

**Murzan Diaphragm Pump Trouble Shooting Guide for Mechanics**

***What to do if the pump fails on the production floor:***

**Pump will not cycle**

* Check for adequate air supplied by plant air to pump.
	+ Air PSI has to be 15 lbs higher than head PSI or it will stop.
	+ PSI supply should not exceed 100 PSI.
* Check intake air filter for blockage.
* Check exhaust air filter for blockage.
* Pump may have centered itself.
	+ Move the piston to one side.
* Excessive head pressure or blockage in discharge line.
* **Remove to shop for repairs**

**Pump cycles but has NO product flow**

* Check for suction side air leak or blocked suction line.
* Check valves (ball, mushroom or flapper, if blocked, stuck or hanging open.
* Check if Diaphragm is damaged.
* **Remove to shop for repairs.**

**Pump cycles but has LOW product flow**

* Check that all fittings are tight.
* Check for adequate air supplied by plant air to pump.
* Increase air pressure
* Check intake air filter for blockage.
* Check exhaust air filter for blockage.

**Pump is erratic in speeds**

* **Remove to shop (needs assembly A)**

**Product comes out air exhaust**

* Check for loose diaphragm assembly
* Check for warped inner or outer pistons
* Use of oil, alcohol, etc. run through pump
* **Remove to shop**

**Shop Procedures for maintenance trouble shooting.**

**First, refer to Murzan Manual**

* Remove valve (ball, mushroom or flapper) assemblies. Check for defective valves and gaskets.
* Remove product chamber clamps and inspect diaphragms
* Remove outer piston.
* Remove diaphragm
* Remove bolts to air chamber
* Remove and check gaskets. Oil is a bad sign.
	+ Check the plant air system
	+ Use Assembly E (coalescent oil filter).
* Check sliding of shaft. Rough is bad. Place hand over one side and see if suction is present. Try on both sides. Remove shaft. Feel for roughness or wear.
* If there is wear on shaft, replace with new.
* If no suction. Replace Assembly A and Assembly B. Check Manual for correct installation procedures and reassembly.
* Note: Tighten clamps up gradually to insure proper alignment of clamps and gaskets.
* Check operation in shop.

