

# Low pressure flat fan nozzles

## Series 632/633

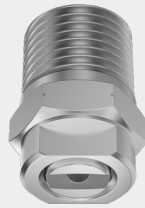


### Features:

- 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

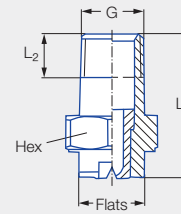


Figure 1

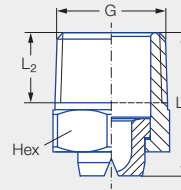


Figure 2

Code	Figure	G	Dimensions [mm]				Weight [g] (Brass)
			L <sub>1</sub>	L <sub>2</sub>	Hex	Flats	
<b>CA</b>	1	1/8 BSPT	22.0	6.5	14	10	17.0
<b>CC</b>	1	1/4 BSPT	22.0	9.7	14	10	20.0
<b>CE</b>	2	3/8 BSPT	22.0	10.1	17	–	30.0
<b>CG</b>	2	1/2 BSPT	27.0	13.2	22	–	40.0

Spray angle	Ordering no.								Equivalent bore diameter A [mm]	Narrowest free cross section Ø [mm]	V̇ water [l/min]							Spray width B [mm] (at p = 5 bar)		
	Type	Mat. no.				Code					p [bar]									
		16 <sup>1</sup>	17 <sup>2</sup>	30	5E															
		Stainless steel 303/ Stainless steel 304	Stainless steel 316Ti/ Stainless steel 316L	Brass	PVDF	1/8 BSPT	1/4 BSPT	3/8 BSPT			1/2 BSPT	0.5	1.0	2.0	3.0	5.0	7.0	10.0	H = 250 [mm]	H = 500 [mm]
20°	<b>632.301</b>	●	●	●	●	<b>CA</b>	<b>CC</b>			0.70	0.60	0.16*	0.23*	0.32	0.39	<b>0.51</b>	0.60	0.72	85	160
	<b>632.361</b>	●	●	●	●	<b>CA</b>	<b>CC</b>			1.00	0.80	0.31*	0.44*	0.63	0.77	<b>1.00</b>	1.18	1.40	85	160
	<b>632.441</b>	●	●	●	●	<b>CA</b>	<b>CC</b>			1.35	1.10	0.62*	0.88	1.25	1.53	<b>1.98</b>	2.34	2.80	85	160
	<b>632.481</b>	●	●	●	●	<b>CA</b>	<b>CC</b>			1.50	1.20	0.80*	1.13	1.60	1.96	<b>2.53</b>	2.99	3.58	85	160
30°	<b>632.302</b>	●	●	●	●	<b>CA</b>	<b>CC</b>			0.60	0.50	0.16*	0.23*	0.32	0.39	<b>0.51</b>	0.60	0.72	120	220
	<b>632.362</b>	●	●	●	●	<b>CA</b>	<b>CC</b>			1.00	0.70	0.31*	0.44*	0.63	0.77	<b>1.00</b>	1.18	1.40	120	220
	<b>632.402</b>	●	●	●	●	<b>CA</b>	<b>CC</b>			1.20	0.90	0.50*	0.71	1.00	1.23	<b>1.58</b>	1.87	2.24	120	230
	<b>632.482</b>	●	●	●	●	<b>CA</b>	<b>CC</b>			1.50	1.10	0.80*	1.13	1.60	1.96	<b>2.53</b>	2.99	3.58	130	230
	<b>632.562</b>	●	●	●	●	<b>CA</b>	<b>CC</b>			2.00	1.50	1.25	1.77	2.50	3.06	<b>3.95</b>	4.68	5.59	130	240
	<b>632.642</b>	●	●	●			<b>CC</b>			2.50	1.80	2.00	2.83	4.00	4.90	<b>6.33</b>	7.48	8.94	140	250
	<b>632.722</b>	●	●	●			<b>CC</b>			3.00	2.40	3.15	4.46	6.30	7.72	<b>9.96</b>	11.79	14.09	140	260
	<b>632.762</b>	●	●	●			<b>CC</b>			3.50	2.70	4.00	5.66	8.00	9.80	<b>12.65</b>	14.97	17.89	140	260
	<b>632.802</b>	●	●	●			<b>CC</b>			4.00	3.10	5.00	7.07	10.00	12.25	<b>15.81</b>	18.71	22.36	140	260

