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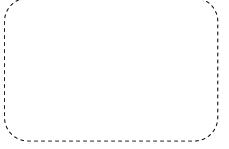
We, Uni-corp Europe, 33 Avenue Pierre Brossolette, 94048 Créteil Cedex, France, hereby certify that if the product described within this certificate is bought from an authorised Paclite dealer within the EEA, it conforms to the following directives: Machinery Directive 2006/42/EC, Electromagnetic Compatibility Directive 2004/108/EC (as amended by 92/31/EEC & 93/68 EEC). The physical agent (vibration) conforms with the directive 2002/44/EC. The low voltage directive 2006/95/EC, BS EN ISO 12100-1/2 Safety of machinery and associated harmonised standards, where applicable. Noise emissions conform to directive 2005/88/EC Annex VI), for machines under article 12 the notified body is TÜV Rheinland Product Safety GmbH - Am Grauen Stein - D-51105 Köln, Germany.

Nous soussignons, Uni-corp Europe, 33 Avenue Pierre Brossolette, 94048 Créteil Cedex, France, certifions que si le produit décrit dans ce certificat est acheté chez un distributeur de la marque déposée "Paclite" au sein de la EEA, celui-ci est conforme aux norms CEE ci-après: Norme de la machine 2006/42/CE, Norme compatible pour l'électromagnétisme 2004/108/CE (modifie par 92/31/CEE et 93/68/CEE). Le nombre de vibrations est en accord avec la directive 2002/44/CE. Caractéristiques basse tension 2006/95/CEE, BS EN ISO 12100-1/2 , Norme de sécurité des machines et des critères associés et configurés, si applicable. Les émissions debruit sont conformes à la directive 2005/88/CE Annexe VI pour machines, article 12. L'objet mentionné est TÜV Rheinland Product Safety GmbH - Am Grauen Stein - D-51105 Köln, Allemagne.

La Sociedad, Uni-corp Europe, 33 Avenue Pierre Brossolette, 94048 Créteil Cedex, France, por el presente documento certifica que si el producto descrito en este certificado es comprado a un distribuidor autorizado de Paclite en la EEA, este es conforme a las siguientes directivas: 2006/42/CE de la CEE, Directiva 2004/108/CEE sobre Compatibilidad Electromagnética (según enmiendas 92/31/CEE y 93/68 CEE). El numero de vibraciones esta de acuerdo con la Directiva 2002/44/CE. Directiva sobre Bajo Voltaje 2006/95/CEE, BS EN ISO 12100-1/2 de Seguridad de Maquinaria y Niveles armonizados estándares asociados donde sean aplicables. Emisión de Ruídos conforme a la Directiva 2005/88/CE Anexo VI para máquinas bajo articulo 12 la mencionada unidad está TÜV Rheinland Product Safety GmbH - Am Grauen Stein - D-51105 Köln, Germany.

O signatário, Uni-corp Europe, 33 Avenue Pierre Brossolette, 94048 Créteil Cedex, France, pelo presente, declara que se o produto descrito neste certificado foi adquirido a um distribuidor autorizado do Paclite em qualquer pais da EEA, está em conformidade com o estabelecido nas seguintes directivas comunitárias: 2006/42/CE, Directiva de Compatibilidade Electromagnética 2004/108/CEE (conforme corrigido pelas 92/31/EEC & 93/68 EEC). O numero de vibrações está de acordo com a directiva 2002/44/CE LB. A directiva de baixa voltagem 2006/95/CEE, BS EN ISO 12100-1/2 Segurança da maquinaria e às normas harmonizadas afins se aplicáveis. As emissões de ruido respeitam e estão dentro das directivas para máquinas 2005/88/CE Anexo VI, artigo 12, sendo o organismo notificado TÜV Rheinland Product Safety GmbH - Am Grauen Stein - D-51105 Köln, Germany.

