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May 10, 2016

Kristi Hixson, Senior GS Specialist
MODOT
P.O. Box 270
Jefferson City, MO 65102



Dear Kristi,

Thank you for the opportunity to provide all MODOT Districts the 2016 Elgin Whirlwind MV Pure Vacuum Street Sweeper featuring Dual 36" side brooms and the ability to vacuum on both sides at the same time. Key Equipment and Supply Company is proud to provide the safest, durable and most dependable street sweeper on the market today.

Please review the following standard features:

Auxiliary Engine:

John Deere 4045TF150, 4 cylinder Turbocharged diesel

Alternator, 120 amp.

Horsepower: 74 HP at 2500 RPM

Displacement: 276 cu. in. (4.5 L)

Auto Shutdown Auxiliary Engine

Backup alarm, electric

Camera, Rear View

Drive: Fluid coupling blower drive with power belt

Doors, fiberglass access doors provide easy service and maintenance on auxiliary engine, hydraulic and electrical system

Electronic Throttle

Fuel tank, 50 gallon (189 L)

Fuel water separator for auxiliary engine

Hose, hydrant fill, 16208" (5080 mm) with coupling

Hydraulic oil cooler

In cab hopper dump

LED clearance lights

Simultaneous Sweeping

Sweep resume/sweep transport/reverse pick-up

Control console, with rocker switches for all sweep functions, including memory sweep in an ergonomically designed console with full gauge package including diagnostic gauge, tachometer, engine hour meter, oil pressure indicator, coolant temperature, voltmeter and fuel level indicator, auxiliary engine RPM control, side broom down pressure controls, manual reset circuit breakers, water level gauge and warning lights for hopper "up", hopper rear door "open" and hopper "full"
Hopper rear door, hydraulically opened/closed and locked/unlocked with external controls

*******The auxiliary Engine is John Deere 4045 the exact model will very.*******

In addition to the standard features, the following product enhancements meet and or exceed the 2016 MODOT specifications:

- Robert Shaw Automatic Lube System, Sweeper Only (grease pump for each zerk)
- Complete Hopper Constructed of Grade 304 Stainless Steel
- Stainless Steel Hopper Screens
- Whirlwind MV Operators, Service and Parts Manuals
- (2) LED Strobe Lights with limb Guards mounted Front and Rear of Hopper
- (2) Alternating LED Strobe Lights mounted Flush on Rear
- Auxiliary electric/hydraulic pump (to raise hopper without impeller engaged)
- Left and Right Side Broom Tilt Controlled from in Cab
- Front Spray Bar
- Chassis Hour Meter, Aux. Engine Hour Meter,
- Side Broom Hour Meter
- Main Broom Hour Meter
- (2) Bostrom 905 mid-back air suspension seats
- Heated remote controlled West Coast mirrors
- Low hydraulic oil level / high temperature automatic engine shutdown
- Turbo II air pre cleaner
- Paint Cab Yellow to Match Sweeper
- Paint Sweeper Yellow
- MODOT Special Arrow board
- AM/FM/CD Radio
- Load Hopper indicator

Delivered Price per Unit **\$ 301,499.00**

Price is good through February 28 2016

Includes on site factory certified training by Key Equipment for service and operation

Payment Terms are Net 10

Delivery in approximately 90 days A.R.O.

Base chassis is latest model Freightliner M2 with dualization, Subject to Availability. Other chassis choices are offered.

Other product enhancements are available to add to these specifications...see enclosure.

If you need any information, please call our Kansas City office at 800-262-0149 or our St. Louis office at 800-325-4323. If I am traveling and you have an urgent need for information, a message will be forwarded immediately to my mobile phone. I am also available by e-mail at steve@keyequipment.com.

