

# *Smithco*



Star Command 3180

## **GOLF COURSE MAINTENANCE EQUIPMENT**



Ultra 15 Fairway Roller



Greens Roller XL7000



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# SELECTING A SMITHCO SPRAYER TO MEET YOUR NEEDS IS A SIMPLE THREE-STEP PROCESS.



**1 BASE UNIT/PRIMEMOVER.** Pick the size of the spray tank that meets your needs: 110, 175, 200 or 318 U.S. gallons.

All Smithco sprayers are designed on robust steel chassis and powered by larger-than-necessary gasoline or diesel engines.

Hydraulic drive systems are engineered to last the life of the machine plus provide the constant spray pump speed that delivers as much volume as any application and agitation system can use. The chemical pumps are all Stainless Steel Centrifugal types. All spray connections are modular and feature o-ring face seals.

**2 Select the SMITHCO/TEEJET Application System** and controls that work best for you.

*You have four options:*

1. The high-tech STAR COMMAND 2.0. Features the Smithco/TeeJet® Aeros field computer which positions the area to be sprayed within 1" using the GS Terra Star, WAAS or Glonass Satellite Array. No on-site reception stations are needed. An "Auto-Steer" system is available and recommended to achieve the most accurate positioning.

2. The STAR COMMAND 2.0 also provides additional precision control with the TeeJet® DynaJet Nozzle control, known as a Pulse Width Modulation System (PWM) and gives control over flow and pressure (for droplet size variation.) The DynaJet allows a wider range of application rates plus operation up to twice as fast as units without PWM. Two nozzles, instead of one, at each position allow for the wider speed and application rate range.

The second choice in sprayer control systems is the STAR COMMAND 1.1. Same DynaJet Nozzle Control described above but coupled to the TeeJet® Radion Spray Control Field Computer. You still get all of the DynaJet advantages and an easy-to-use rate controller which maintains the correct application rate regardless of errors by the operator or long hills which can slow any sprayer down.

3. The third option is the TeeJet® Radion Spray Control Field Computer to provide a constant application regardless of variation in the ground speed.

4. Your fourth option is a simple electronic control which allows selection of 1, 2 or all 3 booms. Unlike the 3 models above, this unit is pressure based. The operator uses handles to increase or decrease output as needed.

**3 Add the accessories** that will make your Spray Star work perfectly in your operation.



## DEDICATED SPRAY VEHICLE

FROM SMITHCO AND TEEJET® TECHNOLOGIES

# STAR COMMAND 3180

## EXPERIENCE TOTAL CONTROL

- Control droplet size for greater efficacy independent of rate or speed.
- Spray from 2 to 10 mph. Up to twice as fast as other sprayers.
- Get the ongoing support of Smithco and TeeJet.
- Plus the dependability of the only GPS sprayers tested over 4 years by superintendents.

Smithco and TeeJet, the leader in application technology, have teamed up to create the Star Command II. It offers you a level of control that's never been available before.

Start with the 2 finest sprayers Smithco makes. The Spray Star 3180 and the 2000. Both factory-fitted with a DynaJet® Nozzle Control System and Aeros Field Computer from TeeJet.

The DynaJet Nozzle Control System uses pulse-width modulation to control droplet size. Choose the ideal drop size based on wind, speed and height of cut.

Solenoid-operated tip control at each nozzle, pulse up to 20 times per second. Drift is minimized and coverage is maximized by maintaining the optimum droplet size.

The Aeros Computer amplifies precision with individual tip control, pinpoint guidance, optional auto steering, application rate control, mapping, automatic boom control and USB data transfer.