PRODUCT TYPE	TYPE DE PRODUIT	TIPO DE PRODUCTO	TIPO DE PRODUCTO
MODEL	MODELE	MODELO	MODELO
SERIAL No	N° DE SERIE	Nº DE SERIE	Nº DE SÉRIE
DATE OF	DATE DE	FECHA DE	DATA DE
MANUFACTURE	FABRICATION	FABRICACIÓN	FABRIC
WEIGHT	POIDS	PESO	PESO





Anita Tan

Quality Manager - On behalf of Uni-corp Europe Directrice de Qualité - au nom de Uni-corp Europe S.A.R.L.



Е

GB/US

F

Nº DE SERIE	
DATE DE	
FABRICATION	
POIDS	

Signed by: Signature:



Foreword

This manual has been written to help you operate your PFP Series Submersible Pump safely. It is intended primarily for dealers and operators of Paclite Submersible Pumps. It is recommended that you keep this manual or a copy of it with the machine so that it is readily available for reference.

Before you operate or carry out any maintenance on this machine YOU MUST READ and UNDERSTAND this manual.

Should you have ANY QUESTIONS about the safe use or maintenance of this machine after reading this manual, ASK YOUR SUPERVISOR or CONTACT: Uni-corp Europe on +33 (0) 1 4981 6955

Paclite reserves the right to change machine specification without prior notice or obligation.

Directions with regard notations

Text in this manual to which special attention must be paid are shown in the following way:



This CAUTION sign indicates a potential hazard, which if ignored, could result in injuries to the operator and/or those close by, as well as damaging the machine.



This WARNING sign indicates a potential hazard, which if ignored could result in the DEATH of the operator and/or those close by.

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Safety Information

For your own personal protection and for the safety of those around you, please read and ensure you fully understand the following safety information. It is the responsibility of the operator to ensure that he/she fully understands how to operate this equipment safely. If you are unsure about the safe and correct use of the Submersible Pump, consult your supervisor or Paclite Equipment.



Improper maintenance can be hazardous. Read and understand this section before you perform any maintenance, service or repairs.

General Safety

- The owner of this machine must observe, and also train the user of the machine to observe, the effective labour protection laws in the country of application.
- This machine is to be used for its intended application only.
- This machine must only be operated by well trained personnel.
- Personal Protective Equipment (PPE) must be worn by the operator whenever the equipment is being used.
- Cordon off the work area and keep members of the public and unauthorised personnel at a safe distance. The drive unit must have a distance of at least one metre from buildings, equipment and other drive units.
- Make sure you know how to safely switch this machine OFF before you switch it ON in case you run into any difficulties.
- Always switch OFF the engine before servicing it.
- During use, the engine becomes very hot. Always allow the engine to cool down before touching it.
- Never leave the engine running and unattended.
- Never remove or tamper with any fitted guards; they are there for your own protection. If they are damaged or missing, DO NOT USE THE MACHINE until the guard has been replaced or repaired.
- Always switch OFF the engine before transporting it, moving it around site or servicing it.
- Do not operate the machine when you are ill, feeling tired or when under the influence of alcohol or drugs.
- This machine is designed to eliminate the possible risks arising from the use of it. However, risks DO reside, and these residual risks are not clearly recognisable and may cause personal injury or property damage, and possibly death. If such unpredictable and unrecognisable risks become apparent, the machine must be stopped immediately, and the operator or their supervisor must take appropriate measures to eliminate such risks. It is sometimes necessary that the manufacturer must be informed of such event for future counter measuring.



Fuel Safety



Fuel is flammable. It may cause injury and property damage. Shut down the engine, extinguish all open flames and do not smoke while filling the fuel tank. Always wipe up any spilled fuel.

- Before re-fuelling, switch off the engine and allow it to cool.
- When re-fuelling, use a proper funnel, and avoid spilling over the engine.
- When re-fuelling, DO NOT smoke or allow naked flames in the area.
- Spilt fuel must be made safe immediately by using sand. If fuel is spilt on your clothes, change them before using the equipment.
- Store fuel in an approved, purpose made container away from heat and sources of ignition.

