



- **MANUAL DE INSTRUCCIONES PARA EL USO Y MANTENIMIENTO**  
del equipo contracorriente HIDROJET.
- **HANDBOOK FOR USE AND MAINTENANCE**  
Up Stream Swimming Equipment HIDROJET
- **MANUEL D'INSTRUCTIONS POUR L'UTILISATION ET L'ENTRETIEN**  
Equipement pour la Nage à Contre-Courant HIDROJET
- **BETRIEBS-UND WARTUNGSANWEISUNG**  
für die Schwimmbad-Gegenstromanlage HIDROJET
- **MANUALE D'ISTRUZIONI PER L'UTILIZZO E LA MANUTENZIONE**  
del Gruppo Contro-Corrente HIDROJET



**Type: JSH/JSL**

## 1. INSTALLATION

**1.1** By choosing the up stream swimming equipment model HIDROJET, manufactures by KRIPSOL, we think you have made the best choice, and we hope that you and yours enjoy your swimming pool to the full.

The HIDROJET series comes with various motor sizes, ranging from 2,5 HP to 5,5 HP, which means the installation can easily be adapted to any type of swimming pool.

The electropump should be fitted as close as possible to the pool so as to maximize its performance by avoiding frictional losses. The original diameters of the PVC fittings supplied with the unit should always be observed.

We recommend that you do not install the electropump more that 15 m. from the pool.

The KARPA series pump included with the unit is not self-priming so must be installed below the water level. The prefabricated housing or hut for the unit must be well ventilated, using fans if necessary, so as to ensure proper cooling of the pump and to avoid condensation.

This will ensure the correct operation of the HIDROJET.

## 2. FIXING THE NICHE

**2.1** When installing the niche you should take into account the fact that it must be fitted in the position described below:

The  $\varnothing$  75mm. discharge mouth and the  $\varnothing$  90mm. suction mouth must be fitted vertically, such that the discharge side ( $\varnothing$  75mm) is uppermost and the inlet side ( $\varnothing$  90mm) faces downwards (see fig. 1).

You should also ensure that the distance between the surface of the water and the centre of the discharge mouth is approximately 30 cm. (see fig.1).

**These instructions must be followed to ensure the correct installation of the unit and its good functioning.**

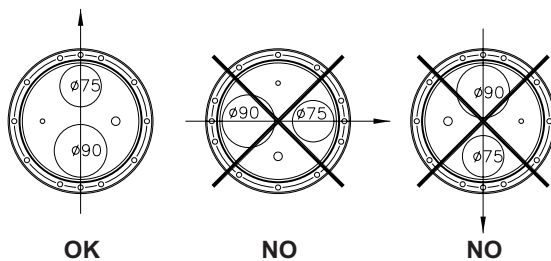
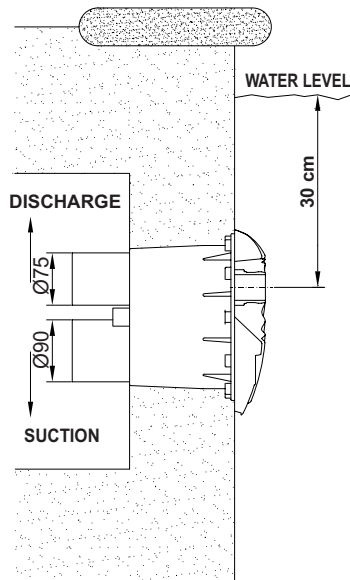


Fig. 1



### 3. FIXING THE CONCRETE NICHE

**3.1** To fix the niche (no.21, fig.2) in a concrete wall, only the instructions given in chapter 2 (place of installation) need be followed.

### 4. FIXING THE NICHE IN CONCRETE

**4.1** The niche is supplied with pipes no.22 and 23, (fig.2) already installed. Additionally, one of the hoses (no.24, fig.2) is supplied glued inside pipe no.22.

Once the niche has been fixed to the wall, following the instructions given in chapter 2, proceed to install the pneumatic and air lines.

#### Installation of the air line:

This line is made up of a hose (no.24), a flexible pipe (no.25), a male screw fitting (no.26) and a foot valve (no.27). All these parts are supplied fitted, so it is only necessary to glue the end of the hose (no.24) to the pipe (no.23) which is already fitted in the niche. It is important to fix the air line pipe to the wall of the housing so as to ensure that foot valve is in the upper part. This is so as to avoid sucking up dirt (see fig. 8, page 20). Lastly, install the flexible pipe (no.15, fig. 2) pressing it inside the nozzle in the interior of the niche (see fig.5, page 17).

