

# USER MANUAL FOR PROPANE FORGE







## **Description:**

Propane Forge is inevitable product for a Blacksmith, Hobbyist, Jewellers & 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 SS-304 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.

# Specifications:

- Forge Type
- Shape
- Burner
- Inside Floor
- Forge Body Construction
- Forge Internal Dimensions
- Operating Temperature
- Inside Insulation Material
- Burner Material

- : Triple Burner Forge With Single Door & 2" Thick Insulation
- : Rectangular
- : Triple Burner
  - : 1" Thick Refractory Fire Brick 3 Nos
  - : 16 Gauge (1.5mm) SS-304 Metal Sheet
  - : 6" (H) x 6" (W) x 24" (L)
- : 2600°F (1425°C)
- : 2" Thick Refractory Ceramic Fiber, 2600°F, 10 Pcf
- :SS-304

# List OF Parts

Name	Triple Burner Forge With Single Door & 2" Thick Insulation
FORGE	Forge Body
PART-A & B	Triple Burner Set
PART-C	8' (2 Meter) Gas Hose with Clamps
PART-D	Refractory Fire Brick (3 Pcs)
PART-E	Gas Pressure Regulator With Manometer
PART-F	Teflon Tape
PART-G	Door Handle – 1 Nos.
Complementary	
Ceramic Fiber	Filling Gap of burner & forge
Blanket	

# Assembly:

#### **Required Tools for Installation**

- Screw Driver
- 13mm wrench
- 17mm wrench

#### Unpacking:

Unwrap all the mentioned parts including identification sticker as above list with type of forge.



# Set Up Instruction:

- Place the FORGE over the plain surface. You may prepare it by placing refractory bricks or by using castable cement which can withstand high temperatures.
- PART-A, PART-B are pre-assembled parts of burner. At the top of the PART B you can see wing nut with washer which can be rotated clockwise and anti-clockwise direction to regulate the air flow pressure while firing.
- Connect the above system of PART A, B at the top of the FORGE with the help of the coupling and adjustable screws.
- Please make sure that burner's nozzle at end do not cross over inside insulation of forge.
- Now connect PART C to the PART A, Which is gas hose pipe, it's one end connects with Burner's gas inlet pipe and another with the Gas Pressure Regulator (PART E). Tighten the clamps at both ends.
- Place the PART D the inside 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.
- Connect PART G with Door side wall hole.
- Check that there is no loose fittings of parts which may lead to gas leakage.
- Now Forge is ready for the firing.

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

## **Operating Instruction:**

- 1. Open the wing nut slightly at the top of PART B.
- 2. Open the outlet valve of propane gas cylinder.
- 3. For Double Burner: One burner is directly connected & another burner's has a gas inlet valve. Please close this gas inlet valve. After ignition of first burner then open the gas inlet valve for firing of second burner (If required).
- 4. For Triple Burner: Same process as double burner. All burner's firing start one by one by opening of gas inlet valve.
- 5. Light up the Forge by using Lighter at the opening of the burner inside the Forge body.
- 6. Now adjust the gas flow using inlet valve and air flow using the wing nut to get the complete combustion of gas and desired flame intensity.
- 7. Place the iron article to be forged inside the forge and under the flame using tongs.
- 8. Remove the article one it is red hot and ready for shaping, safely using tongs.
- 9. Close the gas our let valve of the propane cylinder and wait until fire in the forge stops.
- 10. Remove the propane cylinder connections to the forge and place it away from forge.
- 11. Allow Forge to cool down to normal temperature before transferring it to other place it required.

## Safety Instruction:

- Make sure the forge is away from inflammable substances, the burner is properly and firmly installed, and all is well before lighting the forge.
- Wear goggles while watching fire of the forge
- Propane gas must be tapped from the top of the cylinder.
- Never allow a propane cylinder to tip while in use.
- Never allow the heat from the forge to heat the propane cylinder.



- 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.
- Never store a propane cylinder indoors.
- 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) for any signs of wear or problems. Do not install the regulator if you see any sign of problem.
- 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 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.)
- When finished a forging session, remove the regulator from the cylinder and take the cylinder to its outside, storage area at once.
- Allow the forge to cool for at least a half an hour before you leave the area. This is to prevent accidental fires from going undetected.

# **Troubleshooting:**

- Not Enough Power: Check your air choke, is it opened? Check gas tank is it full?
- Burner Doesn't Work Right Not Enough Power: Disconnect hose from burner and try to clear the injector pipe (if it doesn't helped try to connect to air compressor to clear the pipe injector) Check your air choke, is it opened? Check gas tank is it full?



# ASSEMBLY INSTRUCTION



**Step -1** Surface Preparation by placing Refractory Fire Brick / Castable



**Step -2** Place Forge Body over the prepared surface



Connect PART-B (Air Chock Valves) to PART-A (Burners)





Connect the above system of PART A, B at the top of the FORGE with the help of the coupling and adjustable screws.







Now connect PART C to the PART A, Which is gas hose pipe, it's one end connects with Burner's gas inlet pipe and another with the Gas Pressure Regulator (PART E). Tighten the clamps at both ends.





Place the Refractory fire bricks (PART D) inside bottom of the Forge and over the ceramic fiber lining.









#### **Step -9** Now Forge is ready for firing

#### Step -10

Slightly Open the Air chock valve through rotating of wing nut & open the outlet valve of propane gas cylinder.

#### Step -11

Light up the forge by using lighter at the opening of the burner inside the forge body.





To use next burner, slightly open air chock valve & Open gas inlet valve slowly. Hence burner automatically start firing.



![](_page_12_Picture_0.jpeg)

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