

OIL MIST SYSTEMS



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Alemite oil mist systems are used to service all types of machine elements that require continuous lubrication, such as rolling element bearings and chain drives. These reliable systems have no moving parts, deliver a constant, measured stream of clean, atomized oil and are a cost-effective option for ongoing automatic lubrication.

OIL-MIST GENERATORS

Alemite Oil-Mist Generators provide lubrication for multiple lubrication points or machines.

3920 Series

FEATURES:

- Relief valve provides over-pressure protection
- Clear 1 pint nylon reservoir allows visual inspection of oil-level and mist generation
- Refill loader fitting assures contamination-free oil replenishment – requires manual refill pump (388034)
- Aluminum mist head provides corrosion protection for long trouble-free service
- Oil pick-up screen prevents entrance of contaminants into mist generator



INCLUDES:

- Float switch provides signal when oil replenishment is required
- Filter/regulator adjusts mist generator performance; includes automatic water drain
- Air solenoid valve allows automatic on-off operation when wired to machine driver or control
- Steel mounting plate pre-piped assembly allows quick installation

Product #	CFM nominal	Flow range	Mounting plate	Oil heater	Oil level switch	Filter/regulator	Air solenoid value
3922-A	1	0.3 - 1.4 CFM	-	-	-	-	-
3922-AC	1	0.3 - 1.4 CFM	Yes	-	-	Yes	120 VAC
3922-B	1	0.3 - 1.4 CFM	-	-	120 VAC	-	-
3922-BC	1	0.3 - 1.4 CFM	Yes	-	120 VAC	Yes	120 VAC
3922-BD	1	0.3 - 1.4 CFM	Yes	-	220 VAC	Yes	220 VAC

Approximate oil consumption rate = 0.277 x CFM = ounces per hour of operation

OIL-MIST GENERATORS

3940 Series

FEATURES:

- Relief valve provides over-pressure protection
- Refill loader fitting assures contamination-free oil replenishment – requires manual refill pump (388034)
- Oil level sight glass provides visual inspection of oil level
- Cast aluminum 1 gallon reservoir baked polyester powder coated for decades of corrosion protection

INCLUDES:

- Float switch (inside the reservoir) provides signal when oil replenishment is required
- Filter/regulator adjusts mist generator performance; includes automatic water drain
- Air solenoid valve allows automatic on-off operation when wired to machine driver or control



Product #	CFM nominal	Flow range	Mounting plate	Oil heater	Oil level switch	Filter/regulator	Air solenoid valve
3942-BC	1	0.3 - 1.4 CFM	Yes	-	120 V AC	Yes	120 V AC
3942-BD	1	0.3 - 1.4 CFM	Yes	-	220 V AC	Yes	220 V AC
3942-CB	1	0.3 - 1.4 CFM	Yes	120 V AC	120 V AC	Yes	-
3942-CC	1	0.3 - 1.4 CFM	Yes	120 V AC	120 V AC	Yes	120 V AC
3942-DD	1	0.3 - 1.4 CFM	Yes	220 V AC	220 V AC	Yes	220 V AC
3943-B	2.3	0.8 - 3.1 CFM	-	-	120 V AC	-	-
3943-BC	2.3	0.8 - 3.1 CFM	Yes	-	120 V AC	Yes	120 V AC
3943-BD	2.3	0.8 - 3.1 CFM	Yes	-	220 V AC	Yes	220 V AC
3943-CB	2.3	0.8 - 3.1 CFM	Yes	120 V AC	120 V AC	Yes	-
3943-CC	2.3	0.8 - 3.1 CFM	Yes	120 V AC	120 V AC	Yes	120 V AC
3943-DD	2.3	0.8 - 3.1 CFM	Yes	220 V AC	220 V AC	Yes	220 V AC

Approximate oil consumption rate = 0.277 x CFM = ounces per hour of operation

OIL-MIST GENERATORS

Modular Oil-Mist Lubrication Generators

The Alemite modular oil-mist generators includes a 3 gallon reservoir with clean-out/inspection plate, relief valve, manual oil loader valve, mist pressure gauge, inlet air assembly (filter with auto water drain, regulator and pressure gauge) and oil heater.

INCLUDES:

- Air temperature digital display (optional)
- 3 gallon (usable) oil reservoir
- Control box with switches (optional)
- Manual oil fill loader fitting
- Pressure relief valve
- Air heater (optional)
- Oil level sight glass
- Oil temperature gauge
- Air regulator with gauge
- Air filter with auto water drain
- Internal oil heater
- Internal float switches
- Auto-refill oil solenoid valve (optional)
- Mist pressure gauge

OPTIONAL ACCESSORIES:

- Signal devices
 - Horn
 - Alarm
 - Refill operation
 - Normal
- Automatic refill pump (388415)



OIL-MIST GENERATORS

Modular Oil-Mist Lubrication Generators

Product # ⁽¹⁾	Voltage	Flow rate
31151-(X)	115 V	1 CFM
31152-(X)	115 V	2.3 CFM
31154-(X)	115 V	4.3 CFM
31159-(X)	115 V	9.7 CFM
32301-(X)	230 V	1 CFM
32302-(X)	230 V	2.3 CFM
32304-(X)	230 V	4.3 CFM
32309-(X)	230 V	9.7 CFM

⁽¹⁾ See table at right for ordering various options

Product description	Versions ⁽¹⁾				
	A	B	C	D	E
Basic oil-mist generator with 3 gallon reservoir (Basic mist generator with 3 gallon reservoir with clean-out/ inspection plate, relief valve, manual oil loader valve, mist pressure gauge, inlet air assembly (filter with auto water drain, regulator and pressure gauge) and oil heater (order manual refill pump 388034 separately if indicated))	•	•	•	•	•
Mounting plate		•	•	•	•
Audible and visual alarm lights		•	•	•	•
High/low mist pressure switches		•	•	•	•
NEMA 4 control box		•	•	•	•
Automatic oil refill capability with solenoid valve, filter and switch ⁽²⁾⁽³⁾			•	•	
Air heater and temperature controller				•	•

⁽¹⁾ A manual pump (P/N 388034) is required to refill oil reservoir. Sold separately.

