

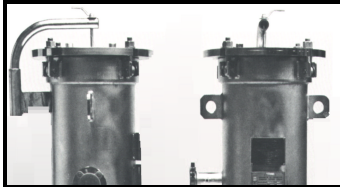
## DESCRIPTION:

We have designed different headlifts to suit specific requirements. Depending on the size and pressures of a vessel there are optional and standard headlifts available for many of our vessel types.

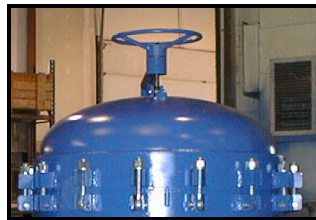
**Right:** Pogo headlift on a 24" diameter filter vessel



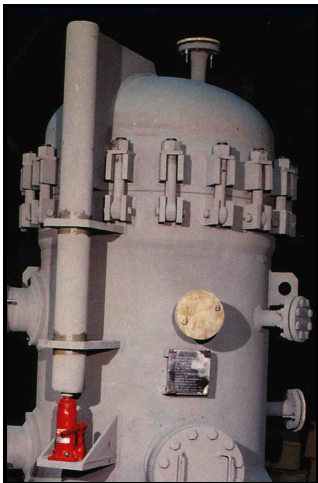
**Left:** Handle Davit headlift on a FW micronic filter vessel



**Right:** Hand Wheel Davit headlift on a 36" diameter filter vessel



**Left:** Hydraulic Jack headlift on a high pressure FW micronic filter



**Right:** Cantilever Hinged Lid headlift on a 24" diameter filter vessel



## HEADLIFTS:

### Pogo:

- Spring assisted operation
- Lid swings sideways for change outs to occur
- For use on vertical vessels up to 30" OD
- Adjustable

### Handle or Hand Wheel Davit:

- Rotation of handle or hand wheel raises lid
- Davit supports lid as it swings to the side for change outs to occur
- Handle used for vessels up to 18"
- Hand wheel used for vessels 30" and over

### Hydraulic Jack:

- Lever-actuated hydraulic jack
- Lid swings sideways for change outs to occur
- Vertical vessels over 30" OD

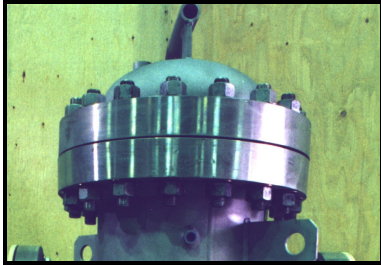
### Cantilever Hinged Lid (Patent Pending):

- Class 1 lever for maximum lift
- For use on vertical vessels up to 48" OD
- All positions vertically from 0 to 90 degrees
- Easily adjusted in the field
- Removable for repairs or parts replacement
- Compliments Easy Access Closure

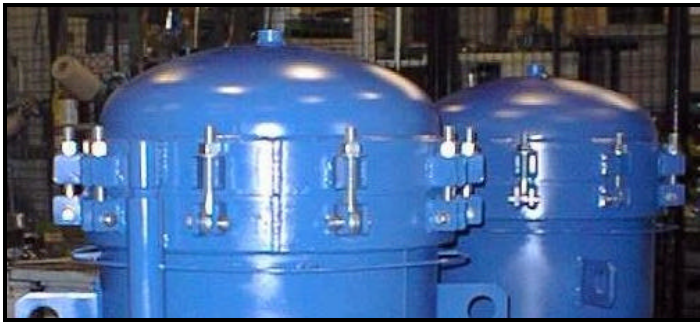
Note: Horizontal vessels and vertical vessels 10" OD and under have hinged lids without a headlift

**DESCRIPTION:**

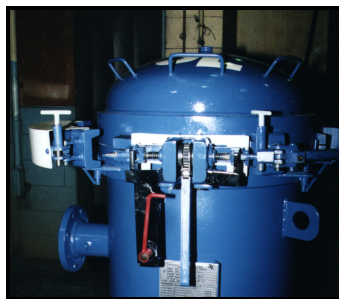
We have developed standard and optional closures appropriate for the various needs of diverse industries. With process conditions in mind; the closures have been designed to withstand higher temperatures and pressures, be compatible for a range of diameters and save time when opening and closing.



**Left:** Thru-bolt closure on a high pressure basket strainer.



**Above:** Swing bolt closure used on a duplexed 30" filter vessels



**Right:** Easy Access Closure used on a 30" diameter filter vessel

**CLOSURES:**

Process conditions and chemical compatibility will determine whether a Thru-bolt or Swing bolt closure will be appropriate for each application:

**Thru-bolt:**

- Suited for applications with higher temperatures or chemical applications which require a flat gasket for sealing
- Suitable for any vessel diameter or pressure; vertical or horizontal configuration
- Not as efficient as swing bolt closures for applications where frequent change outs are necessary

**Swing Bolt:**

- Suited for applications where an o-ring is acceptable for sealing
- Suitable for any vessel diameter or pressure; vertical or horizontal configuration
- Faster open and close procedure than thru-bolts

**Easy Access Closure (Patent Pending):**

- Open or Close procedure can be performed in under 1 minute
- Available for most vertical vessel types
- Suitable for vessels up to and including 48" OD and/or 300 psi

(see following section on the Easy Access Closure for more details)