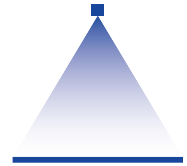


# Low pressure flat fan nozzles

## Series 612

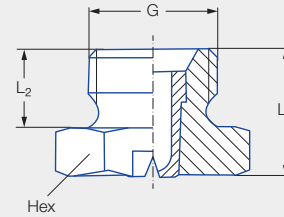


### Features:

- Uniform, parabolic liquid distribution
- Stable spray angle
- Compact design for narrow installation conditions



Series 612



### Applications:

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

G	Dimensions [in]			Weight [lb] Brass
	L <sub>1</sub>	L <sub>2</sub>	Hex (mm)	
1/4 BSPP	.51	.31	17	.03

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					p [psi]																																																																	
		16	17 <sup>1</sup>	30			7					15							30					45					75					liters per minute					5 bar					100					145					H = 10 [in]		H = 20 [in]																
		Stainless steel 303	Stainless steel 316Ti/316L	Brass													5		10		15		20		25		30		35		40		45		50		55		60		65		70		75		80		85		90		95		100		105		110		115		120		125		130		135		140	
20°	612.301	●	●	●	0.03	0.02	0.04*	0.06*	0.09	0.11	0.14	0.51	0.16	0.19	3	6																																																								
	612.361	●	●	●	0.04	0.03	0.08*	0.12*	0.17	0.21	0.27	1.00	0.31	0.37	3	6																																																								
	612.441	●	●	●	0.05	0.04	0.16*	0.24	0.34	0.41	0.53	1.98	0.61	0.74	3	6																																																								
	612.481	●	●	●	0.06	0.05	0.21*	0.30	0.43	0.53	0.68	2.53	0.78	0.95	3	6																																																								
30°	612.302	●	●	●	0.02	0.02	0.04*	0.06*	0.09	0.11	0.14	0.51	0.16	0.19	5	9																																																								
	612.362	●	●	●	0.04	0.03	0.08*	0.12*	0.17	0.21	0.27	1.00	0.31	0.37	5	9																																																								
	612.402	●	●	●	0.05	0.035	0.13*	0.19	0.27	0.33	0.42	1.58	0.49	0.59	5	9																																																								
	612.482	●	●	●	0.06	0.04	0.21*	0.30	0.43	0.53	0.68	2.53	0.78	0.95	5	9																																																								
	612.562	●	●	●	0.08	0.06	0.32	0.47	0.67	0.82	1.06	3.95	1.23	1.48	5	9																																																								
	612.642	●	●	●	0.10	0.07	0.52	0.76	1.08	1.32	1.70	6.33	1.96	2.36	6	10																																																								
	612.722	●	●	●	0.12	0.09	0.82	1.20	1.69	2.07	2.68	9.96	3.09	3.72	6	10																																																								
	612.762	●	●	●	0.14	0.11	1.04	1.52	2.15	2.63	3.40	12.65	3.92	4.73	6	10																																																								
612.802	●	●	●	0.16	0.12	1.30	1.90	2.69	3.29	4.25	15.81	4.90	5.91	6	10																																																									
45°	612.303	●	●	●	0.03	0.02	0.04*	0.06*	0.08	0.11	0.13	0.51	0.16	0.19	7	13																																																								
	612.363	●	●	●	0.04	0.023	0.08*	0.12*	0.17	0.20	0.26	1.00	0.31	0.37	7	14																																																								
	612.403	●	●	●	0.05	0.035	0.13*	0.19	0.26	0.32	0.42	1.58	0.49	0.59	8	15																																																								
	612.483	●	●	●	0.06	0.04	0.21*	0.30	0.43	0.53	0.68	2.53	0.78	0.95	8	15																																																								
	612.563	●	●	●	0.08	0.06	0.32	0.47	0.67	0.82	1.06	3.95	1.23	1.48	8	16																																																								
	612.643	●	●	●	0.10	0.07	0.52	0.76	1.08	1.32	1.70	6.33	1.96	2.36	9	16																																																								
	612.723	●	●	●	0.12	0.09	0.82	1.20	1.69	2.07	2.68	9.96	3.09	3.72	9	17																																																								
	612.763	●	●	●	0.14	0.11	1.04	1.52	2.15	2.63	3.40	12.65	3.92	4.73	9	17																																																								
612.803	●	●	●	0.16	0.12	1.30	1.90	2.69	3.24	4.25	15.81	4.90	5.91	9	17																																																									

\* Differing spray pattern.

