

# **Table of Contents Features and Options**

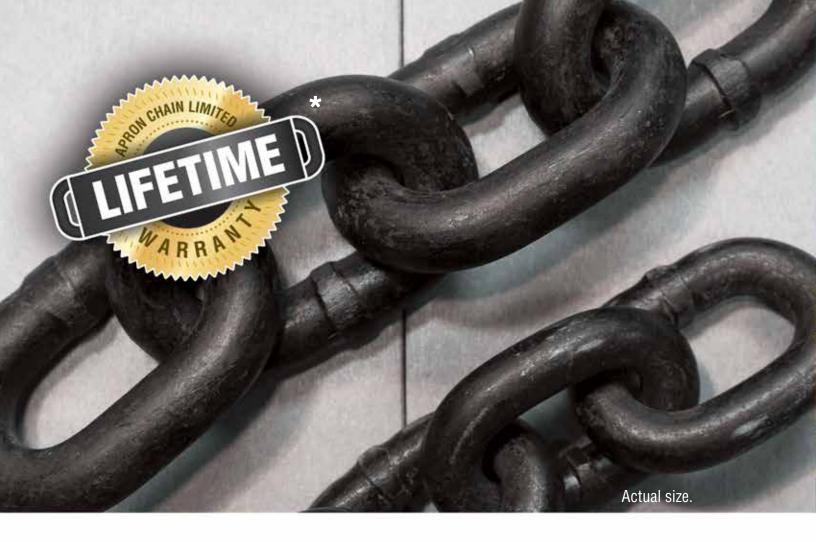
## **Consistent Metering, Consistent Spread.**

Developed with features to ensure commercial readiness, NITRO commercial series spreaders offer slip slide poly board floors and walls, a guillotine endgate, reversible apron chain, and quick drop beaters. The guillotine endgate can be held in any position controling how much material is able to be moved to the beaters by the variable speed apron chain. This method of delivery provides consistent metering whether working with pen pack or semi-solids. With the recent addition of the tri-axle models, you get all these feature plus reduced compaction, easier turning and more.

Responding to market demand, the NITRO Rancher Series was developed to ensure smaller operations get the same metering in a format tailored to them. NITRO RS spreaders are ideal for farmers trying to keep their yards clean while delivering rich nutrients to the field. Removeable beater assemblies provide increased value and functionality, allowing the NITRO to operate as a rear discharge trailer with a live floor when not spreading.

Tubeline NITRO spreaders are scale ready and feature a wide variety of features, options, and models to unleash the potential of your operation.







## **Hydraulic-Driven Apron Chain**

The variable speed apron chain ensures that your load is delivered to the beaters at the right speed regardless of the manure consistency. This provides accurate control when metering, application speed, and thickness.

The NITRO is equipped with a fully reversible apron drive. This allows the load to be backed away from the beater assembly should foreign objects such as rocks get inbetween the beaters and jam them.



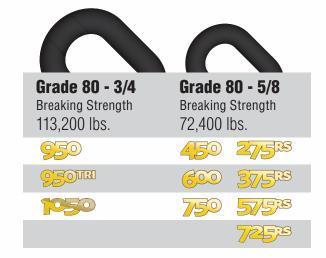
## **Apron Chain**

The brute strength of the NITRO's apron chain system sets it apart. Truly heavy-duty, the chain and sprocket are designed to move heavy manure day after day without chain breaks.



#### **Galvanized Slats**

Apron slats are attached to the chain using a heavy tab and slot design. This free floating design minimizes stress on the joints.





## **Functional Versatility**

All NITRO spreaders are designed to provide incredible versatility throughout the year. The NITRO is not only a capable spreader, but can be easily converted to a self unloading trailer when the beater assembly is removed.

Tubeline's Quick-Drop Beater System provides producers and custom operators an adaptive tool ideal for the transportation and processing of bulk materials.

Designed with an integrated guillotine endgate, the NITRO retains it's box even with the beaters removed leaving behind a fully functional self unloading trailer with a hydraulic endgate and live floor.

The NITRO can be used to stockpile in the field throughout the year. This keeps your barnyard clean and places valuable nutrients close at hand when its time to spread.

When harvest time comes, the NITRO can be used to haul forage from the field to the pit. Open the endgate in front of the pit and run the apron to unload quickly.

