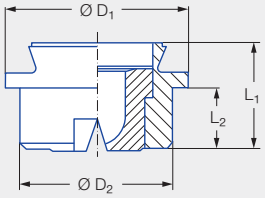
Low pressure flat fan nozzles with dovetail guide
Series 664/665

Features:
- Uniform, parabolic liquid distribution
- Stable spray angle
- Spray automatically aligned approx. 15° to the longitudinal axis of the pipe via dovetail guide
- Assembly with retaining nut
- Non-clogging
- High spray energy

Series 664/665



Applications:
- Cleaning installations
- Spray pipes
- Roll cooling
- Cooling pipes
- Cooling of rolled stock

Code	Dimensions [in]				Weight [lb]
	L_1	L_2	Ø D_1	Ø D_2	
Assembly with retaining nut 3/4 BSPP and dovetail guide	0.55	0.31	0.94	0.79	.08

Spray angle	Ordering number				Equivalent bore diameter A [in]	Narrowest free cross section Ø [in]	V̇ water [gal/min]							Spray width B [in] (at p = 75 psi)	
	Type	Material number 16 Stainless steel 303	17[1] Stainless steel 316Ti/ Stainless steel 316L	30 Brass			p [psi]								
							7	15	30	45	75	liters per minute 5 bar	145	H = 10 [in]	H = 20 [in]
20°	664.721	●	●	●	0.12	0.10	0.82	1.20	1.69	2.07	2.68	**9.96**	3.72	4	7
	664.801	●	●	●	0.16	0.13	1.30	1.90	2.69	3.29	4.25	**15.81**	5.91	4	7
	664.881	●	●	●	0.20	0.16	2.08	3.04	4.30	5.26	6.80	**25.30**	9.45	4	7
	664.921	●	●	●	0.22	0.17	2.60	3.80	5.37	6.58	8.49	**31.62**	11.81	4	7
	664.961	●	●	●	0.24	0.20	3.24	4.75	6.72	8.23	10.62	**39.53**	14.77	4	7
30°	664.722	●	●	●	0.12	0.09	0.82	1.20	1.69	2.07	2.68	**9.96**	3.72	6	10
	664.762	●	●	●	0.14	0.11	1.04	1.52	2.15	2.63	3.40	**12.65**	4.73	6	10
	664.802	●	●	●	0.16	0.12	1.30	1.90	2.69	3.29	4.25	**15.81**	5.91	6	10
	664.882	●	●	●	0.20	0.16	2.08	3.04	4.30	5.26	6.80	**25.30**	9.45	6	11
	664.922	●	●	●	0.22	0.17	2.60	3.80	5.37	6.58	8.49	**31.62**	11.81	6	11
	664.962	●	●	●	0.24	0.20	3.24	4.75	6.72	8.23	10.62	**39.53**	14.77	6	11
	665.042	●		●	0.31	0.25	5.19	7.60	10.75	13.16	16.99	**63.25**	23.63	6	11
	665.122			●	0.39	0.32	8.18	11.97	16.92	20.73	26.76	**99.61**	37.21	6	11

[1] We reserve the right to supply material 316Ti or 316L under material no. 17.

