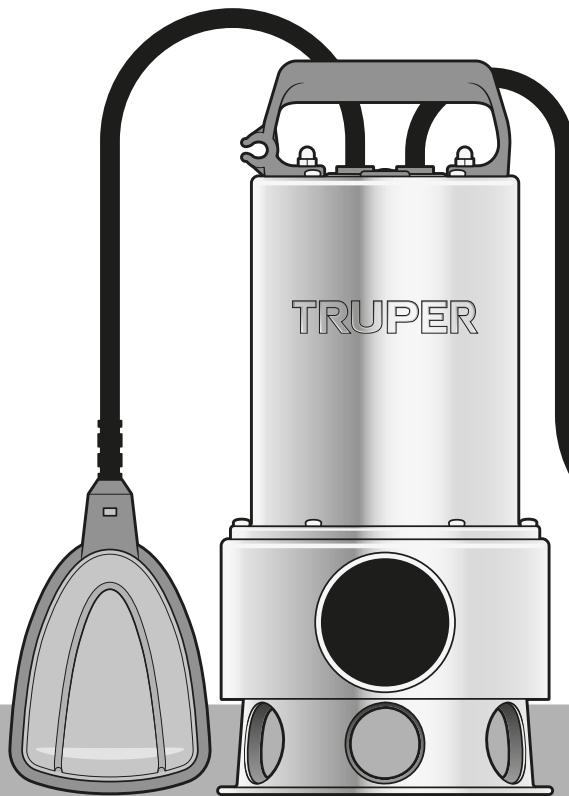


Manual

Submersible Pump

For Dirty Water
HEAVY DUTY



Applies for:

Codes	Models
12607	BOS-1SM
12608	BOS-1-1/2SM

BOS-1SM
BOS-1-1/2SM



Read this manual thoroughly
before using the tool.



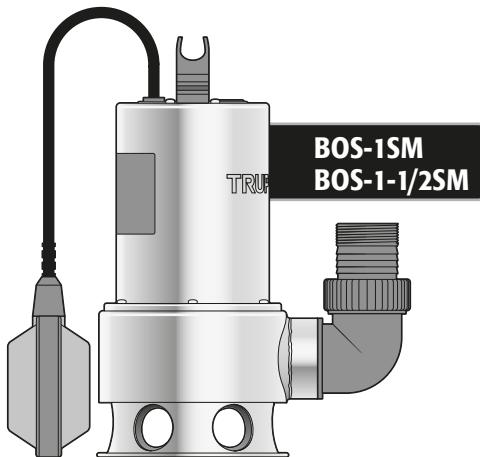
Technical Data	3
Power Requirements	3
 General Power Tool Safety Warnings	4
 Safety Warnings for Submersible Pumps	5
Parts	6
Installation	6
Start Up	7
Maintenance	8
Troubleshooting	9
Notes	10
Authorized Service Centers	11
Warranty Policy	12

CAUTION

To gain the best performance of the tool, prolong the duty life, make the Warranty valid if necessary, and to avoid hazards of fatal injuries please read and understand this Manual before using the tool.

Keep this manual for future references.

The illustrations in this manual are for reference only. They might be different from the real tool.



BOS-1SM		BOS-1-1/2SM	
Code	12607	12608	
Description			Heavy Duty Submersible Pump
Voltage	127 V~		
Frequency	60 Hz		
Power	1 Hp (750 W)	1 1/2 Hp (1 100 W)	
Current	6 A	7 A	
Flow	57 gal/min	74.7 gal/min	
Maximum Depth	23 ft		
Maximum Height / Manometric Total Maximum Height Value	26 ft	33 ft	
Power Cable	33 ft		
Allows particle passage up to	1 3/8"		
Approximate Flat Immersion Height	3/16"		
Minimum Water Level for Operation	3"	5"	
Input Interruption Height	21"		
Output Automatic Interruption Height	4"		
Conductors	118 AWG x 3 C with 221 °F Insulation Temperature		
Insulation	Class I	IP Grade	IPX8

Power Cord Grips t: Type "Y".

Tool Build Quality: Basic insulation

Thermal insulation on motor winding: Class F

WARNING Avoid the risk of electric shock or severe injury. When the power cable gets damaged it should only be replaced by the manufacturer or at a **TRUPER**® Authorized Service Center. The build quality of the electric insulation is altered if spills or liquid gets into the tool while in use. Do not expose to rain, liquids and/or dampness.

