

# TD/TD-K

## Twist & Dry® Hollow Cone

### DESIGN FEATURES

- Patented locking mechanism for quick and easy change-out and maintenance
- Choose TD-K to operate at high pressures for greater yield capacity
- PEEK backup ring with Viton® 90 O-rings or Silicone (for higher temperatures)
- Female-threaded or butt weld pipe connections
- Easy assembly, no special tools required
- Orifice size: 0.864mm through 3.99mm

- Interchangeable swirl and orifice discs for variable patterns and flow rates
- Please visit [www.bete.com/td-k.html](http://www.bete.com/td-k.html) for more information on the TD-K nozzle

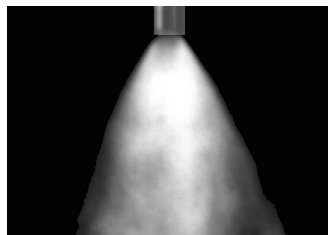
### SPRAY CHARACTERISTICS

- Hollow Cone
- Flow rates: 35.3 to 5,970 l/hr
- Spray angle: 50°, 55°, 60°, 65°, 70°, 75°, 80°

Check valve available upon request



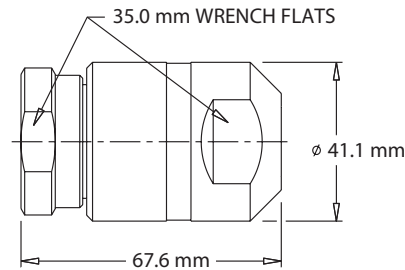
Female



70° Hollow Cone



Cutaway view of carrier showing lugs and BETE's unique locking design



Pipe Size	Weight (g)
1/4"	539
3/8"	524
1/2"	510
3/4"	482

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

### Twist & Dry/TD-K Flow Rates and Dimensions Hollow Cone, 50° to 80° Spray Angles, 1/4", 3/8", 1/2" and 3/4" Pipe Size NPT, BSP or Welded

Female Pipe Size	Nozzle Number	Spray Angle	Swirl	Orifice (mm)	K Factor	LITERS PER HOUR @ BAR											
						15 bar	35 bar	50 bar	70 bar	90 bar	100 bar	120 bar	150 bar	175 bar	200 bar	275 bar	350 bar
1/4"	TD2-34	70°	SW2	0.864	9.12	35.3	53.9	64.5	76.3	86.5	91.2	99.9	112	121	129	151	171
	TD1-37	80°	SW1	0.940		44.1	67.4	80.6	95.3	108	114	125	140	151	161	189	213
3/8"	TD4-34	60°	SW4	0.864	13.7	53.0	80.9	96.7	114	130	137	150	167	181	193	227	256
	TD3-40	70°	SW3	1.02		61.8	94.4	113	133	151	160	175	195	211	226	265	298
1/2"	TD4-43	65°	SW4	1.09	18.2	70.6	108	129	153	173	182	200	223	241	258	302	341
	TD3-49	75°	SW3	1.24		79.4	121	145	172	195	205	225	251	271	290	340	384
3/4"	TD6-37	50°	SW6	0.940	20.5	88.3	135	161	191	216	228	250	279	301	322	378	426
	TD5-40	60°	SW5	1.02		97.1	148	177	210	238	251	275	307	332	355	416	469
3/4"	TD4-46	70°	SW4	1.17	25.1	97.1	148	177	210	238	251	275	307	332	355	416	469
	TD3-55	75°	SW3	1.40		97.1	148	177	210	238	251	275	307	332	355	416	469
3/4"	TD6-40	50°	SW6	1.02	22.8	88.3	135	161	191	216	228	250	279	301	322	378	426
	TD5-43	60°	SW5	1.09		97.1	148	177	210	238	251	275	307	332	355	416	469
3/4"	TD4-52	70°	SW4	1.32	25.1	97.1	148	177	210	238	251	275	307	332	355	416	469
	TD5-49	60°	SW5	1.24		97.1	148	177	210	238	251	275	307	332	355	416	469
3/4"	TD4-58	70°	SW4	1.47	25.1	97.1	148	177	210	238	251	275	307	332	355	416	469
	TD3-67	80°	SW3	1.70		97.1	148	177	210	238	251	275	307	332	355	416	469

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

Standard Materials: 316 Stainless Steel, Tungsten Carbide. Other materials available.

