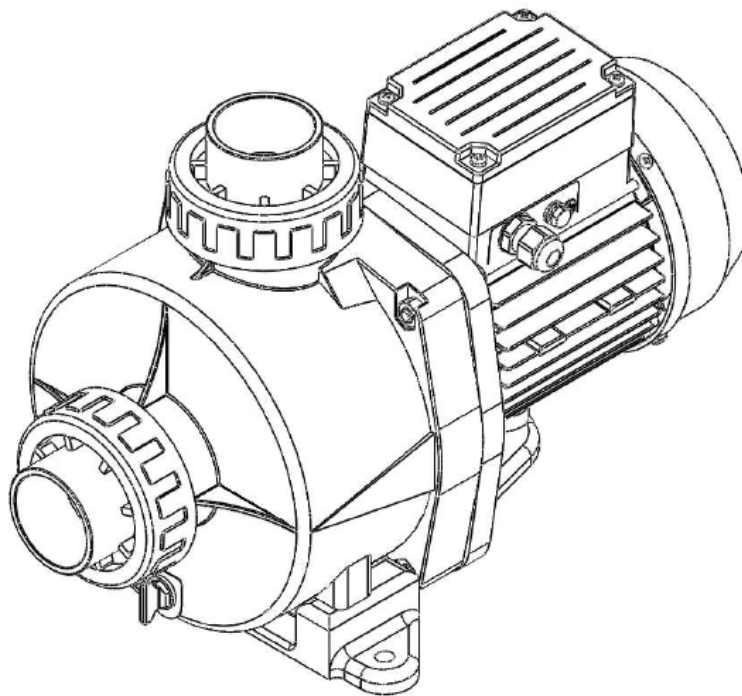
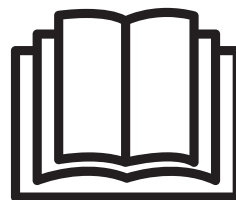
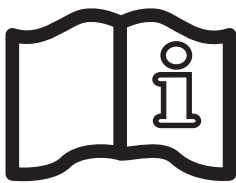


# KRIPSOL®



CE



## CENTRIFUGAL PUMP

USER GUIDE

**KEEP THIS MANUAL FOR FUTURE REFERENCE**

HAYWARD IBÉRICA, S.L.U. - Felipe II, 136. 45210 Yuncos (Toledo) – Spain



**WARNING: Electrical Hazard. Failure to follow instructions can result in serious injury or death.  
FOR USE WITH SWIMMING POOLS**

**⚠ WARNING – Disconnect the pump from the main power supply completely before servicing the pump or filter.**

**⚠ WARNING – All electrical connections must be done by a qualified electrician according to local electrical standard.**

F	NF C 15-100	GB	BS7671:1992
D	DIN VDE 0100-702	EW	EVHS-HD 384-7-702
A	ÖVE 8001-4-702	H	MSZ 2364-702:1994 / MSZ 10-533 1/1990
E	UNE 20460-7-702 1993, REBT ITC-BT-31 2002	M	MSA HD 384-7-702.S2
IRL	IS HD 384-7-702	PL	PN-IEC 60364-7-702:1999
I	CEI 64-8/7	CZ	CSN 33 2000 7-702
LUX	384-7.702 S2	SK	STN 33 2000-7-702
NL	NEN 1010-7-702	SLO	SIST HD 384-7-702.S2
P	RSIUEE	TR	TS IEC 60364-7-702

**⚠ WARNING – Be certain the machine is only connected into a protected outlet that is protected from short-circuits. The pump is to be supplied by an isolating transformer or supplied through a residual current device (RCD) having a rated residual operating current not exceeding 30 mA.**

**⚠ WARNING – Children should be supervised to ensure that they do not play with the appliance. Keep fingers and foreign objects away from openings and moving parts.**

**⚠ WARNING – Motor must be suitably grounded. Connect ground wire to green grounding screw and for cord connected units use properly grounded outlet.**

**⚠ WARNING – Use a motor bonding lug to connect motor with other bonded parts using the appropriate size conductor as required by electrical codes.**

**⚠ WARNING – When making these electrical connections, refer to the diagram given under the lid of the motor terminal box. Be sure to check the electric connections are tight and sealed before powering up. Replace all covers before operation.**