WARNING Before gaining access to the terminals all power sources should be disconnected.

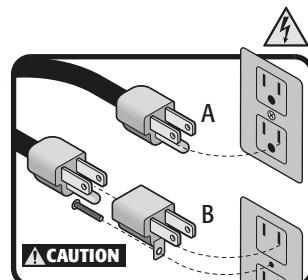


Power Requirements

WARNING To prevent electric shock, the tool shall be grounded while in use.

- Connect the plug into a correctly grounded outlet as shown in example **A**. Not all the outlets are properly grounded. If in doubt, verify with a qualified electrician.
- If the outlet where you will connect the tool has two poles (2 orifices), UNDER ANY CIRCUMSTANCE, DO NOT REMOVE OR ALTER THE PLUG'S GROUND CONNECTOR. Use a temporary adaptor as shown in example **B** and always connect the ground conductor lug as shown.

CAUTION When using an extension cable, verify the gauge is enough for the power that the tool needs. A lower gauge cable will cause voltage drop in the line, resulting in power loss and the motor will overheat. The following table shows the right size to use depending on cable's length and the ampere capability shown in the tool's nameplate. When in doubt use the next higher gauge.



Ampere Capacity	Number of Conductors	Extension Gauge	
		From 6 ft to 49 ft	Higher than 49 ft
From 0 and up to 10 A		18 AWG	16 AWG
From 10 and up to 13 A		16 AWG	14 AWG
From 13 and up to 15 A	3 (one grounded)	14 AWG	12 AWG
From 15 and up to 20 A		8 AWG	6 AWG

WARNING All the wiring, electric connections and the ground connection in the system shall comply with the **OFFICIAL MEXICAN STANDARD NOM - 001 - SEDE, ELECTRIC INSTALLATION (USE)** or with the local codes and ordinances. Call a certified electrician. It is advisable that the pump is fed with a circuit that includes a differential switch with an assigned current no higher than 30 mA.

WARNING When operating power tools outdoors, use a grounded extension cable labeled "Outdoor Use" **VOLTECK** brand. These extensions are special for outdoors use and reduce the risk of electric shock.



ENGLISH

⚠ WARNING! Read carefully all safety warnings and instructions listed below. Failure to comply with any of these warnings may result in electric shock, fire and / or severe damage. **Save all warnings and instructions for future references.**

Work area**Keep your work area clean, and well lit.**

Cluttered and dark areas may cause accidents.

**Never use the tool in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.**

Sparks generated by power tools may ignite the flammable material.

**Keep children and bystanders at a safe distance while operating the tool.**

Distractions may cause loss of control.

**Electrical Safety****The tool plug must match the power outlet. Never modify the plug in any way. Do not use any adapter plugs with grounded power tools.**

Modified plugs and different power outlets increase the risk of electric shock.

**Avoid body contact with grounded surfaces, such as pipes, radiators, electric ranges and refrigerators.**

The risk of electric shock increases if your body is grounded.

Do not expose the tool to rain or wet conditions.

Water entering into the tool increases the risk of electric shock.

Do not force the cord. Never use the cord to carry, lift or unplug the tool. Keep the cord away from heat, oil, sharp edges or moving parts.

Damaged or entangled cords increase the risk of electric shock.

When operating a tool outdoors, use an extension cord suitable for outdoor use.

Using an adequate outdoor extension cord reduces the risk of electric shock.

If operating the tool in a damp location cannot be avoided, use a ground fault circuit interrupter (GFCI) protected supply.

Using a GFCI reduces the risk of electric shock.

Personal safety**Stay alert, watch what you are doing and use common sense when operating a tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication.**

A moment of distraction while operating the tool may result in personal injury.

Use personal protective equipment. Always wear eye protection.

Protective equipment such as safety glasses, anti-dust mask, non-skid shoes, hard hats and hearing protection used in the right conditions significantly reduce personal injury.

**Prevent unintentional starting up. Ensure the switch is in the "OFF" position before connecting into the power source and / or battery as well as when carrying the tool.**

Transporting power tools with the finger on the switch or connecting power tools with the switch in the "ON" position may cause accidents.

Remove any wrench or vice before turning the power tool on.

Wrenches or vices left attached to rotating parts of the tool may result in personal injury.

Do not overreach. Keep proper footing and balance at all times.

This enables a better control on the tool during unexpected situations.

