

Spiral Full-Cone Spray Nozzles

Spadflow Series 3B TF



3B TF

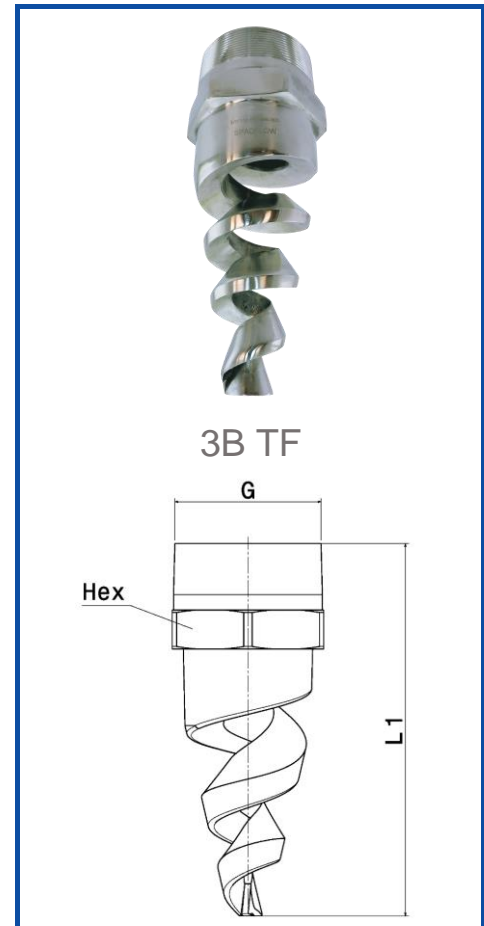
Spiral Full-Cone Nozzle

Applications:

- Scrub hydrofluoric acid, ammonia, and other highly soluble gases
- Aerate waste water treatment, fish ponds, and impoundment ponds
- Process cooling for food, chemical, and industrial processes
- Various cooling setups
- Dust control
- Fire protection
- Humidification
- Quenching
- Scrubbing

Properties:

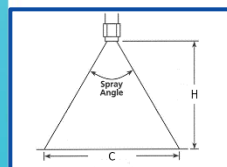
- High energy efficiency
- One-piece/no internal parts
- Clog-resistant performance
- High discharge velocity
- Fine atomization



Conn. code	K factor	Dimensions [mm]				Weight (g) (metal)
		G	L ₁	L ₂	Hex/Flats	
018	3.19	1/8	42.9	42.9	14.3	28
018	5.93	1/8	42.9	55.6	14.3	28
014	3.19	1/4	47.6	47.6	14.3	35
014	3.19<	1/4	47.6	60.3	14.3	35
038	all	3/8	47.6	60.5	17.5	46
012	all	1/2	63.5	77.7	22.2	85
034	95.7	3/4	69.9	88.9	28.6	156
100	all	1	92.1	111	34.9	241
112	<438	1 1/2	111	137	50.8	624
112	438	1 1/2	111	143	50.8	624
200	638	2	143	175	63.5	1300
200	806	2	176	178	63.5	1530
300	all	3	219	235	88.9	3230
400	2390	4	257	-	114	4790