<sup>1</sup> We reserve the right to supply material 316Ti or 316L under material no. 17.

NPT version available by request





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					p [psi]								H = 10 [in]	H = 20 [in]
		16	17 <sup>1</sup>	30			7	15	30	45	75	liters per minute 5 bar	100	145		
		Stainless steel 303	Stainless steel 316Ti Stainless steel 316L	Brass												
60°	612.304	●	●	●	0.03	0.016	0.04*	0.06*	0.09	0.11	0.14	0.51	0.16	0.19	10	19
	612.334	●	●	●	0.035	0.02	0.06*	0.09*	0.12	0.15	0.19	0.71	0.22	0.27	10	19
	612.364	●	●	●	0.04	0.024	0.08*	0.12*	0.17	0.21	0.27	1.00	0.31	0.37	10	20
	612.404	●	●	●	0.047	0.03	0.13*	0.19	0.27	0.33	0.42	1.58	0.49	0.59	10	20
	612.444	●	●	●	0.05	0.035	0.16*	0.24	0.34	0.41	0.53	1.98	0.61	0.74	10	20
	612.484	●	●	●	0.06	0.04	0.21*	0.30	0.43	0.53	0.68	2.53	0.78	0.95	10	20
	612.514	●	●	●	0.065	0.043	0.25*	0.36	0.51	0.62	0.81	3.00	0.93	1.12	11	20
	612.564	●	●	●	0.08	0.05	0.32	0.47	0.67	0.82	1.06	3.95	1.23	1.48	11	21
	612.604	●	●	●	0.09	0.06	0.41	0.60	0.85	1.04	1.34	4.98	1.54	1.86	11	21
	612.644	●	●	●	0.10	0.063	0.52	0.76	1.08	1.32	1.70	6.33	1.96	2.36	11	21
	612.674	●	●	●	0.11	0.07	0.63	0.89	1.25	1.54	1.98	7.51	2.35	2.81	11	22
	612.724	●	●	●	0.12	0.08	0.82	1.20	1.69	2.07	2.68	9.96	3.09	3.72	11	22
	612.764	●	●	●	0.14	0.09	1.04	1.52	2.15	2.63	3.40	12.65	3.92	4.73	11	22
612.804	●	●	●	0.16	0.10	1.30	1.90	2.69	3.29	4.25	15.81	4.90	5.91	11	23	
612.884	●	●	●	0.20	0.13	2.08	3.04	4.30	5.26	6.80	25.30	7.85	9.45	11	23	
75°	612.145	●		●	0.008	0.004	–	0.01*	0.014	0.017	0.021	0.08	0.025	0.03	15	27
	612.165	●		●	0.008	0.005	–	0.01*	0.017	0.02	0.027	0.10	0.03	0.04	15	27
	612.185	●		●	0.008	0.006	–	0.011*	0.02	0.03	0.035	0.13	0.04	0.05	15	27
	612.215	●		●	0.016	0.008	–	0.02*	0.03	0.04	0.05	0.18	0.06	0.07	15	27
	612.245	●		●	0.02	0.012	–	0.03*	0.04	0.05	0.07	0.26	0.08	0.10	15	27
612.275	●		●	0.024	0.012	0.03*	0.04	0.06	0.07	0.09	0.35	0.11	0.13	15	27	
90°	612.216	●		●	0.016	0.008	–	0.02*	0.03	0.04	0.05	0.18	0.06	0.07	17	31
	612.276	●		●	0.024	0.012	0.03*	0.04*	0.06	0.07	0.09	0.35	0.11	0.13	17	31
	612.306	●	●	●	0.03	0.016	0.04*	0.06*	0.09	0.11	0.14	0.51	0.16	0.19	17	31
	612.336	●	●	●	0.035	0.02	0.06*	0.09*	0.12	0.15	0.19	0.71	0.22	0.27	17	32
	612.366	●	●	●	0.04	0.028	0.08*	0.12*	0.17	0.21	0.27	1.00	0.31	0.37	18	33
	612.406	●	●	●	0.047	0.03	0.13*	0.19	0.27	0.33	0.42	1.58	0.49	0.59	18	33
	612.446	●	●	●	0.05	0.03	0.16*	0.24	0.34	0.41	0.53	1.98	0.61	0.74	18	34
	612.486	●	●	●	0.06	0.03	0.21*	0.30	0.43	0.53	0.68	2.53	0.78	0.95	19	34
	612.516	●	●	●	0.065	0.035	0.25*	0.36	0.51	0.62	0.81	3.00	0.93	1.12	19	35
	612.566	●	●	●	0.08	0.04	0.33	0.47	0.66	0.81	1.04	3.95	1.23	1.48	19	35
	612.606	●	●	●	0.09	0.047	0.41	0.60	0.85	1.04	1.34	4.98	1.54	1.86	20	36
	612.646	●	●	●	0.10	0.05	0.52	0.76	1.08	1.32	1.70	6.33	1.96	2.36	20	37
	612.676	●	●	●	0.11	0.06	0.62	0.90	1.28	1.56	2.02	7.51	2.33	2.81	20	37
	612.726	●	●	●	0.12	0.067	0.82	1.20	1.69	2.07	2.68	9.96	3.09	3.72	20	39
612.766	●	●	●	0.14	0.07	1.04	1.52	2.15	2.63	3.40	12.65	3.92	4.73	21	39	
612.806	●	●	●	0.16	0.09	1.30	1.90	2.69	3.29	4.25	15.81	4.90	5.91	21	41	

