

## SECTION A-4: EJECTOR/CHECK VALVE ASSEMBLY

(I) LOSS OF VACUUM AT THE EJECTOR: If vacuum is lost at the ejector and water supply is sufficient, then the nozzle is most likely clogged, broken or loose. Before working on the ejector, it must first be isolated so that water will not leak when the ejector is removed.

1. First detach the intake side (nozzle) of the ejector from the pipeline.
2. For 3/4" line size ejectors rotate the complete ejector body counterclockwise. This loosens the threaded portion of the nozzle from the diffuser. It also eliminates the need for pliers on the nozzle which could damage the plastic. For 1 1/4" line size ejectors remove the two flanges to remove the ejector.
3. Inspect the nozzle for:
  - Pipe scale, stones, dirt, etc...
  - Build-up of iron, manganese, calcium, etc...
4. The nozzle should be soaked and brushed with warm water mixed with a cleaner like Muriatic Acid. NOTE: TAKE CARE NOT TO SCRATCH OR ATTEMPT TO MODIFY THE ORIFICE IN ANY WAY.

5. Using two new ORE-BUN-121 O-rings the ejector can now be reassembled. When reassembling 3/4" line size ejectors the nozzle and diffuser should be screwed together hand tight leaving the ejector body 90 degrees to the left of its final position. Once the nozzle and diffuser are hand tight, the ejector can then be turned the final 90 degrees.

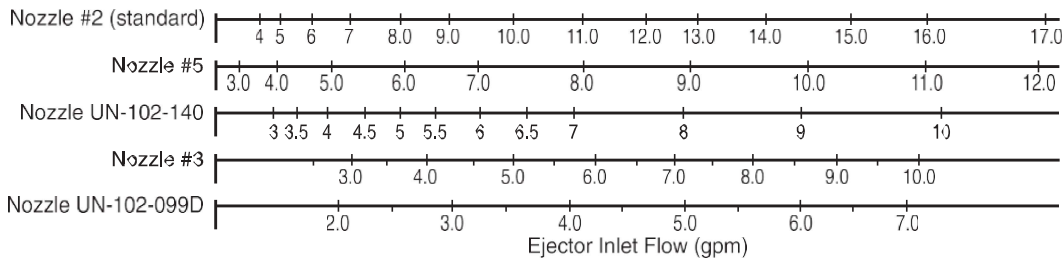
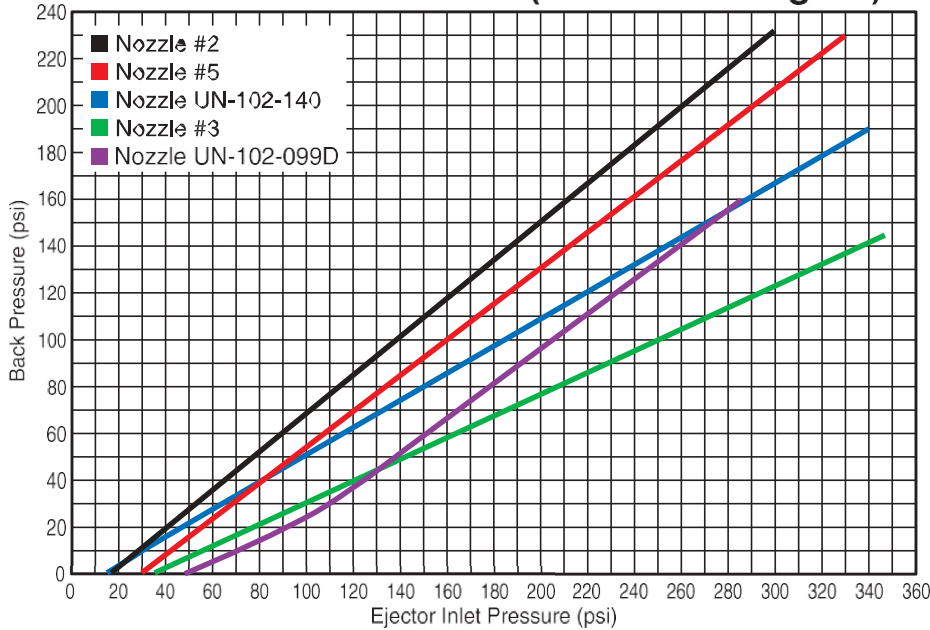
WARNING: Do not use excessive force in tightening the nozzle, diffuser and ejector assembly. The ejector is constructed of PVC and excessive force can break the parts.