TeeJet DynaJet Flex 7140  
Nozzle Control System



Solenoid-operated tip control



Aeros 9040 Computer



## SPRAY STAR 3180

*The most-compact maneuverable large-capacity dedicated spray vehicle on the market.*

- 318-gal. spray tank mounted on a hydrostatic drive prime mover.
- 35.5 hp (26 kW) 4-cylinder liquid-cooled diesel engine.
- Infinitely variable hydrostatic drive, two-speed control features for accurate chemical application.
- Four spray control system options from simple electric to GPS mapping systems.
- Adaptable to the Smithco/TeeJet® Star Command System
- Hydraulic power steering controls the most maneuverable large-capacity spray vehicle on the market.
- High-volume stainless steel centrifugal water pump with audible low pressure warning system and automatic air-bleed prime feature.
- Quad-Turbo 4 jet tank agitation.
- ROPS standard, twin seat design.





## SPRAY STAR 2000

- Hydraulic-drive spray vehicle with 200 gal. (757 l) capacity.
- "Perfect Solution" ultra low-profile fiber re-enforced polystyrene spray tank.
- 31 hp (23 kW) twin-cylinder gasoline engine or 25 hp (19 kW) 3-cylinder, liquid-cooled, diesel engine.
- Ultra high-volume STAINLESS STEEL centrifugal spray pump.
- Choice of spray control systems:
- Smithco Pulse Width Modulation Advanced Rate Control/Nozzle System with either:
  - Advanced Spray Control System.
  - Advanced Spray Control System with Accurate Satellite Controlled Precision.
- Adaptable to the Smithco/TeeJet® Star Command System



## SPRAY STAR 1000

- The lightest footprint and most compact/maneuverable dedicated fine-turf spray vehicle made.
- Hydraulic-drive spray vehicle with 110-gal. (416 l) capacity.
- "Perfect Solution" elliptical polyethylene spray tank.
- 23 hp (17 kW) gasoline engine.
- High-volume STAINLESS STEEL centrifugal spray pump.
- Choice of manual, electric or computer spray control system.
- Electric start with 12-volt battery.
- Adaptable to the Smithco/TeeJet® Star Command System

## SPRAY STAR 1750

### Hydrostatic-Drive Spray Vehicle

- 175-gal. (662 l) capacity.
- "Perfect Solution" elliptical polyethylene spray tank with lifetime guarantee.
- High-volume STAINLESS STEEL centrifugal spray pump.
- 31 hp (23 kW) gasoline engine.
- Choice of manual, electric or computer spray control system.
- Smithco operator protection structure w/seat belts.
- Adaptable to the Smithco/TeeJet® Star Command System



## NEW! 520 GALLON SPRAY STAR 5200

**A new level of productivity. • Reduce your spraying time and your expenses**

A sprayer is productive only when it's spraying. Driving to and from a mixing station, mixing chemicals, refilling, all add time to the job.

- 15 acres @ 38 Gallons per acre.
- 12 acres @ 1 gallon per one thousand square feet
- 65 HP Gasoline Engine
- Hydrostatic Drive
- Wide stance + low profile = increased stability
- Light footprint, 11 PSI on fine turf
- 10 foot inside turning circle
- High flow (160 GPM), High pressure (160 PSI) 4 stage centrifugal pump
- Modular TeeJet fittings
- Choose from a variety of control packages
- Pulse Width Modulation available
- GPS available

The Spray Star 5200 is fully adaptable to The STAR COMMAND 2.0 System. You'll get total control over droplet size for greater efficacy independent of rate or speed. Spray from 2 to 10 mph. Up to twice as fast as other sprayer.



## BUNKER RAKES



SMITHCO SAND STAR II

## SAND STAR HYDRAULIC SERIES

- Perfectly balanced for superior traction and stability.
- 4 models in both 2- & 3-wheel drive with parallel or series/parallel drive systems, 16 & 18 hp gasoline engines and 18 hp diesel engine, hydraulic and mechanical steering systems.
- "Star Trak" drive system on Sand Star II for improved traction and increased transport speed.
- Hydraulic control of implements with unmatched ground clearance.
- Widest range of implements for grooming, rolling, spiking, renovation, construction, debris and core removal, fertilizer applications and standing water management.
- ROPS with seat belt and work lights optional.