**⚠ WARNING – Make sure that the power supply voltage required by the motor corresponds to that of the distribution network and that the power supply cables matches the power and current of the pump.**

**USE ONLY KRIPSOL GENUINE REPLACEMENT PARTS**



**⚠ WARNING – Read and follow all instructions in this owner’s manual and on the equipment. Failure to follow instructions can cause serious injury or death. This document should be given to the owner of the swimming pool and must be kept by the owner in a safe place.**

**⚠ WARNING – The appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.**

**⚠ WARNING – Cleaning and user maintenance shall not be made by children without supervision.**

**⚠ WARNING – The pump is intended for continuous operation at Maximum Water temperature 35°C.**

**⚠ WARNING – Use Only Genuine KRIPSOL Replacement Parts.**

**⚠ WARNING – If the supply cord is damaged it must be replaced by the manufacturer, service agent, or similarly qualified persons in order to avoid a hazard.**

**⚠ WARNING – For disconnection from main power supply an external switch having a contact separation in all poles that provide a full disconnection under overvoltage category III conditions must be incorporated in the fixed wiring in accordance with the wiring rules.**

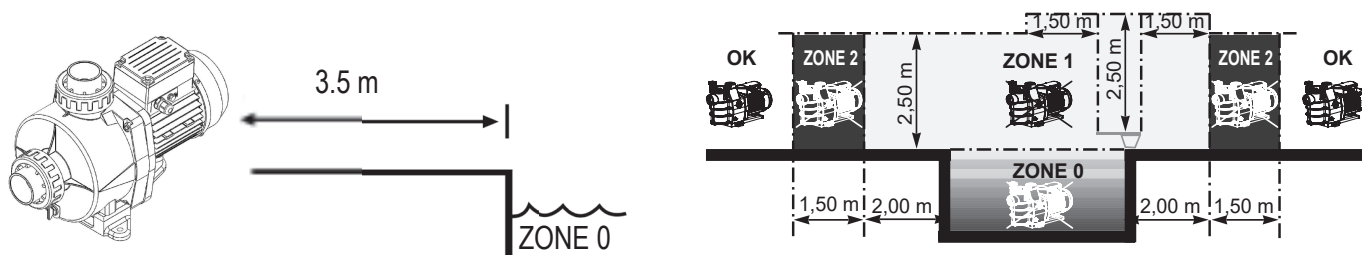
**⚠ WARNING – Do not operate the swimming pool pump if the power cord or the housing of the motor connection box is damaged. This can cause an electric shock. A damaged power cord or motor connection box must be replaced by a service agent or a similarly qualified person immediately in order to avoid a hazard.**

**⚠ WARNING – This pool motor is NOT equipped with a Safety Vacuum Release System (SVRS). SVRS helps prevent drowning due to body entrapment on underwater drains. In some pool configuration, if a person’s body covers the drain, the person can be trapped by suction. Depending on your pool configuration, a SVRS may be required to meet local requirements.**

**USE ONLY KRIPSOL GENUINE REPLACEMENT PARTS**

## GENERAL POINTS

Install the pump at a suitable distance from the pool to reduce the distance between the suction point and the pump as much as possible to avoid pointless excessive pressure drops on the hydraulic circuit. However, it is essential to comply with the safety distance required by the current installation standard (3.5 metres minimum). Install and use the product at an altitude less than 2000m



Install the pump in a dry, well-ventilated place. The motor requires the air to circulate freely around it to allow natural ventilation. Check regularly that no objects, leaves or other debris are blocking the motor cooling system.

The pump must be installed to ensure that the external disconnection switch incorporated into the fixed unit is visible and easily accessible. The switch must be located near to the pump.

The pump must be permanently installed on a concrete base using 8mm lag screws suitable for concrete, screwed into drilled implantation holes. Lock washers must be used to prevent the installation lag screws working loose over time. If the pump has to be mounted on a wooden board, Ø 8mm hexagonal wood screws must be used combined with lock washers to prevent the screws working loose over time.

The acoustic pressure of KRIPSOL pumps is less than 70dB (A).

### Necessary measures:

- Connect the pump to the earth: Never operate the pump unless it is connected to the earth.
- Connect the pump with a H07RN-F 3G1mm<sup>2</sup> type cable (D max 7,8mm)
- Include a 30mA differential protection to protect people against electric shocks which may be caused by a breach of the equipment's electrical insulation.
- Include short-circuit protection (the rating is determined according to the value given on the nameplate on the motor).
- Include a means of disconnection from the power supply having an opening distance on the contacts of all the poles ensuring the power supply is completely cut off under the conditions of a category III overvoltage.

