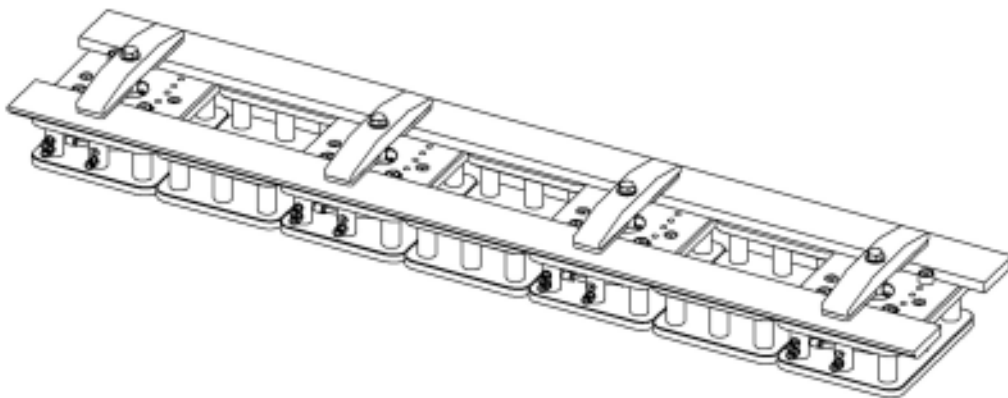


Overview

The Blick Industries Backsplash Clamp System was developed to allow long narrow pieces, such as backsplashes, to be easily worked on a standard CNC machine. The relatively small surface area of narrow pieces makes holding them under vacuum alone difficult, therefore requiring the work to be done manually or on a “straight-line” machine.

The system consists of a series of alternating vacuum based pneumatic clamping units and suction cups. The clamping units provide the necessary downward pressure to securely hold the work while the suction cups support the work between clamps and prevent vibration. Various combinations of clamping units and suction cups can be used to accommodate work pieces of different lengths. The pneumatic clamping units can be actuated automatically by the CNC machine’s air system, or manually with a vacuum based air switch.



Warning: DO NOT ASYMMETRICALLY LOAD CLAMPS.

If you are only using one side of the clamp, place a piece of scrap material of the same thickness under the opposite side.

Failure to do this will result in damage to the clamps.

Warning: Keep Hands Clear of Clamp

Warning: Do not allow air pressure to exceed 100 psi

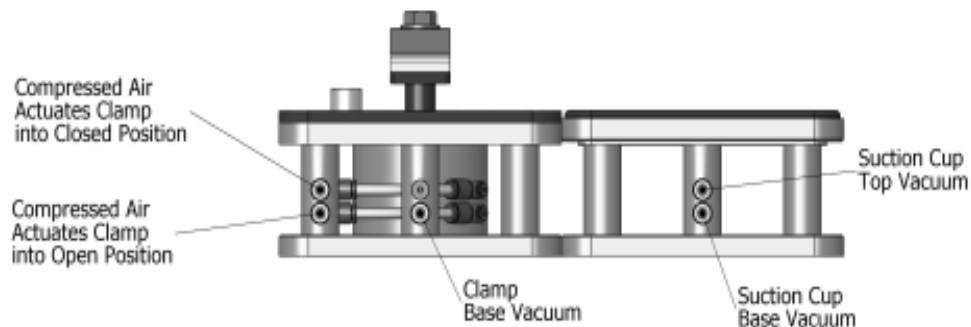
Workholding Solutions

Connecting your Backsplash Clamp System

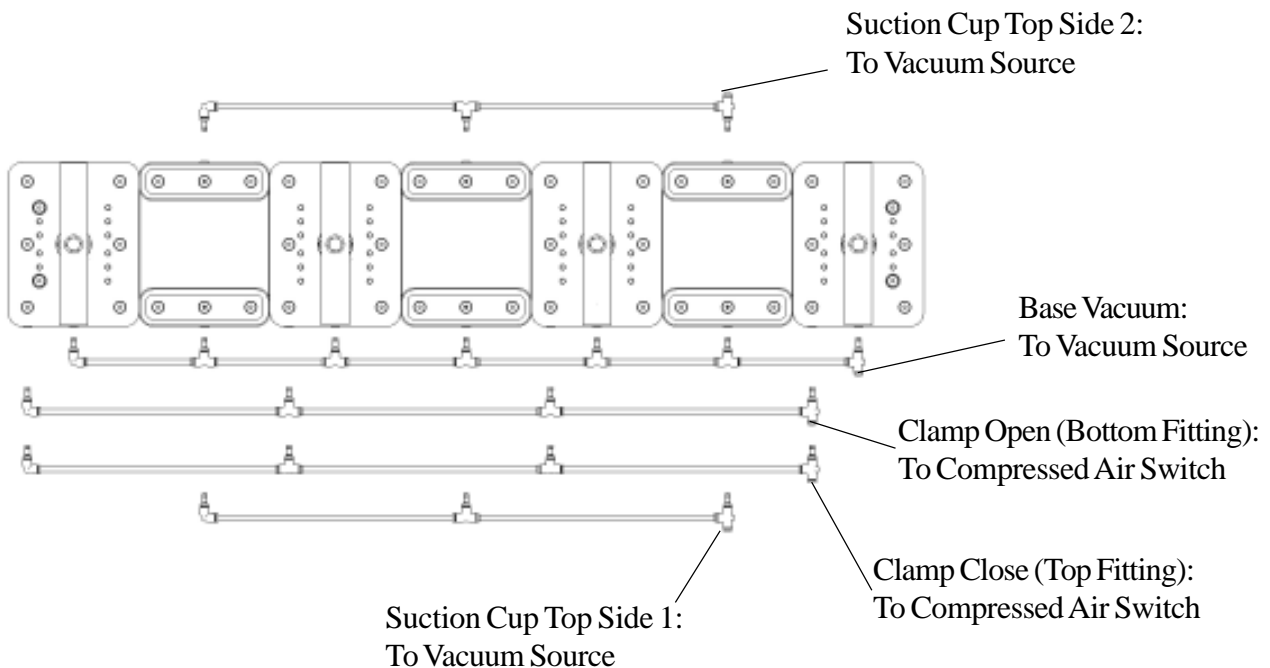
- The two air fittings in the front left post actuate the pneumatic clamp. Connect them to pressurized air with pressure ranging from 75 to 100 psi. The bottom fitting actuates the clamp into the open position while the top fitting actuates the clamp into the closed position.

- The single air fitting in the center post of the clamping units as well as the lower fitting in the center post of the suction cup units are used to evacuate the chambers under the units, thus holding them in place on the machine's table. Connect them to a vacuum source.

- The upper fitting in the center post of the clamping units should be connected to a vacuum source as well, and is used to evacuate the chambers on top of the suction cups thus holding the workpiece to the suction cup.



Connections are made between the individual units using the supplied tees, elbows, and tubing as shown below.



Connecting the Air Switch

The supplied air switch controls the opening and closing of the clamps. The vacuum base on the unit allows it to be conveniently mounted to your machine's table.

-The compressed air source fitting should be connected either directly to your shop's air system, or to an air line or manifold on your machine.

-The base vacuum fitting should be connected to your machine's vacuum manifold

- The clamp open and clamp close fittings should be connected to the appropriate tees as shown on the previous page.

