

# STEELPUMPS

E V O L U T I O N

X-2 / X-3



GB

*Use and maintenance manual*



MADE IN ITALY

## Dichiarazione CE di conformità

Noi STEELPUMPS srl dichiariamo sotto la nostra esclusiva responsabilità che le pompe X - X-A tipo e numero di serie riportati in targa, sono conformi alle prescrizioni di sicurezza della Direttiva Macchine 2006/42/CE, della Direttiva Bassa Tensione 2006/95/CE e della Direttiva sulla Compatibilità Elettromagnetica 2004/108/CE

## EC Declaration of Conformity

STEELPUMPS srl declares, under its own responsibility, that the X -X-A pumps, with the models and serial numbers specified on the nameplate, are compliant with the safety requirements of the Machine Directive 2006/42/EC, of the Low Voltage Directive 2006/95/EC and in the Electromagnetic Compatibility Directive 2004/108/EC.

## Déclaration de conformité CE

STEELPUMPS srl déclare sous son entière responsabilité que les pompes X - X A - type et numéro de série reportés sur la plaque - sont conformes aux prescriptions de sécurité imposées par la Directive Machines 2006/42/CE, par la Directive Basse Tension 2006/95/CE et par la Directive sur la Compatibilité Électromagnétique 2004/108/CE.

## EG-Konformitätserklärung

Wir, das STEELPUMPS, erklären unter unserer ausschließlichen Verantwortung, dass die Pumpen X - X-A mit dem am Typenschild angegebenen Modelltyp und Seriennummer den Schutzanforderungen der EG-Maschinenrichtlinie 2006/42/EWG sowie der Niederspannungsrichtlinie 2006/95/EWG und der EWG-Richtlinie über die elektromagnetische Verträglichkeit 2004/108/EWG entsprechen.

## Declaración de conformidad CE

STEELPUMPS srl, declara bajo su exclusiva responsabilidad, que las bombas, tipo y número de serie tal como resultan en la placa de identificación correspondiente, son conformes con las prescripciones de seguridad estipuladas por la Directiva de Máquinas 2006/42/CE, con la Directiva de Baja Tensión 2006/95/CE y con la Directiva sobre Compatibilidad Electromagnética 2004/108/CE.

## Declaração CE de conformidade

A STEELPUMPS srl declara, baixo a própria e exclusiva responsabilidade, que as bombas X - X-A tipo e número de série anotados na placa, estão conforme às prescrições de segurança da Directiva Máquinas 2006/42/CE, da Directiva Baixa Tensão 2006/95/CE e da Directiva sobre a Compatibilidade Electromagnética 2004/108/CE.

## STEELPUMPS srl

Via Sicilia  
56035 - Lari (PI) ITALY  
Tel. 0587 466722  
Fax 0587 365138



  
LUCA PINORI  
PRESIDENT

## Conformiteitsverklaring CE

Wij, STEELPUMPS srl verklaren onder onze eigen verantwoordelijkheid dat de pompen met type en serienummer gegeven op het typeplaatje, conform zijn aan de veiligheidsvoorschriften van de Machineryrichtlijn 2006/42/CE, van de Laagspanningsrichtlijn 2006/95/CE en van de Electromagnetische Compatibiliteitsrichtlijn 2004/108/CE.

## CE mukaisuus selvitys

Me STEELPUMPS Oy ilmoitamme omalla yksinomisella vastuullamme, että X - X-A pumpput, tyyppi ja sarjanumero esintuotu laatussa, vastaavat Koneiden Direktiivin 2006/42/CE turvallisuusvaatimuksia, sekä Alhaisen Jännitteen Direktiivin 2006/95/CE vaatimuksia ja Direktiiviä Elektromagneettisesta Soveltuvuudesta 2004/108/CE.