Yours truly,

Steven Hyink

Steven Hyink
President

MODOT Whirlwind Options

Options for Dual Whirlwind Red denoted items are included in 2016 MODOT Bid		
Special	DEDUCT FOR SINGLE SIDE NOZZLE/BROOM	\$5,000.00
Special	MODOT SPECIAL LED ARROWBOARD	\$6,000.00
1078045	TURBO II PRECLEANER	\$300.00
1069822	AUTO-LUBE ON SWEEPER MODULE	\$3,600.00
1071234	SS HOPPER SCREENS	\$1,000.00
1101937	STAINLESS STEEL RH HOPPER INSPECTION DOOR WITH STEP	\$500.00
2202489	ENTIRE HOPPER AND DOOR, GRADE 304 SS	\$10,000.00
702440	WHIRLWIND SERVICE MANUAL	\$100.00
1087729	LH 36" SB TILT	\$750.00
1087730	RH 36" SB TILT	\$750.00
1075400	AM/FM/CD RADIO	\$500.00
1081364	HEATED REMOTE CONTROLLED WEST COAST MIRRORS	\$1,500.00
1081745	(2) BOST 905 VINYL MIDBACK AIR SUSP SEATS	\$1,000.00
1086637	FRONT SPRAY BAR	\$250.00
1087135	AUXILIARY ELECTRIC/HYDRAULIC PUMP SYSTEM	\$600.00
Special	LOW HYD OIL LEVEL + HI TEMPERATURE SHUTDOWN	\$200.00
Special	FRONT AND REAR HOPPER LED STROBES WITH PROTECTORS	\$900.00
Special	TWO LED ALTERNATING FLASHERS IN REAR BUMPER	\$700.00
Special	PAINT SWEEPER RAL 1037 YELLOW	\$0.00
Special	PAINT CAB RAL 1037 YELLOW	\$1,850.00
Included	FREIGHTLINER M2/106 CHASSIS	\$74,000.00
Special	Peterbuilt right had side drive only	\$84,000.00
Special	AUTOCAR EXPERT CAB-OVER CHASSIS	\$98,000.00
Special	28" DIAMETER SIDE BROOM MODEL ILO 32"	\$0.00
Special	10 CUBIC YARD HOPPER MODEL ILO 8 CU YD	\$6,000.00
-----ALARM-----		
1048703	BACKUP ALARM - SMART	\$415.00
1048753	BACK UP ALARM - PRECO	\$265.00
-----AUTO LUBE-----		
1069882	AUTO LUBE - SWEEPER ONLY	\$2,825.00
-----AUX ENGINE-----		
1120793	TURBO II PRECLEANER	\$485.00
1121842	SY-KLONE AUXILIARY PRECLEANER	\$590.00
1078204	AUXILIARY AIR FILTER RESTRICTION INDICATOR LIGHT	\$620.00
1121730	COLD WEATHER STARTING KIT	\$475.00
1121729	BLOCK HEATER	\$440.00
6063004	ADDITIONAL IGNITION KEY	\$45.00
1120393	AUXILIARY HYDRAULIC PUMP W/ IN-CAB DUMP	\$1,350.00
1121823	IDLE DOWN/NO WATER - SINGLE SIDEBROOM	\$590.00
1121824	IDLE DOWN/NO WATER - DUAL SIDEBROOMS	\$590.00

-----DECALS-----

1090208	RED LOGO-WHIRLWIND	N/C
1090209	WHITE LOGO-WHIRLWIND	N/C
1122929	SHIP DECALS AND SWOOSH LOOSE IN HOPPER	N/C

MODOT Whirlwind Options

-----MANUALS-----

0701675	WHIRLWIND MV-3000 OPERATORS	\$50.00
0702247	WHIRLWIND MV-3000 PARTS	\$95.00
0702448	WHIRLWIND MV-3000 SERVICE	\$95.00
0704046	JOHN DEERE OPERATORS	\$50.00
0704047	JOHN DEERE PARTS	\$65.00
0704048	JOHN DEERE SERVICE	\$185.00

-----PM10 COMPLIANT-----

1121807	PM-10 (USE W/DUAL 36" SIDEROOMS)	\$2,960.00
1121916	PM-10 (USE W/SINGLE 36" SIDEROOMS)	\$2,960.00
1121917	PM-10 (USE W/DUAL 28" SIDEROOMS)	\$2,960.00
1121918	PM-10 (USE W/SINGLE 28" SIDEROOMS)	\$2,960.00

-----SAFETY-----

1048643	SLOW MOVING VEHICLE SIGN	\$150.00
1121725	UTILITY COVER LIFTER - RIGHT HAND	\$2,595.00
1122071	REMOVE REAR CAMERA	N/C
1096442	CAMERA RIGHT HAND SIDE	\$710.00
1095548	CAMERA LEFT HAND SIDE	\$575.00
1117174	CAMERA (2) FRONT (1) REAR	\$940.00

----SIDEROOM OPTIONS----

1036814	ALUMINUM SIDEROOM SEGMENTS (ILO STD EACH)	\$405.00
1121517	VARIABLE SPEED DUAL SIDEROOMS	\$1,250.00
1121518	VARIABLE SPEED SINGLE SIDEROOM (NOT COMPATIBLE WITH DUAL SIDEROOMS)	\$655.00
1111175	SIDEROOM TILT LEFT HAND W/DISPLAY 36"	\$1,100.00
1111176	SIDEROOM TILT RIGHT HAND W/DISPLAY 36"	\$1,100.00
1121676	SIDEROOM TILT LEFT HAND 28"	\$1,100.00
1121677	SIDEROOM TILT RIGHT HAND 28"	\$1,100.00

-----SWEEPER OPTIONS----

1067561	NOZZLE 3RD CASTER WHEEL - SINGLE	\$400.00
1067562	NOZZLE 3RD CASTER WHEEL - DUAL	\$750.00
1121301	AIR PURGE	\$410.00
1120044	AUTO SHUTTER LEFT HAND	\$685.00
1120045	AUTO SHUTTER RIGHT HAND	\$685.00
1120104	AUTO SHUTTER DUAL	\$1,370.00

-----8 YARD HOPPER-----

1071234	STAINLESS STEEL HOPPER SCREEN	\$1,530.00
1085864	RIGHT HAND INSPECTION DOOR	\$430.00
1085882	LEFT HAND INSPECTION DOOR	\$430.00
1085883	RIGHT HAND INSPECTION DOOR & STEP	\$765.00