Material*	Code
Brass	1
S.S.304	2
S.S.316	3

α	C [mm] (range) @ H=200 mm
45°	160
60°	220
90°	380-390
120°	680



For higher lengths: $C_2 = \frac{C \times H_2}{200}$

Order No.: CODE . CONNETION . MATERIAL

Example.: 3B TF 06 . 060 . 014 . 2

Type 3B TF with mentioned Q(lpm)@P(bar), Spray angle: 60°, 1/4", S.S.316

Spiral Full-Cone Spray Nozzles

Spadflow Series 3B TF



3B TF

Spray angle (α)	Code	Connection** [inch]	B Ø [mm]	E Ø [mm]	Flow rate [l/min]							
					P [bar]							
					0.5	0.7	1.0 <i>K factor</i>	2.0	3.0	5.0	10.0	20.0
60°	3B TF 06 . 060	1/8"-1/4"-3/8"	2.38	2.38	2.26	2.67	3.19	4.5	5.5	7.1	10.1	14.3
	3B TF 08 . 060	1/8"-1/4"-3/8"	3.18	3.18	4.19	4.96	5.93	8.4	10.3	13.2	18.7	26.5
	3B TF 10 . 060	1/4"-3/8"	3.97	3.18	6.45	7.63	9.12	12.9	15.8	20.4	28.8	40.8
	3B TF 12 . 060	3/8"	4.76	3.18	9.67	11.4	13.7	19.3	23.7	30.6	43.2	61.1
	3B TF 14 . 060	3/8"	5.56	3.18	13.1	15.4	18.5	26.1	32.0	41.3	58.4	82.6
	3B TF 16 . 060	3/8"	6.35	3.18	17.1	20.2	24.2	34.2	41.8	54.0	76.4	108
	3B TF 20 . 060	3/8"	7.94	3.18	26.6	31.5	37.6	53.2	65.1	84.1	119	168
	3B TF 24 . 060	1/2"	9.53	4.76	38.8	46.0	54.9	77.7	95.1	123	174	246
	3B TF 28 . 060	1/2"	11.1	4.76	53.2	62.9	75.2	106	130	168	238	336
	3B TF 32 . 060	3/4"	12.7	4.76	67.7	80.1	95.7	135	166	214	303	428
	3B TF 40 . 060	1"	15.9	6.35	108	128	153	216	264	341	483	683
	3B TF 48 . 060	1"	19.1	6.35	153	181	216	306	375	484	685	968
	3B TF 56 . 060	1 1/2"	22.2	7.94	208	246	294	416	509	657	930	1320
	3B TF 64 . 060	1 1/2"	25.4	7.94	272	322	385	545	667	861	1220	1720
	3B TF 72 . 060	1 1/2"	28.6	7.94	309	366	438	619	758	978	1380	1960
	3B TF 88 . 060	2"	34.9	11.1	451	534	638	902	1110	1430	2020	2850
3B TF 96 . 060	2"	38.1	11.1	570	674	806	1140	1400	1800	2550	3600	
3B TF 112 . 060	3"	44.5	14.3	825	976	1170	1650	2020	2610	3690	5220	
3B TF 128 . 060	3"	50.8	14.3	1090	1290	1550	2190	2680	3460	4891	6920	
3B TF 160 . 060	4"	63.5	15.9	1690	2000	2390	3380	4140	5350	7570	10700	
90°	3B TF 06 . 090	1/8"-1/4"-3/8"	2.38	2.38	2.26	2.67	3.19	4.5	5.5	7.1	10.1	14.3
	3B TF 08 . 090	1/8"-1/4"-3/8"	3.18	3.18	4.19	4.96	5.93	8.4	10.3	13.2	18.7	26.5
	3B TF 10 . 090	1/4"-3/8"	3.97	3.18	6.45	7.63	9.12	12.9	15.8	20.4	28.8	40.8
	3B TF 12 . 090	3/8"	4.76	3.18	9.67	11.4	13.7	19.3	23.7	30.6	43.2	61.1
