

# Low pressure flat fan nozzles with ball joint

## Series 676



### Features:

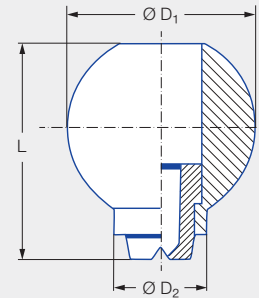
- Swivelling nozzle
- Precise spray alignment according to requirements
- Assembly with retaining nut, threaded socket, threaded nipple, welded nipple

### Applications:

- Cleaning
- Cooling
- Lubrication



Series 676



Dimensions [mm]			Weight [g] Brass	P <sub>max</sub> [bar]
L	Ø D <sub>1</sub>	Ø D <sub>2</sub>		
25.0	22.0	11.0	45.0	30.0

Spray angle	Ordering no.	Mat. no.		Equivalent bore diameter A [mm]	Narrowest free cross section Ø [mm]	V̇ water [l/min]						Spray width B [mm] (at p = 5 bar)	
		16	30			p [bar]						H = 250 [mm]	H = 500 [mm]
						0.5	1.0	2.0	3.0	5.0	10.0		
20°	676.301	●	●	0.70	0.60	0.16*	0.23*	0.32	0.40	<b>0.51</b>	0.72	85	160
	676.361	●	●	1.00	0.80	0.32*	0.45*	0.63	0.77	<b>1.00</b>	1.41	85	160
	676.441	●	●	1.35	1.10	0.63*	0.89	1.25	1.53	<b>1.98</b>	2.80	85	160
	676.481	●	●	1.50	1.30	0.80*	1.13	1.60	1.96	<b>2.53</b>	3.58	85	160
30°	676.302	●	●	0.70	0.50	0.16*	0.23*	0.32	0.40	<b>0.51</b>	0.72	120	220
	676.362	●	●	1.00	0.80	0.32*	0.45*	0.63	0.77	<b>1.00</b>	1.41	120	220
	676.402	●	●	1.20	1.00	0.50*	0.71	1.00	1.22	<b>1.58</b>	2.23	120	230
	676.482	●	●	1.50	1.10	0.80*	1.13	1.60	1.96	<b>2.53</b>	3.58	130	230
	676.562	●	●	2.00	1.50	1.25	1.77	2.50	3.06	<b>3.95</b>	5.59	130	240
	676.642	●	●	2.50	1.80	2.00	2.83	4.00	4.90	<b>6.33</b>	8.95	140	250
	676.722	●	●	3.00	2.40	3.15	4.45	6.30	7.71	<b>9.96</b>	14.09	140	260
	676.762	●	●	3.50	2.70	4.00	5.66	8.00	9.80	<b>12.65</b>	17.89	140	260
676.802	●	●	4.00	3.10	5.00	7.07	10.00	12.25	<b>15.81</b>	22.36	140	260	
45°	676.303	●	●	0.70	0.50	0.16*	0.23*	0.32	0.40	<b>0.51</b>	0.72	170	330
	676.363	●	●	1.00	0.70	0.32*	0.45*	0.63	0.77	<b>1.00</b>	1.41	190	350
	676.403	●	●	1.20	0.90	0.50*	0.71	1.00	1.22	<b>1.58</b>	2.23	200	370
	676.483	●	●	1.50	1.10	0.80*	1.13	1.60	1.96	<b>2.53</b>	3.58	200	390
	676.563	●	●	2.00	1.40	1.25	1.77	2.50	3.06	<b>3.95</b>	5.59	210	410
	676.643	●	●	2.50	1.80	2.00	2.83	4.00	4.90	<b>6.33</b>	8.95	220	410
	676.723	●	●	3.00	2.40	3.15	4.45	6.30	7.71	<b>9.96</b>	14.09	220	420
	676.763	●	●	3.50	2.70	4.00	5.66	8.00	9.80	<b>12.65</b>	17.89	220	420
676.803	●	●	4.00	3.00	5.00	7.07	10.00	12.25	<b>15.81</b>	22.36	220	420	
60°	676.304	●	●	0.70	0.40	0.16*	0.23*	0.32	0.40	<b>0.51</b>	0.72	260	480
	676.334	●	●	0.90	0.50	0.22*	0.32*	0.45	0.55	<b>0.71</b>	1.00	260	490
	676.364	●	●	1.00	0.60	0.32*	0.45*	0.63	0.77	<b>1.00</b>	1.41	260	500
	676.404	●	●	1.20	0.80	0.50*	0.71	1.00	1.22	<b>1.58</b>	2.23	260	510
	676.444	●	●	1.35	1.00	0.63*	0.89	1.25	1.53	<b>1.98</b>	2.80	260	510
	676.484	●	●	1.50	1.00	0.80*	1.13	1.60	1.96	<b>2.53</b>	3.58	260	520

