

Vertical TMR Mixers | 800-1,320 Cubic Feet



## Vertical Maxx<sup>®</sup>

VT 180-1100 / VTC 180-1120

[www.KuhnNorthAmerica.com](http://www.KuhnNorthAmerica.com)



Invest in Quality<sup>®</sup>

VERTICAL MAXX® TMR MIXERS VT 180-1100 / VTC 180-1120

# THE VERTICAL ADVANTAGE



VERTICAL MAXX  
VTC 1120

## QUALITY MIXING

Vertical mixers have long been known for their ability to achieve a completely uniform mix with no dead spots. Consistent processing lengths optimize rumen function and productivity. Uniform mixing and consistent processing result in a quality mix that minimizes ingredient sorting and helps ensure that the animal is getting the nutrients that it needs to excel in production.

## RATION VERSATILITY

KUHN Knight vertical mixers offer the most versatility to process and mix the widest variety of feedstuffs. This includes round bales, square bales, baleage, forages, small grains, concentrates and other hard to handle materials.

## TIME TESTED

KUHN Knight mixers have withstood the test of time and will continue to do the same for you and your operation. Combining years of experience with the latest technologies, KUHN offers an exceptional line of TMR mixers.

## VERTICAL MAXX® TMR MIXERS in brief

Models	Mixing Capacity (w/ Extensions)	Available Configurations	Available Door Configurations
VT 180	800 (880) cu. ft.	Trailer or Truck	Front, Side & Rear
VT 1100	1,000 (1,100) cu. ft.	Trailer or Truck	Front, Side & Rear
VTC 180	800 (880) cu. ft.	Trailer, Truck or Stationary	Front, Side & Rear
VTC 1100	1,000 (1,100) cu. ft.	Trailer, Truck or Stationary	Front, Side & Rear
VTC 1120	1,200 (1,320) cu. ft.	Trailer, Truck or Stationary	Front, Side & Rear



## CAPABLE OF HANDLING YOUR OPERATION'S WORKLOAD

With capacities ranging from 800 to 1,320 cubic feet, there's sure to be a KUHN Knight mixer for you. No matter the size, all KUHN Knight mixers come with high-quality design features giving you a strong, durable mixer that is built to last.



**FULLY WELDED TUB DESIGN**  
The completely welded body provides superior strength and durability for long life. The heavy-duty, reinforced floor and body help ensure dependable service and long life.

**EFFICIENT MIXING CHAMBER**  
Straighter sides, smoother curves and steeper baffles help promote a fast, complete mix for a fluffy, palatable ration. No preprocessing or special loading is required for round or square bales making it easy to load and use. Faster auger speeds also provide quicker, more complete cleanout.