Health & Safety

Fuel

Do not ingest fuel or inhale fuel vapors and avoid contact with your skin. Wash fuel splashes immediately. If you get fuel in your eyes, irrigate with copious amounts of water and seek medical attention as soon as possible.

Exhaust Fumes



The exhaust fumes produced by this machine are highly toxic and can kill! Make sure the work area is adequately ventilated.

PPE (Personal Protective Equipment)

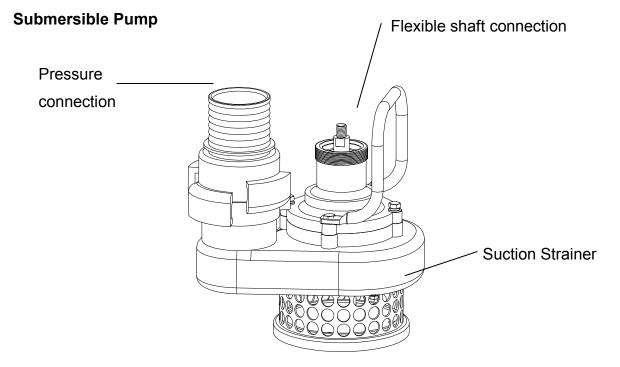
Suitable PPE must be worn when using this equipment i.e. safety goggles, gloves, ear defenders, dust mask and steel toe-capped footwear (with anti-slip soles for added protection). Wear clothing suitable for the work you are doing. Always protect skin from contact with concrete.

Environment



In order to protect the environment please recycle any discarded apparatus or accessories. Various parts are made from steel, aluminium and rubber. Take the discarded apparatus to the relevant recycling facilities.

Machine Description



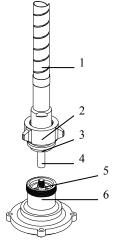
Operation

Before connecting anything to the drive unit, the engine should first have the correct operating temperature. Start the engine and run idle for a few minutes and then switch off again. Refer to the Start/Stop Procedure.



Risk of serious hand injury due to rotating parts. Keep hands away from the unit's housing during the warm-up period.

Flexible shaft to pump connection



- 1. Protective Hose
- 2. Cap Nut
- 3. Hose Coupling
- 4. Shaft Adapter
- 5. Main shaft
- 6. Housing for Bearing
- When connecting, ensure the main shaft of the pump head is completely inserted into the shaft adapter of the flexible shaft.
- Push together firmly and securely tighten the cap nut by hand.



Coupling to housing connection

Before connecting the flexible shaft to the drive unit, you must lay the shaft out to its full length.

- To assemble the flexible drive to the drive unit, twist the spring-mounted lever on the flange 180° in a clockwise direction and insert the flexible drive end piece connector.
- 2. On releasing the lever the rod mechanism should locate in the groove of the end piece connector.
- If the rod mechanism fails to locate, rotate the engine crank shaft with the rope start or handle while pushing the end piece in.



- Once all connections are securely in place you may now start the engine. Refer to the Start/Stop Procedure.
- The engine should now be running at idle speed. Always check the engine for any signs of unusual noise. If there are any abnormalities stop the machine immediately and refer to the section on trouble shooting.
- When you are ready to begin operation set the throttle to maximum.
- To stop the engine, refer to the Start/Stop Procedure.

Pre-Start Checks

The following inspection must be performed before the start of each work session or after every four hours of use, whichever is first. Please consult the service section for detailed guidance. If any fault is discovered, the machine must not be used until the fault is rectified.

- 1. Thoroughly inspect the machine for signs of damage.
- 2. Check hoses, filler openings, drain plugs and any other areas for signs of leakage. Fix any leaks before operating.
- 3. Check the engine oil level and top up if required. Use proper engine oil with the proper viscosity (SAE 10W-30 is recommended).
- 4. Check the engine fuel level and top up as necessary. Use clean fuel. The use of contaminated fuel may damage the fuel system.
- 5. Check for oil and fuel leaks.

Start and Stop Procedure



Improper operation can be hazardous. Read and understand this section before you start the machine.