\* Differing spray pattern.

<sup>1</sup> We reserve the right to supply material 316Ti or 316L under material no. 17.

NPT version available by request

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					p [psi]								H = 10 [in]	H = 20 [in]
		16	17 <sup>1</sup>	30			liters per minute	5 bar	100	145	100	145	100	145		
		Stainless steel 303	Stainless steel 316Ti/ Stainless steel 316L	Brass												
120°	612.187	●		●	0.014	0.008	–	0.011*	0.02	0.03	0.035	<b>0.13</b>	0.04	0.05	25	42
	612.217	●		●	0.016	0.008	–	0.02*	0.03	0.04	0.05	<b>0.18</b>	0.06	0.07	26	43
	612.247	●		●	0.02	0.008	–	0.03*	0.04	0.05	0.07	<b>0.26</b>	0.08	0.10	26	43
	612.277	●		●	0.024	0.012	0.03*	0.04*	0.06	0.07	0.09	<b>0.35</b>	0.11	0.13	26	45
	612.307	●		●	0.03	0.012	0.04*	0.06*	0.09	0.11	0.14	<b>0.51</b>	0.16	0.19	28	49
	612.337	●	●	●	0.035	0.016	0.06*	0.09*	0.12	0.15	0.19	<b>0.71</b>	0.22	0.27	29	53
	612.367	●	●	●	0.04	0.016	0.08*	0.12*	0.17	0.21	0.27	<b>1.00</b>	0.31	0.37	31	56
	612.407	●	●	●	0.047	0.02	0.13*	0.19	0.27	0.33	0.42	<b>1.58</b>	0.49	0.59	33	58
	612.447	●	●	●	0.05	0.02	0.16*	0.24	0.34	0.41	0.53	<b>1.98</b>	0.61	0.74	33	60
	612.487	●	●	●	0.06	0.02	0.21*	0.30	0.43	0.53	0.68	<b>2.53</b>	0.78	0.95	33	61
	612.517	●	●	●	0.065	0.035	0.25*	0.36	0.51	0.62	0.81	<b>3.00</b>	0.93	1.12	33	61
	612.567	●	●	●	0.08	0.035	0.32	0.47	0.67	0.82	1.06	<b>3.95</b>	1.23	1.48	34	63
	612.607	●	●	●	0.09	0.04	0.41	0.60	0.85	1.04	1.34	<b>4.98</b>	1.54	1.86	34	64
	612.647	●	●	●	0.10	0.05	0.52	0.76	1.08	1.32	1.70	<b>6.33</b>	1.96	2.36	35	65
	612.677	●	●	●	0.11	0.06	0.62	0.90	1.28	1.56	2.02	<b>7.51</b>	2.33	2.81	35	65
612.727	●	●	●	0.12	0.063	0.82	1.20	1.69	2.07	2.68	<b>9.96</b>	3.09	3.72	35	66	
612.767	●	●	●	0.14	0.07	1.04	1.52	2.15	2.63	3.40	<b>12.65</b>	3.92	4.73	35	67	
612.807	●		●	0.16	0.08	1.30	1.90	2.69	3.29	4.25	<b>15.81</b>	4.90	5.91	35	67	

\* Differing spray pattern.

<sup>1</sup> We reserve the right to supply material 316Ti or 316L under material no. 17.  
NPT version available by request

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

Ordering Type + Material no. = Ordering no.  
example: 612.187 + 16 = 612.187.16



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