

Nozzle without swirl insert, with exchangeable mouthpiece

**Characteristics**

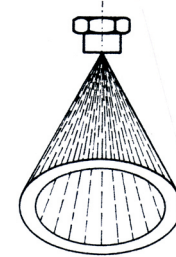
Hollow cone spray pattern,  
No inserts,  
Clog-resistant,  
Right-angled connection.

**Application**

Air and gas washing  
Cooling  
Washing and Cleaning  
Degreasing  
Rinsing  
Dust suppression  
Process engineering

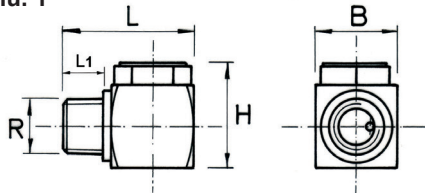
**Material**

Brass  
Steel  
Stainless steel  
Plastic  
Others on request

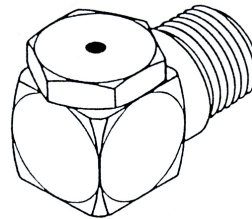


Hollow cone spray pattern

Illu. 1

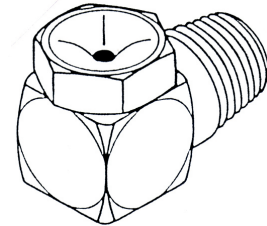


Illu. 2



Nozzle with spray pattern 60° + 90°

Illu. 3



Wide-angle spray pattern 120°

Thread R DIN 2999	Dimensions in mm			
	L	L1	H	B
1/8"	25	7	21	16
1/4"	28	10	21	16
3/8"	32	10	26	20
1/2"	41	13	31	25
3/4"	48	15	36	30
1"	58	17	42	35

Plastic nozzles can feature different SWs.

**Order example: (thread - type - spray angle - material) 1/4" - HE 2 - 30° - VA**

B = outlet bore, E = smallest section, drillings can slightly vary for different spray angles

Spray angles available: 5°-10°-15°-25°-30°-50°-60°-80°-90°-120°, corresponding to a pressure of 3 bar

Male thread R						Type	Bore (mm)		Flow rate $\dot{V}$ (l/min.) at pressure p (bar)								
1/8"	1/4"	3/8"	1/2"	3/4"	1"		B	E	0.7	1	1.5	2	3	4	5	5.5	6
*							HE 0.5	0.90	1.20	0.20	0.23	0.26	0.34	0.40	0.45	0.50	0.53
*	*					HE 1	1.40	1.60	0.40	0.45	0.50	0.65	0.75	0.90	1.00	1.10	1.20
*	*					HE 2	2.10	2.10	0.75	0.95	1.00	1.30	1.50	1.80	2.00	2.20	2.40
*	*					HE 3	2.40	2.40	1.00	1.40	1.60	2.00	2.30	2.70	3.00	3.20	3.50
	*	*				HE 5	3.00	3.20	2.00	2.30	2.50	3.00	4.00	4.50	5.00	5.50	6.00
	*	*				HE 8	3.80	4.00	3.00	3.50	4.00	5.00	6.00	7.50	8.00	8.50	9.50
	*	*				HE 10	4.30	4.30	4.00	4.50	5.00	6.50	7.50	9.50	10.0	10.5	12.0
	*	*				HE 15	5.20	5.20	5.50	7.00	8.00	10.0	11.5	14.0	15.0	16.0	17.5
		*				HE 20	7.10	6.30	7.50	9.00	10.5	13.0	15.0	18.5	20.0	21.0	24.0
		*				HE 22	7.40	7.90	8.50	10.5	12.0	15.0	17.0	21.0	24.0	24.5	27.5
		*	*			HE 25	7.50	7.50	9.50	11.5	13.0	16.0	19.0	23.0	25.0	27.0	30.0
		*	*			HE 27	6.10	7.90	10.5	13.0	15.0	18.0	21.0	26.0	29.0	30.0	33.5
		*	*			HE 30	8.30	7.90	11.0	14.0	16.0	19.5	22.5	27.5	30.0	32.0	36.0
			*	*		HE 40	9.50	9.10	15.0	18.5	21.5	26.0	30.0	37.0	40.0	42.0	47.0
			*	*		HE 45	8.70	9.50	16.7	20.2	24.8	28.3	34.7	40.1	45.0	47.3	49.5
			*	*		HE 50	9.10	11.1	19.0	23.0	27.0	33.0	38.0	46.0	50.0	54.0	60.0
			*	*		HE 60	12.7	11.1	22.5	27.5	32.0	39.0	45.0	55.5	60.0	64.0	72.0
			*	*		HE 70	12.7	12.7	26.0	32.0	37.0	45.5	53.0	65.0	70.0	75.0	83.0
			*	*		HE 80	12.7	14.3	30.0	37.0	43.0	52.0	60.0	74.0	80.0	87.0	94.5
			*	*		HE 90	12.7	14.7	34.0	41.5	48.0	59.0	68.0	83.0	90.0	94.5	109
			*	*		HE 100	12.7	15.9	38.0	46.0	53.0	65.0	75.5	94.5	100	105	120
			*	*	*	HE 110	12.7	17.1	41.5	51.0	58.5	72.0	83.0	102	110	117	132
			*	*	*	HE 120	12.7	18.2	45.0	55.5	64.0	79.0	90.0	109	120	128	140
			*	*	*	HE 150	17.5	17.1	55.5	67.5	82.5	94.5	115	133	150	157	165
			*	*	*	HE 180	17.5	20.0	66.6	81.0	99.0	113	139	160	180	189	198