



1000 PSI MISTING PUMP

PULLEY DRIVEN

50099-HDE, 50100-HDE, 50150-HDE, 50200-HDE

MISTING PUMP MANUAL

**INCLUDING: SPECIFICATION DATA, GENERAL SAFETY PRECAUTIONS, OPERATION,
INSTALLATION , PARTS, MAINTENANCE & WARRANTY**

QUALITY MISTING PUMPS

PULLEY DRIVE MISTING PUMP SPECIFICATIONS

PUMP MODELS	FLOW GPM	MAXIMUM PRESSURE	MOTOR HP	SINGLE PHASE VOLTAGE	MOTOR AMPS	MOTOR RPM	NOISE Db(A)	OIL CAPACITY	.008 NOZZLE CAPACITY	.012 NOZZLE CAPACITY
50099-HDE	.5	1000	1.5	120	12.0	1725	51	14 oz.	25	18
50100-HDE	1.0	1000	1.5	120	12.0	1725	54	14 oz.	50	35
50150-HDE	1.5	1000	1.5	120	13.5	1725	57	14 oz.	75	53
50200-HDE	2.0	1000	1.5	120	14	1725	59	14 oz.	100	70

FEATURES

- GP PUMP
- HEAVY DUTY ELECTRIC MOTOR
- INLET SOLENOID VALVE
- LIQUID FILLED PRESSURE GAUGE
- TOTALLY ENCLOSED with INTERNAL FAN
- ACOUSTICAL FOAM FOR LOW NOISE LEVEL
- POWDER COAT FINISH
- ON/OFF SWITCH
- CORD CONNECTED
- RUBBER FEET
- LOW PRESSURE SWITCH **NEW!**
- SCALE X FILTRATION **NEW!**
- THERMAL BYPASS PROTECTION **NEW!**
- **DRAIN VALVE NEW!**
- **3 YEAR WARRANTY**

DIMENSIONS

31.5" L x 16.5" W x 13" H



TECHNICAL DATA

MAX. DISCHARGE PRESSURE	1000 PSI
ELECTRIC MOTOR TYPE	ODP
MOTOR OVERLOAD	AUTOMATIC
FILTER	5- MICRON
INLET PSI RANGE	30-60 PSI
MAX LIQUID TEMPERATURE	165° F
WATER INLET VALVE	3/8" SOLENOID
PRESSURE GAUGE	0-2000 psi
SWITCH	ROTARY
6 FT. POWER CORD	SJTW-105C
OIL CAPACITY	14 oz.

WEIGHT

100 lbs.



PUMP OVERVIEW



QUALITY MISTING PUMPS



GENERAL SAFETY PRECAUTIONS

⚠ WARNING CAN cause DEATH, SEVERE INJURY or substantial property damage.

⚠ CAUTION CAN cause MINOR INJURY or property damage.

GENERAL SAFETY PRECAUTIONS

Consequently, it is essential to comply with the instructions in this manual as well as local and national rules and safety regulations.

⚠ WARNING **HAZARDOUS VOLTAGE.** Can cause serious injury or death. Disconnect power before servicing pump. Pump must be connected to a properly grounded circuit. Do not operate pump in wet conditions.

⚠ WARNING **MOVING PARTS.** Pump may start automatically. Disconnect power, before servicing. Lockout/Tag out misting pump.

HOT SURFACES. Can cause serious injury. Do not touch. Allow to cool before servicing.

⚠ WARNING **HIGH PRESSURE WATER.** Bypassing, modifying or removing safety/relief regulator valves can cause serious injury or death. Do not bypass, modify or remove safety/relief valves. If a leak should occur shut unit off before attempting to tighten any fittings or tube repairs. Do not change any pressure settings above maximum rating. Maximum pressure is 1000 PSI / 70 Bar

⚠ CAUTION **RISK OF LEAKING or BURSTING.** Use only suitable tubing and fittings acceptable for pressure of not less than the maximum allowable working pressure of the pump. Remove water from lines and filter bowls during winter months to prevent freezing damage to pump or tubing.

⚠ CAUTION **Install pump in a suitable place to prevent property damage in the event a leak should occur.**

⚠ WARNING Electrical installation and service should be performed by a qualified electrician who is familiar with all applicable local, state and federal laws and regulations.

GENERAL. The motor rating, as shown on the motor nameplate, and the power supply must have compatible voltage, phase and hertz characteristics.

WIRE SIZE. The electrical wiring between the power supply and electric motor varies according to motor horsepower and other factors. Install adequately sized power leads to protect against excessive voltage drop during start-up. Refer to the National Electric Code (NEC) for information on selecting the proper wire size and securing electrical connections. If you connect additional electrical equipment to the same circuit, consider the total electrical load when selecting the proper wire size.
DO NOT UNDERSIZE WIRING. DO NOT USE EXTENSION CORDS.

OPERATION

The Smart Mist 1000 PSI Pump takes ordinary city water pressure, which is normally about 50-70 PSI, and “boosts” it up to 1000 PSI. The higher water pressure created by the pump enhances mist cooling and heat absorption in two ways. First, it produces a higher flow of water through the nozzle. More water being expelled from the nozzle means more cooling. Second, it creates a smaller finer mist droplet that allows the droplet to evaporate more quickly. Better evap-oration means better cooling.

There are many applications for the 1000 PSI Pump. Applications include patio cooling for homes and restaurants, greenhouses, humidification, dust control, odor control and many more.