⁽²⁾ Does not include pneumatic refill pump

⁽³⁾ Includes 40 micron cleanable oil filter

Approximate oil consumption rate = 0.277 x CFM = ounces per hour of operation

Part Number Configuration Examples:

31159-A

Basic generator with 9.7 CFM nozzle, oil heater and mist pressure gauge only. 115 V AC supplied power.

32304-B

Basic generator with 4.3 CFM nozzle, oil heater, mist pressure gauge, mounting plate, mist pressure switches, alarm lights and NEMA 4 control box. 230 V AC supplied power.

31152-C

Basic generator with 2.3 CFM nozzle, oil heater, mist pressure gauge, mounting plate, mist pressure switches alarm lights and NEMA 4 control box, automatic oil refill capability. 115 V AC supplied power.

OIL-MIST GENERATORS

High Capacity Oil-Mist Generators

FEATURES:

- 3.6 gallon oil reservoir
- Low oil level float switch
- Mist pressure switch (high & low)
- Oil level sight glass
- Air pressure gauge
- Mist pressure gauge
- Oil temperature gauge

OPTIONAL ACCESSORIES

- Alarm annunciator (387275)
 - Required to provide visual/audible alarm signals
- Automatic oil refill kit (385789)
 - Includes 3-float float switch and in-line oil filter
 - Refill kit also requires oil solenoid valve
 - 115 V (383647-1)
 - 230 V (387449)
- Automatic refill pump package (388415)
 - Includes 1:1 ratio air-driven pump with accessories including filter/regulator, 7 ft long hose and valves designed for use with 55 gallon oil drums.



Product #	CFM nominal	Flow range	No. of nozzles	Mist outlet	Voltage
3725-A6	9.7	3.5 - 16.5 CFM	1	2-1/2" NPTF(f)	120 V AC, 60/50 HZ
3720-A6	13	5.2 - 21 CFM	1	2-1/2" NPTF(f)	120 V AC, 60/50 HZ
3721-A6	21	7.5 - 33 CFM	1	2-1/2" NPTF(f)	120 V AC, 60/50 HZ
3722-A6	41	15 - 45 CFM	2	2-1/2" NPTF(f)	120 V AC, 60/50 HZ
3726-A6	65	31 - 73 CFM	2	3" NPTF(f)	120 V AC, 60/50 HZ
3720-B6	13	5.2 - 21 CFM	1	2-1/2" NPTF(f)	240 V AC, 60/50 HZ
3721-B6	21	7.5 - 33 CFM	1	2-1/2" NPTF(f)	240 V AC, 60/50 HZ
3722-B6	41	15 - 45 CFM	2	2-1/2" NPTF(f)	240 V AC, 60/50 HZ
3726-B6	65	31 - 73 CFM	2	3" NPTF(f)	240 V AC, 60/50 HZ

Approximate oil consumption rate = 0.277 x CFM = ounces per hour of operation

HIGH CAPACITY OIL-MIST GENERATORS

High Capacity Oil-Mist Generators with Air Heater

FEATURES:

- Thermo-Aire® air heater
- 3.6 gallon oil reservoir
- Low oil level float switch
- Mist pressure switch (high & low)
- Oil level sight glass
- Air pressure gauge
- Mist pressure gauge
- Oil temperature gauge
- Air temperature gauge

OPTIONAL ACCESSORIES

- Alarm annunciator (387275)
 - Required to provide visual/audible alarm signals.
- Automatic oil refill kit (385789)
 - Includes 3-float float switch and in-line oil filter.
 - Refill kit also requires oil solenoid valve
 - 115 V (383647-1)
 - 230 V (387449)
- Automatic refill pump package (388415)
 - Includes 1:1 ratio air-driven pump with accessories including filter/regulator, 7 ft long hose and valves designed for use with 55 gallon oil drums.



Product #	CFM nominal	Flow range	No. of nozzles	Mist outlet	Voltage solenoid and oil heater	Voltage air heater
3730-RW6	13	5.2 - 21	1	2-1/2" NPTF(f)	120 V AC, 60/50 Hz	240 V AC, 60/50 Hz
3731-RW6	21	7.5 - 33	1	2-1/2" NPTF(f)	120 V AC, 60/50 Hz	240 V AC, 60/50 Hz
3732-RW6	41	15 - 45	2	2-1/2" NPTF(f)	120 V AC, 60/50 Hz	240 V AC, 60/50 Hz
3736-RW6	65	31 - 73	2	3" NPTF(f)	120 V AC, 60/50 Hz	240 V AC, 60/50 Hz
3730-BW6	13	5.2 - 21	1	2-1/2" NPTF(f)	240 V AC, 60/50 Hz	240 V AC, 60/50 Hz
3731-BW6	21	7.5 - 33	1	2-1/2" NPTF(f)	240 V AC, 60/50 Hz	240 V AC, 60/50 Hz
3732-BW6	41	15 - 45	2	2-1/2" NPTF(f)	240 V AC, 60/50 Hz	240 V AC, 60/50 Hz
3736-BW6	65	31 - 73	2	3" NPTF(f)	240 V AC, 60/50 Hz	240 V AC, 60/50 Hz

Approximate oil consumption rate = 0.277 x CFM = ounces per hour of operation



OIL-MIST SYSTEM COMPONENTS

Application Reclassifier Fittings

Reclassifier fittings perform two critical functions:

