



500x[®] CNG

AIR SWEEPER

GENERAL SPECIFICATIONS



MODEL 500x[®] HIGH DUMP REGENERATIVE[®] AIR STREET SWEEPER

CNG AUXILIARY ENGINE / CNG CONVENTIONAL CAB CHASSIS

SWEEPER AUXILIARY ENGINE

Engine KEM/GM Vortec 5700 CNG
 Displacement 350 in³ (5.7 L)
 Power 136 HP (101 kW) @ 2650 RPM
 Net torque 284 lb-ft (385 Nm) @ 2100 RPM
 Air cleaner Heavy duty, w/pre-cleaner, and in-cab air restriction indicator w/gauge.
 Oil filter Remote mount, spin on, full flow
 Auxiliary engine fuel rack shared with chassis
 CNG fuel rack capacity 60 DGE (227 DLE)
 Auxiliary engine shutdown system
 Remote engine oil cooler

BLOWER, RUBBER LINED

Aluminum alloy, high volume, open face turbine
 Bearings ... (2) sealed lifetime lube, anti-friction
 Housing Isolation mounted, steel with abrasion resistant, replaceable liner
 Housing seal Heavy rubber section, non-wiping, spring actuated Tilt-N-Seal[®] design
 Drive Fixed displacement, heavy duty, hydraulic motor

DUST SEPARATOR

Type Cyclonic, multipass, centrifugal separation
 Size 28 x 48 in (711 x 1219 mm)
 Location Inside hopper
 Particulate removal achieved through dual skimmer slots into hopper
 Housing ... Abrasion resistant, replaceable liner
 Self-opening, self-emptying when hopper tilts

HOPPER, STAINLESS STEEL

Volumetric capacity 5.7 yd³ (4.3 m³)
 Useable capacity 4.0 yd³ (3.06 m³)
 Construction Welded non-magnetic stainless steel plate w/integral stiffeners
 Floor dump angle 50°
 Dump door opening 68 x 57 in (1727 x 1448 mm)
 Dump door Self-locking
 Chute 72 x 48 in (183 x 122 cm) stainless steel lined
 Chute reach 22 in (56 cm) w/o side shift
 Dump direction Right side
 Lifting method Two stage scissor lift, dual hydraulic cylinders w/integral holding valves
 Lift capacity 10,000 lbs (4536 kg)
 Dump height Variable
 Minimum 24 in (610 mm) from bottom of chute to ground
 Maximum 132 in (11 ft) (3353 mm) from bottom of chute to ground
 Overall 262 in (21 ft 8 in) (6655 mm)
 Dump tilt slope 50°
 Hopper screen 2 piece stainless steel screen w/access for cleaning top side
 Hopper drain system

BROOM ASSIST PICK-UP HEAD (BAH[®])

Type Dual chamber with broom assist
 Width 87 in (2210 mm)
 Pick-up head area 3567 in² (2.3 m²)
 Broom 12 x 79 in (305 x 2007 mm) enclosed in rear of pick-up head
 Suspension 4 springs 2 drag links
 Suction hose 12 in diameter (305 mm)
 Pressure hose 14 in diameter (356 mm)
 Skids DUO SKID[®], long-life carbide

Pressure bleeder Integral for leaf/light material pick-up.
 Reverse pick-up head system

GUTTER BROOMS, TWIN, Patented

Includes LED floodlights and parabolic mirrors
 Drive Variable speed non-reversible hydraulic motor
 Adjustment Adjustable for down pressure, pattern and wear
 Down pressure Automatic
 Flexibility All directions, integral anti-damage "swing away" relief valve
 Brooms 43 in dia. (1.1 m) steel wire, vertical diggers
 Hydraulic tilt Gutter brooms adjust for curb depth