## Deklaracja zgodności CE

STEELPUMPS srl oświadczam pod swoją wyłączną odpowiedzialnością, że pompy X - X-A, których typ i numer fabryczny wskazano na tabliczce znamionowej są zgodne z przepisami bezpieczeństwa zawartymi w Dyrektywie Maszyn 2006/42/CE, Dyrektywie Niskiego Napięcia 2006/95/CE oraz Dyrektywie Kompatybilności Elektromagnetycznej 2004/108/CE.

## Prohlášení o shodě CE

My, firma STEELPUMPS srl prohlašujeme na naši výlučnou zodpovědnost, že čerpadla X - X-A typu a sériového čísla uvedeného na výrobním štítku se shodují s bezpečnostními předpisy Nařízení o strojích č. 2006/42/CE, Nařízením o nízkém napětí č. 2006/95/CE a Nařízením o elektromagnetické kompatibilitě č. 2004/108/CE.

## CE megfeleléségi nyilatkozat

STEELPUMPS srl felelőssége tudatában kijelenti, hogy az szivattyúk megfelelnek a 2006/42/EC Gépekről szóló Irányelveknek, az Alacsony Áramú Berendezésekről szóló 2006/95/EC Irányelvnek és az Elektromágneses Kompatibilitási Irányelvnek 2004/108/EC.

## Заявление о соответствии с нормами ЕС

Мы "STEELPUMPS srl" заявляем под нашей ответственностью, что электронасосы X - X-A, модель и серийный номер которых указываются в паспорте, соответствуют правилам техники безопасности по Директиву машин и оборудования 2006/42/CE

по Директиву нижнего напряжения 2006/95/CE по Директиву об электромагнитной совместимости 2004/108/CE.

## شهادة الوحدة الأوروبية في مطابقة المواصفات الأساسية

نحن شركة "STEELPUMPS srl" نقر تحت مسؤوليتنا الخاصة أن المضخات X - X-A نوع ورقم التسلسل الموجود في لوحة التعليمات الفنية هم مطابقين مع المواصفات والتوصيات والمتطلبات الأساسية والضرورية للأمان وسلامة وحماية الصحة وذلك وفقا للتوجيهات للوائح الأمنية للمachines 2006/42/2006 من الوحدة الأوروبية، (والتحديثات التالية التابعة لهم) والوحدة الأوروبية و 93/44/ من الوحدة الأوروبية و (الوحدة الأوروبية)، وتوجيهات اللوائح الخاصة بالتوتر والتردد المتخصصين 2006/95/2006 من الوحدة الأوروبية وتوجيهات اللوائح الخاصة بالتطبيقات الكهرمغناطيسي 2004/108/2004 من الوحدة الأوروبية (والتحديثات التالية التابعة لهم) (الوحدة الأوروبية).

# STEELPUMPS

EVOLUTION

---

*Electronic booster set*



---

## WARNING

---

Before installing STEELPUMPS booster set systems, read the following instructions carefully as STEELPUMPS declines any responsibility in case of damages or accidents caused by negligence or disregard of instructions written in this manual, or by misuse from the requirements indicated on the plate.

---

## SYMBOLS

---



**DANGER**

Indicates serious physical injuries can happen if instructions are not followed strictly.



**DANGER**

Indicates that there may be a risk of electric shock if instructions are not followed strictly.



**WARNING**

Indicates that pumps or installations can be damaged if instructions are not followed strictly.

---

## APPLICATIONS

---



**WARNING**

STEELPUMPS booster sets must be used only to pump clean water. It's strictly forbidden to pump explosive, flammable liquids or abrasive liquids.

Protection Class: IP 55

---

## HYDRAULIC INSTALLATION

---



**DANGER**



**DANGER**

Before carrying out any installation or maintenance operation, STEELPUMPS booster sets must be disconnected from the power supply. During this phase the presence of children or under aged people is strictly avoided. Apply all safety regulations specified by the competent authorities and good practice during installation.

The electric supply must be effected by an appropriate line fitted with a differential current device, to protect the installation system.