### Three phase electric motor:

Check the running direction of the pump motor (a label is provided on the motor housing to indicate the motor running direction).

If so required by regulations and whatever the motor type, in addition to the devices mentioned above, it is also necessary to install a thereto-magnetic protective device calibrated in accordance with the indications on the motor name-plate.

The table on page 57 indicates the various characteristics of the motors fitted to our pumps.

**USE ONLY KRIPSOL GENUINE REPLACEMENT PARTS**



**Electrical connection:** Make sure that the power supply voltage required by the motor corresponds to that of the distribution network and that the power supply cables matches the power and current of the pump.

All the electric connections of the pump and the possible change of power supply cable must be handled by a qualified professional so as to avoid all possible danger.

When making these electrical connections, refer to the diagram given under the lid of the motor terminal box.

Be sure to check the electric connections are tight and sealed before powering up.

The pre-wiring that might be included on some of the pumps must be removed for final connection of the pump to the electric power supply. This pre-equipment is only used for works testing during the manufacturing phases.

## INSTALLATION

Install the pool pump so as to reduce pressure drops to a minimum whilst complying with the distances specified in the installation standard, namely 3.5m minimum between the pump and the pool. The suction pipe must be installed with a slight uphill incline towards the pump axis. Ensure that the connections are correctly tightened and watertight. However, avoid excessively tightening the pipes. For plastic materials, use Teflon only to ensure watertightness. The diameter of the suction pipe shall depend on that of the discharge pipe. Avoid damp or non-ventilated locations. The motor requires the cooling air to circulate freely.

**IMPORTANT:** Check the direction of rotation before permanently connecting the motor.

**INSTRUCTIONS FOR START-UP AND PRIMING:** Fill the body of the strainer with water up to the level of the suction pipe. Never run the pump without water, as the water is necessary for cooling and lubrication of the mechanical shutter. Open all the suction and discharge pipe valves, and the filter air purge valve if there is one. (Any air in the suction pipes must be eliminated). Start up the generator and wait a reasonable time for priming. Five minutes is not excessive for priming (this time depends on the suction head and the length of the suction pipe). If the pump does not start or does not prime, please refer to the troubleshooting guide.

## MAINTENANCE

1. Completely disconnect the pump from the mains power supply before opening the cover and cleaning the strainer. Clean the strainer basket regularly. Do not bang on the basket to clean it. Check the seal on the cover of the strainer and replace it if necessary.
2. The motor shaft is mounted on self-lubricating bearings which do not require any subsequent lubrication.
3. Keep the motor clean and dry and ensure the ventilation openings are not blocked.
4. The mechanical shutter occasionally starts to leak and must then be changed.
5. Apart from cleaning the pool, all repairs, servicing and maintenance must be carried out by a KRIPSOL-approved agent or a qualified person.

## WINTERING

1. Empty the pump by removing all the drain plugs and store them in the strainer basket.
2. Disconnect the pump, remove the pipe connectors and store the entire unit in a dry, well-ventilated place or at least take the following precaution: disconnect the pump, remove the 4 bolts attaching the pump housing to the motor bracket and store the unit in a dry, well-ventilated place. Then cover the pump housing and strainer to protect them.

**N.B.:** Before recommissioning the pump, clean all the internal parts to remove dust, lime scale etc.

**USE ONLY KRIPSOL GENUINE REPLACEMENT PARTS**

## TROUBLESHOOTING

### A) The motor does not start

1. Check the electrical connections, switches or relays, and the circuit breaker or fuses.
2. Ensure that the motor turns freely by hand.

### B) The motor stops, check

1. The cables, connections, relays etc.
2. Voltage drop on motor (frequently caused by cables that are too small).
3. That there is no seizing or overheating (by reading the absorbed current).

