

# ULTRA APL Valve

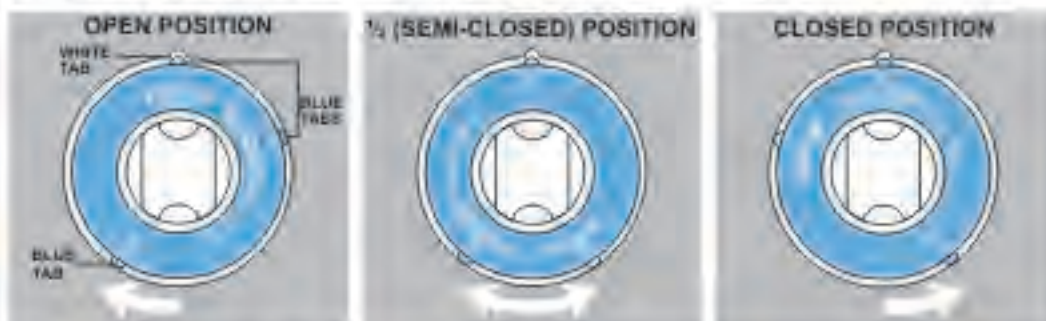
## Instructions For Use

Please read the following guidelines carefully before using this Armstrong Medical APL valved breathing system.

The valve has been designed with intimate cap rotation which gives accurate adjustment and control for adult and paediatric patients. Clockwise rotation closes the valve down from the open position, through a mid-setting, to the closed position at 40cmH<sub>2</sub>O. At the open position, the resistance-to-flow is less than 1cmH<sub>2</sub>O at 10LPM. For safety purposes, the valve will not allow pressure in the breathing system to exceed 40cmH<sub>2</sub>O, thus protecting the patient from pulmonary barotrauma.

## Valve Settings

- The valve is supplied in the OPEN position.
- To close the valve, rotate the blue cap in clockwise direction. This will maintain and limit gas pressure in the system. The cap settings, in relation to relief pressure, are defined overleaf.
- The white tab on the valve body is the setting indicator.
- When the blue tabs on the valve cap are positioned directly over the white tab, then the valve setting will be in the OPEN, 1/2 or CLOSED position. The value of each blue tab is shown on the top of the valve cap, as below.



## Scavenging Adapter

A scavenging adapter may be supplied with this breathing system. If gas scavenging is not required the adapter may be removed by disconnecting the elbow from the outlet port on the valve. However, if the breathing system is to be used with anaesthetic gases we recommend that the scavenging adapter remains in place and is connected to the AGSS (active gas scavenging system).

### Warning

- **DO NOT** attempt to dismantle the valve for examination, maintenance or cleaning, the APL valve is bonded to the connector.
- The APL valve is bonded to the connector. **DO NOT** attempt to remove the valve from the connector. Attempting to twist the valve from its bonded position may result in dislocating the valve cap.
- **DO NOT** push a non-ISO 22mmM connector into the outlet port, as this may cause the valve diaphragm to become obstructed.
- **DO NOT** obstruct the outlet port with any additional apparatus other than that supplied with the valve as this may cause the valve diaphragm to become obstructed.

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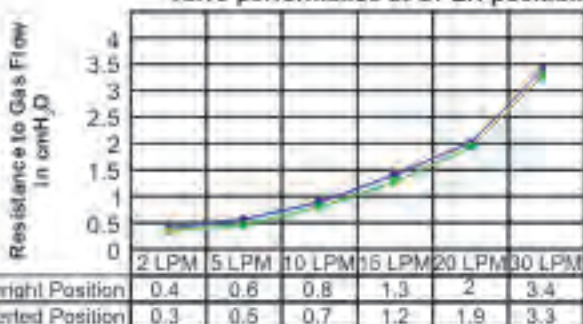
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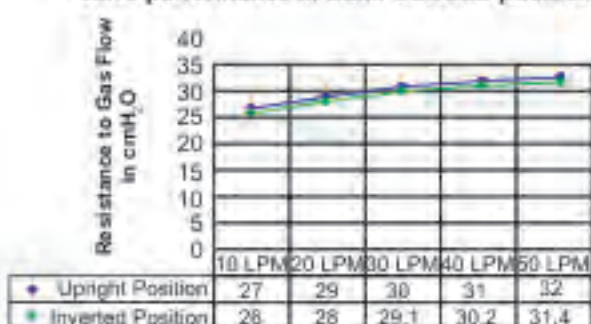
### Valve performance at OPEN position



### OPEN POSITION



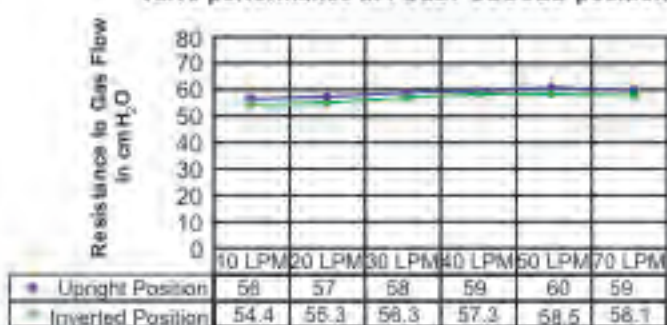
### Valve performance at SEMI-CLOSED position



### SEMI-CLOSED POSITION (1/2)



### Valve performance at FULLY CLOSED position



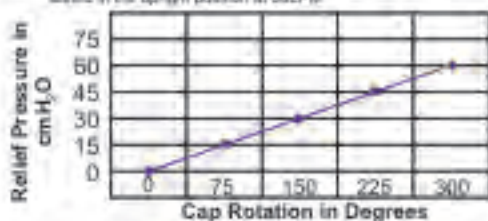
### CLOSED POSITION



NO GAS ESCAPE  
UNTIL SAFETY LIMIT  
IS REACHED

### Effect of Cap Rotation on Relief Pressure Adjustment

tested in the upright position at 50 LPM



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