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.				p [bar]						H = 250 [mm]	H = 500 [mm]
		16	30										
		Stainless steel 303	Brass			0.5	1.0	2.0	3.0	5.0	10.0		
60°	676.514	●	●	1.65	1.10	0.95*	1.34	1.90	2.32	<b>3.00</b>	4.24	270	520
	676.564	●	●	2.00	1.30	1.25	1.77	2.50	3.06	<b>3.95</b>	5.59	270	530
	676.604	●	●	2.20	1.50	1.57	2.23	3.15	3.86	<b>4.98</b>	7.04	270	540
	676.644	●	●	2.50	1.60	2.00	2.83	4.00	4.90	<b>6.33</b>	8.95	270	540
	676.674	●	●	2.70	1.80	2.37	3.36	4.75	5.82	<b>7.51</b>	10.62	270	550
	676.724	●	●	3.00	2.10	3.15	4.45	6.30	7.71	<b>9.96</b>	14.09	280	560
676.764	●	●	3.50	2.30	4.00	5.66	8.00	9.80	<b>12.65</b>	17.89	280	570	
75°	676.145	●	●	0.20	0.12	–	0.04*	0.05	0.06	<b>0.08</b>	0.11	380	690
	676.165	●	●	0.20	0.08	–	0.05*	0.06	0.08	<b>0.10</b>	0.14	380	690
	676.185	●	●	0.20	0.15	–	0.06*	0.08	0.09	<b>0.12</b>	0.17	380	690
	676.215	●	●	0.40	0.20	–	0.08*	0.11	0.14	<b>0.18</b>	0.25	380	690
	676.245	●	●	0.50	0.30	–	0.12*	0.16	0.20	<b>0.26</b>	0.37	380	690
	676.275	●	●	0.60	0.30	0.11*	0.16*	0.22	0.27	<b>0.35</b>	0.49	380	690
90°	676.216	●	●	0.40	0.20	–	0.08*	0.11	0.14	<b>0.18</b>	0.25	420	780
	676.276	●	●	0.60	0.30	0.11*	0.16*	0.22	0.27	<b>0.35</b>	0.49	430	790
	676.306	●	●	0.70	0.40	0.16*	0.23*	0.32	0.40	<b>0.51</b>	0.72	440	800
	676.336	●	●	0.90	0.50	0.22*	0.32*	0.45	0.55	<b>0.71</b>	1.00	440	820
	676.366	●	●	1.00	0.50	0.32*	0.45*	0.63	0.77	<b>1.00</b>	1.41	450	830
	676.406	●	●	1.20	0.70	0.50*	0.71	1.00	1.22	<b>1.58</b>	2.23	450	840
	676.446	●	●	1.35	0.80	0.63*	0.89	1.25	1.53	<b>1.98</b>	2.80	460	860
	676.486	●	●	1.50	0.80	0.80*	1.13	1.60	1.96	<b>2.53</b>	3.58	470	870
	676.516	●	●	1.65	0.90	0.95*	1.34	1.90	2.32	<b>3.00</b>	4.24	480	880
	676.566	●	●	2.00	1.10	1.25	1.77	2.50	3.06	<b>3.95</b>	5.59	490	900
	676.606	●	●	2.20	1.20	1.57	2.23	3.15	3.86	<b>4.98</b>	7.04	500	910
	676.646	●	●	2.50	1.30	2.00	2.83	4.00	4.90	<b>6.33</b>	8.95	510	930
	676.676	●	●	2.70	1.40	2.37	3.36	4.75	5.82	<b>7.51</b>	10.62	510	950
	676.726	●	●	3.00	1.70	3.15	4.45	6.30	7.71	<b>9.96</b>	14.09	520	980
120°	676.187	●	●	0.35	0.20	–	0.06*	0.08	0.10	<b>0.13</b>	0.18	630	1,060
	676.217	●	●	0.40	0.20	–	0.08*	0.11	0.14	<b>0.18</b>	0.25	650	1,080
	676.247	●	●	0.50	0.20	–	0.12*	0.16	0.20	<b>0.26</b>	0.37	660	1,100
	676.277	●	●	0.60	0.30	–	0.16*	0.22	0.27	<b>0.35</b>	0.49	670	1,150
	676.307	●	●	0.70	0.30	0.16*	0.23*	0.32	0.40	<b>0.51</b>	0.72	710	1,240
	676.337	●	●	0.90	0.40	0.22*	0.32*	0.45	0.55	<b>0.71</b>	1.00	740	1,350
	676.367	●	●	1.00	0.50	0.32*	0.45*	0.63	0.77	<b>1.00</b>	1.41	800	1,430
	676.407	●	●	1.20	0.60	0.50*	0.71	1.00	1.22	<b>1.58</b>	2.23	830	1,480
	676.447	●	●	1.35	0.70	0.63*	0.89	1.25	1.53	<b>1.98</b>	2.80	840	1,520
	676.487	●	●	1.50	0.60	0.80*	1.13	1.60	1.96	<b>2.53</b>	3.58	850	1,540
	676.517	●	●	1.65	0.90	0.95*	1.34	1.90	2.32	<b>3.00</b>	4.24	850	1,560
	676.567	●	●	2.00	0.90	1.25	1.77	2.50	3.06	<b>3.95</b>	5.59	870	1,590
	676.607	●	●	2.20	1.10	1.57	2.23	3.15	3.86	<b>4.98</b>	7.04	870	1,620
	676.647	●	●	2.50	1.30	2.00	2.83	4.00	4.90	<b>6.33</b>	8.95	880	1,640
	676.677	●	●	2.70	1.40	2.37	3.36	4.75	5.82	<b>7.51</b>	10.62	890	1,660
	676.727	●	●	3.00	1.60	3.15	4.45	6.30	7.71	<b>9.96</b>	14.09	890	1,680
	676.767	●	●	3.50	1.70	4.00	5.66	8.00	9.80	<b>12.65</b>	17.89	900	1,700

\* Differing spray pattern.

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: 676.514 + 16 = 676.514.16



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