



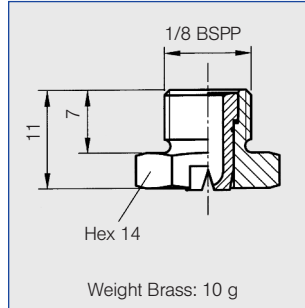
Flat fan nozzles

Series 610



Compact design, suitable for narrow installation conditions. Stable spray angle. Uniform, parabolic distribution of liquid.

Applications:
Cleaning installations, cooling headers, spray pipes.



Spray angle	Ordering no.		A Ø [mm]	E Ø [mm]	ṽ [l/min]								Spray width B at p = 2 bar		
	Type	Mat.-no.			p [bar]								H =		
		16			30	0.5	1.0	2.0	[US gal./min] at 40 psi	3.0	5.0	10.0	250 mm	500 mm	
20°	610.301	○	○	0.70	0.60	0.16*	0.23*	0.32	0.10	0.39	0.51	0.72	65	125	
	610.361	○	○	1.00	0.80	0.31*	0.44*	0.63	0.20	0.77	1.00	1.40	65	125	
	610.441	○	○	1.35	1.10	0.62*	0.88	1.25	0.39	1.53	1.98	2.80	65	125	
	610.481	○	○	1.50	1.20	0.80*	1.13	1.60	0.50	1.96	2.53	3.58	65	125	
30°	610.302	○	○	0.70	0.50	0.16*	0.23*	0.32	0.10	0.39	0.51	0.72	115	230	
	610.362	○	○	1.00	0.70	0.31*	0.44*	0.63	0.20	0.77	1.00	1.40	115	230	
	610.402	○	○	1.20	0.90	0.50*	0.71	1.00	0.31	1.23	1.58	2.24	115	230	
	610.482	○	○	1.50	1.10	0.80*	1.13	1.60	0.50	1.96	2.53	3.58	115	230	
	610.562	○	○	2.00	1.50	1.25	1.77	2.50	0.78	3.06	3.95	5.59	115	230	
45°	610.303	○	○	0.70	0.50	0.16*	0.23*	0.32	0.10	0.39	0.51	0.72	185	340	
	610.363	○	○	1.00	0.60	0.31*	0.44*	0.63	0.20	0.77	1.00	1.40	185	340	
	610.403	○	○	1.20	0.90	0.50*	0.71	1.00	0.31	1.23	1.58	2.24	185	340	
	610.483	○	○	1.50	1.10	0.80*	1.13	1.60	0.50	1.96	2.53	3.58	185	340	
	610.563	○	○	2.00	1.40	1.25	1.77	2.50	0.78	3.06	3.95	5.59	185	340	
	610.643	○	○	2.50	1.80	2.00	2.83	4.00	1.24	4.90	6.33	8.94	185	340	
60°	610.304	○	○	0.70	0.40	0.16*	0.23*	0.32	0.10	0.39	0.51	0.72	275	525	
	610.334	○	○	0.90	0.50	0.22*	0.32*	0.45	0.14	0.55	0.71	1.01	275	525	
	610.364	○	○	1.00	0.60	0.31*	0.44*	0.63	0.20	0.77	1.00	1.40	275	525	
	610.404	○	○	1.20	0.80	0.50*	0.71	1.00	0.31	1.23	1.58	2.24	275	525	
	610.444	○	○	1.35	0.90	0.62*	0.88	1.25	0.39	1.53	1.98	2.80	280	530	
	610.484	○	○	1.50	1.00	0.80*	1.13	1.60	0.50	1.96	2.53	3.58	280	530	
	610.514	○	○	1.65	1.10	0.95*	1.34	1.90	0.59	2.33	3.00	4.25	280	530	
	610.564	○	○	2.00	1.30	1.25	1.77	2.50	0.78	3.06	3.95	5.59	280	530	
610.604	○	○	2.20	1.50	1.58	2.23	3.15	0.98	3.86	4.98	7.04	280	530		
75°	610.145	○	○	0.20	0.12	-	0.04*	0.05	0.02	0.06	0.08	0.11	285	550	
	610.165	○	○	0.20	0.08	-	0.05*	0.07	0.02	0.08	0.10	0.15	285	555	
	610.185	○	○	0.20	0.15	-	0.06*	0.08	0.11	0.10	0.13	0.18	290	560	
	610.215	○	○	0.40	0.20	-	0.08*	0.11	0.03	0.14	0.18	0.25	290	560	
	610.245	○	○	0.50	0.30	-	0.12*	0.16	0.05	0.20	0.26	0.36	290	560	
	610.275	○	○	0.60	0.30	0.11*	0.16*	0.22	0.07	0.27	0.35	0.49	290	560	

A = Equivalent bore diameter · E = narrowest free cross section

* Differing spray pattern

Subject to technical modifications.

