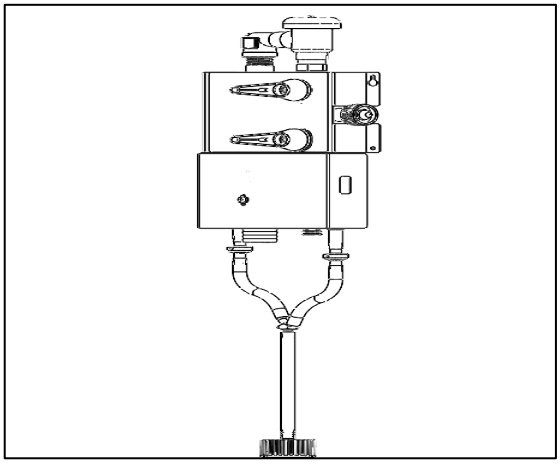
Eclipse Dispensing System



Overview

The Eclipse dispenser is the simplest and most cost effective way to dispense super concentrated cleaning chemicals. This closed system prevents chemical contact, tampering and waste to help customers manage cost. Controlled dilution guarantees consistent results, and allows for ready-to-use products that deliver the best performance in the industry.

Applications

The Eclipse is designed for use in various industrial and institutional applications. The low flow dispenser will discharge at a rate of 1 GPM, allowing end-users to fill quart bottles, while the high flow dispenser will discharge at a rate of 10 GPM, to fill mop buckets, scrubbers or large reservoirs.

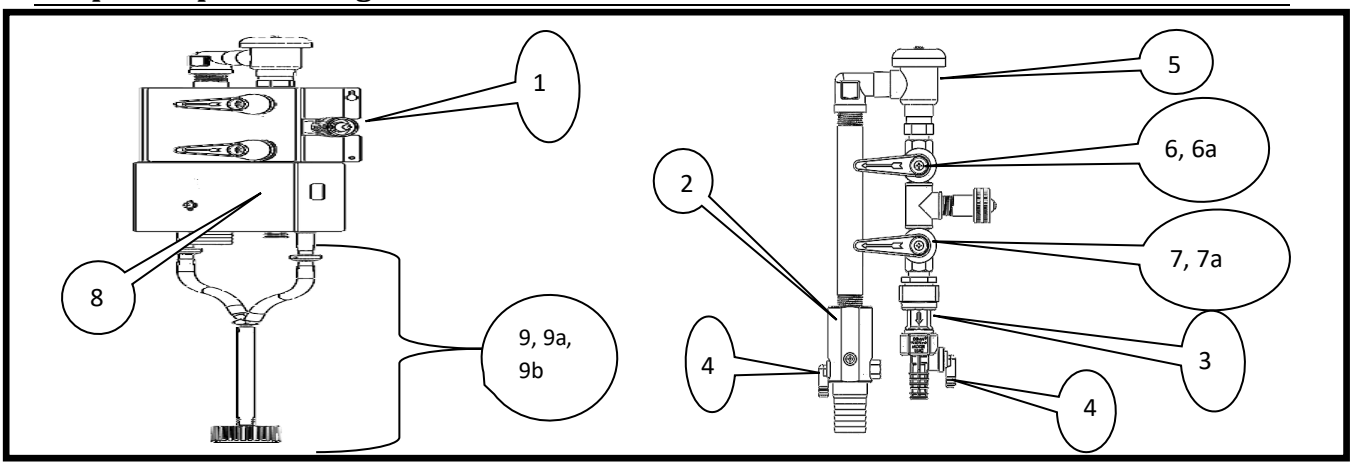
The Eclipse comes furnished with a 8ft discharge hose for the high flow dispenser plus an assortment of metering tips designed to meet various dilution ratios. The unit can be installed as either a wall mounted dispenser, which minimizes floor space, or as part of a two wheeled cart / mobile assembly, which allows for wider range and flexibility.

Warnings

All installations must conform to local plumbing codes and use approved backflow prevention devices. A pressure indicating tee is to be installed with existing faucets according to local plumbing codes in the state of Wisconsin and any other state that requires the use of a pressure indicting tee.

ALWAYS WEAR PROTECTIVE CLOTHING AND EYEWEAR WHEN WORKING WITH CHEMICAL PRODUCTS.

