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BUFFALO TURBINE



Monsoon Atomizing Misting System

Products	Model #
Monsoon Air Mister Portable	BT-MPO110
Monsoon Air Mister Fixed or Ceiling Mount	BT-MCO110
Monsoon Gasoline KB - Two Wheel, Off Road Trailer and Tongue	BT-CKB4M
Monsoon Gasoline Complete with Oscillation and Off Road Trailer	BT-MGC
Monsoon 8000 – CH440 Kohler Gas	BT-CYC8KM
Monsoon PTO	BT-CPTOM
Monsoon Skid Steer Hydraulic	BT-HYSS2M
Monsoon Hydraulic with Oscillation Skid Mount	BT-MHO
Monsoon Electric Complete 460 Volt with Oscillation and Off Road Trailer	BT-MECV460T
Monsoon Electric Complete 460 Volt Skid Mount with Oscillation	BT-MECV460S
Monsoon Electric Complete 220 Volt with Oscillation and Off Road Trailer	BT-MECV220T
Monsoon Electric Complete 220 Volt Skid Mount with Oscillation	BT-MECV220S

Why the Buffalo Turbine Monsoon?

•BUFFALO TURBINE

Since 1945 Buffalo Turbine has manufactured high volume, high velocity turbine style blowers for spraying, cooling, debris blowing, dust suppression and odor control.

•PERFORMANCE AND RELIABILITY

Designed and built for the harshest environments while exceeding our customer's demanding expectations every day

•VALUE

Over 10 different models, strategically priced, providing the opportunity to utilize the right misting system for your desired application.



Applications

- Demolition
- Metal Scrap Recycling
- Waste Transfer
- C&D Scrap Recycling
- Raceways
- Aggregate Crushing
- Aggregate Processing
- Aggregate Recycling
- Landfills
- Torch Areas
- Concrete Crushing
- Asphalt Recycling
- Mining
- Asphalt Milling
- Wood Recycling
- Wood Processing
- Port Loading / Unloading
- Coal Handling
- Excavation
- Controls many types of Airborne Dust

Industry First

- Industry First Turbine Style Blower / Sprayer for Dust Control
- Industry First Gasoline Engine Sprayer for Dust, Smoke, Odor Control
- Industry First Air Driven Atomizing Nozzle for Dust, Smoke, Odor Control
- Industry First Wireless Remote Nozzle Control
- Industry First Wireless Remote Throttle Control



Institute of
Scrap Recycling
Industries, Inc.



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GYRATORY ATOMIZING NOZZLE

Why It Works “GAN”

1. Driven by high velocity wind generated by Turbine style Blower, at speeds over 5000 rpm.
2. Fluid passes through a mesh screen at perimeter of rotating hub which immediately pulverizes the fluid into a uniform spectrum of atomized droplets.
3. <50 – 200 micron size droplets are broadcast 90-150 ft. in neutral wind conditions, collecting and trapping dust and other particulates, resulting in an immediate reduction of airborne fugitive dust pollution on site.



Benefits of utilizing Fluid for Airborne Dust Suppression

1. **Currently one of the best available control technologies for airborne fugitive dust is to utilize a fine atomized mist.**
2. **Smaller atomized fluid particles have a greater ability to attract to fugitive airborne dust particulates than larger water droplets.**
3. **Utilizing water based dust control makes it easier and more cost effective to add many types of dust control suppressants and agents, if fluid is atomized properly.**

Tips to Using the Gyrotory Atomizing Nozzle Effectively

1. **Fine water droplets are necessary to effectively control airborne fugitive dust. The most effective water droplets are so fine they will not be seen visually, which leads to the use of more water than necessary.**
2. **The Gyrotory Atomizing Nozzle is driven by the air that the turbine style blower produces. The faster the rotation of the Gyrotory Atomizing Nozzle , the finer the water droplet created.**
3. **The speed of the Gyrotory Atomizing Nozzle can be controlled two ways, by increasing the speed of the Turbine Blower or by reducing the amount of fluid being misted. The lower the water volume the more effective the dust suppression will be. It is not the amount of water that determines more effective Dust Control but rather the number and size of the droplets that determines the effectiveness.**
4. **In conclusion, operating the Monsoon misting system at higher speeds, with less water, will help you achieve better results in controlling airborne dust.**