**C) The motor growls but does not start**, check that a phase is not cut, the capacitor is not damaged.

### D) The pump does not prime

1. Ensure the strainer housing is filled with water, that the cover seal is clean and correctly positioned and that no air can enter. If necessary, tighten the cover lock screws.
2. Ensure that all the suction and discharge valves are open and not blocked and that the suction outlets in the pool are fully submerged.
3. Check that the pump draws by freeing the suction as close as possible to the pump:
  - a) if the pump does not draw despite being sufficiently full of priming water
    1. Tighten the bolts and pipe accessories on the suction side.
    2. Check the voltage to ensure that the pump is rotating at the correct speed.
    3. Open the pump and check that nothing is blocking it inside,
    4. Replace the mechanical shutter.
  - b) If the pump is drawing normally, check the suction pipe and strainer which may be blocked or be allowing air to enter.

### E) Low flow - Generally, Check for :

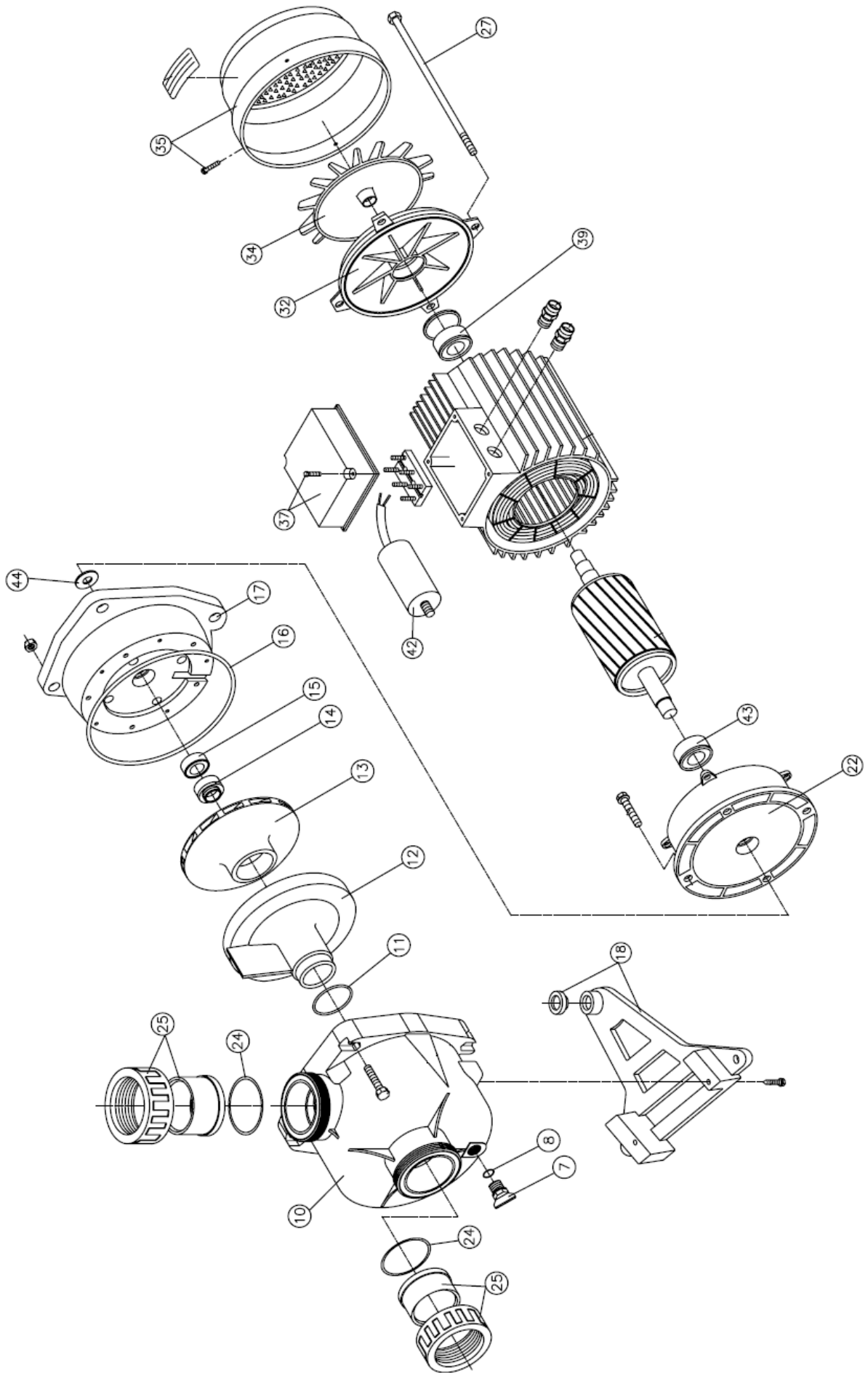
1. Clogged or restricted strainer or suction line; undersized pool piping.
2. Plugged or restricted discharge line of filter (high discharge gauge reading).
3. Air leak in suction (bubbles issuing from return fittings).
4. Pump operating under speed (low voltage).
5. Plugged or restricted impeller.