	3B TF 14 . 090	3/8"	5.56	3.18	13.1	15.4	18.5	26.1	32.0	41.3	58.4	82.6
	3B TF 16 . 090	3/8"	6.35	3.18	17.1	20.2	24.2	34.2	41.8	54.0	76.4	108
	3B TF 20 . 090	3/8"	7.94	3.18	26.6	31.5	37.6	53.2	65.1	84.1	119	168
	3B TF 24 . 090	1/2"	9.53	4.76	38.8	46.0	54.9	77.7	95.1	123	174	246
	3B TF 28 . 090	1/2"	11.1	4.76	53.2	62.9	75.2	106	130	168	238	336
	3B TF 32 . 090	3/4"	12.7	4.76	67.7	80.1	95.7	135	166	214	303	428
	3B TF 40 . 090	1"	15.9	6.35	108	128	153	216	264	341	483	683
	3B TF 48 . 090	1"	19.1	6.35	153	181	216	306	375	484	685	968
	3B TF 56 . 090	1 1/2"	22.2	7.94	208	246	294	416	509	657	930	1320
	3B TF 64 . 090	1 1/2"	25.4	7.94	272	322	385	545	667	861	1220	1720
	3B TF 72 . 090	1 1/2"	28.6	7.94	309	366	438	619	758	978	1380	1960
	3B TF 88 . 090	2"	34.9	11.1	451	534	638	902	1110	1430	2020	2850
3B TF 96 . 090	2"	38.1	11.1	570	674	806	1140	1400	1800	2550	3600	
3B TF 112 . 090	3"	44.5	14.3	825	976	1170	1650	2020	2610	3690	5220	
3B TF 128 . 090	3"	50.8	14.3	1090	1290	1550	2190	2680	3460	4891	6920	
3B TF 160 . 090	4"	63.5	15.9	1690	2000	2390	3380	4140	5350	7570	10700	
120°	3B TF 06 . 120	1/8"-1/4"-3/8"	2.38	2.38	2.26	2.67	3.19	4.5	5.5	7.1	10.1	14.3
	3B TF 08 . 120	1/8"-1/4"-3/8"	3.18	3.18	4.19	4.96	5.93	8.4	10.3	13.2	18.7	26.5
	3B TF 10 . 120	1/4"-3/8"	3.97	3.18	6.45	7.63	9.12	12.9	15.8	20.4	28.8	40.8
	3B TF 12 . 120	3/8"	4.76	3.18	9.67	11.4	13.7	19.3	23.7	30.6	43.2	61.1
	3B TF 14 . 120	3/8"	5.56	3.18	13.1	15.4	18.5	26.1	32.0	41.3	58.4	82.6
	3B TF 16 . 120	3/8"	6.35	3.18	17.1	20.2	24.2	34.2	41.8	54.0	76.4	108
	3B TF 20 . 120	3/8"	7.94	3.18	26.6	31.5	37.6	53.2	65.1	84.1	119	168
	3B TF 24 . 120	1/2"	9.53	4.76	38.8	46.0	54.9	77.7	95.1	123	174	246
	3B TF 28 . 120	1/2"	11.1	4.76	53.2	62.9	75.2	106	130	168	238	336
	3B TF 32 . 120	3/4"	12.7	4.76	67.7	80.1	95.7	135	166	214	303	428
	3B TF 40 . 120	1"	15.9	6.35	108	128	153	216	264	341	483	683
	3B TF 48 . 120	1"	19.1	6.35	153	181	216	306	375	484	685	968
	3B TF 56 . 120	1 1/2"	22.2	7.94	208	246	294	416	509	657	930	1320
	3B TF 64 . 120	1 1/2"	25.4	7.94	272	322	385	545	667	861	1220	1720
	3B TF 72 . 120	1 1/2"	28.6	7.94	309	366	438	619	758	978	1380	1960
	3B TF 88 . 120	2"	34.9	11.1	451	534	638	902	1110	1430	2020	2850
3B TF 96 . 120	2"	38.1	11.1	570	674	806	1140	1400	1800	2550	3600	