#### Installation of the pneumatic line:

This line is made up of a pipe (no.22), a hose (no.24) and a flexible pipe (no.25). As the pipe (no.22) and the hose (no.24) are already installed in the niche, you only need to glue the pipe (no.25). Before gluing the end of the pipe (no.25) to the hose (no.24), fit the transparent pipe (no.2, fig.3) into the pneumatic line and pass the end of the transparent pipe (no.2, fig. 3) through the hole in the niche. Fix it in position with the clamp (no.20 and 20.1, fig.2). Once this is complete, glue the pipe (no.25) to the hose (no.24). The end of the transparent pipe (no.2, fig.3) will be connected to the microswitch located on one side of the hydropneumatic cut out included with the HIDROJET equipment.

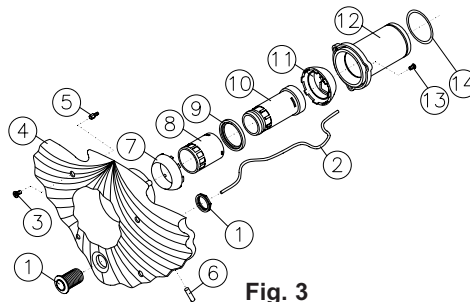


Fig. 3

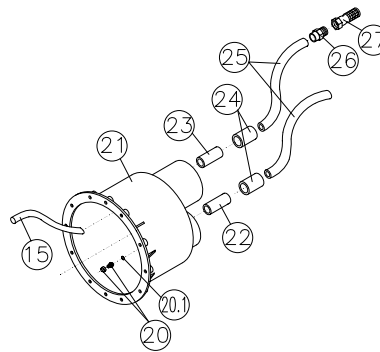


Fig. 2

## 5. FIXING THE NICHE IN THE LINER

**5.1** In order to fix the niche in a liner wall you should follow the instructions given in chapter 2 (place of installation). Fix the seals (no.19, fig.4), to the niche (no.21, fig.4) with the screws (no.18, fig.4), bearing in mind that the liner will lie between the two seals (no.19, fig.4). Finally, fit the ring (no.17, fig.4) and attach it with the screws (no.16, fig.4).

## 6. FITTING THE NICHE IN THE LINER

**6.1** The niche is supplied with pipes no.22 and 23 (fig.4) already installed. Additionally, one of the hoses (no.24, fig.4) is supplied glued inside pipe no.22. Once the niche has been fixed to the wall, following the instructions given in chapter 2, proceed to install the pneumatic and air lines.

### Installation of the air line:

This line is made up of a hose (no.24), a flexible pipe (no.25), a male screw fitting (no.26) and a foot valve (no.27). All these parts are supplied fitted, so it is only necessary to glue the end of the hose (no.24) to the pipe (no.23) which is already fitted in the niche. It is important to fix the air line pipe to the wall of the housing so as to ensure that the foot valve is in the upper part. This is so as to avoid sucking up dirt (see fig. 8, page 20).

Lastly, install the flexible pipe (no.15, fig.4) pressing it inside the nozzle in the interior of the niche (see fig. 5, page 17).

### Installation of the pneumatic line:

This line is made up of a pipe (no.22), a hose (no.24) and a flexible pipe (no.25). As the pipe (no.22) and the hose (no.24) are already installed in the niche, you only need to glue the pipe (no.25). Before gluing the end of the pipe (no.25) to the hose (no.24), fit the transparent pipe (no.2, fig.3) into the pneumatic line and pass the end of the transparent pipe (no.2, fig.3) through the hole in the niche. Fix it in position with the clamp (no.20 and 20.1, fig.4).

Once this is complete, glue the pipe (no.25) to the hose (no.24).

The end of the pipe (no.2, fig.3) will be connected to the microswitch located on one side of the hydropneumatic cut out included with the HIDROJET equipment.