### F) Noisy pump, check

1. That no air is entering the suction side and causing dull crackling in the pump.
2. That there is no cavitation caused by insufficient diameter or a restriction in the suction tube. An oversized discharge pipe can also cause cavitation. Use pipes of the correct size or purge the pipes if necessary.
3. That no vibration is occurring due to incorrect fitting.
4. That there are no foreign bodies in the pump housing.
5. That the motor bearings have not seized due to excessive clearance, rust or prolonged overheating.

**USE ONLY KRIPSOL GENUINE REPLACEMENT PARTS**

	Puissance nominale - Nominal power - Potencia nominal - Potência nominal - Nennleistungsaufnahme - Nominaal vermogen - Potenza nominale - Mär- keffekt - Номинальная мощность	Voltage Fréquence Nb de phases - Voltage Frequency Number of phases - Voltaje Frecuencia - Número de fases - Tensão Frequência - Número de fases - Voltzahl Frequenz Phasenanzahl - Spanning Frequentie Aantal fases - Voltaggio Frequenza Numero fasi - Spänningsfrekvens Antal faser - Напряжение, частота кол-во фаз	Ampérage Amperage Amperaje Amperagem Stromstärke Stroomsterkte Amperaggio Strömstyrka Сила тока	Condensateur Capacitor Condensador Condensator Kondensator Condensatore Kondensator Конденсатор	Taille et réglage disjoncteur - Circuit breaker size and setting - Tamanho y ajuste disyuntor - Tamanho e regulação do disjuntor - Größe und Einstellung Sicherung - Grootte en instelling beveiligingsschakelaar Dimensione e regolazione interruttore differenziale - Effektbrytarens värde och inställning - Размер и настройка прерывателя	Hauteur manométrique à débit=0 (mce) - Manometric head at flow = 0 (mWC) - Altura manométrica de caudal=0 (mca) - Altura manométrica para caudal = 0 (mca) - Druckhöhe bei Durchfluss=0 (mWS) - Opvoerhoogte bij doorstroming=0 (mwk) - Altezza manometrica a capacità=0 (mH2O) - Uppföringshöjd vid nollflöde (mH2O) - - Манометрическая высота при расходе=0 (mH2O)
<b>KNG 75 M</b>	0,75 kW	230V~50/60Hz 1 PHASE	4,2A	14/16µF	2,5-2,4A	12
<b>KNG 100 M</b>	1,00 kW	230V~50/60Hz 1 PHASE	5,0A	20µF	4,0-6,3A	15,9
<b>KNG 150 M</b>	1,60 kW	230V~50/60Hz 1 PHASE	7,5A	25µF	6,3-10A	22,4
<b>KNG 200 M</b>	1,92 kW	230V~50/60Hz 1 PHASE	9,0A	30µF	6,3-10A	26,2
<b>KNG 75 T1</b>	0,75 kW	230/400V~50/60Hz 3 PHASE	3,4/4,05A	-	2,5-4,0A 1,6-2,5A	12
<b>KNG 100 T1</b>	1,00 kW	230/400V~50/60Hz 3 PHASE	3,6/2,2A	-	2,5-4,0A 1,6-2,5A	15,9
<b>KNG 150 T1</b>	1,60 kW	230/400V~50/60Hz 3 PHASE	5,0/2,9A	-	4,0-6,3A 2,5-4,0A	22,4
<b>KNG 200 T1</b>	1,92 kW	230/400V~50/60Hz 3 PHASE	6,1/3,5A	-	4,0-6,3A 2,5-4,0A	26,2