Dress properly. Do not wear loose clothing or jewelry. Keep hair, clothes and gloves away from the moving parts.

Loose clothes or long hair may get caught in moving parts.

**If you have dust extraction and recollection devices connected onto the tool, inspect their connections and use them correctly.**

Using these devices reduce dust-related risks.

Power Tools Use and Care**Do not force the tool. Use the adequate tool for your application.**

The correct tool delivers a better and safer job at the rate for which it was designed.

Do not use the tool if the switch is not working properly.

Any power tool that cannot be turned ON or OFF is dangerous and should be repaired before operating.

Disconnect the tool from the power source and / or battery before making any adjustments, changing accessories or storing.

These measures reduce the risk of accidentally starting the tool.

**Store tools out of the reach of children. Do not allow persons that are not familiar with the tool or its instructions to operate the tool.**

Power tools are dangerous in the hands of untrained users.

Service the tool. Check the mobile parts are not misaligned or stuck. There should not be broken parts or other conditions that may affect its operation. Repair any damage before using the tool.

Most accidents are caused due to poor maintenance to the tools.

**Keep the cutting accessories sharp and clean.**

Cutting accessories in good working conditions are less likely to bind and are easier to control.

Use the tool, components and accessories in accordance with these instructions and the projected way to use it for the type of tool when in adequate working conditions.

Using the tool for applications different from those it was designed for, could result in a hazardous situation.

Service**Repair the tool in a TRUPER® Authorized Service Center using only identical spare parts.**

This will ensure that the safety of the power tool is maintained.

**Children or people with reduced physical, sensory or mental capabilities shall not operate the tool, neither inexperienced people or without knowledge in the use of the tool, unless supervised by a person responsible of their safety or if receiving previous instructions about the tool operation.**

Children shall be kept under supervision to double-check they will not play with the tool. Tight supervision shall be used with children or disabled persons to prevent from using or being close to any household tool.

This tool is in compliance with
the Official Mexican Standard
(NOM - Norma Oficial Mexicana).

Safety Warnings for Submersible Pumps



- Submersible pumps are designed for domestic and garden use. Mostly used to drain flooding, liquids transfer, to drain containers, pump out water from wells or mines, drain boats and yachts, as well as oxygenating water and water circulation for short periods of time.

- The pumps are totally submersible (waterproof sealed) and can be used up to 23 ft deep inside the water.

⚠ CAUTION • Liquids that can be pumped are: clean liquids or slightly contaminated water and soapy waters with suspended particles up to 1-3/8". Do not operate the pump in waters with larger particles to prevent clogging.

⚠ WARNING • Do not pump corrosive, slightly combustible or explosive substances (for example, gasoline, petroleum, nitrate thinner), grease, oil, salt and sewer water. • Liquids temperature shall no exceed 95° F, or cold with the possibility of ice formations.

⚠ CAUTION • The pumps are not designed for continuous operation (for example, continuous operation operations). The useful life of the pump shortens with regards to use.

⚠ WARNING • Since the pump can go ON and OFF automatically, do not insert your hands or other objects when connected to the power supply.

⚠ WARNING • Neither the plug or an eventual capacitor holder may be submerged. Do not use the power cable to lift or carry the pump.

⚠ WARNING • Do not use the pump inside a pond or swimming pool or other waters with access to people or animals while it is running. It is not allowed to use the device when people or animals are in the danger zones.

⚠ CAUTION • In case there is risk of flooding, connect the cables in a place protected against flooding.

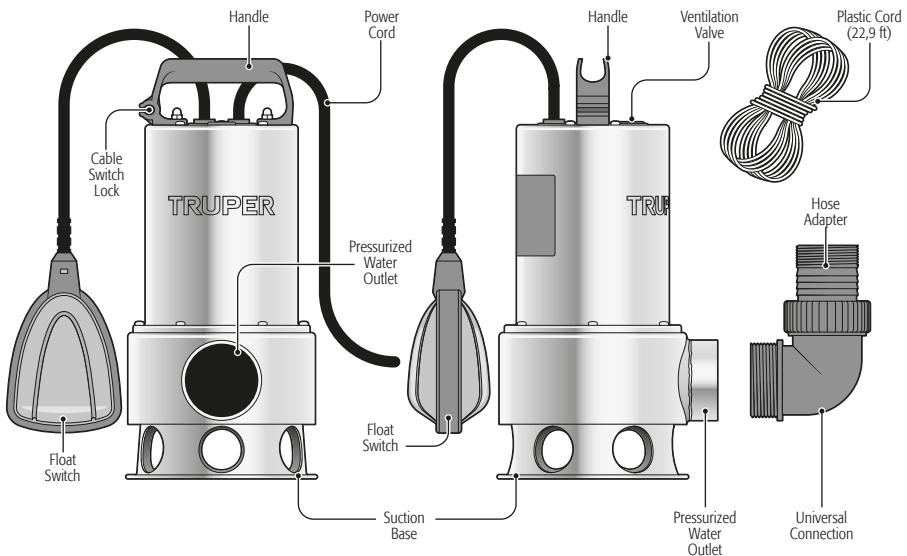
⚠ CAUTION • Avoids running the pump dry.