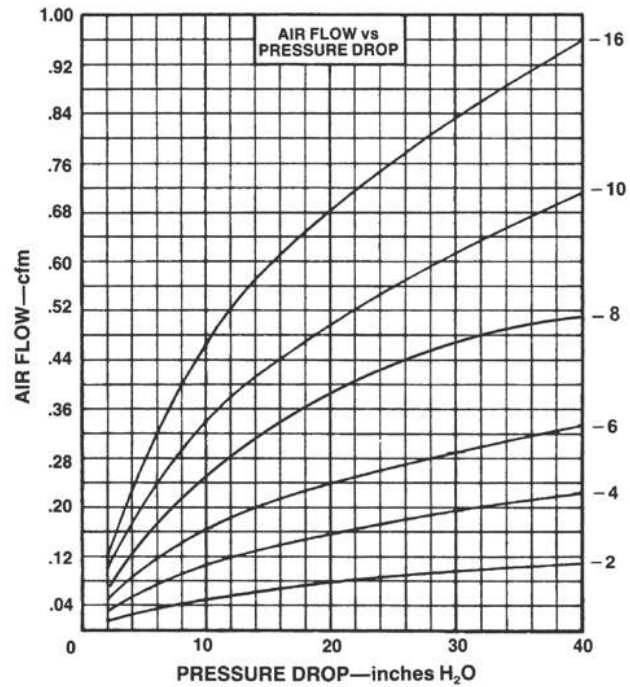
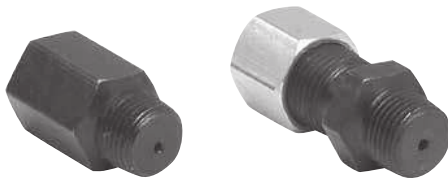
- They maintain consistent system mist pressure for all lubrication points
- They deliver a measured amount of mist flow to each point, as determined by their orifice size

Every lubrication point requires a reclassifier fitting.

Since oil-mist can be applied to a wide array of machine elements (bearings, gears, chains, etc), Alemite offers four different types of fittings. Each type provides a different degree of reclassification of the dry mist into a suitable degree of wetness to adequately lubricate the element.

Mist Fittings

Primarily used for enclosed bearing housings and rely on the bearing velocity to provide the reclassifying function. They are used on both pure mist and purge mist applications. Brass fittings have black zinc finish.



Inlet 1/8" NPT(f) ⁽¹⁾		Inlet 1/4" OD tube fitting ⁽²⁾		Orifice			CFM @ 20 in. H ₂ O
Outlet 1/8" PTF(m) ⁽¹⁾	Outlet 1/4" NPT(m)	Outlet 1/8" PTF(m) ⁽¹⁾		Diameter	Length	Flow area	
Brass	Brass	Brass	303 SS				
380791-2		381290-2	387603-2	0.032"	0.44"	0.0008	0.08
380791-4	381303-4	381290-4	387603-4	0.045"	0.44"	0.0016	0.16
380791-6	381303-6	381290-6	387603-6	0.055"	0.44"	0.0024	0.24
	381303-8	381290-8	387603-8	0.068"	0.44"	0.0036	0.38
380791-10	381303-10	381290-10	387603-10	0.078"	0.44"	0.0048	0.49
380791-16	381303-16	381290-16	387603-16	0.089"	0.44"	0.0062	0.68

⁽¹⁾ SAE special short

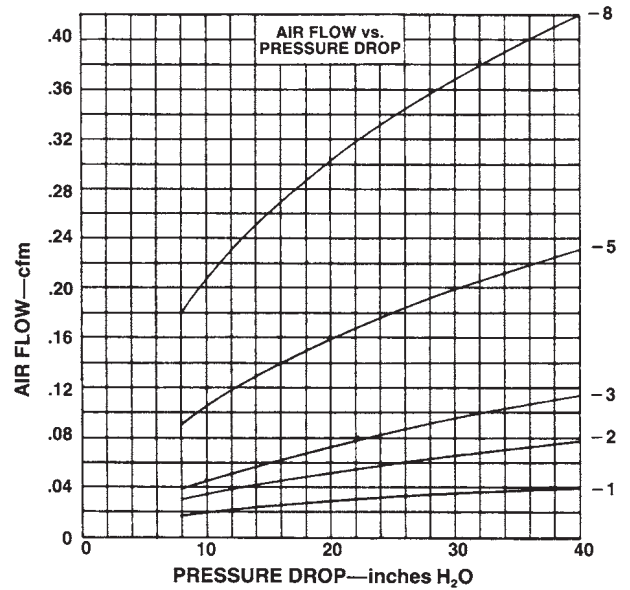
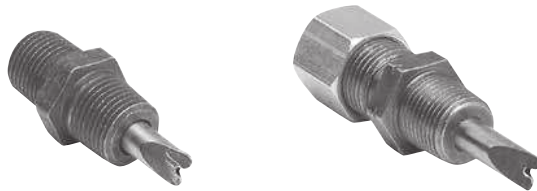
⁽²⁾ Includes nut and sleeve

OIL-MIST SYSTEM COMPONENTS

Application Reclassifier Fittings

Spray Fittings

Compared with mist fittings, spray fittings convert a greater percentage of mist into a wetter spray. Primarily used to lubricate chain, gear teeth and slow-moving equipment. Can also be used to apply a thin oil film on surfaces. Chisel-point tip should be located within ½" to 1" of surface to be lubricated. Fittings have black zinc finish.



