

# WT

HOLLOW CONE

## Right Angle/Hollow Cone

### DESIGN FEATURES

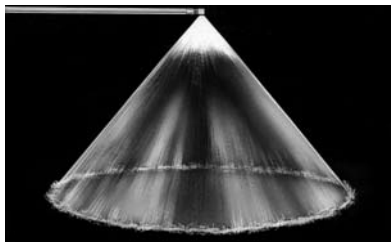
- Conventional design using tangential whirl method of atomization
- Durable
- Use where a circular pattern is required or in large area multiple installations where there is considerable overlapping of sprays
- Male and female connections
- Large free passage

### SPRAY CHARACTERISTICS

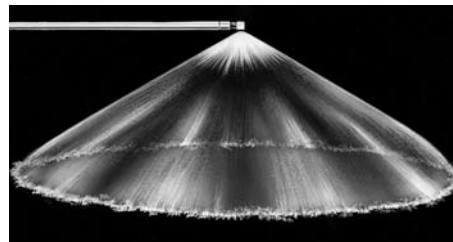
**Spray pattern:** Hollow Cone  
**Spray angles:** 70° to 120°  
**Flow rates:** 0.125 to 145 l/min



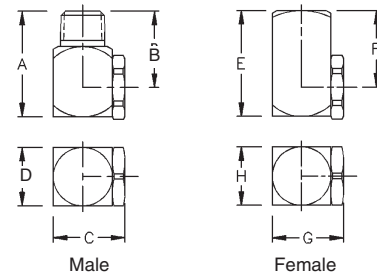
Male Metal



Hollow Cone 80°



Hollow Cone 120°



Male

Female

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

### WT Flow Rates and Dimensions

Hollow Cone, Medium and Extra Wide Spray Angles, 1/8" to 3/4" Pipe Sizes, BSP or NPT

Male or Female Pipe Size	Nozzle Number	Spray Angle	K Factor	LITERS PER MINUTE @ BAR								Approx. (mm)		Dimensions for Metal Only (mm)								Wt. (g)	
				0.3 bar	0.5 bar	0.7 bar	1 bar	2 bar	3 bar	5 bar	7 bar	Inlet Dia.	Orifice Dia.	A	B	C	D	E	F	G	H	Metal	Plas.
1/8	WT10	70° 110°	0.228	0.125	0.161	0.191	0.228	0.322	0.395	0.510	0.603	1.02	1.17	28.4	22.4	16.0	12.7	22.4	16.0	16.5	12.7	28	14
	WT20	70° 115°	0.456	0.250	0.322	0.381	0.456	0.645	0.789	1.02	1.21	1.52	1.52										
	WT40	70°	0.912	0.499	0.645	0.763	0.912	1.29	1.58	2.04	2.41	2.29	2.29										
	WT50	115°	1.14	0.624	0.806	0.953	1.14	1.61	1.97	2.55	3.01	2.29	2.29										
	WT60	70° 115°	1.37	0.749	0.967	1.14	1.37	1.93	2.37	3.06	3.62	2.54	2.79										
	WT70	115°	1.60	0.874	1.13	1.33	1.60	2.26	2.76	3.57	4.22	2.54	2.79										
	WT80	120°	1.82	0.999	1.29	1.53	1.82	2.58	3.16	4.08	4.82	2.79	3.05										
	WT100	70° 115°	2.28	1.25	1.61	1.91	2.28	3.22	3.95	5.10	6.03	3.30	3.30										
	WT130	120°	2.96	1.62	2.09	2.48	2.96	4.19	5.13	6.62	7.84	3.56	3.56										
	WT160	70°	3.65	2.00	2.58	3.05	3.65	5.16	6.32	8.15	9.65	3.81	4.06										
WT180	120°	4.10	2.25	2.90	3.43	4.10	5.80	7.10	9.17	10.9	4.32	4.06											
WT200	70°	4.56	2.50	3.22	3.81	4.56	6.45	7.89	10.2	12.1	4.32	4.83											
1/4	WT12	80°	0.273	0.150	0.193	0.229	0.273	0.387	0.474	0.611	0.724	1.02	1.27	33.3	25.4	20.1	16.0	28.4	20.6	20.1	16.0	85	21
	WT18	80°	0.410	0.225	0.290	0.343	0.410	0.580	0.710	0.917	1.09	1.52	1.52										
	WT20	70° 110°	0.456	0.250	0.322	0.381	0.456	0.645	0.789	1.02	1.21	1.52	1.52										
	WT27	80°	0.615	0.337	0.435	0.515	0.615	0.870	1.07	1.38	1.63	1.78	2.03										
	WT35	100°	0.798	0.437	0.564	0.667	0.798	1.13	1.38	1.78	2.11	2.03	2.29										
	WT40	70° 80°	0.912	0.499	0.645	0.763	0.912	1.29	1.58	2.04	2.41	2.03	2.29										
	WT42	120°	0.957	0.524	0.677	0.801	0.957	1.35	1.66	2.14	2.53	2.03	2.29										
	WT48	105°	1.09	0.599	0.773	0.915	1.09	1.55	1.89	2.45	2.89	2.29	2.79										

