

U-PUMPER P20H and U-FAMER X20 installation guide

V1.0
2023/05/18

Thanks for choosing SHOWVEN Flame system, we wish it will bring you lots of exciting moments. Please read the following installation guide and related product user's manual carefully before operating this system.

▲ Safety Instructions

1. Safety icons explanation

Safety instructions warn of hazards when handling equipment and provide information on how to avoid those hazards. They are classified according to the severity of the hazard and are divided into the following groups. Please do follow all safety instructions in this document!

DANGER: Indicates a hazardous situation that, if not avoided, will result in death or serious injury. (This signal word is limited to the most extreme situations)

WARNING: Indicates a hazardous situation that, if not avoided, could result in serious injury

CAUTION: Indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.

NOTICE: Provide additional or supplementary information.

2. General Safety Instructions

- ⚠ Unauthorized repair are prohibited, it may cause serious incident.
- ⚠ Make sure power supply is consistent with the rated voltage of the equipment, and the socket must be well grounded. Unplug and turn off the machine when not in use.
- ⚠ After turning on the device, no person is allowed to stay in the danger area. Ensure all persons that are part of the show are informed about the safety distance, risks and functions of the device.
- ⚠ Always have a CO₂ fire extinguisher and an extinguishing blanket in case of need.
- ⚠ If there is any doubt as to the safety operation of the device in any circumstances, the device should be taken out of service immediately. Be sure the device is in good operating condition before use. If it fails to fire correctly, immediately shut down and check it accordingly. Any questions please always contact SHOWVEN (info@showven.cn) for help.
- ⚠ Be sure to use high quality flame fluid ISOPAR L/M, otherwise, it easily leads to failure or danger. Be careful when refilling the flame fluid tank. Please keep flame fluid away from heat source, sparks, fire or other possibility of ignition. Do not smoke!
- ⚠ The operator responsible for the control of the flame system must always have a clear view of the device, so that he/she can stop the show immediately when there is danger. The main AC power switch should be near the operator. So that the operator can turn off the power of all devices in case of abnormal.
- ⚠ The device shall not be altered and applied to other use purposes.

3. Disclaimers:

SHOWVEN technologies Co., Ltd excludes liability for unsafe situations, accidents and damages resulting from:

1. Ignoring warnings or regulations as shown on product manual or this manual.
2. Use for other applications or circumstances other than those indicated herein.
3. Changes to the device, including use of non-original spare parts, lack of maintenance etc.
4. Dismantling device without authorization from SHOWVEN.
5. Use of this machine by unqualified or untrained personnel.
6. Improper use of machine.

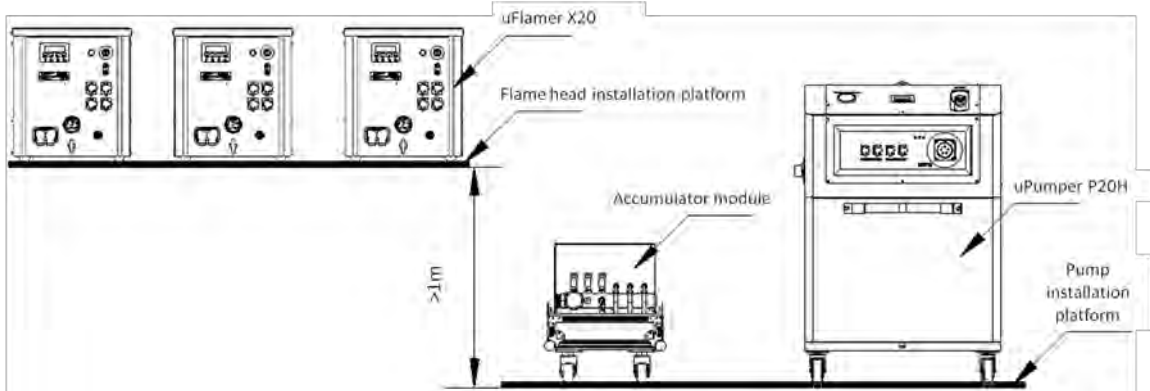
▲ Shipping list of the flame system

No.	P/N	Description	QTY
1	FPPUM006	uPumper P20H, AC380V	1
2	FPFLA022	uFlamer X20	2
3	FPTAN010	Accumulator block (0.35L, inflation pressure 3MPa)	1
4		P20-5M power cable (5x1.5mm ² , with 32A TYP2823 female)	1
5	SFMET1089	MAIN HOSE 1¼DN32-10M	1
6	SFMET1090	BRANCH HOSE 3/8 DN10-30M	1
7	SFMET1090	BRANCH HOSE 3/8 DN10-40M	1

