

DIAMOND- 5 Years or 6000 Hours	\$	4,795.00
---------------------------------------	-----------	-----------------

A7 TORNADO TIER IV FINAL SWEEPER FEATURES AND OPTIONS LISTING	
--	--

SWEEPER ENGINE	PICKUP HEAD
John Deere 4045 Tier 4 engine	90" x 36" Sweeping Head with Rubber Blast Orifice
Fuel water seperator	3/8" thick, 14" dia Pressure hose, 14" Suction Hose
3-point safety engine shutdown device	Sweeps-in-Reverse
Battery and 50 gallon fuel tank shared with chassis	Doublewide full length carbide drag shoes Warranted against wear-out, two years/2000 hours, prorated.
90 amp alternator	
2 year warranty on Aux Engine	
HYDRAULIC SYSTEM	DUST CONTROL SYSTEM
25 gallon vented hydraulic reservoir, w/shut-off valves	Twin Electric diaphragm water pumps with inlet restriction indicator
Tank mounted level and temperature indicator	60 PSI, 6.0 gpm
Hydraulic pressure, 2500 psi	Water tank capacity 250 gallons, polyethylene
Spin-on 10 micron return filter	25-foot long fire hydrant fill hose
9000 BTU oil to air radiator type oil cooler	50 mesh cleanable filter, with shut off valve
12-volt DC hydraulic backup system	Water spray nozzles shall be provided as follows:
	Five at pickup head, two nozzles inside hopper

DUST SEPERATOR	Two at gutter broom, per option selected
Centrifugal dust separator, 29000 cu in. with 1680 sq in.	Two nozzles in suction tube, two at front axle
HOPPER	An air purge system for flushing water lines
Mild Steel, 8.4 CuYd, 7 CuYd usable Capacity	OPERATING CONTROLS AND INSTRUMENTS
Screens - 5615 square inches, saw tooth design	Aux engine control with full color display on console:
Twin dumping cylinders, 53 degrees	Keyed ignition, electronic throttle, leaf bleeder
Rear door hydraulically opened, closed and locked	Oil pressure gauge, water temperature gauge
Dual 20" X 32" watertight inspection doors, 1 left, 1 right	Voltmeter, tachometer, and hour meter
External weatherproof dump switches	Diagnostic gauge for Aux Engine, overweight warning.
Shroud enclosing the auxiliary engine	Selectable sweep or lift in reverse, system standby, in-cab tilt,
BLOWER	variable speed brooms. All other STD sweeper function switches to
Closed face turbine 10 curved blades, 32.75" dia. by 5"	Included for standard and options selected
500 brinell hardness abrasion resistant steel	Swiveling console for left or right sweeping
Fully balanced within 1.5 grams on both sides	SAFETY EQUIPMENT
Vacuum enhancer, w/indicator in cab	Two body props to lock hopper in raised position
SWEEPER WARRANTY	Rear Amber LED Strobe With Guard
12 Months 1200 Hours	2 rear yellow alternating LED flashing lights
12 Months 1200 Hours	Slow moving vehicle emblem, backup alarm,
	5-lb fire extinguisher, and a warning triangle kit.
DESCRIPTION	PRICE
115HP John Deere Tier III Deduct	(\$23,690.00)
140HP John Deere Tier IVF IN Lieu of 115HP Tier IVF	\$1,445.00
Sweep Head Deluge (Must Pick Standard Head)	\$ 375.00
Gutter Broom, Dual	\$ 6,935.00
Gutter Broom, Tilt Power Dual or	\$ 0.00
Gutter Broom, GEO Dual	\$ 2,475.00
Gutter Broom, RH W/Power Tilt	\$ 4,180.00
Gutter Broom, GEO RH	\$ 1,275.00
Gutter Broom, LH W/ Power Tilt	\$ 4,180.00
Gutter Broom, GEO LH	\$ 1,280.00
Gutter Broom, Poly Segments, each	\$ 215.00
Gutter Broom, In-Cab Down Pressure	\$ 2,475.00
Standby, Full w/Throttle Ramp	\$ 0.00
Variable Speed Gutter Broom(S)	\$ 0.00
Manual, Sweeper, Additional Copy (Paper)	\$ 135.00
Automatic Lubrication System Vogel	\$ 7,000.00
Auto Lube Sys.Vogel Sweeper Only	\$ 3,700.00
10 point remote grease manifold	\$ 920.00
Remote Grease Fittings, Fan	\$ 0.00
Camera System, Single	\$ 0.00
Camera System, Dual	\$ 295.00
Camera System, Three	\$ 590.00
Water Tank, Standard 250G or	\$ 0.00
Water Tank, W/ Add. 350G*	\$ 3,620.00
Water Tank Sight Gauge side of tank	\$ 210.00
Water Tank Low Level Alarm & Ind.	\$ 300.00
Spray Bar, Front	\$ 665.00
Spray Bar, Hopper Add. 4 Nozzles	\$ 665.00

