

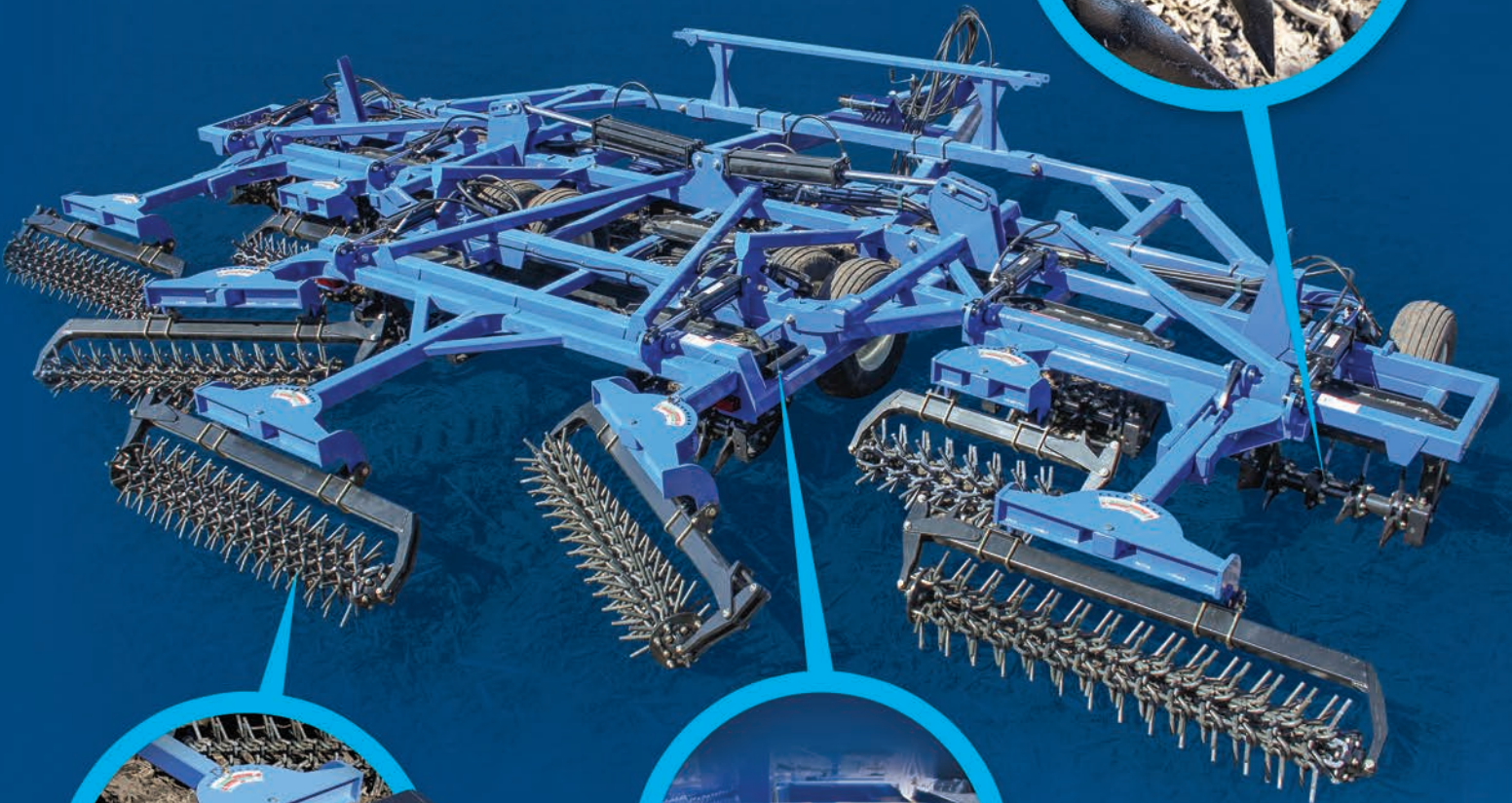
NOW  
EQUIPPED  
WITH  
**TILLXTREME™**  
BEARINGS.

- LARGEST TILLXTREME TRUNNION BEARING USED IN AN AG APPLICATION
- INCREASED IMPACT AND FATIGUE RESISTANCE
- NO NEED FOR DAILY RELUBE

**SMART-TILL®**

HCC, inc.

