

TRC's FP Series air assist sonic nozzles are designed specifically for dry fog dust control applications. The sonic technology was invented in the late 1960s and has been used worldwide for applications ranging from carburation to coating pills. It was first used for dust control in the early 1970s.



Our FP-10 family of dry fog nozzles is intended for use in large, high capacity material handling applications where significant kinetic energy is needed to project high volumes of fog through large spaces. Nozzles are generally used in clusters as seen in the photos.

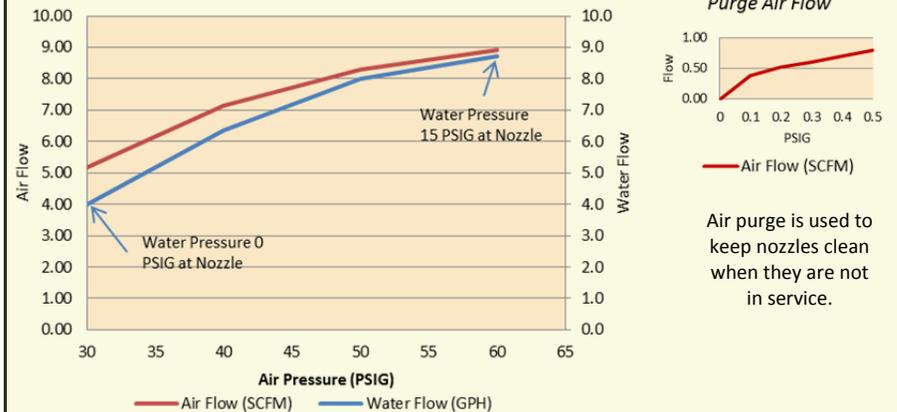


The geometry of the air passage causes the creation of high frequency, inaudible sound waves that are reflected by the "resonator" creating a standing wave of acoustic energy. This energy shatters the flow of liquid.

Although the nozzle is operated at air pressures from 30 – 60 psig (2-4 bar), the static pressure at the point of liquid injection is relatively constant near zero. This gives the nozzle the unique ability to adjust the pressure of one component without a significant effect on the flow of the other.

FP sonic dry fog nozzles are the best choice for dust control.

FP-10 Optimum Fogging Flows and Pressures



The optimum operating pressures are between 30 and 60 psig air and 4 and 9 psig water measured at the nozzle. Air purge during nozzle idle times is operated at 0.1 to 0.3 psig with a corresponding air flow of 0.3 to 1.5 scfm. Water should not be allowed to flow when air is under 30 psig.

The FP-10 Nozzle Options and Components



Assembly P/N: 0843.1
Replacement Head P/N 1247

The base version of the FP-10 is constructed of 304 SS and is used in non-abrasive applications



Assembly P/N: 0843.2
Replacement Head P/N 1274.1

For most abrasive applications this version is constructed of 17/4 PH SS with TiCN wear coating.



Assembly P/N: 3625
Replacement Head P/N 3579

For protection from mechanical damage this version offers robust design but sacrifices fog quality



Assembly P/N: 3625.1
Replacement Head P/N 3579.1

For extreme abrasion applications this robust model offers a ruby resonator.



P/N: 3392.1

For mechanical protection of standard nozzles and those of our competitors we offer this slip on appliance



Wire Resonator P/N: 0838
Old Style Orifice P/N 0837
Head - DISCONTINUED

Replacement 303 SS wire resonators and orifices for the original FP-10 nozzles are available.



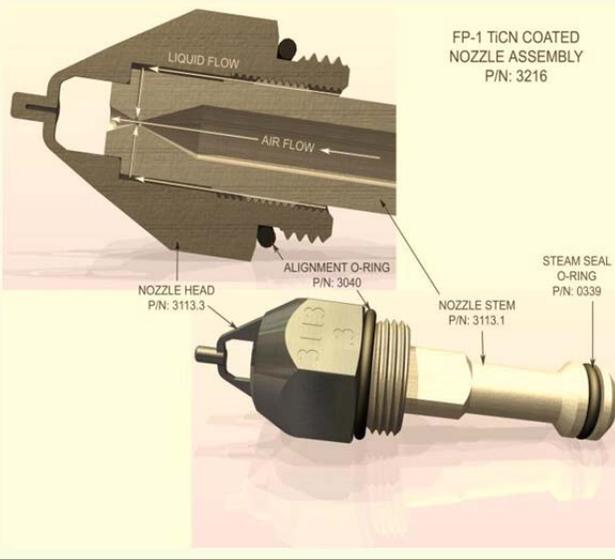
Alignment O Ring P/N: 0340
Orifice/Stem P/N 1275
Seal O Ring P/N 0339

Replacement orifice/stem and O-ring part numbers

TRC's FP Series air assist sonic nozzles are designed specifically for dry fog dust control applications. The sonic technology was invented in the late 1960s and has been used worldwide for applications ranging from carburation to coating pills. It was first used for dust control in the early 1970s.