## SAND STAR (PRIME MOVERS)

### 45-001 SAND-STAR I

2-wheel drive, 16 hp (12 kW) OHV Vanguard gasoline engine, INCLUDES 45-017 Remote Cyclo-Pac Air Cleaner & 45-018 and Hydraulic Center Implement lift/lower, Factory Installed.

### 45-002 SAND-STAR II

3-wheel drive Smithco 2WD-3WD Traction Assist, 2-wheel drive selector for traction & increased transport speed, 18 hp (13 kW) OHV Vanguard gasoline engine. INCLUDES 45-017 Remote Cyclo-Pac Air Cleaner & 45-018 & Hydraulic Center Implement lift/lower, Factory Installed.

### 45-204 SAND-STAR IV

3-wheel drive Smithco SERIES-PARALLEL Traction Assist DRIVE, Hydraulic Power Steering, 18 hp (13 kW) OHV Vanguard gasoline engine. INCLUDES 45-017 Remote Cyclo-Pac Air Cleaner & 45-018 & Hydraulic Center Implement lift/lower, Factory Installed.

### 45-205 SAND-STAR Diesel

3-wheel drive Smithco SERIES PARALLEL Traction Assist DRIVE, Hydraulic Power Steering, 18 hp (13 kW) Liquid-Cooled, 3-cylinder Diesel Engine Tier 4 Compliant. INCLUDES 45-017 Remote Cyclo-Pac Air Cleaner & 45-018 & Hydraulic Center Implement lift/lower, Factory Installed.

*Smithco has been setting the standards for bunker rakes for the past 40 years and our current family provides new and exclusive features that make them the best we've ever made...the best you've ever used!*





## SAND STAR ZEE (ZERO TURN) BUNKER RAKE

### *Does what the competition can't do.*

- Only the ZEE offers the power and torque of a 22 hp (16 kW) twin-cylinder gas engine.
- Only the ZEE offers a front-mounted plow and the widest range of implements of any manufacturer.
- Only the ZEE offers mid-mounted sand cultivators with either manual or electric/hydraulic operation.
- 3-wheel configuration. With CERTIFIED ROPS/seat belt.
- (2) 25 x 10 x 12 rear tires.



45-511 serrated rubber rake with optional finish brush

## BUNKER RAKE IMPLEMENTS AND ACCESSORIES



### RBS 3-SECTION SPIKER

Open up greens and tees effortlessly using your Smithco bunker rake.

### Center-mounted Implements and Accessories

**Sand Cultivator** (58"/147 cm) – straight blades.

**Sand Cultivator** (58"/147 cm) – stainless steel, flexible spring tines loosen the sand while protecting the bunker edges.

**Construction Leveling Blade** (58"/147 cm) – ideal tool for tee and green construction.

**Disc Edger** – rolling blade for bunker edging.

**Sand Cultivator** (58"/147 cm) – triangle-shaped blades.



Sand Cultivator



Sand Cultivator, stainless steel



Construction Leveling Blade



Disc Edger



Sand Cultivator triangle-shaped blades



*The widest range of implements and attachments from any manufacturer.*



## BUNKER RAKES IMPLEMENTS AND ACCESSORIES CONTINUED



Core Collector



Steel Tournament Series Rake



Tournament Series Rake with Flex-Brush



Manual Plow



Hydraulic Plow



Typhoon Pumping System



Fan Rake



Brush Attachment Kit



Serrated Rubber Rake



Box Grader



Roller Brush Spiker System



Engine-Powered Leaf and Debris Blower

### Rear-mounted Finish Rakes and Brushes

**Core Collector** – fast economical way to pick up cores from greens. Labor saving and very cost efficient.

**Steel Tournament Series Rake** (72"/183 cm) and (84"/213 cm) – with stainless steel spring tines shown with optional finish brush to provide a smoother finish versus a grooved finish.