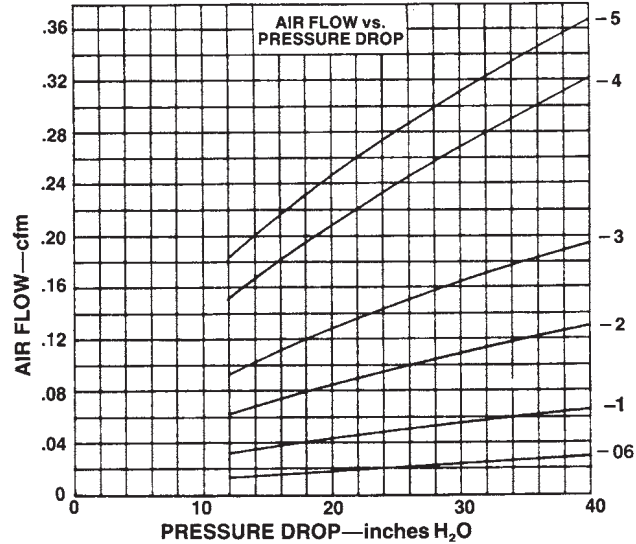
Inlet 1/8" NPT(m)	Inlet 1/4" OD tube fitting	Orifice			CFM @ 20 in. H ₂ O
Outlet 1/8" NPT(m)	Outlet 1/8" NPT(m)	Diameter	Length	Flow area	
	381288-1	0.024"	1.38"	0.000452	0.03
381283-2	381288-2	0.035"	1.38"	0.000962	0.05
381283-3	381288-3	0.042"	1.38"	0.00138	0.07
381283-5	381288-5	0.055"	1.38"	0.00237	0.16
381283-8	381288-8	0.067"	1.38"	0.00352	0.30



OIL-MIST SYSTEM COMPONENTS

Condensing Fittings

These fittings convert mist into liquid oil within the fitting itself. The condensed oil flows by gravity to the machine element. Fittings are made of brass with a bright zinc finish.



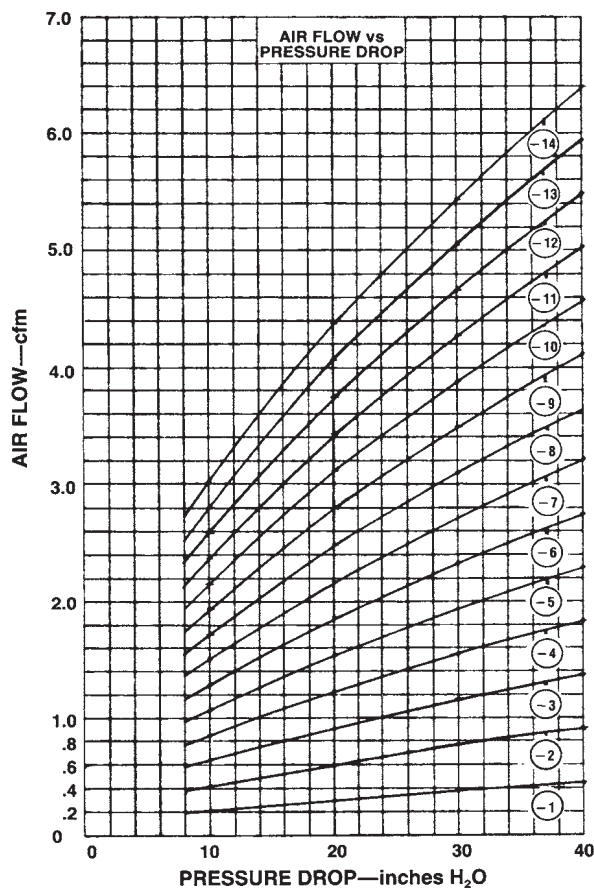
Inlet 1/8" NPTF(m)	Inlet 1/4" OD tube fitting	Orifice (baffled)			CFM @ 20 in. H ₂ O
Outlet 1/8" PTF(m) ⁽¹⁾	Outlet 1/8" PTF*(m)	Size	Length	Flow area	
381281-06		SLOT .014 R	0.38	0.0003	0.02
381281-1	381282-1	SLOT .020 R	0.38	0.0006	0.04
381281-2	381282-2	2 SLOTS .020 R	0.38	0.0012	0.08
381281-3	381282-3	3 SLOTS .020 R	0.38	0.0018	0.13
381281-4		5 SLOTS .020 R	0.38	0.0030	0.21
381281-5	381282-5	6 SLOTS .020 R	0.38	0.0036	0.25

⁽¹⁾ SAE special short

OIL-MIST SYSTEM COMPONENTS

Spray Nozzle Fittings

Like spray fittings, spray nozzle fittings convert mist into a wetter spray. Whenever the required mist flow exceeds the capacity of the maximum spray fitting size, spray nozzle fittings are used. Spray nozzle fittings contain from 1 to 14 flow holes. Each hole passes the same amount of mist as the largest spray fitting. One-end threaded fittings (not shown) are usually installed from inside a very large bearing housing and have a tightening slot on the opposite end. Fittings are brass.



One end threaded		Both ends threaded		Number of orifices ⁽²⁾	Total flow area (square inch)	CFM @ 20 in. H ₂ O
1/2" NPTF(m)	3/4" NPTF(m)	1/4" NPTF(m)	1/2" PTF(m) ⁽¹⁾			
326370-1		383588-1	384280-1	1	0.00352	0.3
326370-2		383588-2	384280-2	2	0.00704	0.6
326370-3		383588-3	384280-3	3	0.01056	0.9
326370-4		383588-4	384280-4	4	0.01408	1.2
326370-5		383588-5	384280-5	5	0.01760	1.5
326370-6		383588-6	384280-6	6	0.02112	1.8
326370-7		383588-7	384280-7	7	0.02464	2.2
326370-8			384280-8	8	0.02816	2.5
326370-9			384280-9	9	0.03168	2.8
326370-10	383617-10		384280-10	10	0.03520	3.1
	383617-11			11	0.03872	3.4
	383617-12			12	0.04224	3.7
	383617-13			13	0.04576	4.0
	383617-14			14	0.04928	4.3

⁽¹⁾ SAE short

⁽²⁾ 0.067 dia – 1.38 lg

OIL-MIST SYSTEM COMPONENTS

Manifold blocks

Designed to provide multiple threaded outlets from one mist header drop line. Two (2) mounting clamps included with all aluminum manifold blocks.