POS.	DENOMINACION	DESIGNATION	DESIGNATION	BEZEICHNUNG	DENOMINAÇÃO	CTD.
7	Tapón vaciado	Drain plug	Bouchon vidange	Ablafschraube	Bujão de drenagem	1
8	Junta tapón	O-ring	Joint	Stöpsel O'ring	Junta de vedação	1
10	Cuerpo bomba	Pump casing	Corps de pompe	Pumpengehäuse	Corpo da bomba	1
11	Junta difusor	Diffuser gasket	Joint diffuseur	Dichtring	Vedação do difusor	1
12	Difusor	Diffuser	Diffuseur	Leitapparat	Difusor	1
13	Rodete	Impeller	Turbine	Laufrad	Impulsor	1
14	Retén	Mechanical seal	Garniture Mécanique	Wellendichtung	Selo mecânico	1
15	Contra retén	Seal seat	Siège de garniture mécanique	Wellendichtung	Assento do selo	1
16	Junta cuerpo de unión	Flange O-ring	Joint bride de raccordement	Flansch O'ring	Flange O-ring	1
17	Cuerpo unión	Flange	Bride de raccordement	Flansch	Flange	1
18	Soporte	Motor-pump support	Socle	Socketteil	Soporte do motor	1
22	Tapa motor lado accionamiento	Motor cover-Pump side	Couvercle du moteur-Côte commande	Motorhalterung	Tapa do motor-lado bomba	1
24	Junta racord enlace	Union set O-ring	Joint ensemble raccord	Gesamtanschluß O'ring	Racord o-ring	2
25	Conjunto racord enlace	Union set	Ensemble raccord	Gesamtanschluß	Racord set	2
27	Tornillo	Screw	Vis	Sechskantschraube	Parafuso	4
32	Tapa motor lado ventilador	Motor cover-Fan side	Couvercle du moteur-Côte ventilateur	Motorabdeckung - ventilatorseitig	Cobertura motor lado ventilador	1
34	Ventilador	Fan	Ventilateur	Ventilator	Ventilador	1
35	Tapa ventilador	Fan cover	Couvercle ventilateur	Ventilatorabdeckung	Cobertura	1
37	Tapa caja conexiones	Board cover	Couvercle des connexions	Anschlußkastendeckel	Tapa da caixa de terminais	1
39	Rodamiento lado ventilador	Bearing-Fan side	Roulement-Côte ventilateur	Lager - ventilatorseitig	Rolamento lado ventilador	1
42	Condensador	Capacitor	Condensateur	Kondensator	Capacitor	1
43	Rodamiento lado accionamiento	Bearing-Pump side	Roulement-Côte commande	Lager-antriebsseitig	Rolamento lado bomba	1
44	Paragotero	Drops guard	Paragouttes	Tropfenhalter	Contra-gotejamento	1

POS.	DENOMINAZIONE	OMSCHRIJVING	НАИМЕНОВАНИЕ	BETECKNING	CTD.
7	Tappo svuotamento	Aftapplug	Пробка сливного отверстия	Avtappningsplugg	1
8	Guarnizione o'ring tappo	Pakking	Прокладка пробки	O-ring	1
10	Corpo pompa	Pompbehuizing	Корпус насоса	Pumphus	1
11	Guarnizione diffusore	Diffuser-pakking	Прокладка диффузора	Diffusortätning	1
12	Diffusore	Diffuser	Диффузор	diffuser	1
13	Girante	Turbine	Импеллер	Impeller	1
14	Tenuta meccanica rotante	Mechanische pakking	Стопор	Mekanisk tätning	1
15	Tenuta meccanica fissa	Zitting van mechanische pakking	Гнездо стопора	Tätning av sätet	1
16	Guarnizione or flangia	Pakking verbindingsflens	Прокладка фланца	Fläns O-ring	1
17	Flangia	Verbindingsflens	Фланец	Fläns	1
18	Base appoggio pompa	Motor-pompsteun	Опора	Motor-pumpstöd	1
22	Calotta motore - lato pompa	Motordeksel - Bedieningszijde	Крышка двигателя со стороны насоса	Motor kåpa-Pumpsida	1
24	O'ring insieme collegamento	O-ring verbindingskit	прокладка-кольцо муфты насоса	Styrelse racord länk	2
25	Insieme collegamento	Verbindingskit	муфта насоса	Ange racordlänk	2
27	Vite	Bevestigingsschroef steun	Опорный болт	Skruva	4
32	Calotta motore - lato ventola	Motordeksel - Ventilatorzijde	Крышка двигателя со стороны вентилятора	Motor kåpa-Fläcksida	1
34	Ventola	Ventilator	Вентилятор	Fläkt	1
35	Copriventola	Ventilatordeksel	Крышка вентилятора	Fläkt hölje	1
37	Coperchio morsettiera	Deksel van de aansluitkast	Крышка распределительной коробки	Styrelsens täckning	1
39	Cuscinetto a sfera - lato ventola	Lager - ventilatorzijde	Подшипник со стороны вентиля1	Lager-fläkt sida	1
42	Morsettiera	Contactstrip	Колодка подключения	Kondensator	1
43	Cuscinetto a sfera - lato pompa	Lager - bedieningszijde	Подшипник со стороны насоса	Lager-pumpsida	1
44	Paragocce	Druppelbeveiliging	Защита от протекания	Droppar vakt	1

