



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
Purpose Creates blast and suction
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-emptying, 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
Dumping 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
Function Delivers air blast and suction
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

Standard equipment, includes floodlights and
parabolic mirrors
Drive Variable speed
non-reversible hydraulic motor
Adjustment Adjustable for down
pressure, pattern and wear
Down pressure Automatically
adjusts to requirement
Flexibility All directions, integral
anti-damage "swing away" relief valve
Brooms 43 in dia. (1.1 m) steel wire,
vertical diggers
Hydraulic tilt Twin 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 if applicable; 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 multiplex modules

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,
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
Auto Sweep Interrupt (ASI)
Auxiliary hand hose, 8 in (203 mm) diameter
Camera/monitor system
Gutter broom, drop down
High output water system
Hopper load indicator alarms
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