MODOT Whwirlwind Options

1085886	LEFT HAND INSPECTION DOOR & STEP	\$765.00
1085887	6" HOPPER DRAIN	\$810.00
1088305	STAINLESS STEEL LINED HOPPER (USE W/NO INSPECTION DOOR, NO DRAIN)	\$7,730.00
1088311	STAINLESS STEEL LINED HOPPER (USE W/RH INSPECTION DOOR, NO DRAIN)	\$7,730.00
1088315	STAINLESS STEEL LINED HOPPER (USE W/RH INSPECTION DOOR, 6" DRAIN)	\$7,965.00
1089326	6" HOPPER DRAIN STAINLESS STEEL DOOR	\$1,680.00
1092627	LIFELINER HOPPER SYSTEM W/WARRANTY	\$7,815.00
1101937	STAINLESS STEEL RIGHT HAND INSPECTION DOOR & STEP	\$785.00
1101938	STAINLESS STEEL LEFT HAND INSPECTION DOOR & STEP	\$785.00

-----10 YARD HOPPER-----

1071234	STAINLESS STEEL HOPPER SCREEN	\$1,530.00
1085864	RIGHT HAND INSPECTION DOOR	\$420.00
1085882	LEFT HAND INSPECTION DOOR	\$420.00
1085883	RIGHT HAND INSPECTION DOOR & STEP	\$750.00
1085886	LEFT HAND INSPECTION DOOR & STEP	\$750.00
1085887	6" HOPPER DRAIN	\$790.00
1089284	STAINLESS STEEL LINED HOPPER (USE W/NO INSPECTION DOOR, NO DRAIN)	\$7,730.00
1089286	STAINLESS STEEL LINED HOPPER (USE W/RH INSPECTION DOOR, NO DRAIN)	\$7,730.00
1089290	STAINLESS STEEL LINED HOPPER (USE W/RH INSPECTION DOOR, 6" DRAIN)	\$7,730.00
1089326	6" HOPPER DRAIN SS DOOR	\$1,715.00
1097678	LIFELINER HOPPER SYSTEM W/WARRANTY	\$9,520.00

-----LIGHTS-----

1121132	WIRE/MOUNT HOPPER/REAR	\$405.00
1121133	WIRE/MOUNT HOPPER/REAR W/GUARD	\$630.00
1120559	WIRE/MOUNT (2) HOPPER/REAR W/LED ARROWBOARD (USE W/WANDERING HOSE)	\$3,505.00
1120560	WIRE/MOUNT (2) HOPPER/REAR W/LED ARROWBOARD (USE W/OUT WANDERING HOSE)	\$3,505.00
1121740	WIRE/MOUNT (2) REAR HOPPER (USE W/WANDERING HOSE)	\$945.00
1121741	WIRE/MOUNT (2) REAR HOPPER (USE W/OUT WANDERING HOSE)	\$945.00
1121500	REAR ARROWBOARD LED	\$2,610.00
1121121	HOPPER/REAR LED BEACON / LED ARROWBOARD	\$2,920.00
1121502	WIRE/MOUNT HOPPER/REAR & GUARD WITH LED ARROWBOARD	\$3,030.00
1120887	REAR LED BEACON	\$920.00
1121096	REAR LED BEACON WITH ARROWSTICK	\$2,785.00
1121098	RIGHT & LEFT HOPPER/REAR LED BEACONS (USE W/WANDERING HOSE)	\$1,420.00
1121099	RIGHT & LEFT HOPPER/REAR LED BEACONS (USE W/O WANDERING HOSE)	\$1,420.00

MODOT Whirlwind Options

1121813	(4) ALTERNATING FLASHING REAR LED LIGHTS	\$1,790.00
1121752	(2) REAR BUMPER STROBES	\$1,085.00
1121812	(2) ALTERNATING FLASHING LIGHTS, REAR LED LIGHTS	\$870.00
1120427	DUAL REAR LED FLOOD LIGHTS	\$605.00
1120428	SINGLE REAR LED FLOOD LIGHT	\$370.00
1121512	REAR LED ARROWSTICK	\$2,235.00
1120440	R/REAR BEACONS WITH LED ARROWBOARD (USE W/WANDER)	\$3,425.00
1120441	R/REAR BEACONS WITH LED ARROWBOARD (USE W/O WANDER)	\$3,425.00
1120425	LED SIDEBROOM LIGHTS (ILO STANDARD)	\$475.00
1120426	LED RIGHT HAND SIDEBROOM LIGHT	\$240.00
1120429	LED SIDEBROOMS & REAR LED FLOOD LIGHTS	\$1,080.00
1120430	LED SIDEBROOM & REAR RIGHT HAND LED FLOOD LIGHT	\$845.00

-----PAINT-----

4811018	PAINT SWEEPER ZINC YELLOW RAL 1018	\$510.00
4811023	PAINT SWEEPER TRAFFIC YELLOW RAL 1023	\$510.00
4811037	PAINT SWEEPER SUN YELLOW RAL 1037	\$510.00
4813020	PAINT SWEEPER TRAFFIC RED RAL 3020	\$510.00
SPECIAL	PAINT SWEEPER ANY OTHER RAL COLOR	\$1,250.00
SPECIAL	PAINT SWEEPER NON RAL COLOR	\$3,790.00

