BROWNELLS®
BLUING TANK STAND SYSTEM

#082-074-001

READ & FOLLOW THESE
INSTRUCTIONS

BROWNELLS®
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World's Largest Supplier of
Firearms Accessories and Gunsmithing Tools.™

The Brownells Bluing Tank Stand System was developed by professional gunsmiths and design engineers to provide the maximum in layout flexibility, operator access, rigidity and stability. Unlike other commercial bluing stands, the Brownells Bluing Tank Stands permit virtually unlimited variations in layout to fit your bluing room or bluing technique. Tanks can be set up end-to-end, side-by-side, in a "U" pattern - virtually any manner required or desired. The attached diagrams show just a few of the many possible tank layouts.

WARNING

Bluing salts are corrosive and the working solution is extremely hot. To help avoid injuries, never operate or stand near a heated bluing bath without wearing the following safety equipment. Full face shield, safety glasses, Temp-Tac gloves, neoprene shop apron, heavy trousers and a long sleeve cotton or wool shirt. A first aid kit and salts neutralizing solution must be kept within immediate reach. DO NOT DO ANY BLUING UNTIL YOU HAVE FAMILIARIZED YOURSELF WITH THE SAFETY PROCEDURES IN THE BLUING INSTRUCTION BOOKLET.

SETTING UP THE BLUING STANDS

When setting up your bluing system make sure the Tank Stands are secured to the floor to prevent any chance of a tank being tipped over. If you cannot attach the Bluing Tank Stands to the floor, use braces to nearby walls to secure the Tank Stands. It is IMPERATIVE that the Tank Stands be anchored securely for safe operation. DO NOT attempt to use the Bluing Tank Stands until they are anchored and you are ABSOLUTELY SURE they cannot be tipped over.

While your layout will depend upon a number of factors such as the type of bluing materials being used, the number of tanks required, the size of the room or bluing area available, location of floor drains, availability of water faucets, as well as personal preferences, we STRONGLY urge you to design your layout so you NEVER have to reach across a "hot" tank, especially one containing Bluing Solution. By avoiding this, you will have a setup that is not only easier to use, but it will be much safer as well. Again, avoid any setup that requires reaching or leaning across a "hot" or heated tank.

GAS LINES

In determining the type of setup that you will use, give some consideration to the location of your gas lines and your burners. Be sure you have fast, easy access to the "T" valves that shut off the gas, and your pipe burners do not interfere with one another. For example, if you place your tanks end-to-end with two "hot" tanks next to one another, it may be difficult to use the burners. Before permanently mounting the Tank Stands and tanks, set up your desired layout and check for problems such as this. A few hours spent refining your setup can save many hours of reworking your layout or the frustration of dealing with an awkward, inefficient arrangement.

HEIGHT OF BURNERS

The optimum height for your burners is contingent upon factors such as gas pressure and type of gas. The burner support brackets on the Tank Stands can be adjusted for height. After assembling and setting up your Tank Stands and securing them so they cannot tip over, hook up your gas lines and burners. (This should be done by an approved, professional gas equipment installer.) Place a tank on the Stands with burners and fill each with approximately two gallons of water. The burners can now be turned on and the height of the flame adjusted. Our pipe burner manufacturer recommends the tip of the white cone of the flame just "brushing" the bottom of the tank for total combustion of the gas and the most uniform heat from the pipe burner. You may need to adjust the height of the burner support brackets to achieve this. DO NOT turn on the burner under an empty tank. To do so will virtually ensure that you warp or damage the tank. MAKE SURE you have water in the tanks during this test and adjustment phase.

FINAL SETUP

Before using your bluing setup, carefully check all Tank Stands and gas lines to MAKE SURE that all components are secured to the floor. All nuts and bolts must be tight. Gas lines should be arranged in such a way that they cannot be bent, broken or pulled loose from the gas burners.

If you have any questions relating to the use of the Brownells Tank Stands or any Brownells product, do not hesitate to contact our Technical Support Staff for assistance.