Why “GAN” Better Than Spray Nozzles

- **Spray nozzles, Tee Jets , and other small orifice spraying equipment needs to filter out very small particulates from all water sources and will tend to plug very easily, reducing efficiency well before replacement is required.**
- **The Buffalo Turbine Monsoon GAN will not plug as long as fluid is prescreened for larger particulates when drawn from non-potable sources. No screening is necessary if drawn from Potable water source.**
- **Spray Nozzles require higher pressures of fluid to create proper atomization. This is done with booster pumps and other methods which adds expense to purchase and maintain.**
- **The Buffalo Turbine Monsoon GAN runs effectively at lower pressures and does not require high pressure pumps. The GAN is easily cleaned in less than 10 minutes as compared to the expense of fine mesh filters and nozzle tips, which can be time consuming to clean and costly to replace.**

Monsoon Compared Stationary Spray Systems

- **Stationary spray systems require a large investment for installation and repairs. Once installed stationary systems are typically permanent. They use small orifice nozzles that are not as effective which has been pointed out in the previous section on nozzle tips.**
- **The Buffalo Turbine Monsoon is very portable and can be moved easily by a single person or by towing. The oscillation and angle of pitch can be adjusted in accordance with changing wind and other conditions.**
- **The portability of the Buffalo Turbine Monsoon system makes it possible to safely and easily maneuver around a jobsite as it is needed, or to relocate to an entirely different jobsite, making it the most versatile Dust Suppression system available today.**

Monsoon Compared to Water Trucks and Fire Hoses.

- **Fire Hoses and Water trucks are very effective for saturating areas on the ground or on piles, however not effective for removing particulates from the air.**
- **Will utilize more water than necessary and usually require a laborer to operate which is time consuming and costly.**
- **Buffalo Turbine Monsoon is very portable and can be operated with an attendant nearby performing other tasks while inspecting the unit periodically.**
- **Buffalo Turbine Monsoon will generate millions of particulate trapping droplets utilizing less fluid on a daily basis.**

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Monsoon Air Mister

Fluid Specifications

Water Volume	Up To 10 Gallons / hour
Expected Droplet Sizing	
5 GPH or 10oz / Min	20 Microns (Fogging)
7 GPH 14oz/ Min	20-150 Microns
Throw Distance	10-50 Ft*

Airborne Dust Control

Recycling Processes (Crushing, Grinding, Shredding)

Tipping and Dumping Areas

Material Recycling Facilities

C & D Recycling Facilities

Foundries

Odor Control Spraying

Waste Transfer Facilities

Composting Facilities

Wastewater Treatment Facilities

Evaporative Cooling

Foundries

Factories

Gatherings

Livestock

Company Events



GENERAL INFORMATION

Voltage	110V AC~
Frequency	60 Hz
Phase	Single
Electric Motor	.8 HP, 620 Watts
Current (amps)	5.4
Fan R.P.M	3420
Disk R.P.M.	1,710
Outlet	22" dia. (55.8 cm)
Height	60" with stand (152.4 cm)
Width	25" (63.5 cm)
Length	17" (43.18 cm)
Weight	73 lbs (33.11 kg)



Gasoline Monsoon KB Model # BT-CKB4M

- CH740 Kohler Command Engine
- Gyrotory Atomizing Nozzle for Spraying
- 12" Round Blower Nozzle for Debris Blowing
- Wireless Throttle and 360° Nozzle Control
- Ability to Skid Mount
- Two Wheel Off Road Trailer
- DOT Trailer Optional
- Two Position Tongue
- Fluid volume of 1 to 20 gpm
- Throw distances of 100-125 ft in Neutral Wind