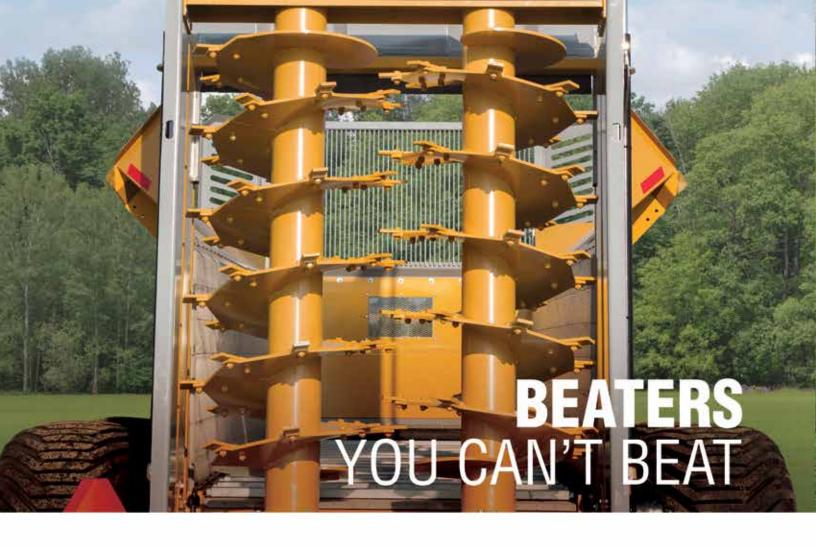
#### **Beater Removal**

Remove a beater assembly in 4 steps.

- 1. Remove the rear most PTO drive shaft from the spreader.
- 2. Connect chains from a front end loader to the lift points on the beater assembly.
- 3. Remove the retaining bolts connecting the beaters to the box.
- 4. Using the loader lift the assembly from the rear of the spreader.

Note: Always remember to store your beater assemblies safely to prevent harm and/or damage. If scale system is equipped, spinner sensor must be unplugged.

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## Replaceable Reversible Knives

Every NITRO model is equipped with durable AR400 knives. Each knife can be easily flipped for longer life or replaced when required.



## **Beater Wedge**

275RS, 375RS, 575RS, 450, and 600 Models

A standard feature on 275RS, 375RS, 575RS, 450, and 600 models (not required on other models), the beater wedge helps to ensure manure is delivered to the beaters preventing large clumps from falling off the back of the unit.



## Robust and Dynamically Balanced

The NITRO beaters are dynamically balanced ensuring minimal flex and vibration when running the beaters at full speed.



## Flange Paddle Kit

Optional

The optional bolt on paddle kit cups material to provide additional throw.

#### **Driveline Protection** Standard on all models

To protect expensive drive line components, NITRO spreaders are equipped with both an over running clutch and a torque limiter. The over running clutch allows the beaters to freewheel after the tractors PTO drive is shut down. This prevents hard stops reducing the wear on both the NITRO and your tractor.

To prevent damage to beater assemblies, a torque limiter connects the rear PTO shaft and the beater assembly. The torque limiter disengages the driveline from the beaters should the pressure build.



### **Spinner Deck Beater Assembly Option**

NITRO spreaders can be equipped with an optional Spinner Deck beater assembly. The interchangeable quick-drop beater system allows operators to conveniently switch between the vertical or spinner deck assemblies offering flexibility to both producers and custom operators.

Designed to maximize distribution while metering the flow of material, the Spinner Deck

beater assembly utilizes
a complete gear box
drive system that drives
both the horizontal
beaters and spinners
together to ensure
consistent unloading.



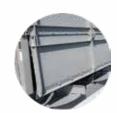
#### **Dual Horizontal Beaters**

The NITRO Spinner Deck beater assembly comes equipped with two horizontal beaters to ensure a consistent amount of material is fed to the spinners.



## **Dual Spinners**

High speed spinners hold material accelerating it to maximize the spread.



#### **Drop-On Adjustment**

The lower portion of the door is adjustable allowing material to drop across more of the spinner for better distribution of material.

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## **Guillotine Endgate**

The guillotine endgate can be opened partially to meter the amount of material being delivered to the beater assembly. This ensures the optimal delivery of lime and various manure consistencies to the field.



## Slip Slide Poly Boards

Poly Board Walls available only on 450, 600, 750, 950, 950TRI & 1050

To resist corrosion, the NITRO box integrates slip slide poly boards on the floors of RS models, and the Floors and walls of commercial models. All poly boards are secured with stainless steel hardware.



#### **Industrial Jack**

The strong, industrial jack, is easy to use and makes unhitching safer.



## **LED Lights**

Optional

LED lights and flashers ensure transit safety. Automatic activated covers open and close in sequence with the end gate, ensuring lights are protected while spreading.



#### **Central Grease Banks**

Standard on 450, 600, 750, 950, 950TRI & 1050

Centrally located grease banks ensure easy lubrication of components located in hard to reach areas.