⚠ CAUTION • Due to safety reasons, the submersible pump shall always be operated with a safety circuit interrupter (Switch F1) weighted with short circuit current of ≤ 30 mA, the use ponds and fountains is allowed only if operated through a safety circuit interrupter. As an additional safety measure, use a ground fault interrupter or another safety interrupter.

• Pumps used in swimming pools and garden ponds and that are equipped with a sturdy power cable must be connected through an isolated converter. It shall not exceed the voltage indicated in the nameplate.

- Use care and make the connections in a dry place protected from flooding.
- Protect the socket and power cable from heat, oils and sharp edges.
- Check the voltage line. Data in the NOM (Mexican Official Standard) in the equipment shall be the same to those in the power source.
- Always verify the pump before using it (Especially the power cable and the socket). Never use a damaged pump. Go to a **TRUPER®** Authorized Service Center to repair.
- Before using, clear the outlet line. Observe the maximum height of supply.
- To disconnect the power cable, pull the socket and not the cable.

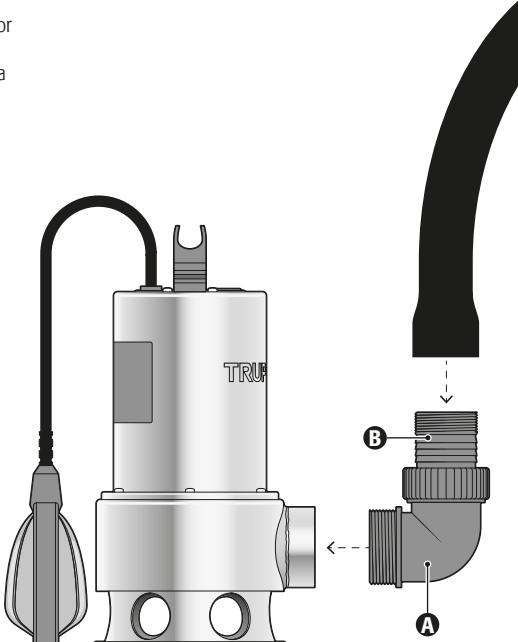




Installation

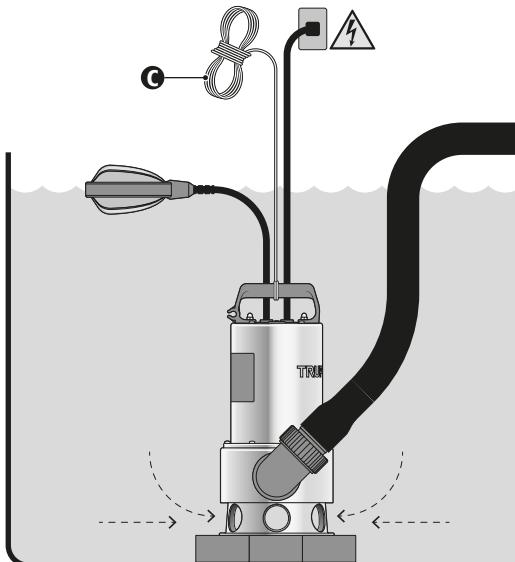
Hose Connection

- Screw the universal connection (**A**) in the pump.
- The pump can be installed stationary using rigid pipes or semi-stationary with flexible hoses.
- Hoses measuring 2" are connected to the pump using a universal connection threaded nipple (**B**). It is recommended securing the connection with a hose bracket.
- The universal accessory components that will not be used when connecting hoses measuring 2", can be removed from the accessory using a knife.