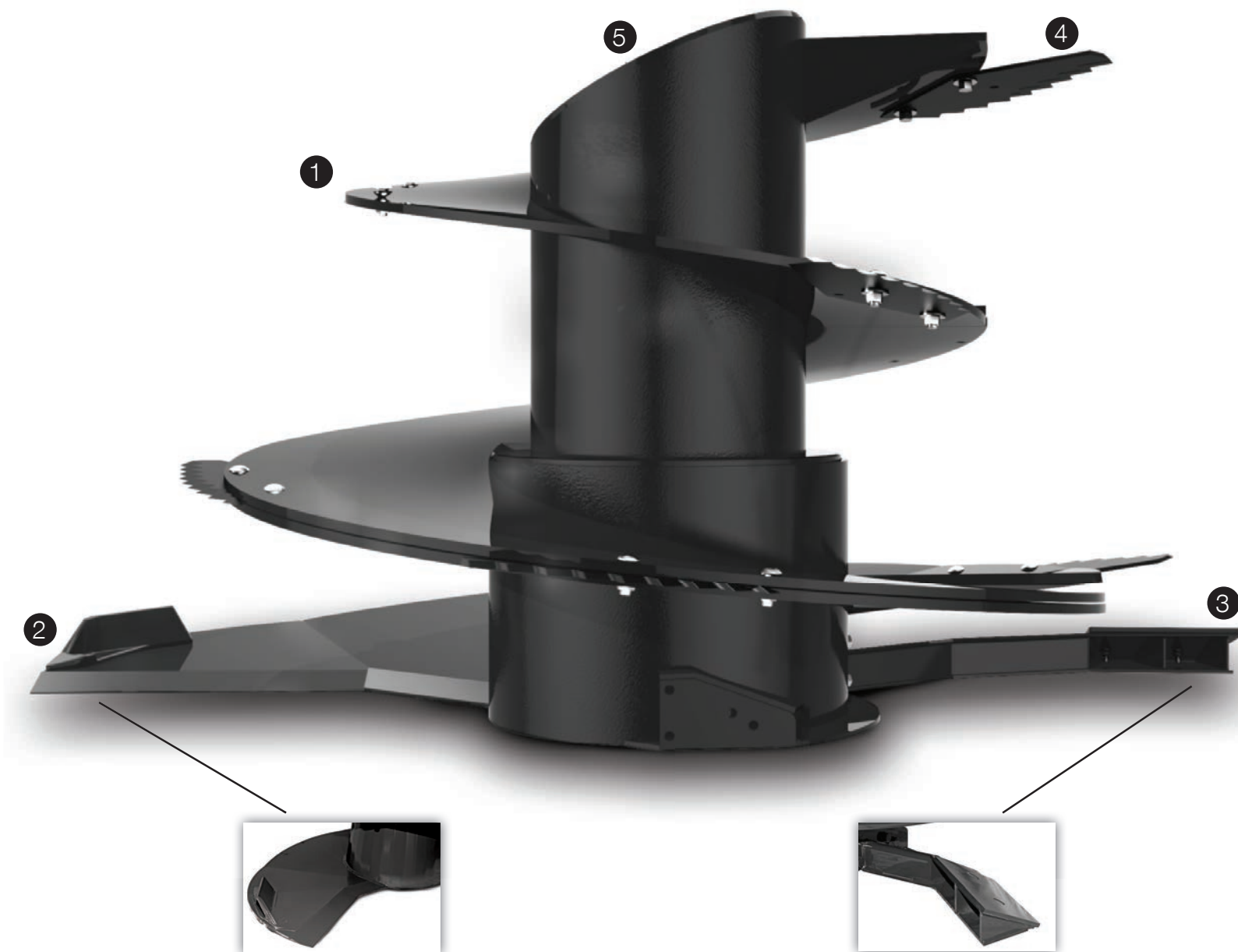
**LARGE UNLOADING DOORS**  
For unmatched feed flow, these mixers feature the largest discharge door available in the industry. The discharge linkage allows for rapid opening and closing of the door.

**RUGGED UNDERCARRIAGE**  
The straight-single axle is ideal for farms with paved surfaces and sharp turns. The walking-tandem bogie is recommended for farms with uneven terrain. Both axle systems are located under the tub for decreased tread width to keep the tires from running over the feed.

**5-YEAR WARRANTY**  
KUHN offers a 5-year prorated warranty on planetary and 2-speed gearboxes on all vertical mixers. KUHN also offers a 1-year warranty on all other machine components.  
*Ask your dealer for further details.*

# FASTER, MORE COMPLETE MIXING

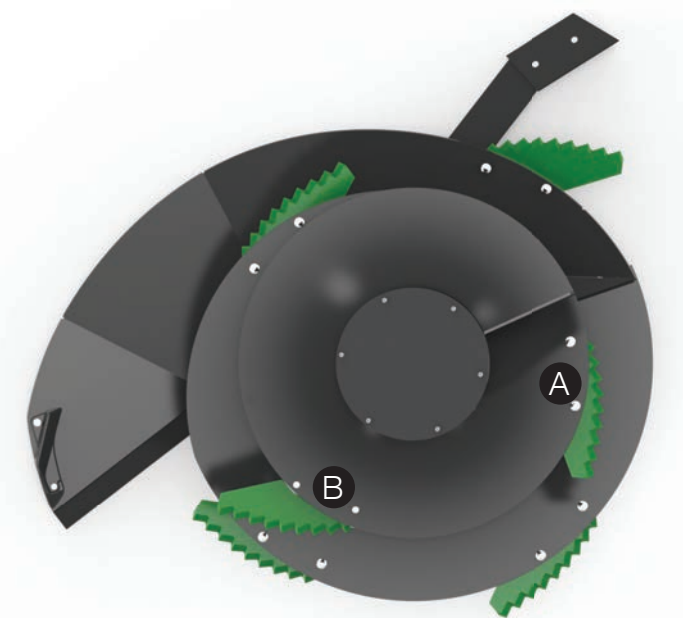
Redesigned augers provide superior feed movement for faster, more complete mixing and processing. The twin-auger design allows for quick and efficient hay processing, as well as fast, thorough cleanout. Enhanced material flow also results in a lower horsepower requirement for more efficient, economical operation.