-----TOOL BOX/TOOL KIT----

1053426	TOOL KIT	\$735.00
1057687	TOOL BOX W/TOOLS	\$710.00

-----WANDERING HOSE-----

1059263	4 FT. ALUMINUM WANDERING HOSE EXTENSION - REAR MOUNT	\$750.00
1063656	(2) 4 FT. ALUMINUM WANDERING HOSE EXTENSIONS - REAR MOUNT	\$1,520.00
1082041	WANDERING HOSE LIGHT DUTY SPRING ASSISTANCE (8 YD ONLY)	\$3,365.00
1121789	AULIC WANDERING HOSE - (USE W/DUAL SIDEBROOMS) (8 YD C	\$4,700.00
1121790	AULIC WANDERING HOSE - (USE W/SINGLE SIDEBROOM) (8 YD C	\$4,700.00
1121791	C WANDERING HOSE (USE W/SINGLE SB & FRONT SPRAYBAR) (8	\$4,700.00
1121792	IC WANDERING HOSE (USE W/DUAL SB & VARIABLE SPEED) (8	\$4,700.00
1121793	IC WANDERING HOSE (USE SINGLE SB & VARIABLE SPEED) (8	\$4,700.00
1121794	HYDRAULIC WANDERING HOSE (USE W/SINGLE SB, VARIABLE SPEED & FRONT SPRAYBAR) (8 YD ONLY)	\$4,700.00

-----WATER SYSTEM-----

1032484	25' WATER FILL HOSE (ILO 16' 8")	\$190.00
1036150	HYDRANT WRENCH	\$85.00
1040094	QUICK DISCONNECT WATER FILL	\$505.00
1059209	HOPPER DELUGE	\$1,010.00
1121913	LOW PRESSURE WASHDOWN	\$1,205.00
1121910	HIGH PRESSURE WASHDOWN - HIGH PSI AT LOW RPM	\$3,935.00

2017 Freightliner M2 chassis specification for Whirlwind

AXLES:

Front - 12,000 lbs. with 12,000 lbs. (5443 kg) springs
 Rear - Two speed 21,000 lbs. (9525 kg) with 23,000lbs (10,432 kg) taper leaf springs with auxiliary leaf spring for stability.
 Ratio - 7.17/9.77:1
 Gross Vehicle Weight Rated (GVWR) - 33,000 lbs. (15,000 kg)

BRAKES:

Service:

Type - Full air, anti-lock
 Front - 15 in. x 4 in. (38.1 cm x 10.2 cm) drum
 Rear - 16.5 in. x 7 in. (42 cm x 17.8 cm) drum
 Compressor Capacity - 18.7 CFM
 Auto slack adjusters, front and rear

Parking:

Type - Spring set, air release

CHASSIS:

Manufacturer: Freightliner
 Model - M2

Frame:

Type - Rail, High Strength 80,000 PSI, 15.9 section modulus
 Size - 10.1 in. x 3.4 in. x 0.28 in. (26 cm x 8.64 cm x 0.711 cm)

DIMENSIONS: (with sweeper mounted)

Wheelbase - 172 in. (4369 mm)
 Cab to axle - 106 in. (2692 mm) usable
 Overall Length - 260 in. (6604 mm)
 Overall Height - 110 in. (2743 mm) w/o beacon
 Overall Width - 96 in. (2438 mm)
 Dumping Clearance Height - 236 in. (5994 mm)
 Turning Radius - 22'6". (6858 mm) (curb to curb)
 Travel Speed - 62 MPH

ELECTRICAL SYSTEM:

Voltage - 12V
 Alternator - 160 Amp.
 Battery - Two (2) 12 Volt 1850 CCA Maintenance Free

ENGINE:

Manufacturer: Cummins
 Model - ISB 6.7 200
 Cylinders - In-Line 6
 Displacement - 409 cu. in. (6.7 L)
 Horsepower - 200 (150 kW) @ 2300 RPM
 Torque - 520 lb. ft. (708 Nm) @ 1600 RPM
 Oil Filter - Full-flow, spin on type
 Oil Capacity - 4 us gal.. (15 L) with filter
 Air Cleaner - High Capacity dry type with safety element & restriction indicator
 Fuel Tank Capacity - 50 gal. (189 L)
 Fuel Filter

WARNING LIGHTS AND CHIME:

Low coolant level, high coolant temperature, warning lights and buzzer, low air pressure

SEATS:

Two (2) single, high back, black nylon cloth

DUAL STEERING:

Type - Full power hydraulic
 Size - 18 in. (457 mm) diameter steering wheel with fixed column.

TRANSMISSION:

Allison 3500RDS 5-speed automatic

WHEELS:

Front & Rear - 22.5 in. x 8.25 in. (57.2 cm x 21.0 cm) steel disc type

TIRES:

Front & Rear - 11R 22.5
 Load Range G (14 ply rating)

ADDITIONAL FEATURES INCLUDED:

Left and Right Remote Control West Coast Mirrors
 Convex Mirrors (L & R) 8 in. (203 mm) molded in
 under west coast mirrors
 Right hand fender mounted 8" convex mirror
 Dual Steering
 Radio install package including harness, speakers and antenna
 Air Conditioner
 Viscous Fan
 Tinted Glass—All Windows
 Engine Hour Meter
 Electric Horn
 Electric Windshield washers with delay
 Cruise Control
 Auto Shutdown
 Blue stripe coolant hoses with constant tension clamps
 Bendix air dryer w/heater
 750 watt block heater dual
 cup holders
 12 Volt Power Supply
 Front Tow Hooks