- 1. Open the fuel cock.
- 2. Turn the STOP SWITCH to the position 'I' (ON)
- 3. Set the speed control lever 1/3 of the way towards the high speed position.
- 4. Close the choke lever.
 - If the engine is cold or the ambient temperature is low, close the choke lever fully.
 - If the engine is warm or the ambient temperature is high, open the choke lever half way, or keep it fully open.
- 5. Pull the starter handle slowly until resistance is felt. This is the *'compression'* point. Return the handle to its original position and pull swiftly. Do not pull out the rope all the way. After starting the engine, allow the starter handle to return to its original position while still holding the handle.
- 6. After starting the engine, gradually open the choke by turning the choke lever and finally keep it fully opened. Do not fully open the choke lever immediately when the engine is cold or the ambient temperature is low, because the engine may stop.
- 7. To stop the engine, Set the speed control lever at the low speed position and allow the engine to run at low speed for 1 to 2 minutes before stopping.
- 8. Turn the STOP SWITCH counter-clockwise to the position '0' (OFF)
- 9. Close the fuel cock.
- 10. Pull the starter handle slowly and return the handle to its original position when resistance is felt. This operation is necessary to prevent outside moist air from intruding into the combustion chamber.

For diagrams and further details of the engine please refer to the engine manual.



Service and Maintenance



Before carrying out any maintenance on this machine ensure the engine has been switched off. The engine should also be allowed to cool as parts of the enginebecome hot during use.

The Paclite Equipment Drive Units are designed to give many years of trouble free operation. It is, however, important that the simple regular maintenance listed in this section is carried out. It is recommended that an approved Paclite Equipment dealer carries out all major maintenance and repairs. Always use genuine Paclite Equipment replacement parts, the use of spurious parts may void your warranty. Before any maintenance is carried out on the machine, switch off the engine. For petrol machines, disconnect the HT lead from the sparkplug. Always set the Drive Unit on level ground to ensure any fluid levels will be correctly read. Only use recommended oils (see chart below).

When the Drive Unit is first used from new, the engine oil must be changed after the initial running in period (see engine manual for full details)

Routine M	laintenance	After first 4 hours	First month / 20 hours	3 months / 50 hours	6 months / 100 hours
Air Filter	Check Condition		•		•
	Clean / Replace			•	
Engine Oil	Check Level	•			
	Change		•		•
Spark Plug	Check / Clean				•

Oil/Fuel Type & Quantity—Spark Plug Type						
	Oil Type	Quantity (litres)	Fuel Type	Capacity (litres)	Spark plug Type	Electrode Gap
EX17	SAE	1.1	Unleaded	3.6	NGK	0.6-0.7mm
EY20	10W-30	0.6	Petrol / Gasoline	3.8	BR-6HS	0.0-0.711111

Note: When servicing the engine please refer to the engine manual for instructions.

Trouble Shooting

Drive Unit

Problems	Possible Causes	Countermeasures
Engine stops suddenly or does not run.	 No fuel Engine switched off Spark plug fouled Engine cold Engine flooded 	 Open fuel cap, fill fuel tank Switch engine on Clean & reset plug gap Close choke Open choke, fully open throttle & pull recoil starter until engine fires.
Engine will not start	Major fault Contact Agent or Paclite Eq	

Pump Head

Problems	Possible Causes	Countermeasures
	 Pump housing or pressure hose blocked. 	1. Give the component a thorough clean.
Low Delivery Volume	 Pressure hose damage or disconnected. 	2. Replace or repair the pressure hose.
	 Pump housing , impeller, main shaft or oil seal damaged/overly worn 	3. Replace the damaged part.
	1. Pressure hose disconnected.	1. Replace
	2. Housing or pressure hose	2. Clean thoroughly.
	blocked	3. Replace
No delivery, rotation sound present	 Flexible shaft coupling damaged. 	4. Replace the damaged part.
	 Impeller, housing, oil seal or drive shaft damaged. 	
	1. Flexible shaft broken.	1. Replace the shaft.
No delivery, no rotation sound	2. Bearing broken.	2. Replace the bearing.
	1. Ball bearing broken	1. Replace bearing
Unusual sounds	2. Flexible shaft defective	2. Replace shaft
	3. Protective hose damaged	3. Replace hose
	4. No grease left	4. Add more grease.