Caution, Warning and Safety Instructions:

1. **Warning:** Before plugging in the unit for the first time, read the following section carefully. To reduce the risk of electric shock, plug in supplied grounded cord into a properly grounded receptacle. When servicing this unit, unplug power cord before attempting any service or repair.
2. **Outdoor use ONLY!** Not for indoor use.
3. **Install pump in a suitable place to prevent property damage, in the event that a leak should occur.**
4. Turn water off, and disconnect power to the unit when not in use for extended periods of time.
5. Do not place pump in damp or wet environments.
6. Feed system with potable cold water supply only. Do not connect pump to hot water supply.

Do not expose pump to freezing temperatures. When winterizing disconnect pump from power and water supply, and store in a dry safe place. Make sure all water is drained from the system to prevent damage in the event of a freeze.

INSTALLATION

1. Install pump above grade level on a pre-formed concrete pad (16” x 24”). This pump is non-submersible. Locate pump in a location where flooding and roof runoff does not occur to avoid water damage to the electric motor.
2. Verify water feed to pump location is potable cold water supply only.
3. Connect cold water feed to pump inlet and connect nylon tubing to pump outlet. **Important: Install 50 ft. or more of nylon tubing from the pump to the metal line to prevent line noise and vibration.**
4. Remove red shipping cap on the pump crankcase and install the oil dipstick provided. Unit is pre-filled with oil and ready to operate. Oil should be half full on the sight glass when unit is off. Do not overfill.
5. Plug pump into a properly grounded receptacle. Do not use extension cords!
6. On new misting systems, flush lines before installing nozzles. The pump will not build pressure until all of the nozzles are installed.
7. Do not exceed 1000 PSI and do NOT run the pump without water.

MAINTENANCE & PARTS

Change oil every 500 hours of operation or once a year. Use approved pump oil (57030)

Proper oil level is half full on the sight gauge when the unit is off. Do not overfill. Oil capacity is 14 oz.

Change water filter cartridges annually or as needed. (57011 and 57006) 5 Micron Cartridge and 1 Micron

Winter shutdown:

Unplug pump power cord, shut off water supply, remove filter bowl and drain water. Drain water out of all lines using compressed air to prevent freeze damage.

57251 PRESSURE GAUGE
0-2000 PSI



57030 GP PUMP OIL 16
OZ.



K161 SEAL KIT
K160 SEAL KIT



90159500 OIL SEAL (3 re-
quired)



K123 VALVE KIT



30102 DISCONNECT SWITCH 20
AMP



30375 SOLENOID VALVE 3/8"



30375-C CORD with DIN CONNECTOR

66400K LOW WATER PRES-
SURE CUT-OUT SWITCH KIT
Protects pump from
running dry)



30215-CAT THERMAL PROTEC-
TOR Protects pump from
overheating from excessive
bypass)



52000-K Drain Valve
Kit (**Optional:** Installs
at low point to nylon



PUMP PARTS

Please contact Smart Mist USA for service or replacement parts.



57058 REPLACEMENT BARE PUMP for PUMP MODEL 50099-HDE

57060 REPLACEMENT BARE PUMP for PUMP MODEL 50100-HDE– 50200-HDE



57049 REGULATOR

WARRANTY

Warranty and Statement

Smart Mist USA LLC warrants to its customers that Smart Mist USA products, excluding nozzles, to be free of defects in materials and workmanship for a period of (3) years from the date of purchase to the original purchaser. With customers proof of receipt Smart Mist USA LLC will fix or replace the defective part or parts. Smart Mist USA reserves the right to inspect the defective part or parts prior to replacement. Smart Mist USA will not be responsible for consequential or incidental cost or damage caused by the product failure. Smart Mist USA's liability under this warranty is limited solely to the replacement or repair of defective parts.

Neither this warrant nor any implied warranty applies to damage or harm caused by any or all of the following:

1. Freight damage
2. Damage cause from freezing, fire, natural disaster, improper installation, chemicals, unusual characteristics of water supply.
3. Damage caused by parts, accessories, or components not obtained from or approved by Aero Mist, Inc.
4. Damage due to misapplication and/or misuse.
5. Normal wear of moving parts or components affected by moving parts
6. Use with flammable materials is forbidden.

The liability of Smart Mist USA LLC. under the foregoing warranty is limited to the repair or replacement at the discretion of Smart Mist USA LLC. The return of the entire pump or other product to Smart Mist USA LLC factory must be within the warranty period, at the sole expense of the purchaser. Upon examination the returned product will be deemed to have been defective in material or workmanship.

Smart Mist USA LLC expressly warrants its pumps and other products as above stated. There are no other express warranties. Any implied warranties including implied warranty of merchantability or of fitness for a particular purpose are limited in duration to one year from the date of purchase by the original purchaser except in states that do not allow time limitations on implied warranties. There is no implied warranty of fitness for a particular purpose or merchantability when this product is put to an industrial, commercial or rental use.

No person including any dealer or representative of Smart Mist USA LLC is authorized to make any representation or warranty concerning Smart Mist USA LLC products on behalf of Smart Mist USA LLC or to assume for Smart Mist USA LLC the obligations contained in the warranty. Smart Mist USA LLC reserves the right to install the same upon its existing products or products then in process or manufacture. This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state.

Smart Mist USA LLC
5835 Beech Ave,
Orangevale, CA 95662
www.smartmistusa.com
info@smartmistusa.com
916 308-3856

