

CROSSWIND[®]

WITH SINGLE-ENGINE TECHNOLOGY

ELIMINATES:

- Maintaining two engines
- Complex aftertreatment system, and maintenance
- Untimely auxiliary engine regenerations
- Cost exposure resulting from “missed” auxiliary engine regenerations
- Cumbersome belt tensioning systems
- Auxiliary engine noise and vibration

CUSTOMER FEEDBACK:

- Single-engine technology is more than one less engine. The technology eliminates all of the “ing’s” associated with having two engines – starting, idling, warming, overheating, changing, maintaining, priming, troubleshooting, diagnosing, servicing, checking, faulting, etc.
- Increases productivity
- Easy to use and learn; single push-button on-the-fly operation

EXHAUSTIVELY PROVEN OVER:

Years of testing and validation, with thousands of miles and hours in operation, and customers market driven feedback to ensure a design that exceeds expectations.

The Crosswind with single-engine technology has been validated

by Elgin and users after several years; accomplishing the removal of ever increasing complexity with auxiliary engines and their associated aftertreatment systems. This technology is superior to any other single-engine air sweeper technology available today. The Elgin single-engine system sandwiches a variable speed device between the truck engine and the Allison automatic transmission. This allows the truck engine to deliver high power to the sweeper system during operation. The new single-engine technology used in the Crosswind has accomplished the performance expectations typical with twin-engine systems while introducing multiple value propositions unique to this platform.

Variable Speed Device (VSD)

Replaces auxiliary engine; installed between the chassis engine and the Allison transmission

In "Road Mode" VSD produces 1:1 speed ratio between chassis and transmission

In "Work Mode" VSD allows chassis accelerator pedal to control input to transmission and engine speed remains constant - fan speed is adjustable

Singular in-cab push button control

No parking brake requirement

No complex EPA off-highway aftertreatment system

Single-engine System

Make Variable Speed Device

Type Planetary Gearbox Design

Horsepower 240 (179 kW) approved input rating

Torque 560 ft-lb approved input rating

Air Cleaner Dual safety element dry type

Alarm For Low Hyd Oil / High Hyd Temp

Chassis Engine*

Make Cummins ISB 6.7 or equivalent

Type in-Line 6 cylinder, turbocharged diesel

Displacement 409 cu. In. (6.7 L)

Horsepower 200 (150 KW) @ 2400 RPM

Torque 520 ft-lbs (708 Nm) @ 1600 RPM

Fuel Tank Capacity 50 gal (189 L)

Electrical System

Chassis Battery Rating 12 volt

Sweeper Battery Rating 1000CCA

Chassis Engine Alternator 160 amperes

Instrumentation / Controls

Rocker switches in central console gauges:

Blower tachometer, hour meter, fuel, voltmeter, coolant temperature, spray water level gauge, hopper up, hopper rear door open, full load indicator

VSD mounted Oil Level Sight Gauge

Sweep System - Components

General Specifications

Sweeping path:

Pickup Head only

90 in (2,286 mm)

Pickup Head & one Side Broom

117 in (2,971 mm)

Pickup Head & two Side Brooms

144 in (3,658 mm)

Travel speed Up to highway speed

Blower

Drive direct Jaw-type coupling with hydraulic 2.87 cu-in (47 cc) displacement bent axis motor

Blower Construction Hardox brand steel

Blower Housing 10 gauge (3.4 mm) Steel, rubber-lined for extended wear

Pickup Head

Length 90 in (2,286 mm)

Head Area Approx. 2,700 in² (17,420 cm²)

Hose Diameters

Pressure 14 in (355 mm)

Suction 12 3/4 in (324 mm)

Control Hydraulic raising and lowering

Vacuum Enhancer External, manually controlled

Hose Connection Quick disconnect type near pickup head at lower area of suction hose

Hose Construction Flexible rubber steel reinforced

Side Broom

Diameter 42 in (1067 mm)