Spray angle	Ordering number				Equivalent bore diameter A [in]	Narrowest free cross section Ø [in]	V̇ water [gal/min]							Spray width B [in] (at p = 75 psi)	
	Type	Material number 16 Stainless steel 303	Material number 17[1] Stainless steel 316Ti/ Stainless steel 316L	Material number 30 Brass			p [psi] 7	15	30	45	75	liters per minute **5 bar**	145	H = 10 [in]	H = 20 [in]
45°	**664.723**	●	●	●	0.12	0.09	0.82	1.20	1.69	2.07	2.68	**9.96**	3.72	9	17
	664.763	●	●	●	0.14	0.10	1.04	1.52	2.15	2.63	3.40	**12.65**	4.73	9	17
	664.803	●	●	●	0.16	0.12	1.32	1.90	2.69	3.29	4.25	**15.81**	5.91	9	17
	664.843	●	●	●	0.18	0.13	1.62	2.37	3.36	4.11	5.31	**19.76**	7.38	9	17
	664.883	●	●	●	0.20	0.15	2.08	3.04	4.30	5.26	6.80	**25.30**	9.45	9	17
	664.923	●	●	●	0.22	0.165	2.60	3.80	5.37	6.58	8.49	**31.62**	11.81	9	17
	664.963	●	●	●	0.24	0.17	3.24	4.75	6.72	8.23	10.62	**39.53**	14.77	9	17
	665.043			●	0.31	0.23	5.19	7.60	10.75	13.16	16.99	**63.25**	23.63	9	17
60°	**664.724**	●	●	●	0.12	0.08	0.82	1.20	1.69	2.07	2.68	**9.96**	3.72	11	22
	664.764	●	●	●	0.14	0.09	1.04	1.52	2.15	2.63	3.40	**12.65**	4.73	11	22
	664.804	●	●	●	0.16	0.10	1.32	1.90	2.69	3.29	4.25	**15.81**	5.91	11	23
	664.844	●	●	●	0.18	0.12	1.62	2.37	3.36	4.11	5.31	**19.76**	7.38	11	23
	664.884	●	●	●	0.20	0.13	2.08	3.04	4.30	5.26	6.80	**25.30**	9.45	11	23
	664.924	●	●	●	0.22	0.16	2.60	3.80	5.37	6.58	8.49	**31.62**	11.81	11	23
	664.964	●	●	●	0.24	0.17	3.24	4.75	6.72	8.23	10.62	**39.53**	14.77	11	23
	665.044	●	●	●	0.31	0.22	5.19	7.60	10.75	13.16	16.99	**63.25**	23.63	11	23
	665.084		●	●	0.35	0.24	6.49	9.50	13.43	16.45	21.24	**79.06**	29.24	11	23
	665.124			●	0.39	0.29	8.18	11.97	16.92	20.73	26.76	**99.61**	37.21	11	23
90°	**664.726**	●	●	●	0.12	0.067	0.82	1.20	1.69	2.07	2.68	**9.96**	3.72	20	39
	664.766	●	●	●	0.14	0.075	1.04	1.52	2.15	2.63	3.40	**12.65**	4.73	21	39
	664.806	●	●	●	0.16	0.09	1.32	1.90	2.69	3.29	4.25	**15.81**	5.91	21	41
	664.846	●	●	●	0.18	0.09	1.62	2.37	3.36	4.11	5.31	**19.76**	7.38	21	41
	664.886	●	●	●	0.20	0.12	2.08	3.04	4.30	5.26	6.80	**25.30**	9.45	21	42
	664.926	●	●	●	0.22	0.14	2.60	3.80	5.37	6.58	8.49	**31.62**	11.81	21	42
	664.966	●	●	●	0.24	0.15	3.24	4.75	6.72	8.23	10.62	**39.53**	14.77	21	42
	665.046			●	0.31	0.19	5.19	7.60	10.75	13.16	16.99	**63.25**	23.63	21	42
	665.126			●	0.39	0.25	8.18	11.97	16.92	20.73	26.76	**99.61**	37.21	21	42
120°	**664.727**	●	●	●	0.12	0.06	0.82	1.20	1.69	2.07	2.68	**9.96**	3.72	35	66
	664.767	●	●	●	0.14	0.07	1.04	1.52	2.15	2.63	3.40	**12.65**	4.73	35	67
	664.807	●	●	●	0.16	0.08	1.32	1.90	2.69	3.29	4.25	**15.81**	5.91	35	67
	664.887	●	●	●	0.20	0.10	2.08	3.04	4.30	5.26	6.80	**25.30**	9.45	36	67
	664.927	●	●	●	0.22	0.11	2.60	3.80	5.37	6.58	8.49	**31.62**	11.81	36	67
	664.967			●	0.24	0.13	3.24	4.75	6.72	8.23	10.62	**39.53**	14.77	36	67
	665.047			●	0.31	0.17	5.19	7.60	10.75	13.16	16.99	**63.25**	23.63	36	67

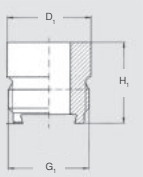
[1] We reserve the right to supply material 316Ti or 316L under material no. 17.

Conversion formula for this series: $\dot{V}_2 = \dot{V}_1 \cdot \sqrt{\frac{p_2}{p_1}}$

Ordering example:	Type	+	Material no.	=	Ordering no.
	664.723	+	16	=	664.723.16

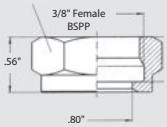
Assembly accessories can be found in Chapter 12 “Accessories”.

Accessories



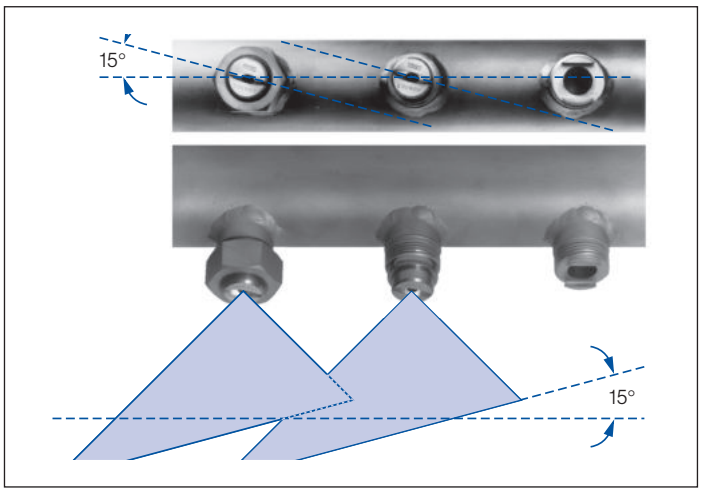
Weight: .14 lb.

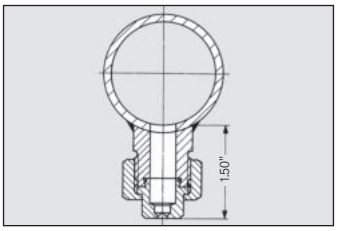
Nipple **066. 410. 17** (316 SS)



Weight: .13 lb.

Retaining nut **065. 600. 16** (303 SS)
065. 600. 17 (316 SS)
065. 600. 30 (Brass)





Standard accessories, alignment, and installation for the Series 664 dovetail nozzle tip

A listing of alternatives for various assembly possibilities is shown in the Accessories section beginning on page 127.