



Vertical Tillage
EXCELERATOR® 8005-50



ACCELERATE RESIDUE BREAKDOWN

ONE PASS

The KUHN Krause Excelerator® Vertical Tillage System provides exceptional residue cutting, soil and residue mixing and seedbed preparation in one pass, utilizing an exclusive 4-step process.

SOLUTIONS

True vertical tillage delivers residue cutting and soil mixing without soil shearing or smearing in the critical zone for seed placement and young seedling root development.

YOU DECIDE

This exclusive 4-step process makes the Excelerator one of the only vertical tillage systems to provide operators a choice:

- Move soil laterally to fill shallow ruts and smooth fields following less than ideal harvest conditions.
- Leave more residue to meet requirements for highly erodible land (HEL) conditions.

VERTICAL TILLAGE SYSTEM EXCELERATOR 8005 in brief

Models	Working Width	Number of Blades	Weight (lbs / kg)
8005-50	50'	153	42,050 / 19 074



VERTICAL TILLAGE SYSTEM EXCLUSIVE 4-STEP PROCESS

1 CAPTURE AND SLICE

Excalibur® VT (Vertical Tillage) blades, with their distinctive scalloped edge, capture and slice residue into planter-manageable sizes. This exclusive 32-flute design easily penetrates soil, creates small clod size and begins the soil and residue mixing process.

2 CUT AND REMOVE

In this high-speed process adjustable gang angles with Excalibur VT blades on 8" spacing remove the maximum amount of uncut soil at shallow depth settings, while minimizing furrowing and ridging for a smooth field finish.

3 MIX AND ANCHOR

Star Wheel™ treaders aggressively mix soil and residue, pulverize large clods, remove soil from disturbed root balls and anchor residue into the soil surface.

4 SIZE AND FIRM

The proven 24/7® soil conditioning reel delivers clod sizing and firming for this high-speed operation.





EXCALIBUR® VT VERTICAL TILLAGE BLADE



CAPTURE AND SLICE RESIDUE

Soil movement and residue mixing are varied by adjusting the gangs from 1° (maximum residue retention) to 5° (maximum soil movement, leveling and residue mixing). Hydraulic gang angle adjustment is available as an option. Excalibur VT blades are designed to wear on both sides of the blade at these settings, maintaining a sharp edge over time. These shallow angles prevent soil roll and inversion, distinguishing the Excelerator's performance from competitive units based on older disc harrow technology with typical gang angles from 10° to 22°.

CUT AND REMOVE

The second gang of Excalibur VT blades are indexed to the front 8" spaced blades to remove the maximum amount of uncut soil at shallow depth settings. This provides uniform tillage without smearing or compacting the critical seed zone required for consistent seedling root development. During this process, soil and residue are lifted above the surface and propelled by the fluted blades into the next step of this exceptional vertical tillage process. The unique design of the Excalibur VT blades minimizes furrowing and ridging, leaving a smooth field pass-to-pass.



Quality Finishing



KUHN KRAUSE EXCLUSIVE STAR WHEEL™ TREADERS

Aggressively mix soil and residue, pulverize large clods, level and anchor residue into the soil surface. This action protects residue from blowing winds or washing rains, and begins the decomposition of residue into valuable organic matter.



SMOOTH, EVEN PLANTING SURFACE

The Star Wheel™ treaders assist in breaking out any remaining uncut soil between blade paths providing a smooth, even surface for planter row units to place seeds consistently in the seed zone. Constant flow hydraulic-adjustable gangs are spring cushioned to contour over varying field conditions, evenly distributing residue across the soil surface for a uniform finish.



HEAVY-DUTY 24/7® CONDITIONING REEL

The proven 24/7 soil conditioning reel delivers clod sizing and firming for this high-speed operation. The 24/7 reel also offers the convenience of "floating" with a simple in-field adjustment, allowing continued operation in higher soil moisture conditions.



TWO HEAVY-DUTY REEL OPTIONS AVAILABLE

Available with flat blades for maximum clod sizing in hard soil conditions or round bars for increased soil firming in loamy soil conditions, this effective component completes a superior finish to any field.

MAINTENANCE-FREE BEARINGS



Excalibur® VT gang bearing

Star Wheel™ treader bearing

24/7® reel bearing

Spherical pivot bearing

- No daily grease maintenance required for the new PEER® TILLXTREME™ maintenance free bearings, now incorporated into the Excalibur® VT gang assemblies, Star Wheel™ treaders and 24/7® conditioning reels.
- Spherical pivot bearing for each walking beam assembly requires no grease, along with rocker and wing hinge pivots.

Customized to Fit Your Operation

ADDITIONAL FEATURES



GUARDIAN HITCH™

This exclusive option guards against stress on the tractor drawbar and implement frame. Lateral drawbar forces are transferred through the hitch pivot, where shock load from steering input is dampened by urethane blocks.