OPTIONAL EQUIPMENT AVAILABLE:

AM/FM Radio CD 12"
 Fender mount convex mirrors In-
 cab air filter restriction indicator
 Daytime running lights

2016 Autocar Dual steer chassis specification for WHIRLWIND 36" brooms

AXLES:

Front - 12,000 lbs. (5,454 kg)
Rear - 21,000 lbs. (9,545 kg) HTS, with 21,000 (9,545 kg) variable rate leaf spring.
Ratio - (7.17 / 9.77)
Gross Vehicle Weight Rated (GVWR) - 33,000 lbs. (15,000 kg)

BRAKES:

Service:

Type - Full air, Bendix anti-lock
Front - 16.5 in. x 5 in. (410 mm x 127 mm) drum
Rear - 16.5 in. x 7 in. (419 mm x 178 mm) drum
Compressor Capacity - 18.7 CFM
Air Dryer - Bendix AD-IP desiccant type
Auto slack adjusters, front and rear

Parking:

Type - Spring set, air release

CHASSIS:

Manufacturer: Autocar Trucks

Model - Autocar Xpert

Frame:

Type - Rail, High Strength, 120,000 PSI, 2.13M RBM
Size - 10 in. x 3 in. x .375 in. (254 mm x 76 mm x 9.52 mm)

DIMENSIONS: (with sweeper mounted)

Wheelbase - 164 in. (4166 mm)
Cab to axle - 138 in. (3353 mm) usable
Overall Length - 259 in. (6579 mm)
Overall Height - 110 in. (2794 mm) Top of cab
Overall Width - 96 in. (2438 mm)
Dumping Clearance Height - 236 in. (5994 mm)
Turning Radius - 23ft. 4 in. (7112 mm)
Travel Speed - 65 MPH

ELECTRICAL SYSTEM:

Voltage - 12V
Alternator - 130 Amp.
Battery - Two (2) 12 Volt 750 CCA (Total 1500 CCA)
Maintenance Free

ENGINE:

Manufacturer: Cummins
Model - ISB 6.7
Cylinders - In-Line 6
Displacement - 402 cu.in. (6.7 L)
Horsepower - 200 @ 2600 RPM
Torque - 520 lb. ft. @ 1600 RPM
Oil Filter - Full-flow, spin on type
Oil Capacity - 16 qt. (15 L) with filter
Air Cleaner - 13" Single stage, dry type w/ safety

WARNING LIGHTS and CHIMES:

ABS warning light
Air cleaner mounted restriction indicator
Battery low light
Cab latch light
Engine control system warning light and buzzer
Engine Stop light
Hazard warning flasher
High beam indicator light
Low air pressure warning light and buzzer
Low coolant level and overheating warning light and buzzer
Low oil pressure warning light and buzzer
Parking brake indicator light
Turn signal indicator lights
Transmission temperature warning light and buzzer

SEATS:

RH - Mechanical suspension, adjustable dampener, cloth covered
LH - Mechanical suspension, adjustable dampener, cloth covered

STEERING:

Type - Full power hydraulic
Adjustable, Tilt column in both operator stations
Dual Steering with RH & LH Complete Gauge Package

TRANSMISSION:

Allison 2500RDS 6-speed automatic

WHEELS:

Front & Rear - 22.5 in. x 8.25 in. (572 mm x 191 mm) stud pilot steel disc

TIRES:

Front & Rear - 11R 22.5
Load Range G (14 ply rating)

WARRANTY:

12 mo parts and labor 100,000 miles, complete components such as engines and transmissions assume their respective manufacturer's warranty.

ADDITIONAL FEATURES INCLUDED:

Air Conditioner
Ash Tray
Auto Shutdown
Block Heater, 1000 Watt
(2) Dash mounted cigar lighter
Cruise control
Front Tow Hooks
Intermittent speed wipers
Interior map light
Mirrors 8" convex
Mirrors rectangle flat with integral convex
Mirrors Motorized and heated west coast with 8. in. (203 mm) convex rectangle flat with integral convex
Particulate trap manual regen switch

element

Fuel Tank Capacity - 50 gal. (189 L)

Fuel Filter/Water Separator, spin on type

Exhaust – EPA 2013 Emissions with particulate trap.

Vertical L.H. behind cab.

DEF tank – 5 gallons

INSTRUMENTS:

Water temperature gauge, tachometer, hour meter, speedometer, engine oil pressure gauge, fuel gauge, dual air pressure, voltmeter and DEF tank gauge.

Power windows

Radio install package

Transmission shift control – push button

Visors, sun left and right

OPTIONAL EQUIPMENT AVAILABLE:

(Requires special order chassis that may affect lead times)

Radio AM/FM CD

Air ride suspension seats

Air Cleaner Restriction Indicator and gauge – in cab

Dual air horn

Exhaust rain cap

Air tank drain valves, D/V2 automatic

Battery disconnect with jump start

Batteries 1900 CCA

Cab painted color not Elgin white

Chassis extended warranty

Engine extended warranty

Transmission extended warranty-Allison

LED lighting

Daytime running lights

NOTE: These specifications are subject to change without notice.



