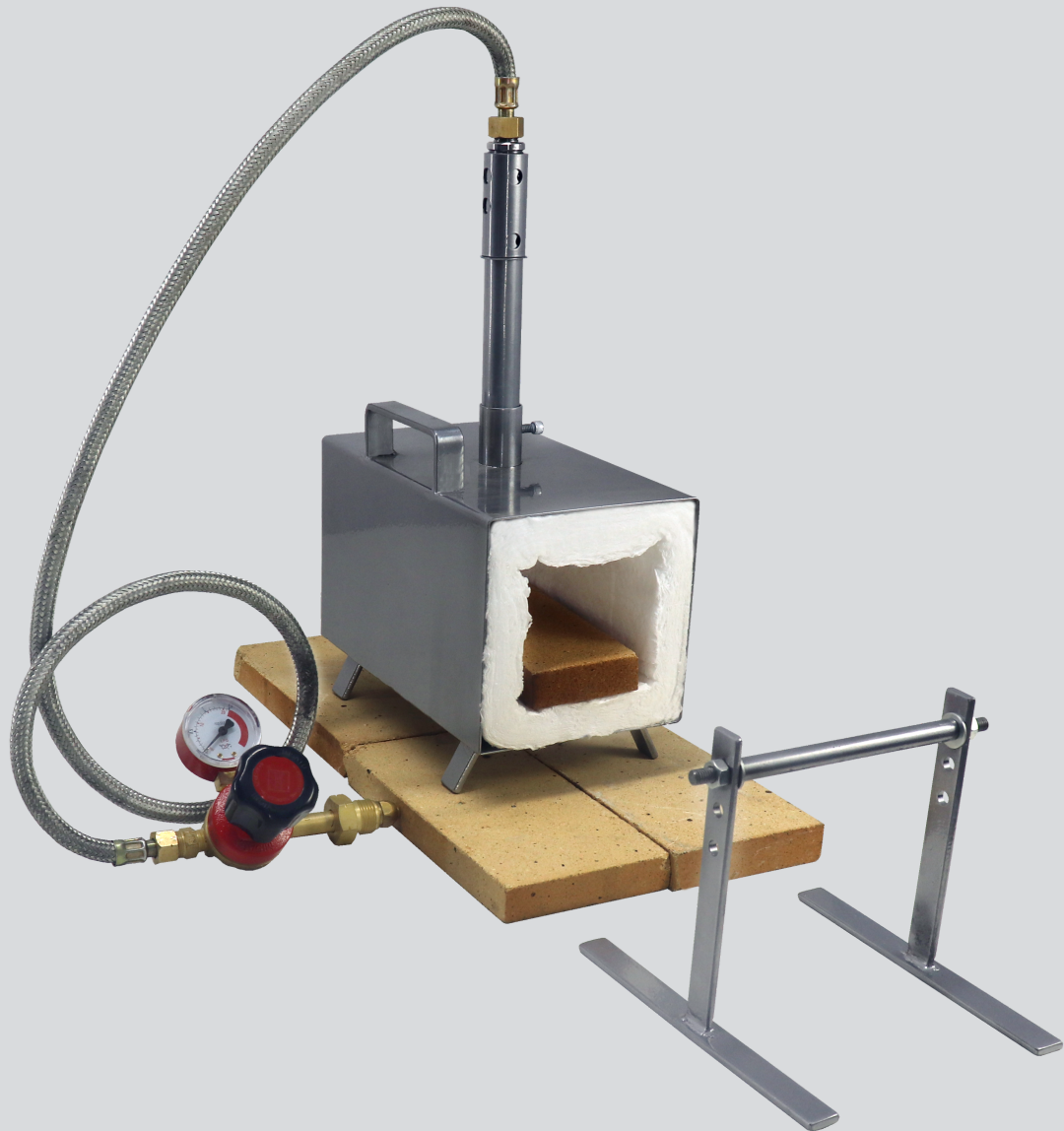


**SKU: PFI-17**



# **USER MANUAL AND ASSEMBLY INSTRUCTIONS FOR PROPANE FORGE**



## **Important notes**

Keep this instruction manual with you at the time of assembly and operation.

This will guide you the right way.

For the adult use only.

A Product by FEBTECH

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### Description

**Propane Forge** is inevitable product for a Blacksmith, Hobbyist, Jeweler & Knife makers. It is ideal for heating and bending of metals, tempering and heat treatment of small knives & agriculture use small tools.

This **Propane Forge** is made from Steel material and its heating zone is fully insulated with Refractory Ceramic Fiber, which can resist temperature up to 2600°F (1425°C). A rigid block of refractory fire brick placed at the bottom of the forge to resist high velocity firing.

### Where to Use

For Outside Use Only (Any outside safe area for operations)

### Warning

- Improper Installation, adjustment, alteration, service, maintenance or any mistake may result in serious accident, damages or personal injury.
- Read how to Install, Assemble & operate before installing and operating.
- Ignorance to safety instructions may cause fire or explosion that creates many kind of risk.