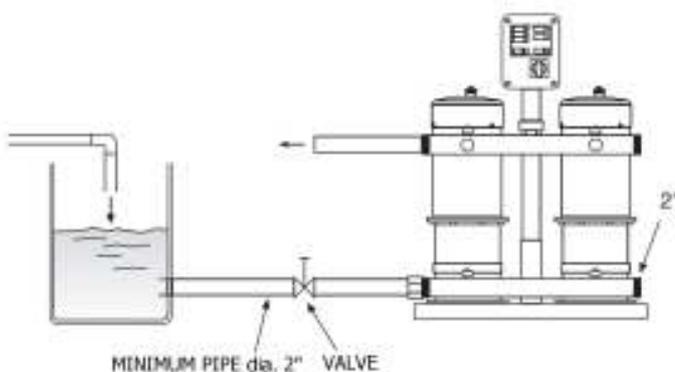
Place the booster set system as close as possible to the water source and be sure that the inside of the pipe which must be connected is perfectly clean.

Fix the pipe on its support to avoid any vibration or pump stresses.

For overhead water installations (fig. 1), be sure that the installed suction pipe diameter is suitably sized to the suction manifold dimensions.

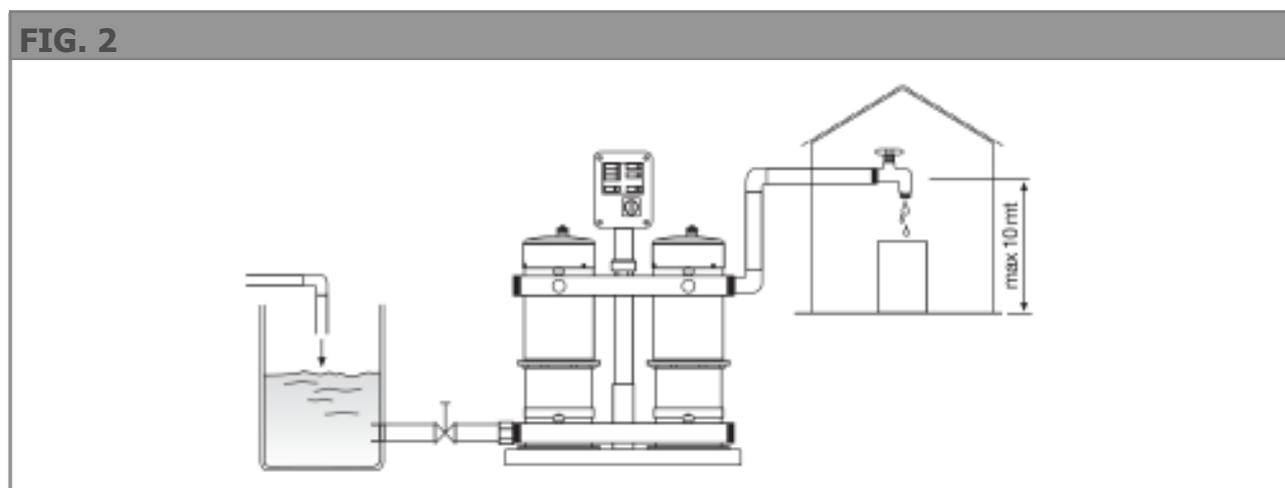
After the connection always be sure that the suction pipe is perfectly sealed.

**FIG. 1**



When the level of the water to be sucked is higher than the installed booster set system, always install a closing valve which will facilitate the disassembly of the booster set system in case of maintenance or in case of damage. (fig. 1).

The water head (hydraulic installation to be pressurized) over the installed booster set system, must never be higher than 10 meters. (fig.2)



## ELECTRICAL CONNECTION



**DANGER**



**DANGER**



**WARNING**

The electrical connection must be carried out by a skilled technician, in accordance to the local regulations, following safety standards.