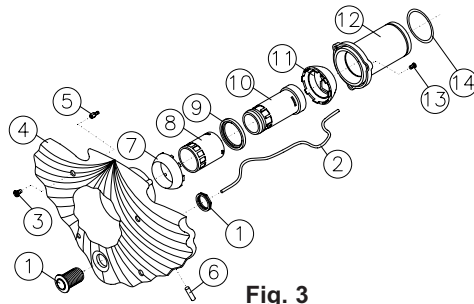


Fig. 3

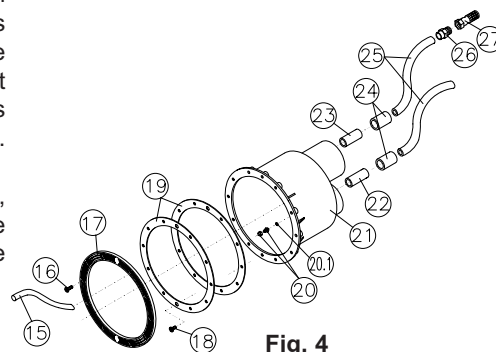


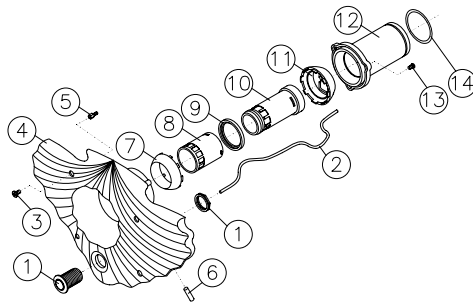
Fig. 4

## 7. FITTING THE FRONT

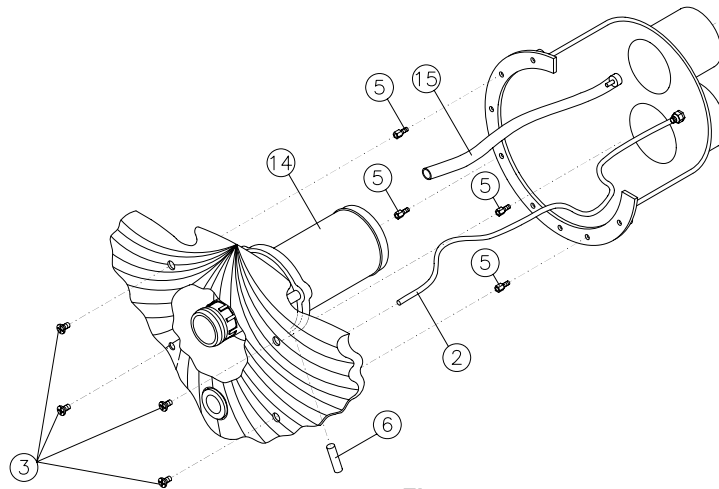
**7.1** The complete front piece is supplied assembled, comprising parts no.1 to no.14 (see fig.3), with the exception of the transparent pipe (no.2), which is already fitted in the niche (see fig. 5).

To install complete front piece proceed as follows:

- Connect pipe no.2, inserting it into the pin of the pushbutton (no.1, fig. 3).
- Connect pipe no.15, inserting it into the nozzle (no.6) on the front piece (see fig.5).
- Screw the four spacing screws (no.5) into the niche (see fig. 5).
- House the complete front piece in the niche, ensuring the that o-ring (no.14) is inserted in the orifice on the discharge side ( $\varnothing$  75 mm.), see fig. 5.
- Tighten the four screws (no.3) (see fig. 5). Once they are tight the front is fully in place.



**Fig. 3**



**Fig. 5**

## 8. PVC KITS FOR JS40/JS45

### 8.1 Installation of PVC kit for models JSH/JSL40 and JSH/JSL45:

Models JSH/JSL40 and JSH/JSL45, include a PVC kit for the installation of the suction line ( $\varnothing 75$  mm.) and discharge line ( $\varnothing 63$  mm.) (see table below).

#### Installation of the discharge line:

- Glue the 75x63 mm. reducing bush (no.1, fig. 6) to the discharge mouth of the niche (see fig. 6).
- Glue a  $\varnothing 63$ mm. pipe (\*) in the reducing bush (no.1, fig. 6).
- Glue the  $\varnothing 63$ mm. valve (no.2, fig. 6) to the  $\varnothing 63$ mm. pipe (\*).
- Glue a  $\varnothing 63$ mm. pipe (\*) to the  $\varnothing 63$ mm. pipe (no.2, fig. 6).
- Glue the  $\varnothing 63$ mm. elbow (no.3, fig. 6) to the  $\varnothing 63$ mm. pipe (\*).
- Glue a  $\varnothing 63$ mm. pipe (\*) to the elbow (no.3, fig.6).
- Glue a 90/75/63 mm. conical reducer (no.4, fig. 6) to the  $\varnothing 63$ mm. pipe (\*) and the  $\varnothing 90$ mm. connector on the pump.

