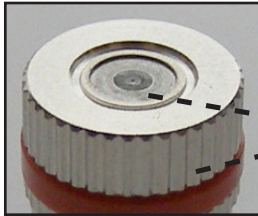




- SS Nozzle (w/ Ruby Orifice Inserts)
- Nozzle Swivel Adapter
- Nozzle Plug
(For Humidification Systems – Info & Specs)
(2 pgs)

• Nozzles (High Pressure Stainless Steel Nozzles with Ruby Orifice Inserts)



Ruby Orifice Insert (Inner Core)
Glass (Outer Lining)



NOZZLE CAP
Synthetic Mineral Orifice Insert w/ Viton O-ring



SPRING ASSEMBLY
Impeller insert in 350 psi spring with Viton seat



ANTI-DRIP BODY
Bottom Housing with Viton O-Ring
Thread (male)
Standard - 10/24
Optional - 12/24



SS High Pressure Nozzle
Part # IHC-2.64
Black Band
0.085 mm / .0033" orifice
0.0059 gpm / **2.64 lbs/hr**



SS High Pressure Nozzle
Part # IHC-3.97
White Band
0.1 mm / .004" orifice
0.0079 gpm / **3.97 lbs/hr**



SS High Pressure Nozzle
Part # IHC-5.29
Red Band
0.15 mm / .006" orifice
0.01 gpm / **5.29 lbs/hr**



SS High Pressure Nozzle
Part # IHC-7.94
Blue Band
0.2 mm / .008" orifice
0.016 gpm / **7.94 lbs/hr**



SS High Pressure Nozzle
Part # IHC-10.58
"Colorless" Band
0.3 mm / .012" orifice
0.021 gpm / **10.58 lbs/hr**

FanMist atomized moisture is introduced directly into the space via high pressure "ruby orifice" stainless steel nozzles **finger tightened (plus option for maximum 1/4 turn more)** into the stainless steel mist ring nozzle ports. The nozzle atomizes water to an ultra fine – micron sized water particle for quick and complete evaporation above your workspace.

• **Stainless Steel Construction:** for corrosion resistant long term performance using Viton O-rings & seat allows all parts to be **finger tightened only** with uniform 20% compression for high wear resistance – preventing leaking.

• **Ruby Orifice Inserts's** inner surface is laser bored so smooth that nothing can stick to the surface. Compared with the microscopic surface of an all metal inner orifice surface reveals fine etchings or scratch marks made by the drilling which provide nucleation (attaching) points where dissolved minerals turn to crystal formations thereby interfering with normal atomization.

• **350 PSI Spring Assembly** controls the pressure "cracking" point which activates the nozzle to open and shut - the key to precision atomization at both start up and shut off. 350 psi is the critical pressure point to allow for a very clean initial burst of moisture with the finest micron sized particles for complete and quick evaporation.

• **The Anti-Drip Body Housing** composes the body of the nozzle and functions to interface between the water supply source and the nozzle cap. When all three parts of the nozzle are attached together, the nozzle is then threaded into the supply source as the Viton O-ring is the final seal which prevents moisture leaks even at very high pressure. All attachments and adjustments are finger tight only.



• **New in 2018: 5 Micron Nozzle Filter (Part # IHC-NF5).** Now standard with each nozzle – inserted into the 10/24 threaded female end of the anti-drip body. Minimum order quantity: 50.

***Note: Each nozzle as listed by size of output in "lbs/hr" is the newly tested flow rate as tested "with filters" @ 1000 psi operating pressure. Part numbers reflect new flow rate ratings.**



• **Nozzle Swivel Adaptors (Part # IHC-NSA):** Nickel plated with 10/24 male & female ends. Maximum 30° angle per adaptor for directional pointing (thread 3 together for 90° angle as shown with 7.94 Nozzle threaded to end. Minimum order quantity: 10.



• **Nozzle Plug (Part # IHC-NPL):** Nickel plated with 10/24 male end. Plugs are used to close off a nozzle port. Minimum order quantity: 10.



- SS Nozzle (w/ Ruby Orifice Inserts)
 - Nozzle Swivel Adapter
 - Nozzle Plug
- (For Humidification Systems – Info & Specs)
(2 pgs)

• Nozzle Maintenance.

Nozzle Observation: Nozzles should be periodically observed to verify moisture plumes are evenly atomizing into uniform water particle sizes. If a nozzle spray is erratic, restricted or plugged it should be cleaned or replaced. To replace nozzles, Shut down pump by placing control switch into “off” position. Turn nozzle counter clockwise by hand to remove. Replace with correct nozzle size. **Turn nozzle clockwise by hand to tighten.** Turn control switch to “on” position to restart. Visually check that nozzles are spraying properly.

To Clean a Nozzle: Make sure system is “off” and pressure has been relieved. A minimal amount of pressure (< 25 psi) remains in the lines to speed start-up. Be prepared to retain water when removing nozzle from fan(s). Nozzle tip can be removed from nozzle base by rotating counterclockwise by hand. (Slight twist with a wrench/backup wrench may be necessary).

Tip: a simple procedure for cleaning nozzles – the head of the nozzle unscrews and the spring and ball with the valve can be removed. Soak all pieces in warm vinegar and water solution OR soak in “Works” toilet bowl cleaner for 60 seconds, rinse and reassemble – you should have a new working nozzle with restored performance. Note: almost all nozzle fouling is controlled with proper water treatment. If mineral deposits (calcium/scale) affect the operation of the nozzles, remove the nozzles and clean as suggested above and/or use Nozzle Cleaner part #10103 (ordered from Industrial Humidity Control LLC). If cleaning does not improve the performance, the components should be replaced.

Observe for further blockage. Replace if necessary. **Replace nozzle tip to base by rotating clockwise by hand until tight.**

Note: All nozzles have Viton O-rings which insure a tight seal when nozzles are finger tightened into nozzle port. Over-tightening beyond 1/4 turn after finger tightend, will cause the O-ring to be deformed which can allow nozzle seals to leak water.

• Replacement Nozzle Parts.

Replacement parts are available upon special order including replacement O-rings. Most nozzle parts are not stocked. Check with IHC for minimum order quantity and timing for delivery.

* *Commentary on Our (IHC) Experience and Observations with Nozzle Sourcing & Operation.*

Over the last 15 years, we have always used stainless steel high pressure nozzles. We have learned that two primary manufacturing sources provide almost all nozzles world wide originating from either China or Taiwan. Taiwan has been in the nozzle business much longer than China. It is our considered opinion that Taiwan represents a higher quality source for nozzles which is the result of our experience in sourcing from both origins of supply during the last 15 years. We have settled on the stainless steel ruby orifice insert nozzle manufactured in Taiwan as our only trusted nozzle source.

One additional factor is the internal spring within our nozzle is designed to operate at 350 psi which provides an added quality control standard for initial plume burst on startup allowing for a finer moisture particle size at both on cycle system startup and off cycle system shut down. Both startup and shut down control of particle size is important in the refinements of over all control in providing accelerated evaporation from the water phase to vapor phase in plant air spaces.