# VERSATILE TECHNOLOGY FOR PROFITABLE PRODUCTION





Protect your soil and maximize your resources with the innovative tilling technology of SMART-TILL®. From soil management to pasture/hay management, SMART-TILL®'s patented tines help optimize yield by fracturing rather than turning soil.

## SMART-TILL®'s self-sharpening three-tine helical design:

- Creates a more extensive fracture force line both laterally and vertically
- Fractures soil more than 8" deep
- Reduces soil compaction
- Rejuvenates soil
- Improves pasture/hay, soil, and manure management
- Enhances no-till/minimum till
- 8-10 mph suggested operating speed
- Manages residue

# VERSATILE, MULTIFUNCTIONAL



## Durable and reliable, SMART-TILL® offers **ADAPTABILITY** few implements provide.

Its patented tines are adjustable from 0° to 10° depending on application. The optional rotary harrows—available only with SMART-TILL®—can be varied up to 30° at either standard or aggressive angles.

SMART-TILL®'s unique design allows it to fracture soil more than 8" deep, with little surface disturbance. This creates improved air and water exchange, which offers many benefits for different applications.



SMART-TILL®'s tines fracture soil more than 8" deep, allowing air (yellow) to be released and water (blue) to be absorbed more readily for healthier soil.



### Common SMART-TILL® Settings

Season	Tine Gangs	Harrows
Fall	5°	15° aggressive
Spring	2.5°	22.5° standard

The fracturing seems to be at the optimum at 5° tillage. The more aggressive the tillage angle, the more surface disturbance but also the larger the soft divot left behind. Zero degrees on the tillage gangs is never recommended.

In most situations, setting the harrows at 15° aggressive is a good starting point. A more aggressive setting than this could lead to ridging/windrowing unless the speed is fairly slow. The standard angle settings can be used in situations that call for a roller crumbler basket.

See pages 30 and 31 of the SMART-TILL® Operator's Manual for step-by-step instructions on how to adjust tine angles and important information.

See pages 32-35 of the SMART-TILL® Operator's Manual for step-by-step instructions on how to adjust harrow angles and important information.

Model	Tilled Width	Overall Length	Tine Spacing	Required Horsepower	Weight	Tire Size	Number of Tires
ST101	10'	16' w/o harrows 23.5' w/harrows	7.5"	85-130 pto hp	3,350 lbs. w/o harrows 5,250 lbs. w/harrows	11L-15FI	4
ST151	15'	18.5' w/o harrows 26' w/harrows	7.5"	130-200 pto hp	5,000 lbs. w/o harrows 7,850 lbs. w/harrows	11L-15FI	4
ST203	19' 2"	18.5' w/o harrows 26' w/harrows	7.5"	170-255 pto hp	7,500 lbs. w/o harrows 11,400 lbs. w/harrows	11L-15FI	6
ST303	28' 4"	18.5' w/o harrows 26' w/harrows	7.5"	300-450 engine hp 255-380 pto hp	10,500 lbs. w/o harrows 16,000 lbs. w/harrows	11L-15FI	6

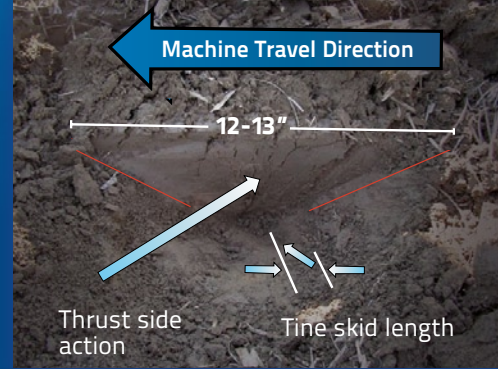
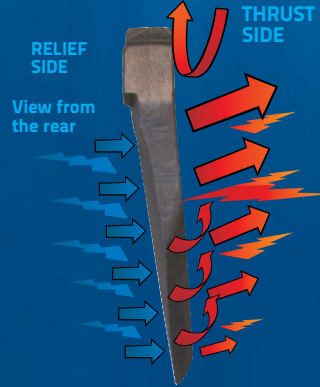
# HOW IT WORKS



SMART-TILL®'s effectiveness comes from its two phases of tine action—**ENTRY**, or soil displacement, and **FRACTURE**, when force is applied. The recommended operating speed is 8-10 mph.