Elgin Sweeper Company

1300 West Bartlett Road

Elgin, IL 60120

Ph: (847) 741-5370

Fax: (847) 742-3035

ELGIN®

Subsidiary of Federal Signal Corporation

Whirlwind®



WHIRLWIND® - POWERFUL, DURABLE VACUUM SWEEPER

Need a powerful vacuum sweeper that not only cleans but is durable, easy to operate and easy to maintain? The Elgin® Whirlwind is the answer. Suited for municipalities, contractors and general maintenance sweeping, the Whirlwind has evolved over four decades to bring out the best in vacuum street sweeping. The high performance sweep system, user-friendly controls, customizable suction nozzle and side broom configurations, and selection of cab-over or conventional chassis make the Whirlwind the obvious choice. Thanks to our worldwide factory-trained dealer network, you can be sure of satisfaction on delivery and far down the road.



APPLICATION SOLUTIONS

Elgin Sweeper doesn't offer just one sweeping technology — we take an application-based approach to solving our customers' sweeping needs. Our team works with each customer to ensure that you get a machine that fits your specifications, with the right truck, engine configuration, fuel requirements, and options.

POWERFUL SUPPORT

Elgin sweepers are built for clean, backed for life. Throughout the life of the sweeper, we offer training to your team on proper use and maintenance. We have a world-wide network of experienced dealers with factory trained technicians and a local stock of OEM parts and accessories, to ensure total customer peace of mind.

UNMATCHED QUALITY

The Whirlwind was introduced nearly 40 years ago and has been continuously improved. Manufactured in an ISO:9001 certified plant, Elgin Sweepers are quality inspected and functionally tested prior to shipment. Paint prior to assembly ensures uniform, durable coverage. Whirlwinds are proudly assembled in the U.S.A.

POWERFUL CLEANING SYSTEM

How well a street sweeper picks up material is determined by its overall design. The air conveyance, sweeping and dust suppression systems, as well as ease of sweeper maintenance must all work together to achieve maximum sweeping performance.



HIGHLY EFFICIENT AIR CONVEYANCE SYSTEM

Efficient air flow, including a superior vacuum source and air routing path, is at the heart of the Whirlwind.

- High volume air flow at high velocity results in exceptional one-pass pickup while eliminating plugging that can occur in similar type sweepers.
- A nine-vane closed face turbine fan is powered by a turbo-charged diesel auxiliary engine for maximum airflow.

HIGH PRODUCTIVITY SWEEP SYSTEM

The Whirlwind's versatile sweep path picks up debris close to the curb and across the widest expanse of road in its class.

- The sweep system includes one or two suction nozzles, trailing arm side brooms, and a centrally-mounted extension broom.
- You can choose 28 in (711 mm) or 36 in (914 mm) diameter trailing arm side brooms that can be operated individually or simultaneously for a sweep path of up to 144 in (3658 mm)*.
- Choose between single or dual 32 in (813 cm) welded-steel suction nozzles that can be operated individually or simultaneously.
- The 11 in (280 mm) diameter suction hose accepts large debris. Quick disconnect allows an operator to inspect and clean the hose intake without raising the hopper.

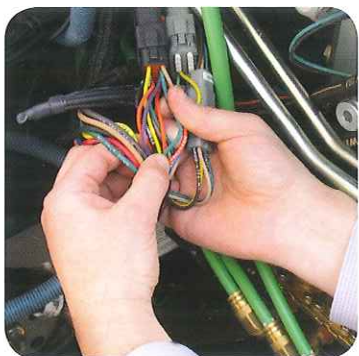


SUPERIOR DUST SUPPRESSION

- Proper use of water is essential for dust suppression, sweeping performance, and longevity of sweeper components.
- Two heavy-duty water pumps – one for the right-hand suction nozzle, side broom, and extension broom, and one for the left-hand suction nozzle and side broom – are capable of run-dry operation.
- Two durable polyethylene water tanks provide 335 gal (1268 L) of water to up to 24* high quality, agricultural grade water nozzles in easy-to-access locations.
- High/low selectable pump speeds allow for application-dependent dust suppression.

SIMPLE, EASY-TO-ACCESS MAINTENANCE

- Large access doors allow for quick and easy inspection without tilting the hopper. The engine oil and pneumatic pressure can be checked, hydraulic filter changed, and the fan bearings greased.
- The hydraulic system with o-ring face seal fittings is designed for long life and leak-free operation.
- Heavy-duty, waterproof electrical connectors and color-coded wires have stamped identification for quick location during troubleshooting.



*With 36 in side brooms

THE ELGIN WHIRLWIND

HIGH PRODUCTIVITY SUCTION NOZZLE(S)

A single or dual 32 in (813 mm) abrasion-resistant suction nozzles are available. Each nozzle covers 174 in² (1123 cm²) and extends 15 in (381 mm) beyond the tire's track for increased performance closer to the curb. The 11 in (279 mm) diameter suction hose accepts large debris. The suction nozzle rides on two heavy-duty pivoting caster wheels allowing it to track, staying in the path of the debris and following road contours. The suction nozzles are equipped with a front-mounted shutter that allows easy entry of larger/bulky objects and large quantities of leaves.



