

Sprayvectors®

ITW Vortec's Sprayvectors® provide ultra-fine droplet-sized sprays for evaporative cooling, moisturization, atomization and humidification. Superior to conventional hydraulic and piezo-electric nozzles, they produce defined spray patterns that can be widely diffused or directed. By use of compressed air, these liquid atomizing devices create micron and sub-micron sized spray droplets. This ultra-fine spray produces greater surface coverage than conventional nozzles. With more efficient use of liquid, Sprayvectors accelerate air-liquid interaction providing effective cooling, humidifying and dust control.

Operation:

Sprayvectors introduce 2-20 PSIG (0.14-1.4 Bar) filtered liquids through a 1/4" NPT port. They can spray liquids with viscosities up to 1100 CPS for fogging and atomizing applications. Liquids with viscosities up to 100 CPS are suitable for humidifying. Large internal passages eliminate clogging. Precise adjustable flow rates of 6-30 GPH (22.7-113.6 LPH) are controlled with a knob. External mixing of fluids and compressed air permits delivery of a dense, directable, high velocity spray by using Atomizing and Fogging Sprayvectors or a diffused low velocity spray using Humidifying Sprayvectors. Dry compressed air up to 100 PSIG (6.9 Bar) and airflows of only 12 SCFM (339.6 SLPM) atomize fluids producing 20-200 micron droplets.

Features:

- Controlled, ultra-fine droplet size.
- Wide viscosity range — 1 to 1100 CPS.
- Controlled, wide range of liquid flows.
- No clogging problems.
- No electricity.
- Quiet — inexpensive.
- Removable nozzle tips for easy cleaning or replacement.



Sprayvectors are available in models for (left to right): humidifying, atomizing and fogging.



Models

We offer three styles of Sprayvectors: Fogging, Humidifying and Atomizing. All models consume 12 SCFM (339.6 SLPM) at 100 PSIG (6.9 Bar) and have a 3/8" nozzle diameter.

Sprayvector Models and Specifications

| MODELS | | | | |
|------------------|---------------------|---------------|----------------|---|
| SPRAYVECTOR ONLY | SPRAYVECTOR SYSTEM* | SPRAY PATTERN | DROPLET SIZE | SUGGESTED APPLICATIONS |
| 1703 | 1723 | Fogging | 20-80 microns | Moisturizing, coating, evaporative cooling, dust suppression |
| 1707 | 1727 | Humidifying | 20-200 microns | Mist coating, moisturizing, evaporative cooling, spray drying |
| 1713 | 1733 | Atomizing | 60-200 microns | Washing, applying lubrication |

*Includes 5-micron Auto-Drain Filter and 40-mesh liquid strainer.

Fogging and Atomizing Sprayvector Spray Pattern Dimensions

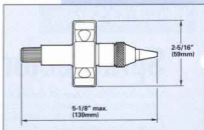
| MODEL | PATTERN DIA. | WATER FLOW RATE (GPM) | | | | | |
|----------------------------|--------------|-----------------------|-----|-----|-----|-----|-----|
| | | .1 | .2 | .3 | .4 | .5 | |
| 3/8" Fogging and Atomizing | A | in. | 5 | 5 | 5 | 5 | 5 |
| | | mm | 127 | 127 | 127 | 127 | 127 |
| | B | in. | 30 | 30 | 30 | 30 | 30 |
| | | mm | 762 | 762 | 762 | 762 | 762 |

90 PSIG air, 15 PSIG water

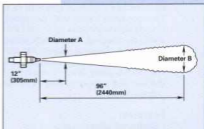
Humidifying Sprayvector Spray Pattern Dimensions

| MODEL | PATTERN DIA. | WATER FLOW RATE (GPM) | | | | |
|------------------|--------------|-----------------------|------|------|------|-----|
| | | .10 | .15 | .20 | | |
| 3/8" Humidifying | C | in. | 80 | 48 | 44 | 30 |
| | | mm | 2030 | 1218 | 1117 | 761 |

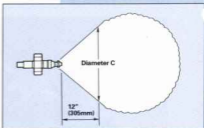
90 PSIG air, 15 PSIG water



Dimensions — Fogging, Atomizing and Humidifying Sprayvectors.



Dimensions — Fogging and Atomizing Sprayvector spray pattern.



Dimensions — Humidifying Sprayvector spray pattern.

ITW Vortec also manufactures a complete line of:
 Vortex tubes and systems
 Enclosure coolers
 Transvector and curtain transvector
 Nozzles and blowoff jets
 Personal air conditioners

Contact ITW Vortec or your Vortec representative for details.



ITW Vortec
 An Illinois Tool Works Company
 10125 Carver Road
 Cincinnati, Ohio 45242-4798
 Telephone 513.891.7474
 800.441.7475
 Fax 513.891.4092
<http://www.vortec.com>

Due to a policy of continuous development, we reserve the right to change specifications without notice.

