

TOW_{AND}BLOW[®]



FROST PROTECTION | DRYING | VENTILATION | COOLING

250h

USABILITY

EFFICIENT AND AFFORDABLE WIND MACHINE

The unique design of this fan can provide effective frost protection for all crops, even when grown in valleys or on hills. The ability to angle the Tow and Blow impeller and horizontally oscillate the fan head for these applications allows for exceptional versatility and completely sets this machine apart from traditional fans.

We have confirmed reports from growers that have protected up to five hectares in frost conditions. Tow and Blow requires no concrete foundations, no building permit or consent, is incredibly quiet, and the low fuel consumption ensure slow emissions.

Easily transported from block to block behind a vehicle or tractor the Tow and Blow raises the bar in terms of maneuverability, flexibility, and affordability.

OTHER APPLICATIONS

- Also used for **drying** fruit pre-harvest and before pruning.
- Can be fitted with an evaporative water mist system for **cooling** livestock or people.
- **Quiet** with a noise level of only 45-50 decibels at 300m.
- **Portability** is second to none. Easily transported behind a tractor or vehicle. Stabiliser support feet are lowered to a secure position and the machine levelled for operation.
- **Servicing** is simple. The boom is lowered to ground level to service the engine and impeller.
- **Extended fuel lines** available for remote fuel tank set up.

SOLUTIONS

FROST PROTECTION

A wind machine that brings efficiency, affordability and mobility to frost protection.

Frost protection is suitable for Vineyards, Apples, Kiwifruit, Cherries, Citrus, Blueberries and Avocados.



EVAPORATIVE COOLING

The unique design of this fan can provide effective livestock cooling. The ability to angle the impeller and horizontally oscillate the fan head for these applications allows for exceptional versatility and completely sets this machine apart from traditional fans. The option to include a water mist increases the effectiveness further.



DUST SUPPRESSION

The unique design of this fan can provide effective dust suppression on work sites and farms. The ability to angle the impeller, horizontally oscillate the fan head and include a fine water mist settles dust very effectively.



COMPONENTS



AERODYNAMIC DESIGN

Aerodynamically designed **shroud** maximises the air flow capacity. This effectively turbo charges the thrust of the air like a jet engine.



DIRECT POWER TO FAN

24 hp three cylinder diesel **engine** delivers direct power to the fan eliminating lost power through drive shafts.



FIVE BLADE IMPELLER FAN

Unique five bladed **fan** manufactured from glass reinforced polyamide. Performance tested to recognised world standards.



HYDRAULIC LIFT

The **tower** has three height positions to enable operation at lower heights if required. Suitable for valleys and hills.



USER FRIENDLY CONTROLS

Auto start functionality enables temperature triggered power start up and shut down. Both the fan and tower oscillation of the machine start operating once the preset low temperature is detected and automatically shuts down once the upper temperature setting is reached.



EASILY TRANSPORTED

The Tow and Blow is easy to **transport**. Once in position the stabiliser legs are lowered and the machine set level for operation.

FUNCTIONALITY

AUTO START

Auto start functionality enables temperature triggered power start up and shut down. Both the fan and tower oscillation of the machine start operating once the preset low temperature is detected and automatically shuts down once the upper temperature setting is reached.

ROTATION & OSCILLATION

The tower and fan-head can oscillate through any angle or rotate a full 360 degrees. The hydraulic functions of the Tow and Blow are driven by a DC hydraulic power pack. The oscillation angle is easily adjusted using mechanical steps. A solar panel provides backup charging to the battery when the fan is not in use.

NEW FEATURES

All new diesel models are fitted with a robust gearbox connected to the impeller. All machines come supplied with weather proof engine and gearbox cover. All machines are now standard with an extendable draw bar. All machines now have three different boom height settings to enable operation at a lower height if required. Stabiliser support feet are removable for ease of setup. This allows for positioning the machine in vineyards with narrow rows.

TECHNICAL SPECIFICATIONS

IMPELLER

Five blade impeller made of glass reinforced polyamide. Performance tested to recognised approved world industry standards. The unique design of the airfoil saves power while reducing noise and providing a highly efficient air flow. Unobstructed air flow away from the tower means there is no hindrance to the air momentum or direction. Fan head is easily angled for protecting crops growing on hills or in valleys. Fan head can be preset to automatically oscillate horizontally.

ENGINE

Reliable Kohler diesel engine. Fuel tanks made of translucent polymer enabling fuel level to be readily seen and reducing risk of condensation.

SHROUD

Aerodynamically designed to maximise airflow. Having a shroud around the fan is like turbo charging the capacity of air flow.

STRAIGHTENING VANES

Air exits a fan in a spiral motion which causes the airstream to lose energy. The straightening vanes on the Tow and Blow take this spiral motion and maximise the energy in the airstream.



OPERATING SPECIFICATIONS	
MACHINE MASS	1,340kg
MAXIMUM SIDE SLOPE SETUP ANGLE	10°
MAXIMUM FORE-AFT SLOPE SETUP ANGLE	12°
WHEELBASE	1600 mm Standard
ELECTRIC SYSTEM VOLTAGE	12 V
MAXIMUM WIND CONDITIONS	40 mph (18 m / s)
LEVELLING JACK BEARING PRESSURE	161 kpa (without soft ground pads)
DIMENSIONAL DATA	
MACHINE HEIGHT (FAN IN OPERATING POSITION)	8500 mm
MACHINE HEIGHT (FAN IN TRANSPORT POSITION)	2775 mm
MACHINE WIDTH (STABILISER LEGS RETRACTED)	2315mm
MACHINE LENGTH	6090 mm
CAPACITIES	
HYDRAULIC TANK	5 L
FAN ENGINE FUEL TANK	60 L (2 x 30 L)
TYRES	
TYRES	185R14LT Pneumatic
ENGINE - KOHLER KDW1003 EPA RATED MODEL	
FUEL	Diesel
ENGINE DESCRIPTION	3 Cylinder, 4 stroke indirect injection, overhead cam with integrated fuel injection system
FAN ENGINE POWER (MAXIMUM)	17.6 kw (23.7 HP) @ 3,600 RPM
EMISSIONS COMPLIANCE	Tier 4 Final / ARB
COOLING SYSTEM	Water cooled naturally aspirated
IGNITION SYSTEM	12 V Electric Starter with 45 Amp External Alternator
MAXIMUM ANGLE OF FAN HEAD AND ENGINE	25°
HYDRAULIC OIL	
HYDRAULIC OIL	Hydraulic Oil ISO VG 46 (-15°C and above) Hydraulic Oil ISO VG HVI (-20°C and above)
LUBRICATION	
LUBRICATION GREASE	Lithium EP2 Grease
AIRSPEED	
AIRSPEED AT FULL OPERATING POWER	23 m/s (50mph)



TOW AND BLOW®



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