#### Installation of the suction line:

- Glue the 90x75 mm. reducing bush (no.6, fig. 6) in the suction mouth of the niche (see fig. 6).
- Using a  $\varnothing 75$ mm. pipe (\*), glue a  $\varnothing 75$ mm. elbow (no.5, fig. 6) on to the reducing bush (no.6, fig. 6).
- Using a  $\varnothing 75$ mm. pipe (\*) join the other  $\varnothing 75$ mm. elbow (no.5, fig. 6) to the elbow already glued (see fig. 6).
- Glue the  $\varnothing 75$ mm. valve (no.7, fig. 6) to the elbow (no.5, fig. 6) using a  $\varnothing 75$ mm. pipe (\*) to join them.
- Glue a  $\varnothing 75$ mm. pipe (\*) to the valve (no.7, fig. 6).
- Glue a 90x75 mm. reducing bush (no.6, fig. 6) to the  $\varnothing 75$ mm. pipe (\*) and the  $\varnothing 90$ mm. connector on the pump.

(\*) PVC pipes not included in the kit.

PVC KIT FOR JSH/JSL40 AND JSH/JSL45		
No.	DESCRIPTION	QTY.
1	75x63 mm. Reducing Bush	1
2	$\varnothing 63$ mm. Ball Valve	1
3	$\varnothing 63$ mm. 90° Elbow	1
4	90x75x63mm. Conical Reducer	1
5	90° $\varnothing 75$ mm. Elbow	2
6	90x75 mm. Reducing Bush	2
7	$\varnothing 75$ mm. Ball Valve	1

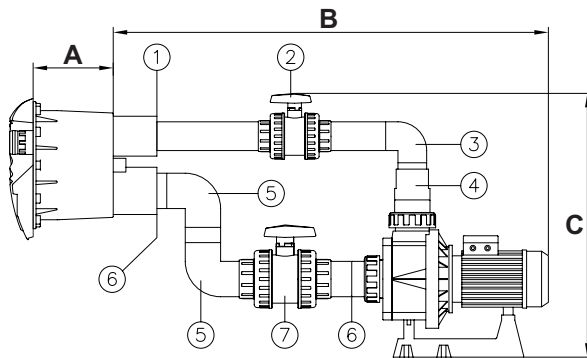


Fig. 6

MODEL	A	B	C
JSH / JSL40	165	1005	700
JSH / JSL45	165	1005	700

## 9. PVC KITS FOR JS70/JS78/JS88

### 9.1 Installation of PVC kit for models JSH/JSL70, JSH/JSL78 and JSH/JSL88:

Models JSH/JSL70, JSH/JSL78 and JSH/JSL88 include a PVC kit for the installation of the suction line (Ø 90 mm.) and discharge line (Ø 75 mm.) (see table below).

#### Installation of the suction line:

- Glue a Ø 75 mm. pipe (\*) to the discharge mouth of the niche (see fig. 7).
- Glue the Ø 75mm. valve (no.1, fig. 7) to the Ø 75mm. pipe (\*).
- Glue a Ø 75mm. pipe (\*) to the Ø 75mm valve (no.1, fig. 7).
- Glue the Ø 75mm. elbow (no.2, fig. 7) to the Ø 75mm. pipe (\*).
- Glue a Ø 75mm. pipe (\*) two the elbow (no.2, fig.7).
- Glue a 90/75/63 mm. conical reducer (no.3, fig. 7) to the Ø 75mm (no.2, fig. 7) and the Ø 90mm. connector on the pump.

#### Installation of the suction line:

- Using a Ø 90mm. pipe (\*), glue a Ø 90 mm. elbow (no.4, fig. 7) on to the suction mouth on the niche (see fig. 7).
- Using a Ø 90mm. pipe (\*) joint the other Ø 90mm. elbow (no.4, fig. 7) to the elbow already glued (see fig. 7).
- Glue the Ø 90mm. valve (no.5, fig. 7) to the elbow (no.4, fig. 7) using a Ø 90 mm. pipe (\*) to join them.
- Glue a Ø 90 mm. pipe (\*) to the valve (no.5, fig.7) and to the Ø 90mm.connector on the pump.