- 1 CONTINUOUS FLIGHTING**  
Smooth, continuous flighting promotes a rolling action of the feed for more thorough mixing and lower horsepower requirements. The heavier lower flighting provides longer service life.
- 2 ADJUSTABLE, REPLACEABLE SCRAPER**  
The adjustable, replaceable lead-flighting scraper is angled to guide feed up the auger flighting for efficient movement. The scraper ensures all ingredients, even added in small amounts, are thoroughly mixed.
- 3 EFFICIENT DISCHARGE KICKER**  
The curved, bolt-on auger kicker is formed rearward to continuously charge the door with feed for even discharge and decreased unloading time.



- 4 HARDENED KNIVES**  
Large, 15" or 20", replaceable haycutting knives are available to best handle the material to be processed. The knives have two positions to adjust the aggressiveness of the knife angle. Versatility of knife length, angle and position allow for optimal setting with a wide variety of ration ingredients.
  - A** Knife set in for slicing and cutting
  - B** Knife set out for grabbing and tearing
- 5 ANGLED AUGER COVER**  
Angled top cover of auger promotes consistent material flow and improves cleanoff. In addition, it provides uneven surface of upper tube to aid in bale movement when processing round bales.
- 6 ADJUSTABLE HAY STOPS**  
The adjustable hay stops provide flexibility in processing to provide you with the cut length necessary to reach the optimal nutritional value you're striving for. This adjustability makes hay processing more efficient and helps minimize overprocessing.



### PATENTED SPLIT DRIVE

This patented drive system on the large VT and VTC models consists of a 2-speed split-drive gearbox, two planetary gearboxes and two torque-disconnect PTOs. The system provides reliable performance and long service life with a simple and quiet design.

*Truck & Trailer Mount Models Only*

### HEAVY-DUTY GEARBOXES

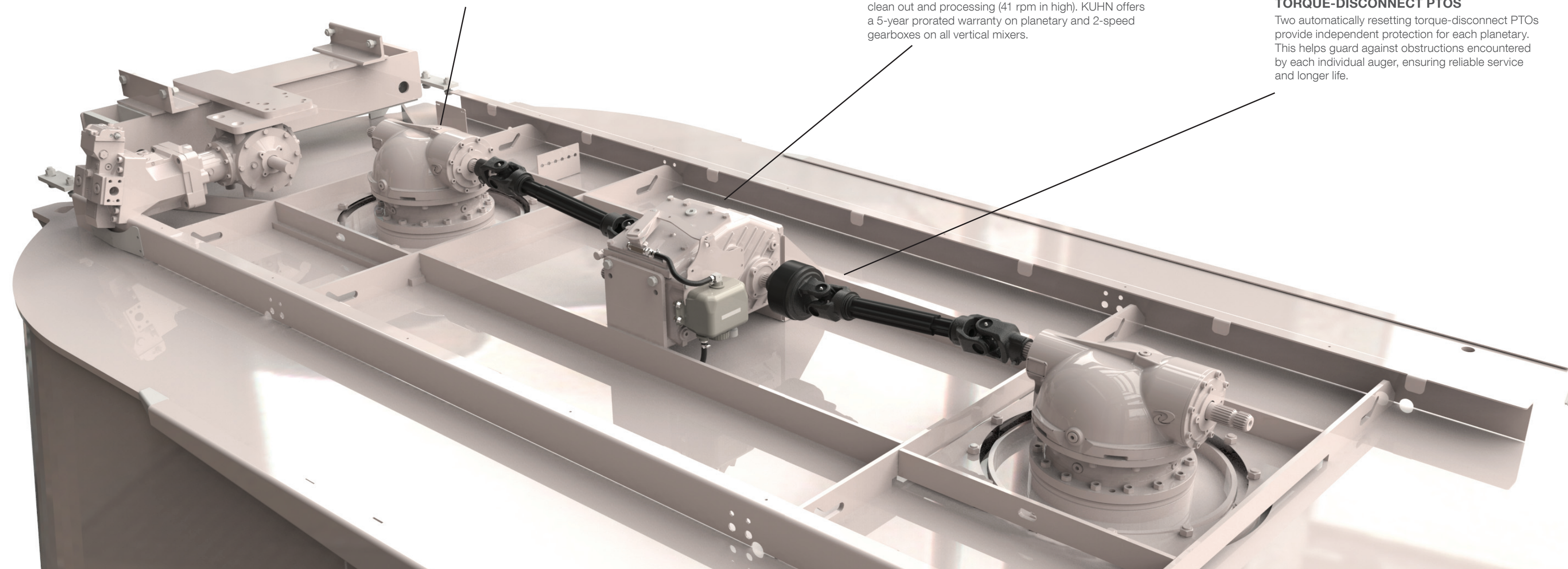
The twin planetaries are designed to provide dependable performance and long life. The drive systems allow the use of single-stage planetaries, which produce far less heat to eliminate the need for a cooling system.