Pump Location

- The pump shall be in a stable position (especially for automatic operation), inside the water to be pumped.
- Regarding the automatic operation, any obstacle shall be removed so that the float can move freely.
- Double check the openings in the suction base are not partially or totally obstructed. Setting the pump onto a brick is recommended.
- Never use the power cable or the float switch to carry or hang the pump. When submersing the pump in a well or mine use the plastic rope included. Tie it to the handle for transportation (**C**).

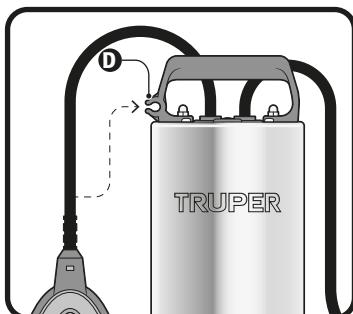


Start Up

Float Switch

- The float switch turns the pump ON and OFF **automatically** depending of the height in the water level. When the float is approximately at 21" height, the pump turns ON. When lowering to a 3.9" height approximately, the pump turns OFF.
- To control the float switch **manually**, and to prevent the pump to turn OFF automatically, secure the switch cable in the cable lock (**D**) so that the float will not go down turning OFF the pump.

CAUTION • When controlling the float switch manually, do not leave the pump running unsupervised to prevent it will operate dry.



- Prevent the dry operation, otherwise the pump will suffer excessive wear. When water stops flowing, disconnect the pump immediately.
- The motor thermal protector, turns OFF the pump automatically if there is overheating. When the pump cools down, the motor will automatically turn ON the machine.
- After pumping chlorinated water from a swimming pool or other liquids with residues, rinse the pump with clear water.
- Sand or other abrasive materials in the liquid can increase wear and reduce the pump outlet force.
- Avoid having the pump ON more than 10 minutes against the pump supply side.

- The submersible pump absorbs water up to a 2" height. This suction height can be reached if using the manual operation. This is not the case in the automatic operation.
- The submersible pump is built with a ventilation valve. The valve function is preventing pressure leaks in the pump. Water can enter through the valve. This is not a defect.
- If during the manual operation, the pump has completely suctioned and there is still water coming out, it means the ventilation valve is not working correctly. Disconnect the pump briefly and connect again.

Maintenance

Cleansing and Care

- Inspect regularly all the mounting screws and make sure the screws are tight. If any screw is loose, tighten immediately.

Turbine Cleansing

- If there is contamination inside the pump, the suction base can be removed unscrewing the three pan head screws that fix the pump body. This way the turbine can be cleansed. For safety reasons, the damaged turbine can only be replaced in a  **TRUPER®** Authorized Service Center.

Storage

- If there is danger of frost, store the pump in a dry place protected from frost. Otherwise, the pump may get damaged.

Service

- Service to the tools shall only be carried out in a  **TRUPER®** Authorized Service Center. Service and maintenance when carried out by non-certified people may be dangerous and could cause personal injuries and makes the warranty void.

Troubleshooting



Problem

The pump cannot be turned on or it suddenly stops while operating.

Cause

- No power.
- The float is not changing its position.
- The thermal switch shuts off the pump due to over-heating.
- There are dirt particles into the suction base.

There is no flow.

- The suction orifice is clogged.
- The pressure hose is bent.
- Air is enclosed into the suction base.
- When starting the pump, the water height drops below the minimum water level.

The pump does not turn off.

- The float cannot sink in.

Insufficient flow.

- The suction base is clogged.
- The pumping capacity can be reduced due to abrasive and dirty water.

The pump shuts off after a short period working.

- The pump has thermal cut offs due to dirty water.
- Water is too hot. Thermal cut offs shut down the pump.

Solution

- Check the cable, plug and fuse.
- Set the pump correctly into the pool, well, etc.
- Disconnect the plug and clean the turbine. Double check the water maximum temperature is 95 °F
- Disconnect the plug and clean the suction base.

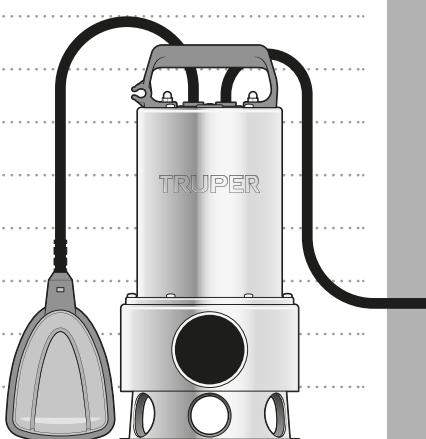
- Clean the water suction orifice.
- Set the hose correctly.
- Wait one minute at the most, until the pump degasifies automatically through the ventilation valve. If necessary, turn it off and start again.
- Submerge the pump deeper.