**Tournament Series Rake with Flex-Brush** (72"/183 cm) and (84"/213 cm) – hinged 3-section stainless steel spring tines, 3 trowel plates with adjustable grooved blades, 4 grooved floating finish blades, rubber grommets for noiseless transport, outer sections fold to reduce

transport width. Outer rake sections flex in tight turns to reduce unsightly "doughnuts". The final finish is a smooth brushed appearance.

**Fan Rake** (72"/183 cm) – 5 spring steel fan rakes mounted to a floating mount bar. Provides a less aggressive grooved finish, also works well for debris removal from bunkers. Not pictured 13-319 (72"/183 cm) Fan Rake Kit which mounts to rear of 13-758 Pro Rake.

**Brush Attachment Kit** for 72"/183 cm and 84"/213 cm finish rakes – final finish is a smooth brushed appearance in lieu of the grooved finish. A soft, natural, windblown look.



Pro Rake

**Serrated Rubber Rake** with optional finish brush.

**Pro Rake** (72"/183 cm) – an upgraded version of our classic rake that was developed over 30 years ago – hinged 3-section steel tine segments, 3 grooved trowel plates and 5 grooved floating finish blades.

### Front-mounted Implements and Accessories

**Manual Plow** (40"/102 cm) – aluminum blade, replaceable wear plate available in straight blade or adjustable angle feature configurations. Easy and convenient stow/deploy operator handle, fully adjustable.

**Hydraulic Plow** (40"/102 cm) – aluminum blade, replaceable wear plate available in straight blade or adjustable angle feature configurations. Hydraulic operation of stow/deploy.

### Rear-mounted Implements and Accessories

**Typhoon Pumping System** – remove standing water from bunkers, turf areas or hard surface. 600 gpm high-volume pump for liquids and semi-solids, 6.5' (2 m) suction snorkel ensures that the prime mover stays dry. 11 hp (8.5 kW) gas engine, electric start.

**Box Grader** (66"/167 cm) – hinged scarifier tine bar, levelling blade, ideal tool for tee and green construction.

**Roller Brush Spiker System** – a quick-attach 3-section system for rolling greens

or newly sodded areas; work topdressing into the soil profile after aeration; spike your fine turf to allow moisture, air and nutrients into the root zone. Each component can also be purchased separately.

**Engine-Powered Leaf and Debris Blower** – 10 hp gasoline engine, blower 2800 CFM, 190 mph makes quick work of leaf and debris removal.

**Dry Fertilizer and Chemical Spreader** – quickly and easily apply fertilizer or topdressing sand to fine turf, salt and sand to hard surface for ice control. 100 lbs (45 kg) polyethylene hopper (rustproof), 12-volt powered. (not pictured.)



## SWEEPERS, VACUUMS AND BLOWERS



### **NEW! V62-V TURF VAC**

*Highly Productive. Very Affordable.*

- 4-Yard Capacity Towed Vacuum.
- 23 hp Vanguard Twin, Electric Start.
- 62" Wide Swath, 4 Caster-Wheeled Head.
- Optional Hand Hose Door at Front of Impeller Housing.
- Large Fuel Tank, Direct Belt Drive to Impeller.
- Clean-out, Inspection Door, Rubber-Lined Housing.
- Electric/Hydraulic KYB to Open/Close Rear Door.
- Large Tires/Light Footprint, Optional Rear Filter Pack.
- Rear Door Opens Wide, Floor Steep to Empty Hopper.

### **SWEEP STAR 60 QUAD**

- 31 hp (23 kW) Vanguard twin-cylinder OHV gasoline engine with double-action remote air intake system.
- Hydrostatic-drive 4-wheel design with front leaf spring suspension, 3 cubic yard (2.2 cu M) high-lift dump debris hopper lifts to 74" (1.8 m).
- Hydraulic power steering.
- 60" (152 cm) wide sweeper head fitted with either a rubber finger reel or a nylon bristle brush reel for debris removal. Adjustable sweeping height, terrain-following sweeper head fitted with dual caster wheels.
- Rollover protective structure (ROPS) with operator seat belt.