Technical Data

	Model	PFP-70P	PFP-80P
	Pump	4.5 (9.9)	5.5 (12.1)
Weight - kg (lb)	Flexible Shaft	17 (37.5)	17 (37.5)
	TOTAL	21.5 (47.4)	22.5 (49.6)
Disc	harge Diameter - mm (in)	51 (2)	76 (3)
	Max. Lift - m (ft)	15 (49.2)	17 (55.8)
Max. Capacity - I/min (gal/min)		1,000 (264)	1,200 (317)
Flexible Shaft Length - m (ft)		6 (19.7)	6 (19.7)
Shaft Revolution - rpm		3,000 - 5,000	3,000 - 5,000
Engine		Robin EX17/EY20-3C	
Engine Type		4-Stroke Gasoline	
Max. Power Output - hp (kW)		EX17@6.0(4.2) / EY20-3C@5.0(3.7)	
Max. Engine Speed (rpm)		3,600 - 4,000	
Dimensions of Drive Unit - WxHxL (mm)		370 :	x 460 x 420

Transportation and Storage

- When it is not used for long periods of time, store the pump, flexible shaft and drive unit in a clean, dry and protected environment.
- When transporting, ensure the pump and the drive unit are safe against damage occurring as a result of slipping, overturning and sudden impact.
- If you do not use the drive unit for more than one month, discharge the fuel in order to prevent a build-up of gum in the fuel system and carburetor parts (refer to the engine manual for instructions).
- Slowly pull the recoil starter handle until resistance is felt and leave in that position.

Warranty

Your new Paclite PFP Submersible Pump is warranted to the original purchaser for a period of oneyear (12 months) from the original date of purchase.

The Paclite Equipment warranty covers defects in design, materials and workmanship.

The following are not covered under the Paclite Equipment warranty:

- 1. Damage caused by abuse, misuse, dropping or other similar damage caused by or as a result of failure to follow assembly, operation or user maintenance instructions.
- 2. Alterations, additions or repairs carried out by persons other than Paclite Equipment or their recognised agents.
- 3. Transportation or shipment costs to and from Paclite Equipment or their recognised agents, for repair or assessment against a warranty claim, on any machine.
- 4. Materials and/or labour costs to renew, repair or replace components due to fair wear and tear.
- 5. The engine, air filter and the engine spark plug.

Paclite Equipment and/or their recognised agents, directors, employees or insurers will not be held liable for consequential or other damages, losses or expenses in connection with or by reason of or the inability to use the machine for any purpose.

Warranty Claims

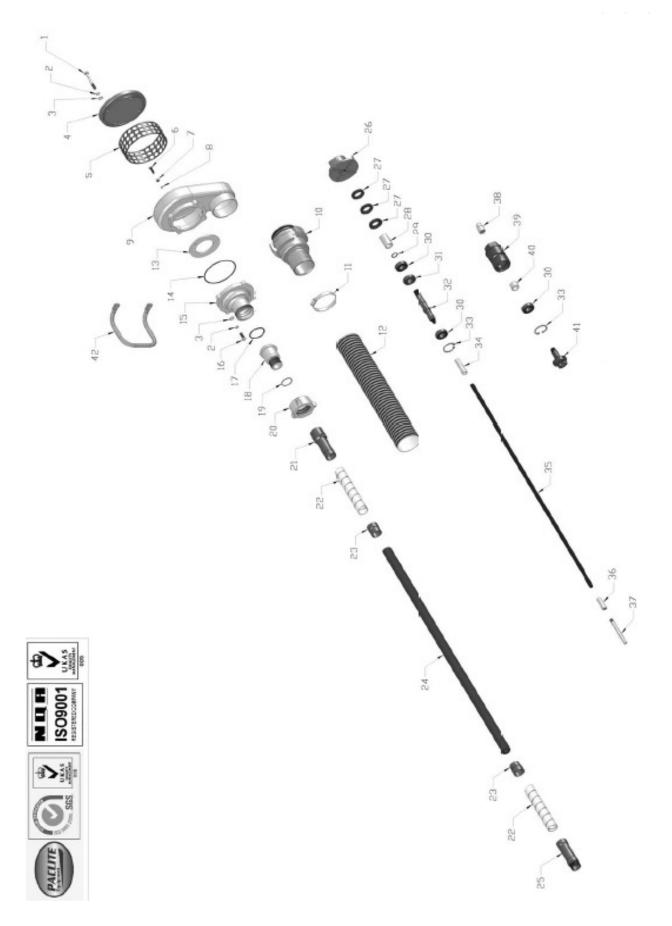
All warranty claims should firstly be directed to Uni-corp Europe, either by telephone, by fax, by email, or in writing.