Continued on next page.

The folded page at the end of the catalogue will give you a survey on the various assembly possibilities.

For complete assembly accessories, please refer to »Accessories«.

Example for ordering:	Type	+	Material-no.	=	Ordering no.
	610.301	+	16	=	610.301.16

Conversion formula for the above series: $\dot{V}_2 = \dot{V}_1 * \sqrt{\frac{p_2}{p_1}}$





Flat fan nozzles

Series 610



Spray angle	Ordering no.		A ∅ [mm]	E ∅ [mm]	V̇ [l/min]								Spray width B at p = 2 bar	
	Type	Mat.-no.			p [bar]								H =	
		16	30	0.5	1.0	2.0	[US gal/ min] at 40 psi	3.0	5.0	10.0	250 mm	500 mm		
	AISI 303	Brass												
90°	610. 216	○	○	0.40	0.20	-	0.08*	0.11	0.03	0.14	0.18	0.25	380	670
	610. 276	○	○	0.60	0.30	0.11*	0.16*	0.22	0.07	0.27	0.35	0.49	450	795
	610. 306	○	○	0.70	0.40	0.16*	0.23*	0.32	0.10	0.39	0.51	0.72	450	795
	610. 336	○	○	0.90	0.50	0.22*	0.32*	0.45	0.14	0.55	0.71	1.01	450	795
	610. 366	○	○	1.00	0.50	0.31*	0.44*	0.63	0.20	0.77	1.00	1.41	450	795
	610. 406	○	○	1.20	0.70	0.50*	0.71	1.00	0.31	1.23	1.58	2.24	450	800
	610. 446	○	○	1.35	0.80	0.62*	0.88	1.25	0.39	1.53	1.98	2.80	450	800
	610. 486	○	○	1.50	0.80	0.80*	1.13	1.60	0.50	1.96	2.53	3.58	450	800
	610. 516	○	○	1.65	0.90	0.95*	1.34	1.90	0.59	2.33	3.00	4.25	450	800
	610. 566	○	○	2.00	1.10	1.25	1.77	2.50	0.78	3.06	3.95	5.59	450	805
610. 606	○	○	2.20	1.20	1.58	2.23	3.15	0.98	3.86	4.98	7.04	450	805	
120°	610. 187	○	○	0.35	0.20	-	0.06*	0.08	0.02	0.10	0.13	0.18	640	1220
	610. 217	○	○	0.40	0.20	-	0.08*	0.11	0.03	0.14	0.18	0.25	650	1230
	610. 247	○	○	0.50	0.20	-	0.12*	0.16	0.05	0.20	0.26	0.36	655	1245
	610. 277	○	○	0.60	0.30	-	0.16*	0.22	0.07	0.27	0.35	0.49	655	1250
	610. 307	○	○	0.70	0.30	0.16*	0.23*	0.32	0.10	0.39	0.51	0.72	660	1260
	610. 337	○	○	0.90	0.40	0.22*	0.32*	0.45	0.14	0.55	0.71	1.01	660	1260
	610. 367	○	○	1.00	0.50	0.31*	0.44*	0.63	0.20	0.77	1.00	1.41	660	1265
	610. 407	○	○	1.20	0.60	0.50*	0.71	1.00	0.31	1.23	1.58	2.24	660	1270
	610. 447	○	○	1.35	0.60	0.62*	0.88	1.25	0.39	1.53	1.98	2.80	665	1270
	610. 487	○	○	1.50	0.60	0.80*	1.13	1.60	0.50	1.96	2.53	3.58	665	1270
	610. 517	○	○	1.65	0.90	0.95*	1.34	1.90	0.59	2.33	3.00	4.25	670	1275
	610. 567	○	○	2.00	0.90	1.25	1.77	2.50	0.78	3.06	3.95	5.59	670	1280
	610. 607	○	○	2.20	1.10	1.58	2.23	3.15	0.98	3.86	4.98	7.04	675	1285

A = Equivalent bore diameter · E = narrowest free cross section
 * Differing spray pattern
 Subject to technical modifications.

The folded page at the end of the catalogue will give you a survey on the various assembly possibilities.
 For complete assembly accessories, please refer to »Accessories«.

Example	Type	+	Material-no.	=	Ordering no.
for ordering:	610. 216	+	16	=	610. 216. 16

