



THE  
**SPRAY NOZZLE**  
PEOPLE

# TF

**Wide Range Of  
Flows and Angles**

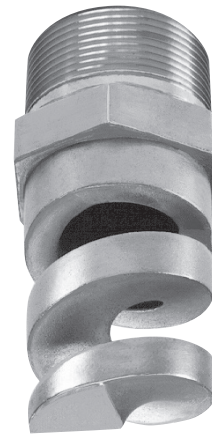
## HOLLOW CONE

### DESIGN FEATURES

- ✓ The original spiral nozzle invented by BETE and continuously improved!
- ✓ High energy efficiency
- ✓ One-piece/no internal parts
- ✓ Clog-resistant performance
- ✓ High discharge velocity
- ✓ Male connection standard; female connection available by special order

### SPRAY CHARACTERISTICS

- ✓ Wide range of flow rates and spray angles
- ✓ Fine atomisation
- ✓ Spray patterns: Hollow Cone (and Full Cone - see relevant data sheet)
- ✓ Spray angles: 50° to 180°
- ✓ Flow rates: 2.26 to 10,700 L/min (Higher flow rates available)



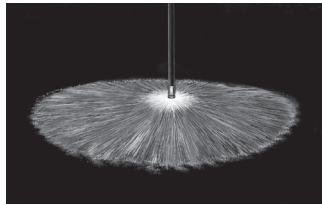
The TF nozzle is the original Spiral Nozzle designed by Bete Fog Nozzle. Its spiral shape shears the liquid into several hollow cone patterns which converge into a single hollow cone. The spiral design gives excellent clog resistance and also tends to atomise the fluid better than conventional nozzles resulting in a finer drop size. Hollow cone TF nozzles are used in a wide variety of applications including:

Gas scrubbing  
Gas cooling  
Evaporative cooling  
Evaporation ponds  
Moistening  
And many more.

**CALL NOW : +44 (0) 1273 400092**

[www.spray-nozzle.co.uk](http://www.spray-nozzle.co.uk)

The Go-to People for spray nozzle solutions



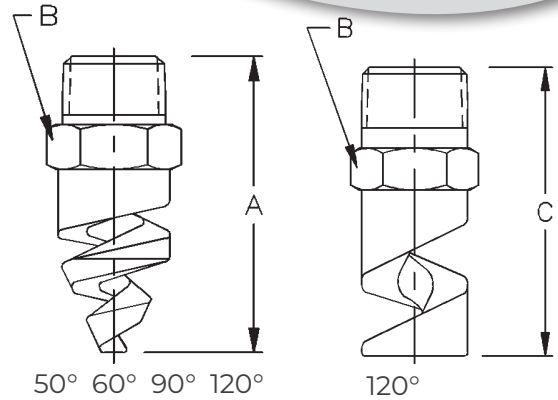
Hollow cone 180°



Hollow cone 50°



Hollow cone 120°



## TF Hollow Cone Flow Rates and Dimensions

Hollow Cone, 50° (N), 60° (V), 90° (M), 120° (W), and 180° (XW) Spray Angles, 1/4" to 4" Pipe Sizes, BSP or NPT

Male Pipe Size	Nozzle No	Available Spray Angles	K	Flow rate (l/min) at bar								Dimensions (mm)			Weight (g)			
				0.5 bar	0.7 bar	1 bar	2 bar	3 bar	5 bar	10 bar	20 bar	Orif Dia	Free Pass	A	B	C	Met	Plas
1/4	TF6	50° 60° 90° 120°	3.19	2.26	2.67	3.19	4.5	5.5	7.1	10.1	14.3	2.38	2.38	42.9	14.3			
	TF8	50° 60° 90° 120° 180°	5.93	4.19	4.96	5.93	8.4	10.3	13.2	18.7	26.5	3.18	3.18	47.6	14.3	47.6	35	21
	TF10	50° 60° 90° 120° 180°	9.12	6.45	7.63	9.12	12.9	15.8	20.4	28.8	40.8	3.97	3.18	47.6	14.3	47.6		
3/8	TF12	50° 60° 90° 120° 180°	13.7	9.7	11.4	13.7	19.3	23.7	30.6	43.2	61.1	4.76	3.18					
	TF14	50° 60° 90° 120° 180°	18.5	13.1	15.4	18.5	26.1	32	41.3	58.4	82.6	5.56	3.18					
	TF16	50° 60° 90° 120° 180°	24.2	17.1	20.2	24.2	34.2	41.8	54	76.4	108	6.35	3.18	47.6	14.3	47.6	50	21
1/2	TF20	50° 60° 90° 120° 180°	37.6	26.6	31.5	37.6	53.2	65.1	84.1	119	168	7.94	3.18					
	TF24	50° 60° 90° 120° 180°	54.9	38.8	46	54.9	77.7	95.1	123	174	246	9.53	4.76					
	TF28	50° 60° 90° 120° 180°	75.2	53.2	62.9	75.2	106	130	168	238	336	11.1	4.76	63.5	22.2	60.5	85	25
3/4	TF32	50° 60° 90° 120° 180°	95.7	67.7	80.1	95.7	135	166	214	303	428	12.7	4.76	69.9	28.6	76.2	85	28
	TF40	60° 90° 120° 180°	153	108	128	153	216	264	341	483	683	15.9	6.35					
1	TF48	60° 90° 120° 180°	217	153	181	216	306	375	484	685	968	19.1	6.35	92.2	425	85	425	85
	TF56	60° 90° 120° 180°	294	208	246	294	416	509	657	930	1320	22.2	7.94					
1 1/2	TF64	60° 90° 120° 180°	385	272	322	385	545	667	861	1220	1720	25.4	7.94	111	851	170	851	170
	TF72	60° 90° 120° 180°	438	309	366	438	619	758	978	1380	1960	28.6	7.94					
	TF88	60° 90° 120° 180°	638	451	534	638	902	1110	1430	2020	2850	34.9	11.1	143	63.5	127	1300	227
2	TF96	60° 90° 120° 180°	806	570	674	806	1140	1400	1800	2550	3600	38.1	11.1	176	63.5	127	1530	255
	TF112	60° 90° 120°	1170	825	976	1170	1650	2020	2610	3690	5220	44.5	14.3					
3		60° 90° 120°	1550	1090	1290	1550	2190	2680	3460	4891	6920	50.8	14.3	219	88.9			
	TF160	60° 90° 120°	2390	1690	2000	2390	3380	4140	5350	7570	10700	63.5	15.9	257	114			