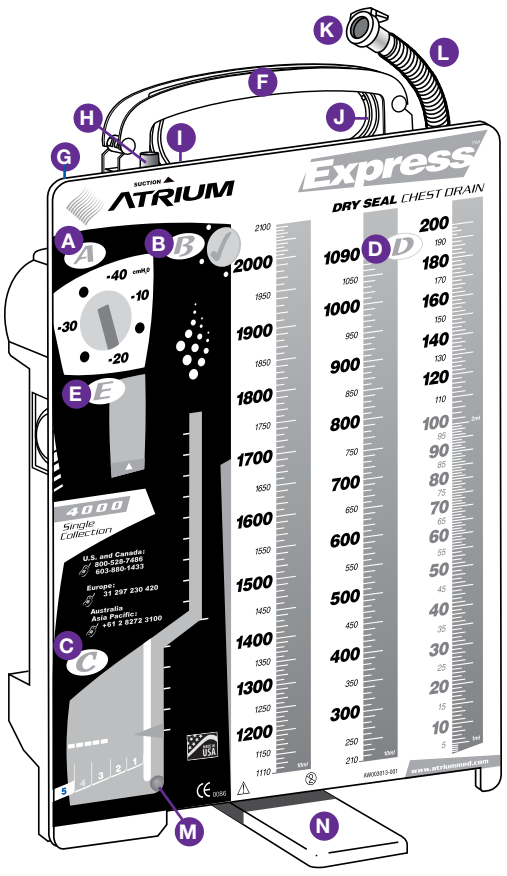
Atrium EXPRESS
Dry Seal Chest Drain

MAQUET
GETINGE GROUP

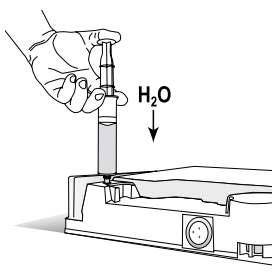


- **A** Dry Suction Regulator
- **B** Vacuum Indicator
- **C** Air Leak Monitor
- **D** Collection Chamber
- **E** Suction Monitor Bellows
- **F** Easy-to-Grip Handle
- **G** Positive Pressure Release Valve
- **H** Suction Port
- **I** Filtered Manual High Negativity Vent
- **J** Multi-position Hangers
- **K** In-line Connector
- **L** Patient Tube
- **M** Patient Pressure Float Ball
- **N** Swing Out Floor Stand

Pre-packaged water syringe

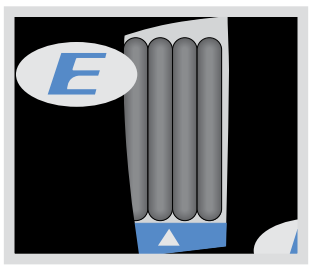
Set Up

- **Step 1**
  Connect patient tube to patient
  Connect chest drain to patient prior to initiating suction.
- **Step 2**
  Connect suction to chest drain
  Attach suction line to suction port on top of chest drain.
- **Step 3**
  Turn suction source on
  Increase suction source vacuum to -80 mmHg or higher.
  Suction regulator is preset to -20 cmH_2O. Adjust as required.
- **Step 4**
  Fill air leak monitor (C) to fill line
  Fill air leak monitor to the fill line by syringe (no needle) with 30 ml of sterile water or sterile saline via the needleless Luer port located **on the back of the drain**. For models available with sterile fluid, twist top off syringe and insert tip into needleless Luer port. Depress syringe plunger into Luer port and squeeze contents into air leak monitor until fluid reaches fill line.



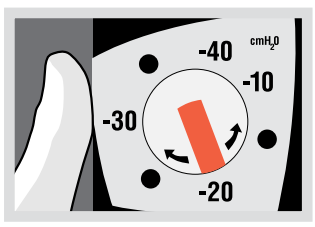
What to check during system operation

- **Verifying suction operation via the suction monitor bellows**
  The bellows located in the suction monitor will expand only when suction is operating. The monitor bellows will not expand when suction is not operating or disconnected. The ▲ mark allows quick and easy confirmation of vacuum operation over a wide range of continuously adjustable suction control settings.

