

Aircraft Support Equipment



Aircraft Air Start Unit Model TMD/TRD-250

The Stewart & Stevenson Model TMD-250 air start unit represents the 250 ppm variant of our all new family of air start units. Designed from a clean sheet of paper, these units offer lower operating costs and decreased environmental impact. The TMD-250 unit will handle the engine starting needs of all wide-bodied aircraft engines requiring 250 ppm of continuous airflow, with the exception of the B-777.

One of the many standard features of the TMD-250 air start unit is the dual-pressure regulators with an “On Demand” automatic engine throttle control system. The operator simply selects either the “Air Start” or the “Air Packs” mode and the control system automatically adjusts the pressure and throttle settings. Benefits of the “On Demand” system include; fuel economy, decreased maintenance, and noise control.

Safety, reliability, and maintainability are key ingredients of our design; decades of experience with both commercial and military GSE provide practical and efficient products. Standard features such as large access doors, remote lube oil drains, and maintenance-free batteries ensure ease of service.

These exceptional features, combined with our famous worldwide parts and support make the TMD-250 air start unit the best choice for your wide-body operations.

50% - Quieter Operation

Improved operator environment and lower overall ramp noise level.

10% - Smaller Package

Enhanced maneuverability and operational safety.

8% - More Fuel Efficient

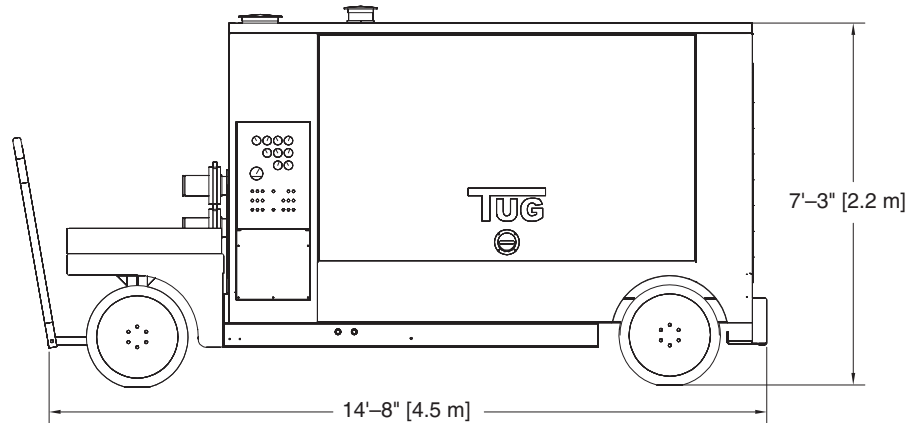
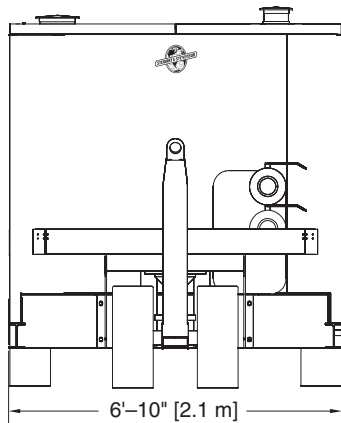
Fuel efficiency and cleaner burning with electronically controlled four-cycle engine.

95% - Parts Commonality

All air start models share running gear, bodies, consumables, and electrical components ensuring lower life-cycle cost and logistics requirements.

Standard features include:

- Dual discharge air outlets with manual shutoff valves
- Automatic discharge air pressure safety relief system to protect aircraft
- Discharge hose manual bleed-down valves
- On Demand automatic engine throttle control
- Leaf spring rear suspension
- Corrosion resistant fuel tank
- Rust proof engine/compressor heat exchanger
- Remote lube oil drains
- Maintenance-free batteries
- Large full-length “gull-wing” module access doors
- Engine lube oil magnetic sump plug
- Sound and vibration dampening material
- Illuminated operator control panel with complete gauge set



Specifications

Model TMD/TRD-250

General

Vehicle type Continuous-flow, turbine engine
air starter
Application All wide-body aircraft engines
with exception of B-777

Engine

Manufacturer Detroit Diesel
Model Series 60 14 liter DDEC IV ECM
Type 6-cylinder, direct injection,
four-cycle, turbocharged
Horsepower 630 bhp (470 kW)

Compressor

Manufacturer GHH-RAND
Model CD42S (single element)
Type Rotary dry screw oil free air
Output at 68 F (20 C) 60% RH, sea level
..... 250lbs./min. (113 kg./min.)
Discharge air temperature
..... 390°F (200°C) nominal

Engine and Compressor Protection System

Operating conditions below are factory set for
operator warning and/or automatic shutdown in
“UNLOAD” and “AIR PACK” mode only. All safety
shutdowns are inoperative in “JET START” modes
with the exception of a manual operator
emergency stop.

Engine high coolant temperature
..... 217°F (103°C)
Engine low oil pressure
..... 10 psig (69 kPag)
Compressor high air temperature
..... 502°F (261°C)
Compressor high coolant temperature
..... 176°F (80°C)
Compressor low coolant pressure
..... 10 psig (69 kPag)

Aircraft Protection System

Discharge air regulating valve
..... 42 psig (289 kPag)
Discharge air safety valve
..... 52 psig (359 kPag)

Electrical System

Starting System 24V DC
Alternator 70A
Batteries Maint. Free 750CCA

Dimensions and Weights

	TMD-250 (trailer mounted)	TRD-250 (truck unit)
Length	14'-8" (4.5 m)	10'-9" (3.3 m)*
Width	6'-10" (2.1 m)	6'-10" (2.1 m)*
Height	7'-3" (2.2 m)	6'-10" (2.1 m)*
Weight(dry)	12,300 lbs. (5,590 kg)	11,600 lbs. (5,273 kg) plus truck GVW

* Overall dimensions vary by truck manufacturer

Standard Instrumentation Panel

Tachometer
Fuel pressure
Water temperature
Engine oil pressure
Panel mounted electric and tank mounted
mechanical fuel level gauges
Ammeter
Air output temperature
Air output pressure
Compressor oil temperature
Compressor oil pressure
Safety warning and shutdown indicators

Automatic Control System

Demand air throttle control
Dual-pressure regulation
Engine protection warning lamps and unit
shutdown for high coolant temperature,
low engine oil pressure
Compressor warning lamps and unit shutdown

for high compressor oil temperature, low
compressor oil pressure and high output air
temperature.

Options

Truck mounting (TRD)
30', 40', & 50' air discharge hoses
(includes ground air connector)
Unit running beacon
Low fuel level warning beacon
Low fuel shutdown circuit
Engine and/or compressor filter indicators
Engine coolant - Engine lube oil - Compressor
lube oil and Battery heater circuits
Rub rails
General mechanics tool set
Fire extinguisher
Wheel chocks
Maximum sound attenuation kit
Low ambient start kit to -40°F
Remote Fuel Fill
Remote Engine Lube Oil Fill