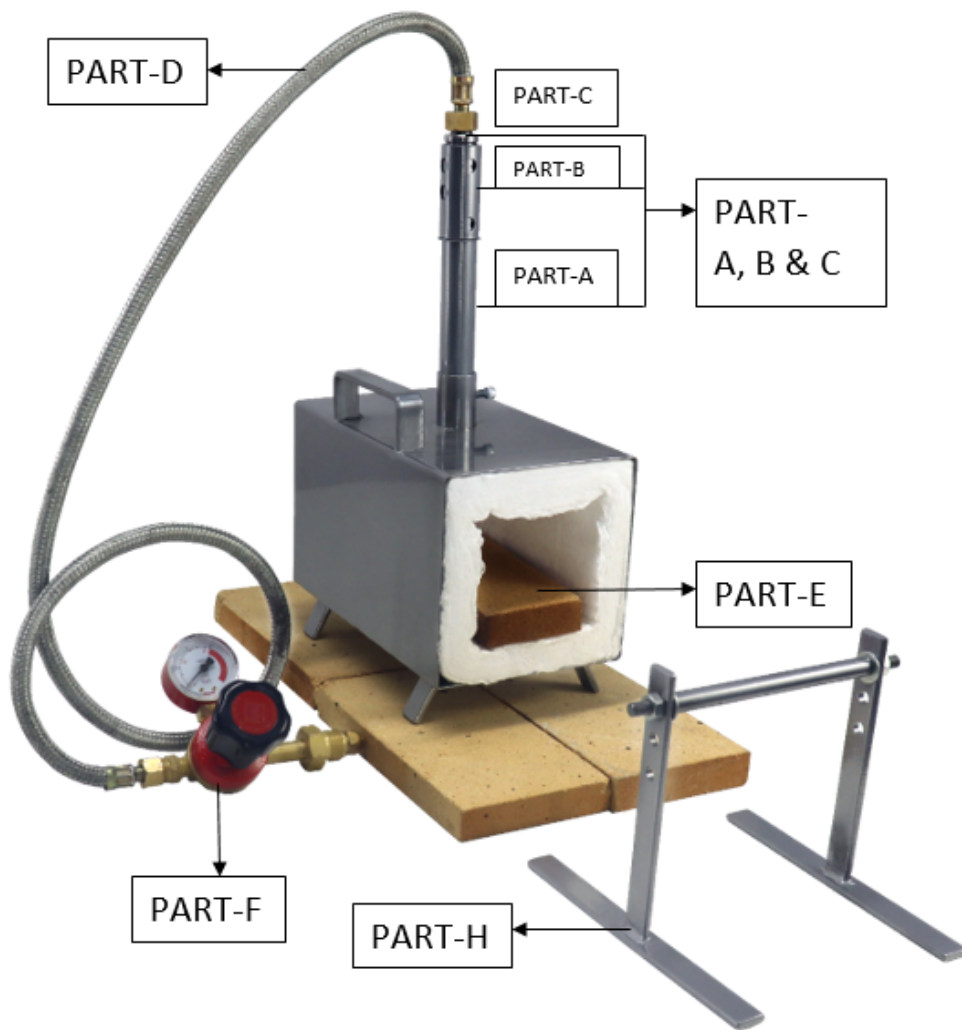
## Safety Instructions

- Safety Should be always in the first priority.
- Use this Propane Forge after reading the entire instructions for the proper and safe operation.
- Always Use This Propane Forge on a Hard Non-Combustible base. This Propane Forge is for outdoor use only. Do not use it with any kind of damage can happen. Keep fire extinguisher nearby.
- This Propane Forge is for external use only.
- Use fire retardant gloves & blacksmith tong for the operation with the work-piece.
- When manipulating hot work pieces be careful not to get in touch with person or objects.
- Never leave a hot forge unattended immediately after forging session even if the fuel is shut off and also be cautious of high temperature of the forge parts immediately after forging session.
- Inspect your Propane Cylinder (especially the Valve), your regulator (especially the connector to the cylinder and its O-ring) and your burner (especially the hose). In case it there is any signs of problems do not install or operate.
- Install the regulator by hand, without tools, until the nut (left-hand thread, remember) is fully seated. Immediately tighten the nut with a wrench. Do not over tighten the nut, as that can ruin the connector.
- Always shut down the forge by turning off the fuel at the cylinder, then backing off the regulator knob (as a safety precaution.)
- Once the forging session is finished, Remove the Regulator from the cylinder & take the cylinder in outside area.
- Allow the forge to cool at least half an hour before you leave the area. This is to prevent accidental fires from going undetected.
- Use gas Lighter to Ignite the Forge. (It is advisable to use the lighter which is more than 18inch long.)