Before connecting the booster set system make sure that:

- The electric installation complies with the safety standards
- The supply's frequency and voltage comply with the values indicated on the pump plate.

All our booster set system are equipped with 10 m of power cable and plug.

**ATTENTION:** in case of power cable replacement installed on the booster set system special equipment is required, therefore please contact your retailer.

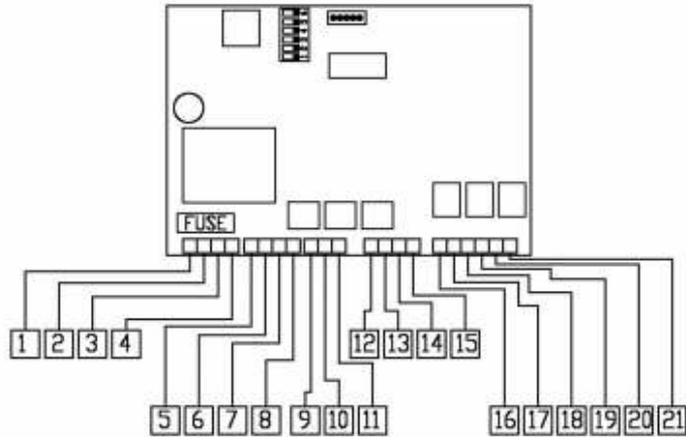
Single-phase motors have a thermal protection device with a self-closing switch: before carrying out any maintenance or repairing operation make sure that the booster set is disconnected from electrical supply, as the motor may be stopped by the thermal device and it could start running suddenly .

You may install a suitable electric protection on booster set systems (magneto-thermal switch and residual current circuit breaker with a pre-set threshold min= 30Ma) to ensure electrical safety

The maximum admitted tolerance between the real supply voltage and the nominal value stated on the plate is +-5%.

The connection of booster set electronic board is showed in fig.3  
 ATTENTION: Carry out the connections only when the power supply is unplugged.

**FIG. 3**

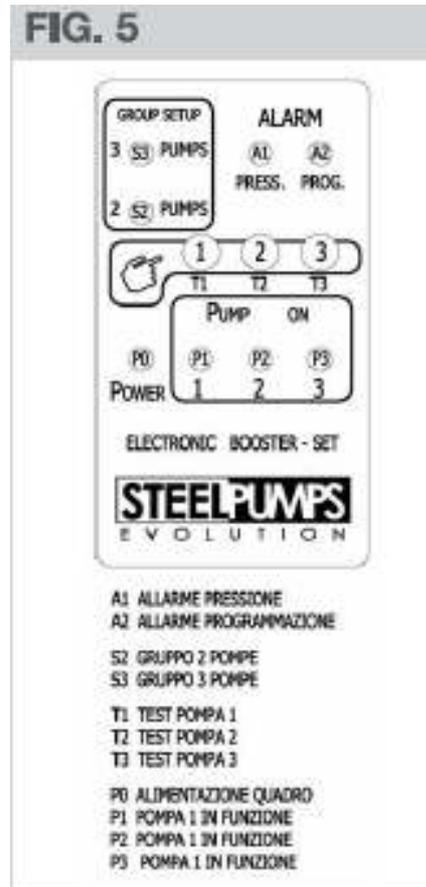
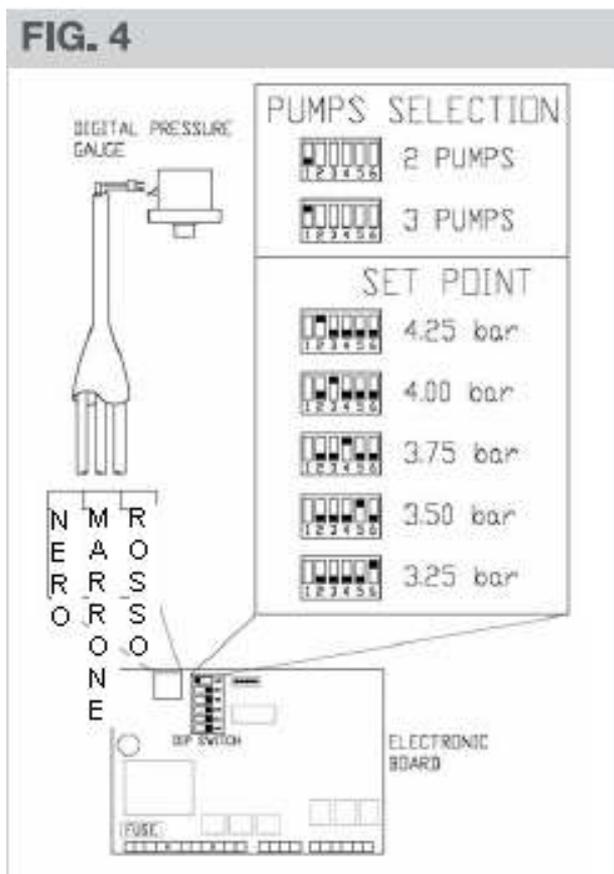


