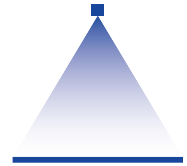


Low pressure flat fan nozzles

Series 632/633



Features:

- Uniform, parabolic liquid distribution
- Stable spray angle
- Tapered, self-sealing thread

Applications:

- Spray cleaning
- Surface cleaning
- Strainer insert cleaning
- Coating processes
- Belt cleaning
- Lubrication processes



Series 632/633

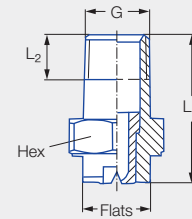


Figure 1

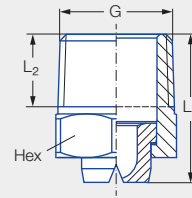


Figure 2

Connection	Figure	G	Dimensions [in]				Weight [lb] (Brass)
			L ₁	L ₂	Hex (mm)	Flats (mm)	
BA	1	1/8 NPT	0.87	0.26	14	10	0.037
BC	1	1/4 NPT	0.87	0.38	14	10	0.044
BE	2	3/8 NPT	0.87	0.40	17	–	0.066
BG	2	1/2 NPT	1.06	0.52	22	–	0.088

Spray angle	Type	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)	
		Material number				Connection						p [psi]								H = 10 [in]	H = 20 [in]
		16 ¹	17 ²	30	5E	1/8 NPT	1/4 NPT	3/8 NPT	1/2 NPT			7	15	30	45	75	liters per minute	100	145		
		Stainless steel 303/ Stainless steel 304	Stainless steel 316Ti/ Stainless steel 316L	Brass	PVDF							5 bar									
20°	632.301	●	●	●	●	BA	BC			0.03	0.02	0.04*	0.06*	0.09	0.11	0.14	0.51	0.16	0.19	3	6
	632.361	●	●	●	●	BA	BC			0.04	0.03	0.08*	0.12*	0.17	0.21	0.27	1.00	0.31	0.37	3	6
	632.441	●	●	●	●	BA	BC			0.05	0.04	0.16*	0.24	0.34	0.41	0.53	1.98	0.61	0.74	3	6
	632.481	●	●	●	●	BA	BC			0.06	0.05	0.21*	0.30	0.43	0.53	0.68	2.53	0.78	0.95	3	6
30°	632.302	●	●	●	●	BA	BC			0.02	0.02	0.04*	0.06*	0.09	0.11	0.14	0.51	0.16	0.19	5	9
	632.362	●	●	●	●	BA	BC			0.04	0.03	0.08*	0.12*	0.17	0.21	0.27	1.00	0.31	0.37	5	9
	632.402	●	●	●	●	BA	BC			0.05	0.035	0.13*	0.19	0.27	0.33	0.42	1.58	0.49	0.59	5	9
	632.482	●	●	●	●	BA	BC			0.06	0.04	0.21*	0.30	0.43	0.53	0.68	2.53	0.78	0.95	5	9
	632.562	●	●	●	●	BA	BC			0.08	0.06	0.32	0.47	0.67	0.82	1.06	3.95	1.23	1.48	5	9
	632.642	●	●	●			BC			0.10	0.07	0.52	0.76	1.08	1.32	1.70	6.33	1.96	2.36	6	10
	632.722	●	●	●			BC			0.12	0.09	0.82	1.20	1.69	2.07	2.68	9.96	3.09	3.72	6	10
	632.762	●	●	●			BC			0.14	0.11	1.04	1.52	2.15	2.63	3.30	12.65	3.92	4.73	6	10
	632.802	●	●	●			BC			0.16	0.12	1.30	1.90	2.69	3.29	4.25	15.81	4.90	5.91	6	10
	632.882	●	●	●				BG		0.20	0.16	2.08	3.04	4.30	5.26	6.80	25.32	7.85	9.45	6	10
	632.922	●	●	●				BG		0.22	0.17	2.60	3.80	5.37	6.58	8.49	31.65	9.81	11.81	6	10
	632.962	●	●	●				BG		0.24	0.19	3.24	4.75	6.71	8.22	10.62	39.52	12.26	14.76	6	10
	633.002	●						BG		0.28	0.22	4.09	5.99	8.46	10.37	13.38	49.82	15.45	18.61	6	10

* Differing spray pattern.

¹ We reserve the right to supply material 303 or 304 under material no. 16.

