



## Sinorix™ Engineered Fire Suppression Systems

### Engineered System Nozzles

Models CPYEN – 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11 & 12

### ARCHITECT AND ENGINEER SPECIFICATIONS

- Large-Area-Coverage Capability
- Aluminum Construction
- 180° and 360° Discharge Options
-  UL Listed &  ULC Listed  
CSFM, FM & NYMEA Approved
- 2, 1-1/2, 1-1/4, 1, 3/4 & 1/2-Inch-Size Availability



180°  
Discharge  
Nozzle



360°  
Discharge  
Nozzle


### Description

The Sinorix™ engineered system nozzles are designed to provide rapid, thorough mixing of suppression agent with the air in the protected space, while providing coverage for a large area. Standard nozzles are made of aluminum.

Engineered system nozzles are made in five pipe sizes: 1/2", 3/4", 1", 1-1/4", 1-1/2" and 2". All sizes have 180° and 360° discharge patterns available. All nozzles (180° and 360°) have eight-hole patterns.

### System Nozzles

The nozzles are to be of 180° or 360° discharge pattern type and be made of aluminum. They shall be marked with the Siemens Building Technologies, Inc. Fire Safety part number.

The nozzles shall have a standard female pipe thread for attachment to the discharge piping, and they are to be spaced in accordance with the instructions in the engineered-system-design manual, as required by  UL listing or FM approval.

### Ordering Information

Size	180° Part No.	360° Part No.	Shipping Weight (Lbs.)
1/2"	500-697927BG	500-697928BG	1
3/4"	500-697929BG	500-697930BG	1.5
1"	500-697931BG	500-697932BG	1.5
1-1/4"	500-697933BG	500-697934BG	2.5
1-1/2"	500-697935BG	500-697936BG	3.3
2"	500-697937BG	500-697938BG	3.3

**Note:** Refer to flow-calculation software for nozzle drill requirements.

**CATALOG NUMBER 6625**

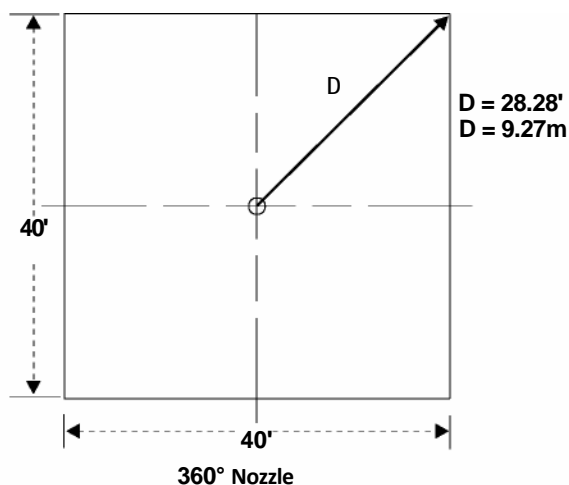
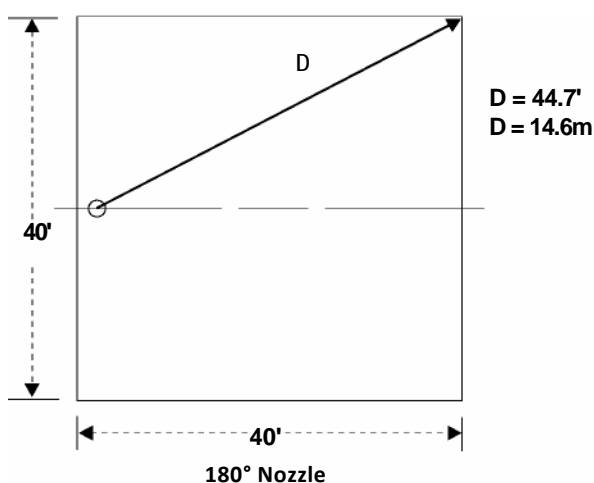
## Hazard Area and Nozzle Placement Design Criteria

**Nozzles** – The nozzles are available in 180° and 360° discharge patterns. The 180° sidewall nozzle is designed for installation along the end of zones of the hazard, with discharge directed away from the end of zone on which it is installed. The 360° nozzle is designed to be installed in the center of the area being protected. All nozzles must be installed in a vertical (pendant) position with the nozzle facing either down or up. Nozzles must be installed with orifices 6" ± 2" (15cm ± 5cm) below ceiling. 180° nozzles must be located 12" ± 2" (30 cm ± 5cm) away from side wall.