### 2-SPEED SPLIT-DRIVE GEARBOX

The 2-speed split-drive gearbox provides the flexibility of high and low speeds on trailer models. It allows for a lower horsepower, easier starting speed and low-speed mixing (28 rpm in low) while also having a high speed for clean out and processing (41 rpm in high). KUHN offers a 5-year prorated warranty on planetary and 2-speed gearboxes on all vertical mixers.

### TORQUE-DISCONNECT PTOs

Two automatically resetting torque-disconnect PTOs provide independent protection for each planetary. This helps guard against obstructions encountered by each individual auger, ensuring reliable service and longer life.



## EASY ACCESSIBILITY

Easily pull the planetary from the top of the mixer for improved and easier service. This easy accessibility is especially helpful for truck mount models as it does not require dismounting the mixer from the chassis.



### TRUCK MODELS

On truck models, the hydrostatic drive allows control of the full range auger speed from within the cab, without stopping to shift. It is available in FEPTO or REPTO drive configurations. This drive uses the same proven gearbox and driveline setup as the trailer models to ensure drive components are protected from damage.

# PERFORMANCE BASED ON YOUR NEEDS

The VTC commercial twin-auger mixers are built to the heaviest specifications in the industry to ensure a quality mix day-in and day-out, even in the most extreme duty cycles. With commercial-grade components, stainless steel liners standard and the heaviest single-stage planetary gearboxes in their class, these mixers are built to withstand any feeding application and are designed to continue running around the clock. The VTC models are available in single- or tandem-axle trailer, truck mount, and stationary configurations. For fast and thorough mixing, durability, and long life, these mixers are the choice for commercial operations.

For producers with more moderate feeding cycles, but still requiring a large capacity mixer, the VT 180 and VT 1100 models are also available. These mixers share the same proven mixer tub and auger design, and include many of the same high-value features of the VTC series, ensuring a quality mix is still delivered every load. The VT 180 and VT 1100 mixers are ideal for operations looking to minimize feeding time and are competitively priced for less extreme feeding situations.



### GEARBOXES DESIGNED TO MEET YOUR NEEDS

VT mixers are equipped with heavy-duty planetary gearboxes designed to provide dependable service in moderate-use cycles.

(pictured on the left)

VTC planetary gearboxes are the heaviest and strongest in this mixer class and are designed to run up to 24 hours a day.

(pictured on the right)

