WELD PROJECTS

PROD REV: A-1 DWG VER: V-1

PENTA FIREPIT

(PENT-002-000)





Contents

| VARNING | 3 |
|-----------------------|---|
| ILL OF MATERIALS | 4 |
| GLOSSARY | 5 |
| AWS SYMBOLS | 6 |
| ASSEMBLY INSTRUCTIONS | 7 |
| PART DRAWINGS | 5 |



WARNING



SAFETY WARNING: WELDING INVOLVED

Before you begin the assembly process, it's crucial to understand the risks and necessary precautions associated with welding. Please read and adhere to the following safety guidelines:

- **Professional Supervision:** If you're inexperienced in welding, consider seeking guidance or supervision from a trained professional. A small error can have significant consequences on the durability and safety of your furniture.
- **Protective Gear:** Welding can produce intense UV light, sparks, and spatter. Always use a welding helmet with the correct shade of lens, wear flame-resistant clothing, leather gloves, and safety boots. Safety glasses should be worn underneath the helmet for added eye protection.
- Work in a Safe Environment: Welding can produce harmful fumes and gases. Always work in a well-ventilated space, preferably outdoors. Remove any flammable materials from the vicinity, and always have a fire extinguisher on hand.
- **Pre-welding Inspection:** Thoroughly inspect the metal parts for any signs of damage, rust, or contamination. Clean the areas to be welded to ensure there are no oils, paints, or other materials that might interfere with the weld.
- **Equipment Check:** Before you start, ensure your welding machine is in proper working condition. Check cables, connectors, and welding gun for any damage or wear.
- Avoid Water: Never weld in wet conditions or touch the welding equipment with wet hands or gloves. Water is a conductor of electricity and can increase the risk of shocks.
- **Grounding:** Ensure that the piece you're welding is correctly grounded. A proper ground connection is essential for safety and for producing quality welds.
- **Post-welding Protocol:** Once you finish welding, let the welded parts cool down gradually. Rapid cooling can lead to metal warpage or structural weaknesses.
- **Stay Informed:** Familiarize yourself with the Material Safety Data Sheet (MSDS) for the metals you're working with and the filler materials you're using.
- **First Aid:** Keep a first aid kit nearby. In case of minor burns, immediately hold the affected area under cold running water for at least 10 minutes.
- Limit Distractions: Ensure that your workspace is free from unnecessary distractions. Focus is critical when welding to maintain consistent quality and safety.
- Store Equipment Safely: After completion, store your welding equipment in a dry, safe place away from children's reach.

Remember, your safety and the quality of your work go hand in hand. Always prioritize safety precautions and never rush the welding process. If you're ever uncertain about a step or safety measure, seek guidance before proceeding.

Your safety is our top priority! No task justifies risking injury.



BILL OF MATERIALS

See page 15 for detailed drawings of each part.

| ITEM | PART NUMBER | DESCRIPTION | | MATERIAL | QTY. |
|------|----------------|----------------------------------------|-----|----------------|------|
| 1 | 1001-010-002 | Projection Weld Nut375-16 | A-1 | STEEL | 5 |
| 2 | 1011-000-001 | Swivel Leveler - 2.875"375-16_Non-skid | A-1 | STEEL | 5 |
| 3 | PENT-057-000 | PENTA ASHTRAY - SIDE | A-1 | SM_A36_0.075T | 5 |
| 4 | PENT-058-000 | PENTA ASHTRAY - BOTTOM | A-1 | SM_A36_0.075T | 1 |
| 5 | PENT-059-000 | PENTA FIREPIT - SIDE | A-1 | SM_A36_0.075T | 5 |
| 6 | PENT-060-000 | PENTA FIREPIT - BOTTOM | A-1 | SM_A36_0.075T | 1 |
| 7 | PENT-061-000 | PENTA FIREPIT - GRILL | A-1 | SM_A36_0.1345T | 1 |

**** ITEMS NOT PROVIDED**

GLOSSARY

METAL TUBE

SQ_A500_2X2_0.065T

TYPE

MATERIAL

SIZE

MATERIAL THICKNESS

SHEET METAL

SM_A36_0.065T

TYPE

MATERIAL

MATERIAL THICKNESS

Туре

SQ = Square tube profile RT = Rectangle tube profile CR = Circle tube profile AG = Angle tube profile SM = Sheet Metal

Material Thickness

10ga - 0.1345" 12ga - 0.1035" 14ga - 0.075" 16ga - 0.065"

AWS SYMBOLS

The following are some of the common weld symbols you will encounter when reading our assembly instructions.

| AWS SYMBOL | NAME | DESCRIPTION | |
|------------|-------------|---------------------------------------------------------------------------------------------------------------------------|--|
| | FILLET WELD | Triangular weld joining two surfaces at right angles; common in T-joints and lap joints. | |
| \ominus | SEAM WELD | Joins metal using a hole in the top piece, fusing with the bottom piece. | |
| 0 | SPOT WELD | Used for fusing overlapping metals at discrete points; often used in sheet metal fabrication. | |
| | PLUG WELD | Process creating a consistent weld along overlapping materials; suitable for containers and cylindrical assemblies. | |

| WELD INDICATION | DESCRIPTION | | |
|-----------------|----------------------------------------------------------------------------------------------------------------|--|--|
| 1/8 / 1/8 - 6 | TACK WELD (Small and temporary weld that hold parts together ready for final welding.) | | |
| 1/4 1.5 - 6 | FULLY WELD (Last welding operation performed to complete a joint or structure, ensuring its integrity.) | | |



This symbol tells us to make a 1/8" high Fillet Weld, 1/8" long (a "tack"), and to do so along the seam every 6" (the pitch).



PROD REV: A-1 DWG VER: V-1

ASSEMBLY INSTRUCTIONS





3

NOTES:

5X

1/8 / 1/8 - 6











NOTES:

NOW IS THE PERFECT TIME TO GO BACK AND FINISH WELDING ALL THE PREVIOUS TACK WELDS

WE RECOMMEND A 0.25" HIGH FILLET WELD, 1.5" LONG

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PROD REV: A-1 DWG VER: V-1

PART DRAWINGS



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