1	NERO POMPA 1	8	ALIMENTAZIONE GRUPPO NEUTRO	15	TERRA GRUPPO
2	NERO POMPA 2	9	GRIGIO POMPA 3	16	MARRONE SIGNAL POMPA1
3	NERO POMPA 3	10	GRIGIO POMPA 2	17	AZZURRO SIGNAL POMPA1
4	ALIMENTAZIONE GRUPPO FASO	11	GRIGIO POMPA 1	18	MARRONE SIGNAL POMPA 2
5	MARRONE POMPA 1	12	TERRA POMPA 1	19	AZZURRO SIGNAL POMPA 2
6	MARRONE POMPA 2	13	TERRA POMPA 2	20	MARRONE SIGNAL POMPA 3
7	MARRONE POMPA 3	14	TERRA POMPA 3	21	AZZURRO SIGNAL POMPA 3

## ELECTRONIC BOARD SETTING

The electronic board setting that manages is showed in fig. 4. The Dip switch has 6 on/off selectors, through the user can select the starting pressure of the first pump and it defines if the group has 3 or 3 pumps.

The example is for a group with 2 pumps where the starting pressure of the first pump is 3,25 bar.



---

## STARTING

---



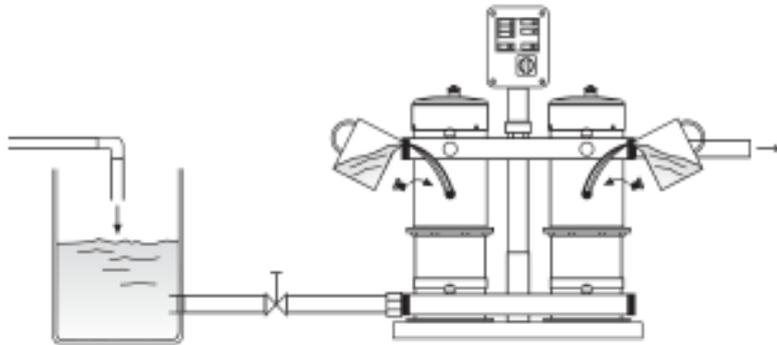
### WARNING

Start STEELPUMPS booster set systems only after having completely filled the pumps with water (about 4 lt.) through the upper hole sealed by a stainless steel cap (fig. 6).

**Fill water inside the charge hole, until it comes out of the top.**

It is strictly forbidden to use the pump without water in order to avoid irreparable breakdown.

**FIG. 6**



During the pumps self-priming phase (especially for surface installations), make sure that the suction pipe is completely immersed in the water which must be pumped.

To have a complete self-priming of the pump and to eject water from the delivery, it is necessary to restart repeatedly the pump after the display of alarm due to lack of water.

