



THE
SPRAY NOZZLE
PEOPLE

TF

**Hollow
Cone**

Wide Range Of
Flows and Angles



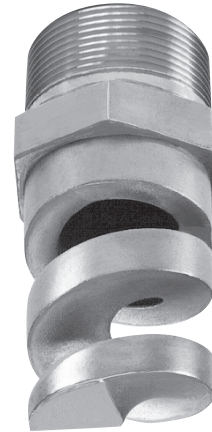
HOLLOW CONE

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)



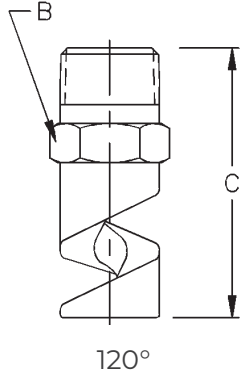
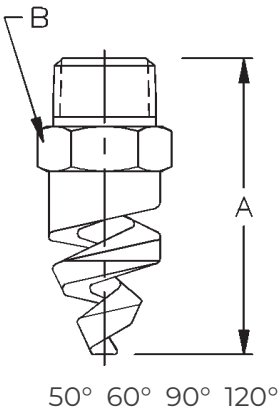
The TF nozzle is the original Spiral Nozzle designed by BETE. Its spiral shape shears the liquid into several hollow cone patterns which converge into a single hollow cone. The spiral design gives excellent clog resistance and also tends to atomise the fluid better than conventional nozzles resulting 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

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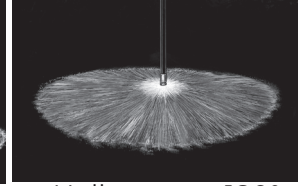
The Go-to People for spray nozzle solutions



Hollow cone 50°



Hollow cone 120°



Hollow cone 180°

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
Standard Materials: Brass, 316 Stainless Steel, PVC, Polypropylene and PTFE (Poly. not available for TF6-TF10)

Flow rate (l/min) at bar

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				
	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							
3/8	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		
	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							
1/2	TF24	50° 60° 90° 120° 180°	54.9	38.8	46	54.9	77.7	95.1	123	174	246	9.53	4.76			63.5	22.2	60.5	85	25
	TF28	50° 60° 90° 120° 180°	75.2	53.2	62.9	75.2	106	130	168	238	336	11.1	4.76							
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		
1	TF40	60° 90° 120° 180°	153	108	128	153	216	264	341	483	683	15.9	6.35			92.2	425	85	425	85
	TF48	60° 90° 120° 180°	217	153	181	216	306	375	484	685	968	19.1	6.35							
	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							
2	TF88	60° 90° 120° 180°	638	451	534	638	902	1110	1430	2020	2850	34.9	11.1	143	63.5	127	1300	227		
	TF96	60° 90° 120° 180°	806	570	674	806	1140	1400	1800	2550	3600	38.1	11.1	176	63.5	127	1530	255		
3	TF112	60° 90° 120°	1170	825	976	1170	1650	2020	2610	3690	5220	44.5	14.3							
	TF128	60° 90° 120°	1550	1090	1290	1550	2190	2680	3460	4891	6920	50.8	14.3	219	88.9					
4	TF160	60° 90° 120°	2390	1690	2000	2390	3380	4140	5350	7570	10700	63.5	15.9	257	114					

Flow Rate (l/min) = K √ bar