Smithco offers a lineup of debris management products that lead the field in efficiency, quiet operation and versatility.

## SWEEP STAR V62

- Adjustable control console allows operator to control every function of the sweeper from the seat of the tow vehicle.
- Debris gets shredded by the steel impeller prior to entering the hopper for better compaction.
- 4 cubic yard (3 cu M) debris hopper capacity.
- 62" (158 cm) terrain-following sweeper head.
- 31 hp (23 kW) Vanguard twin-cylinder, gasoline engine.
- Mechanical-drive vacuum impeller, hydraulic-drive sweeper head.



## SWEEP STAR 60

- Choice of 31 hp (23 kW) twin-cylinder gasoline engine (Model 76-000) or 19.9 hp (15 kW) 3-cylinder diesel engine (Model 77-100).
- 3 cubic yard (2.3 cu M) debris hopper capacity.
- 60" (152 cm) wide, terrain-following sweeper head with a choice of rubber finger sweeping reel or nylon bristle brush sweeping reel.
- Safety equipment includes ROPS, seat belt and slopometer.
- High-back seat and tilt steering wheel provide operator comfort.
- Easy-to-reach hydraulic controls make operating all systems easy.



## SWEEP STAR 48

- Riding Self-Propelled 48" (122 cm) Sweeper
- 1.6 cubic yard (1.2 cu M) capacity.
- High-lift dump and terrain-following sweeper head with double-gauge wheels.
- Hydraulic drive with 18 hp (13 kW) twin-cylinder gasoline engine.
- High-lift dump raises to 65" (190 cm).
- Electric start with 12-volt battery.
- Smithco engineered rollover protection device with seat belt.
- Dust and dirt filtration filters standard.



## SWEEP STAR V72 BIG VAC PTO DRIVE SWEEPER-VACUUM- VERTICUT

- 7 cubic yard (6 cu M) debris hopper capacity.
- 72" (183 cm) terrain-following sweeper head.
- Tractor PTO drive (40 hp minimum).
- Mechanical-drive vacuum impeller.
- Hydraulic drive to rubber finger and verticut reels.
- Option of rubber finger reel or combination rubber finger/verticut reel sweeper heads.

## SWEEP STAR V72-E ENGINE DRIVE SWEEPER-VACUUM

- 7 cubic yard (6 cu M) debris hopper capacity.
- 72" (183 cm) terrain-following sweeper head, rubber finger reel only.
- 31 hp (23 kW) twin-cylinder Vanguard gasoline engine.
- Mechanical-drive vacuum impeller.
- Hydraulic-drive sweeper head.





# The Experts Put Fairway Rolling to the Test.

**LONGER BALL ROLL**

**“Research confirms that fairway rolling results in firmer surfaces which should lead to longer ball roll. Most important it significantly decreased clipping yield, localized dry spot and dollar spot which should lead to economic savings.”**

*-Thomas A. Nikolai, Ph.D., College of Agriculture, Michigan State University*

## RESEARCH AT MICHIGAN STATE UNIVERSITY

Results from a 2-year fairway rolling study using a Smithco Ultra 15 Fairway Roller with filled 150-gallon water-ballast tank.

- Fairway rolling decreased clippings yield on research fairways mowed 2x/week compared with fairways mowed 3x/week and not rolled.
- Fairway rolling also increased volumetric moisture content which significantly reduced localized dry spot.
- Results indicate fairway rolling is agronomically sound and fiscally responsible and can lead to reduced inputs and economic savings on fairways.
- Additionally, surface firmness was increased on rolled fairways which indicates longer ball roll will result and most likely increased divot fill-in on stoloniferous fairways.

## RESEARCH AT UNIVERSITY OF MASSACHUSETTS

**“Third year of testing indicates up to 65% reduction in dollar spot.”**

*-Geunhwa Jung and Jay Popko; University of Massachusetts*

- 8 out of 9 rolling studies reduced dollar spot.
- Increased rolling frequency increased dollar spot control.
- Threshold-based programs can reduce dollar spot apps with rolling (2-3 apps vs 5 apps).
- Rolling = better spring green-up/turf quality
- Does not provide complete control, but can extend fungicide-control intervals at golf courses with difficult-to-control dollar spot.