**ATTENTION:** do not leave pumps work for more than 3 minutes (in manual version), with closed taps.

Extended operation without water displacement may cause dangerous temperature and internal pressure increases.

When water inside the pumps is overheated, stop the booster set system before opening the valve in order to avoid injuries and installation damages.

Before restarting the pump wait for the water to cool.

Booster set systems are available in the versions: X-2 (2 pumps) and X-3 (3 pumps). Every booster set is made up with two or three pumps, 2" suction pipe with 1" 1/4 shut-off ball valves and check valves, a 2" delivery pipe with 2" shut-off ball valves, a pressure switch and a control panel.

**The control panel has a general safety disconnecting switch ON/OFF with door lock to not open the panel during functioning.**

To prime the pumps correctly, fill the booster sets with water and switch on the control panel leaving open the users for a few minutes. If there is water demand by one or more users pressure will start going down, till the minimum re-starting pressure value of the first pump planned through pressure switch (fig. 4).

If water demand increases, pressure will go down till the re-starting pressure value of the second pump, and third pump in a booster set with three pumps.

When the pressure goes below 0,5 bar, the system gives a pre-alarm and the led "ALARM" lights on on the control panel. If water in the suction tank ends the system stops definitely. In this case reset the system, after that the tank has been refilled, it is necessary to unplug for few seconds and insert the plug again.

---

## MAINTENANCE

---



**DANGER**



**DANGER**



**WARNING**

BEFORE CARRYING OUT ANY CHECK OR MAINTENANCE OPERATION, DISCONNECT THE BOOSTER SET SYSTEM FROM THE POWER SUPPLY.

In case of inactivity of the booster set system, disconnect it from the water supply system and drain all water.

After a long period of activity of the booster set system, it is very easy to clean the check valve, disconnect it from the suction pipe, unscrew counter-clockwise and wash it under running water without using rigid tools which may damage the seal.

## TROUBLESHOOTING THE PUMP

PROBLEM	PROBABLE CAUSE	SOLUTION
The pump has a reduced flow of water	<b>A:</b> delivery pipe partially obstructed <b>B:</b> suction pipe partially obstructed <b>C:</b> check valve obstructed <b>D:</b> suction of air	<b>A-B-C:</b> remove obstructions <b>D:</b> check the tightness of the seals and suction pipes
The pump is blocked with motor off	<b>A:</b> no electric power <b>B:</b> plug fitted incorrect <b>C:</b> faulty condenser <b>D:</b> pump in alarm because there is no water (automatic version) <b>E:</b> magnetothermic switch tripped <b>F:</b> leak in the hydraulic installation, overheating of water inside the pump, and tripping of the motor thermal protection switch <b>G:</b> electronic board broken	<b>A-B:</b> check the pump is connected to the power supply <b>C:</b> replace the condenser by qualified personnel <b>D:</b> reset the level of water to suck. Reset the correct water level inside the pump body <b>E:</b> reset the switch. If the switch trips again contact a qualified electrician <b>F:</b> technical check of the hydraulic system and eliminate the leak. Wait for the pump to cool down and reconnect it to the power supply. <b>G:</b> call a qualified technician to replace the electronic board
The pump does not supply water the motor is running	<b>A:</b> suction filter clogged <b>B:</b> air inside the pump body or in the inlet pipe <b>C:</b> pump not primed	<b>A:</b> remove the clogging <b>B:</b> try restarting the pump several times in order to remove all the residual air <b>C:</b> reset the correct level of water inside the pump body and check the level of water to be sucked
The pump does not stop after it has been disconnected by the water supply	<b>A:</b> dirty filter or clogged filter (automatic version) <b>B:</b> leak in the pipes of hydraulic system	<b>A:</b> remove the obstructions <b>B:</b> eliminate the leak
The pump starts and stops with intermittence	<b>A:</b> small leak in the pipes <b>B:</b> the pump is broken <b>C:</b> closing valve too near to the delivery of the booster set	<b>A:</b> eliminate the small leak <b>B:</b> contact your retailer <b>C:</b> take away, at least 1 mt., the closing valve from the delivery of the pump
The pump does not restart after the supply is reopened	<b>A:</b> pump in alarm due to lack of water <b>B:</b> pump in alarm due to the tripping of the motor protection device <b>C:</b> water head above 10 meters (higher cock) <b>D:</b> broken pressure gauge	<b>A:</b> reset the water level inside the pump and check the level of the water that has to be sucked <b>B:</b> check if the delivery pipe is clogged, wait for the pump to cool down and reconnect the pump to the power supply <b>C:</b> replace the pump in correct position to maintain the water head below 10 meters <b>D:</b> contact qualified technician