Flame system installation

1. uFlamer X20 installation precautions

The uFlamer X20 flame head installation platform should be 1 meter higher than the uPumper P20H pump station, so that the fuel can flow back from the flame head to the pump station and accumulator module when the pressure is released. The schematic diagram is as follows:



2. Hoses installations

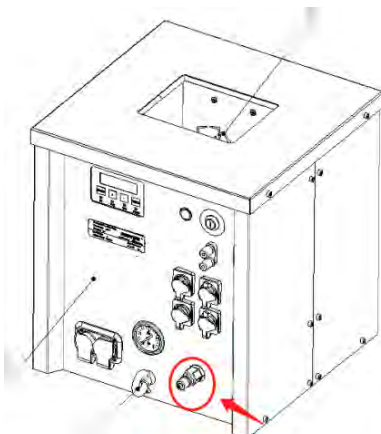
Main hose 1 1/4 DN32 installation: it starts from the fuel outlet of uPumper P20H (see the figure below), and the other end is installed on the accumulator module (see the figure below). Each joint connection is designed with a spherical end face seal (a hydraulic mechanical seal method), which needs to be tightened with a wrench to ensure reliable fuel sealing.



Branch hose 3/8 DN10 installation: When installing the branch hose, the end which with Y-shaped filter is installed on the flame head uFlamer X20, and the other end is installed on the accumulator module. Both ends are hydraulic quick coupler.

NOTICE:

The connection of hydraulic quick coupler needs to be carried out without pressure (pipeline pressure relief can be realized by emergency stop button of the pump station, power failure of the pump station, DMX control of the pump station, etc.);



Hydraulic quick coupler connection: When installing the hydraulic quick coupler, it is necessary to pull the female lock ring back to fit the male head. After fit, the lock ring can be released, and at the same time, push the female head hard so that the female head and the male head are pressed against each other. When the female head lock ring slides into the locked position and makes a "snap" sound, the connection is now in place. Turning the joint and pulling the hose to verify the connection reliability.



Y-shape filter maintenance: Please clean the Y-shape filter every six months.



3. uPumper P20H installation precautions

WARNING:

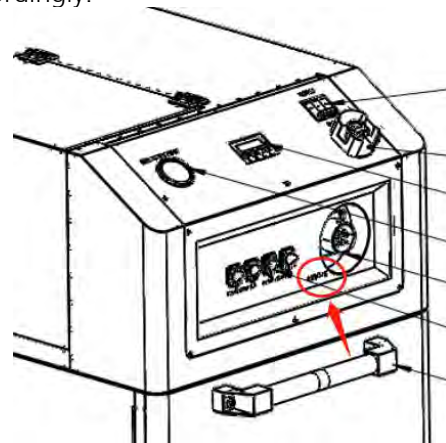
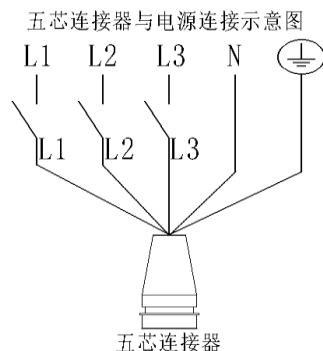
All operations must be carried out by professionals, non-professionals are prohibited from operating;

Before starting up, make sure that the input voltage is correct to avoid damage to the machine. The transformer used in this project must be connected and used correctly;

Ensure accumulator module and hoses are well connected before testing pump station uPumper P20H. otherwise fuels will pump out from the fuel outlet of pump station, resulting in a large amount of fuel leakage;

uPumper P20H power supply

P20H needs to use AC380V, 3-phase 5-wire power supply (three live wires, one neutral wire, and one ground wire), and the connection is shown in below figure. When the power supply of the three live wires (that is, three-phase) is normal, the three red indicator lights are always on at the position of the red circle in the pump station as shown in the figure below. When the phase is missing (the red indicator light not on), neutral wire is missing, the system will automatically protect, the device cannot be started, please check the power supply accordingly.