#### **CV** Shaft

Select NITRO models come equipped with a CV (Constant Velocity) Shaft allowing for a tighter turning radius.





## **Suspension Tongue**

Optional on 450, 600, 725 & 750 Models Standard on 950, 950TRI & 1050 Models

The suspension tongue provides operator comfort and reduces mechanical stress and fatigue of both the spreader and the tractor.



## **Optional Colours**

Optional

In addition to the standard yellow, the NITRO lineup is available in red, green, blue and orange.



#### **Silage Extensions**

Optional on 725, 750, 950, 950TRI & 1050

The NITRO 750 and 950 can easily double as a silage hauler, with the addition of optional height-extenders.

Note: Not for use with manure.



#### **Rubber Seal Kit**

Optional

The Rubber Seal Kit adds a compression seal to the front panel and the endgate to help contain semi solid materials.



#### **Articulated Ball Hitch**

**Optional** 

Optional on all models is the articulated ball hitch available in various pin sizes.



#### **Endgate Opening Gauge**

Optional

With the endgate opening gauge you can quickly and easily see how open your end gate is in inches.



Sizes compatible w/ NITRO models:

275RS, 375RS, 575RS, 725RS, 450, 600, 750



**425/22.5** Recap Truck

**550/45** R22.5

**480/70** R30 **600/65** R34 **710/70** R38

**710/70** R42



## **Consistent Loading Height**

Single & tandem axles

Each axle is specifically engineered to match the selected tire size. This attention to detail ensures that each spreader that leaves our plant can be easily loaded.



#### **Brakes**

Optional for single & tandem

The optional brake system comes with a total of 4 calipers. Single axle spreaders are configured with two calipers per rotor. Tandem axle spreaders are configured with one caliper per rotor.

Single axle shown. Braking configurations may vary with model. All models are brake ready.

Note: For model applications please see pages 14-18.



## Sizes compatible w/ NITRO models:

275RS, 375RS, 575RS, 725RS, 450, 600, 750, 950



**425 x 22.5** Recap Truck

**550/45** R22.5

**700/50** R26.5

**750/60** R30.5

\*Also used for Tri-axle spreaders



#### **Adjustable Axle Position**

Commercial Series

Our Commercial Series spreaders have 3 axle positions which help to optimize the spreaders balance while traveling through the field.



## **High Load Bearings**

Standard on Tandem Axles

The walking beam tandem axle pivot bearings on the Commercial Series spreaders use high load composite bearings with embedded lubricant. This eliminates the need to grease them during maintenance.

Note: Tire scaling is approximate. Tire profiles and rims may not be exactly as shown, images are intended for reference only.





Less Compaction



Extended Life



Easy Turning



Heavier Duty

NITRO Tri-Axle spreaders feature the standard NITRO Quick-Drop Beater assembly, allowing you to switch quickly and easily between the vertical beaters and the spinner deck. While the vertical beater assembly is ideal for thicker material, the spinner deck is ideal for looser material such as poultry litter. This set-up offers increased flexibility for both producers and custom operators allowing you to equip your spreader properly for whichever material you'll be spreading.

It has 16,000lbs (10 bolt) wheel hub capacity. Due to the increased amount of contact points, the Tri-Axle results in reduced soil compaction. This allows for more air and water to get to the roots, increasing the yield of your crops when compared to single and tandem axles.

They also come standard with a following axle.
The front and rear axles can turn independently,
reducing wear on the tires when turning giving your
tires longer life.

Brakes are available on Tri-Axle models on both the centre and rear axles. Each axle also comes standard with the Horst Road Flex Suspension system, reducing wear on the NITRO box when driving down the road or in the field.





#### **Load Transfer Draw Bar**

Hydraulically transfer the load by dispersing the weight to the tongue when unit is full to increase traction and help you stop quicker.



#### **Follow Axles**

Follow axles allow for a sharper turning radius.

For predictable towing or reversing, following axles can be hydraulically locked in line.



#### 15° Rotation

Front and rear axles allow a of swivel 15° in each directions giving the Tri-Axle design a great turning radius.

Wheel independent Road Flex suspension. This patented innovation not only smooths out bumps, it gives added clearance when turning adding even more protection for your load.