Eclipse Dispenser Diagrams and Parts list



Item	Description	Qty	Part Number	
			Dema	Nuance
1	Dispenser, Eclipse, complete assembly	1	607.10.1.BM	ZM250ABS90
2	Eductor, high flow (10 GPM)	1	61.8.12	NA
3	Eductor, low flow (1 GPM) and 90 degree elbow	1	61.99.2& 63.79	NA
4	Elbow, chemical suction, 90degree w/O-ring	1	63.79	ZM 183
5	Syphon breaker	1	60.9	NA
6	Ball valve, 1/2", high flow (10 GPM)	1	65.2	NA
6a	Handle and screw, ball valve (part of item 6)	1	99.8.2& 60.67.1	ZM 142
7	Ball valve, 1/2", low flow (1 GPM)	1	65.2	NA
7a	Handle, ball valve (part of item 7)	1	99.8.2 & 60.67.1	ZM 142
8	Cover, SS	1	60.13.2	NA
9	Tubing, assembly, chemical feed, complete	1	607BM.KIT	NA
9a	Check valve, in line (top of tubing assembly)	2	60.54	ZS 126
9b	Cap, connect to chemical drum (bottom of assembly)	1	62.62.13	WK 60
10	Hose, braided,8' (high flow fill, not shown)	1	60.47.5	ZM 141
11	Tubing, outlet, 6" (low flow fill, not shown)	1	98.42.2	NA
12	Screw and anchor mounting kit (not shown)	1	66.54	NA
13	Clip, hose (not shown)	1	60.52	NA
14	Rack, hose, & mounting hardware, hose (not shown)	1	44.4S	ZM 124
15	Metering tip kit, low &high flow (not shown)	1	100.15K.NUA	ZM 111
16	Clamp, hose (not shown)	1	16.9.6	NA
17	Clamp, chemical feed tubing (not shown)	3	16.9.3	NA
18	Hose, water inlet, 6' (not shown)	1	44.3.6	ZS 02
19	Instruction sheet (not shown)	1	I1142, QUA-ECL-001	NA

Site Requirements and Basic Operation

HIGH FLOW			LOW FLOW		
Input water		Output (blended)	Input water		Output (Blended)
Min 8 GPM flowrate	20 psi - Max 90 psi pressure	10 GPM	Min 0.75 GPM flowrate	20 psi - Max 90 psi pressure	1 GPM
40 - 120 °F temperature			40 - 120 °F temperature		

**** For the 10 GPM dispenser to function properly, customers must have a minimum water flow and pressure of 6 GPM @ 20 PSI Additional accessories may require different specifications.***

Installation Tools

Power drill, 1/4" or 3/8" drive	Drill Bit (size 5/16)	Utilty knife
Screwdriver, straight blade	Screwdriver, Phillips 2	

Installation and General Use

1. Hold dispenser (Item 1) to wall, locate positions of mounting screws. Drill holes in wall, about 1" deep and insert screw anchors (item 12). Mount assembly to wall using screws (item 12) provided.
2. [FOR HIGH FLOW] Slip hose over threads of eductor, with priming ring close to the eductor. Secure with hose clamp (item 16).
3. [FOR LOW FLOW] Install outlet tube over eductor, covering three barbs on the eductor. No clamp required to secure.
4. Attach water supply hose (item 18) to water inlet and tighten.
5. To install wire hose hanger for high flow, slip outlet hose thru hose hanger (item 14).

Metering Tip Charts, Tip Installation and Dispenser Priming

NUANCE SOLUTIONS UNIVERSAL TIP KIT

Dispenser	CALIBER		TEMPO
Flow (minimum inlet)	0.75 GPM		0.75 GPM
Flow (Blended ouput)	1 and 4 GPM		4 GPM
Pressure (PSI)	20 - 125		20-125
Tip Color	Mix Ratio 1 GPM	Mix Ratio 4 GPM	Mix Ratio 4 GPM
Tan	102:1	427:1	427:1
Orange	75:1	320:1	320:1
Turquoise	60:1	256:1	256:1
Pink	43:1	170:1	170:1
Light Blue	33:1	128:1	128:1
Brown	28:1	114:1	114:1
Red	22:1	85:1	85:1
White	18:1	73:1	73:1
Green	16:1	64:1	64:1
Blue	13:1	51:1	51:1
Yellow	9:1	34:1	34:1
Black	6:1	26:1	26:1
Purple	5:1	15:1	15:1
Gray	4:1	11:1	11:1
None	3.6:1	8:1	8:1

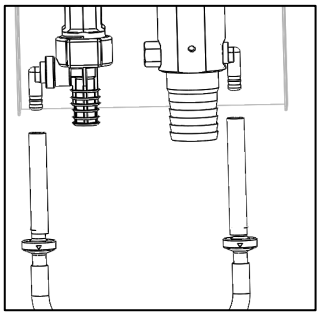
Dispenser	ECLIPSE		EXPRESS
Flow (minimum inlet)	7 GPM		7 GPM
Flow (Blended output)	1 and 10 GPM		10 GPM
Pressure (PSI)	20 - 90		20-125
Tip Color	Mix Ratio 1 GPM	Mix Ratio 10 GPM	Mix Ratio 10 GPM
Tan	102:1	1257:1	1257:1
Turquoise	60:1	750:1	750:1
Pink	43:1	416:1	416:1
Light Blue	52:1	341:1	341:1
Brown	42:1	278:1	278:1
Red	32:1	240:1	240:1
White	27:1	200:1	200:1
Green	24:1	192:1	192:1
Blue	15:1	128:1	128:1
Yellow	10:1	89:1	89:1
Black	8:1	64:1	64:1
Light Orange	6:1	42:1	42:1
Purple	5:1	32:1	32:1
Gray	4:1	24:1	24:1
None	3.5:1	14:1	14:1

Metering tips determine dilution mix ratio for each chemical product. Changes in water inlet pressure and / or flowrate can affect output mix ratios such that they differ from these tables. Refer to product label for dilution recommendation

Part Number	Dema 100.15K.NUA	Nuance Code ZM111

Rev: 3/27/2018

Metering Tip Installation



1. Select tip from metering tip kit (item 15) using the table above as a guide. Screw tip into inlet barb of both of the eductor 90 degree elbows.