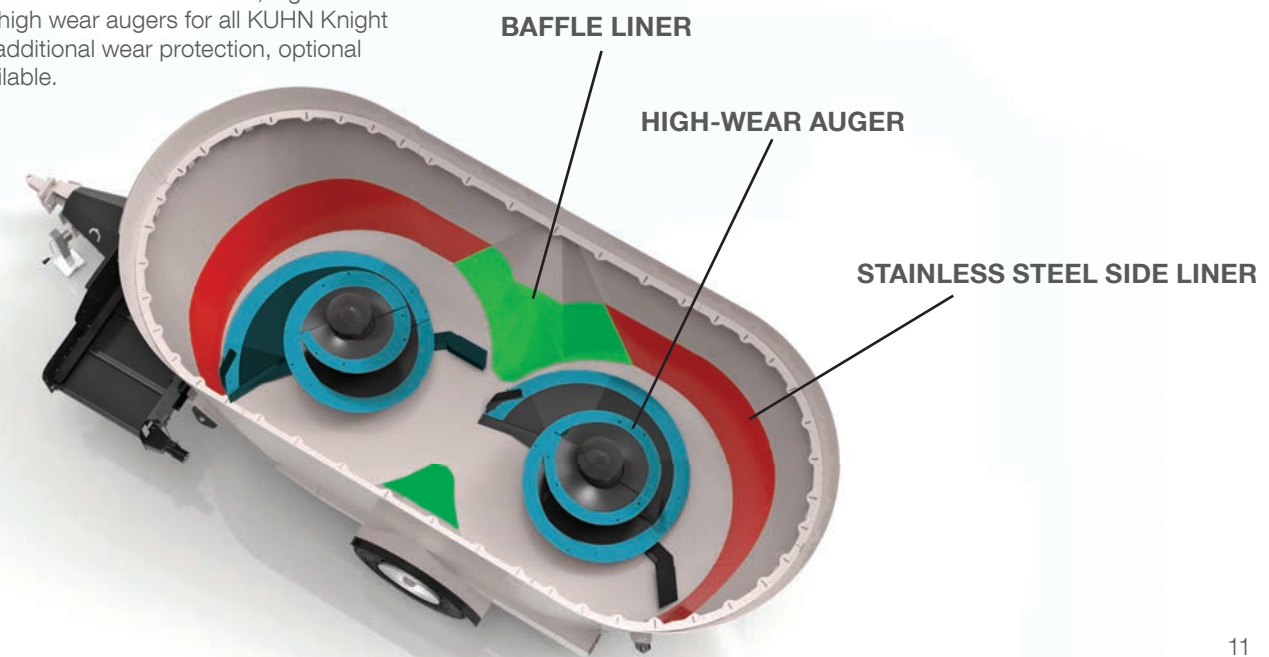
### VT vs. VTC General Comparison

Unit	VT 180 & 1100	VTC 180, 1100 & 1120
Unit Color	KUHN Red	Sandstone Silver
Planetary Gearbox	Standard Duty	Commercial Duty – 30% More Capacity
Auger Material	Standard A36 Steel	DuraMix® High-Wear Steel
Floor Thickness	3/4"	1"
Liners	No Liners Standard Optional 30" Stainless	Standard 30" Stainless – Truck & Trailer Optional 60" Stainless – Truck & Trailer Standard 60" Stainless – Stationary

### BUILT TO LAST

DuraMix® extended wear components help ensure dependable service and long life, even under the heaviest use-cycles.

These include standard stainless steel liner sides, higher carbon steel on the baffles and high wear augers for all KUHN Knight VTC mixer models. For additional wear protection, optional baffle liners are also available.



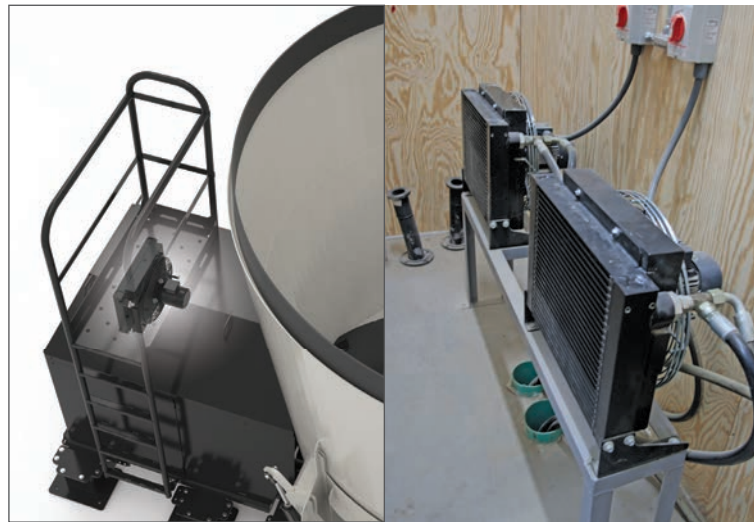
# MAXIMIZE FEEDING EFFICIENCY

For large-scale operations looking to maximize feeding efficiency and mixer throughput, the VTC series is also available in a stationary configuration. Stationary mixers are ideal for producers with centralized feed storage and multiple mixers running throughout the day. By incorporating centralized mixing, one loader operator is often able to keep multiple mixers constantly running, greatly increasing mixing capacity and reducing labor. Also, with the addition of delivery boxes, the mixers do not experience the downtime from driving location to location, and in turn do not receive the additional stress which can be seen from constant travel. The VTC Stationary Series is available with complete electric drive packages for efficient operation, and include many unique features, allowing them to be custom tailored to perfectly fit in your facility.



## ROBUST POWER PACKAGE

The electric motor is directly coupled to the auger planetary gearboxes through robust automotive-style drivelines. These drivelines have greater longevity in high use and high speed applications versus traditional ag drivelines. Stationary mixers can operate as single-speed units or with a customizable range of speeds through the use of variable frequency drive (VFD). VFD allows the operator to achieve maximum efficiency and performance during mixing and discharge.