Order No.: CODE . CONNETION . MATERIAL

Example.: 3B TF 06 . 060 . 014 . 2

Type 3B TF with mentioned Q(lpm)@P(bar), Spray angle: 60°, 1/4", S.S.316

Spiral Full-Cone Spray Nozzles

Spadflow Series 3B TF



3B TF

Spray angle (α)	Code	Connection** [inch]	B Ø [mm]	E Ø [mm]	Flow rate [l/min]							
					P [bar]							
					0.5	0.7	1.0 <i>K factor</i>	2.0	3.0	5.0	10.0	20.0
	3B TF 112 . 120	3"	44.5	14.3	825	976	1170	1650	2020	2610	3690	5220
	3B TF 128 . 120	3"	50.8	14.3	1090	1290	1550	2190	2680	3460	4891	6920
	3B TF 160 . 120	4"	63.5	15.9	1690	2000	2390	3380	4140	5350	7570	10700
150°	3B TF 06 . 150	1/8"-1/4"	2.38	2.38	2.26	2.67	3.19	4.5	5.5	7.1	10.1	14.3
	3B TF 08 . 150	1/8"-1/4"	3.18	3.18	4.19	4.96	5.93	8.4	10.3	13.2	18.7	26.5
	3B TF 10 . 150	1/4"	3.97	3.18	6.45	7.63	9.12	12.9	15.8	20.4	28.8	40.8
	3B TF 12 . 150	3/8"	4.76	3.18	9.67	11.4	13.7	19.3	23.7	30.6	43.2	61.1
	3B TF 14 . 150	3/8"	5.56	3.18	13.1	15.4	18.5	26.1	32.0	41.3	58.4	82.6
	3B TF 16 . 150	3/8"	6.35	3.18	17.1	20.2	24.2	34.2	41.8	54.0	76.4	108
	3B TF 20 . 150	3/8"	7.94	3.18	26.6	31.5	37.6	53.2	65.1	84.1	119	168
	3B TF 24 . 150	1/2"	9.53	4.76	38.8	46.0	54.9	77.7	95.1	123	174	246
	3B TF 28 . 150	1/2"	11.1	4.76	53.2	62.9	75.2	106	130	168	238	336
	3B TF 32 . 150	3/4"	12.7	4.76	67.7	80.1	95.7	135	166	214	303	428
	3B TF 40 . 150	1"	15.9	6.35	108	128	153	216	264	341	483	683
	3B TF 48 . 150	1"	19.1	6.35	153	181	216	306	375	484	685	968
	3B TF 56 . 150	1 1/2"	22.2	7.94	208	246	294	416	509	657	930	1320
	3B TF 64 . 150	1 1/2"	25.4	7.94	272	322	385	545	667	861	1220	1720
	3B TF 72 . 150	1 1/2"	28.6	7.94	309	366	438	619	758	978	1380	1960
	3B TF 88 . 150	2"	34.9	11.1	451	534	638	902	1110	1430	2020	2850
	3B TF 96 . 150	2"	38.1	11.1	570	674	806	1140	1400	1800	2550	3600
3B TF 112 . 150	3"	44.5	14.3	825	976	1170	1650	2020	2610	3690	5220	
3B TF 128 . 150	3"	50.8	14.3	1090	1290	1550	2190	2680	3460	4891	6920	
170°	3B TF 06 . 170	1/8"-1/4"	2.38	2.38	2.26	2.67	3.19	4.5	5.5	7.1	10.1	14.3
	3B TF 08 . 170	1/8"-1/4"	3.18	3.18	4.19	4.96	5.93	8.4	10.3	13.2	18.7	26.5
	3B TF 10 . 170	1/4"	3.97	3.18	6.45	7.63	9.12	12.9	15.8	20.4	28.8	40.8
	3B TF 12 . 170	3/8"	4.76	3.18	9.67	11.4	13.7	19.3	23.7	30.6	43.2	61.1
	3B TF 14 . 170	3/8"	5.56	3.18	13.1	15.4	18.5	26.1	32.0	41.3	58.4	82.6
	3B TF 16 . 170	3/8"	6.35	3.18	17.1	20.2	24.2	34.2	41.8	54.0	76.4	108
	3B TF 20 . 170	3/8"	7.94	3.18	26.6	31.5	37.6	53.2	65.1	84.1	119	168
	3B TF 24 . 170	1/2"	9.53	4.76	38.8	46.0	54.9	77.7	95.1	123	174	246
	3B TF 28 . 170	1/2"	11.1	4.76	53.2	62.9	75.2	106	130	168	238	336
	3B TF 32 . 170	3/4"	12.7	4.76	67.7	80.1	95.7	135	166	214	303	428
	3B TF 40 . 170	1"	15.9	6.35	108	128	153	216	264	341	483	683
	3B TF 48 . 170	1"	19.1	6.35	153	181	216	306	375	484	685	968
	3B TF 56 . 170	1 1/2"	22.2	7.94	208	246	294	416	509	657	930	1320
	3B TF 64 . 170	1 1/2"	25.4	7.94	272	322	385	545	667	861	1220	1720
	3B TF 72 . 170	1 1/2"	28.6	7.94	309	366	438	619	758	978	1380	1960
	3B TF 88 . 170	2"	34.9	11.1	451	534	638	902	1110	1430	2020	2850
	3B TF 96 . 170	2"	38.1	11.1	570	674	806	1140	1400	1800	2550	3600
3B TF 112 . 170	3"	44.5	14.3	825	976	1170	1650	2020	2610	3690	5220	
3B TF 128 . 170	3"	50.8	14.3	1090	1290	1550	2190	2680	3460	4891	6920	

* Different materials are available upon request

** Different connection sizes are available upon request

B = bore diameter E = narrowest free cross section

Order No.: CODE . CONNETION . MATERIAL

Example.: 3B TF 06 . 060 . 014 . 2

Type 3B TF with mentioned Q(lpm)@P(bar), Spray angle: 60°, 1/4", S.S.316