

BASIC NOZZLE CHARACTERISTICS

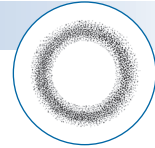
Spray nozzles are precision components designed to yield very specific performance under specific conditions. To help you determine the best nozzle type for your application, the following reference chart summarizes the performance that each nozzle type is designed to deliver.

Contact your local **Spraying Systems Co. sales engineer** for more detailed technical bulletins or a no-obligation consultation.



HOLLOW CONE (WHIRLCHAMBER-TYPE)

Spray pattern:



General Spray Characteristics

Available in a wide range of capacities and drop sizes. Provides a good interface between air and drop surfaces.

Comments

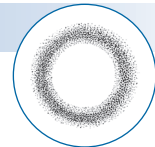
The extensive range of capacities and drop sizes makes the hollow cone nozzle useful for a variety of applications where a combination of small drop size and capacity is required.

Spray angles:
40° to 165°



HOLLOW CONE (DEFLECTED-TYPE)

Spray pattern:



General Spray Characteristics

Utilizes a deflector cap to form an "umbrella" shaped hollow cone pattern.

Comments

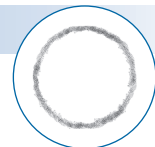
Larger capacities can be used to flush or clean tube and pipe interiors and small tanks.

Spray angles:
100° to 180°



HOLLOW CONE (SPIRAL-TYPE)

Spray pattern:



General Spray Characteristics

Provides a hollow cone pattern with drops that are slightly coarser than those in other hollow cone sprays.

Comments

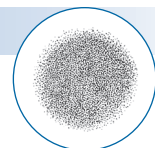
Provides high flow rate in a compact nozzle size. The one-piece design features maximum throughput for a given pipe size.

Spray angles:
50° to 180°



FULL CONE

Spray pattern:



General Spray Characteristics

Utilizes an internal vane to provide a uniform, round, full spray pattern with medium-to-large sized drops.

Comments

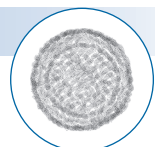
Provides full spray pattern coverage with medium-to-large flow rates. Some vaneless models and oval spray models are also available.

Spray angles:
15° to 125°



FULL CONE (SPIRAL-TYPE)

Spray pattern:



General Spray Characteristics

Provides relatively coarse drops in a full cone pattern with minimal flow obstruction.

Comments

Spray coverage is not as uniform as that from conventional internal vane-type nozzles. Provides high flow rates in a compact nozzle size.

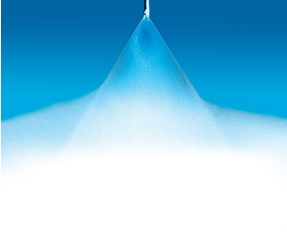


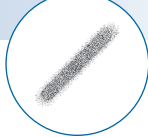



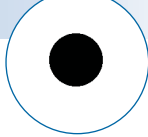
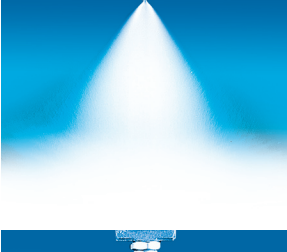
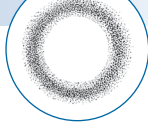

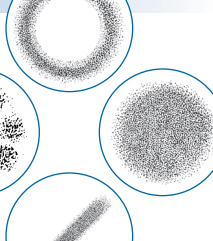
Spray angles:
50° to 170°



SPRAY PERFORMANCE CONSIDERATIONS

A

TECHNICAL
REFERENCE

	<p>FLAT SPRAY (TAPERED)</p> <p>General Spray Characteristics A tapered-edge flat spray pattern nozzle is usually installed on a header to provide uniform coverage over the entire swath as a result of overlapping distributions.</p>	<p>Comments Designed to be used on a spray manifold or header for uniform, overall coverage across the impact area.</p>	<p>Spray pattern: </p> <p>Spray angles: 15° to 110°</p>
	<p>FLAT (EVEN)</p> <p>General Spray Characteristics Provides even distribution throughout the entire flat spray pattern. Produces medium-sized drops. Ideal where high and uniform spray impact is required.</p>	<p>Comments The thin rectangular pattern of this nozzle provides uniform coverage. In manifold set-ups, the nozzles are carefully positioned for edge-to-edge pattern contact. Designed primarily for high-impact applications.</p>	<p>Spray pattern: </p> <p>Spray angles: 25° to 65°</p>
	<p>FLAT SPRAY (DEFLECTED-TYPE)</p> <p>General Spray Characteristics Produces a relatively even flat spray pattern of medium-sized drops. The spray pattern is formed by liquid flowing over the deflector surface from a round orifice.</p>	<p>Comments Large free passage design through the round orifice reduces clogging. Narrow spray angles provide higher impact, while the wide-angle versions produce a lower impact.</p>	<p>Spray pattern: </p> <p>Spray angles: 15° to 150°</p>
	<p>SOLID STREAM</p> <p>General Spray Characteristics Solid stream nozzles provide the highest impact per unit area.</p>	<p>Comments Ideal wherever a very high spray impact is required.</p>	<p>Spray pattern: </p> <p>Spray angles: 0°</p>
	<p>ATOMIZING (HYDRAULIC, FINE MIST)</p> <p>General Spray Characteristics A hydraulic, finely atomized, low capacity spray in a hollow cone pattern.</p>	<p>Comments Used to produce finely atomized sprays when compressed air is not desirable.</p>	<p>Spray pattern: </p> <p>Spray angles: 35° to 165°</p>
	<p>AIR ATOMIZING AND AIR ASSISTED</p> <p>General Spray Characteristics Atomization produced by a combination of air and liquid pressures. Air assisted nozzles feature internal impingement atomization to assist fine drop formation.</p>	<p>Comments The most widely used nozzle group for producing finely atomized sprays in a wide range of capacities.</p>	<p>Spray pattern: </p> <p>Cone and flat spray patterns</p>



Spraying Systems Co.
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PHONE 1-800-95-SPRAY, FAX 1-888-95-SPRAY

VISIT OUR WEB SITE: WWW.SPRAY.COM, EMAIL: INFO@SPRAY.COM