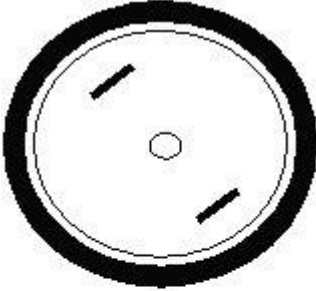

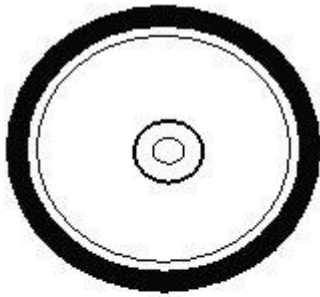


## Diaphragm Failure Chart

Location of cut or tear	Symptoms and Causes
 	<p><b>SYMPTOM:</b></p> <p>Cuts or marks that correspond with valve openings.</p> <p><b>CAUSE:</b></p> <p>Vacuum in suction line due to dirty filter, kinked suction hose, too much lift or excessive viscosity of the liquid.</p> <p>Excessive shaft speed (RPM's).</p> <p>Suction valve not seating properly or worn o-rings in suction line.</p> <p><b>SYMPTOM:</b></p> <p>Diaphragm is flat and worn underneath retaining disc and two marks correspond to valve openings.</p> <p>Diaphragm is swollen and soft.</p> <p><b>CAUSE:</b></p> <p>Chemical is incompatible with diaphragm material.</p>



**SYMPTOM:**

Circular fracture or marks on piston side (bottom)

**CAUSE:**

Excessive wear between piston and diaphragm.

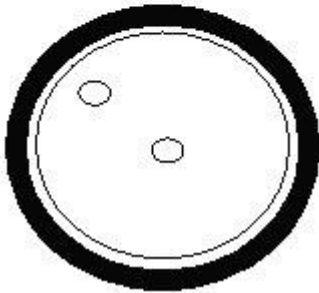
Pressure in the suction line.

Low shaft speed (RPM's).

Piston sleeve holes not aligned properly.

Low oil level in pump.

Delivery valve not seating properly.



**SYMPTOM:**

Circular cut on diaphragm that does not correspond to retaining disc.

**CAUSE:**

Air bubbles in the oil.

**SYMPTOM:**

Worn underneath retaining disc and around external diameter of the diaphragm.

**CAUSE:**

Diaphragm fatigued due to age.