Pump motor steering confirmation and adjustment

Regarding the pump steering (related to the wiring sequence of the three live wires), it is necessary to check the pump motor steering after the first power-on. Specifically, when the equipment wiring is completed, start the machine (the Control Mode of the main menu of the pump station is set to AUTO), the pump motor starts to run (the pump motor has a relatively loud sound), if after about 10 seconds, the value of the pressure gauge is still 0, please press the emergency stop button of the pumping station immediately and cut off the power, then change the order of any two of the three live wires L1, L2, and L3. After the sequence of live wires is changed, release the emergency stop and restart the machine. At this time, the pump motor starts to run, and the reading of the pressure gauge should be normal (the reading of the pressure gauge stays at low pressure for about 10 seconds, then switches to high pressure and maintains the pressure).

Confirm pressure setting

The default target pressure value of the uPumper P20H pump station is 500, and the default lower limit pressure value is 400. After the P20H pump station is turned on, operate as follows:

(1) The actual pressure value can reach the target pressure value and no error is reported, and it can be used normally.

(2) The actual pressure value does not reach the target pressure value and an E2 boost error is reported. After shutting down and restarting, press and hold the ENTER key for 3 seconds to enter the factory menu. Lower the target pressure and the lower limit pressure value by setting. It is recommended to decrease by 50, and the difference between the target pressure and the lower limit pressure is 100. If the actual pressure value can reach the set target pressure value and no error is reported, it can be used normally. Otherwise, continue to turn down the pressure.

The operation steps are as below (ABCD...):

A: Default value: target pressure 500, lower limit pressure 400

B: After starting up for the first time, the pressure cannot reach 500, and the system reports E2 boost error.

C: Shut down and restart, adjust the value (target pressure 450, lower limit pressure 350). Restart the machine for pressurization, if it does not report E2, use it according to this pressure setting. Otherwise, the pressure still needs to be reduced until the pressurization process can be completed normally.

D: Repeat step C...

WARNING:

For normal use of uFlamer X20, the target pressure should above 400. If the target pressure cannot reach 400, please contact the manufacturer for technical support;

NOTICE:

If you have any questions during the installation or debugging process, please contact the manufacturer for technical support.

Pipeline pressure maintenance and leak detection

After hoses, pump station, accumulator module, flame head etc. the whole system connections are completed, it is necessary to carry out pressure maintenance and leak detection on the hoses, and inspect the hose joints for oil leakage. The pressure holding time is recommended at least 2 hours.

▲ Warranty Instructions

- ∨ Sincere thanks for your choosing our products, you will receive quality service from us
- ∨ The product warranty period is one year. If there are any quality problems within 7 days after shipping out from our factory, we can exchange a brand new same model machine for you
- ∨ We will offer free of charge maintenance service for machines which with hardware malfunction (except for the instrument damage caused by human factors) in warranty period. Please don't repair machine without factory permission

Below situations NOT included in warranty service:

- ∨ Damage caused by improper transportation, usage, management, and maintenance, or damage caused by human factors;
- ∨ Disassemble, modify or repair products without permission;
- ∨ Damage caused by external reasons (lightning strike, power supply etc.)
- ∨ Damage caused by improper installation or use;

For product damage not included in warranty range, we can provide paid service.

Invoice is necessary when applying for maintenance service from SHOWVEN

SHOWVEN[®]

PREMIUM FACTORY SAS - DISTRIBUTEUR OFFICIEL
1 Route Neuve, 71710 MONTCENIS - FRANCE Office
+33 805 69 13 27 | +33 608 630 452
info@premiumfactory.eu | www.premiumfactory.eu