Tine shaft speed helps produce low torque and create a "ripping" effect that breaks through subsoil to allow more rapid air and water exchange. Water moves into the subsoil instead of resting in the plow layer, and roots easily penetrate the soil.

The soil surface receives only limited surface disruption, allowing for optimum performance from any field. Plus, SMART-TILL® offers the versatility to adjust the tine angle to suit the application and raise the harrows independent of the rest of the implement.



Reducing the shaft speed produces exaggerated fracture forces by extending the duration of tine contact within the soil. Even in wet soil, fracture lines are easily observed.



Closeup of the distinctive design of SMART-TILL®'s tines

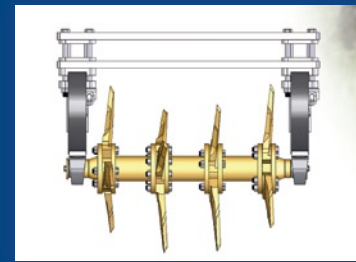


Diagram of the distinctive design of SMART-TILL®'s tines

## Effective in Many Fields



- Break up compaction with minimal surface disturbance
- Improve air and water exchange for healthier soil
- Expand available spring planting time
- Protect from winter elements
- Manage residue



- Improve soil's ability to absorb liquid manure
- Allow rapid incorporation of manure into soil
- Reduce odor issues
- Decrease risk of runoff



- Reduce surface compaction
- Improve yields
- Encourage stronger roots and better emergence
- Enhance fertilizer and nutrient uptake
- Renovate and interseed

# SMART-TILL® ROTARY MODULES



**ONLY** SMART-TILL® is available with optional rotary harrows, increasing your potential to **OPTIMIZE** your fields' finish.



## SMART-Harrows Modules

- Smooth, level, and loosen soil
- Prepare seed beds
- Adjust harrow angle for versatility

## SMART-TILL® Rotary Harrow Modules

Part No.	Description
853044	Harrow Module 3'
853066	Harrow Module 5' 7"
853033	Harrow Module 6'
853109	Harrow Module 9'

## SMART-TILL® Harrow Hanger

Part No.	Description
853129*	3' Harrow Hanger
853103*	5' 7", 6', 9' Harrow Hanger

\*Includes hanger, bushing, decal

## SMART-TILL® Rotary Modules

- Harrows can be varied up to 30° at either standard or aggressive angles.
- SMART-TILL® rotary harrows increase your potential to optimize your fields' finish.
- SMART-TILL® harrow tines create variable amounts of loosened soil depending on setting chosen.
- This adaptability also sets the depth of penetration for the rotary harrow, allowing for changes according to field conditions and crops.
- Adjusting harrow angle and reversibility provides a full range of tillage options.



Harrows weigh over 130 lbs. per foot. Please be sure your implement is strong enough to lift and carry the harrows without damaging the implement. HCC assumes no liability for damage of any implement on which SMART-Harrows are attached.



Decals show how to adjust the tine gangs and harrows.

## SMART-TILL® Harrow 3-Point Hitch

# GET THE MOST OUT OF YOUR SMART-TILL®!



The new SMART-TILL® 3-point hitch adapter lets you **attach harrows or other finishing tools to the SMART-TILL® to optimize productivity** in your fields.

The SMART-TILL® 3-point hitch adapter works with SMART-TILL® SMART-Harrows and other finishing tools to increase versatility of the implement and make your farming operation more efficient.



3-point hitch adapter



Tool option

## Endless Options

- **SMART-TILL® without harrows**  
For use on pasture renovation and interseed
- **SMART-TILL® with harrows**  
Manage and break down residue, plus flexibility to change angles
- **SMART-TILL® with H-frame 3-point adapter**  
Flexibility to attach other implements to suit your particular farming practice



**OVER 100 YEARS OF FARMING INNOVATIONS™**

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Mendota, IL 61342

For more information,  
call 815-539-9371  
ext. 348, or visit  
[www.smart-till.com](http://www.smart-till.com).



The H.D. Hume pickup reel and Hart-Carter Products have long been associated with quality and innovation in harvesting. For over a century, HCC, Inc. has led the way with high-value products designed to optimize harvest efficiency and effectiveness. Today, HCC is the leading designer and manufacturer of pickup reels, sieves, chaffers, tillage equipment, and other components for OEM manufacturing and harvesting equipment.

**DEALER:**