

Tan-Jet® Hollow Cone Wide Angle Spray Nozzles

[Home](#) > [Industrial Spray Nozzles](#) > [Tan-Jet® Hollow Cone Wide Angle Spray Nozzles](#)



Nozzle Design Features and Benefits

Steinen has design a superior truly wide angle hollow cone spray nozzle, the Tan-Jet® wide angle hollow cone nozzle. The advantage of this nozzle is the vortex created as a result of incoming liquid introduced at 90°. As the liquid leaves the nozzle, the liquid is uniformly atomized and a very wide and distinct hollow cone pattern is achieved.

The Tan-Jet® wide angle hollow cone nozzle is available in female NPT (Type TWF) or male threads (Type TWM). Numerous flow rates are available from 0.10 gallons per minute (GPM) up to 31 GPM, at pressures typically in the range of 5 PSI to 100PSI, in various types of steel, stainless steel and brass.

For complete technical specifications, see the table at the bottom of the page. A PDF is also accessible at the bottom of this page.

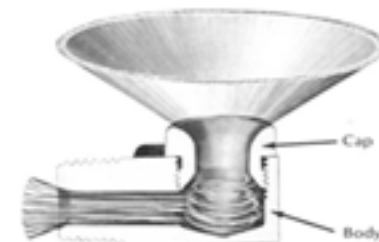
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Type TWF & TWM



Spray Characteristics - Uniform hollow cone, wide angle spray pattern with fine atomization at all pressures. Nozzles typically spray between 105 and 120 degree spray angles. See product chart below for the angle you can expect at a certain flow rate and pressure.

Construction - These nozzles are non-clogging because they do not contain any cores or internal vanes. Nozzles are a two piece design with removable caps. Nozzles available in 1/8" 1/4", 3/8", 1/2" and 3/4" male or female NPT pipe size connections.



Materials - Stainless steel spray nozzles (303 stainless as well as 316 stainless), brass, steel and other materials available upon request.

[Tan-Jet® Hollow Cone Wide Angle Spray Nozzles PDF Catalog - click below](#)

Nozzle

Applications:

- scale breaking nozzles
- descaling nozzles
- dust control nozzles
- mold cooling nozzles
- oil coating nozzles
- circuit board nozzles
- metal processing nozzles
- parts washing nozzles
- food processing nozzles
- rinse nozzles
- wash nozzles
- pulp and paper mill nozzles
- degreasing nozzles
- foam nozzles
- steel mill nozzle applications
- metal cleaning nozzles
- phosphate coating nozzles
- roll cooling nozzles



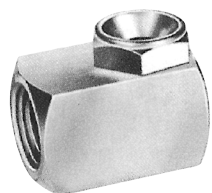
Type	Size	Material	Capacity (GPM)	Capacity in Gallons per Minute										Spray Angle (°)		
				5	10	15	20	25	30	35	40	45	50			
TWF	1/8"	303 SS	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	105-120
	1/4"	303 SS	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	105-120
	3/8"	303 SS	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	105-120
	1/2"	303 SS	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	105-120
TWM	1/8"	303 SS	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	105-120
	1/4"	303 SS	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	105-120
	3/8"	303 SS	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	105-120
	1/2"	303 SS	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	105-120

Type	Size	Male Connection				Female Connection			
		Part	Length	Thread	Weight	Part	Length	Thread	Weight
TWF	1/8"	100	0.50	1/8-27	0.05	100	0.50	1/8-27	0.05
TWF	1/4"	100	0.50	1/4-18	0.05	100	0.50	1/4-18	0.05
TWF	3/8"	100	0.50	3/8-18	0.05	100	0.50	3/8-18	0.05
TWF	1/2"	100	0.50	1/2-14	0.05	100	0.50	1/2-14	0.05
TWM	1/8"	100	0.50	1/8-27	0.05	100	0.50	1/8-27	0.05
TWM	1/4"	100	0.50	1/4-18	0.05	100	0.50	1/4-18	0.05
TWM	3/8"	100	0.50	3/8-18	0.05	100	0.50	3/8-18	0.05
TWM	1/2"	100	0.50	1/2-14	0.05	100	0.50	1/2-14	0.05

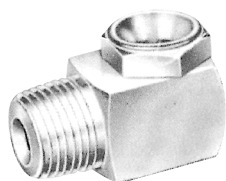
TAN-JET *HOLLOW CONE* NOZZLES

WIDE ANGLE SPRAY
TYPES TWF, TWM

Capacities: .20 to 20 G.P.M.