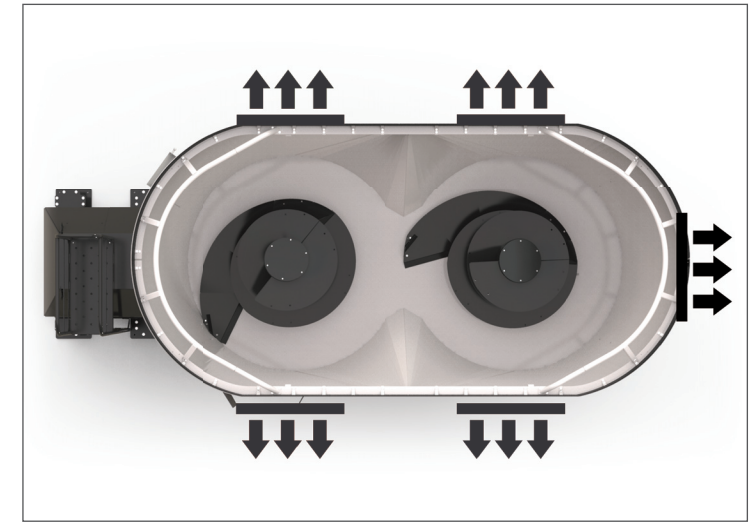
## PLANETARY COOLING SYSTEM

Planetary cooling system can be mounted inside the drive enclosure or mounted remotely. The cooling system keeps planetary oil cool even during extended run time.



## CUSTOMIZABLE MIXER HEIGHT OPTIONS

Pedestal heights of 0", 8", 12" or 16" provide you with the flexibility to balance loading height versus discharge height.



## MULTIPLE DOOR OPTIONS

Customize the door options to meet your specific operation's needs. Door locations include: rear, front left, front right, two left, two right, rear and front left, rear and front right.

# TAILORED TO YOUR OPERATION

Eight different door configuration options offer flexibility to fit a variety of feeding situations. The large discharge openings provide fast, even unloading from front, side and rear door locations for maximum efficiency.



## FRONT DISCHARGE

The redesigned front cross conveyor uses rugged components for unmatched dependability. A heavy-duty stainless steel floor along with the heaviest conveyor chain in the industry, helps ensure long life and less downtime. New options provide the ultimate versatility to match most feeding situations.



## FLAT CONVEYOR

The flat front conveyor option is simple to operate and offers convenient feeding from either side of the machine on trailer models. Hydraulic side shift is standard and gives you the ability to shift the conveyor a total of 16" from side to side for accurate feed placement.

*Truck models – left discharge only, with 10" side shift.*



## INCLINE EXTENSION

The incline conveyor option is available with the choice of either right or left side unloading on trailer models. This option allows the flexibility for both floor feeding and feeding into bunks of various heights where a longer or higher reach is needed for precise feed placement. It also folds up tightly for transport.

*Truck models – left discharge only.*

## REAR DISCHARGE

A rear commodity door is available on VT and VTC models. The large opening provides fast discharge, even with high-roughage premixes. A discharge tray is included on truck models to direct material flow for clean, accurate feed placement.

## SIDE DISCHARGE

Side-discharge options are available for both truck and trailer models. Truck models offer a left-side door, while trailer models offer doors on either or both sides. The large door openings, unmatched by competition, allow fast unloading.



## SIMPLE SLIDE TRAY

The side-discharge slide tray option has simple hydraulic controls and helps guide the feed further away from the tire path. Discharge magnets help catch metal fragments to prevent hardware disease.



## RUGGED SIDE CONVEYORS

The optional side conveyors provide the ultimate in durability and long life. Heavy-duty components ensure reliable service, even in extreme use conditions. Multiple conveyor length options offer unmatched flexibility to tailor the discharge to your needs.



## 8' BELT CONVEYOR

An optional 8' belt conveyor can be added for easy placement of feed at varying heights including the filling of mobile feed carts. The belt offers quiet operation and consistent feed flow.

*Available on VT 180/1100 models only.*



# OPTIONAL EQUIPMENT



### HAY-RETENTION RING

The steel hay-retention ring helps contain large round bales during processing and reduces hay spillage more effectively compared to similar options on competitive models.



### CAPACITY BELT EXTENSION

A belt extension added to the top of the mixing tub increases capacity by about 10%. It also improves hay containment, and the rubber construction is durable and pliable for long life.



### LADDER OR VIEWING PLATFORM

All models feature a standard observation ladder to easily view the inside of the mixing chamber. Trailer models also offer an optional viewing platform for a convenient, comfortable place to check mixing progress.