Disc Construction Steel plate

Speed Constant

Drive Hydraulic motor, protected by relief valve

Mounting Free floating trailing arm

Motion Pneumatically inward/outward, raised/lowered

Adjustment Inward/outward, forward/backward

Digging Pressure/wear control pneumatic in cab

Sweep Position Fully extended or in front of pickup head with optional full retract feature

Type Segment set disposable

Debris Hopper

Volumetric Capacity 8 yd³ (6 m³)

Effective Dump Angle 50 degrees

Dust Separator Self-cleaning, centrifugal

Lifting Hydraulic, two-stage telescoping cylinder

Hopper Dump Door Hydraulic open/close and lock/unlock

Hopper Dumping Control In-cab switches combined with Dump Mode control

Hopper Screens Hinged, quick release, steel

Quiet Pak™ acoustical insulation on front cowling and access doors

Hydraulic System

Purpose Powers hydraulic motors on side brooms, blower fan, and activates hopper dump cycle

Hydraulic Blower Pump variable - piston type - with 4.2 cu-in (68.8 cc) /rev rating

Hydraulic Sweeper Pump gear driven with capacity of 19.5 GPM (73.8 LPM) @ 3400

RPM; sweeper brooms, hopper dump, and pickup head raise/lower

Reservoir Capacity 23 gal (87 L)

Filter Sweeper Functions System 10 micron spin-on type filter, twin suction strainers 100 mesh. Cooler hydraulic system accessible without raising hopper.

Filter Blower System 6 micron canister type

Filter reservoir vent 10 micron spin-on type breather

Spray Water System

Water Tank Construction Polyethylene

Water Tank Capacity 240 gal (908 L)

Fill Hose 16 ft 8 in (5,080 mm)

Pump Type Diaphragm with run-dry capability with HI or LO selectable pump speeds

Pump Capacity 8 GPM (30 LPM)

Pump Pressure 40 PSI (2.7 bar)

Spray Nozzles Total of 16

(21, with optional centerbroom)

Quick release brass for ease of cleaning or service.

7 in pickup head (12 if with centerbroom)

3 in suction tube

6 (3 each) side brooms

Controls On-off switches in cab, manually adjustable valves

Filter 100 mesh, cleanable

Fittings Prestomatic Push-To-Lok type with thermoplastic tubing

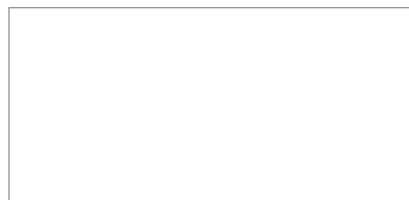
Available Enhancements

- Glycol recovery system
- FSX Airport Application System
- MemorySweep®
- Broom hour meter
- Full broom retract
- In-cab vac enhancer control
- Enhanced water control
- Aux. lighting packages
- In-cab side broom tilt
- Variable broom speed
- Wandering hose
8 in (203 mm) diameter
- Auto lubrication system
- LifeLiner® Hopper System
- Stainless steel hopper
- Hopper inspection door(s)
- Hopper deluge washout system
- Hopper drain
- Centerbroom in pick-up head
- High/low pressure washdown
- Auxiliary water tank capacities
- Water system air purge
- PM-10 water system
- Caster pick-up head wheels
- Full-width magnet
- Cast aluminum side air blast nozzle
- Aluminum refillable side broom segments
- Extended warranty

Paint

Powder Coated, Standard Elgin white and gray

Your Elgin Dealer is:



*Chassis dependent

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Federal Signal Corporation is listed on the NYSE by the symbol FSS

Chassis

Available on commercial cabover and conventional
Consult factory

Warranty

Sweeper

1 year parts and labor

VSD

3 year parts and labor

Elgin Sweeper Company
1300 W. Bartlett Rd.
Elgin, Illinois, U.S.A. 60120-7529
847-741-5370 Phone
847-742-3035 Fax
www.elginsweeper.com

Effective 3/18

Specifications subject to change without notice.

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