(II) SERVICING THE EJECTOR CHECK VALVE ASSEMBLY: If water leaks back into the system, this means that the ejector check valve has failed. This could be caused by incorrect assembly, a failed gasket, O-Ring or diaphragm, or foreign material lodged in the check valve.

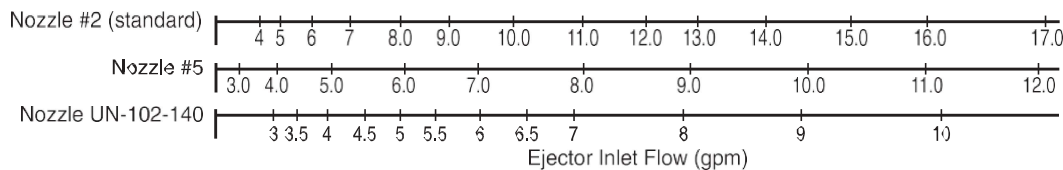
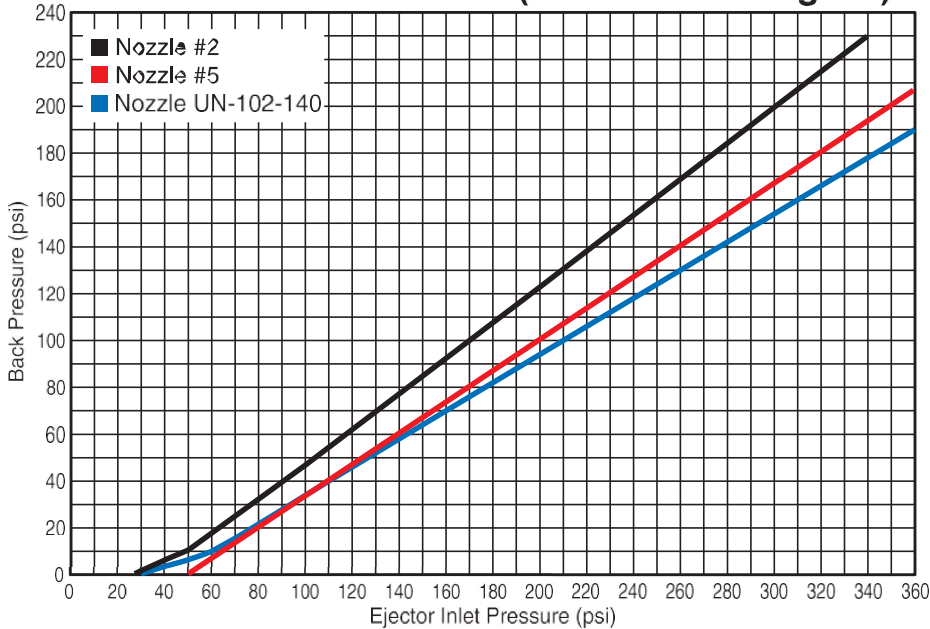
1. Remove the four bolts holding the ejector body together.
2. Inside you will find a diaphragm assembly and a spring.
3. The diaphragm assembly can usually be unscrewed by hand. If it is too tight, carefully try large jaw pliers or a vice. Note that a plastic support diaphragm is on the top side of the rubber diaphragm. The purpose is to protect the softer rubber diaphragm in installations with high pressure.
4. Inspect the rubber diaphragm for holes or weak points.
5. Inspect the ORE-CEM-210 O-Ring. Replace if damaged.
6. Reassemble the diaphragm assembly, preferably with a new rubber diaphragm, DIE-104-500.
7. Install the assembly in the recess between the ejector body halves being careful to install the spring properly below the assembly.