**FEBTECH will not responsible for any damage or injury caused by improper use of Propane Forge**

## PROPANE FORGE & ACCESSORIES IDENTIFICATION



Packing List - Single Burner Forge w/ Stand			
Name	Description	Quantity	UOM
FORGE	Forge Body	1	Nos.
PART-A, B & C	Single Burner Set	1	Nos.
PART-D	4 Feet Gas Hose with Free Nut	1	Nos.
PART-E	1" Thick Refractory Fire Bricks	1	Nos.
PART-F	Gas pressure Regulator with Manometer	1	Nos.
PART-G	Teflon Tape	1	Nos.
PART-H	Metal Holding Stand	1	Nos.
PART-I	Heat Guard Refractory Coating	1	Pack
PART-J	Allen Key	1	Nos.
Complementary Ceramic Fiber Blanket	Filling Gap of burner & forge	1	Nos.
Burner Maintenance Kit (TroubleShooting Kit)			
Orifice (Gas Jet)	Replacement Orifice of Burner for future Maintenance	2	Nos.
Wire	Orifice clog removal tool	1	Nos.

## Unboxing

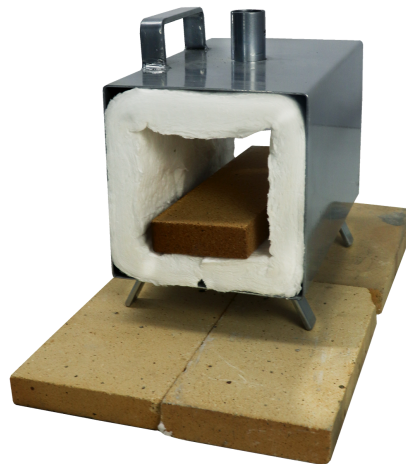
Unwrap all the mentioned parts as above list.

## Assembly Instructions

- Surface Preparation by placing Refractory Fire Brick, Castable or concrete.



- Place Forge Body over the plain surface which may prepare it by placing refractory bricks or by using castable cement to withstand high temperature.



- Connect PART-A, B, C (Burner & Air Chock, Gas Venturi Tube, respectively) to PART-D (which is Hose). Connect one end of the hose to the burner's gas inlet and the other end to the PART-F. (Gas Pressure Regulator). To properly tighten the hose nut at both ends, use an adjustable wrench



- With the help of coupling and adjustable screws, connect the above system of PART-A, B, and C at the top of the forge.
- Inside ceramic fiber of the forge is pre rigidized you need to coat with PART-I (Which refractory coating). Please follow Coating mixing & application procedure

## PART-I Heat Guard Application Instructions

### Heat Guard Refractory Coating:

Heat Guard Refractory Coating is water based refractory coatings. This coating is used for coating of ceramic fiber lining to protect them against heat, flue gases and fumes. It Prevents heat loss. It reflects radiant heat to the hot zone from the insulation surface that reduces the energy needed to achieve the target temperature thus it saves fuel. Hence it considerable prolong the life of refractory.

### Mixing:

Mix dry Heat Guard Powder with 30 - 50% of clean tap water by mass for brushing applications.

### Application:

Apply 1.5mm to 2 mm thick Heat Guard coating over refractory lining with the help of Brush.

### Precaution:

After coating the area with Heat Guard coating, the first firing should be carried out slowly to avoid development of any surface cracks or other defects due to the moisture content in the coating material.

### Curing:

The applied Heat Guard coating should be air dried for minimum 24 hours and then slowly raise the temperature up to 1112°F by increasing temperature 68 to 77°F / hr. and then reach to operating temperature at around 122°F / hour.

Place PART-E (Bricks) at the bottom of the forge and over the ceramic fiber lining

- Connect Gas regulator with the Propane Cylinder. Don't forget that pressure regulator has left thread. Check that there no loose fitting of parts which may lead to gas leakage.

Now Forge is ready for firing.

**Note: Please ensure that gas hose pipe is not in contact with the forge body before operating the furnace. Due to hot surface of the body it will get damaged.**

## Operating Instructions

1. Make Sure the hose connection nuts tighten properly and burner air intake holes match with holes of air chock. (perfect match may not require)
2. Light a long match or flammable material (i.e., bbq fire starter, cardboard, paper) and set it inside the forge under the burner tube opening.
3. Open the propane tank slowly to full on. Then open up the regulator by turning it clockwise. The burner should fire up. Adjust the regulator to achieve the desired flame. You are looking for a blue flame.



## BURNER TROUBLESHOOTING SOLUTION

### **My flame is yellow or green, not blue.**

A rich fuel mixture is indicated by a golden flame. Rotating the chock to enable more air intake is the most usual solution. Check for blockages in the burner and entrance tube, and seek for refractory or ceramic blanket as the source of the blockage. A yellow or green flame could also be caused by low pressure, such as a propane tank that is nearly empty. It's possible that the burner tip is clogged. Change the orifice or clean the burner tip with wire (provided with burner maintenance kit).

### **My regulator or tank keep freezing thus creating a low pressure.**

While this is to be expected after using the forge for a long time, there are several things that may be done to lessen the situation. Begin disconnecting the regulator and hose. Wait 10 minutes before reconnecting everything. When re-starting the forge, make sure to slowly open the hose regulator. This can also happen if liquid propane enters the regulator, which can happen if the tank is overfilled or not upright. Most of the time, this occurs when the propane leaves the tank faster than it was supposed to, and the answer is as simple as getting a larger tank. For enthusiasts, a 100-pound tank is the tank of choice. Some customers have also reported storing their propane tanks in their garages.