



THE
SPRAY NOZZLE
PEOPLE

TF

Wide range of flows
and angles



FULL 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: Full cone
- ✓ For hollow cone, see TF - Hollow Cone
- ✓ Spray angles: 60° to 170°
- ✓ Flow rates: 2.26 to 10700 l/min (Higher flow rates available)



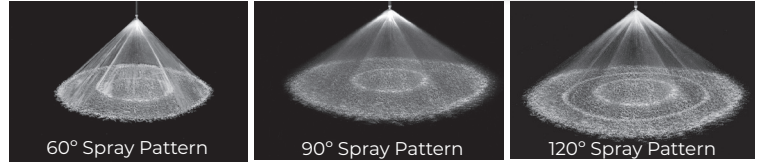
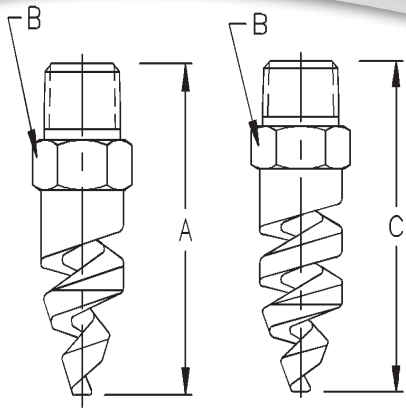
The TF nozzle is the original Spiral Nozzle designed by Bete Fog Nozzle. Its spiral shape shears the liquid into multiple cones with the intercone sections filled with finer droplets to create a full cone pattern. The spiral design gives excellent clog resistance and also tends to atomise the fluid better than conventional nozzles resulting in a finer drop size. Full cone TF nozzles are used in a wide variety of applications including:

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

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www.spray-nozzle.co.uk

The Go-to People for spray nozzle solutions



TF Full Cone Flow Rates and Dimensions

Full Cone, 60° (NN), 90° (FCN or FFCN), 120° (FC), 150° and 170° Spray Angles, 1/8" to 4" Pipe Sizes, BSP or NPT
 Standard Materials: Brass, 316 Stainless Steel, PVC, Polypropylene and PTFE (poly not available for TF6-TF10)

Litres per minute @ BAR

Male Pipe Size	Nozzle No	Available Spray Angles	K	Flow Rate (l/min)										Dimensions (mm)					Weight (g)	
				0.5	0.7	1	2	3	5	10	20	Orif Dia	Free Pass	A	B	C	Met	Plas		
1/8"	TF6	60° 90° 120° 150° 170°	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	42.9	28	6		
	TF8	60° 90° 120° 150° 170°	5.93	4.19	4.96	5.93	8.4	10.3	13.2	18.7	26.5	3.18	3.18	42.9	14.3	55.6				
1/4"	TF6	60° 90° 120° 150° 170°	3.19	2.26	2.67	3.19	4.5	5.5	7.1	10.1	14.3	2.38	2.38	47.6	14.3	47.6	35	6		
	TF8	60° 90° 120° 150° 170°	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	60.3				
3/8"	TF10	60° 90° 120° 150° 170°	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	60.3	46	7		
	TF12	60° 90° 120° 150° 170°	13.7	9.7	11.4	13.7	19.3	23.7	30.6	43.2	61.1	4.76	3.18	47.6	17.5	60.5				
1/2"	TF14	60° 90° 120° 150° 170°	18.5	13.1	15.4	18.5	26.1	32	41.3	58.4	82.6	5.56	3.18	63.5	22.2	77.7	85	14		
	TF16	60° 90° 120° 150° 170°	24.2	17.1	20.2	24.2	34.2	41.8	54	76.4	108	6.35	3.18							
3/4"	TF20	60° 90° 120° 150° 170°	37.6	26.6	31.5	37.6	53.2	65.1	84.1	119	168	7.94	3.18	92.1	34.9	111	241	71		
	TF24	60° 90° 120° 150° 170°	54.9	38.8	46	54.9	77.7	95.1	123	174	246	9.53	4.76							
1"	TF28	60° 90° 120° 150° 170°	75.2	53.2	62.9	75.2	106	130	168	238	336	11.1	4.76	92.1	34.9	111	241	71		
	TF32	60° 90° 120° 150° 170°	95.7	67.7	80.1	95.7	135	166	214	303	428	12.7	4.76						69.9	28.6
1 1/2"	TF40	60° 90° 120° 150° 170°	153	108	128	153	216	264	341	483	683	15.9	6.35	92.1	34.9	111	241	71		
	TF48	60° 90° 120° 150° 170°	217	153	181	216	306	375	484	685	968	19.1	6.35						92.1	34.9
2"	TF56	60° 90° 120° 150° 170°	294	208	246	294	416	509	657	930	1320	22.2	7.94	111	50.8	137	624	120		
	TF64	60° 90° 120° 150° 170°	385	272	322	385	545	667	861	1220	1720	25.4	7.94	111	50.8	137				
3"	TF72	60° 90° 120° 150° 170°	438	309	366	438	619	758	978	1380	1960	28.6	7.94	111	50.8	143	1300	227		
	TF88	60° 90° 120° 150° 170°	638	451	534	638	902	1110	1430	2020	2850	34.9	11.1	143	63.5	175				
4"	TF96 ¹	60° 90° 120° 150° 170°	806	570	674	806	1140	1400	1800	2550	3600	38.1	11.1	176	63.5	178	1530	255		
	TF112 ¹	60° 90° 120° 150° 170°	1170	825	976	1170	1650	2020	2610	3690	5220	44.5	14.3	219	88.9	235	3230	567		
	TF128 ¹	60° 90° 120° 150° 170°	1550	1090	1290	1550	2190	2680	3460	4891	6920	50.8	14.3	257	114	4790	765			
	TF160 ¹	60° 90° 120°	2390	1690	2000	2390	3380	4140	5350	7570	10700	63.5	15.9							

Flow Rate (l/min) = K √ bar

¹ Three turn nozzles