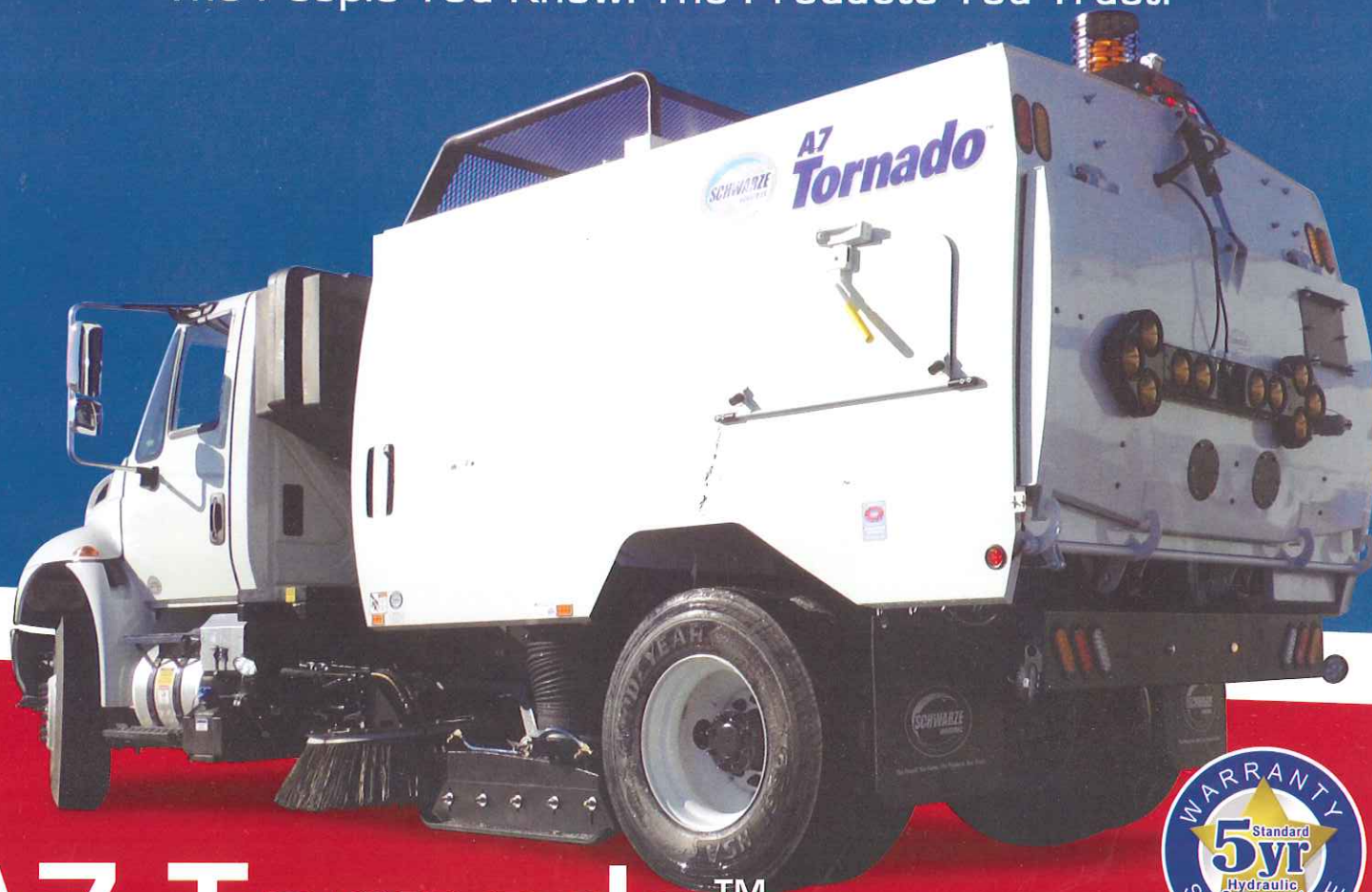
Spray Bar, Hopper Add. 7 Nozzles	\$	700.00
High Pressure Washdown Wand W/ Pump	\$	3,185.00
High Pressure Washdown W/ 50' Hose Reel	\$	4,355.00
Hopper, W/ Remote DD Screens	\$	4,045.00
Auto Drop Down Screens**	\$	1,340.00
Hopper Drain 6" (SS)	\$	690.00
Dual Hopper Drain, 6" (SS)	\$	1,390.00
Hopper Sound Suppression	\$	760.00
Hopper Dump Assist Shaker	\$	1,310.00
Hand Hose, 8" Spring Boom (Remote Engine Throttle Included)	\$	1,310.00
Hand Hose, 8" Power Boom (Remote Engine Throttle Included)	\$	2,705.00
Hand Hose, 8" Power Boom HD (Remote Engine Throttle Included)	\$	3,605.00
Pendant Control for Power Boom	\$	300.00
Hand Hose Extension 4 Feet Long	\$	340.00
Hand Hose Water Nozzle	\$	270.00
Hopper Deluge, Conical Spray	\$	885.00
Hopper Deluge, 4 Nozzle, Conical Spray	\$	2,260.00
Load Weight Alarm & Indicator	\$	0.00
Hopper Up Alarm & Indicator	\$	0.00
Hopper Aux. Engine Screen Cover	\$	0.00
Hopper Door Open Indicator	\$	0.00
Hopper Dump Switches Exterior Right Side	\$	465.00
Hopper, High Strength Stainless Steel ~LIFETIME WARRANTY~	\$	6,195.00
Hopper, 304 Stainless Steel ~LIFETIME WARRANTY~	\$	18,630.00
Hopper W/ Remote DD Screens (304 SS) ~LIFETIME WARRANTY~	\$	20,500.00
Block Heater, Aux Engine	\$	335.00
Hydraulic Filter Restriction Alarm & Ind	\$	300.00
Low Hydraulic Level Indicator In-Cab	\$	0.00
Engine Remote Throttle (Not on Hand Hose)	\$	335.00
Air Filter Restriction Alarm & Indicator	\$	300.00
Strobe, Rear W/Guard LED (Std) 1 ea or	\$	0.00
Strobe, Rear LED 1 each or	\$	0.00
Strobe, Dual Rear LED	\$	465.00
Strobe, Dual Rear W/Guard LED	\$	665.00
Arrowboard, Traffic Guide	\$	790.00
Arrowboard, Traffic Guide, LED	\$	1,080.00
Barlight, Rear LED	\$	855.00
Barlight, Rear W/Guard LED	\$	730.00
Floodlight, LED	\$	300.00
Strobe, Cab Cabover LED	\$	465.00
Strobe, Cab Conventional LED	\$	465.00
Strobe, Cab W/Guard Cabover LED	\$	630.00
Strobe, Cab W/Guard Conventional LED	\$	630.00
Barlight, Cab Conventional LED	\$	730.00
Barlight, Cab W/Guard, Conventional, LED	\$	855.00
Barlight, Cab Cabover LED	\$	730.00
Barlight, Cab W/Guard, Cabover LED	\$	560.00
Paint, Special: Sweeper Unit Only	\$	1,025.00