Spray angle	Ordering no.								Equivalent bore diameter A [mm]	Narrowest free cross section Ø [mm]	V̇ water [l/min]							Spray width B [mm] (at p = 5 bar)			
	Type	Mat. no.				Code					p [bar]							H = 250 [mm]	H = 500 [mm]		
		16 <sup>1</sup>	17 <sup>2</sup>	30	5E	1/8 BSPT	1/4 BSPT	3/8 BSPT			1/2 BSPT	0.5	1.0	2.0	3.0	5.0	7.0			10.0	
		Stainless steel 303/ Stainless steel 304	Stainless steel 316Ti/ Stainless steel 316L	Brass	PVDF																
45°	632.303	●	●	●		CA	CC			0.70	0.50	0.16*	0.23*	0.32	0.39	<b>0.51</b>	0.60	0.72	170	330	
	632.363	●	●	●	●	CA	CC			1.00	0.60	0.31*	0.44*	0.63	0.77	<b>1.00</b>	1.18	1.40	190	350	
	632.403	●	●	●	●	CA	CC			1.20	0.90	0.50*	0.71	1.00	1.23	<b>1.58</b>	1.87	2.24	200	370	
	632.483	●	●	●	●	CA	CC			1.50	1.10	0.80*	1.13	1.60	1.96	<b>2.53</b>	2.99	3.58	200	390	
	632.563	●	●	●	●	CA	CC			2.00	1.40	1.25	1.77	2.50	3.06	<b>3.95</b>	4.68	5.59	210	410	
	632.643	●	●	●	●	CA	CC			2.50	1.80	2.00	2.83	4.00	4.90	<b>6.33</b>	7.48	8.94	220	410	
	632.673	●	●	●			CC	CE			2.70	2.00	2.37	3.36	4.75	5.82	<b>7.51</b>	8.89	10.62	220	420
	632.723	●	●	●			CC	CE			3.00	2.40	3.15	4.46	6.30	7.72	<b>9.96</b>	11.79	14.09	220	420
	632.763	●	●	●			CC	CE			3.50	2.60	4.00	5.66	8.00	9.80	<b>12.65</b>	14.97	17.89	220	420
	632.803	●	●	●			CC	CE	CG		4.00	3.00	5.00	7.07	10.00	12.25	<b>15.81</b>	18.71	22.36	220	420
	632.843	●	● <sup>3</sup>	●			CC		CG		4.50	3.40	6.25	8.84	12.50	15.31	<b>19.76</b>	23.38	27.94	220	420
	632.883	●	●	●					CG		5.00	3.80	8.00	11.31	16.00	19.60	<b>25.30</b>	29.94	35.78	220	420
	632.923	●	●	●					CG		5.50	4.20	10.00	14.14	20.00	24.49	<b>31.62</b>	37.41	44.72	220	430
632.963	●	●	●					CG		6.00	4.40	12.50	17.68	25.00	30.62	<b>39.53</b>	46.77	55.90	220	430	
60°	632.304	●	●	●	●	CA	CC			0.70	0.40	0.16*	0.23*	0.32	0.39	<b>0.51</b>	0.60	0.72	260	480	
	632.334	●	●	●	●	CA	CC			0.90	0.50	0.22*	0.32*	0.45	0.55	<b>0.71</b>	0.84	1.00	260	490	
	632.364	●	●	●	●	CA	CC			1.00	0.60	0.31*	0.44*	0.63	0.77	<b>1.00</b>	1.18	1.40	260	500	
	632.404	●	●	●	●	CA	CC			1.20	0.80	0.50*	0.71	1.00	1.23	<b>1.58</b>	1.87	2.24	260	510	