**Note:** Pressure combinations that plot below the line for any given nozzle are acceptable for operating that nozzle at the stated chemical feed rate for that chart. Pressure combinations that fall above the line for any given nozzle are not acceptable.

## NOZZLE SIZING CHART (50 PPD / 1000 gr/hr)

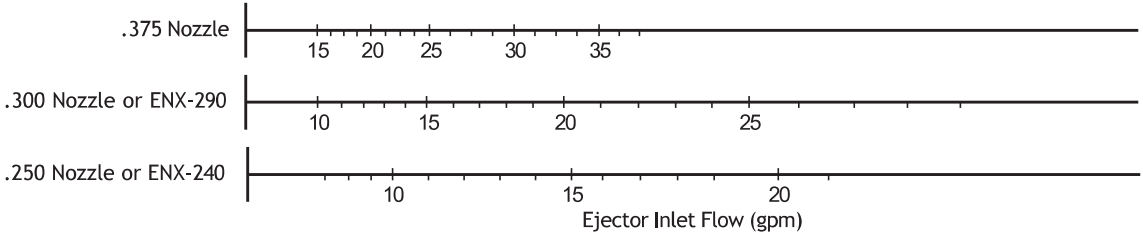
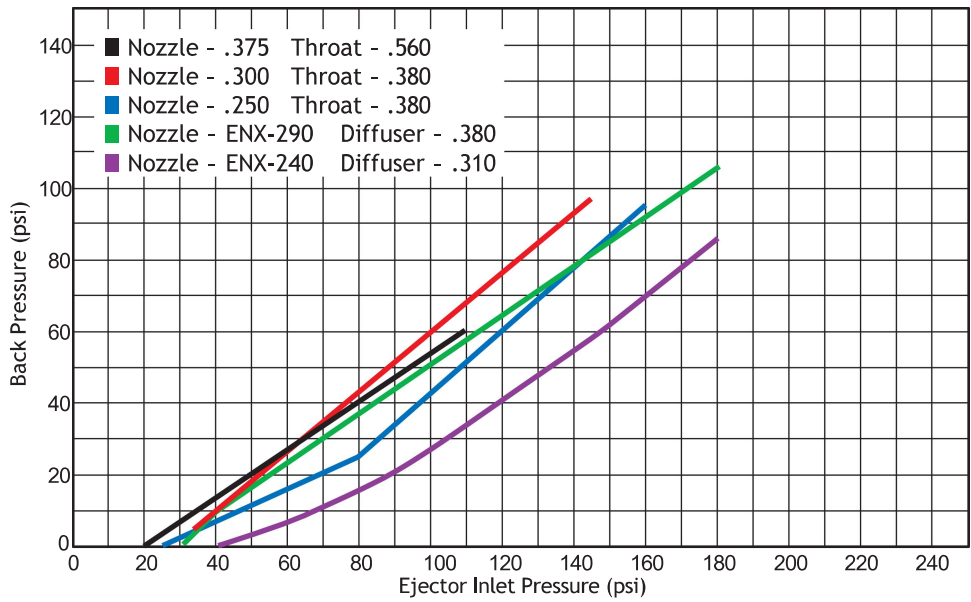


## NOZZLE SIZING CHART (100 PPD / 2000 gr/hr)



**Note:** Pressure combinations that plot below the line for any given nozzle are acceptable for operating that nozzle at the stated chemical feed rate for that chart. Pressure combinations that fall above the line for any given nozzle are not acceptable.

### NOZZLE SIZING CHART (250 PPD / 5000 g/hr)



### NOZZLE SIZING CHART (500 PPD / 10 kg / hr)