² 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				Connection				p [psi]								H = 10 [in]	H = 20 [in]			
		16 ¹	17 ²	30	5E	1/8 NPT	1/4 NPT	3/8 NPT	1/2 NPT	liters per minute			5 bar	100	145	7	15			30	45	75
		Stainless steel 303/ Stainless steel 304	Stainless steel 316Ti/ Stainless steel 316L	Brass	PVDF																	
45°	632.303	●	●	●	●	BA	BC			0.03	0.02	0.04*	0.06*	0.09	0.11	0.14	0.51	0.16	0.19	7	13	
	632.363	●	●	●	●	BA	BC			0.04	0.023	0.08*	0.12*	0.17	0.21	0.27	1.00	0.31	0.37	7	14	
	632.403	●	●	●	●	BA	BC			0.05	0.035	0.13*	0.19	0.27	0.33	0.42	1.58	0.49	0.59	8	15	
	632.483	●	●	●	●	BA	BC			0.06	0.04	0.21*	0.30	0.43	0.53	0.68	2.53	0.78	0.95	8	15	
	632.563	●	●	●	●	BA	BC			0.08	0.06	0.32	0.47	0.67	0.82	1.06	3.95	1.23	1.48	8	16	
	632.643	●	●	●	●	BA	BC			0.10	0.07	0.52	0.76	1.08	1.32	1.70	6.33	1.96	2.36	9	16	
	632.673	●	●	●	●		BC	BE		0.11	0.08	0.62	0.90	1.28	1.56	2.02	7.51	2.33	2.81	9	17	
	632.723	●	●	●	●		BC	BE		0.12	0.09	0.82	1.20	1.69	2.07	2.68	9.96	3.09	3.72	9	17	
	632.763	●	●	●	●		BC	BE		0.14	0.10	1.04	1.52	2.15	2.63	3.30	12.65	3.92	4.73	9	17	
	632.803	●	●	●	●		BC	BE	BG	0.16	0.12	1.30	1.90	2.69	3.29	4.25	15.81	4.90	5.91	9	17	
	632.843	●	● ¹	●	●		BC		BG	0.18	0.13	1.62	2.37	3.36	4.11	5.31	19.76	6.13	7.38	9	17	
	632.883	● ¹	● ¹	● ¹	● ³		BC		BG	0.20	0.15	2.08	3.04	4.30	5.26	6.80	25.30	7.85	9.45	9	17	
632.923	●	●	●	●				BG	0.22	0.165	2.60	3.80	5.37	6.58	8.49	31.62	9.81	11.81	9	17		
632.963	●	●	●	●				BG	0.24	0.173	3.24	4.75	6.72	8.23	10.62	39.53	12.26	14.77	9	17		
60°	632.304	●	●	●	●	BA	BC			0.03	0.016	0.04*	0.06*	0.09	0.11	0.14	0.51	0.16	0.19	10	19	
	632.334	●	●	●	●	BA	BC			0.035	0.02	0.06*	0.09*	0.12	0.15	0.19	0.71	0.22	0.27	10	19	
	632.364	●	●	●	●	BA	BC			0.04	0.022	0.08*	0.12*	0.17	0.20	0.26	1.00	0.31	0.37	10	20	
	632.404	●	●	●	●	BA	BC			0.047	0.03	0.13*	0.19	0.27	0.33	0.42	1.58	0.49	0.59	10	20	
	632.444	●	●	●	●	BA	BC			0.05	0.035	0.16*	0.24	0.34	0.41	0.53	1.98	0.61	0.74	10	20	
	632.484	●	●	●	● ³	BA	BC			0.06	0.04	0.21*	0.30	0.43	0.53	0.68	2.53	0.78	0.95	10	20	
	632.514	●	●	●	●	BA	BC			0.065	0.043	0.25*	0.36	0.51	0.62	0.81	3.00	0.93	1.12	11	20	
	632.564	●	●	●	●	BA	BC			0.08	0.05	0.32	0.47	0.67	0.82	1.06	3.95	1.23	1.48	11	21	
	632.604	●	●	●	●	BA	BC			0.09	0.06	0.41	0.60	0.85	1.04	1.34	4.98	1.54	1.86	11	21	
	632.644	●	●	●	● ³		BC	BE		0.10	0.063	0.52	0.76	1.08	1.32	1.70	6.33	1.96	2.36	11	21	
	632.674	●	●	●	● ³		BC	BE		0.11	0.07	0.62	0.90	1.28	1.56	2.02	7.51	2.33	2.81	11	22	
	632.724	●	●	●	● ³		BC	BE		0.12	0.08	0.82	1.20	1.69	2.07	2.68	9.96	3.09	3.72	11	22	
	632.764	●	●	●	●		BC	BE		0.14	0.09	1.04	1.52	2.15	2.63	3.30	12.65	3.92	4.73	11	22	
	632.804	●	●	●	● ³		BC		BG	0.16	0.10	1.30	1.90	2.69	3.29	4.25	15.81	4.90	5.91	11	23	
	632.844	●	●	●	● ³		BC		BG	0.18	0.12	1.62	2.37	3.36	4.11	5.31	19.76	6.13	7.38	11	23	
	632.884	●	●	●	● ³		BC		BG	0.20	0.13	2.08	3.04	4.30	5.26	6.80	25.30	7.85	9.45	11	23	
	632.924	●	●	●	●				BG	0.22	0.16	2.60	3.80	5.37	6.58	8.49	31.62	9.81	11.81	11	23	
	632.964	●	●	●	●				BG	0.24	0.17	3.24	4.75	6.72	8.23	10.62	39.53	12.26	14.77	11	23	
633.004	●	●	●	●				BG	0.28	0.19	4.09	5.98	8.46	10.36	13.38	49.80	15.45	18.60	11	23		
633.044	●	●	●	●				BG	0.31	0.22	5.19	7.60	10.75	13.16	16.99	63.25	19.62	23.63	11	23		
633.084	●	●	●	●				BG	0.35	0.27	6.49	9.50	13.43	16.45	21.24	79.06	24.53	29.53	11	23		
75°	632.145	●		●		BA	BC			0.008	0.005	–	0.01*	0.014	0.017	0.021	0.08	0.025	0.03	15	27	
	632.165	●		●		BA	BC			0.008	0.005	–	0.01*	0.017	0.02	0.027	0.10	0.03	0.04	15	27	
	632.185	●		●		BA	BC			0.008	0.006	–	0.011*	0.02	0.03	0.035	0.13	0.04	0.05	15	27	
	632.215	●		●		BA	BC			0.016	0.008	–	0.02*	0.03	0.04	0.05	0.18	0.06	0.07	15	27	
	632.245	●		●		BA	BC			0.02	0.012	–	0.03*	0.04	0.05	0.07	0.26	0.08	0.10	15	27	
	632.275	●		●		BA	BC			0.023	0.012	0.03*	0.04*	0.06	0.07	0.09	0.35	0.11	0.13	15	27	

