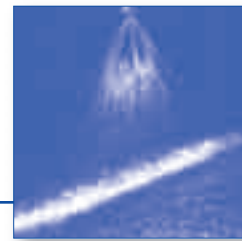




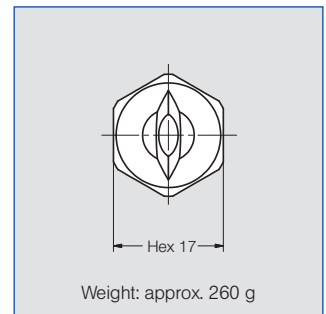
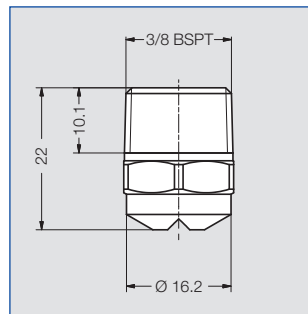
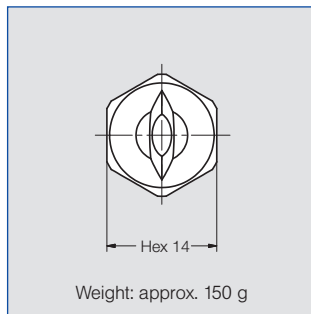
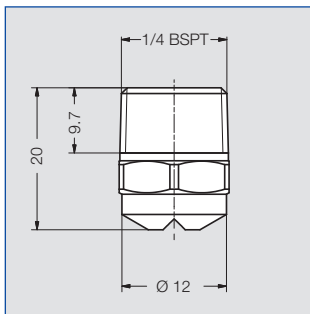
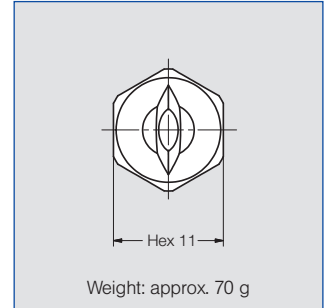
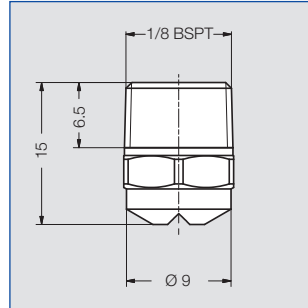
Flat fan nozzles

Series 650 / 651



Cost-efficient design for standard cleaning tasks and rinsing processes. Series with uniform flat fan and conical, self-sealing thread connection. Suitable for use with spray pipes. Manufactured to order in quantities 250 or greater.

Application: Standard cleaning and rinsing tasks



Spray angle	Ordering no.					A Ø [mm]	E Ø [mm]	V̇ [l/min]								Spray width B at p = 2 bar	
	Type	Mat. no. 1C	Code					p [bar]								H =	
			AISI 304	1/8 BSPT	1/4 BSPT			3/8 BSPT	0,5	1.0	2.0	3.0	5.0	7.0	10.0	250 mm	500 mm
45°	650. 483	○	CA	CC	-	1.50	1.10	0.80*	1.13	1.60	1.96	2.53	2.99	3.58	180	340	
	650. 563	○	CA	CC	-	2.00	1.40	1.25	1.77	2.50	3.06	3.95	4.68	5.59	185	355	
	650. 603	○	CA	CC	-	2.20	1.60	1.58	2.23	3.15	3.86	4.98	5.89	7.04	195	370	
	650. 643	○	CA	CC	-	2.50	1.80	2.00	2.83	4.00	4.90	6.33	7.48	8.94	195	370	
	650. 723	○	CA	CC	-	3.00	2.40	3.15	4.46	6.30	7.72	9.96	11.79	14.09	200	375	
	650. 763	○	-	CC	-	3.50	2.60	4.00	5.66	8.00	9.80	12.65	14.97	17.89	200	380	
	650. 803	○	-	CC	-	4.00	3.00	5.00	7.07	10.00	12.25	15.81	18.71	22.36	205	385	
	650. 843	○	-	CC	CE	4.50	3.40	6.25	8.84	12.50	15.31	19.76	23.39	27.95	205	385	
	650. 883	○	-	CC	CE	5.00	3.80	8.00	11.31	16.00	19.60	25.30	29.93	35.78	220	440	
	650. 923	○	-	CC	CE	5.50	4.20	10.00	14.14	20.00	24.50	31.62	37.42	44.72	220	440	
	650. 963	○	-	-	CE	6.00	4.40	12.50	17.68	25.00	30.62	39.53	46.77	55.90	220	440	
	650. 993	○	-	-	CE	6.50	4.80	15.00	21.21	30.00	36.74	47.43	56.12	67.08	220	440	
	651. 003	○	-	-	CE	7.00	5.20	15.75	22.27	31.50	38.57	49.80	58.92	70.43	220	440	
	651. 043	○	-	-	CE	8.00	5.90	20.00	28.28	40.00	48.99	63.25	74.83	89.44	220	440	

