

# TORPEDO™



# NH<sub>3</sub>

## Precision Anhydrous Ammonia Application





# Torpedo™ NH3 Precision Anhydrous Ammonia Application

SureFire's Torpedo™ NH3 systems are a "one-stop-shop" for all components needed to get Anhydrous Ammonia from the tank to the soil. SureFire will work with you to ensure all necessary components are supplied as part of the complete kit.

**Torpedo™ Anhydrous Ammonia systems are available in three base models:**

- |           |   |
|-----------|---|
| Model 100 | 23-31 GPM Maximum Capacity*<br>Small to Medium Implements, Lower to Moderate Application Rates  |
| Model 200 | 35-47 GPM Maximum Capacity*<br>Medium to Large Implements, Moderate Application Rates   |
| Model 300 | 50-70 GPM Maximum Capacity*<br>Large Implements, High Application Rates, High Speed<br>Utilizes two tanks to achieve maximum capacity |

*\*Maximum Capacity ratings are temperature dependent. Maximum rates listed are at 34°F and 64°F, respectively. Additionally, to achieve maximum capacity the tank withdrawal valve and lead hose from tank to Torpedo™ must be sized correctly.*

**Torpedo™ NH3 systems are compatible with the following controllers:**

- John Deere Rate Control
- Trimble Field IQ
- Ag Leader Direct Command
- Case Pro700 with AccuControl
- Raven

When not integrating with an existing control platform, Torpedo™ is offered with the SureFire Commander II or the 3405D controller.



# Components

## Tank Withdrawal Valves

To achieve maximum flow rates it is essential to have high-capacity withdrawal valves at the tank. If the anhydrous ammonia supplier's tanks do not have 1¼" or 1½" valves (depending on your application needs), retro fit valves are available to ensure maximum rates can be achieved.

## Break-Away Couplers

High Capacity Break-Away Coupler(s) are provided at the hitch. Break away coupler(s) are either 1¼" or 1½" depending on the system model. The Model 300 uses two 1½" couplers from two tanks to achieve the maximum flow.



## Cooler (Heat Exchanger)

Torpedo™ NH3 Systems feature Continental NH3 Products' new 2" SuperFlow Cooler. This high capacity cooler is supplied with single tank lead hose in the Model 100 and 200 systems. The Model 300 utilizes two tank lead hoses from independent tanks to achieve maximum flow rates of 70 GPM at 64°F.



## 1¼" Precision Flow Control Valve

The flow control valve has two distinct features that work in combination with one another to provide more accuracy and stability in controlling the application rate. First, the control valve barrel is "V" shaped. Secondly, due to the "V" shape, the valve can utilize 120° of control, this is 30° more control range than traditional valves which only use 90° of control. The "V" shape and extended control range provide increased accuracy and stability, especially on lower application rates. The 1¼" full port passage way reduces restriction and allows for maximum capacity when on the highest application rates.



## Raven Flow Meter

Torpedo™ utilizes the widely used and reliable Raven 1-60 GPM flowmeter.

## Injection Mixing Manifold

All models can be factory configured with an injection mixing manifold for injecting nutrient stabilizers. Ask about SureFire injection systems sold separately.

## High-Pressure Hose

In applications where section valves are utilized, high-pressure crimped hose is utilized from a central splitter to each section valve and distribution manifold





### Section Valves

3-wire motorized on/off valves are mounted directly to each distribution manifold.



### Distribution Manifold Options

#### A-360

A-360 is a new high-accuracy manifold with +/- 1-3% row to row accuracy. Continental NH3 Products patented "Step Down Injector Technology" mixes and accelerates the ammonia into an upper chamber, the tee, and the lower manifold chamber. These key features mix the vapor and liquid so each outlet gets an equal amount of both to get an even distribution of nitrogen.

#### Vertical Dam (MVD)

Economy manifold option that has been widely used for many years with +/- 6% row to row accuracy.



A-360



Vertical Dam

### Gauge Tree (Optional)

The Gauge Tree is a central mounting bracket that holds up to 8 gauges in a location in clear view from the cab. The base bracket holds up to four gauges. The add-on bracket expands the base bracket to accommodate up to eight gauges. Use multiple Gauge Trees for larger applicators requiring more than 8 gauges.



### Plumbing, Hose, and Fittings

Torpedo™ NH3 Systems feature all the hoses, fittings, clamps and hardware to deliver ammonia to the placement device. High-grade black EVA tubing is long-lasting and stands up to the environment.

Your Local SureFire Dealer

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