Paint, Special: Chassis Only	\$	3,235.00
FL M2 33K 200HP DS 2500 '16	\$	79,360
FL M2 CNG 33K 200HP DS 2500 '17	\$	135,940.00
Autocar Expert 33K 2500 CNG '17	\$	139,385.00
IH 4300 200HP Cummins Dual Steer '16	\$	79,655
Kenworth K370 33K 220HP RH Steer '16	\$	86,695
Kenworth K370 33K 220HP Dual Steer '16	\$	98,890
Customer Chassis Mounting Fee	\$	2,500
Mirror, 12" Parabolic, Set	\$	375.00
Air Filter Restrict Ind Chassis	\$	300.00
Tire & Rim, Spare M2	\$	1,430.00
Block Heater	\$	350.00
Horn, Air M2	\$	165.00
Rim, Spare M2	\$	430.00
Magnet, Bar, 90" FL M2	\$	2,010.00
Magnet, Bar, 87" Self Dumping, FL M2	\$	4,690.00
Air Dryer, Bendix AD9*	\$	1,280.00
Mirror, 12" Parabolic, Set	\$	375.00
Air Filter Restrict Ind Chassis	\$	300.00
Tire & Rim, Spare IH	\$	1,430.00
Block Heater, IH 4300	\$	350.00
Tow Hooks, IH	\$	270.00
Horn, Air IH	\$	785.00
Rim, Spare IH	\$	230.00
Magnet, Bar, 90" IH	\$	2,010.00
Magnet, Bar, 87" Self Dumping, IH	\$	4,690.00
Mirror, 12" Parabolic, Set	\$	375.00
Magnet, Bar, 90"	\$	2,010.00
Air Filter Restrict Ind Chassis	\$	190.00
Tire & Rim, Spare	\$	1,430.00
Horn, Air	\$	785.00
Gauge, Transmission Temp	\$	215.00
Sweeper Body CNG Conversion		(\$9,875.00)
High Speed Runway Sweeper Body Upcharge	\$	15,600.00
STANDARD- 1 Year or 1200 hours	\$	-
SILVER- 2 Years or 2400 Hours	\$	1,850.00
GOLD- 3 Years or 3600 Hours	\$	4,590.00
PLATINUM- 4 Years or 4800 Hours	\$	6,650.00
DIAMOND- 5 Years or 6000 Hours	\$	8,450.00