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

Continued on next page.

Example for ordering:	Type	+ Material no.	+ Code	= Ordering no.
	650. 483	+ 1C	+ CA	= 650. 483. 1C. CA

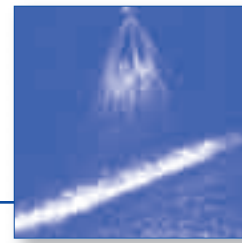
Conversion formula for the above series: $\dot{V}_2 = \dot{V}_1 * \sqrt{\frac{p_2}{p_1}}$





Flat fan nozzles

Series 650 / 651



Spray angle	Ordering no.					A ∅ [mm]	E ∅ [mm]	V̇ [l/min]								Spray width B at p = 2 bar	
	Type	Mat. no. 1C	Code					p [bar]									
			AISI 304	1/8 BSPT	3/4 BSPT			3/8 BSPT	0.5	1.0	2.0	3.0	5.0	7.0	10.0		
																CA	CC
60°	650.484	○	CA	CC	-	1.50	1.00	0.80*	1.13	1.60	1.96	2.53	2.99	3.58	260	510	
	650.564	○	CA	CC	-	2.00	1.30	1.25	1.77	2.50	3.06	3.95	4.68	5.59	280	535	
	650.604	○	CA	CC	-	2.20	1.50	1.58	2.23	3.15	3.86	4.98	5.89	7.04	290	550	
	650.644	○	CA	CC	-	2.50	1.60	2.00	2.83	4.00	4.90	6.33	7.48	8.94	295	565	
	650.724	○	CA	CC	-	3.00	2.10	3.15	4.46	6.30	7.72	9.96	11.79	14.09	305	590	
	650.764	○	-	CC	-	3.50	2.30	4.00	5.66	8.00	9.80	12.65	14.97	17.89	310	595	
	650.804	○	-	CC	-	4.00	2.60	5.00	7.07	10.00	12.25	15.81	18.71	22.36	310	595	
	650.844	○	-	CC	CE	4.50	3.00	6.25	8.84	12.50	15.31	19.76	23.39	27.95	310	590	
	650.884	○	-	CC	CE	5.00	3.40	8.00	11.31	16.00	19.60	25.30	29.93	35.78	300	570	
	650.924	○	-	CC	CE	5.50	4.10	10.00	14.14	20.00	24.50	31.62	37.42	44.72	330	630	
	650.964	○	-	-	CE	6.00	4.20	12.50	17.68	25.00	30.62	39.53	46.77	55.90	330	630	
	650.994	○	-	-	CE	6.50	4.40	15.00	21.21	30.00	36.74	47.43	56.12	67.08	330	630	
	651.004	○	-	-	CE	7.00	4.80	15.75	22.27	31.50	38.57	49.80	58.92	70.43	330	630	
651.044	○	-	-	CE	8.00	5.50	20.00	28.28	40.00	48.99	63.25	74.83	89.44	340	640		
90°	650.486	○	CA	CC	-	1.50	0.80	0.80*	1.13	1.60	1.96	2.53	2.99	3.58	440	835	
	650.566	○	CA	CC	-	2.00	1.10	1.25	1.77	2.50	3.06	3.95	4.68	5.59	445	850	
	650.606	○	CA	CC	-	2.20	1.20	1.58	2.23	3.15	3.86	4.98	5.89	7.04	450	860	
	650.646	○	CA	CC	-	2.50	1.30	2.00	2.83	4.00	4.90	6.33	7.48	8.94	455	865	