## GARANTIE LIMITÉE

Les produits KRIPSOL sont garantis contre tous défauts de fabrication ou de matières pendant 2 ans, à compter de la date d'achat. Toute demande d'application de la garantie devra s'accompagner de la preuve d'achat, portant mention de la date. Nous vous conseillons donc de conserver votre facture.

Dans le cadre de sa garantie, KRIPSOL choisira de réparer ou de remplacer les produits défectueux, sous condition d'avoir été utilisés selon les instructions du guide correspondant, de n'avoir subi aucune modification, et de ne comporter que des pièces et composants d'origine. La garantie ne couvre pas les dommages dus au gel et aux produits chimiques. Tous les autres coûts (transport, main-d'oeuvre, etc.) sont exclus de la garantie.

KRIPSOL ne pourra être tenue pour responsable des dommages directs ou indirects résultant d'une installation, d'un raccordement ou d'une utilisation incorrecte du produit.

Pour toute demande de bénéfice de la garantie et de réparation ou remplacement d'un article, contacter votre revendeur.

Le retour de l'équipement en usine ne sera accepté qu'avec notre accord préalable.

**Les pièces d'usure ne sont pas couvertes par la garantie.**

## LIMITED WARRANTY

All KRIPSOL products are covered for manufacturing defects or material defects for a warranty period of 2 years as of date of purchases. Any warranty claim should be accompanied by evidence of purchase, indicating date of purchase. We would therefore advise you to keep your invoice.

The KRIPSOL warranty is limited to repair or replacement, as chosen by KRIPSOL, of the faulty products, provided that they have been subjected to normal use, in compliance with the guidelines given in their user guides, provided that the products have not been altered in any way, and provided that they have been used exclusively with KRIPSOL parts and components. The warranty does not cover damage due to frost and to chemicals. Any other costs (transport, labour, etc.) are excluded from the warranty.

KRIPSOL may not be held liable for any direct or indirect damage resulting from incorrect installation, incorrect connection, or incorrect operation of a product.

In order to claim on a warranty and in order to request repair or replacement of an article, please ask your dealer.

No equipment returned to our factory will be accepted without our prior written approval.

**Wearing parts are not covered by the warranty.**

## GARANTÍA LIMITADA

Todos los productos KRIPSOL están cubiertos contra defectos de fabricación o del material por un periodo de garantía de 2 años a partir de la fecha de la compra. Cualquier reclamación de garantía debe acompañarse de una prueba de compra, que indique la fecha de compra. Por consiguiente, le aconsejamos que conserve su factura.

La garantía KRIPSOL está limitada a reparaciones o sustituciones, a juicio de KRIPSOL, de los productos defectuosos, siempre que hayan sido sometidos a un uso normal, de acuerdo con las directrices ofrecidas en sus guías de usuario, y siempre que los productos no hayan sido alterados de ninguna forma, y que se hayan utilizado exclusivamente con piezas y componentes KRIPSOL. La garantía no cubre averías debidas a congelaciones o productos químicos. Cualquier otro coste (transporte, mano de obra, etc.) está excluido de la garantía.

KRIPSOL puede no asumir ninguna responsabilidad por cualquier avería directa o indirecta derivada de la instalación, conexión u operación incorrecta de un producto.

Para realizar una reclamación sobre la garantía y para solicitar la reparación o sustitución de un artículo, pregunte a su concesionario.

No se admitirá ninguna devolución de equipos a nuestra fábrica sin nuestra aprobación previa por escrito.

**La piezas sometidas a desgaste no están cubiertas por la garantía.**