$$\text{Flow Rate (l/min)} = K \sqrt{\text{bar}}$$

Standard Materials: Brass, 303 Stainless Steel, and 316 Stainless Steel.

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

TO ORDER: specify pipe size, connection type, nozzle number, spray angle, and material.

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

**WT Flow Rates and Dimensions**

Hollow Cone, Medium and Extra Wide Spray Angles, 1/8" to 3/4" Pipe Sizes, BSP or NPT

Male or Female Pipe Size	Nozzle Number	Spray Angle	K Factor	LITERS PER MINUTE @ BAR								Approx. (mm)		Dimensions for Metal Only (mm)								Wt. (g)	
				0.3 bar	0.5 bar	0.7 bar	1 bar	2 bar	3 bar	5 bar	7 bar	Inlet Dia.	Orifice Dia.	A	B	C	D	E	F	G	H	Metal	Plas.
1/4	WT53	80°	1.21	0.662	0.854	1.01	1.21	1.71	2.09	2.70	3.20	2.29	2.79	33.3	25.4	20.1	16.0	28.4	20.6	20.1	16.0	85	21
	WT60	70°	1.37	0.749	0.967	1.14	1.37	1.93	2.37	3.06	3.62	2.54	2.79										
	WT68	120°	1.55	0.849	1.10	1.30	1.55	2.19	2.68	3.47	4.10	2.54	3.30										
	WT80	120°	1.82	0.999	1.29	1.53	1.82	2.58	3.16	4.08	4.82	3.30	3.30										
	WT100	70° 115°	2.28	1.25	1.61	1.91	2.28	3.22	3.95	5.10	6.03	3.30	3.56										
	WT130	120°	2.96	1.62	2.09	2.48	2.96	4.19	5.13	6.62	7.84	3.81	4.06										
	WT150	120°	3.42	1.87	2.42	2.86	3.42	4.83	5.92	7.64	9.04	4.06	4.32										
	WT160	70°	3.65	2.00	2.58	3.05	3.65	5.16	6.32	8.15	9.65	4.06	4.32										
	WT180	120°	4.10	2.25	2.90	3.43	4.10	5.80	7.10	9.17	10.9	4.57	4.57										
	WT200	70° 120°	4.56	2.50	3.22	3.81	4.56	6.45	7.89	10.19	12.1	4.57	4.83										
	WT220	120°	5.01	2.75	3.55	4.19	5.01	7.09	8.68	11.2	13.3	4.57	5.59										
	WT240	120°	5.47	3.00	3.87	4.58	5.47	7.73	9.47	12.2	14.5	5.08	5.08										
	WT260	80°	5.93	3.25	4.19	4.96	5.93	8.38	10.3	13.2	15.7	5.08	5.08										
	WT280	80°	6.38	3.49	4.51	5.34	6.38	9.02	11.1	14.3	16.9	5.08	5.59										
	WT300	70° 100°	6.84	3.74	4.83	5.72	6.84	9.67	11.8	15.3	18.1	5.08	5.59										
	WT340	80°	7.75	4.24	5.48	6.48	7.75	11.0	13.4	17.3	20.5	5.59	6.10										
	WT400	80°	9.12	4.99	6.45	7.63	9.12	12.9	15.8	20.4	24.1	6.35	7.11										
	WT480	80°	10.9	5.99	7.73	9.15	10.9	15.5	18.9	24.5	28.9	6.35	6.86										
	WT580	80°	13.2	7.24	9.35	11.1	13.2	18.7	22.9	29.6	35.0	6.86	7.62										
	WT640	80°	14.6	7.99	10.3	12.2	14.6	20.6	25.3	32.6	38.6	6.86	7.62										
WT680	80°	15.5	8.49	11.0	13.0	15.5	21.9	26.8	34.7	41.0	6.86	8.64											
WT800	80°	18.2	9.99	12.9	15.3	18.2	25.8	31.6	40.8	48.2	6.86	8.64											
3/8	WT100	70°	2.28	1.25	1.61	1.91	2.28	3.22	3.95	5.10	6.03	3.56	3.81	38.1	28.4	24.6	19.1	34.0	24.6	19.1	85	21	
	WT130	120°	2.96	1.62	2.09	2.48	2.96	4.19	5.13	6.62	7.84	3.56	4.57										