	632.444	●	●	●	●	CA	CC			1.35	0.90	0.62*	0.88	1.25	1.53	<b>1.98</b>	2.34	2.80	260	510	
	632.484	●	●	●	●	CA	CC			1.50	1.00	0.80*	1.13	1.60	1.96	<b>2.53</b>	2.99	3.58	260	520	
	632.514	●	●	●	●	CA	CC			1.65	1.10	0.95*	1.34	1.90	2.32	<b>3.00</b>	3.55	4.24	270	520	
	632.564	●	●	●	●	CA	CC			2.00	1.30	1.25	1.77	2.50	3.06	<b>3.95</b>	4.68	5.59	270	530	
	632.604	●	●	●	●	CA	CC			2.20	1.50	1.57	2.23	3.15	3.86	<b>4.98</b>	5.89	7.04	270	540	
	632.644	●	●	●	● <sup>4</sup>		CC	CE			2.50	1.60	2.00	2.83	4.00	4.90	<b>6.33</b>	7.48	8.94	270	540
	632.674	●	●	●	● <sup>4</sup>		CC	CE			2.70	1.80	2.37	3.36	4.75	5.82	<b>7.51</b>	8.89	10.62	270	550
	632.724	●	●	●	● <sup>4</sup>		CC	CE			3.00	2.10	3.15	4.46	6.30	7.72	<b>9.96</b>	11.79	14.09	280	560
	632.764	●	●	●			CC	CE			3.50	2.30	4.00	5.66	8.00	9.80	<b>12.65</b>	14.97	17.89	280	570
	632.804	●	● <sup>3</sup>	●	● <sup>4</sup>		CC		CG		4.00	2.60	5.00	7.07	10.00	12.25	<b>15.81</b>	18.71	22.36	290	580
	632.844	●	● <sup>3</sup>	●	● <sup>4</sup>		CC		CG		4.50	3.00	6.25	8.84	12.50	15.31	<b>19.76</b>	23.38	27.94	290	580
	632.884	●	● <sup>3</sup>	●	● <sup>4</sup>		CC		CG		5.00	3.40	8.00	11.31	16.00	19.60	<b>25.30</b>	29.94	35.78	290	580
	632.924	●	●	●					CG		5.50	4.10	10.00	14.14	20.00	24.49	<b>31.62</b>	37.41	44.72	290	580
	632.964	●	●	●					CG		6.00	4.20	12.50	17.68	25.00	30.62	<b>39.53</b>	46.77	55.90	290	580
	633.004	●	●	●					CG		7.00	4.80	15.75	22.27	31.50	38.57	<b>49.80</b>	58.92	70.43	290	580
633.044	●	●	●					CG		8.00	5.50	20.00	28.29	40.00	48.99	<b>63.25</b>	74.84	89.45	290	580	
633.084	●	●	●					CG		9.00	6.80	25.00	35.36	50.00	61.24	<b>79.06</b>	93.55	111.81	290	580	
75°	632.145	●		●		CA	CC			0.20	0.12	–	0.04*	0.05	0.06	<b>0.08</b>	0.09	0.11	380	690	
	632.165	●		●		CA	CC			0.20	0.14	–	0.04*	0.06	0.08	<b>0.10</b>	0.12	0.14	380	690	
	632.185	●		●		CA	CC			0.20	0.16	–	0.06*	0.08	0.10	<b>0.13</b>	0.15	0.18	380	690	
	632.215	●		●		CA	CC			0.40	0.20	–	0.08*	0.11	0.14	<b>0.18</b>	0.21	0.25	380	690	
	632.245	●		●		CA	CC			0.50	0.30	–	0.12*	0.16	0.20	<b>0.26</b>	0.31	0.37	380	690	
	632.275	●		●		CA	CC			0.60	0.30	0.11*	0.16*	0.22	0.27	<b>0.35</b>	0.41	0.49	380	690	