---

## SPARE PARTS

Contact your Steelpumps closest retailer.

---

## GUARANTEE

Booster sets has TWO YEARS warranty from the purchase date, warranty will cover material and manufacture faults.

Guarantee will not cover failures due to wrong installation or due to no respecting of instructions manual and misuses from which described by STEELPUMPS.

Guarantee will not valid for disassembled pumps.

STEELPUMPS declines any responsibility for damages caused by booster set misuses.

Please contact our authorized retailer for maintenance and repair works during warranty period.

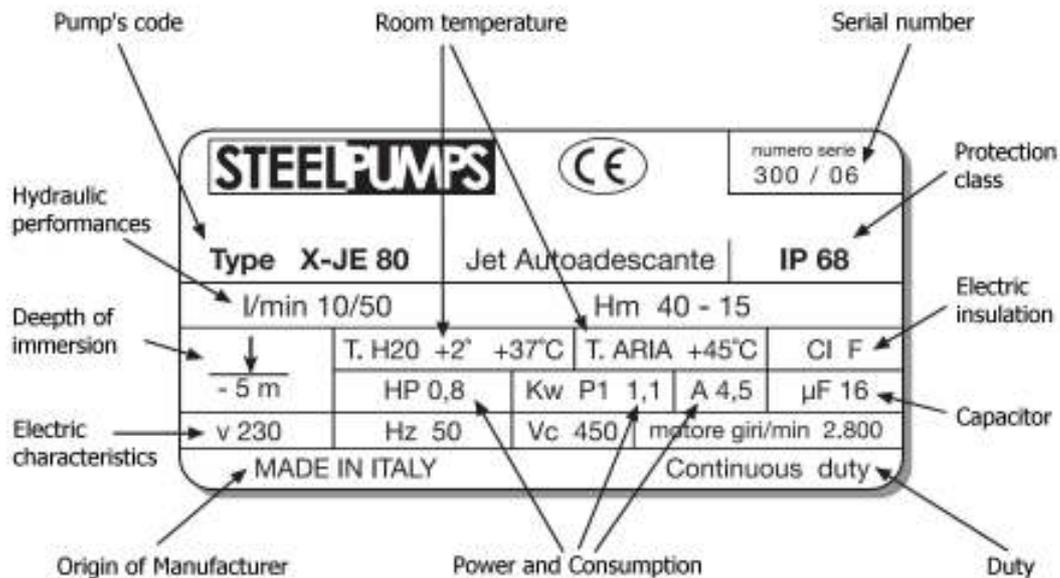
Shipping charges are due to the client.

Enclose copy of below certificate and proof of purchase to benefit warranty.

---

## PUMP IDENTIFICATION

---





**STEELPUMPS srl** - Via Sicilia - Z.I.Perignano  
56035 Lari (PI) ITALY  
+39 0587 466722 / +39 0587 466188  
+39 0587 466775 / +39 0587 466747

FAX +39 0587 365138

[www.steelpumps.it](http://www.steelpumps.it)

E-mail: [info@steelpumps.it](mailto:info@steelpumps.it)