Specifications	NITRO 275RS	NITRO 375RS
Carrying Capacity	10 Ton	12 Ton
Heaped (cu. ft.)	294	444
Struck Level (cu. ft.)	201	266
Inside Dimensions	62.5"W x 34.5"D x 143"L (Inside width between flare 77.75")	62.5"W x 34.5"D x 175"L (Inside width between flare 89")
Overall Length	23.5'	25'
Overall Outside Width (Single Axle)	118"	126"
Overall Outside Width (Tandem Axle)	115.5"	115"
Loading Height (Single Axle)	69"	76"
Loading Height (Tandem Axle)	69"	75"

Specifications	NITRO 275RS	NITRO 375RS
Wheel Hub Capacity (Tandem Axle)	12,000 lbs. (8-bolt) x4	12,000 lbs. (8-bolt) x4
Tandem Tire Sizes	425/22.5 Recap Truck Tires 550/45-22.5 Flotation Tires	425/22.5 Recap Truck Tires 550/45-22.5 Flotation Tires
Wheel Hub Capacity (Single Axle)	16,000lbs (10-bolt) x2	16,000lbs (10 bolt) x2
Single Tire Sizes	425/22.5 Recap Truck Tires 550/45-22.5 Flotation Tires 480/70-30 Tractor Lug Tire	600/65-34
Beater Diameter	34"	34"
Beater Speed	420 RPM	420 RPM
PTO Speed	1000 RPM	1000 RPM
Apron Chain Link Dia.	5/8"	5/8"
Shipping Weight	8,800 lbs. / 3,992 kg	9,139 lbs. / 4,145 kg
Required Tractor PTO HP	80	90
Brakes Available	Yes	Yes



Under the **Apron Chain Limited Lifetime Warranty**, Tubeline will replace a broken apron chain or connecting link on any NITRO model manure spreader. Apron Chain Limited Lifetime Warranties are non-transferable.

For more information contact Tubeline Manufacturing.









Specifications	NITRO 575RS	NITRO 725RS
Carrying Capacity	16 Ton	19 Ton
Heaped (cu. ft.)	576	767
Struck Level (cu. ft.)	379	507
Inside Dimensions	62.5"W x 45.5"D x 218"L (Inside width between flare 94")	71"W x 50"D x 240"L (Inside width between flare 96")
Overall Length	27.5'	31'
Overall Outside Width (Single Axle)	131"	136"
Overall Outside Width (Tandem Axle)	116"	136"
Loading Height (Single Axle)	88.5"	93"
Loading Height (Tandem Axle)	80"	93"

Specifications	NITRO 575RS	NITRO 725RS
Wheel Hub Capacity (Tandem Axle)	12,000 lbs. (8-bolt) x4	16,000 lbs. (10-bolt) x4
Tandem Tire Sizes	425/22.5 Recap Truck Tires 550/45-22.5 Flotation Tires 700/50-26.5 Flotation Tires	700/50-26.5 Flotation Tires
Wheel Hub Capacity (Single Axle)	12,000lbs (8-bolt) x4	20,000 (10 bolt) x2
Single Tire Sizes	710/70 R38 Tractor Lug Tire	710/70 R42 Tractor Tires
Beater Diameter	34"	36"
Beater Speed	420 RPM	420 RPM
PTO Speed	1000 RPM	1000 RPM
Apron Chain Link Dia.	5/8"	5/8"
Shipping Weight	11,000 lbs. / 4,990 kg	15,652 lbs. / 7,099 kg
Required Tractor PTO HP	125	165+
Brakes Available	Yes	Yes

Note: Specifications are subject to change without notice. Capacities determined by ASAE Std S324.2









Specifications	NITRO 450	NITRO 600
Carrying Capacity	13 Ton	17 Ton
Heaped (cu. ft.)	481	636
Struck Level (cu. ft.)	290	406
Inside Dimensions	62"W x 40"D x 201"L (Inside width between flare 97.5")	62"W x 50"D x 227"L (Inside width between flare 97.5")
Overall Length	27'	29.5'
Overall Outside Width (Single Axle)	115"	131"
Overall Outside Width (Tandem Axle)	116"	131"
Loading Height (Single Axle)	77"	90"
Loading Height (Tandem Axle)	79" (550/45-22.5) 77" (425/22.5 recap truck)	85" (550/45-22.5) 92" (700/50-26.5) 87" (425/22.5 recap truck)

Specifications	NITRO 450	NITRO 600
Wheel Hub Capacity (Tandem Axle)	12,000 lbs. (8 bolt) x4	16,000 lbs. (10 bolt) x4
Tandem Tire Sizes	550/45-22.5 or 425/22.5 recap truck	550/45-22.5, 700/50-26.5 425/22.5 recap truck
Wheel Hub Capacity (Single Axle)	16,000lbs (10 bolt) x2	20,000lbs (10 bolt) x2
Single Tire Sizes	600/65-34	710/70-38
Beater Diameter	34"	34"
Beater Speed	420 RPM	420 RPM
PTO Speed	1000 RPM	1000 RPM
Apron Chain Link Diameter	5/8"	5/8"
Shipping Weight	11,355 lbs. / 5,151 kg	13,930 lbs. / 6,319 kg
Required Tractor PTO HP	125+	150+
Brakes Available	Yes	Yes