Our FP-1 and FP-2 nozzles comprise our low flow family of dry fog nozzles intended for use in small, low capacity applications where very little kinetic energy is needed and low energy consumption is important. Nozzles are generally used in clusters as seen in the photos.

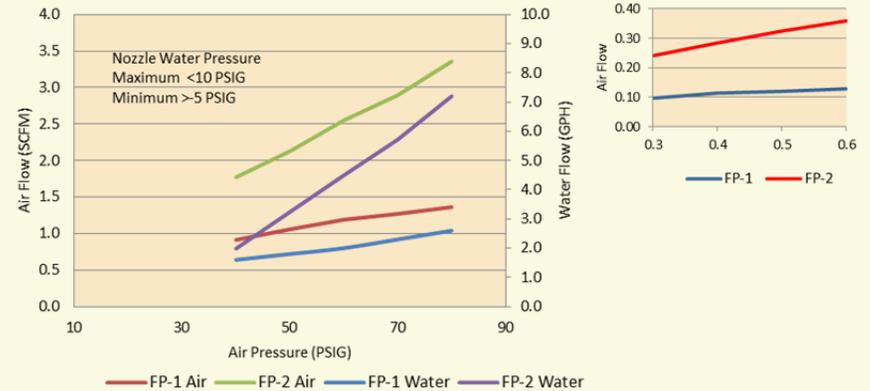


The geometry of the air passage causes the creation of high frequency, inaudible sound waves that are reflected by the "resonator" creating a standing wave of acoustic energy. This energy shatters the flow of liquid.

Although the nozzle is operated at air pressures from 30 – 60 psig (2-4 bar), the static pressure at the point of liquid injection is relatively constant near zero. This gives the nozzle the unique ability to adjust the pressure of one component without a significant effect on the flow of the other.

FP sonic dry fog nozzles are the best choice for dust control.

FP-1&2 Optimum Fogging Flows and Pressures



The optimum operating pressures are between 30 and 60 psig air and 0 and 15 psig water measured at the nozzle. Air purge during nozzle idle times is operated at 0.3 to 0.6 psig. Purge air flow is plotted above. Water should not be allowed to flow when air is under 40 psig.

The FP-1 and FP-2 Nozzle Options and Components



FP-1 Assembly
 2-Piece 303 SS version P/N: 3216.1
 TiCN Abrasion Version P/N: 3216
 Replacement Head/Resonator P/N 3213.2
 Replacement Orifice/Stem P/N: 3213.1

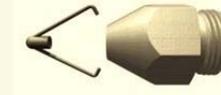
FP-2 Assembly
 2-Piece 303 SS Version P/N: 3236.1
 TiCN Abrasion Version P/N: 3236
 Replacement Head/Resonator P/N 3213.2
 Replacement Orifice/Stem P/N: 1377



FP-1/FP-2 Head Resonators
 303 SS P/N 3213.2
 TiCN Coated 17/4PH SS P/N: 3213.3



Old Style Orifice for 4-piece assembly
 FP-1 P/N: 0806
 FP-2 P/N: 0017



Wire Resonator 4-Piece FP-1 and FP-2 Assemblies
 P/N: 0330
 Head for Wire Resonator P/N: 0023



Alignment O Ring P/N: 0340
Seal O Ring P/N: 0339
 FP-1 Orifice/Stem P/N: 1313.1
 FP-2 Orifice/Stem P/N: 1377

The lowest flow version of the FP series is the FP-1. It carries little kinetic energy and is intended for use in small or quiescent environments. The FP-2 has about twice the capacity of the FP-1 and consumes twice the compressed air. Both are available in two, three, or 4 piece design and with an abrasion resistant TiCN coated resonator

Replacement parts for both the older and newer versions are available from stock and in several locations worldwide. We suggest changing a nozzle O rings each time the nozzle is serviced.