BROWNELLS GUNSMITHS DATA RING BINDER

SAVE THESE INSTRUCTIONS IN YOUR

Diagram #1

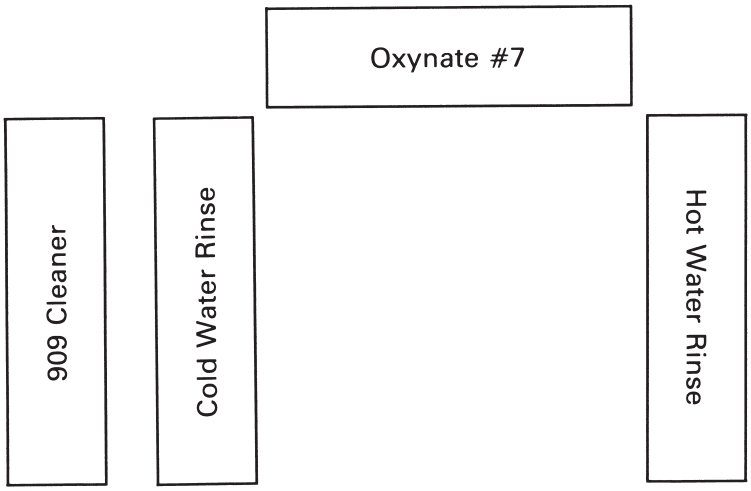
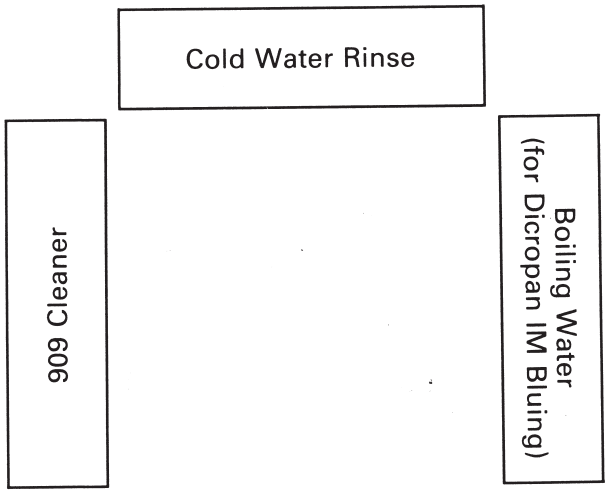


Diagram #2



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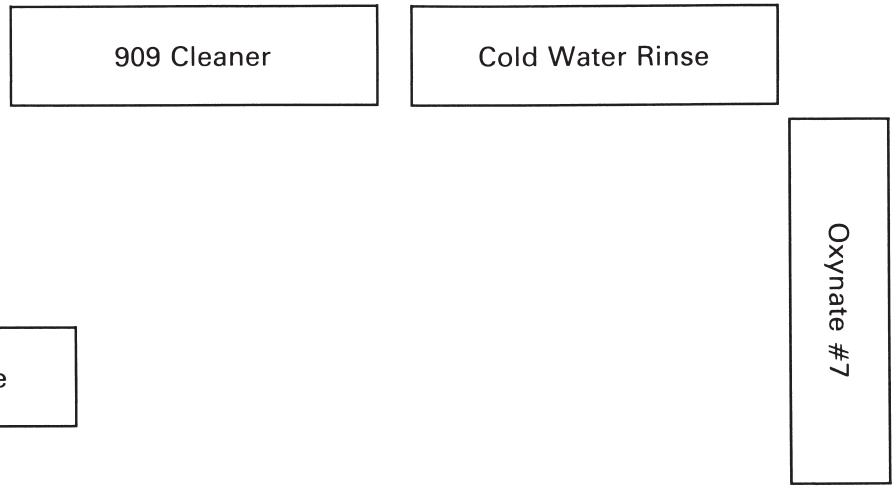

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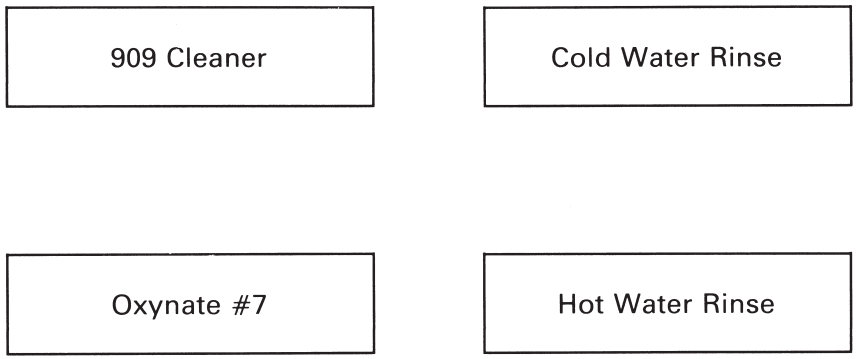

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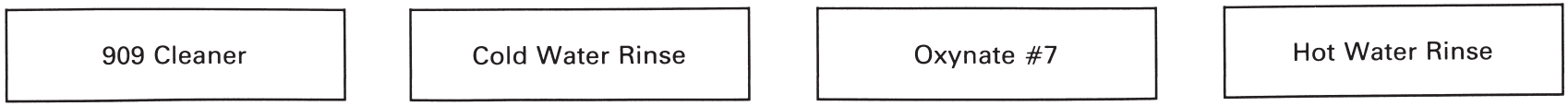