- Set the pump adequately into the bottom of the pool, well, etc.

- Clean the water suction orifice.
- Take the pump to a TRUPER® Authorized Service Center.

- Disconnect the main plug. Clean the pump and the axis.
- Verify water temperature is not over 95 °F

If problems persist despite carrying out the corrective actions recommended, contact your TRUPER® Authorized Service Center.



In the event of any problem contacting a Truper Authorized Service Center, please see our webpage www.truper.com to get an updated list, or call our toll-free numbers **800 690-6990** or **800 018-7873** to get information about the nearest Service Center.

AGUASCALIENTES	DE TODO PARA LA CONSTRUCCIÓN GRAL. BARRAGÁN #1201, COL. GREMIAL, C.P. 20030, AGUASCALIENTES, AGS. TEL.: 449 994 0557	MORELOS	FIX FERRETERÍAS CAPITÁN ANZURES #95, ESQ. JOSÉ PERDIZ, COL. CENTRO, C.P. 62740, CUAUTLA, MOR. TEL.: 735 352 8931
BAJA CALIFORNIA	SUCRASAL TIJUANA AV. LA ENCANTADA, LOTE #5, PARQUE INDUSTRIAL EL CERRO II, C.P. 22244, TIJUANA, B.C. TEL.: 664 969 5100	NAYARIT	HERRAMIENTAS DE TEPIC MAZATLÁN #117, COL. CENTRO, C.P. 63000, TEPIC, NAY. TEL.: 311 258 0540
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CAMPECHE	TORNILLERÍA Y FERRETERÍA AAA AV. ALVARO OBREGÓN #524, COL. ESPERANZA C.P. 24080 CAMPECHE, CAMP. TEL.: 981 815 2808	OAXACA	FIX FERRETERÍAS AV. 20 DE NOVIEMBRE #910, COL. CENTRO, C.P. 68300, TUXTEPEC, OAX. TEL.: 287 106 3092
CHIAPAS	FIX FERRETERÍAS AV. CENTRAL SUR #27, COL. CENTRO, C.P. 30700, TAPACHULA, CHIS. TEL.: 962 118 4083	PUEBLA	SUCRASAL PUEBLA AV. PERIFÉRICO #2-A, SAN LORENZO ALMECATLA, C.P. 72710, CUATLACINGO, PUE. TEL.: 222 282 8282 / 84 / 85 / 86
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CIUDAD DE MÉXICO	FIX FERRETERÍAS EL MONSTRUO DE CORREGIDORA, CORREGIDORA # 22, COL. CENTRO, C.P. 06060, CUAUHTÉMOC, CDMX. TEL: 55 5522 5031 / 5522 4861	QUINTANA ROO	FIX FERRETERÍAS CARRETERA FEDERAL MZ. 46 LT. 3 LOCAL 2, COL. EJIDAL, C.P. 77100 PLAYA DEL CARMEN, Q.R. TEL.: 984 267 3140
COAHUILA	SUCRASAL TORREÓN CALLE METAL MECÁNICA #280, PARQUE INDUSTRIAL ORIENTE, C.P. 27278, TORREÓN, COAH. TEL.: 871 209 6823	SAN LUIS POTOSÍ	FIX FERRETERÍAS AV. UNIVERSIDAD #1850, COL. EL PASEO, C.P. 78320, SAN LUIS POTOSÍ, S.L.P. TEL: 444 822 4341
COLIMA	BOMBAS Y MOTORES BYMTESA DE MANZANILLO BLVD. MIGUEL DE LA MADRID #190, COL. 16 DE SEPTIEMBRE, C.P. 28239, MANZANILLO, COL. TEL.: 314 332 1986 / 332 2013	SINALOA	SUCRASAL CULIACÁN AV. JESÚS KUMATE SUR #4301, COL. HACIENDA DE LA MORA, C.P. 80143, CULIACÁN, SIN. TEL.: 667 173 9139 / 173 8400
DURANGO	TORNILLOS ÁGUILA, S.A. DE C.V. MAZURIO #200, COL. LUIS ECHEVERRÍA, DURANGO, DGO.TEL.: 618 817 1946 / 618 818 2844	SONORA	FIX FERRETERÍAS CALLE 5 DE FEBRERO #517, SUR LT. 25 MZ. 10, COL. CENTRO, C.P. 85000, CD. OBREGÓN, SON. TEL.: 644 413 2392