	WT150	120°	3.42	1.87	2.42	2.86	3.42	4.83	5.92	7.64	9.04	4.32	4.57										
	WT160	70°	3.65	2.00	2.58	3.05	3.65	5.16	6.32	8.15	9.65	4.32	4.57										
	WT180	120°	4.10	2.25	2.90	3.43	4.10	5.80	7.10	9.17	10.9	4.32	4.83										
	WT200	70° 115°	4.56	2.50	3.22	3.81	4.56	6.45	7.89	10.2	12.1	4.83	5.08										
	WT220	120°	5.01	2.75	3.55	4.19	5.01	7.09	8.68	11.2	13.3	4.83	5.08										
	WT240	125°	5.47	3.00	3.87	4.58	5.47	7.73	9.47	12.2	14.5	4.83	5.08										
	WT260	120°	5.93	3.25	4.19	4.96	5.93	8.38	10.3	13.2	15.7	4.83	5.84										
	WT270	120°	6.15	3.37	4.35	5.15	6.15	8.70	10.7	13.8	16.3	5.08	5.84										
	WT300	70° 115°	6.84	3.74	4.83	5.72	6.84	9.67	11.8	15.3	18.1	5.08	5.84										
	WT350	115°	7.98	4.37	5.64	6.67	7.98	11.3	13.8	17.8	21.1	6.10	6.35										
	WT400	70° 105°	9.12	4.99	6.45	7.63	9.12	12.9	15.8	20.4	24.1	6.10	6.86										
	WT440	105°	10.0	5.49	7.09	8.39	10.0	14.2	17.4	22.4	26.5	6.60	7.62										
	WT500	70° 105°	11.4	6.24	8.06	9.53	11.4	16.1	19.7	25.5	30.1	6.60	7.11										
	WT560	105°	12.8	6.99	9.02	10.7	12.8	18.0	22.1	28.5	33.8	6.60	7.87										
WT600	70°	13.7	7.49	9.67	11.4	13.7	19.3	23.7	30.6	36.2	7.87	7.87											
WT1000	70°	22.8	12.5	16.1	19.1	22.8	32.2	39.5	51.0	60.3	8.64	9.65											
1/2	WT500	70°	11.4	6.24	8.06	9.53	11.4	16.1	19.7	25.5	30.1	7.62	7.62	47.5	34.8	31.8	25.4	46.0	33.3	31.8	25.4	276	113
	WT600	70°	13.7	7.49	9.67	11.4	13.7	19.3	23.7	30.6	36.2	8.38	7.87										
	WT800	70°	18.2	9.99	12.9	15.3	18.2	25.8	31.6	40.8	48.2	9.14	9.14										
	WT1000	70° 110°	22.8	12.5	16.1	19.1	22.8	32.2	39.5	51.0	60.3	9.14	11.2										
	WT1200	70°	27.3	15.0	19.3	22.9	27.3	38.7	47.4	61.1	72.4	10.2	12.2										
3/4	WT800	70°	18.2	9.99	12.9	15.3	18.2	25.8	31.6	40.8	48.2	9.14	9.65	57.2	41.1	38.1	31.8	55.6	39.6	38.1	31.8	397	227
	WT1000	70°	22.8	12.5	16.1	19.1	22.8	32.2	39.5	51.0	60.3	10.2	11.2										
	WT1200	70°	27.3	15.0	19.3	22.9	27.3	38.7	47.4	61.1	72.4	11.2	11.2										
	WT1400	80°	31.9	17.5	22.6	26.7	31.9	45.1	55.3	71.3	84.4	11.9	12.2										
	WT1600	80° 115°	36.5	20.0	25.8	30.5	36.5	51.6	63.2	81.5	96.5	12.2	13.0										
	WT1800	80°	41.0	22.5	29.0	34.3	41.0	58.0	71.0	91.7	109	12.7	14.2										
	WT2000	90°	45.6	25.0	32.2	38.1	45.6	64.5	78.9	102	121	13.2	15.0										
	WT2200	90°	50.1	27.5	35.5	41.9	50.1	70.9	86.8	112	133	13.5	16.0										
WT2400	90°	54.7	30.0	38.7	45.8	54.7	77.3	94.7	122	145	14.0	17.5											

Flow Rate ( $l/min$ ) =  $K \sqrt{bar}$

Standard Materials: Brass, 303 Stainless Steel, and 316 Stainless Steel.

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



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CALL 413-772-0846  
Call for the name of your nearest BETE representative.