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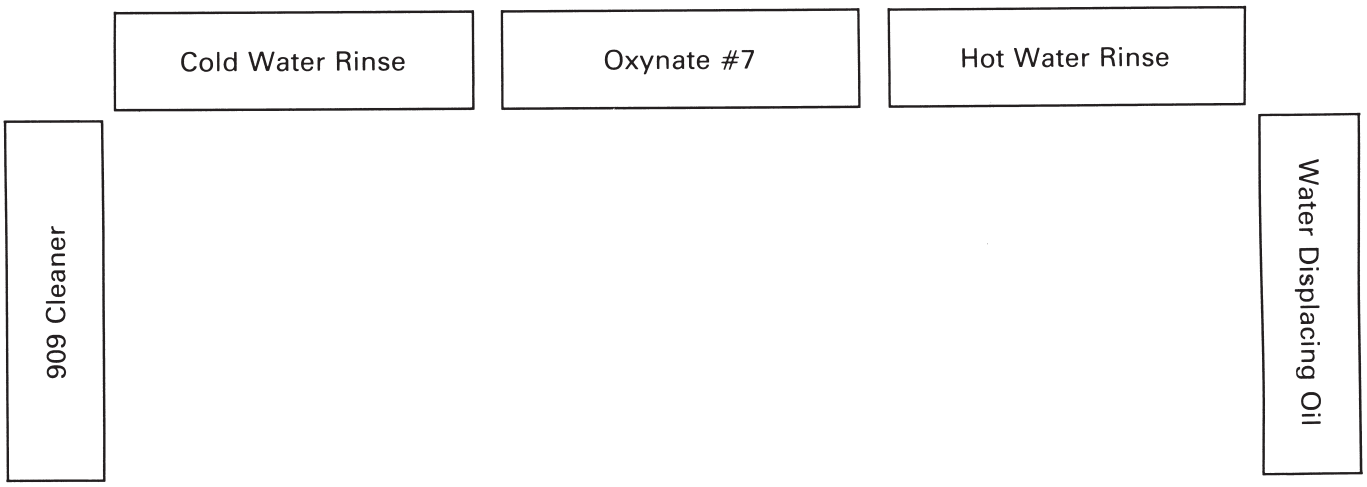
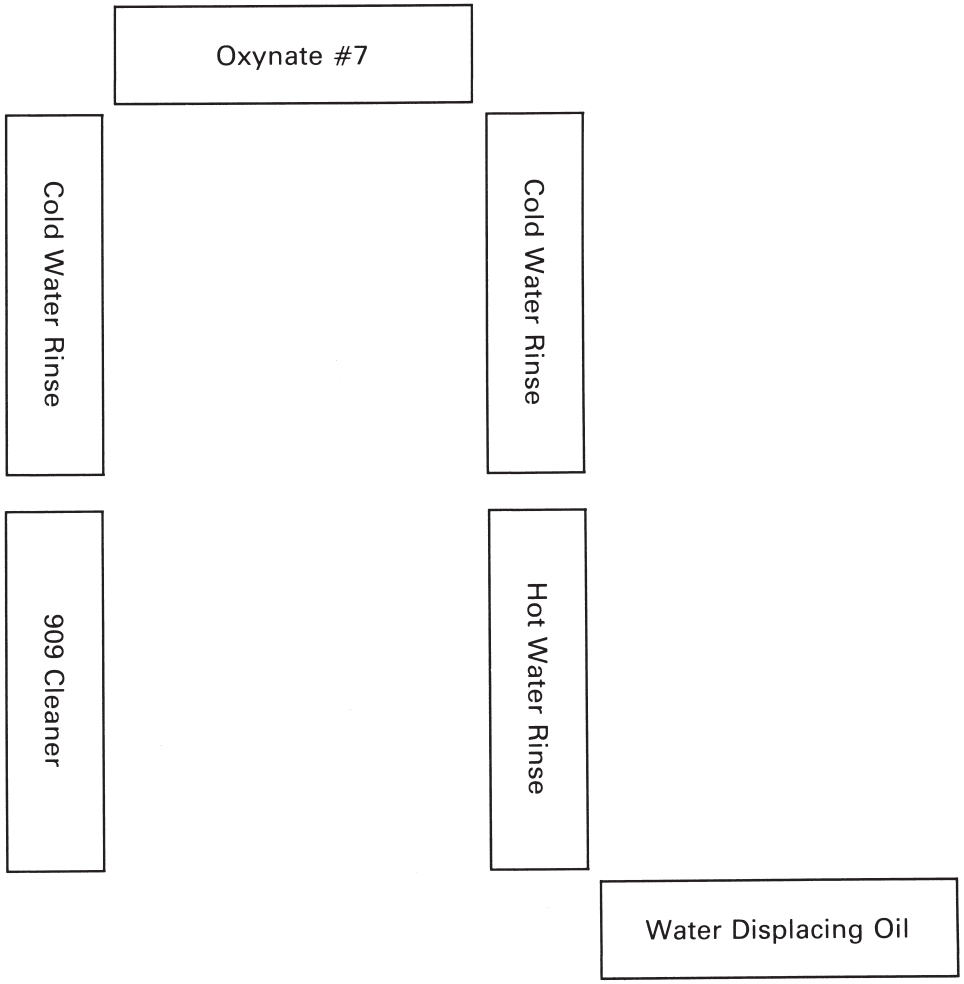