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

SPECIAL PURPOSE

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

**Twist & Dry Flow Rates and Dimensions**  
**Hollow Cone, 50° to 80° Spray Angles, 1/4", 3/8", 1/2" and 3/4" Pipe Size NPT, BSP or Welded**

Female Pipe Size	Nozzle Number	Spray Angle	Dia Swirl (mm)	K Factor	LITERS PER HOUR @ BAR											
					15 bar	35 bar	50 bar	70 bar	90 bar	100 bar	120 bar	150 bar	175 bar	200 bar	275 bar	350 bar
	TD6-46	55°	SW6 1.17	27.4	106	162	193	229	259	273	300	335	362	387	453	512
	TD5-52	65°	SW5 1.32													
	TD4-61	75°	SW4 1.55													
	TD3-70	80°	SW3 1.78													
	TD6-52	55°	SW6 1.32	31.9	124	189	226	267	303	319	349	391	422	451	529	597
	TD5-58	65°	SW5 1.47													
	TD4-70	75°	SW4 1.78													
	TD7-49	50°	SW7 1.24	36.5	141	216	258	305	346	365	399	447	482	516	605	682
	TD6-55	60°	SW6 1.40													
	TD5-64	70°	SW5 1.63													
	TD4-76	80°	SW4 1.93													
	TD7-52	50°	SW7 1.32	41.0	159	243	290	343	389	410	449	502	543	580	680	767
	TD6-61	60°	SW6 1.55													
	TD5-70	70°	SW5 1.78													
	TD7-58	55°	SW7 1.47	45.6	177	270	322	381	432	456	499	558	603	645	756	853
	TD6-64	65°	SW6 1.63													
	TD5-76	75°	SW5 1.93													
	TD4-91	80°	SW4 2.31													
	TD7-61	55°	SW7 1.55	50.1	194	297	355	419	476	501	549	614	663	709	831	938
	TD6-70	65°	SW6 1.78													
	TD5-82	75°	SW5 2.08													
	TD7-64	55°	SW7 1.63	54.7	212	324	387	458	519	547	599	670	724	773	907	1020
	TD6-76	65°	SW6 1.93													
	TD5-88	75°	SW5 2.24													
	TD8-67	50°	SW8 1.70	68.4	265	404	483	572	649	684	749	837	904	967	1130	1280
	TD7-76	60°	SW7 1.93													
	TD6-88	70°	SW6 2.24													
	TD5-109	80°	SW5 2.77													
	TD8-76	50°	SW8 1.93	82.0	318	485	580	686	778	820	899	1010	1090	1160	1360	1540
	TD7-85	65°	SW7 2.16													
	TD6-103	75°	SW6 2.62													
	TD8-82	55°	SW8 2.08	95.7	371	566	677	801	908	957	1050	1170	1270	1350	1590	1790
	TD7-97	65°	SW7 2.46													
	TD6-115	75°	SW6 2.92													
	TD9-82	50°	SW9 2.08	109	424	647	773	915	1040	1090	1200	1340	1450	1550	1810	2050
	TD8-91	60°	SW8 2.31													
	TD7-106	70°	SW7 2.69													
	TD6-127	80°	SW6 3.23													
	TD9-88	50°	SW9 2.24	123	477	728	870	1030	1170	1230	1350	1510	1630	1740	2040	2300
	TD8-100	60°	SW8 2.54													
	TD7-118	70°	SW7 3.00													
	TD6-142	80°	SW6 3.61													
	TD9-94	55°	SW9 2.39	137	530	809	967	1140	1300	1370	1500	1680	1810	1930	2270	2560
	TD8-106	65°	SW8 2.69													
	TD7-127	75°	SW7 3.23													
	TD9-106	55°	SW9 2.69	160	618	944	1130	1340	1510	1600	1750	1950	2110	2260	2650	2980
	TD8-121	65°	SW8 3.07													
	TD7-145	75°	SW7 3.68													
	TD10-103	50°	SW10 2.62	182	706	1080	1290	1530	1730	1820	2000	2230	2410	2580	3020	3410
	TD9-115	60°	SW9 2.92													
	TD8-133	70°	SW8 3.38													
	TD10-118	55°	SW10 3.00	205	794	1210	1450	1720	1950	2050	2250	2510	2710	2900	3400	3840
	TD9-127	60°	SW9 3.23													
	TD8-145	70°	SW8 3.68													
	TD9-136	65°	SW9 3.45	228	883	1350	1610	1910	2160	2280	2500	2790	3020	3220	3780	4260
	TD8-157	75°	SW8 3.99													
	TD9-148	65°	SW9 3.76	251	971	1480	1770	2100	2380	2510	2750	3070	3320	3550	4160	4690
	TD10-136	60°	SW10 3.45	274	1060	1620	1930	2290	2590	2740	3000	3350	3620	3870	4540	5120
	TD9-154	70°	SW9 3.91													
	TD10-151	60°	SW10 3.84	296	1150	1750	2100	2480	2810	2960	3250	3630	3920	4190	4910	5540
	TD10-157	65°	SW10 3.99	319	1240	1890	2260	2670	3030	3190	3500	3910	4220	4510	5290	5970

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

Standard Materials: 316 Stainless Steel, Tungsten Carbide. Other materials available.

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