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## Model 620 Miniature 1:1 Ratio Single-Acting Plunger Meter-Mix Unit

### SPECIFICATIONS

#### **General:**

This machine is designed for mounting on or near an injection molding machine. It is designed to feed A & B silicone, at a 1:1 ratio, to the feed throat of the press. It is supplied as a stand-alone unit with its own PLC controls and operator interface panel. Material can be fed by cartridges (as shown), pressure feed pots or with feed pumps. Model 620 may also be used as a general purpose table-top dispensing unit.

#### **Operation:**

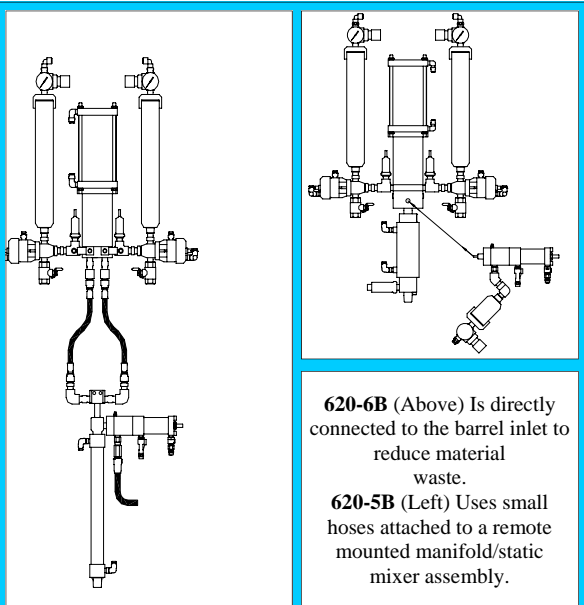
When this single acting unit is used for medium to large shots, the unit refills after the plasticizing cycle of the press finishes. For small shots, the unit can be programmed to refill after multiple shots to increase the efficiency of the system. Pressure transducers in the A & B meter cylinders must maintain a positive material pressure while refilling to prevent the unit from drawing a vacuum. The unit must also reach a set packing pressure to assure both cylinders are full before closing inlet valves. The valves are independently controlled to compensate if different feed pressures exist or if the materials have different viscosities.

A pneumatic cylinder extends two plungers to dispense the material. Pneumatic powered inlet valves open to refill the cylinders during the retract stroke. Metering pressure is selected on the operator interface panel and controlled thru a proportional air regulator. This regulator feeds air to the drive cylinder, resulting in very repeatable mixed silicone pressure.

A linear encoder on the meter reports cylinder position to the PLC. Combining this information with the shot volume of a SN751 Color Injector, adjusting the color percentages is as easy as entering the desired value on the operator interface panel.

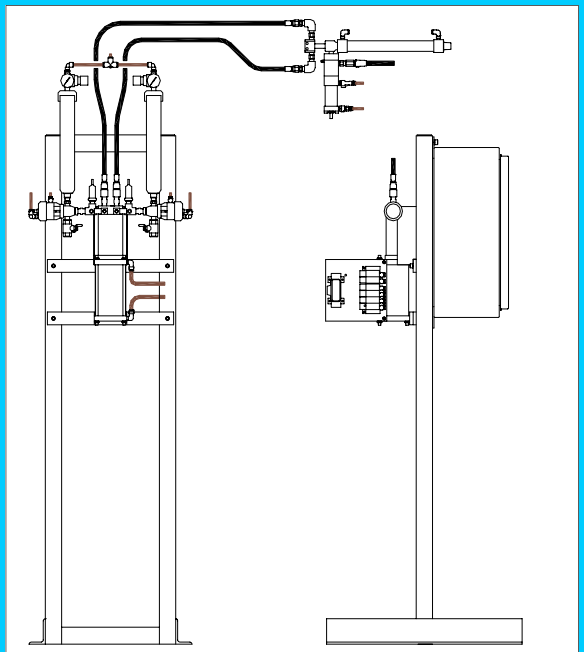


**620-6B Barrel Mount Style Shown.  
Mounts directly to the  
feed throat of the barrel. Shown with  
12-ounce Cartridge Feed System.**