Diagram #7



BLUING TANK STAND ASSEMBLY INSTRUCTIONS

1) ASSEMBLING THE TANK STAND - See Figure 1

A) Bolt the Top Rail to the Leg sections using (4) 5/16" x 1" Bolts with Nuts and Lockwashers (2 on each end) as shown in Figure 1. Lock bolts up tight with wrench.

B) Bolt one Burner Support to each Tank Stand Leg using (2) 5/16" x 1¾" Bolts with Nuts and Lockwashers per Burner Support.

2) ANCHORING THE SINGLE TANK STAND - See Figure 2

A) Determine your desired floor layout, remembering to keep Tank Stands for heated tanks a safe distance from combustible walls.

B) Assemble the Tank Stand per steps **1A** & **1B**.

Note: It may seem silly to do the following "one-leg-at-a-time"; why not just mark and drill 4 holes at one time and be done with it? Problem is, while you do one leg, the other could get pushed in or out enough to make it darn near impossible to bolt additional stands to the first one, if it were bolted down "crooked". Doing it the way detailed below takes just a bit longer, but the end result is a better installation.

C) Tank Stands should always be bolted securely to the floor to minimize their chances of falling over. (4) 5/16" Lag Bolts with Anchors are provided for this purpose.

D) Position the Tank Stand as desired and using the mount holes in the base of one Tank Stand Leg as a guide, mark the floor for 2 Lag Bolt Anchors.

E) Move the Tank Stand out of the way and drill holes for the Lag Bolt Anchors using a ½" masonry drill bit. Place the Anchors in these holes, re-position the Tank Stand and install the Lag Bolts.

F) Position the 2nd Tank Stand Leg so both legs are plumb and level vertically and mark the floor. Loosen the bolts holding the 2nd Tank Stand Leg to the Top Rail to allow room to drill holes in the floor using a ½" masonry drill bit. Install Lag Bolt Anchors in these 2 holes.

G) Re-position the 2nd Tank Stand Leg; install the Lag Bolts; tighten them and the Tank Stand Leg/Top Rail Bolts.

H) The Connector Bars supplied with each Tank Stand are used when tying multiple Tank Stands together and should also be used at the base of the Tank Stand Legs to add stability and minimize tipping. When using the Connector Bars to add stability, "offset" them, as in Figure 2, with as much of the length as possible extending to the rear of the Tank Stand, out of the main traffic area. Bolt the Connector Bars to the Tank Stand Legs using (2) 5/16" x 1¾" Bolts with Nuts and Lockwashers per Connector Bar.

I) If the Tank Stand will be equipped with a Pipe Burner, assemble and install it per steps **3A** thru **3D**.

J) If the Tank Stand **Will Not** be equipped with a Pipe Burner, you must clamp a length of 1" to 1⅝" O.D. gas pipe or steel tubing to the Burner Supports (as you would a burner pipe, step **3B)** to give the necessary stability and to minimize rocking or swaying. **Do Not** use galvanized steel tubing or aluminum conduit.

3) ASSEMBLING & INSTALLING A PIPE BURNER IN THE TANK STAND - See Figure 1

A) Slide Mixer Head onto Burner Pipe and tighten the Mixer Head Set Screw.

B) Slide the Mixer Head/Burner Pipe Assembly through the Burner Openings in the Tank Stand Legs and secure it to the Burner Supports using the 2" "U" Bolts with Nuts and Lockwashers.

C) Apply Gas Pipe Joint Compound to the AGA Tee Valve threads and screw the Orifice onto the AGA Tee Valve.

D) The Orifice slips into place in the Mixer Head and is held in place by the gas piping.

4) ASSEMBLING TANK STANDS END-TO-END - See Figure 3

A) Assemble two Tank Stands per steps **1A** & **1B** and anchor one of the Tank Stands per steps **2A** thru **2J**.