381192-2
(shown with
mounting clamps)



381193-2



381190-2



381174-2



388037

Product #	Material	Size	End ports	Outlet ports 1/8" NPT(f)	Location	Length
381192-2	Aluminum	1-1/8" Square	3/8" NPT(f) / 3/8" NPT(f)	2	All on one side	3" (76 mm)
381193-2	Aluminum	1-1/8" Square	3/8" NPT(f) / 3/8" NPT(f)	3	All on one side	4" (102 mm)
381173-2	Aluminum	1-1/8" Square	3/8" NPT(f) / 3/8" NPT(f)	4	Two on one side, two on opposite side	3" (76 mm)
381174-2	Aluminum	1-1/8" Square	3/8" NPT(f) / 3/8" NPT(f)	8	Four on one side, four on opposite side	5" (127 mm)
381190-2	Aluminum	1-1/8" Square	3/8" NPT(f) / 3/8" NPT(f)	8	Four on one side, four on adjacent side	5" (127 mm)
388037	304 SS	1-1/2" Hex	3/4" NPT(f) / 1/2" NPT(f)	6	Two on each opposite flat	3" (76 mm)

Manifold Block Plugs:

End Port Pipe Plug (48925)

- 3/8" NPT(m)

Outlet Port Pipe Plug (1480)

- 1/8" NPT(m)

OIL-MIST SYSTEM COMPONENTS

Sight Glass with Snap Valve (385662-A1)

Clear acrylic sight glass provides visual check of condensed oil. Brass snap valve permits quick draining and closes when released. Used on both manifold blocks and bearing housing drains. Includes ½" NPT(m) adapter. Add adapter (339596) to attach to aluminum manifold blocks.



Sight Glass with 304SS Snap Valve (388243)

Clear acrylic sight glass provides visual check of condensed oil. 304SS snap valve permits quick draining and closes when released. Used on both manifold blocks and bearing housing drains. Includes 304SS ½" NPT(m) adapter.



Stainless Steel Mist Manifold Assembly (388236)

Includes stainless steel manifold block (388037), 4" long acrylic sight glass (388237), stainless steel push-button drain valve, stainless steel adapters and ¾" OD stainless steel tube fitting.



Mist Collection Container (387613)

72 oz. Nalgene® bottle with special aluminum cap allows condensed oil and vented mist to be collected from up to six bearing housings. Translucent bottle allows visual inspection of oil level. Bottle is easily removable for proper disposal of condensed oil. Compatible with both mineral and synthetic oils. Cap has six (6) ¼" NPT(f) connections.

Stainless Steel Mist Collection Container (388235)

12 gauge 316 stainless steel tank holds approximately 1.5 gallons (5.7 liters) of condensed oil and vented mist from up to six bearing housings or drains. Round sightglass allows visual inspection of oil level. Vent and overflow tubes, as well as ½" NPT drain valve included.



OIL-MIST SYSTEM COMPONENTS

Manual Refill Pump and Hose/Filter Assembly (388034)

Permits refilling of mist generator oil reservoirs during operation. Includes Reservoir Refill Hose Assembly P/N 380696 (*7 ft hose with 40 micron cleanable filter and loader coupler*) that assures only clean, filtered oil enters reservoir. Pump has 3 gallon container and carry handle. Required on 1 pint, 1 gallon and modular mist generators without auto-refill capability.



OIL-MIST SYSTEM ACCESSORIES

Automatic refill pump package (388415)

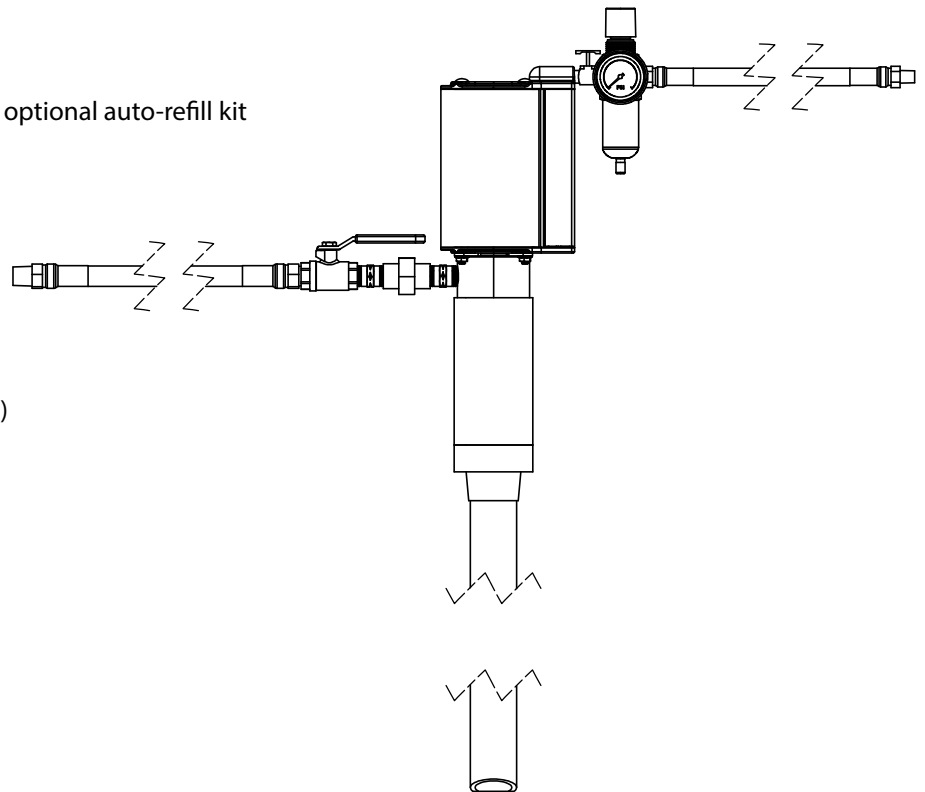
Includes 1:1 ratio air-driven pump with accessories including filter/regulator, 7 ft long hose and valves. For 55 gallon oil drums only (drum not included).

