

# Valley® Drive Train

RELIABLE | DURABLE | PRECISE | ADVANCED | RESPONSIVE



**VALLEY** 

The Leader in Precision Irrigation.

## Gearbox

The Valley<sup>®</sup> gearbox is designed and built by Valmont<sup>®</sup> Irrigation in Valley, Nebraska, USA. It is constructed to work under the most demanding conditions.

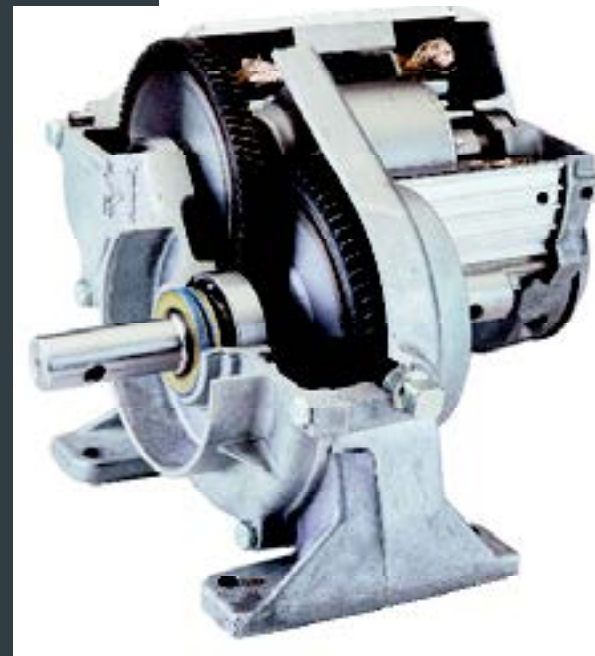
- 25° tooth angles — Provide greater load capacity and wear resistance than the competition.
- Expansion chamber — Cap made of noncorrosive cast aluminum; rubber diaphragm allows oil to expand and contract during operation.
- Ductile iron worm gear — Provides higher load capacity against cast iron versus a steel worm gear.
- Bull gear — Highest load capacity in the industry and longest life.
- Threaded endcap — Allows accurate bearing preload to increase bearing life.
- 52:1 gear ratio — Full recessed tooth design keeps oil between engaged gears.
- Longest output shaft — This Valley exclusive provides extra clearance between gearbox and tire to reduce mud buildup, which in turn prevents seal damage and extends the gearbox life.



## Valley Center Drive

The Valley center drive is built stronger, lasts longer and uses less energy than other irrigation drive motors. Standard-speed and high-speed motors are available, with the standard-speed requiring the least amount of power in the industry.

- Double output shaft seals — Keep oil in the motor and prevent dirt from entering the motor.
- Built-in crop guard over U-joint — Prevents crop wrapping in or near oil seals.
- Case-hardened steel helical gears — More teeth in mesh at all times for smoother power transmission.
- Exclusive coating — Applied to internal surfaces to prevent corrosion.
- Finned aluminum housing — For cool-running efficiency. Operates at temperatures lower than competitive motors.
- Single-phase electric option — For locations without three-phase power.



## Valley Motor Shield

The Valley motor shield is made out of a tough flexible material that protects your center drive from livestock, weather and corrosive water. Your motor will be completely covered while the vents on the bottom and top ensure the motor stays cool and dry. The cover can be easily removed for servicing.



## Valley Center Drive



*New Valley X-Tec Drive*

## Valley X-Tec<sup>®</sup>

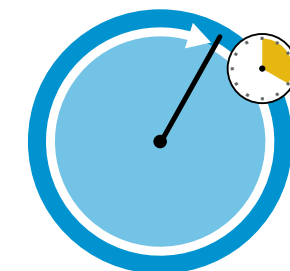
The new Valley X-Tec<sup>®</sup> drive delivers the ultimate combination: top-performing speed for quick irrigation cycles and dynamic power to take on even the toughest terrains. The patented alignment technology and robust DC motor keep the pivot moving at a smooth and consistent pace, even over varied terrain.

Valley X-Tec utilizes FastPass™ technology to operate up to two times faster than a standard, high-speed AC center drive motor. The advanced DC motor design provides constant torque throughout a wide speed range, providing growers with unmatched control and additional options to maximize crop yields.

### Powerful Features:

- Full torque at all speeds
- Patented, consistent precision alignment
- Low inertia rotor
- Electric braking technology
- Robust design provides lasting durability
- Soft starts allow for smooth acceleration of the motor

### Valley FastPass Technology Typical Seven-Tower Machine Comparison



**Valley X-Tec Drive**  
4 hours total to finish irrigating a field

*Limitations based on field conditions*



**Standard AC Drive**  
8 hours total to finish irrigating a field

# Traction and Flotation

Feature	Benefit	2-Wheel Drive	3-Wheel Drive	Track Drive	Articulating 4-Wheel Drive	Articulating Track Drive
Four drive braces on each side	Improves span alignment when crossing deep ridges, balances the load					
Wide wheel base	Improves span stability on rolling ground and in windy conditions					
Wide range of tire sizes	Traction and flotation options to match field conditions					
Three driven tires	More traction to prevent stuck drive units					
Heavy duty base beam	Strength to support center tires on ridges					
Increased traction	Helps prevent stuck drive units					
Heavy duty steel tracks	Minimize ground pressure					
Increased flotation	Minimizes soil compaction and rut depth					
Rough ground capability	Maneuvers through varying field conditions					
Articulating drive base beams	Tracks or tires maintain contact with the ground and can follow sudden changes in terrain					
Two center drives	Reduces motor load for longer life					
4-wheel drive tires	Provides better traction and less downtime					
Four tires on the ground	Half the weight per tire for reduced soil compaction and reduced wheel-rut depth					
Tracked drive unit with longer wheel base	Increased track length for more flotation					
Adaptable to tracks	Can add tracks with minimal effort					
Base beam only option	Provides for low cost upgrade if needed in the future					
Conversion packages	Retrofit existing Valley drive units					



Valley 3-Wheel Drive



Valley Track Drive



Valley Articulating 4-Wheel Drive



See your local authorized Valley dealer for complete details.



Valmont® Irrigation has a policy of continuous product improvement and development. As a result, certain changes in standard equipment, options, price, etc. may have occurred after the publication of this brochure. Some photographs and specifications may not be identical to current production. Your local Valley® dealer is your best source for up-to-date information. Valmont Irrigation reserves the right to change product design and specifications at any time without incurring obligations.