Speed Change Pallet System
Installation and Operation Instructions

I. Installation
1. Mounting the Base
   1. Position the SCPS Base on a clean machine table. Place a toe clamp near each corner of the Base and hand tighten each bolt.
   2. Fully tighten only the back-left corner bolt using a hex wrench.
   3. Run a dial indicator along any side edge and tap the Base until it is square with the machine table.
   4. Once square, tighten the front-right bolt using a hex wrench. Verify the squareness after tightening the bolt. If square, tighten all bolts to 50 ft/lbs of torque to fully secure the Base to the machine table.
   5. Mount the Hand Valve to the machine table outside of the cutting area with the exhaust muffler on the right.

2. Air Connections
   1. The SCPS 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. Screw the black nylon fittings into the side ports of the Base. Cut a piece of tubing to 4¼" to span between both fittings.
   3. 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 valve to the nylon fitting in the Base.
   4. Use the grommets if air lines are run through the machine’s enclosure.

II. Operation
1. Using the Speed Change Pallet System
   1. Unlock the Base by lifting up on the knob of the Hand Valve.
   2. Place a Pallet on the Base and depress the knob. Lightly tap the pallet to ensure it is fully contacting the Base due to any binding between the pins and bushings.
   3. If using the system in a Horizontal Machining Center, the air line can be disconnected from the Base. It 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 fly cutting 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.

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.