HYDRAULIC SYSTEM

Drive Direct drive
 Blower pump Heavy duty variable displacement piston pump, hydrostatically drives blower
 Sweeper pump Variable displacement piston pump, operates gutter brooms, pick-up head, stabilizers, hopper lift, hopper dump, and hopper door.
 Blower pump flow rate 26 GPM (100 LPM)
 Sweeper pump flow rate 11 GPM (42 LPM)
 BAH pump Gear pump, operates Broom Assist Head broom motor
 BAH pump flow rate 8 GPM (30 LPM)
 Reservoir 34 gal (129 L)
 Return filter 3 micron, spin-on, in-line return
 Charge loop filter 10 micron
 Vent filter 10 micron spin-on
 Cooler Air to oil
 Hydraulic level/temperature shutdown system
 Hydraulic oil filter restriction indicator - in cab
 Hydraulic oil sight/temperature gauge
 Auxiliary hydraulic system

DUST CONTROL SYSTEM

Water spray nozzles for dust suppression
 Pump Electric diaphragm
 Reservoirs ... Polyethylene, 250 gallons (946 L)
 Filter 80 mesh stainless steel, in-line
 Low water shut-off Safety shut-off with audible and visual indicator in cab
 Spray nozzles:
 Pick-up head 4
 Gutter brooms (each) 2
 Hopper 1
 Hydrant fill hose w/storage area 20 ft (6 m)

CONTROL SYSTEM

BlueLogic[®] Control System

Multiplexed electrical system includes hardware and TYMCO designed software that integrates the in-cab controls to the auxiliary engine and all sweeper functions; as well as provides intelligent safety features and on-board diagnostics (OBD) for the auxiliary engine and sweeper through the BlueLogic display.

BlueLogic Display

Pedestal mounted touchscreen display provides sweeper and auxiliary engine data to the operator and includes hour meters (trip and

total) for the auxiliary engine, gutter brooms, pick-up head, blower, water pump, and BAH broom; dump cycle counter, sweeper odometer (records curb miles swept and sweeping hours), service reminders, custom reminders, overspeed warning, low water audible alarm, dust control system winterization guide, and OBD.

Interior Components

Leaf pressure bleeder control, BlueLogic display, auxiliary fuse panel, illuminated control switches: pick-up head, gutter brooms, blower RPM, dump cycle, variable speed gutter brooms, dust control water system nozzles, safety lights.

Exterior Components

BlueLogic Control Modules (BCMs)

STORAGE COMPARTMENT

Location Rear left, beneath auxiliary engine
 Dimensions 18 x 18 x 30 in (457 x 457 x 762 mm)

SAFETY/WARNING DEVICES

BlueLogic Control System utilizes solid-state proximity switches to help provide several safety systems: Right and left stabilizers automatically deploy before raising the hopper and retract after lowering the hopper, stabilizers down warning system, transmission interlock when stabilizers are down, blower actuation interlock, and minimum dump interlock. Other devices include alternating LED rear flashers, front mounted SAE Class 1/California Title 13 amber beacon light (LED) w/ limb guard, rear view camera system, back-up alarm, scissor lift safety props, dump door/tilt cylinder safety props, and shop prop.

OPTIONAL EQUIPMENT

AOD water pump w/washdown hose/spray gun
 Abrasion protection package
 Additional camera views - pick-up head, left gutter broom, right gutter broom
 Auto Sweep Interrupt (ASI)
 Auxiliary hand hose, 8 in (203 mm) diameter
 Gutter broom, drop down
 High output water system
 Hopper load indicator alarms w/gauge
 Hopper vibrator - electric
 Linear actuator - pressure bleeder w/gauge
 Low emissions package (required for South Coast AQMD Rule 1186)
 Magnet, light, standard, or heavy duty
 Pick-up head front curtain lifter
 Shop air purge, dust control system
 Sweeper deluge system, includes hopper and pick-up head deluge w/6 in (152 mm) cleanout port
 Screen vibrator - pneumatic
 Paint color (other than TYMCO standard white)

Special options are available for your individual requirements. Contact your local dealer or TYMCO

CHASSIS AVAILABLE

Freightliner M2-112 CNG