HIGH-PERFORMANCE SWEEPER ENGINE

Power to the sweep system is provided by a reliable, powerful, and fuel efficient John Deere® 4045T diesel engine rated at 115 HP (86kW) @ 2400 RPM. Standard equipment includes auto-shutdown.

POWERFUL BLOWER

The high velocity, 9-vane blower generates the necessary airflow to convey the debris from the suction nozzle into the hopper and vacuum needed to overcome any restrictions such as rocks or bulky debris. More power means one-pass pickup, increasing operator productivity. The vanes are constructed of Hardox® brand steel for durability and maximum service life.



HIGH CAPACITY/EFFICIENT LOADING

The 8 yd³ (6 m³) capacity hopper provides extended sweeping time. Abrasion-resistant steel inlet deflector(s) direct debris flow to the center of the hopper for even, efficient material loading and maximum capacity utilization.

COMPACT DESIGN

The sweeper mounts on dual-steer conventional or cab-over chassis with short wheelbases, enabling a tight turn radius for better reach in cul-de-sac sweeping and greater maneuverability around corners. The standard auto-pickup in reverse allows for quick change of sweeping locations.

UNIQUE TRAILING ARM SIDE BROOMS

Choose between 28 in (711 mm) or 36 in (914 mm) diameter trailing arm side broom(s) that can be operated individually or simultaneously for a 144 in (3658 mm) sweep path. The trailing arm design provides special 4-way action to closely follow road contours, provide inward safety for obstacles, and maintain a consistent broom angle even as the broom starts to wear. Digging pressure is adjustable in-cab.



EASY-TO-ACCESS SERVICE DOORS

The auxiliary engine, water system, hydraulic system and pneumatic system components can be easily accessed behind two full-service doors, without tilting the hopper.

EFFECTIVE WINDROW EXTENSION BROOM

The 54 in (1372 mm) hydraulically-driven extension broom operates at an 18 degree windrow angle, directing the debris into the path of the nozzle. The broom can pivot for left or right side sweeping and is pivoted by a heavy duty pneumatic cylinder.



SUPERIOR VACUUM SWEEPER DESIGN



COMPREHENSIVE WATER SYSTEM

Up to 20 spray nozzles are located at the side brooms and inside the suction nozzles. The extension broom has 4 rubber mounted, quick-disconnect spray nozzles for easy cleaning and maintenance. The spray system is powered by two water pumps, one for each side of the sweeper. The pumps are controlled in-cab, with high/low settings to adjust for sweeping conditions. Two durable polyethylene water tanks provide 335 gal (1268 L) of water. Additional water options available.

ERGONOMIC CONTROLS

All sweep and water functions use rocker switches located on a centrally-mounted console for easy operation from either operator position. Air regulators provide positive side broom down-pressure and separate switches control the in/out and up/down function. Easy-to-read gauges provide quick assessment of all sweep and engine systems. A standard back-up camera and alarm enhance operator and sweeper safety.



MEMORY SWEEP

Elgin's Memory Sweep™ system allows the operator to resume all previous sweep settings, even broom tilt (if so equipped), with one-touch control to enhance productivity and reduce fatigue. It incorporates a multi-screen display that indicates system diagnostics, engine hours, water level, and optional features such as broom tilt angle and broom hours.



QUICK COMPLETE DUMPING

The 8 cubic yard (6 cubic meter) hopper is constructed of 10 gauge steel walls, a 1/4 inch (6.35 mm) thick steel floor with easy drop-down screens for quick cleanup. A 50 degree tilt angle ensures efficient dumping. Hopper controls are safely accessible on the curb side of the sweeper and conveniently located in-cab for quick unloading of the hopper.



APPLICATION-SPECIFIC CONFIGURATIONS



PERMEABLE PAVEMENT CLEANING & RESTORATION

Installation of permeable pavement has doubled over the last three years as a best management practice (BMP) to deal with storm water runoff. These surfaces effectively reduce the amount of untreated water and accompanying pollutants directed into waterways. Both regenerative air sweepers and high-power pure vacuum sweepers can be used as part of a practical maintenance program for permeable pavement. However, for restoration when the surface is blocked and water is no longer able to infiltrate the ground, pure vacuum sweepers, such as the Whirlwind, work better due to highly concentrated vacuum levels which exceed that of a regenerative air sweeper. The Whirlwind's incredible vacuum is able to pull out embedded debris that plugs drainage paths. Most permeable pavement periodically requires this degree of vacuum to restore infiltration of clogged areas.



CATCH BASIN CLEANING

Catch basins allow surface water runoff to enter the storm water conveyance system, while trapping solids and sediments that might otherwise end up polluting the receiving waters. Catch basin cleaning is an efficient and cost-effective method for preventing flooding as well as removing the sediment and pollutants before they can get into the waterways. A regular schedule of catch basin cleaning improves both aesthetics and local water quality.

A Whirlwind equipped with a heavy duty wandering hose becomes a versatile machine capable of street sweeping and catch basin cleaning.

- Multiple aluminum hose extensions can be added to the 4 ft long (1.2 m) catch basin nozzle for deep and thorough cleaning.
- Fingertip hydraulic controls on the handles easily adjust the height of the nozzle.
- The rear auxiliary engine throttle control improves operator productivity and adjustment of vacuum power.