FOR USE WITH:

- Modular generators
 - C and D models only
- High-capacity generators
 - 3720 and 3730 models with optional auto-refill kit

INCLUDES:

- Hose assembly (317803-3)
- Hose assembly (317813-7)
- Suction tube (338147-4)
- Filter/regulator (7936)
- ½" NPT union (17737)
- Adapter (51888)
- ½" NPT full port valve (388217)
- Ram pump (9916-A1)



OIL-MIST SYSTEM ACCESSORIES

Mist Pressure Gauge**1/4" NPT(m) back mount (384889)****1/8" NPT(m) bottom mount (382064)****1/4" NPT(m) bottom mount stainless steel (388612)**

When installed in the mist distribution header of 1 pint and 1 gallon mist generators, these gauges provide visual assurance of proper mist pressure in the system. Included in other mist generator models. Gauges measure 0 to 100" H₂O.

**384889****Alarm Annunciator (387275)**

Provides both visual and audible warning of system faults when connected to oil level float switch and low/high mist pressure switch (optional). Includes red and green status lights, as well as audible horn with disable switch.

- Dry contacts provided to energize remote alarms (10 amp max). 120 V AC, 50/60 Hz
- NEMA 4X non-metallic enclosure with mounting bracket
- Dimensions: 6.4" wide x 8.4" tall x 4.8" deep
- Use with all models that do not have status lights

**387275****Mist Pressure Switch (385033)**

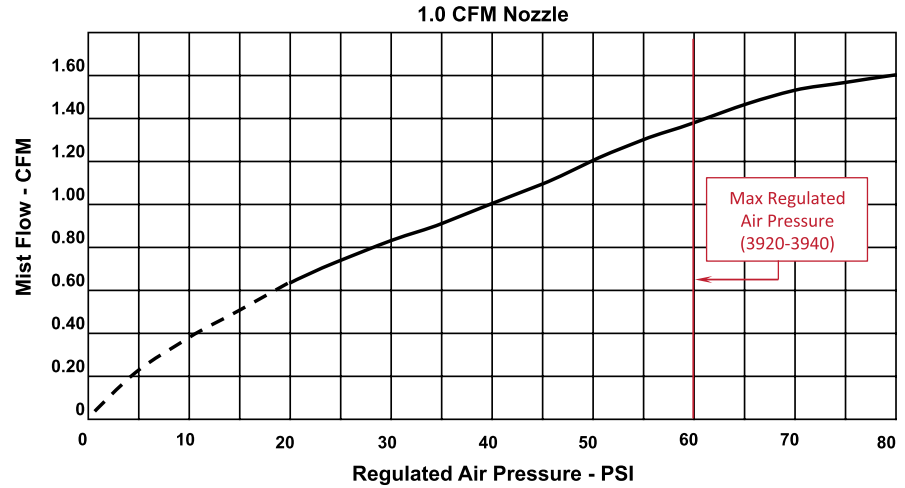
When installed in the mist distribution header of 1 pint and 1 gallon mist generators (and used in conjunction with an optional alarm annunciator), this switch responds to either a rise or a drop in system pressure by sending an alarm signal to the alarm annunciator. Factory set at 8" H₂O (falling) and 55" H₂O (rising) mist pressure. Settings can be easily adjusted in the field.

- Rated for 10 amp @ 120 V AC
- 1/4" NPT(f) pipe connection and 1/2" NPSM(f) conduit connection