* Differing spray pattern.

¹ We reserve the right to supply material 303 or 304 under material no. 16.

² We reserve the right to supply material 316Ti or 316L under material no. 17.

³ Only available with Code BC.





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				Connection				p [psi]							H = 10 [in]	H = 20 [in]				
		16 ¹	17 ²	30	5E	1/8 NPT	1/4 NPT	3/8 NPT	1/2 NPT	7			15	30	45	75			liters per minute 5 bar	100	145	
		Stainless steel 303/ Stainless steel 304	Stainless steel 316Ti/ Stainless steel 316L	Brass	PVDF																	
90°	632.216	●		●		BA	BC			0.016	0.008	–	0.02*	0.03	0.04	0.05	0.18	0.06	0.07	17	31	
	632.276	●		●		BA	BC			0.02	0.012	0.03*	0.04*	0.06	0.07	0.09	0.35	0.11	0.13	17	31	
	632.306	●	●	●	●	BA	BC			0.03	0.016	0.04*	0.06*	0.09	0.11	0.14	0.51	0.16	0.19	17	31	
	632.336	●	●	●	●	BA	BC			0.035	0.02	0.06*	0.09*	0.12	0.15	0.19	0.71	0.22	0.27	17	32	
	632.366	●	●	●	●	BA	BC			0.04	0.023	0.08*	0.12*	0.17	0.21	0.27	1.00	0.31	0.37	18	33	
	632.406	●	●	●	●	BA	BC			0.047	0.028	0.13*	0.19	0.27	0.33	0.42	1.58	0.49	0.59	18	33	
	632.446	●	●	●	●	BA	BC			0.05	0.03	0.16*	0.24	0.34	0.41	0.53	1.98	0.61	0.74	18	34	
	632.486	●	●	●	●	BA	BC			0.06	0.03	0.21*	0.30	0.43	0.53	0.68	2.53	0.78	0.95	19	34	
	632.516	●	●	●	●	BA	BC			0.065	0.035	0.25*	0.36	0.51	0.62	0.81	3.00	0.93	1.12	19	35	
	632.566	●	●	●	●	BA	BC			0.08	0.04	0.32	0.47	0.67	0.82	1.06	3.95	1.23	1.48	19	35	
	632.606	●	●	●	●	BA	BC			0.09	0.047	0.41	0.60	0.85	1.04	1.34	4.98	1.54	1.86	20	36	
	632.646	●	●	●	● ³		BC	BE			0.10	0.05	0.52	0.76	1.08	1.32	1.70	6.33	1.96	2.36	20	37
	632.676	●	●	●	● ³		BC	BE			0.11	0.06	0.62	0.90	1.28	1.56	2.02	7.51	2.33	2.81	20	37
	632.726	●	●	●	● ³		BC	BE			0.12	0.067	0.82	1.20	1.69	2.07	2.68	9.96	3.09	3.72	20	39
	632.766	●	●	●	● ³		BC	BE			0.14	0.07	1.04	1.52	2.15	2.63	3.40	12.65	3.92	4.73	21	39
	632.806	●	●	●	● ³		BC	BG			0.16	0.09	1.30	1.90	2.69	3.29	4.25	15.81	4.90	5.91	21	41
	632.846	●	●	●	● ³		BC	BG			0.18	0.09	1.62	2.37	3.36	4.11	5.31	19.76	6.13	7.38	21	41
	632.886	●	●	●	● ³		BC	BG			0.20	0.12	2.08	3.04	4.30	5.26	6.80	25.30	7.85	9.45	21	42
632.926	●	●	●	● ³		BC	BG			0.22	0.14	2.60	3.80	5.37	6.58	8.49	31.62	9.81	11.81	21	42	
632.966	●	●	●				BG			0.24	0.15	3.24	4.75	6.72	8.23	10.62	39.53	12.26	14.77	21	42	
