Spraying Systems Co.®
Experts in Spray Technology

HHX FULLJET® SPRAY NOZZLES

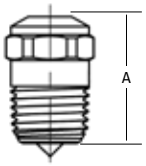
OVERVIEW

HHX FullJet nozzles stand out from conventional full cone nozzles by providing superior and consistent spray distribution over their operating range. This ensures uniform cooling and high heat transfer coefficient values in secondary cooling operations. A wide range of spray angles and capacities are available – cooling parameters can easily be changed without making major changes to the manifold or segment.

BENEFITS

- Superior spray distribution compared to conventional full cone nozzles
- A full range of spray angles and capacities – change cooling parameters without the need to move manifolds
- Staked vane stays in place, withstanding high heat and vibration to ensure a consistent spray pattern
- Socket design provides for easy installation and maintenance with standard tools
- Low profile allows nozzles to sit close to the header, to prevent debris from collecting or falling on the nozzle

DIMENSIONS AND WEIGHTS



Thread Size in.	A in. (mm)	HEX Size in.	Weight oz (grams)
1/4	0.874 (22.2)	9/16	0.78 (22.1)
3/8	0.937 (23.8)	11/16	1.28 (36.3)
1/2	1.157 (29.4)	7/8	2.35 (66.6)

Based on the largest/heaviest version of each type.

ORDERING INFORMATION

MODEL HHX FULLJET NOZZLE

Inlet Conn.*	Nozzle Type	–	Material Code**	Spray Angle	Capacity
Example					
1/4	HHX	–	SS	90	10

* BSPT connections require the addition of a "B" prior to the inlet connection

** Available in brass and stainless steel materials. There is no material code for brass. Leave material code blank when ordering.

IDEAL FOR

Secondary cooling
- Billets
- Blooms
- Rounds
- Slabs




Inlet Conn. (in.)	Capacity Size	Orifice Dia. Nom in. (mm)	Max. Free Passage in. (mm)	Flow Rate Capacity gallons per minute (liters per minute)									Spray Angle (°)		
													60° Series	90° Series	120° Series
				5 psi (0.3 bar)	7 psi (0.5 bar)	10 psi (0.7 bar)	20 psi (1.4 bar)	40 psi (2.8 bar)	60 psi (4.1 bar)	80 psi (5.5 bar)	100 psi (6.9 bar)	150 psi (10.3 bar)	20 psi (1.4 bar)		
1/4	3.5	.063 (1.6)	.047 (1.2)	.24 (.9)	.29 (1.1)	.35 (1.3)	.48 (1.8)	.65 (2.5)	.75 (2.8)	.84 (3.2)	.92 (3.5)	1.1 (4.2)	60	90	120
	5	.078 (2.0)	.063 (1.6)	.34 (1.3)	.41 (1.6)	.50 (1.9)	.70 (2.6)	.94 (3.6)	1.1 (4.2)	1.2 (4.5)	1.3 (4.9)	1.5 (5.7)			
	6.5	.078 (2.4)	.063 (1.6)	.46 (1.7)	.54 (2.0)	.65 (2.5)	.91 (3.4)	1.2 (4.5)	1.4 (5.3)	1.6 (6.1)	1.7 (6.4)	2.0 (7.6)			
	8	.094 (2.4)	.078 (2.0)	.56 (2.1)	.66 (2.5)	.80 (3.0)	1.1 (4.2)	1.4 (5.3)	1.7 (6.4)	1.9 (7.2)	2.0 (7.6)	2.4 (9.1)			
	10	.109 (2.8)	.078 (2.0)	.71 (2.7)	.83 (3.1)	1.0 (3.8)	1.4 (5.3)	1.8 (6.8)	2.1 (7.9)	2.4 (9.1)	2.6 (9.8)	3.1 (11.7)			
	12	.109 (2.8)	.078 (2.0)	.85 (3.2)	1.0 (3.8)	1.2 (4.5)	1.7 (6.4)	2.2 (8.3)	2.5 (9.5)	2.8 (10.6)	3.1 (11.7)	3.7 (14.0)			
	14	.125 (3.2)	.078 (2.0)	.96 (3.6)	1.1 (4.2)	1.4 (5.3)	1.9 (7.2)	2.3 (8.7)	2.7 (10.2)	3.1 (11.7)	3.4 (12.9)	4.1 (15.5)			
3/8	15	.125 (3.2)	.094 (2.4)	1.0 (3.8)	1.2 (4.5)	1.5 (5.7)	2.1 (7.9)	2.6 (9.8)	3.1 (11.7)	3.5 (13.2)	3.8 (14.4)	4.6 (17.4)	60	90	120
	18	.141 (3.6)	.109 (2.8)	1.3 (4.9)	1.5 (5.7)	1.8 (6.8)	2.5 (9.5)	3.1 (11.7)	3.7 (14.0)	4.2 (15.9)	4.6 (17.4)	5.5 (20.8)			
	20	.156 (4.0)	.109 (2.8)	1.5 (5.7)	1.7 (6.4)	2.0 (7.6)	2.8 (10.6)	3.6 (13.6)	4.2 (15.9)	4.6 (17.4)	5.2 (19.7)	6.3 (23.8)			
	22	.172 (4.4)	.109 (2.8)	1.6 (6.1)	1.9 (7.2)	2.2 (8.3)	3.0 (11.4)	3.9 (14.8)	4.5 (17.0)	5.1 (19.3)	5.8 (22.0)	7.0 (26.5)			
1/2	25	.172 (4.4)	.109 (2.8)	1.8 (6.8)	2.1 (7.9)	2.5 (9.5)	3.4 (12.9)	4.4 (16.7)	5.1 (19.3)	5.8 (22.0)	6.4 (24.2)	7.5 (28.4)	60	90	120

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