



# HOW IT WORKS

## C-Series Jr. - 0.5 / 1.0 cu Ft Abrasive Blasters (Pressure Release)



**WARNING:** This section of the manual is designed to give you a general understanding of how the Abrasive Blaster functions. **All** sections of this manual must be read and understood before operating the equipment.

### ADDING ABRASIVE

Abrasive is added through the hole in the top of the Abrasive Blaster where the Pop-up and its seat are located. When abrasive is added, it flows down through the hole, around the Pop-up, and down to the bottom of the pressure vessel where it will exit through the Metering Valve when blasting is started.

### PRESSURIZATION

When a compressed air source (such as an air-compressor) is connected to the inlet of the Abrasive Blaster and the Inlet Shut-Off Valve is opened, compressed air flows to the Inlet Valve where it is stopped. When the control handle is activated, the Inlet Valve opens and air flows into the Pressure Vessel causing the Pop-up (located internally) to seal against its seat. Simultaneously, the Diaphragm Valve closes sealing the Pressure Vessel allowing it to hold pressure. Air will also continue past the Choke Valve, through the Pusher Line, and finally to the "tee" under the Metering Valve where it is mixed with abrasive. The mixture of compressed air and abrasive will now exit the Abrasive Blaster through a blast hose and nozzle connected to the coupling under the Metering Valve and blasting begins. It is important to note that, some abrasive will collect at the base of the Metering Valve causing the blast hose to pulsate and spray abrasive erratically for a short time while pressure builds up in the pressure vessel. This is normal and will not damage the Abrasive Blaster.

### DEPRESSURIZATION (BLOW-DOWN)

When the control handle is released in a pressure release (CPR) system, the Inlet Valve automatically closes stopping the flow of compressed air into the Pressure Vessel. Simultaneously, the Diaphragm Valve opens allowing the compressed air in the pressure vessel to exit the Abrasive Blaster through the Diaphragm Valve. When all the pressure in the Pressure Vessel is released, blasting stops.

