

**USER MANUAL &  
ASSEMBLY INSTRUCTIONS  
FOR  
STAINLESS STEEL  
SINGLE BURNER FORGE**



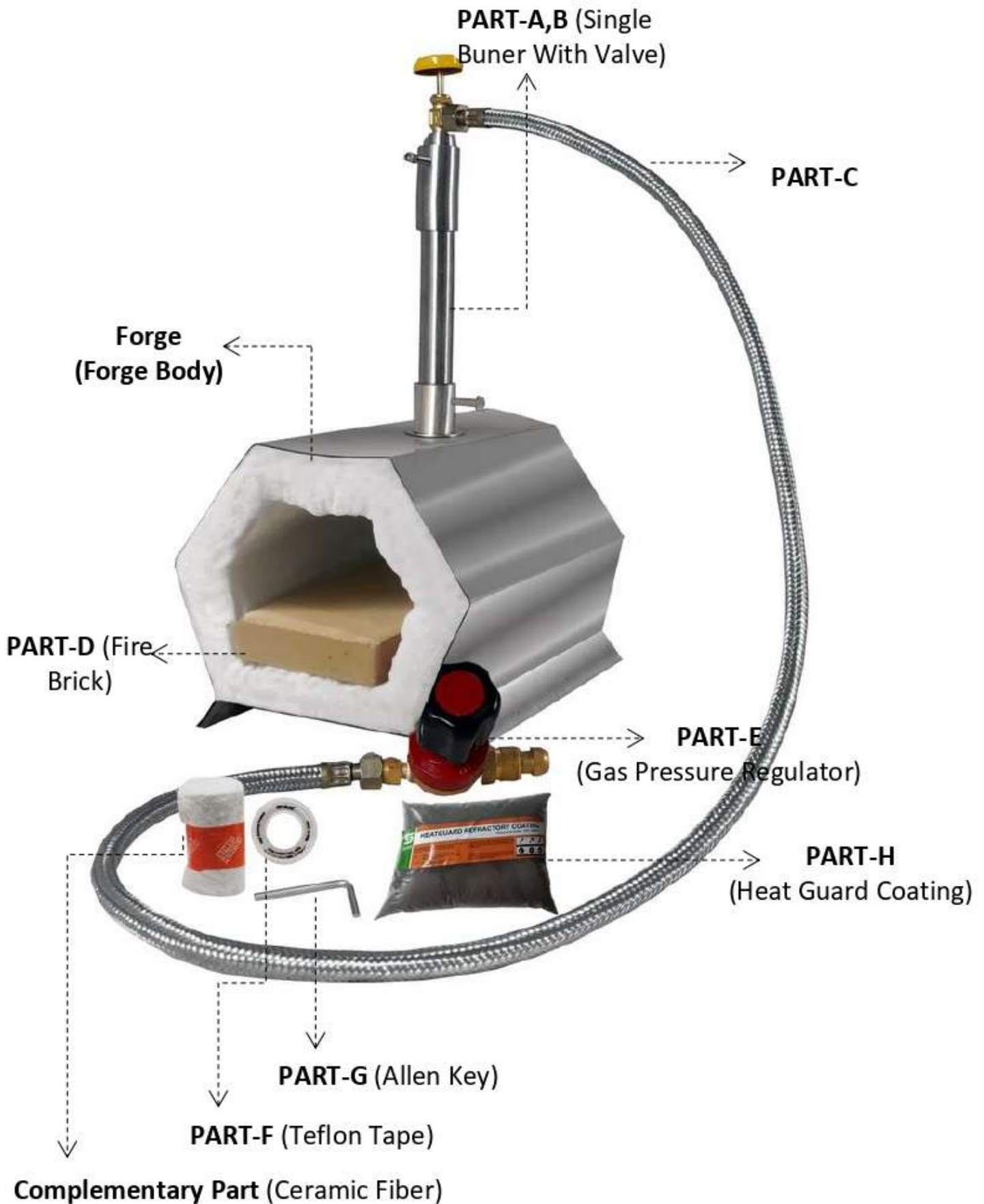
## Safety Instructions

- Safety should be always in the first priority.
- Use this Propane Forge after reading these 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 where any kind of damage can happen. Keep fire extinguisher nearby.
- This Propane Forge is for adult use only.
- Use fire retardant gloves & blacksmith tong for the operation with the work-piece.
- Never leave a hot forge unattended, even if the fuel is shut off and 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 if there is any signs of problems do not install or operate.
- Install the regulator by hand, without tools, until the nut (left-hand thread) is fully seated. Immediately tighten the nut with a wrench. Do not over tighten the nut, as this will only ruin the connectors.
- Always shut down the forge by turning off the fuel at the cylinder, then backing off the regulator knob (as a safety precaution.)
- Once, Forging Session is finished, Remove the Regulator from the cylinder & take the cylinder in outside area.
- Allow the forge to cool for 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 18 inch long.)