### TIP-OFF WITH MAGNETS

A fixed tip-off with magnets can be added to both the flat and inclined front conveyors, as well as the side conveyor options. The magnets work to catch small metal fragments present in the feed and help prevent hardware.



### HANGING BELT WITH MAGNETS

Either or both ends of the flat conveyor can be fitted with a hanging belt with magnets to catch small metal fragments. The hanging belt also helps to even feed flow off the end of the conveyor.



### STAINLESS STEEL LINER

A stainless steel liner provides extra protection in the lower part of the chamber where most wear occurs. Stainless steel baffle liners are also available.

*30" liner: optional on VT, standard on VTC models.  
60" liner: optional on VTC models.*



### SCALE SYSTEMS

Different scale brands, models and options are available for all types of operations, ranging from the very basic to a high-end feed-tracking program that uses a remote scoreboard display. Optional remote indicators are available for placement that will allow easier viewing.



### KNIFE OPTIONS

Choose from 15" or 20", replaceable hay-cutting knives to meet your feeding needs best.



### MULTIPLE SHIFTING OPTIONS

The gearbox can be shifted manually on the machine or with an in-cab electric shift option for operator convenience.

*Available on trailer models only*

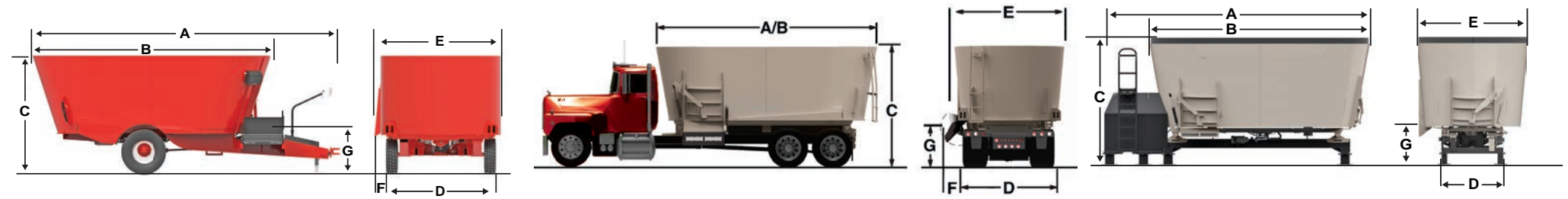


## GENUINE KUHN PARTS®

No part better fits a KUHN machine than an original KUHN part

Here at KUHN, we produce spare parts built to last in our very own foundries, our forges and our ultra-modern production facilities. You can trust in our longstanding know-how, based on almost two centuries of experience. With Kuhn North America Parts, you can be assured of the highest quality parts and customer service in the agriculture equipment industry. Seven distribution centers, located strategically throughout North America, ensure that KUHN, KUHN Knight and KUHN Krause dealers have access to parts and assistance so you can get back in the tractor.