B) Remove the Connector Bar Bolts (only) installed in step 2H from the Base of the Tank Stand Leg to which the 2nd Tank Stand will be attached.

C) Slide the 2nd Tank Stand into place against the Connector Bar.

D) Bolt the 1st Tank Stand, Connector Bar and 2nd Tank Stand together, loosely, at the base using (2) 5/16" x 1¾" Bolts with Nuts and Lockwashers.

E) Position Connector Bar holes with the three holes in the top of the Tank Stand Legs and bolt the two Tank Stands together using (2) or (3) 5/16" x 1¾" bolts with Nuts and Lockwashers. Tighten the Bolts at the base of the Tank Stand Legs.

F) Cut off excess top Connector Bar material or attach the top Connector Bar to a nearby masonry wall.

G) Bolt the Legs of the 2nd Tank Stand to the floor per steps **2C** thru **2G**.

H) Bolt a Connector Bar to the base of the unattached Leg of the 2nd Tank Stand, using (2) 5/16" x 1¾" Bolts with Nuts and Lockwashers. Leave the excess length of Connector Bar "behind" the Tank Stand, out of the traffic flow. This Connector Bar can be mounted at the top of the Tank Stand Leg and secured to a nearby masonry wall if desired.

I) Repeat steps **3A** thru **3H** to add more Tank Stands.

5) ASSEMBLING TANK STANDS CORNER-TO-CORNER & END-TO-SIDE - See Figures 4A & 4B

A) Select either the Corner-To-Corner overlap as shown in Figure 4A (our preferred method) or the End-To-Side overlap as shown in Figure 4B.

B) Assemble two Tank Stands per steps **1A** & **1B**.

C) Anchor one Tank Stand to the floor as per steps **2A** thru **2J**. Install one bolt only through each top and base Connector Bar (depending upon tank layout selected). Other bolt will be installed in Step D.

D) Slide the 2nd Tank Stand into place as shown in **4A** or **4B** and bolt it to the 1st Tank Stand and the Connector Bars using (2) 5/16" x 1¾" Bolts with Nuts and Lockwashers, one at the top of the Tank Stand Leg and one at the base of the Tank Stand Leg.

E) Anchor both Legs of the 2nd Tank Stand to the floor per steps **2C** thru **2G**.

F) Bolt a Connector Bar to the base of the unattached Leg of the 2nd Tank Stand, using (2) 5/16" x 1¾" Bolts and Nuts and Lockwashers. Leave the excess length of Connector Bar "behind" the Tank Stand, out of the traffic flow. This Connector Bar can be mounted at the top of the Tank Stand Leg and secured to a nearby masonry wall if desired.

G) Follow steps **4A** thru **4H** or steps **5A** thru **5F** to add more Tank Stands as needed.

6) ASSEMBLING TANK STANDS SIDE-TO-SIDE - See Figure 5

CAUTION: When using this arrangement, **NEVER** position the tanks so it is necessary to reach over a heated tank. Always position the cold tank **closest** to the operator.

A) Assemble one Tank Stand per steps **1A** & **1B** and anchor one Tank Stand per steps **2A** thru **2J**.

B) Slide the 2nd Tank Stand into place so there is one Connector Bar Hole between the two Tank Stands (see Figure 5). The last two holes on the top Connector Bars will line up with the two closest holes at the top of the 2nd Tank Stand Legs with one bolt each as shown in Figure 5.

C) Bolt both Tank Stands and all four Connector Bars together as in Figure 5 using 5/16" x 1¾" Bolts with Nuts and Lockwashers.

D) Secure the 2nd Tank Stand to the floor per steps **2C** thru **2G**.

E) Add Tank Stand end-to-end, corner-to-corner or end-to-side by following steps **4A** thru **4H** or steps **5A** thru **5F**.

