SANITIZATION
SPRAY NOZZLES

ABSTRACT
As the world is suffering from COVID-19 pandemic, SPRAYTECH SYSTEMS INDIA PVT LTD stands to fight against virus outbreak and offers solution for sanitization spray.
1. **Single fluid nozzle/hydraulic nozzle**

**Nozzle type:** BK series mist spray nozzle (page 72 of the catalogue)

**Spray type:** fine mist

**Operating pressure:** 5 – 7 bar

**Spray pattern:** semi hollow cone

**Spray length:** 1.5 meters (vertically downward spray)

1 meter (horizontal spray)

**Spray angle:** 60 degree (dense pattern) / 90 degree (less dense pattern)

**Flow rate:** 5 GPH (low flow rate), 10 GPH (high flow rate)

**Nozzle MOC:** SS304, SS316

**End connection:** 9/16 UNEF (M) (can be used with an adaptor for alternate connection)

**Average droplet size:** 40 – 70 microns

**Nozzle performance video:** [https://www.youtube.com/watch?v=FlcWsTo_t_Q](https://www.youtube.com/watch?v=FlcWsTo_t_Q)

**Utilities required:** pump (capacity based on number of operating nozzles)

**Brief:** BK series nozzles are mist spray nozzle, it generates droplets starting from 40 microns at pressure around 5 – 7 bar. It has built in filter but filter in the pipe line is recommended. It is a single fluid nozzle, thus no compressed air is required for atomization.
2. Air atomizing 4-way fogger

**Nozzle type:** 4-way fogger /humidifier  
**Spray type:** fine fog  
**Operating pressure:** For Liquid: 0.5 – 1 bar  
For compressed air: 3 – 4 bar  
**Air consumption per unit:** 10 – 15 CFM  
**Spray pattern:** 360 degree flat curtain  
**Spray length:** 3 - 5 meters diameter flat pattern curtain on an axis.  
**Spray angle:** 90 degree for each tip  
**Flow rate:** 4 LPH (low flow rate), 12 LPH (high flow rate)  
**Nozzle MOC:** SS304, SS316, Brass  
**End connection:** 1/4 (F) for Liquid  
3/8 (F) for Compressed air  
**Average droplet size:** 15 – 30 microns  
**Nozzle performance video:** [https://www.youtube.com/watch?v=sPr9fYrArFA](https://www.youtube.com/watch?v=sPr9fYrArFA)  
**Utilities required:** pump (capacity based on number of operating nozzles)  
Compressed air (based on air capacity required by nozzle)

**Brief:** 4-way fogger is a spray nozzle unit which comprises of 4 individual spray tips which sprays very fine fog/mist. Individual tip has a spray angle of 90 degree flat pattern which then forms a 360 flat curtain spray in an axis. It has one liquid and one air connection. Liquid port has ¼” BSP (F) connection and compressed air port has 3/8” BSP (F) connection. One fogger unit covers 3 - 5 meters diameter and requires around 10 – 15 CFM of compressed air volume @ 3 – 4 bar pressure. Mist/fog can be controlled via regulating the air and liquid pressure.
3. Air atomizing nozzle (CAEA series flat pattern spray)

Nozzle type: CAEA series flat pattern air atomizing spray nozzle (page 89, 90 of the catalogue)

Spray type: fine fog

Operating pressure: For Liquid: 0.5 – 1 bar
For compressed air: 2 – 3 bar

Air consumption per unit: 3 – 5 CFM

Spray pattern: 60 / 90 degree flat curtain

Spray length: 2 meters (vertically downward spray)
1.5 meter (horizontal spray)

Spray angle: 60 / 90 degree for each tip

Flow rate: 1 LPH (low flow rate), 5 LPH (high flow rate)

Nozzle MOC: SS304, SS316

End connection: 1/4 (F) for Liquid
1/4 (F) for Compressed air

Average droplet size: 15 – 25 microns

Nozzle performance video: https://www.youtube.com/watch?v=LUe3tM9akv0

Utilities required: pump (capacity based on number of operating nozzles)
Compressed air (based on air capacity required by nozzle)

Brief: CAEA series air atomizing nozzle offers very fine fog/mist. It provides spray angle of 60 / 90 degree flat pattern which sprays flat curtain spray in an axis. It has one liquid and one air connection. Both liquid and compressed air port has ¼” BSP (F) connection. Mist/fog can be controlled via regulating the air and liquid pressure.
4. Air atomizing nozzle (DAIA series full cone pattern spray)

**Nozzle type:** DAIA series Full cone pattern air atomizing spray nozzle (page 91 of the catalogue)

**Spray type:** fine fog

**Operating pressure:**
- For Liquid: 1 – 1.5 bar
- For compressed air: 2 – 3 bar

**Air consumption per unit:** 3 – 5 CFM

**Spray pattern:** 60 / 90 degree flat curtain

**Spray length:**
- 2 meters (vertically downward spray)
- 1.5 meter (horizontal spray)

**Spray angle:** 60 / 90 degree for each tip

**Flow rate:** 2 LPH (low flow rate), 5 LPH (high flow rate)

**Nozzle MOC:** SS304, SS316

**End connection:**
- 1/4 (F) for Liquid
- 1/4 (F) for Compressed air

**Average droplet size:** 15 – 30 microns

**Nozzle performance video:**
[https://www.youtube.com/watch?v=Nqand452H08](https://www.youtube.com/watch?v=Nqand452H08)

**Utilities required:**
- pump (capacity based on number of operating nozzles)
- Compressed air (based on air capacity required by nozzle)

**Brief:** DAIA series air atomizing nozzle offers very fine fog/mist. It provides full cone pattern with spray angle of 60 / 90 degree. With full cone pattern maximum surface area is covered. It requires 1 – 1.5 bar pressure for liquid and 2 – 3 bar for air and both can be tuned as per requirement. It has one liquid and one air connection. Both liquid and compressed air port has ¼” BSP (F) connection. Mist/fog can be controlled via regulating the air and liquid pressure.
5. **Dry fog spray nozzle**

**Nozzle type:** Dry fog spray nozzle (page 111 of the catalogue)

**Spray type:** Dry fog

**Operating pressure:** For Liquid: 1.5 - 2 bar

For compressed air: 3 – 5 bar

**Air consumption per unit:** 4 – 6 CFM

**Spray pattern:** 60 - 90 degree flat curtain

**Spray length:** 1.5 meters (vertically downward spray)

1.5 meter (horizontal spray)

**Spray angle:** 60 / 90 degree

**Flow rate:** 0.5 - 1 LPH

**Nozzle MOC:** SS304 with Brass adaptor

**End connection:**

- 1/8 (F) for Liquid
- 1/8 (F) for Compressed air

**Average droplet size:** 5 – 15 microns

**Nozzle performance video:** [https://www.youtube.com/watch?v=193r2pbJcAM](https://www.youtube.com/watch?v=193r2pbJcAM)

**Utilities required:**

- pump (capacity based on number of operating nozzles)
- Compressed air (based on air capacity required by nozzle)

**Brief:** Dry fog nozzles provides very fine fog. The droplets size are around 5 – 15 microns which does not settle and feels like dry fog. It provides cone pattern with spray angle of 60 - 90 degree. After 1 meter the fog disperse and make the environment foggy. It requires 1.5 - 2 bar pressure for liquid and 3 – 5 bar for air and both can be tuned as per requirement. It has one liquid and one air connection. Both liquid and compressed air port has 1/8” BSP (F) connection. Mist/fog can be controlled via regulating the air and liquid pressure.