Paint, Special: Chassis Only	\$ 3,235.00
FL M2 33K 200HP DS 2500 '16	\$ 79,360
FL M2 CNG 33K 200HP DS 2500 '17	\$ 135,940.00
Autocar Expert 33K 2500 CNG '17	\$ 139,385.00
IH 4300 200HP Cummins Dual Steer '16	\$ 79,655
Kenworth K370 33K 220HP RH Steer '16	\$ 86,695
Kenworth K370 33K 220HP Dual Steer '16	\$ 98,890
Customer Chassis Mounting Fee	\$ 2,500
Mirror, 12" Parabolic, Set	\$ 375.00
Air Filter Restrict Ind Chassis	\$ 300.00
Tire & Rim, Spare M2	\$ 1,430.00
Block Heater	\$ 350.00
Horn, Air M2	\$ 165.00
Rim, Spare M2	\$ 430.00
Magnet, Bar, 90" FL M2	\$ 2,010.00
Magnet, Bar, 87" Self Dumping, FL M2	\$ 4,690.00
Air Dryer, Bendix AD9*	\$ 1,280.00
Mirror, 12" Parabolic, Set	\$ 375.00
Air Filter Restrict Ind Chassis	\$ 300.00
Tire & Rim, Spare IH	\$ 1,430.00
Block Heater, IH 4300	\$ 350.00
Tow Hooks, IH	\$ 270.00
Horn, Air IH	\$ 785.00
Rim, Spare IH	\$ 230.00
Magnet, Bar, 90" IH	\$ 2,010.00
Magnet, Bar, 87" Self Dumping, IH	\$ 4,690.00
Mirror, 12" Parabolic, Set	\$ 375.00
Magnet, Bar, 90"	\$ 2,010.00
Air Filter Restrict Ind Chassis	\$ 190.00
Tire & Rim, Spare	\$ 1,430.00
Horn, Air	\$ 785.00
Gauge, Transmission Temp	\$ 215.00
Sweeper Body CNG Conversion	(\$9,875.00)
High Speed Runway Sweeper Body Upcharge	\$ 15,600.00
STANDARD- 1 Year or 1200 hours	\$ -
SILVER- 2 Years or 2400 Hours	\$ 1,850.00
GOLD- 3 Years or 3600 Hours	\$ 4,590.00
PLATINUM- 4 Years or 4800 Hours	\$ 6,650.00
DIAMOND- 5 Years or 6000 Hours	\$ 8,450.00



The People You Know. The Products You Trust.