Tank Stand Fasteners

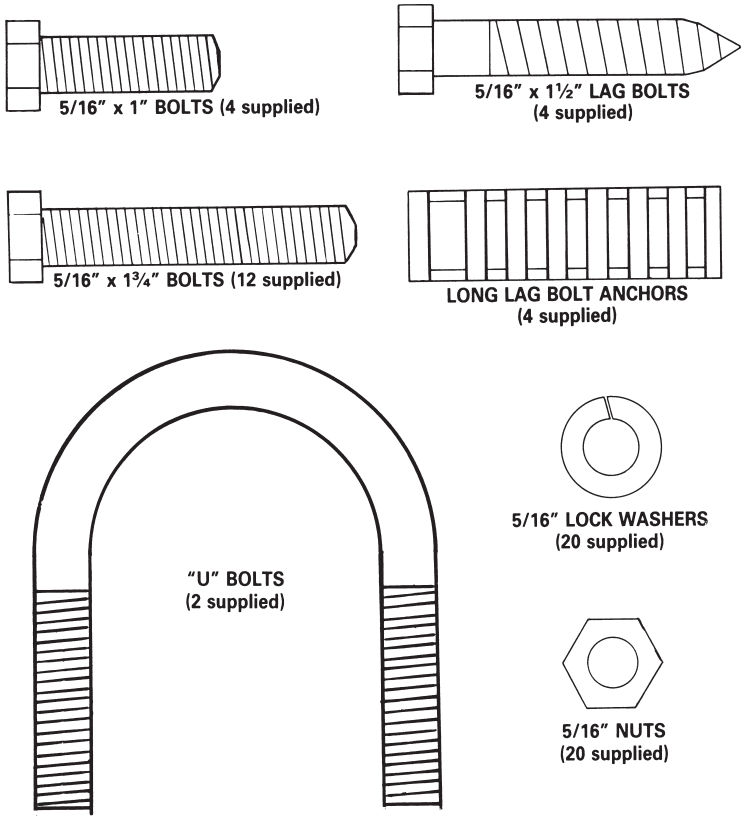


Figure 1

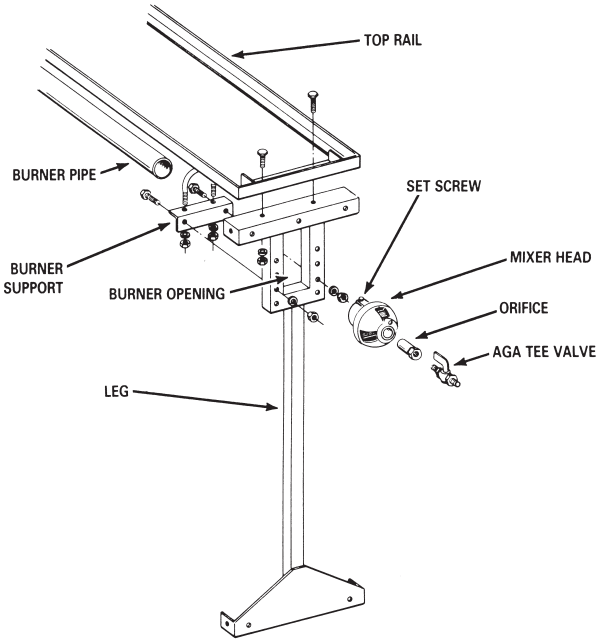