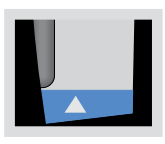


Bellows must be expanded to ▲ mark or beyond for a –20 cmH_2O or higher regulator setting.

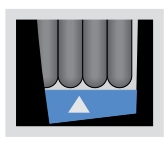
- **Changing suction pressures**
  Suction regulator is preset to -20 cmH_2O and can be adjusted from -10 cmH_2O to -40 cmH_2O. To change suction setting, adjust rotary suction regulator dial located on the side of the drain. Dial down to lower suction pressure and dial up to increase suction pressure. To lower regulator setting from a higher level (-40 cmH_2O) to a lower level (-20 cmH_2O), adjust regulator down to lower setting and then temporarily depress the manual high negativity vent located on top of the drain to reduce excess vacuum.



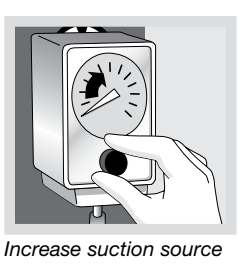
- **Increase vacuum source when bellows is not expanded to ▲ mark**
  If the bellows is observed to be expanded, but less than the ▲ mark, the vacuum source pressure must be increased to –80 mmHg or higher.



Not enough vacuum for -20 cmH_2O or higher suction control setting.



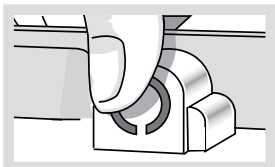
Normal suction operation for -20 cmH_2O or higher.



Increase suction source to -80 mmHg or higher.

- **Automatic high negativity release**
  The Express incorporates an automatic high negativity relief valve. This filtered valve activates automatically to limit system pressure to approximately -50 cmH_2O.

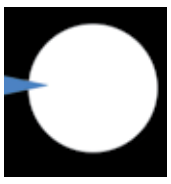
- **Manual high negativity vent**
  To manually vent the system of high negative pressure, depress the manual vent located on top of the drain until bubbling occurs in the air leak monitor. **Do not use manual vent when suction is not operating or when the patient is on gravity drainage.**



Do not use when suction is not operating.

- **Placement of unit**
  Always place chest drain below the patient's chest in an upright position. To avoid accidental knockover hang the system bedside with the hangers provided.
- **Vacuum indicator**
  When vacuum is present in the chest drain, a ✓ symbol will remain visible in the vacuum indicator window. When vacuum is not present (atmospheric pressure) no symbol will appear. All patient tube connections and the vacuum indicator window should be checked regularly for vacuum confirmation.

Vacuum is Present.



Vacuum is Not Present.

- **Positive pressure relief protection**
  The positive pressure relief valve is located on top of the drain and opens to release accumulated positive pressure. **Do not obstruct the positive pressure relief valve.**
- **Graduated air leak monitor**
  Fill the graduated air leak monitor with 30 ml sterile water or sterile saline to the fill line via the needleless Luer port located on the back of the drain. When air bubbles are observed going from right to left, this will confirm a patient air leak. Air leak bubbling can range from 1 (low) to 5 (high). Air bubbles create an easy-to-follow air leak pattern for monitoring patient air leak trends. As required, additional water may be added via the needleless Luer port located on the back of the drain
- **Recording drainage volume**
  The collection chamber incorporates a writing surface with easy-to-read fluid level graduations. Please refer to individual product inserts for specific model graduations.

Frequently asked questions

What should I do if the chest drain gets knocked over?
We recommend that the drain be placed back into the upright position, however it will continue operating if knocked over.

Is it required to fill the air leak monitor?
The air leak monitor should be filled for confirmation and detection of air leaks.

What does it mean when the vacuum indicator ✓ is visible?
The ✓ indicates that there is vacuum present in the system (negative pressure, i.e. -20 cmH_2O).

When will I see a rise in the air leak monitor column?
A rise in the air leak monitor column will only be seen if there is an increase in negative pressure on the patient side. When changing suction pressure from a higher to lower level, depress the manual high negativity vent to reduce excess vacuum to the lower prescribed level.

Have a question or need help in a hurry?
Call Maquet toll free at 1-800-528-7486.

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