ESTADO DE MÉXICO	SUCRASAL CENTRO JILOTEPEC PARQUE INDUSTRIAL # 1, COL. PARQUE INDUSTRIAL JILOTEPEC, JILOTEPEC, EDO. DE MÉX. C.P. 54257 TEL: 761 782 9101 EXT. 5728 Y 5102	TABASCO	SUCRASAL VILLAHERMOSA CALLE HELIO LOTES 1, 2 Y 3 MZ. #1, COL. INDUSTRIAL, 2A ETAPA, C.P. 86010, VILLAHERMOSA, TAB. TEL.: 993 353 7244
GUANAJUATO	CÍA. FERRETERA NUEVO MUNDO S.A. DE C.V. AV. MÉXICO - JAPÓN #225, CD. INDUSTRIAL, C.P. 38010, CELAYA, GTO. TEL.: 461 71578 / 79 / 80 / 88	TAMAULIPAS	VM ORINGS Y REFACCIONES CALLE ROSITA #527 ENTRE 20 DE NOVIEMBRE Y GRAL. RODRÍGUEZ, FRACC. REYNOSA, C.P. 88780, REYNOSA, TAMS. TEL.: 899 926 7552
GUERRERO	CENTRO DE SERVICIO ECLIPSE CALLE PRINCIPAL MZ.1 LT. 1, COL. SANTA FE, C.P. 39010, CHILPANCINGO, GRO. TEL: 747 478 5793	TLAXCALA	SERVICIOS Y HERRAMIENTAS INDUSTRIALES PABLO SIDAR #132, COL. BARRIO DE SAN BARTOLOMÉ, C.P. 90970, SAN PABLO DEL MONTE, TLAX. TEL.: 222 271 7502
HIDALGO	FERREPRESOS S.A. DE C.V. LIBERTAD ORIENTE #304 LOCAL 30, INTERIOR DE PASAJE ROBLEDO, COL. CENTRO, C.P. 43600, TULANCINGO, HGO. TEL.: 775 753 6615 / 775 753 6616	VERACRUZ	LA CASA DISTRIBUIDORA TRUPER BLVD. PRIMAVERA ESQ. HORTENSIA S/N, COL. PRIMAVERA C.P. 93308, POZA RICA, VER. TEL.: 782 823 8100 / 826 8484
JALISCO	SUCRASAL GUADALAJARA AV. ADOLFO B. HORN # 6800, COL: SANTA CRUZ DEL VALLE, C.P: 45655, TLAJOMULCO DE ZUÑIGA, JAL. TEL.: 33 3606 5285 AL 90	YUCATÁN	SUCRASAL MÉRIDA CALLE 33 #600 Y 602, LOCALIDAD ITZINCAB Y MULSAY, MPIO. UMÁN, C.P. 97390, MÉRIDA, YUC. TEL.: 999 912 2451
MICHOACÁN	FIX FERRETERÍAS AV. PASEO DE LA REPÚBLICA #3140-A, COL. EX-HACIENDA DE LA HUERTA, C.P. 58050, MORELIA, MICH. TEL.: 443 334 6858		

Code	Model	Brand
12607	BOS-1SM	 TRUPER®
12608	BOS-1-1/2SM	

Warranty. Duration: 1 year. Coverage: parts, components and workmanship against manufacturing or operating defects, except if used under conditions other than normal; when it was not operated in accordance with the instructive; was altered or repaired by personnel not authorized by  **TRUPER®**.

To make the warranty valid, present the product, stamped policy or invoice or receipt or voucher, in the establishment where you bought it or in Corregidora 22, Centro, Cuauhtémoc, CDMX, 06060, where you can also purchase parts, components, consumables and accessories. It includes the costs of transportation of the product that derive from its fulfillment of its service network. Phone number 800-018-7873.

Made in China. Imported by Truper, S.A. de C.V. Parque Industrial 1, Parque Industrial Jilotepec, Jilotepec, Edo. de Méx. C.P. 54257, Phone number 761 782 9100.



1
YEAR

Stamp of the business. Delivery date: