Clinician Inservicing Module

Vacuum Regulators & Setup

Ohio Medical Corporation®
Amvex® Vacuum Regulators
Occlude the tubing to set pressure
Begin “SPI” Procedure Review (Standardize Set-up, Protection)
  • OMC can provide a poster that reminds users of the proper set-up.
  • Review the proper set-up:
    • Starting at the regulator, a trap is used as an insurance device to protect the regulator, wall outlet, and pipeline system from being contaminated. The trap is connected directly to the regulator. The recommended 18”L x ¼” diameter tubing for high flow is connected from the trap to the top of the suction canister. Also the proximal patient tubing, recommended at 72”L x ¼” diameter, is connected to the top of the suction canister. Take care that the patient tubing is midline to the patient and does not loop below. Please follow hospital protocol for cleaning of the trap. The patient tubing is NEVER connected directly to the trap or regulator.
    • If a trap is NOT used at your facility, the 18”L x ¼” tubing for high flow is connected from the regulator to the canister and that the proximal 72”L x ¼” patient tubing is connected to the top of the suction canister. The patient tubing is NEVER connected directly to the vacuum regulator as potential infectious material could enter the regulator, wall outlet, and pipeline system.

“SPI” Procedure Review (Inspection):
  • Clinicians should inspect for damaged or broken regulators before use to avoid potential patient harm.
  • Inspect the regulator to ensure that there are no broken parts or the encasing has not been damaged.
  • Inspect that when the unit has been turned “off” that the gauge should read “0”, and when turned “on” that during pressure adjustments that the (Analog) gauge should move freely forward and backwards (Digital Gauge - numbers should increase & decrease freely).
  • Inspect that when placed in Intermittent Mode that the regulator cycles “on & off”.
  • If broken parts exist, the gauge is not working properly, or the unit is not cycling properly, please take the regulator out-of-service as per your hospital protocols.
Operating the regulator (AMVEX® ADULT Brand):

First, review the components of the AMVEX® Brand Regulator:
- Vacuum Gauge; Analog or Digital
- Mode Selector Switch
- Suction Control Knob

Second, in the “OFF” position no suction is applied to the patient.

Third, turn the Mode Selector Switch to the “Reg” or Regulated/Continuous position:
- Suction is now continuous to the patient.
- Fully occlude the vacuum tubing and at the same time set the required vacuum pressure by turning the Suction Control Knob in a clockwise direction.
- By setting the pressure to a specific mmHg, you have now set the maximum pressure.
- It is normal to see pressure drop on the gauge after releasing the kinked tubing, as the system is open. You do not need to reset the pressure. You have already effectively set the maximum pressure from previous steps.
- Take caution not to over-rotate the knob. Once you feel resistance to turning this indicates the device is at maximum pressure. Forcefully turning the knob will damage the regulator.
- Note: If the gauge pressure reaches “Full Vacuum”, this is equivalent to the full vacuum source pressure from your hospital.

Fourth, if the unit also has Intermittent capabilities, you may turn the Mode Selector Switch to the “Int” or Intermittent position:
- The unit starts the Intermittent cycle in the “OFF” position so that suction is not being applied.
- Once the unit cycles to “ON”, kink the vacuum tubing. The pressure that was set in the “Reg” or Regulated/Continuous Mode should register the same in the “Int” or Intermittent Mode.
- By setting a specific pressure in the “Reg” or Regulated/Continuous Mode, you have enabled the same maximum pressure in the “Int” or Intermittent Mode.
- If you require a different maximum pressure, move the Selector Switch back to Continuous Mode, follow the already covered procedure to set pressure, and move the Selector switch to Intermittent mode.
- The AMVEX® regulator should cycle “OFF” and “ON” in the “Int” or Intermittent Mode.
Operating the regulator (AMVEX® PEDIATRIC Brand):

- **First**, review the components of the AMVEX® Brand Regulator:
  - Vacuum Gauge; Analog or Digital
  - Mode Selector Switch
  - Suction Control Knob