**Ceiling Height** – The maximum ceiling height when using Sinorix™ nozzles – both 180° and 360° – is 16 feet (36.6 meters).

**Area Coverage** – The 180° and 360° nozzles were tested for maximum-area coverage using a 40 ft. wide by 40 ft. long (12.2m x 12.2m) enclosure. Based on these parameters, the maximum area coverage for each nozzle is described as a straight line distance from the nozzle to the farthest corner of the protected space.

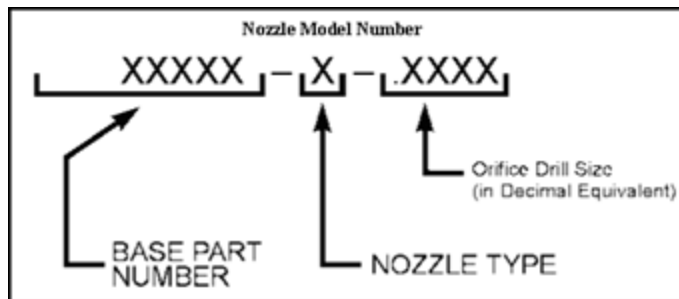
The maximum area coverage per nozzle is:  
 $40 \times 40 = 1,600\text{ft}^2$ .



### Sinorix™ Engineered Nozzle

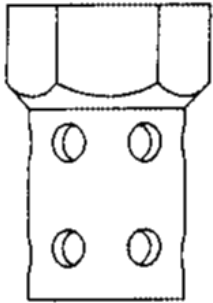
Base Model Number	Nozzle Type	Pipe Size	Drill Diameter Range
CPYEN-1	180	1/2	0.0670 to 0.2010
CPYEN-2	360		
CPYEN-3	180	3/4	0.1285 to 0.2720
CPYEN-4	360		
CPYEN-5	180	1	0.1660 to 0.3473
CPYEN-6	360		
CPYEN-7	180	1-1/4	0.2187 to 0.4531
CPYEN-8	360		
CPYEN-9	180	1-1/2	0.2570 to 0.5313
CPYEN-10	360		
CPYEN-11	180	2	0.3281 to 0.6719
CPYEN-12	360		

### Numbering System

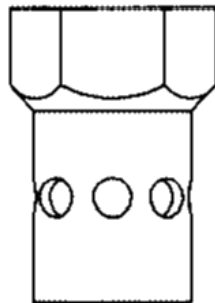


**Example:** CPYEN-3-.2610 ¾" Pipe threads -> 180-degree-nozzle drilled to 0.2610 size orifice

## Nozzle Flow Path



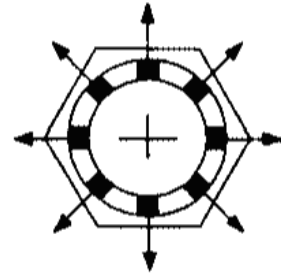
**180 Degree  
Side Wall**



**360 Degree  
Central**



**180 Degree  
Side Wall**



**360 Degree  
Central**

### Ordering Information (Example)

Part numbers will be generated by the Sinorix™ Fire Suppression System Design Software Tool. An example is shown below:

Nozzle	Type	Part Number	Diameter	Nozzle Area
E1-N1	Central	CPYEN-8-.3580	1- 1/4 in.	0.8509 sq. in.
E2-N1	Sidewall	CPYEN-3-.2500	3/4 in.	0.3927 sq. in.
E3-N1	Sidewall	CPYEN-3-.2570	3/4 in.	0.4150 sq. in.

*Typical output from Sinorix™ Flow Program*

**Notice:** This marketing catalog sheet is not intended to be used for system design or installation purposes. For the most up-to-date information, refer to each product's installation instructions.