

Mini Pallet System Installation and Operation Instructions

I. Installation

1. Air Connections

1. The MPS Base requires a minimum of 100 psi of compressed air to unlock the pallets. Use any of the included connectors (industrial quick disconnect, 1/4" Wye, 1/4" or 1/8" NPT instant tube fittings) to tap into a compressed air source.
2. (Fig. 1) Screw the push-to-connect fitting into the side port of the Base and make sure a flat side of the hex is parallel to the machine table. **Damage can occur if the point of the hex contacts the machine table!**
3. (Fig. 2) Mount the Hand Valve to the machine table outside of the cutting area with the exhaust muffler on the right.
4. Connect a section of tubing from the air source to the upper-right side port of the Hand Valve then connect a section of tubing from the left side on the hand valve to the push-to-connect fitting in the Base.

2. Mounting the Base

1. (Fig. 3) Position the MPS Base on a clean machine table. Only two clamps are required, but four have been provided. Place a toe clamp near each end of the Base and hand tighten each bolt.
2. Fully tighten only the one of the bolts using a hex wrench.
3. Run a dial indicator along either edge and tap the Base until it is square with the machine table.
4. Once square, tighten the opposite bolt using a hex wrench. Verify the squareness after tightening the bolt. If square, tighten all bolts to 40 ft/lbs of torque to fully secure the Base to the machine table.

II. Operation

1. Using the Mini Pallet System

1. Unlock the Base by lifting up on the knob of the Hand Valve.
2. Place a Pallet on the Base and note that the pallets can only be put on in one direction. Depress the knob. Lightly tap the pallet to ensure it is fully contacting the Base due to any binding between the pins and bushings. Some binding is normal during the break-in period of Pallets and Bases.
3. If there is a risk that the air line may interfere with machining, it can be disconnected from the Base and the pallet will still remain locked.

2. Machining Pallets

1. Pallets are 6061-T6 Extruded Aluminum and are easily machined.
2. Always machine fixtures with the Pallet locked on the Base. Machining Pallets held in a vise can lead to origin inconsistencies between Pallets.
3. If parts are to be bolted directly to the top of a pallet, start by face milling the top of the pallet to establish a consistent flatness.
4. Pallets have several areas where the depth of machining is limited. Refer to the diagram to the left for dimensions or see website for solid models.

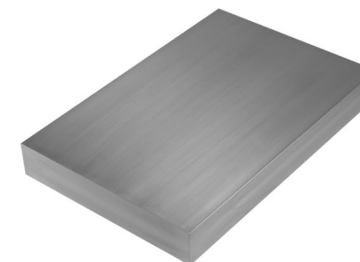
III. Maintenance

1. After each use - Clear chips, coolant and cutting oils. Cover when not in use.
2. Every 40 hours - Apply a light coating of grease to the pins and bushings.
3. Every 500 hours - Apply a liberal coating of grease to each of the ball bearings. Unlock and lock the Base 15-20 times to spread the grease.

Included in Starter Package



MPS Base (Includes Clamps and Bolts)



MPS Pallet

Included in Connection Kit