120°	632.187	●		●		BA	BC			0.01	0.008	–	0.011*	0.02	0.03	0.035	0.13	0.04	0.05	25	42	
	632.217	●		●		BA	BC			0.016	0.008	–	0.02*	0.03	0.04	0.05	0.18	0.06	0.07	26	43	
	632.247	●		●		BA	BC			0.02	0.008	–	0.03*	0.04	0.05	0.07	0.26	0.08	0.10	26	43	
	632.277	●		●		BA	BC			0.024	0.012	0.03*	0.04*	0.06	0.07	0.09	0.35	0.11	0.13	17	45	
	632.307	●	●	●	●	BA	BC			0.03	0.012	0.04*	0.06*	0.09	0.11	0.14	0.51	0.16	0.19	17	49	
	632.337	●	●	●	●	BA	BC			0.035	0.016	0.06*	0.09*	0.12	0.15	0.19	0.71	0.22	0.27	17	53	
	632.367	●	●	●	●	BA	BC			0.04	0.02	0.08*	0.12*	0.17	0.21	0.27	1.00	0.31	0.37	18	56	
	632.407	●	●	●	●	BA	BC			0.047	0.024	0.13*	0.19	0.27	0.33	0.42	1.58	0.49	0.59	18	58	
	632.447	●	●	●	●	BA	BC			0.05	0.024	0.16*	0.24	0.34	0.41	0.53	1.98	0.61	0.74	18	60	
	632.487	●	●	●	●	BA	BC			0.06	0.024	0.21*	0.30	0.43	0.53	0.68	2.53	0.78	0.95	19	61	
	632.517	●	●	●	●	BA	BC			0.065	0.035	0.25*	0.36	0.51	0.62	0.81	3.00	0.93	1.12	19	61	
	632.567	●	●	●	●	BA	BC			0.08	0.035	0.32	0.47	0.67	0.82	1.06	3.95	1.23	1.48	19	63	
	632.607	●	●	●	●	BA	BC			0.09	0.04	0.41	0.59	0.83	1.02	1.32	4.98	1.56	1.86	34	64	
	632.647	●	●	●			BC	BE			0.10	0.05	0.53	0.75	1.06	1.29	1.67	6.33	1.98	2.36	35	65
	632.677	●	●	●	● ³		BC	BE			0.11	0.055	0.63	0.89	1.25	1.54	1.98	7.51	2.35	2.81	35	65
	632.727	●	●	●	● ³		BC	BE			0.12	0.06	0.82	1.20	1.69	2.07	2.68	9.96	3.09	3.72	35	66
	632.767	●	●	●	● ³		BC	BE			0.14	0.07	1.06	1.50	2.11	2.59	3.34	12.65	3.95	4.73	35	67
	632.807	●	●	●			BC	BG			0.16	0.08	1.30	1.90	2.69	3.29	4.25	15.81	4.90	5.91	35	67
	632.847	●	●	●	● ³		BC	BG			0.18	0.09	1.62	2.37	3.36	4.11	5.31	19.76	6.13	7.38	35	67
	632.887	●	●	●				BG			0.20	0.10	2.08	3.04	4.30	5.26	6.80	25.30	7.85	9.45	36	67
632.927	●	●	●				BG			0.22	0.11	2.60	3.80	5.37	6.58	8.49	31.62	9.81	11.81	36	67	

* Differing spray pattern.

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² We reserve the right to supply material 316Ti or 316L under material no. 17.

³ Only available with Code BC.

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

Ordering Type + Material no. + Code = Ordering no.
example: 632.216 + 16 + BA = 632.216.16.BA



Assembly accessories can be found in Chapter 12 "Accessories".