**620-6B** (Above) Is directly connected to the barrel inlet to reduce material waste.

**620-5B** (Left) Uses small hoses attached to a remote mounted manifold/static mixer assembly.



**Model 620-5B Stand Mount Style**

## Advantages:

- Single acting design with closed-loop servo control will give absolute repeatable pressure at the barrel inlet. This design removes any possibility of feed pressure variations affecting injection press shot size.
- Fewer valves than other designs, lowering cost and simplifying maintenance.
- Reduced number of components in mixed material stream results in less cleaning and maintenance costs. (no fluid pressure regulator or interface shutoff valve is required)
- Highly accurate A, B and third stream ratios.
- Material pressure is applied when the screw rotate signal from the injection molding machine is present.

## Specifications:

- Mixed material volume ~ 15cc, Total system volume w/ full plungers & 1ft hoses ~ 80cc
- 1:1 ratio
- 1500 psi maximum feed pressure at barrel inlet
- 20cc per cylinder, 40cc maximum shot size.
- Programmable feed pressure at barrel inlet
- Refill rate tied to A & B meter transducers assure never drawing vacuum during refill
- Refill Timer indicates material supply problems
- Third stream program included as standard
- Includes: PLC Control Panel, Hoses, Mixer & Manifold
- 6,12, 20-Ounce or 1/10th Gallon Feed Cartridges for A & B Materials Cartridge Filling Devices

## Dimensions:

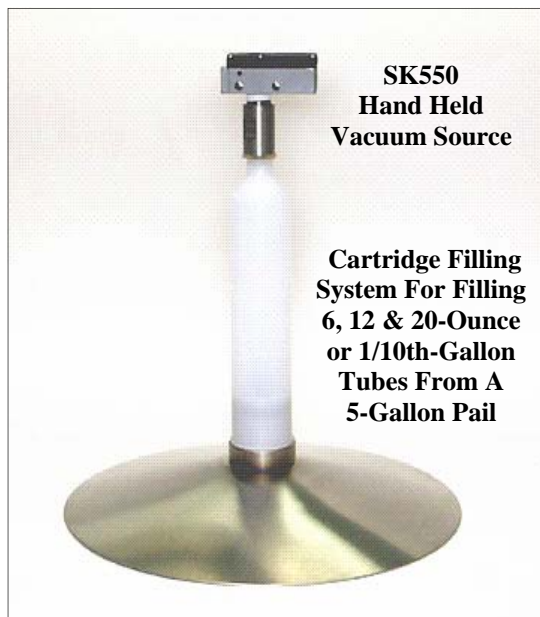
- **620-5B Stand Mount Style**  
24" L x 26" W x 80" H (Height is adjustable on stand)
- **620-6B Barrel Mount Style**  
24"L x 24"W x 70"H Stand & Control Panel  
12"L x 26"W x 30" Metering Unit Mounted to Barrel

## Includes:

- Metering Unit, Control Panel, Fill Valves, Water Cooled Static Mixer and Individually Ported Manifold.
- Feed System Sold Separately

## Options:

- 2.5, 6, 12 or 20-ounce or 1/10th-Gallon Cartridge Feed Assemblies
- 5-Gallon Feed Pumps
- Color Injector
- SA990, SA991, SA993 Cartridge Filling System
- SK550 Hand-Held Vacuum Device (Used with SA990 & SA991)



**SK550  
Hand Held  
Vacuum Source**

**Cartridge Filling  
System For Filling  
6, 12 & 20-Ounce  
or 1/10th-Gallon  
Tubes From A  
5-Gallon Pail**



**SN751  
Color Injector  
For Adding 3rd Stream  
Components Such As  
Pigments Or Silicone Fluid**