5 gang Smithco Ultra 15 Fairway Roller with balanced hydraulic system keeps ground pressure even over its 15' swath. At 10 mph, the Ultra 15 will roll 18 acres an hour. The 3 gang Ultra 10 Fairway Roller has a 10' swath to provide 12 acres an hour of productivity at 10 mph. Both come with money-saving tow-behind design.



## GREENS ROLLERS



## TOURNAMENT XL 7000 ULTRA-WIDE GREENS ROLLER

*The most productive greens roller made.*

Three articulating rolling heads give you a 70" wide rolling area. It's the widest, most-productive greens roller available. Your rolling time will be reduced dramatically.

- TRIPLE hydraulic DIRECT drive to rollers for superior traction.
- No time-consuming chain maintenance.
- 16 hp (12 kW) Vanguard OHV gasoline engine.
- 10 mph ground speed for rolling.
- Hydraulic power steering.





## TOURNAMENT GREENS ROLLERS

### 7580 TOURNAMENT ULTRA GREENS ROLLER

16 hp (12 kW) Vanguard OHV gasoline engine with #7520 trailer, dual control cables, dual hydraulic direct drive to rollers.

### 7590 TOURNAMENT ULTRA PLUS GREENS ROLLER

All the features of the ULTRA ROLLER (above) PLUS hydraulic power steering.

### 7576-CE TOURNAMENT ULTRA LITE GREENS ROLLER

World's only lightweight greens roller with power to each roller, 8 hp (6.5 kW) Honda commercial 12-volt electric-start engine with trailer, dual-pedal control, direct drive to rollers. CE certified.

## TOURNAMENT ULTRA 7580

*Our most-popular greens roller is loaded with exclusive features.*

- 16 hp (12 kW) twin-cylinder gasoline engine greatly reduces vibration and the low-tone muffler makes the unit "Ultra" quiet.
- "Direct-Drive System" couples hydraulic motors directly to roller shafts eliminating time-consuming drive chain adjustments and maintenance.
- Dual-roller drive provides exceptional traction in both directions.
- Speed Boss feature allows adjustment to rolling speed for consistent results in green speed.
- Tilt steering for operator comfort and safety (Models 7580 and 7590).
- Excellent service access to both engine and hydraulic components.
- Extra-wide transport trailer with roller-guide brackets and transport latch make loading and unloading fast and easy.
- **Ultra Plus 7590** – adds hydraulic power steering to all of the features described above.



## ULTRA LITE GREENS ROLLER

*The lightest riding greens roller made with dual hydraulic roller drive.*

- At 605 lbs, it's the lightest riding greens roller made with dual hydraulic roller drive for superior traction and maneuverability.
- Direct drive which does away with the chain maintenance required by mechanical systems.
- The hydraulic operation of both 8" seamless tapered steel drums eliminates slipping on steep slopes and the damage that can be caused by single-drive rollers.
- Powered by a 9 hp Honda Commercial Duty engine with maximum speed of 9 mph, a tight turning radius of just over 10', it delivers a whole lot yet it's the most-affordable roller made by Smithco.





## AERIFIER



### AER-8 AERIFIER

- Available in 60" (152 cm) and 78" (198 cm) widths, either pull-type or 3-point hitch mounted frame styles. The pull-type kit can be outfitted with hydraulic lines directly to the tow vehicle or with an electric/hydraulic power pack. The power pack includes a remote control to the driver's seat and a battery-charging cable to maintain charge in the battery through repeated use.
- The Smithco Aer-8 Aerifier includes electrically welded high-strength agricultural steel frame and horizontal water ballast tank.
- Four-tine reel options to quickly change your aeration patterns as weather and turf conditions dictate.





Call your SMITHCO dealer  
or visit our website at

***Smithco.com***