	650.726	○	CA	CC	-	3.00	1.70	3.15	4.46	6.30	7.72	9.96	11.79	14.09	470	885	
	650.766	○	-	CC	-	3.50	1.90	4.00	5.66	8.00	9.80	12.65	14.97	17.89	475	890	
	650.806	○	-	CC	-	4.00	2.40	5.00	7.07	10.00	12.25	15.81	18.71	22.36	480	900	
	650.846	○	-	CC	CE	4.50	2.40	6.25	8.84	12.50	15.31	19.76	23.39	27.95	480	900	
	650.886	○	-	CC	CE	5.00	3.10	8.00	11.31	16.00	19.60	25.30	29.93	35.78	480	910	
	650.926	○	-	CC	CE	5.50	3.60	10.00	14.14	20.00	24.50	31.62	37.42	44.72	525	1020	
	650.966	○	-	-	CE	6.00	3.90	12.50	17.68	25.00	30.62	39.53	46.77	55.90	525	1020	
	650.996	○	-	-	CE	6.50	3.70	15.00	21.21	30.00	36.74	47.43	56.12	67.08	525	1020	
	651.006	○	-	-	CE	7.00	4.20	15.75	22.27	31.50	38.57	49.80	58.92	70.43	525	1020	
651.046	○	-	-	CE	8.00	4.90	20.00	28.28	40.00	48.99	63.25	74.83	89.44	525	1020		
120°	650.487	○	CA	CC	-	1.50	0.60	0.80*	1.13	1.60	1.96	2.53	2.99	3.58	680	1275	
	650.567	○	CA	CC	-	2.00	0.90	1.25	1.77	2.50	3.06	3.95	4.68	5.59	690	1285	
	650.607	○	CA	CC	-	2.20	1.10	1.58	2.23	3.15	3.86	4.98	5.89	7.04	700	1300	
	650.647	○	CA	CC	-	2.50	1.30	2.00	2.83	4.00	4.90	6.33	7.48	8.94	700	1300	
	650.727	○	CA	CC	-	3.00	1.60	3.15	4.46	6.30	7.72	9.96	11.79	14.09	740	1360	
	650.767	○	-	CC	-	3.50	1.70	4.00	5.66	8.00	9.80	12.65	14.97	17.89	760	1400	
	650.807	○	-	CC	-	4.00	2.00	5.00	7.07	10.00	12.25	15.81	18.71	22.36	790	1450	
	650.847	○	-	CC	CE	4.50	2.30	6.25	8.84	12.50	15.31	19.76	23.39	27.95	790	1450	
	650.887	○	-	CC	CE	5.00	2.60	8.00	11.31	16.00	19.60	25.30	29.93	35.78	800	1460	
	650.927	○	-	CC	CE	5.00	2.90	10.00	14.14	20.00	24.50	31.62	37.42	44.72	800	1460	
	650.967	○	-	-	CE	6.00	3.20	12.50	17.68	25.00	30.62	39.53	46.77	55.90	800	1460	
	650.997	○	-	-	CE	6.50	3.40	15.00	21.21	30.00	36.74	47.43	56.12	67.08	800	1460	
	651.007	○	-	-	CE	7.00	3.70	15.75	22.27	31.50	38.57	49.80	58.92	70.43	800	1460	
	651.047	○	-	-	CE	8.00	4.40	20.00	28.28	40.00	48.99	63.25	74.83	89.44	800	1460	

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

Example for ordering: Type 650.484 + Material no. 1C + Code CA = Ordering no. 650.484.1C.CA