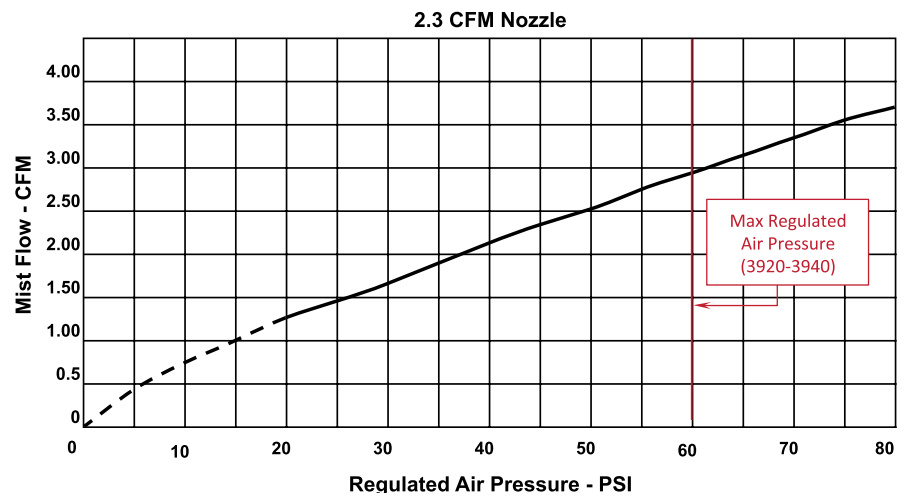
**385033**

OIL-MIST NOZZLE PERFORMANCE CURVES

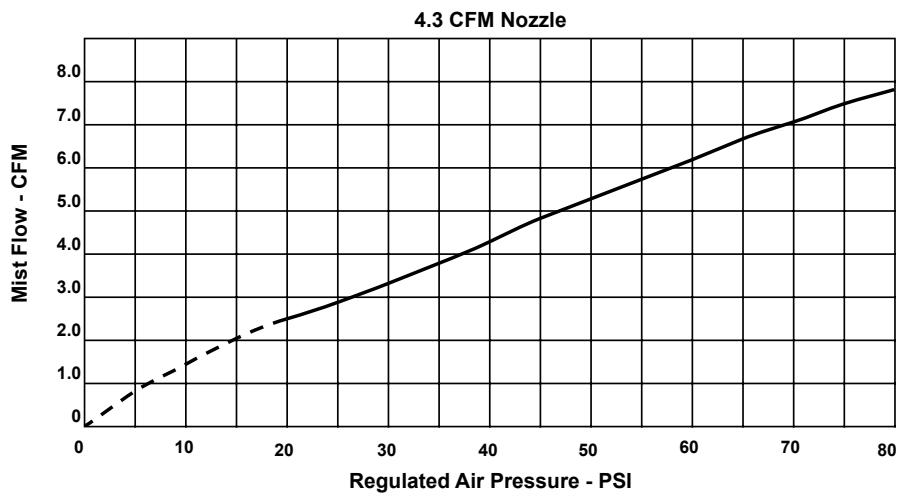
1.0 CFM Nozzle



2.3 CFM Nozzle



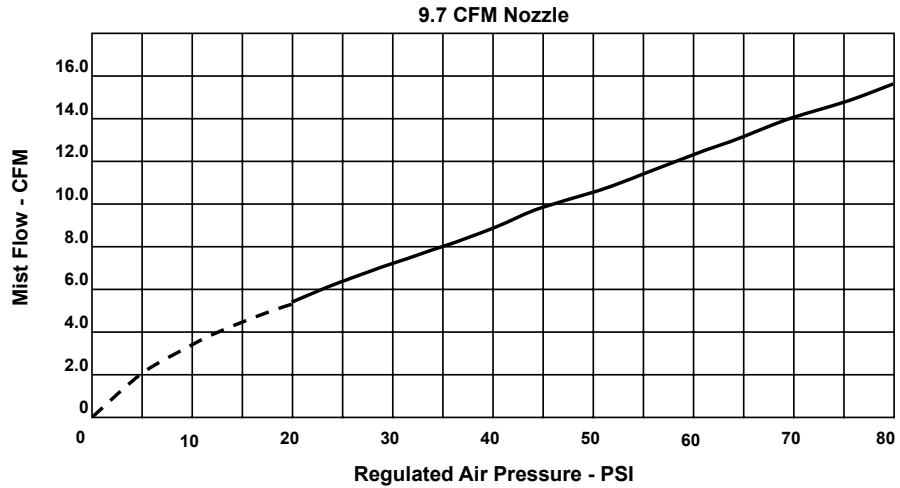
4.3 CFM Nozzle



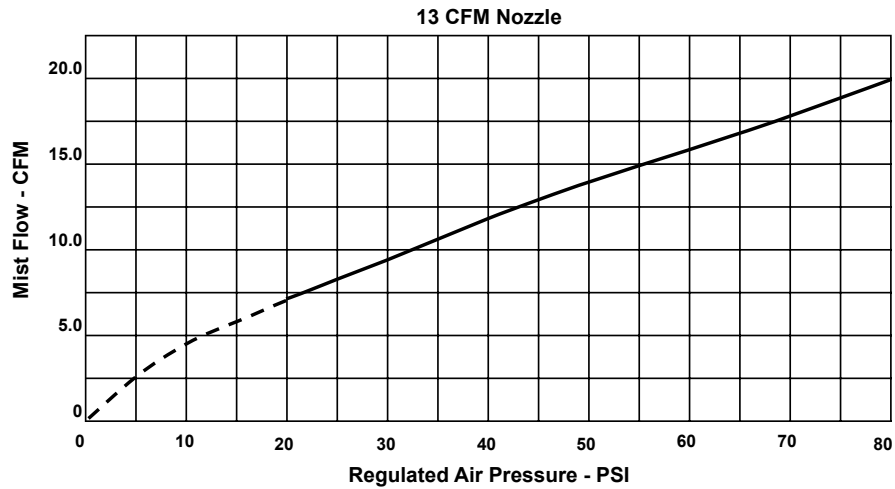


OIL-MIST NOZZLE PERFORMANCE CURVES

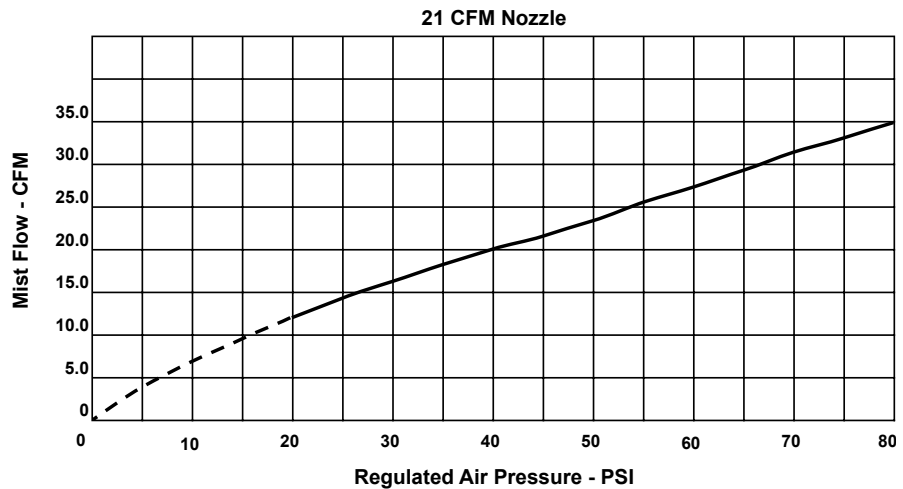
9.7 CFM Nozzle