A7 TornadoTM

8.4 Cubic Yard Regenerative Air Street Sweeper

*Sweeper shown with optional equipment



- PM 10 Certified
- WhisperWheel Fan Technology
- Schwarze Sweeps-in-Reverse
- DC Auxiliary Hydraulic Pump

Quality	Performance	Public Safety	Value	Customer Support

800.879.7933

www.schwarze.com

A7 Tornado™

8.4 Cubic Yard Regenerative Air
Street Sweeper



AMERICAN BUILT-
AMERICAN MADE

**Abrasion Resistant Steel
in Critical Wear Areas:**
For longer life expectancy

8.4 Cubic Yard Hopper Capacity:
Increased hopper capacity for
increased production and less dumps

Sweeps-in-ReverseSM:
Eliminates the need
for the operator to
raise the sweeping
head to reverse

**Liquid Tight
Inspection Door:**
Always a perfect
seal.

Optional Equipment:

- 8" auxiliary hand hose
- Extra 350 gallon polyethylene water tank
- Mechani-Pneumatic Powerhood (broom assisted head)
- Stainless steel hopper

Optional Equipment:

**Gutter Broom Extension
OverrideSM:** Increased
usability of side brooms and
expands the versatility in
various applications, while
eliminating the need for a
center broom

Camera System: Remote
cameras with in-cab
video monitor and sound
suppression system

Optional: Up
to 3 cameras

90"x36" Pickup Head:

Increased productivity with a
larger area of influence (quicker
transfer and no bulldozing)



Saw Tooth Screens: Increased screen surface area eliminates the need for a screen vibrator and lowers cost of operation

PM 10 Certified: Meets AQMD 1186 requirements to pick up and contain harmful particulates

Reduced Noise Levels: Reduces operator stress & increases ability to operate in noise sensitive areas

Whisper WheelSM Fan System: 70% quieter, uses 20% less fuel and 7% more powerful than an open face fan design



Bolt in Pressure & Transition Tube: Ease of maintenance

Custom Made-to-order Hydraulic Hoses: Reduces contamination in hydraulic system & reduces downtime

Advanced Color Display with Diagnostics: Ease of use and maintenance.



Standard 12V DC Hydraulic Pump: Able to raise and lower the sweeping head, brooms & hopper without the use of the auxiliary engine

Recessed Gutter Broom Discs with Shielded Broom Motor: Reducing the chance of string and twine wrapping around gutter broom motor shaft



In-cab Tilt Control for Side Brooms: Increased usability of side brooms without the need for manual adjustment.

Optional: In-cab down pressure control

Also Available from Schwarze Industries, Inc:



*Optional Equipment Shown



Parts Availability: Schwarze original equipment parts are available when you need them.



Empowered and Responsive: Schwarze People are valued for their commitment to our future.



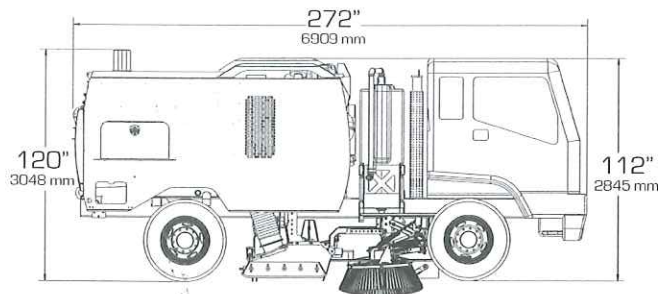
Schwarze Products: Engineered for enhanced performance and low ownership cost.



Warranty Support: Schwarze people are on duty to support you and your equipment.

Schwarze equipment is guaranteed to be free from defects due to faulty materials and/or workmanship for a period of 12 months, or 1200 hours. Liability is limited to replacement of defective parts at factory or authorized dealer. The standard warranties of the chassis and auxiliary engine manufacturer shall apply.

