



**DST-4**<sup>®</sup>  
Dustless Sweeping Technology

**GENERAL SPECIFICATIONS**



**MODEL DST-4<sup>®</sup> MID-SIZE DUSTLESS REGENERATIVE<sup>®</sup> AIR SWEEPER  
DIESEL AUXILIARY ENGINE / DIESEL CABOVER CHASSIS**

**SWEEPER AUXILIARY ENGINE**

Engine ..... Kubota V2403-CR-TE4B FT4, 4 cyl.  
Displacement..... 148.5 in<sup>3</sup> (2.4 L)  
Power ..... 56 hp (41.7 kW) @ 2100 RPM  
Net torque..... 140 lb-ft (190 Nm) @ 2100 RPM  
Air cleaner ..... Heavy duty, w/pre-cleaner, and  
in-cab air restriction indicator w/gauge.  
Oil filter ..... Spin on, full flow  
Cooling ..... Liquid  
Diesel fuel supplied from chassis fuel tank  
Fuel tank capacity.....30 gal (113 L)  
Auxiliary engine protection system  
Fuel/water separator with WIF sensor  
Fuel filters ..... 10 µm primary, 5 µm secondary

**BLOWER, RUBBER COATED**

Aluminum alloy, high volume, open face  
turbine  
Bearings ..... (2) Anti-friction  
Housing ..... Steel w/abrasion resistant,  
replaceable liner  
Drive ..... Heavy duty power band

**DUST SEPARATOR, RUBBER LINED**

Type..... Cyclonic, multipass, centrifugal  
separation  
Cylindrical area..... 20 x 22.5 in  
(51 x 57 cm)  
Location ..... Adjacent to hopper  
Particulate removal achieved through 22.5 in  
(57 cm) skimmer slot into skimmer hood  
Inspection/cleanout port

**HOPPER**

Capacity (volumetric)..... 4.0 yd<sup>3</sup> (3.06 m<sup>3</sup>)  
Capacity (useable)..... 3.1 yd<sup>3</sup> (2.37 m<sup>3</sup>)  
Construction ..... Welded steel plate  
Dump door opening ..... 77.25 x 70 in  
(196 x 178 cm)  
Inspection door ..... (1) Right side of hopper  
..... 8.5 x 8.5 in (21.5 x 21.5 cm)  
Dump method ..... Hydraulic tilt  
Dump direction ..... Rear  
Dump floor angle ..... 37°  
Dump height ..... 72 in (183 cm)  
Dump clearance height..... 154 in (391 cm)  
Dump door hydraulically opened/closed  
Hopper screen lifts with door for easy cleaning  
Hopper deluge  
Abrasion protection package

**PICK-UP HEAD**

Type ..... Dual chamber  
Width (inside dimension) ..... 78 in (198 cm)  
Pick-up head area ..... 2028 in<sup>2</sup> (1.31 m<sup>2</sup>)  
Suspension ..... (4) springs, (2) drag links  
Skids..... DUO-SKID<sup>®</sup>, long life carbide  
Suction hose diameter..... 12 in (30.5 cm)  
Pressure hose diameter ..... 12 in (30.5 cm)  
Reverse pick-up head system

**GUTTER BROOMS, TWIN, Patented**

Drive ..... Constant speed  
non-reversible hydraulic motor  
Adjustment..... Adjustable for  
down pressure, pattern and wear

Down pressure ..... Automatic  
Flexibility..... Integral  
anti-damage "swing away" relief valve  
Broom ..... Steel wire vertical  
digger 36 in (91 cm)  
Variable speed control  
Hydraulic tilt..... Twin gutter brooms  
adjust for curb depth  
Floodlights ..... (2) LED  
Parabolic mirrors ..... (2) 10.5 in (26.67 cm) dia.

**HYDRAULIC SYSTEM**

Operates gutter brooms, dump door and  
pick-up head  
Drive ..... Gear driven from auxiliary engine  
Flow rate..... 5 GPM (18.925 LPM)  
Reservoir ..... 13.5 gal (51.1 L) with 80 mesh  
suction strainer, sight/temp. gauge, oil cooler  
Filter..... 10 µm in-line  
Hydraulic oil ..... Extended life 10W ISO 46  
Cooler ..... Air to oil  
Auxiliary hydraulic system

**DUST CONTROL SYSTEM**

Water spray nozzles for dust suppression  
Pump ..... Electric diaphragm  
Reservoirs ..... Polyethylene, 77 gal (291.5 L),  
total  
Filter..... 80 mesh in-line  
Low water shut-off ..... Safety shut-off  
with audible and visual indicator in cab  
Spray nozzles ..... At gutter brooms  
and inside hopper  
Fire hydrant and garden hose connections  
Hydrant fill hose..... 20 ft (6 m)  
High output water system

**DUSTLESS FILTRATION SYSTEM**

An external mounted modular filtration system  
with automatic BlueLogic<sup>®</sup> control adjustment  
Capacity (volumetric)..... 14 ft<sup>3</sup> (0.40 m<sup>3</sup>)  
Filters ..... (4) MERV 16 Rated w/pre-cleaner  
Particulate removal efficiency ≥ 95% of 0.3 µm  
Long-life filters, unaffected by wet sweeping  
conditions.  
Filters cleaned by intermittent air pulse  
Air compressor ..... Belt driven, liquid cooled,  
engine lubricated  
Compression rate ..... 13.2 CFM  
(0.37 m<sup>3</sup>/minute) @1200 RPM  
Shop air connection for air pulse system  
Dust box deluge washout system

**CONTROL SYSTEM**

**BlueLogic<sup>®</sup> 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. Specific to DST models,  
BlueLogic also monitors and automatically  
controls the adjustments for the DST system,  
requiring no operator adjustments.

**BlueLogic Display**

Pedestal mounted touchscreen display  
provides sweeper and auxiliary engine data  
and includes hour meters (trip and total) for  
the auxiliary engine, gutter brooms, pick-  
up head, blower, water pump, and DST  
filters; 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**

BlueLogic display, auxiliary fuse panel,  
illuminated control switches: pick-up head,  
gutter brooms, auxiliary engine RPM, DST  
mode, purge system, dust control water  
system nozzles, safety lights

**Exterior Components**

Dump switch, BlueLogic Control Modules  
(BCMs)

**SAFETY/WARNING DEVICES**

Alternating LED rear flashers (2)  
Rear view camera system  
Back-up alarm  
Hopper safety prop

**OPTIONAL EQUIPMENT**

Auto Sweep Interrupt (ASI)  
Auxiliary hand hose 6 in (15 cm) dia.  
Camera/monitor systems  
Standard camera system:  
Pick-up head view  
Gutter broom view - left and/or right  
CurbView camera system  
Gutter broom drop-down  
Hi/Low washdown system  
Light bar, cab mounted, LED  
Low emissions package (required for South  
Coast AQMD Rule 1186)  
Magnet, front bumper mounted, light duty  
Pick-up head curtain lifter  
Shop air purge, dust control system  
Stainless steel (non-magnetic) options:  
Hopper & dust box:  
Hopper weldment  
Dust box  
Hopper door  
Skimmer hood assembly  
Hopper screen assembly  
Inspection door  
Suction inlet tube  
Blower housing  
Dust box  
Dust separator  
Hopper inspection door  
Hopper screen  
Auxiliary hand hose hardware  
Paint color (other than TYMCO standard white)  
*Special options are available. Contact your  
local dealer or TYMCO.*

**CHASSIS AVAILABLE**

Isuzu NQR