SINGLE-POINT DEPTH CONTROL

Blade depth is conveniently controlled with the crank adjustable depth stop located at the front of the machine. View working depth on the easy-to-read scale.



HYDRAULIC WING DOWN PRESSURE

The Excelerator® features standard constant-flow hydraulic down-pressure. This feature can add additional downforce to each wing via the wing fold cylinders. This feature stabilizes each wing section during high-speed operation.



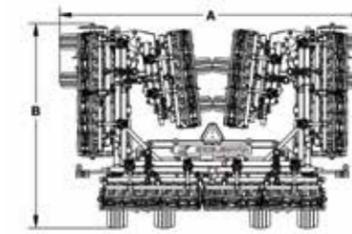
WALKING BEAMS

Standard heavy-duty walking beams on the center section feature heavy-duty wheel hubs with slip in spindles. Walking beam assemblies feature spherical pivot bearing require no daily grease maintenance. Walking beam tandems on each wing frame have 6-bolt hubs with bolt in spindles as standard equipment.



STAR WHEEL™ HYDRAULICS

Live hydraulic action keeps treaders in contact with soil contours maintaining uniform operational pressure across the width of the machine. This allows for superior soil leveling and residue mixing.



8005-50

Technical Specifications

8005-50	
Specifications	
Transport Width ²	19'4" (5.88 m)
Transport Height ²	14'9" (4.5 m)
Blade Spacing	8" (20.3 cm)
Number of Blades	153
Working Width ¹	50' (15.2 m)
Approximate Weight	43,100 lbs (19 550 kg)
Standard Equipment	
Hitch Type	Articulating Ball, CAT V, 2-3/4" Pin
Tongue Type	Guardian Hitch™ (Cushion Tongue) with Mechanical Fore / Aft Adjustment, Level-Lift Tongue
Hydraulics	Single Point Depth Control, Color Coded Hydraulic Hose Grips, All Hydraulic Hoses
Transport Locks and Safety	Hydraulic Valves, Lift and Wing Fold, Slow Moving Vehicle Sign, High Visibility LED Lighting
Gangs	1-3/4" Round Diameter Alloy Tie Rod, Rock-Flex™ Bearing Arms - C-Type 1-1/4" x 2-1/2", 6" Bell Diameter Ductile Iron Spools, Cast Housing PEER® TILLXTREME™ No-Daily Grease Maintenance Bearings Encased in 2-Piece Nylon Outer Ring, Trash Bars, Tie Rod Wrench
Gang Angle	Hydraulic Adjustment 1° to 5°
Excalibur® VT Blades	Excalibur VT Blades - 22" Diameter, 6mm, 32-Flute, Reversed Crimped Center
Main Frame Tires	Walking Beams with Spherical Pivot Bearings, Slip-In Spindles, 10-Bolt Heavy-Duty Hubs, (4) 445/50 R22.5
Tires (Wing Frame)	Walking Beams with Spherical Pivot Bearings, Slip-In Spindles, 10-Bolt Heavy-Duty Hubs, (2) 340/60 R16.5 per Wing
Star Wheel Treaders	1-1/2" Round Diameter Alloy Tie Rod, Rigid Bearing Arms, 8" Spacing 6° Angle, Constant-Flow Hydraulic Adjustable Gangs, Flangette PEER® TILLXTREME™ No Daily Grease Maintenance Bearings
24/7® Conditioning Reel	Round or Flat Spiral HD Reels, No Daily Grease Maintenance Bearings
Optional Equipment	
Gauge Wheels	(4) Front Castering 20.5" x 8 Load Range E or Kevlar
Excalibur® Blades	22" diameter, 5mm, 32-Flute, Reversed Crimped Center
Star Wheel Treaders	Spring Cushion Gangs, Mechanical Adjustable
24/7® Conditioning Reel	Heavy-Duty Round or Heavy-Duty Flat Spiral Reels with PEER TILLXTREME Maintenance-Free Bearings
Rear Hitch with Attachment	Extendable Tongue Rear Hitch: Max. 3,705 lb Tongue Weight and 15,000 lb Tow Weight with Hydraulic
Rear Hitch without Attachment	Extendable Tongue Rear Hitch: Max. 2,500 lb Tongue Weight and 10,000 lb Tow Weight with Hydraulic
Operating Information	
Maximum Working Depth	3.5" (8.9 cm)
Tractor Power Range ³	9 - 12 ENG HP/ft, (23 - 29 kW/m)
Recommended Speed of Operation	8-10 mph (12-16 km/h), Rocky Conditions: 6-8 mph (9-13 km/h)

¹ RTK working width

² Approximate transport width, height and weight shown with optional finishing attachments.

³ Estimates only. Horsepower requirements will vary by geography and soil type.

N/A - Not applicable

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