#### (\*) PVC pipes not included in the kit

PVC KIT JSH/JSL70, JSH/JSL78, JSH/JSL88		
No.	DESCRIPTION	QTY.
1	Ø 75 mm. Ball Valve	1
2	Ø 75 mm. 90° Elbow	1
3	90x75x63mm. Conical Reducer	1
4	Ø 90 mm. 90° Elbow	2
5	Ø 90 mm. Ball Valve	1

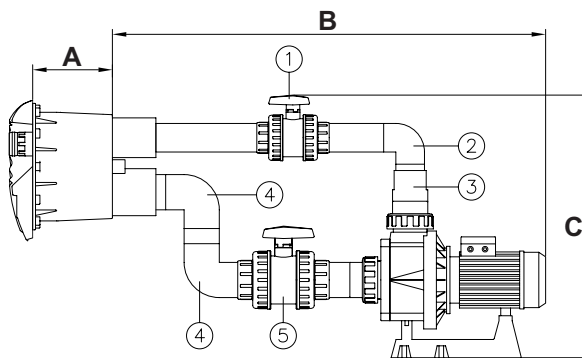


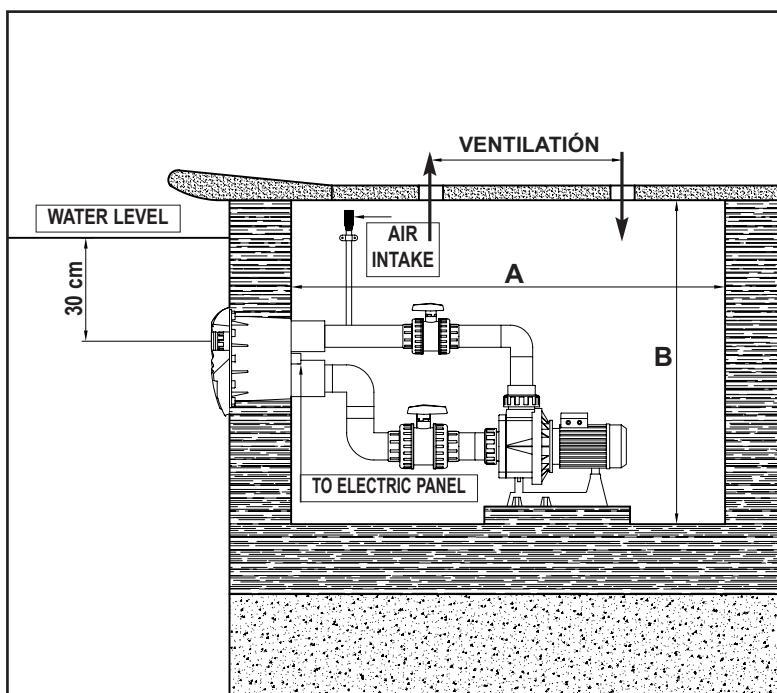
Fig. 7

MODEL	A	B	C
JSH / JSL70	165	1105	700
JSH / JSL78	165	1165	700
JSH / JSL88	165	1165	700

**10. MINIMUM CLEARANCES FOR THE INSTALLATION**

**10.1** Before installing the HIDROJET, equipment it is necessary to take into account the dimensions of the housing in which it will be located. You should check to ensure that you will not have space problems when installing the pump. To do so, check the minimum clearances needed for the installation, as shown in the table and in Figure 8.

MINIMUM CLEARANCES FOR THE INSTALLATION			
MODEL	WIDTH	LENGTH A	HEIGHT B
JSH / JSL40	750	1420	1000
JSH / JSL45	750	1420	1000
JSH / JSL70	750	1570	1000
JSH / JSL78	750	1580	1000
JSH / JSL88	750	1580	1000



**Fig. 8**



## 11. USING AND SETTING THE HIDROJET

**11.1** Once the HIDROJET, has been installed, your swimming pool is ready to become a place of fun and leisure, thanks to the pleasant sensation of the water or air current produced by the unit.

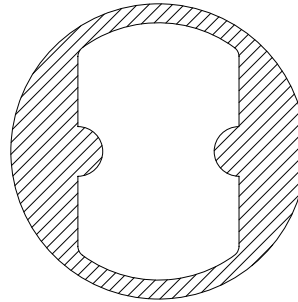
From inside the swimming pool, start the HIDROJET, by pressing the pneumatic switch (no.1, fig. 9).