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Specifications	NITRO 750	NITRO 950
Carrying Capacity	20 Ton	25 Ton
Heaped (cu. ft.) (with Optional Silage Extension)	838 1,038	1,028 1,252
Struck Level (cu. ft.) (with Optional Silage Extension)	560 770	695 918
Inside Dimensions	67"W x 58"D x 252"L (Inside width between flare 102.5")	67"W x 58"D x 297"L (Inside width between flare 102.5")
Overall Length	32.5'	35.25'
Overall Outside Width (Single Axle)	136"	N/A
Overall Outside Width (Tandem Axle)	136"	136"
Loading Height (Single Axle) (with Optional Silage Extension)	100" 116"	N/A N/A
Loading Height (Tandem Axle) (with Optional Silage Extension)	102" 118"	109" 125"

Specifications	NITRO 750	NITRO 950
Wheel Hub Capacity (Tandem Axle)	16,000 lbs. (10 bolt) x4	20,000 lbs. (10 bolt) x4
Tandem Tire Sizes	700/50-26.5	750/60-30.5 Flotation Tires 750/60-30.5 Flotation Tires (Radial)
Wheel Hub Capacity (Single Axle)	20,000lbs (10 bolt) x2	N/A
Single Tire Sizes	710/70-42	N/A
Beater Diameter	36"	36"
Beater Speed	420 RPM	420 RPM
PTO Speed	1000 RPM	1000 RPM
Apron Chain Link Diameter	5/8"	3/4"
Shipping Weight	16,195 lbs. / 7,346 kg	19,890 lbs. / 9,022 kg
Required Tractor PTO HP	180+	200+
Brakes Available	Yes	Yes

Note: Specifications are subject to change without notice. Capacities determined by ASAE Std S324.2









Specifications	NITRO 950TRI	NITRO 1050
Carrying Capacity	25 Ton	30 Ton
Heaped (cu. ft.) (with Optional Silage Extension)	1,028 1,252	1,159 1,509
Struck Level (cu. ft.) (with Optional Silage Extension)	695 918	769 1,159
Inside Dimensions	67"W x 58"D x 297"L (Inside width between flare 102.5")	67"W x 58"D x 252"L (Inside width between flare 102.5")
Overall Length	35.25'	39.25'
Overall Outside Width (Tri-Axle)	155"	155"
Loading Height (Tri-Axle) (with Optional Silage Extension)	108" 124"	108" 124"

Specifications	NITRO 950TRI	NITRO 1050
Wheel Hub Capacity (Tri-Axle)	16,000 lbs. (10 bolt) x6	16,000 lbs. (10 bolt) x6
Tri-Axle Tire Size	700/50-26.5 Flotation Tires 710/50-26.5 Radial Tires <i>(optional)</i>	700/50-26.5 Flotation Tires 710/50-26.5 Radial Tires <i>(optional)</i>
Beater Diameter	36"	36"
Beater Speed	420 RPM	420 RPM
PTO Speed	1000 RPM	1000 RPM
Apron Chain Link Diameter	3/4"	3/4"
Shipping Weight	22,340 lbs. / 10,133 kg	25,755 lbs. / 11,682 kg
Required Tractor PTO HP	200+	200+
Brakes Available	Yes	Yes



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#### Athene System Variable Rate Manure Spreader Control System

ISOBUS UT displays spreader controls and variable rate & overlap (if available on terminal)

Athene/SL2 controls spreader and scale system

- Proportional to forward speed control - ensures application rate is correct irrespective of changes in the forward speed
- Variable rate capability allows manual or automatic adjustment of application rates in different field areas to suit conditions
- ISOBUS TC GEO compliant allows automatic adjustment of application rates in different field areas according to a pre-defined treatment map
- ISOBUS TC sectional control compliant simplifies operation by turning spreader on/off automatically to avoid overlaps and misses



#### **GT 400**

- Backlit LCD single line display
- External record storage option
- External printer option
- Short field names with basic entry
- Displays weight with Start-Stop Loading, Field and Zero functions



## **NT 560** (with AutoLog<sup>™</sup>)

- AutoLog<sup>™</sup>
- Indicator displays actual tons/acres
- View and react to tons/acre reading by speeding up or slowing down
- View/Edit 26 character field names
- View/Edit the 6 character ID
- Software to create custom reports
- Calculating the nutrient value of your manure is easy with scales on your spreader.



## **Tubeline Manufacturing Ltd.**

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