

# TFXP

## Largest Free Passage

### DESIGN FEATURES

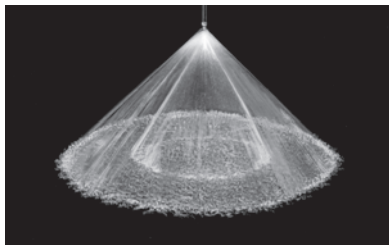
- Largest free passage in the original spiral nozzle invented by BETE and continuously improved!
- Passes particles equal to orifice size
- Clog-resistant
- One-piece, extra-heavy construction
- High energy efficiency
- Male connection

### SPRAY CHARACTERISTICS

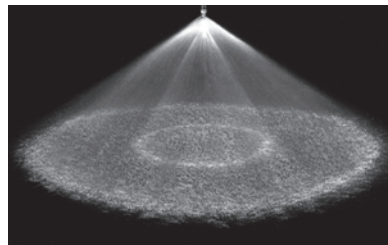
- Wide range of flow rates
  - Fine atomization
- Spray pattern:** Full Cone  
(Hollow Cone available by special order)
- Spray angles:** 90° and 120°
- Flow rates:** 9.67 to 10700 l/min



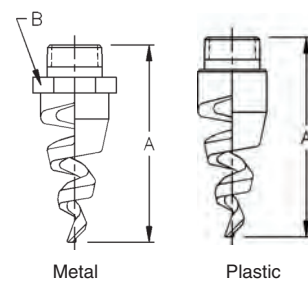
FULL CONE



Full Cone 90° (XPN)



Full Cone 120° (XP)



Dimensions are approximate. Check with BETE for critical dimension applications.

### TFXP Flow Rates and Dimensions

Full Cone, 90° (XPN) and 120° (XP) Spray Angles, 3/8" to 4" Pipe Sizes, BSP or NPT

Male Pipe Size	Nozzle Number	K Factor	LITERS PER MINUTE @ BAR							PTFE not recommended at pressures above red line Metal ONLY at pressures above green line			Approx. Free Pass. & Orifice Dia. (mm)	Approximate Dimensions (mm) For Metal Only		Wt. (kg)		
			0.5 bar	0.7 bar	1 bar	2 bar	3 bar	5 bar	10 bar	20 bar	A	B		Metal	Plas.			
3/8	TF12	13.7	9.67	11.4	13.7	19.3	23.7	30.6	43.2	61.1	4.76	73.1	22.2	0.09	0.02			
	TF14	18.5	13.1	15.4	18.5	26.1	32.0	41.3	58.4	82.6						5.56	73.1	22.2
	TF16	24.2	17.1	20.2	24.2	34.2	41.8	54.0	76.4	108						6.35	69.9	22.2
	TF20	37.6	26.6	31.5	37.6	53.2	65.1	84.1	119	168						7.94	79.5	22.2
1/2	TF24	54.9	38.8	46.0	54.9	77.7	95.1	123	174	246	9.53	88.1	26.9	0.19	0.03			
	TF28	75.2	53.2	62.9	75.2	106	130	168	238	336	11.1	88.9	26.9					
3/4	TF32	95.7	67.7	80.1	95.7	135	166	214	303	428	12.7	137	44.5	0.71	0.10			
1	TF40	153	108	128	153	216	264	341	483	683	15.9	133	50.8	0.71	0.11			
	TF48	216	153	181	216	306	375	484	685	968	19.1	168	50.8	0.93	0.21			
1 1/2	TF56	294	208	246	294	416	509	657	930	1315	22.2	177	63.5	1.81	0.27			
	TF64	385	272	322	385	545	667	861	1220	1720	25.4	176	63.5	1.11	0.24			
	TF72	438	309	366	438	619	758	978	1380	1960	28.6	188	63.5	1.27	0.24			
2	TF88	638	451	534	638	902	1110	1430	2020	2850	34.9	267	76.2	2.32	0.57			
	TF96	806	570	674	806	1140	1400	1800	2550	3600	38.1	279	76.2	2.86	0.57			
3	TF112	1167	825	976	1170	1650	2020	2610	3690	5220	44.5**	305	88.9	3.80	0.62			
	TF128	1547	1090	1290	1550	2190	2680	3460	4890	6920	50.8**	297	88.9	4.42	0.68			
4	TF160	2393	1690	2000	2390	3380	4140	5350	7570	10700	63.5**	305	114	7.08	0.85			

Flow Rate ( $l/min$ ) =  $K \sqrt{bar}$       \*\*Free passage is 38.1 mm

Standard Materials: Brass, 316 Stainless Steel, PVC, Polypropylene, Cobalt Alloy 6, and PTFE.

Spray angle performance varies with pressure. Contact BETE for specific data on critical applications.