With the unit running you can obtain a current of water alone, or mixed water and air, by setting the front nozzles (see fig. 9) as described below:

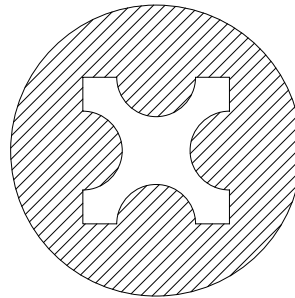
- Current of water only: The maximum flow of water is obtained by turning the internal nozzle (no.2, fig. 9) to the left. The flow rate is reduced by turning it to the right.

- Current of air and water: To control, or eliminate, the flow of air, turn the external nozzle (no.3, fig.9) to the left or right.

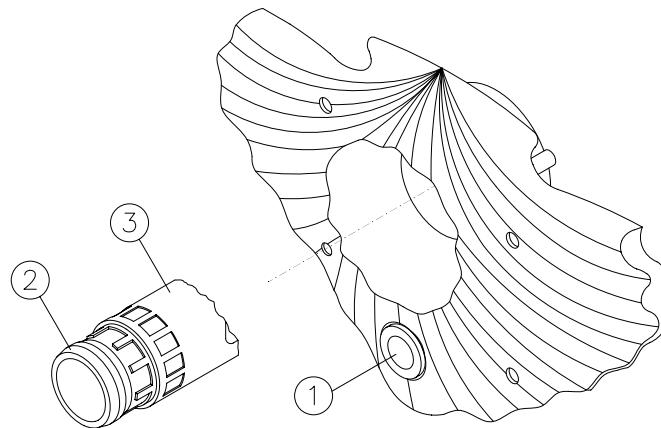
### DETAIL OF INSIDE OF THE NOZZLE



**MAXIMUM FLOW**



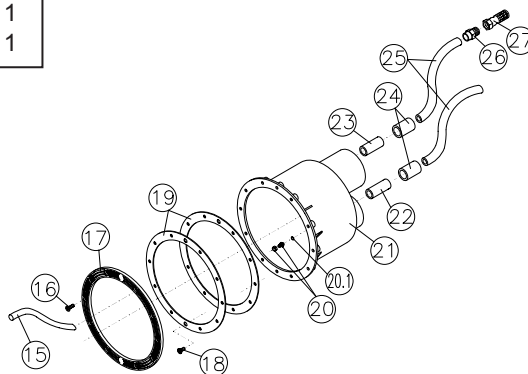
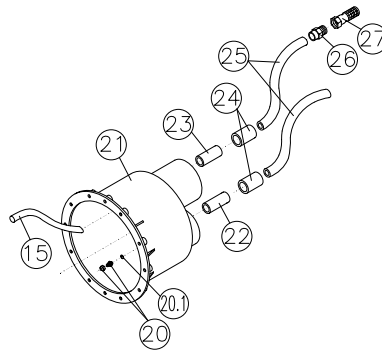
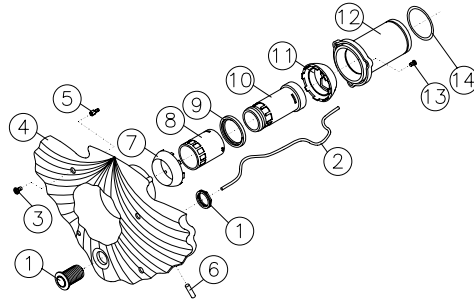
**MINIMUM FLOW**



**Fig. 9**

## 12. HIDROJET PARTS LIST

No.	DESCRIPTION	QTY.
1	Pushbutton, seal and washer	1
2	Flexible pipe (pneumatic)	1
3	Front screw	4
4	Front piece	1
5	Spacing screw	4
6	Front nozzle	1
7	External ball	1
8	Air regulating pipe	1
9	Support ring	1
10	Water regulating pipe	1
11	Internal ball	1
12	Nozzle seating	1
13	Nozzle seating screw	3
14	O-ring	1
15	Flexible pipe (air)	1
16	Ring screw (liner only)	6
17	Ring (liner only)	1
18	Seal screw (liner only)	2
19	Flat seal (liner only)	2
20	Cable grommet set	1
20.1	Grommet O-ring	1
21	Niche	1
22	Pipe (pneumatic)	1
23	Pipe (air)	1
24	Joining hose	2
25	Flexible PVC pipe	2
26	Male threaded end	1
27	Non-return valve	1



## 13. ELECTRICAL CONNECTIONS

### WARNING



**13.1** In general terms, the electrical installation will fully comply with the Regulations and Complementary Technical provisions applicable and will be performed by an authorised Installer. The supply will have neutral and earth wires.