For warranty claims:

Uni-corp Europe S.A.R.L., Paclite Equipment, 33 Avenue Pierre Brossolette, 94048 Créteil Cedex, FRANCE

Tel : +33 (0) 1 4981 6955 Email: sales@paclite-equip.com Fax: +33 (0) 1 4898 4088

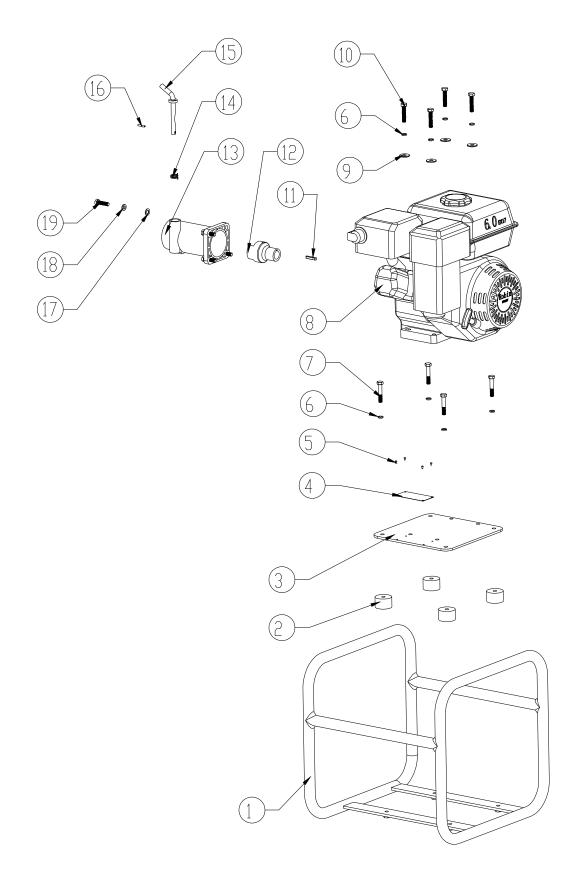
Spare Parts (Submersible Pump)