Female Connection
Type TWF



Male Connection
Type TWM

Capacity G.P.M. @ 40 PSI	Pipe Size	Catalog No.		Approx. Orifice Diameter*	CAPACITY IN GALLONS PER MINUTE (At Various Pressures in Pounds Per Square Inch)										SPRAY ANGLES (At Various PSI)		
		Female	Male		5	7	10	15	20	30	40	60	80	100	20	40	80
		.20	1/8		TWF21	TWM21	.062	—	—	.10	.12	.14	.17	.20	.24	.28	.31
.40	1/8	TWF41	TWM41	.089	—	.16	.20	.25	.28	.35	.40	.48	.56	.63	120°	115°	110°
.60	1/8	TWF61	TWM61	.109	—	.25	.30	.37	.42	.52	.60	.73	.85	.95	120°	115°	110°
.80	1/8	TWF81	TWM81	.113	—	.33	.40	.49	.57	.71	.80	.96	1.1	1.3	130°	125°	120°
1.0	1/8	TWF101	TWM101	.125	—	.42	.50	.61	.70	.86	1.0	1.2	1.4	1.6	125°	120°	110°
1.5	1/8	TWF151	TWM151	.144	.53	.63	.75	.92	1.1	1.3	1.5	1.8	2.1	2.4	125°	120°	110°
2.0	1/8	TWF201	TWM201	.171	.71	.84	1.0	1.2	1.4	1.7	2.0	2.5	2.8	3.2	118°	115°	105°
.40	1/4	TWF42	TWM42	.086	—	.16	.20	.25	.28	.35	.40	.48	.56	.63	120°	115°	107°
.60	1/4	TWF62	TWM62	.096	—	.25	.30	.37	.42	.52	.60	.73	.85	.95	120°	115°	110°
1.0	1/4	TWF102	TWM102	.120	—	.42	.50	.61	.70	.86	1.0	1.2	1.4	1.6	120°	115°	110°
1.5	1/4	TWF152	TWM152	.140	.55	.63	.75	.92	1.1	1.3	1.5	1.8	2.1	2.4	120°	115°	110°
2.0	1/4	TWF202	TWM202	.187	.71	.84	1.0	1.2	1.4	1.7	2.0	2.5	2.8	3.2	120°	115°	110°
2.5	1/4	TWF252	TWM252	.187	.91	1.1	1.2	1.5	1.8	2.2	2.5	3.1	3.5	3.9	120°	115°	110°
3.0	1/4	TWF302	TWM302	.205	1.1	1.3	1.5	1.8	2.1	2.6	3.0	3.7	4.2	4.7	120°	115°	110°
1.0	3/8	TWF103	TWM103	.128	—	.42	.50	.61	.70	.86	1.0	1.2	1.4	1.6	120°	118°	115°
1.5	3/8	TWF153	TWM153	.140	.55	.63	.75	.92	1.1	1.3	1.5	1.8	2.1	2.4	120°	118°	118°
2.0	3/8	TWF203	TWM203	.177	.71	.84	1.0	1.2	1.4	1.7	2.0	2.5	2.8	3.2	120°	115°	113°
2.5	3/8	TWF253	TWM253	.205	.91	1.1	1.2	1.5	1.8	2.2	2.5	3.1	3.5	3.9	120°	113°	108°
3.0	3/8	TWF303	TWM303	.221	1.1	1.3	1.5	1.8	2.1	2.6	3.0	3.7	4.2	4.7	108°	105°	100°
4.0	3/8	TWF403	TWM403	.250	1.4	1.7	2.0	2.4	2.8	3.5	4.0	4.9	5.6	6.3	105°	100°	100°
5.0	3/8	TWF503	TWM503	.272	1.8	2.1	2.4	3.1	3.5	4.3	5.0	6.1	7.1	7.9	103°	97°	95°
2.5	1/2	TWF254	TWM254	.221	.91	1.1	1.2	1.5	1.8	2.2	2.5	3.1	3.5	3.9	120°	115°	113°
3.0	1/2	TWF304	TWM304	.242	1.1	1.3	1.5	1.08	2.1	2.6	3.0	3.7	4.2	4.7	118°	115°	113°
4.0	1/2	TWF404	TWM404	.272	1.4	1.7	2.0	2.4	2.8	3.5	4.0	4.9	5.6	6.3	118°	110°	105°
5.0	1/2	TWF504	TWM504	.281	1.8	2.1	2.4	3.1	3.5	4.3	5.0	6.1	7.1	7.9	113°	110°	105°
8.0	1/2	TWF804	TWM804	.312	2.8	3.3	4.0	4.9	5.7	6.9	8.0	9.8	11.3	12.6	110°	105°	103°
10.0	1/2	TWF1004	TWM1004	.343	3.5	4.2	4.9	6.1	7.1	8.5	10.0	12.3	14.2	15.8	108°	105°	102°
12.0	3/4	TWF1206	TWM1206	.375	4.3	5.0	6.0	7.3	8.5	10.4	12.0	14.7	17.0	19.0	108°	105°	103°
14.0	3/4	TWF1406	TWM1406	.437	5.0	5.8	7.0	8.5	9.9	12.1	14.0	17.1	19.8	22.1	108°	105°	103°
16.0	3/4	TWF1606	TWM1606	.453	5.7	6.7	8.0	9.8	11.3	13.8	16.0	19.6	22.6	25.3	108°	105°	103°
20.0	3/4	TWF2006	TWM2006	.500	7.1	8.4	10.0	12.2	14.1	17.3	20.0	24.5	28.2	31.6	108°	105°	103°

*Determines maximum foreign particle size that will flow through nozzle without clogging.

TAN-JET HOLLOW CONE DIMENSIONS AND WEIGHTS

		MALE CONNECTION					FEMALE CONNECTION						
		Pipe Size	Net Weight	A	B	C	D	Pipe Size	Net Weight	A	B	C	D
		1/8	1 oz.	15/16	21/32	3/8	5/8	1/8	3/4 oz.	7/8	19/32	3/8	5/8
		1/4	1 3/4 oz.	1 1/4	29/32	1/2	13/16	1/4	1 1/2 oz.	1 1/8	25/32	1/2	13/16
		3/8	3 oz.	1 7/8	1 1/32	5/8	1	3/8	2 3/4 oz.	1 11/32	15/16	5/8	1
		1/2	5 1/2 oz.	1 13/16	1 11/32	23/32	15/32	1/2	5 1/4 oz.	1 5/8	15/32	3/4	1 7/32
		3/4	11 3/4 oz.	2 1/8	1 15/32	31/32	1 19/32	3/4	11 oz.	2 1/16	1 13/32	31/32	1 19/32