## Model Specifications

DIMENSIONS (Inches)	VT 180   VTC 180			VT 1100   VTC 1100			VTC 1120		
	Trailer	Truck	Stationary	Trailer	Truck	Stationary	Trailer	Truck	Stationary
A – Overall Length									
– Front Door	328"	262"	–	330"	264"	–	332"	266"	–
– Side Door	295"	234"	289"	297"	239"	290"	299"	241"	295"
B – Mixing Chamber Length	234"	234"	234"	239"	239"	239"	244"	244"	244"
C – Overall Height Standard <sup>1,2</sup>									
– Base Machine (Inline/Bogie)	107" / 110"	119"	–	122" / 125"	134"	–	138" / 141"	150"	–
– 8" Belt Extensions (Inline/Bogie) <sup>1</sup>	115" / 118"	127"	111"	130" / 133"	142"	126"	146" / 149"	158"	142"
– Hay Retention Ring (Inline/Bogie) <sup>1</sup>	113" / 116"	125"	109"	128" / 131"	140"	124"	144" / 147"	156"	140"
– With 12" Subframe Pedestals	–	–	103"	–	–	118"	–	–	134"
D – Mounting Base Width	–	–	75"	–	–	75"	–	–	75"
D – Tread Width <sup>2</sup> (Inline/Bogie)	113" / 104"	100"	–	113" / 104"	100"	–	113" / 104"	100"	–
E – Overall Width	117"	117"	117"	119"	119"	117"	119"	119"	117"
– With Side Chutes	–	–	128"	–	–	130"	–	–	130"
– Without Side Chutes	–	–	117"	–	–	119"	–	–	119"
F – Maximum Discharge Reach									
– Front Cross Conveyor (Flat)	8"	10"	–	8"	10"	–	8"	10"	–
– Front Cross Conveyor (Incline 24°/36°)	17" / 28"	19" / 28"	–	17" / 28"	19" / 28"	–	17" / 28"	19" / 28"	–
– Side Slide Tray	24"	26"	–	24"	26"	–	24"	26"	–
G – Maximum Discharge Height									
– Front Cross Conveyor (Flat)	42"	50"	–	42"	50"	–	42"	50"	–
– Front Cross Conveyor (Incline 24°/36°)	50"/55"	60"/65"	–	50"/55"	60"/65"	–	50"/55"	60"/65"	–
– Side Slide Tray	42"	28"	–	42"	28"	–	42"	28"	–
– Side Door with 12" Subframe Pedestals	–	–	30"	–	–	30"	–	–	30"
<b>SPECIFICATIONS</b>									
Mixing Capacities									
– No Extensions	800 cu.ft.	800 cu.ft.	800 cu.ft.	1,000 cu.ft.	1,000 cu.ft.	1,000 cu.ft.	1,200 cu.ft.	1,200 cu.ft.	1,200 cu.ft.
– Extensions	880 cu.ft.	880 cu.ft.	880 cu.ft.	1,100 cu.ft.	1,100 cu.ft.	1,100 cu.ft.	1,320 cu.ft.	1,320 cu.ft.	1,320 cu.ft.
Unit Weight <sup>3</sup>	21,200 lbs   22,200 lbs	17,900 lbs   19,100 lbs	22,700 lbs	23,100 lbs   24,300 lbs	20,000 lbs   21,200 lbs	24,800 lbs	26,400 lbs	23,300 lbs	26,900 lbs
Maximum Net Load	26,400 lbs	26,400 lbs	26,400 lbs	33,000 lbs	33,000 lbs	33,000 lbs	39,600 lbs	39,600 lbs	39,600 lbs
Augers									
– Number of Augers	2	2	2	2	2	2	2	2	2
– Diameter	104"	104"	104"	104"	104"	104"	104"	104"	104"
– Upper Flighting Thickness	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"
– Lower Flighting Thickness	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
– Knives per Auger (Standard/Maximum)	5/6	5/6	5/6	5/7	5/7	5/7	6/8	6/8	6/8
Drive									
– Planetary	Split-Drive	Split-Drive, Hydrostatic	Direct Drive	Split-Drive	Split-Drive, Hydrostatic	Direct Drive	Split-Drive	Split-Drive, Hydrostatic	Direct Drive
– PTO Drive	1,000 RPM	FEPTO or REPTO*	Direct Drive	1,000 RPM	FEPTO or REPTO*	Direct Drive	1,000 RPM	FEPTO or REPTO*	Direct Drive
– Protection	Torque Disconnect	Torque Disconnect	Electric Disconnect	Torque Disconnect	Torque Disconnect	Electric Disconnect	Torque Disconnect	Torque Disconnect	Electric Disconnect
Tub and Trailer Construction									
– Floor Thickness	3/4"   1"	3/4"   1"	1"	3/4"   1"	3/4"   1"	1"	1"	1"	1"
– Sidewall Thickness	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"
– Door Opening									
– Front	48" X 40"	48" X 40"	–	48" X 40"	48" X 40"	–	48" X 40"	48" X 40"	–
– Side	42" X 40"	42" X 40"	42" X 40"	42" X 40"	42" X 40"	42" X 40"	42" X 40"	42" X 40"	42" X 40"
– Rear	48" X 40"	48" X 40"	48" X 40"	48" X 40"	48" X 40"	48" X 40"	48" X 40"	48" X 40"	48" X 40"
Tongue Weight (% Gross)	10%	–	–	10%	–	–	10%	–	–
Tractor Horsepower Requirement <sup>4</sup>	140 hp	–	–	150 HP	–	–	170 HP	–	–

<sup>1</sup> Truck dimensions based on 41" truck frame height. Stationary dimensions include a 12" subframe pedestal.  
<sup>2</sup> Heights and widths will vary depending on tire size.  
<sup>3</sup> Unit is equipped with most common options.  
<sup>4</sup> Horsepower requirement may vary with different materials. Consult operator's manual for proper tractor sizing.  
\* Consult truck mounting technical specifications brochure for more information.

# COMPLEMENTARY PRODUCTS

## MORE PRODUCTS TO MEET YOUR NEEDS

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Your KUHN Knight dealer

## KUHN NORTH AMERICA, INC.

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