No.	Part No.	Part Description	
1	PFP-80P-FN.B-M8x75-8.8-DIN-1	BOLT	
2	PFP-80P-FN.W8-DIN-1	WASHER	
3	PFP-80P-SPG.W8-DIN-1	SPRING WASHER	
4	PFP-80P-HFP80-06	BASE SUPPORT	
5	PFP-80P-HFP80-04	STRAINER CASE	
6	PFP-80P-FN.B-M6x25-8.8-DIN-1	BOLT	
7	PFP-80P-FN.N-M6-DIN-1	NUT	
8	PFP-80P-SPG.W6-DIN-1	SPRING WASHER	
9	PFP-80P-HFP80-03P	SHELL CASE	
10	PFP-80P-HFP80-12P	NIPPLE	
11	PFP-80P-HFP80-14P	CLAMP	
12	PFP-80P-HFP80-13P	SUNNY HOSE	
13	PFP-80P-HFP80-09	PUMP WASHER	
14	PFP-80P-W04-109.4x3.1	OIL SEAL	
15	PFP-80P-HFP80-01	BEARING HOLDER	
16	PFP-80P-FN.B-M8x25-8.8-DIN-1	BOLT	
17	PFP-80P-W04-48x3.5	O RING	
18	PFP-80P-HFP80-10	HOSE MOUNTING	
19	PFP-80P-W04-35x2	O RING	
20	PFP-80P-HFP80-05	CLAW NUT	
21	PFP-80P-VIB60-0105T	HOSE JOINT B	
22	PFP-80P-VIB60-0815	PROTECTOR SPRING	
23	PFP-80P-VIBGA-0833	END CLIP	
24	PFP-80P-W24-32x6M-5-P	FLEXIBLE HOSE	
25	PFP-80P-VIB60-0106	HOSE JOINT A	
26	PFP-80P-HFP80-02	IMPELLER	
27	PFP-80P-W03-45x28x8	OIL SEAL	
28	PFP-80P-HFP80-08	BUSH	
29	PFP-80P-W04-18x2	O RING	
30	PFP-80P-W01-6004ZZ-J	BEARING	
31	PFP-80P-W01-6004-J	BEARING	
32	PFP-80P-HFP80-07	PUMP SHAFT	
33	PFP-80P-CH.RG42	INTERNAL CIRCLIP	
34	PFP-80P-HFP80-11	SHAFT JOINT C	
35	PFP-80P-W25-13x5995	FLEXIBLE SHAFT	
36	PFP-80P-VIB60-0205A	SHAFT JOINT B	
37	PFP-80P-VIB38-0206	SHAFT JOINT A	
38	PFP-80P-VIBTCC-0401	DRIVE SCREW	
39	PFP-80P-VIBTCC-0402	HOSE JOINT D	
40	PFP-80P-VIBTCC-0403	SPACER	
41	PFP-80P-VIBTCC-0406	COUPLING	
42	PFP-80P-HFP80-20	HANDLE	



Spare Parts (Drive Unit)



No.	Part No.	Part Description
1	DRCEX17(DH)-EB-0300-A	ENGINE BASE
2	DRCEX17(DH)-EB20B-0103	RUBBER ABSORBER
3	DRCEX17(DH)-EB-0310-A	FIXING PLATE
4	DRCEX17(DH)-RAM80-0409	NAMEPLATE
5	DRCEX17(DH)-K.RVT-3.2x7.1	RIVET
6	DRCEX17(DH)-SPG.W8-DIN-1	SPRING WASHER
7	DRCEX17(DH)-FN.B-M8x45-8.8-DIN-1	BOLT
8	DRCEX17(DH)-W05-EX17	ENGINE
9	DRCEX17(DH)-WOD.W8-GB-1	WASHER
10	DRCEX17(DH)-FN.B-M8x40-8.8-DIN-1	BOLT
11	DRCEX17(DH)-Key.A-5x5x30	KEY
12	DRCEX17(DH)-VIBTCC-1102	ENGINE DRIVE SHAFT
13	DRCEX17(DH)-F05081P	PACLITE HOUSING
14	DRCEX17(DH)-F04837	SPRING
15	DRCEX17(DH)-F04835	TRIGGER
16	DRCEX17(DH)-SC.PIN-4x20	SPRING PIN
17	DRCEX17(DH)-FN.W8-DIN-1	WASHER
18	DRCEX17(DH)-HSPG.W8-DIN-1	SPRING WASHER, TANG ENDS
19	DRCEX17(DH)-FN.B-M8x30-8.8-DIN-1	BOLT



Notes

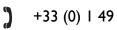




Uni-corp Europe S.A.R.L. **Paclite Equipment**

33 Avenue Pierre Brossolette, 94048 Créteil Cedex, FRANCE





+33 (0) | 49 8| 69 55



+33 (0) | 48 98 40 88



sales@paclite-equip.com

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