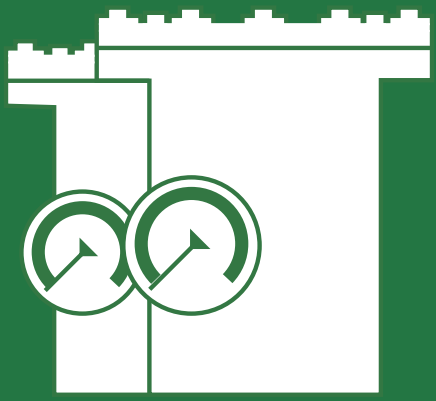
BEST PRACTICES



ANHYDROUS AMMONIA ROW-TO-ROW ACCURACY

Traditional anhydrous ammonia systems rely on tank pressure for distribution and injection. 360 EQUIFLOW takes a different approach:

STEP 1: Ammonia from the tank is delivered to the initial filter.

STEP 2: In the Liquimatic tower, the ammonia is separated into gas and liquid. The vapor is condensed back down into liquid and it all moves to the pump.

STEP 3: The hydraulically driven centrifugal pump pushes 100% liquid ammonia through the flow meter and control valve to the manifold.

STEP 4: The equal distribution manifold equalizes flow to each outlet.

STEP 5: Every row gets the same amount of ammonia in liquid state.

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REMEMBER: NH3 Is dangerous and should always be treated that way. Always wear the appropriate PPE and have water available when working on any tool bar or ammonia applicator.

INSTALLATION AND SET-UP

- When installing orifices make sure stamping is downstream.
- Remember, pump is not "pulling" NH3 from the tank, it is keeping the NH3 a liquid to the knives. Getting product to the pump is dependent on tank pressure which varies by ambient temperature, application rate, speed and supply line length.
- Do not put Y-strainers between tanks and the 360 EQUI-FLOW system.
- The height switch must be overridden to test valves.
- The pressure on the gauges on the base unit should be similar.
- In colder temperatures, you may have to run the pressure on the gauges higher. Example: 40 psi over tank pressure.
- In warmer temps you may run a lower pressure on your gauges. Example: 10 Psi over tank pressure.
- Make sure to plumb vapor lines off of the top of the towers to their OWN vapor tubes. Do not put in an application line.
- It may be useful to keep several different sizes of orifices in the cab with you, in case of a temperature or pressure changes.

MONITOR

- Should be set up as a standard valve.
- Valve Cal should be 2123.
- If in lbs, meter cal should be 178. If in pulses, meter cal should be 75.5 pulses per gal or 755 per 10 gal.
- If you are over applying, increase meter cal number. If under applying lower the meter cal number.
- Pressure sensor calibrations:
  1. Sensors are custom
  2. Voltage based Cal
  3. 20mv per psi
  4. Make sure system is completely bled of all NH3 liquid and vapors

PUMP

- Hydraulic oil flow to pump: feed line is the ½", return line is the ¾" line. **NOTE:** Run return line (3/4") to case drain if tractor is equipped – this eliminates risk of running controls backwards.
- Do not run the controls backwards. If return line is filled with fluid the pump will not spin and will have to be bled off.
- Run the hydraulic control in "constant", not "float" or "timed".
- Starting the pump:
  1. Start the pump in a low setting (1).
  2. Get up to speed.
  3. Slowly turn up hydraulic flow to pump.
  4. **DO NOT EXCEED** 13 GPM of hydraulic flow to the pump. If flow is too high to the pump damage will occur.
- When connecting to tanks, turn the master switch on before turning the hydraulics on to the pump.
- Pump will only run with the master valve open.