A7 Tornado



*TYPICAL MEASUREMENTS SHOWN, EXACT DIMENSIONS DEPENDING ON OPTIONS AND TRUCK MANUFACTURER

SWEEPING PATH

Pickup head only	90" (2,286mm)
Pickup head and one gutter broom	117" (2,972mm)
Pickup head and two gutter brooms	144" (3,658mm)

CHASSIS

Mounts on various chassis to meet requirements

SWEEPER BODY

Construction	Welded 10-gauge steel plate with 3/16 steel hopper floor
Safety props	Dual steel bars located under body

INSTRUMENTATION

Sweeper engine	Tachometer; hourmeter; voltmeter; temperature gauge; oil pressure gauge
----------------	---

STANDARD ENGINE

Model/type	4045T in-line 4 cylinder
Aspiration	Turbo-charged diesel
Manufacturer	John Deere
Displacement	275 cu. in. (4.5l)
Brake horsepower	115hp (86kw)
Torque	@ 2400 rpm (opt. 140hp) 317ft-lb (430nm) @1500rpm
Air cleaner	Pre-cleaner: centrifugal type; air cleaner: dry type with safety element
Oil filter	Full-flow/ spin-on
Stroke	5.00" (127mm)
Bore	4.20" (106mm)
Compression ratio	19.0 to 1
Safety shutdown	Three-point automatic
Throttle control	Electronic

ELECTRICAL SYSTEM

Voltage	12 volt
Sweeper engine alternator	90 amperes

DUST CONTROL SYSTEM

Pumps	Dual diaphragm
Capacity	250 gallon (946 l)
Tank construction	Polyethylene filter; 50 mesh; cleanable
Fill diameter	2.5" (63.5mm)
Fill hose	25 foot (7620mm)
Controls	Electric; in-cab

Dust control system cont'd

Nozzles	2 on each broom; 5 around suction head; 2 inside suction nozzle; 2 on front axle; 2 inside hopper
Water level gauge	In-cab

BLOWER SYSTEM

Type	Closed-face radial
Drive	Direct via 5 groove; banded power belt
Construction	Hardox steel
Balance	1.5 grams on 2 sides
Diameter	32.75" (832mm)
Housing lining	Bolt-in corded rubber
Mounting	2 re-greasable sealed bearings
Vacuum enhancer	For heavy/ light material; in-cab indicator

PICKUP HEAD

Type	Dual chambered full-width blast orifice
Operating direction	Forward and reverse
Suspension	Adjustable spring balanced
Length	90" (2,286mm)
Pressure hose diameter	14" (355.6mm)
Suction hose diameter	14" (355.6mm)
Hose construction	3/8" (9.5) wire-reinforced molded rubber
Head area	3,240sq. in. (20,903cm ²)
Controls	Hydraulic raise and lower
Skids	Double wide tungsten carbide
Construction	Abrasion-resistant steel inlet and outlet transitions.

PAINT

One coat of sealer/primer and two coats of Dupont imron elite polyurethane in standard white color

SIDE BROOMS

Type	Vertical steel digger
Location	Right; left; forward of pickup head
Diameter	44" (1,118mm)
Drive	Hydraulic
Suspension	Torque-sensing spring
Wear adjustment	Automatic

Side brooms cont'd

Pressure	Manual
Speed	Variable; non-reversing
Segments	5 each side; disposable
Tilt angle adjustment	Manual with optional in-cab controls

DEBRIS HOPPER

Construction	A36 carbon steel (Stainless steel optional)*
Volumetric capacity	8.4 cubic yards (6.4 cu. meters)
Usable Capacity	7.0 cubic yards (5.4 cu. meters)
Dump angle	53 degrees
Floor angle	3 degrees
Lifting	Twin hydraulic cylinders
Hopper dump door	open/close/lock hydraulically
Inspection doors	1 on left side of hopper
Screens	Sawtooth drop down design

HYDRAULIC SYSTEM

Type	Dual output 2 section
Pump capacity	6.5 gpm @1800rpm (24.6l/min.) per section for 13gpm total
Drive	Direct gear
Maximum pressure	2500psi (173bar)
Reservoir	25 gallons (94 liters)
Filter	10 micron; spin on
Protection	Pressure relief valve
Controls	Electro-hydraulic

AUXILIARY HYDRAULIC SYSTEM

Type	Gear type; driven by electric motor
Function	Raise/lower hopper; open/close hopper door; raise/lower brooms and pickup head

Note: Design and specifications subject to change without notice.

*Ask us about our optional:



Affiliates:



© Schwarze Industries 2016
1055 Jordan Road
Huntsville, AL 35811
800.879.7933
An Alamo-Group Company

