et conformément aux normes en vigueur.

Nous, soussignés, déclarons que l'équipement concerné est conforme aux Directives listées ci-dessus et aux normes applicables s'y rapportant.

The equipment indicated above must imperatively comply with the ATEX conditions of use described in our Instruction book. It must be used according to the foreseen use by its design and its manufacturing, and according to the current standards.

We, undersigned, declare that the concerned equipment is in conformity with the Directives listed above and in the applicable standards in force.

Oben stehend bezeichnete Ausrüstung muss unbedingt den in unseren Betriebsanleitungen beschriebenen ATEX Anwendungs-bedingungen entsprechen. Sie ist entsprechend dem durch Konstruktion und Fabrikation vorgesehenen Verwendungszweck und entsprechend den geltenden Normen einzusetzen.

Die Unterzeichner erklären, dass die bezeichnete Ausrüstung den oben aufgeführten Richtlinien und den diesbezüglich geltenden Normen entspricht.