13 CFM Nozzle

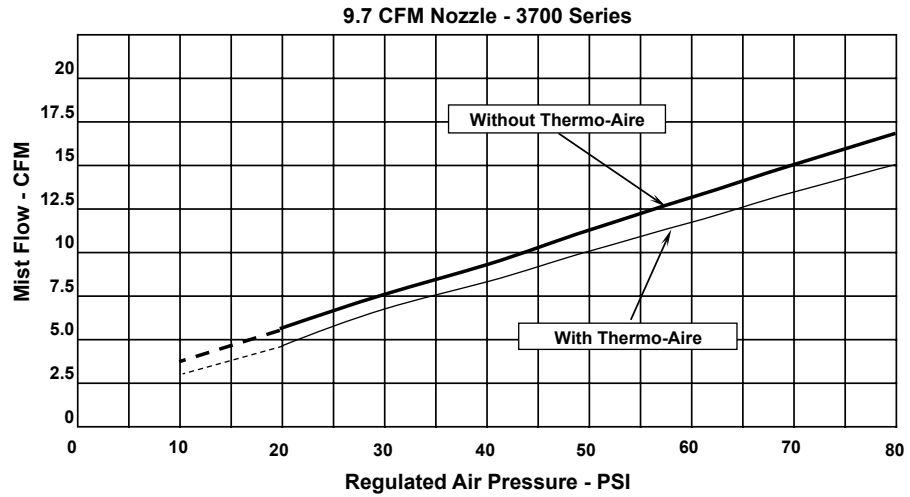


21 CFM Nozzle

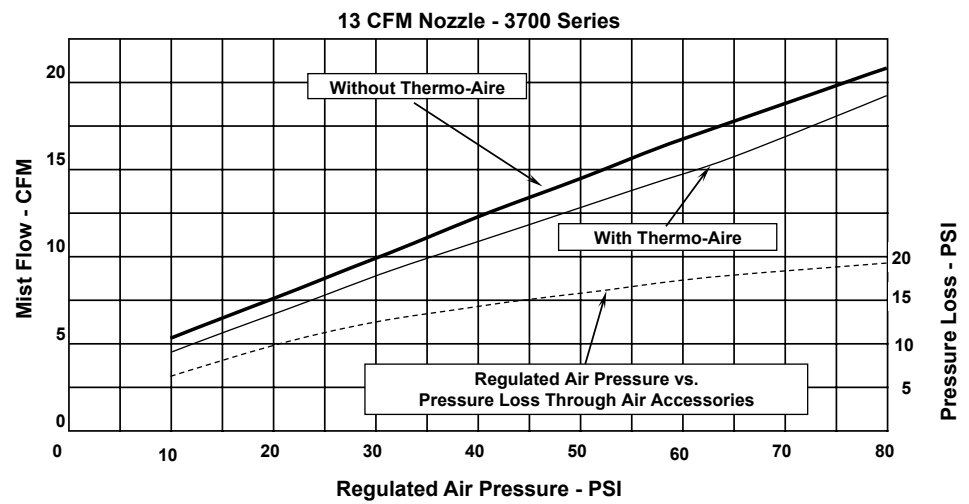


LARGE CAPACITY GENERATOR PERFORMANCE CURVES

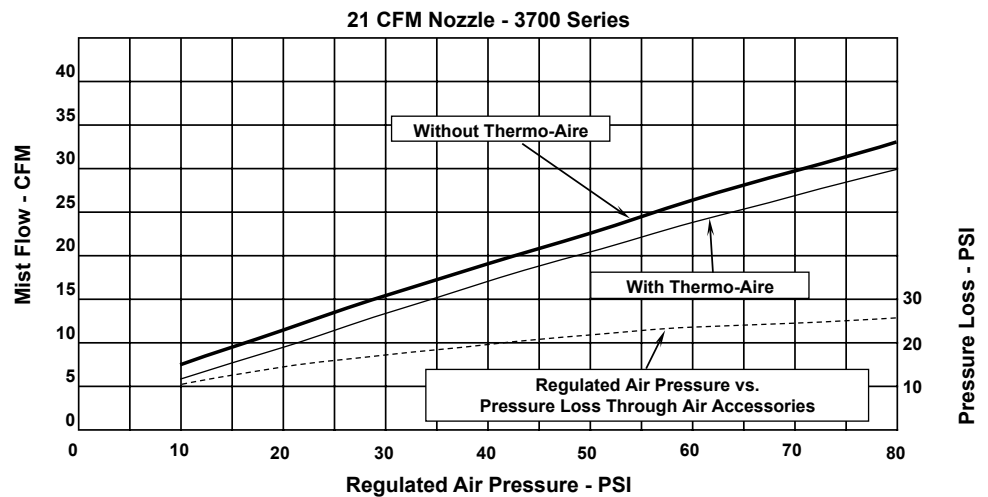
9.7 CFM Nozzle



13 CFM Nozzle



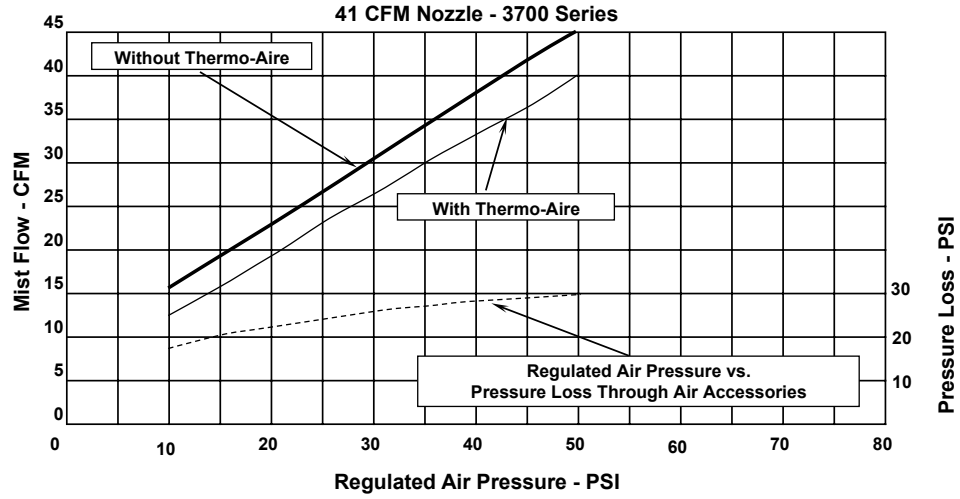
21 CFM Nozzle





LARGE CAPACITY GENERATOR PERFORMANCE CURVES

41 CFM Nozzle



65 CFM Nozzle