Spray angle	Ordering no.								Equivalent bore diameter A [mm]	Narrowest free cross section Ø [mm]	V̇ water [l/min]						Spray width B [mm] (at p = 5 bar)			
	Type	Mat. no.				Code					p [bar]						H = 250 [mm]	H = 500 [mm]		
		16 <sup>1</sup>	17 <sup>2</sup>	30	5E	1/8 BSPT	1/4 BSPT	3/8 BSPT			1/2 BSPT	0.5	1.0	2.0	3.0	5.0			7.0	10.0
		Stainless steel 303/ Stainless steel 304	Stainless steel 316Ti/ Stainless steel 316L	Brass	PVDF															
90°	632.216	●		●		CA	CC			0.40	0.20	–	0.08*	0.11	0.14	<b>0.18</b>	0.21	0.25	420	780
	632.276	●		●		CA	CC			0.60	0.30	0.11*	0.16*	0.22	0.27	<b>0.35</b>	0.41	0.49	430	790
	632.306	●	●	●	●	CA	CC			0.70	0.40	0.16*	0.23*	0.32	0.39	<b>0.51</b>	0.60	0.72	440	800
	632.336	●	●	●	●	CA	CC			0.90	0.50	0.22*	0.32*	0.45	0.55	<b>0.71</b>	0.84	1.00	440	820
	632.366	●	●	●	●	CA	CC			1.00	0.50	0.31*	0.44*	0.63	0.77	<b>1.00</b>	1.18	1.40	450	830
	632.406	●	●	●	●	CA	CC			1.20	0.70	0.50*	0.71	1.00	1.23	<b>1.58</b>	1.87	2.24	450	840
	632.446	●	●	●	●	CA	CC			1.35	0.80	0.62*	0.88	1.25	1.53	<b>1.98</b>	2.34	2.80	460	860
	632.486	●	●	●	●	CA	CC			1.50	0.80	0.80*	1.13	1.60	1.96	<b>2.53</b>	2.99	3.58	470	870
	632.516	●	●	●	●	CA	CC			1.65	0.90	0.95*	1.34	1.90	2.32	<b>3.00</b>	3.55	4.24	480	880
	632.566	●	●	●	●	CA	CC			2.00	1.10	1.25	1.77	2.50	3.06	<b>3.95</b>	4.68	5.59	490	900
	632.606	●	●	●	●	CA	CC			2.20	1.20	1.57	2.23	3.15	3.86	<b>4.98</b>	5.89	7.04	500	910
	632.646	●	●	●	● <sup>4</sup>		CC	CE		2.50	1.30	2.00	2.83	4.00	4.90	<b>6.33</b>	7.48	8.94	510	930
	632.676	●	●	●	● <sup>4</sup>		CC	CE		2.70	1.40	2.37	3.36	4.75	5.82	<b>7.51</b>	8.89	10.62	510	950
	632.726	●	●	●	● <sup>4</sup>		CC	CE		3.00	1.70	3.15	4.46	6.30	7.72	<b>9.96</b>	11.79	14.09	520	980
	632.766	●	●	●	● <sup>4</sup>		CC	CE		3.50	1.90	4.00	5.66	8.00	9.80	<b>12.65</b>	14.97	17.89	530	1,000
	632.806	●	● <sup>3</sup>	●	● <sup>4</sup>		CC		CG	4.00	2.40	5.00	7.07	10.00	12.25	<b>15.81</b>	18.71	22.36	530	1,030
	632.846	●	● <sup>3</sup>	●	● <sup>4</sup>		CC		CG	4.50	2.40	6.25	8.84	12.50	15.31	<b>19.76</b>	23.38	27.94	540	1,050
	632.886	●	● <sup>3</sup>	●	● <sup>4</sup>		CC		CG	5.00	3.10	8.00	11.31	16.00	19.60	<b>25.30</b>	29.94	35.78	540	1,060
632.926	●	●	●					CG	5.50	3.60	10.00	14.14	20.00	24.49	<b>31.62</b>	37.41	44.72	540	1,070	
632.966	●	●	●					CG	6.00	3.90	12.50	17.68	25.00	30.62	<b>39.53</b>	46.77	55.90	540	1,070	