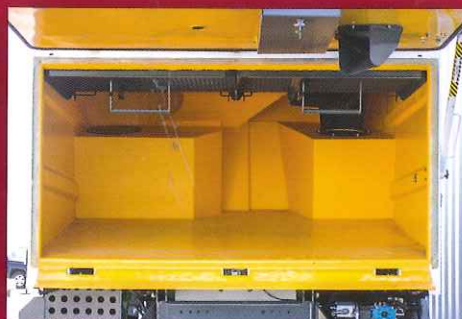
The combination Elgin Whirlwind sweeper with wandering hose option provides a cost-effective tool to facilitate storm water management.

OPTIONAL ENHANCEMENTS



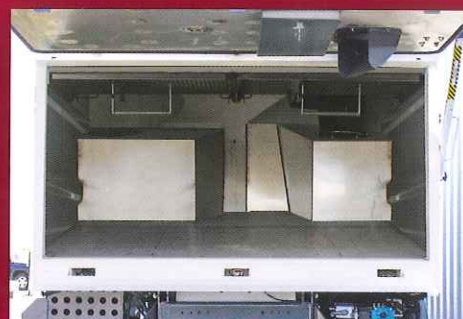
WANDERING HOSE

The versatile, hydraulic-assist hose gets into hard-to-reach places and is effective in catch basin cleaning. It handles multiple tubes for especially deep catch basin cleaning.



LIFELINER® HOPPER SYSTEM

The LifeLiner® hopper liner and finish system greatly improves the life, durability, and dumping functionality of a sweeper hopper. It is backed by a lifetime warranty.**



STAINLESS STEEL HOPPER SYSTEM

This complete hopper body is constructed entirely of 304 grade stainless steel to provide maximum service life, even in the most corrosive applications.

ADDITIONAL OPTIONS:

- Variable broom speed
- Auto nozzle shutter
- Front spray bar
- Hopper inspection doors
- Rear flood light(s)
- Rotating beacon/strobe light
- Automatic lubrication system
- Hopper deluge
- Auxiliary hydraulic system
- Additional water:
140 gal (530 L), 280 gal (1060 L), 360 gal (1363 L)
- High/low pressure washdown
- In-cab side broom tilt
- Utility cover lifter
- PM-10 compliant
- 10 yd³ (7.6 m³) hopper

SPECIFICATIONS:

SWEEP SYSTEM

High performance vacuum sweeper

SWEEP PATH*

One suction nozzle, one side broom, and extension broom: 95 in (2413 mm)
Dual suction nozzles, two side brooms and extension broom: 144 in (3658 mm)

NOZZLE

Single 32 in (813 mm) abrasion-resistant suction nozzle (dual nozzles available)
Pick-up area: 174 in² (1123 cm²)
Extension beyond tire track: 15 in (381 mm)

AUXILIARY ENGINE

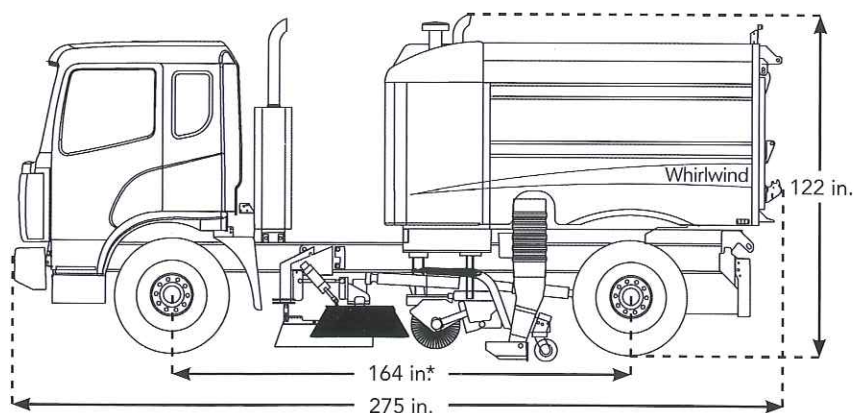
John Deere 4045T
115 HP

CHASSIS

Choice of conventional or cab-over chassis

TRAVEL SPEED

Highway speeds



*With 36 (914 mm) in side brooms. **Consult factory for warranty details

ELGIN SWEEPER IS YOUR PARTNER...

IN THE PLANNING

Instead of one-size-fits-all solutions, we'll work with you to select the sweeping technology that fits your specific needs.



IN THE STREETS

We're here to help you maintain your Elgin and train your operators to ensure the job is done right.



INTO THE FUTURE

Our dealers don't just sell you an Elgin; they're available to answer your questions and provide service for the life of the machine.



WARRANTY

Elgin Sweeper Company backs the Whirlwind sweeper with a one-year limited warranty. The Whirlwind is warranted against defects in material or workmanship for a period of 12 months from the date of delivery to the original purchaser. Optional extended warranty packages are available. Consult your Elgin dealer for complete warranty details.

Your Local Elgin Dealer Is:



elginsweeper.com

1300 W. Bartlett Road • Elgin, IL 60120 U.S.A.
(847) 741-5370 Phone • (847) 742-3035 Fax

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