Gas Monsoon



Monsoon Gas Complete Model # BT-MGC

- Oscillating Stand with Settings up to 80 Degrees
- CH740 Kohler Command Engine
- Gyrotory Atomizing Nozzle for Spraying
- 12" Round Blower Nozzle for Debris Blowing
- Wireless Throttle and 360° Nozzle Control
- Heavy Duty Steel Construction
- 12 Volt Oscillation Motor
- 3 Wheel Off Road Removable Trailer Package
- Fork Pockets for Moving and Lifting
- Throw distances of 100-125 ft in Neutral Wind
- Fluid volume of 1 to 20 gpm

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Monsoon Electric Complete

- Three Phase 20 HP Electric Motor
- Three Phase Oscillation Motor
- Variable Speed Blower Control
- Heavy Duty NEMA 4 Rated Control Panel with cooling system
- Gyrotory Atomizing Nozzle for Spraying
- Manual pitch adjustment up to 45 degrees
- Oscillating Stand w/Three Settings 30-55-80 Degrees
- 3 Wheel Off Road Removable Trailer package
- Heavy Duty Steel Construction
- Fork Pockets for Moving and Lifting
- Throw distances of 100-125 ft in Neutral Wind
- Fluid volume of 1 to 20 gpm



Monsoon Electric Complete with Oscillation / off road Trailer.

Monsoon Electric Complete <u>220 Volt 60 hz</u> with Oscillation and Off Road Trailer	BT-MECV220T
Monsoon Electric Complete <u>460 Volt 60 hz</u> with Oscillation and Off Road Trailer	BT-MECV460T
Monsoon Electric Complete <u>575 Volt 60 hz</u> with Oscillation and Off Road Trailer	BT-MECV575T

Monsoon Electric Complete with Oscillation / Skid Mount

Monsoon Electric Complete <u>220 Volt 60 hz</u> with Oscillation / Skid Mount	BT-MECV220S
Monsoon Electric Complete <u>460 Volt 60 hz</u> with Oscillation / Skid Mount	BT-MECV460S
Monsoon Electric Complete <u>575 Volt 60 hz</u> with Oscillation / Skid Mount	BT-MECV575S

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Specialty Gas Monsoon Options

Monsoon Squared

- Industry First Twin Turbine Style Misting System
- Gyrotory Atomizing Nozzles for Spraying
- 12" Round Blower Nozzles for Debris Blowing
- CH1000 Kohler Engine
- Independent Nozzle Control
- Wireless Remote Throttle Control
- Wireless Remote Nozzle Control
- Aerospace Polymer Nozzles
- Heavy Duty Steel Construction
- Two Position Tongue
- Ability to skid mount



Monsoon 8000

- Great For Portable Applications
- Gyrotory Atomizing Nozzle
- 12" Round Blower Nozzle for Debris Blowing
- Cost Effective
- CH440 Kohler Engine
- 12 volt Remote Nozzle Control w/12ft cable
- Lightweight Heavy Duty Steel Construction
- Two Position Stub Axle
- Two Position Tongue
- Ability to skid mount



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Hydraulic Monsoon

- Hydraulic Monsoon for Skidsteers and Utility Vehicles with Skidsteer quick mount plate..
- Hydraulically driven Blower runs off of any existing equipments auxiliary Hydraulics.
- 16gpm to 25gpm Hydraulic required.
- Available in Basic skid mount
- Gyrotory Atomizing Nozzle
- 12 volt Oscillation stand is available.

**Hydraulic Monsoon
w/ Oscillation**



**Monsoon Skidsteer
Hydraulic**



Monsoon Hydraulic and PTO Attachments Monsoon PTO

- Gyrotory Atomizing Nozzle
- 12 volt Remote Nozzle Control w/ 12ft cable
- Direct Drive Gearbox
- 12" Round Blower Nozzle for Debris Blowing
- Cost Effective
- Lightweight Heavy Duty Steel Construction
- Low Maintenance
- Minimum 20 HP required at the PTO
- Anti Skid Roller



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