- **Second**, in the “OFF” position no suction is applied to the patient

- **Third**, turn the Mode Selector Switch to the “Reg” or Regulated/Continuous position:
  - Suction is now continuous to the patient.
  - Fully occlude the vacuum tubing and at the same time set the required vacuum pressure by turning the Suction Control Knob in a clockwise direction.
  - By setting the pressure to a specific mmHg, you have now set the maximum pressure.
  - It is normal to see pressure drop on the gauge after releasing the kinked tubing, as the system is open. You do not need to reset the pressure. You have already effectively set the maximum pressure from previous steps.
  - **Take caution not to over-rotate the knob. Once you feel resistance to turning this indicates the device is at maximum pressure. Forcefully turning the knob will damage the regulator.**
  - **Note:** The Pediatric Amvex regulator limits the maximum pressure to 160 mmHg +/- 10 mmHg. If 160 mmHg is reached, the unit will vibrate. This is normal. Using the Suction Control Knob, dial the pressure back down and reset the pressure as previously instructed.

- **Fourth**, if the unit also has Intermittent capabilities, you may turn the Mode Selector Switch to the “Int” or Intermittent position:
  - The unit starts the Intermittent cycle in the “OFF” position so that suction is not being applied.
  - Once the unit cycles to “ON”, kink the vacuum tubing. The pressure that was set in the “Reg” or Regulated/Continuous Mode should register the same in the “Int” or Intermittent Mode.
  - By setting a specific pressure in the “Reg” or Regulated/Continuous Mode, you have enabled the same maximum pressure in the “Int” or Intermittent Mode.
  - If you require a different maximum pressure, move the Selector Switch back to Continuous Mode, follow the already covered procedure to set pressure, and move the Selector switch to Intermittent mode.
  - The AMVEX® regulator should cycle “OFF” and “ON” in the “Int” or Intermittent Mode.
Operating the regulator (AMVEX® NEONATAL Brand):

- **First**, review the components of the AMVEX® Brand Regulator:
  - Vacuum Gauge; Analog or Digital
  - Mode Selector Switch
  - Suction Control Knob
- **Second**, in the “OFF” position no suction is applied to the patient
- **Third**, turn the Mode Selector Switch to the “Reg” or Regulated/Continuous position:
  - Suction is now continuous to the patient.
  - Fully occlude the vacuum tubing and at the same time set the required vacuum pressure by turning the Suction Control Knob in a clockwise direction.
  - By setting the pressure to a specific mmHg, you have now set the maximum pressure.
  - It is normal to see pressure drop on the gauge after releasing the kinked tubing, as the system is open. You do not need to reset the pressure. You have already effectively set the maximum pressure from previous steps.
  - **Take caution not to over-rotate the knob.** Once you feel resistance to turning this indicates the device is at maximum pressure. Forcefully turning the knob will damage the regulator.
- **Note:** The Neonatal Amvex regulator limits the maximum pressure to 100 mmHg +/- 5 mmHg. If 100 mmHg is reached, the unit will vibrate. This is normal. Using the Suction Control Knob, dial the pressure back down and reset the pressure as previously instructed.
- **Fourth**, if the unit also has Intermittent capabilities, you may turn the Mode Selector Switch to the “Int” or Intermittent position:
  - The unit starts the Intermittent cycle in the “OFF” position so that suction is not being applied.
  - Once the unit cycles to “ON”, kink the vacuum tubing. The pressure that was set in the “Reg” or Regulated/Continuous Mode should register the same in the “Int” or Intermittent Mode.
  - By setting a specific pressure in the “Reg” or Regulated/Continuous Mode, you have enabled the same maximum pressure in the “Int” or Intermittent Mode.
  - If you require a different maximum pressure, move the Selector Switch back to Continuous Mode, follow the already covered procedure to set pressure, and move the Selector switch to Intermittent mode.
  - The AMVEX® regulator should cycle “OFF” and “ON” in the “Int” or Intermittent Mode.