**CRITICAL: If you're going to be running the forge with just one burner: always remove the second burner from the forge. Failure to do, so will result in the heat entering the unused burner & damaging the ball valve and hose components. Please Close the Burner Entry Tube through the complementary Ceramic Fiber**

**Febtech will not responsible for any damage or injury caused by improper use of Gas Forge**



<b>PART LIST</b>			
<b>Part</b>	<b>Description</b>	<b>Qty</b>	<b>UOM</b>
Forge	Forge Body	1	Nos
PART A,B	Single Burner	1	Set
PART-C	4 ft Braided Hose with free nut (3/8")	1	Nos
PART-D	1.25" Thick Fire Brick	1	Nos
PART-E	Gas pressure Regulator	1	Nos
PART-F	Teflon Tape	1	Nos
PART-G	Allen Key	1	Nos
PART-H	Heat Guard Refractory Coating 2.8 Lbs	1	Pack
Complementary Part	Extra Orifice 2 Pcs for Future Maintanance	1	Set
Complementary Part	Small Wire (For Cleaning the orifice blockage)	1	Nos
Complementary Part	Ceramic Fiber For gap filling if required in exising insulation	1	Nos



## ASSEMBLY 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 considerably prolongs the life of refractory.

### Temperature Grade: 3270°F (1800°C)

### Mixing:

Per each coat: 1.13 Pounds of Heat-guard Refractory Coating with 5 fl oz (150 ml) of water. Mix for 5 Minutes. Look for a sour cream type consistency.

**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. For large coating thickness adequate air drying is required to avoid cracks the Heat Guard coating.

### Applying Refractory Info:

Take care not to get refractory in the entry tubes.

While the refractory is still wet, clean the outside shell of the forge.

During the curing process: Most water escapes through the cold face not the hot face. The seams of the forge serve as weep holes to the cold face of the forge to promote steam to exhaust during the curing heat up process.

## ASSEMBLY THE FORGE

1. Slide the air chocks onto the burner tubes
2. Lowest the burners down the forge entry tube. Each burner should sit about ¾" higher than the bottom of the entry tube (see the diagram on page 6). Tighten the screws with the help of Allen Key on the forge entry tubes to secure the burners in place.
3. Make sure the ball valves are closed shut. Connect the hose fitting to the ball valve & propane source.
4. Insert the fire brick (This is only after Curing the refractory)

## OPERATING INSTRUCTIONS

- 1 Make Sure the ball valve is in ON position and the chock is all way down & not obstructing the burner's air intake hole.
- 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 Make Sure the ball valve is in ON position and the chock is all way down & not obstructing the burner's air intake hole.

## TIPS & SAFETY MEASURE

- \* Use this forge with propane fuel only. Do Not forge galvanized steel - it creates toxic fumes that can cause death.
- \* Visually inspect the hose and fittings. Test the fittings and connections in the propane hose for leaks, with soapy water under pressure - with the ball valve in the off position.
- \* Every time you use the forge, inspect the blanket for cracks or holes and repair them before proceeding. Some cracking is normal, excessive cracking needs to be fixed. The extra refractory that is provided can be used for this purpose.
- \* Never light the flame from the air intake part of the burner, always light from inside of the forge. Keep your eyes, hands, and any flammable material far away from the flame to not inflict any damage or injury.
- \* Make sure the propane hose is away from the opening of the forge to not be damaged by the flame
- \* Keep an eye out for a potential tipping hazard, especially when the forge is running. Take care not to bump into it or have anything pulling down on the hose.

## TROUBLESHOOTING

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

A yellow flame indicates a rich fuel mixture. The most common fix is to lower the chokes to allow more air intake. Also check the burner and entry tube for blockage, look for refractory or ceramic blanket being the source of the blockage. The burner should be able to slide in easily through the entry tube, if there is a blockage the burner won't be able to slide in all the way through the entry tube. Another potential cause for a yellow or green flame could be resulting from low pressure, a near empty propane tank. The burner tip could also be clogged. Clean the burner tip with a wire or a welding tip cleaner



## My regulator or tank keeps freezing thus creating a low pressure

While this is a normal after operating the forge for an extended period of time, some things could be done to mitigate this. Start by turning the valve and unhooking the regulator and hose. Wait for 10 minutes and then attach it all again. When firing the forge up again, make sure you do so by slowly opening the hose regulator. This can also occur when the liquid propane enters the regulator, this can be caused by the tank being overfilled or is not standing upright. Most often, this happens when the propane is leaving the tank faster than it is designed for, a simple solution is simply getting a larger tank. A 100lb tank is the tank of choice for enthusiasts. Some users have also reported putting their propane tank in water to keep it from freezing.