Figure 2

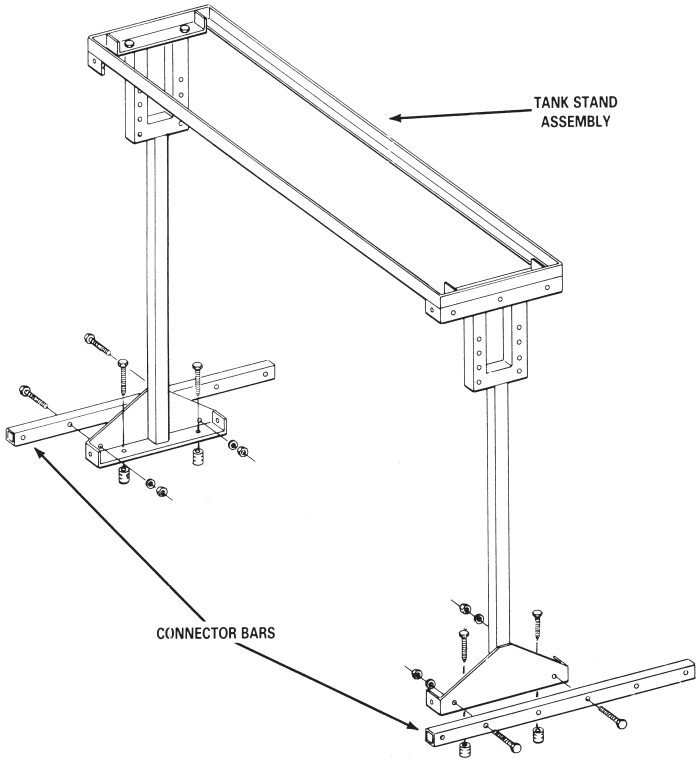


Figure 3

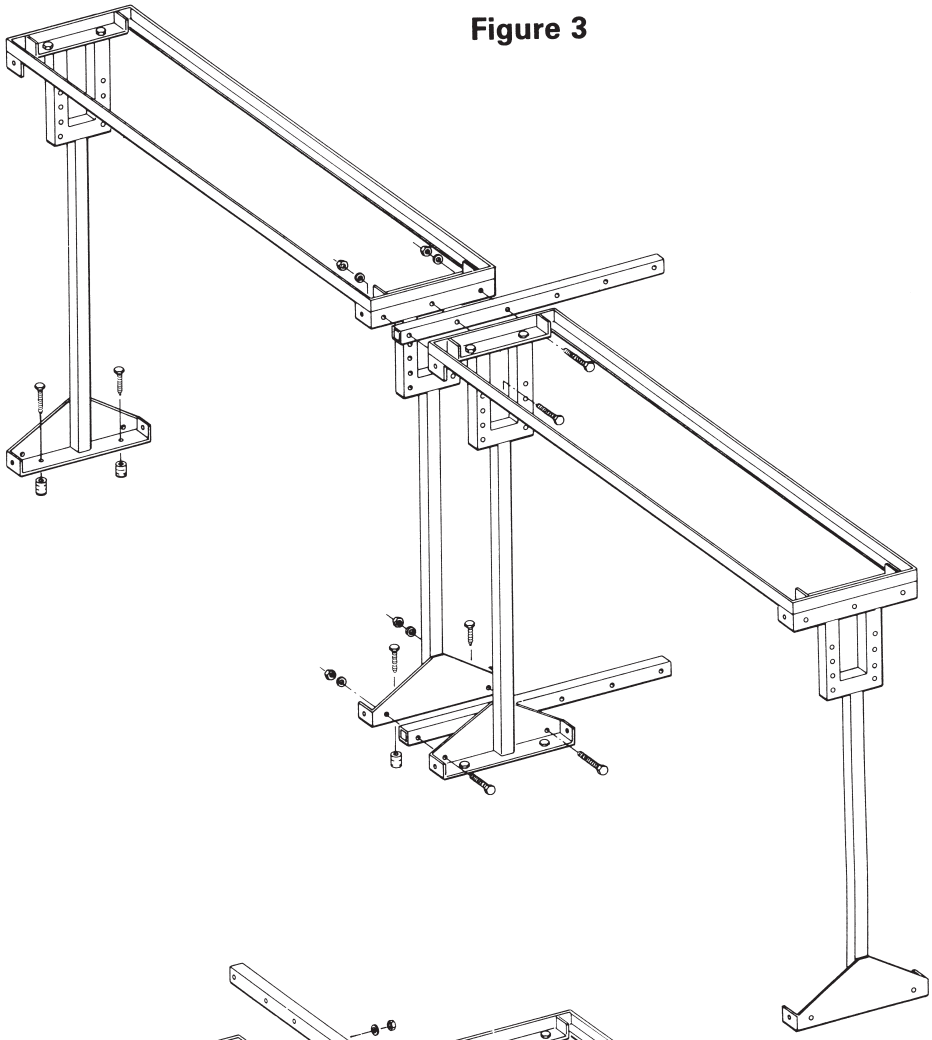