The mains voltage must correspond to that shown on the nameplate rating for the equipment.

The cross section of the conductors used must be sufficient to withstand the load drawn by the unit without deterioration.

All metal parts of the unit which are not supposed to be under current, but might do so accidentally and which are accessible to people, must be electrically connected to earth.

The electrical characteristics of the protection devices and their regulation must be in accordance with those applicable to the motor to be protected and the envisaged conditions of operation. All the instructions given by the manufacturer must be followed (see motor name plate).

In the case of units with three-phase motors, the interconnection bridges between the motor windings must be fitted in the right places.

Entry and exit of conductors from the terminal box must be via glands guaranteeing the absence of damp and dirt in the box, which must also be fitted with a watertight seal.

Conductors will have suitable terminals for connection to the bushings.

The hydropneumatic panel must be installed in a dry place, above water level and at a distance not greater than 8 m. from the start / stop switch on the front of the unit.

The transparent pipe (no.2, fig. 2) is to be connected to the microswitch located on the upper right-hand part of the panel. It is very important to ensure that the transparent pipe has no bends in it.

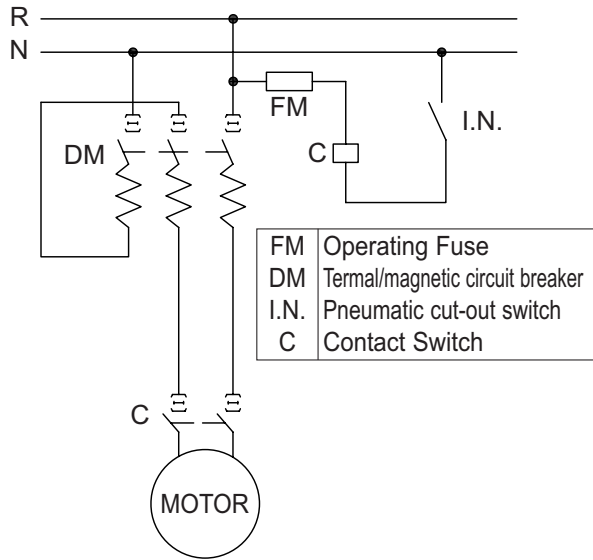
The hydropneumatic panel consists of:

- 1 thermal / magnetic circuit breaker.
- 1 Contact switch.
- 1 pneumatic cut-out switch.
- 1 operating fuse.

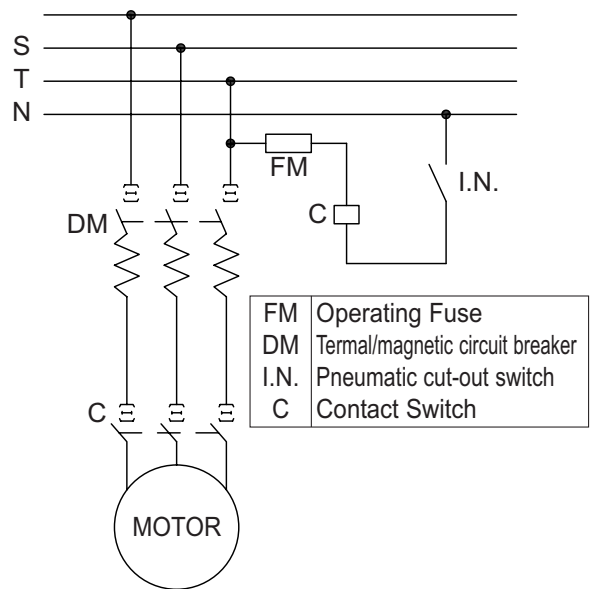
All these items are to be installed in a water - tight plastic cabinet with degree of protection IP 55.

**Note:** For more information about installation, conservation and maintenance, etc. see the instruction manual for the use and maintenance of the **KA** type pump included with the unit.

**SINGLE PHASE PANEL CIRCUIT DIAGRAM**



**THREE PHASE PANEL CIRCUIT DIAGRAM**



**KRIPSOL®**