120°	632.187	●		●		CA	CC			0.35	0.20	–	0.06*	0.08	0.10	<b>0.13</b>	0.15	0.18	630	1,060
	632.217	●		●		CA	CC			0.40	0.20	–	0.08*	0.11	0.14	<b>0.18</b>	0.21	0.25	650	1,080
	632.247	●		●		CA	CC			0.50	0.20	–	0.12*	0.16	0.20	<b>0.26</b>	0.31	0.37	660	1,100
	632.277	●		●		CA	CC			0.60	0.30	–	0.16*	0.22	0.27	<b>0.35</b>	0.41	0.49	670	1,150
	632.307	●	●	●	●	CA	CC			0.70	0.30	0.16*	0.23*	0.32	0.39	<b>0.51</b>	0.60	0.72	710	1,240
	632.337	●	●	●	●	CA	CC			0.90	0.40	0.22*	0.32*	0.45	0.55	<b>0.71</b>	0.84	1.00	740	1,350
	632.367	●	●	●	●	CA	CC			1.00	0.50	0.31*	0.44*	0.63	0.77	<b>1.00</b>	1.18	1.40	800	1,430
	632.407	●	●	●	●	CA	CC			1.20	0.60	0.50*	0.71	1.00	1.23	<b>1.58</b>	1.87	2.24	830	1,480
	632.447	●	●	●	●	CA	CC			1.35	0.60	0.62*	0.88	1.25	1.53	<b>1.98</b>	2.34	2.80	840	1,520
	632.487	●	●	●	●	CA	CC			1.50	0.60	0.80*	1.13	1.60	1.96	<b>2.53</b>	2.99	3.58	850	1,540
	632.517	●	●	●	●	CA	CC			1.65	0.90	0.95*	1.34	1.90	2.32	<b>3.00</b>	3.55	4.24	850	1,560
	632.567	●	●	●	●	CA	CC			2.00	0.90	1.25	1.77	2.50	3.06	<b>3.95</b>	4.68	5.59	870	1,590
	632.607	●	●	●	●	CA	CC			2.20	1.10	1.57	2.23	3.15	3.86	<b>4.98</b>	5.89	7.04	870	1,620
	632.647	●	●	●			CC	CE		2.50	1.30	2.00	2.83	4.00	4.90	<b>6.33</b>	7.48	8.94	880	1,640
	632.677	●	●	●	● <sup>4</sup>		CC	CE		2.70	1.40	2.37	3.36	4.75	5.82	<b>7.51</b>	8.89	10.62	890	1,660
	632.727	●	●	●	● <sup>4</sup>		CC	CE		3.00	1.60	3.15	4.46	6.30	7.72	<b>9.96</b>	11.79	14.09	890	1,680
	632.767	●	●	●	● <sup>4</sup>		CC	CE		3.50	1.70	4.00	5.66	8.00	9.80	<b>12.65</b>	14.97	17.89	900	1,700
	632.807	●	● <sup>3</sup>	●	● <sup>4</sup>		CC		CG	4.00	2.00	5.00	7.07	10.00	12.25	<b>15.81</b>	18.71	22.36	900	1,710
	632.847	● <sup>3</sup>	● <sup>3</sup>	● <sup>3</sup>	● <sup>4</sup>		CC		CG	4.50	2.30	6.25	8.84	12.50	15.31	<b>19.76</b>	23.38	27.94	900	1,710
	632.887	●	●	●					CG	5.00	2.60	8.00	11.31	16.00	19.60	<b>25.30</b>	29.94	35.78	910	1,710
632.927	●	●	●					CG	5.50	2.90	10.00	14.14	20.00	24.49	<b>31.62</b>	37.41	44.72	910	1,710	

\* Differing spray pattern.

<sup>1</sup> We reserve the right to supply material 303 or 304 under material no. 16.


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

<sup>3</sup> Only available with Code CG.

<sup>4</sup> Only available with Code CC.

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 + CA = 632.216.16.CA

 Assembly accessories can be found in Chapter 9 "Accessories".