Installing the Chemical Tubing Assembly to the Chemical Tank

2. Take the chemical feed assembly (item 9) and slide each tubing end over both inlet barbs of the eductors. NOTE: The suction tube on the chemical tubing assembly is factory furnished at a coarse length that allows the installer to attach it to various size chemical tanks.
3. Place the chemical tank at the desired location.
4. Route tubing end to chemical tank to determine desired length,
5. Cut excess tubing off end using a utility knife.
6. Slide tube clamp (item 17) onto tube end.
7. Insert barbed end of cap (item 9b) into tube.
8. Adjust and tighten clamp.
9. Attach cap to chemical container and hand tighten.

Dispenser Priming

10. Slowly turn water supply on to dispenser.
11. With water supply on to dispenser, open the high flow ball valve (item 6) by turning it 90 degrees (6 o'clock position). Monitor chemical pick up tubes to confirm chemical priming through the tube. Once chemical has reached the dispenser, wait approximately 5 seconds to ensure full prime. NOTE: Direct fluid flow to suitable container or drain, as required.
12. Shut off the high flow ball valve (item 6) by turning it 90 degrees (9 o'clock position).
13. To prime the low flow side, open the low flow ball valve (item 7) by turning it 90 degrees (6 o'clock position). Monitor chemical pick up tubes to confirm chemical priming through the tube. Once chemical has reached the dispenser, wait approximately 5 seconds to ensure full prime. NOTE: Direct fluid flow to suitable container or drain, as required.
14. Shut off the low flow ball valve (item 7) by turning it 90 degrees (9 o'clock position).

Using either blended low or high flow:

1. The process for activating the low flow and high flow eductors is identical to priming the system. Start by placing your container in the desired fill location. For low flow, place the quart bottle around the low flow discharge tube. For high flow, place the high flow outlet hose inside the container (mop bucket, etc.).
2. Slowly turn on the water supply to dispenser.
3. Open the required ball valve (low or high flow) by turning it 90 degrees.
4. Fill container to required level.
5. Shut off the low flow ball valve by turning 90 degrees to the left. Make sure to give enough room in the quart bottle to allow the residual chemical in the outlet tube to drain into the bottle.
6. For high flow, place the hose in its deactivated position.

Troubleshooting

Symptom	Probable Cause	Remedy
Eductor fails to draw chemical properly.	1. Insufficient water supply flow and pressure. 2. Chemical cap is clogged or has chemical build-up. 3. Proportioner metering tip clogged with dried chemical. 4. Mineral deposits located on Air Gap (if equipped) nozzle. 5. Priming ring inside high flow discharge hose is too far away from eductor.	1. Flow rate of 6 GPM @ 20 PSI is the minimum allowable pressure. Seek Plumber if necessary to increase water pressure or consider using an alternate dispenser. 2. Soak in hot water to clean. 3. Soak in hot water to clean interior passages. 4. Soak nozzle & inlet screen in hot water or product such as CLR to clean mineral deposits. 5. Priming ring must be close to the eductor.
"Air Gap" eductor is dripping or spraying a mist of water.	1. Mineral deposits are located on Air Gap nozzle.	1. Soak nozzle and inlet screen in hot water or off the shelf product such as CLR to clean and remove mineral deposits.
Threaded connections are leaking water.	1. The connection between the blend center and water supply line is too loose or rubber washer is missing. 2. Backflow prevention devices and/or proportioners are too loose.	1. Shut water supply off first. Carefully tighten the female hose coupling on the dispenser to the inlet water supply line. Do not over tighten. 2. Tighten loose connection(s) with tools if necessary. Do not over tighten if using tools.
Eductor continues to draw chemical after water valve is closed.	1. Concentrated chemical is positioned higher than the eductor.	1. Move the concentrated chemical so it is lower than the eductor.

Merchandise Returns

No merchandise will be returned for credit without Nuance Solution's written permission. Returned merchandise authorization number is required in advance of return.

Product Warranty

Nuance Solutions products are warranted against defective material and workmanship under normal use and service for one year from the date of manufacture. This limited warranty does not apply to any products that have a normal life shorter than one year or failure and damage caused by chemicals, corrosion, physical abuse, or misapplication. Rubber and synthetic rubber parts such as "O"-rings, diaphragms, PVC tubing, caps and gaskets are considered expendable and are not covered under warranty. This warranty is extended only to the original buyer of Nuance Solutions products. If products are altered or repaired without prior approval of DEMA, this warranty is void.

Defective units or parts should be returned to the factory with transportation prepaid. If inspection shows them to be defective, they will be repaired or replaced without charge, F.O.B. factory. Nuance Solutions assumes no liability for damages. Return merchandise authorization number must be granted in advance of returned units for repair or replacement (See "Merchandise Returns" above).

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