Figure 4A

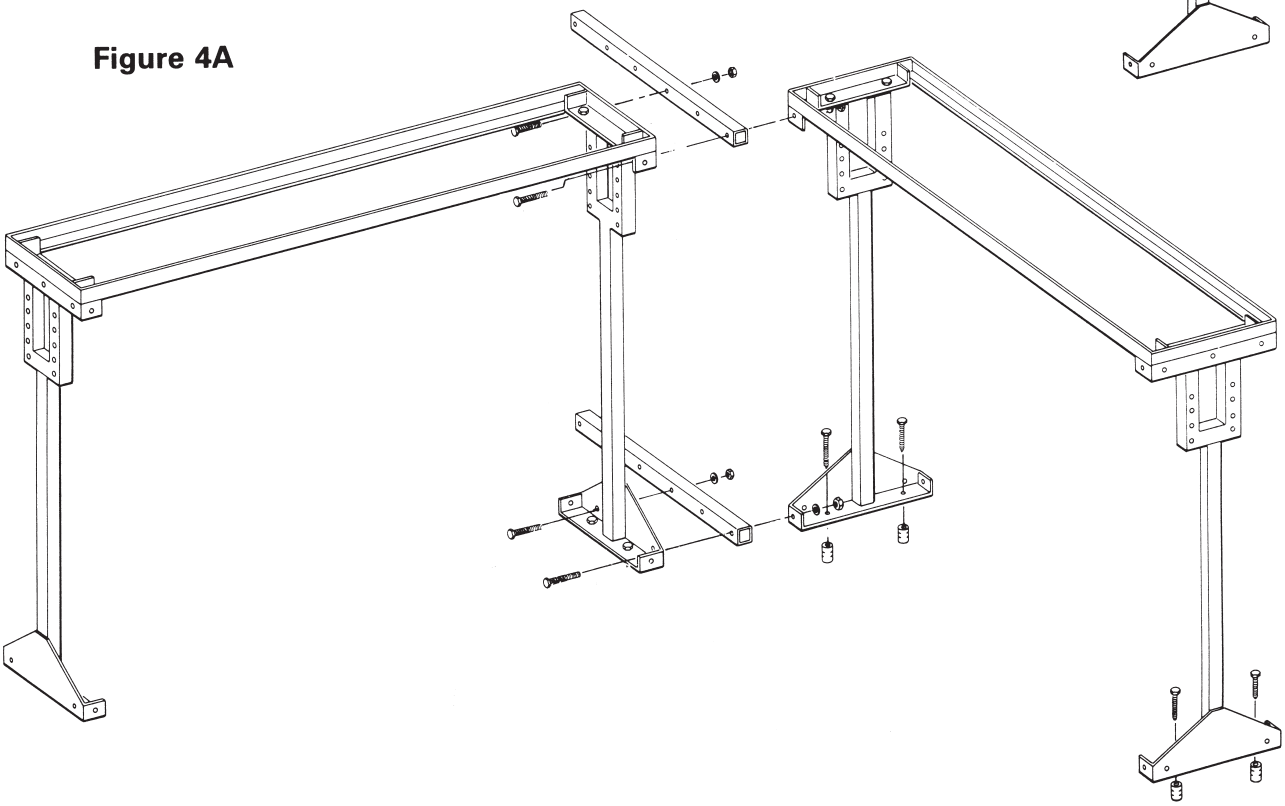


Figure 4B

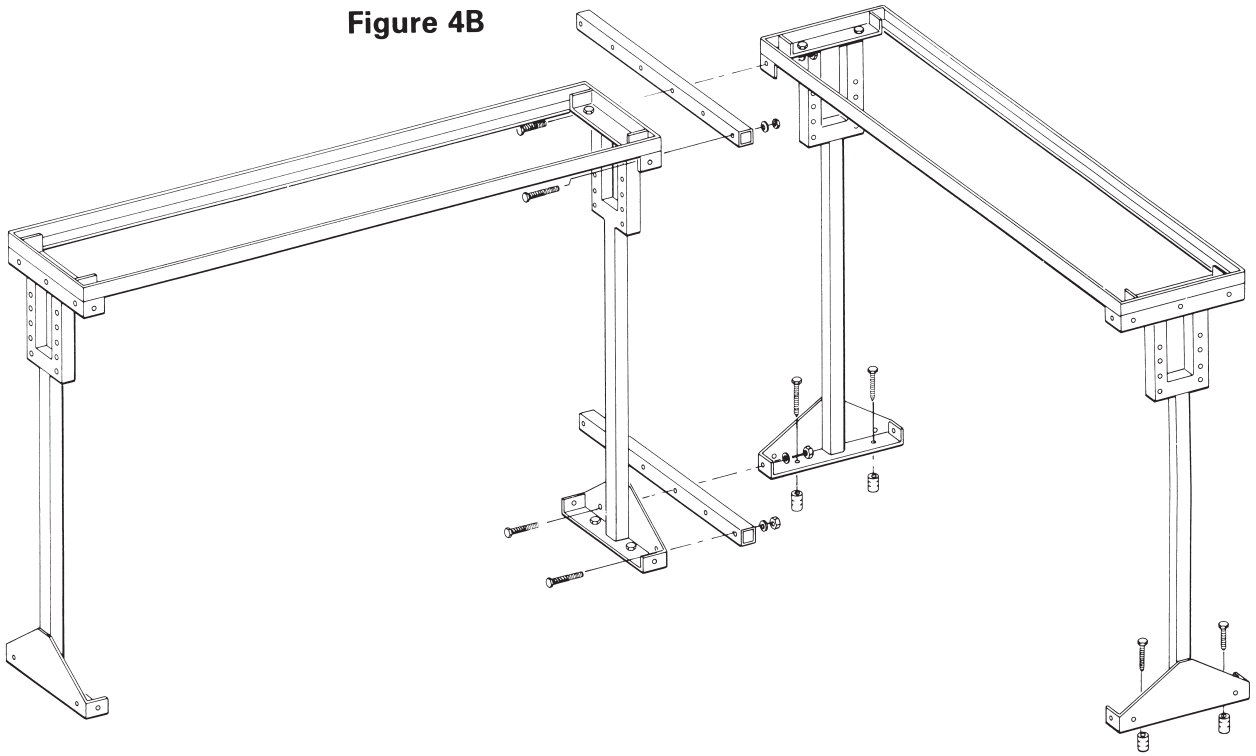


Figure 5