



Axial-flow full cone nozzles

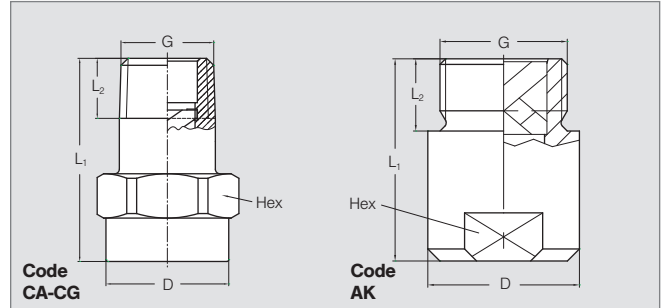
Series 460 / 461



**Very uniform spray pattern.
Large free cross-sections,
due to optimized
x-style swirl insert.**

Applications:

Cleaning and washing process, cooling of gaseous fluids and solids, surface spraying, spraying onto mats in air washers, improving of chemical reactions.



Code	Dimensions [mm]				
	G	L ₁	L ₂	D	Hex
CA	1/8 BSPT	22.0	6.5	13.0	14
CC	1/4 BSPT	22.0	9.7	13.0	14
CE	3/8 BSPT	30.0	10.0	17.0	17
CG	1/2 BSPT	43.5	13.2	22.0	22
AK	3/4 BSPP	42.0	15.0	31.5	27

Subject to technical modifications.
Please enquire about the exact
dimensions if the installation situation
is critical!

Spray angle	Type	Mat.-no. 5E	Ordering no.					B ∅ [mm]	E ∅ [mm]	V̇ [l/min]								Spray diameter D at p=2 bar			
			Code							p [bar]								H = 200 mm		H = 500 mm	
			PVDF	1/8 BSPT	1/4 BSPT	3/8 BSPT	1/2 BSPT			3/4 BSPP	0.5	1.0	2.0	3.0	5.0	7.0	10.0	D	H	D	H
60°	460.644	○	-	CC	-	-	2.40	1.90	2.30	3.03	4.00	4.70	5.77	6.60	7.61	220	560				
	460.964	○	-	-	-	AK	5.80	4.90	14.36	18.95	25.00	29.40	36.07	41.26	47.59	220	560				
90°	460.326	○	CA	-	-	-	0.80	0.55	0.23	0.30	0.40	0.47	0.58	0.66	0.76	380	860				
	460.406	○	CA	-	-	-	1.20	0.85	0.57	0.76	1.00	1.18	1.44	1.65	1.90	380	860				
	460.486	○	CA	-	-	-	1.45	1.20	0.92	1.21	1.60	1.88	2.31	2.64	3.05	380	860				
	460.526	○	CA	-	-	-	1.65	1.30	1.15	1.52	2.00	2.35	2.89	3.30	3.81	380	860				
	460.606	○	CA	-	CE	-	2.05	1.45	1.81	2.39	3.15	3.70	4.54	5.20	6.00	380	860				
	460.646	○	-	CC	-	-	2.30	1.80	2.30	3.03	4.00	4.70	5.77	6.60	7.61	390	960				
	460.726	○	-	-	CE	-	2.95	2.00	3.62	4.77	6.30	7.41	9.09	10.40	11.99	390	960				
	460.746	○	-	-	CE	-	3.30	1.90	4.08	5.38	7.10	8.35	10.24	11.72	13.52	390	960				
	460.766	○	-	-	CE	-	3.30	2.40	4.59	6.06	8.00	9.41	11.54	13.20	15.22	390	960				
	460.806	○	-	-	CE	-	3.70	2.70	5.74	7.58	10.00	11.76	14.43	16.51	19.04	390	960				
	460.846	○	-	-	CE	-	4.05	3.20	7.18	9.47	12.50	14.70	18.03	20.63	23.80	390	960				
	460.886	○	-	-	-	CG	4.70	3.10	9.19	12.13	16.00	18.82	23.08	26.41	30.46	390	960				
	460.966	○	-	-	-	CG	5.80	3.80	14.36	18.95	25.00	29.40	36.07	41.26	47.59	390	960				
	461.006	○	-	-	-	CG	6.40	3.80	18.09	23.87	31.50	37.05	45.45	51.99	59.97	390	960				
	461.046	⊗	-	-	-	AK	7.20	5.30	22.97	30.31	40.00	47.04	57.71	66.02	76.15	390	960				

B = bore diameter · E = narrowest free cross section
⊗ Material PP (Material no. 53), connection 3/4 BSPT (Code CK)

Continued on next page.

Conversion formula for the above series: $\dot{V}_2 = \dot{V}_1 * \left(\frac{p_2}{p_1}\right)^{0.4}$
(≤ 10 bar)





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Spray angle	Ordering no.							B ∅ [mm]	E ∅ [mm]	V̇ [l/min]							Spray diameter D at p=2 bar	
	Type	Mat.-no. 5E	Code				p [bar]							Diagram				
			1/8 BSPT	1/4 BSPT	3/8 BSPT	1/2 BSPT	3/4 BSPT			0.5	1.0	2.0	3.0	5.0	7.0	10.0	H = 200 mm	H = 500 mm
120°	460. 408	○	CA	-	-	-	-	1.20	0.85	0.57	0.76	1.00	1.18	1.44	1.65	1.90	680	1220
	460. 488	○	CA	-	-	-	-	1.50	1.00	0.92	1.21	1.60	1.88	2.31	2.64	3.05	680	1220
	460. 528	○	CA	-	-	-	-	1.65	1.20	1.15	1.52	2.00	2.35	2.89	3.30	3.81	680	1220
	460. 608	○	CA	-	-	-	-	2.10	1.40	1.81	2.39	3.15	3.70	4.54	5.20	6.00	680	1220
	460. 648	○	-	CC	-	-	-	2.45	1.60	2.30	3.03	4.00	4.70	5.77	6.60	7.61	680	1330
	460. 728	○	-	-	CE	-	-	3.10	1.90	3.62	4.77	6.30	7.41	9.09	10.40	11.99	680	1330
	460. 748	○	-	-	CE	-	-	3.30	1.90	4.08	5.38	7.10	8.35	10.24	11.72	13.52	680	1330
	460. 768	○	-	-	CE	-	-	3.50	1.90	4.59	6.44	8.00	9.41	11.54	13.20	15.22	680	1330
	460. 808	○	-	-	CE	-	-	3.80	2.40	5.74	7.58	10.00	11.76	14.43	16.51	19.04	680	1330
	460. 848	○	-	-	CE	-	-	4.20	2.70	7.18	9.47	12.50	14.70	18.03	20.63	23.80	680	1330
	460. 888	○	-	-	-	CG	-	4.60	3.10	9.19	12.13	16.00	18.82	23.08	26.41	30.46	680	1330
	460. 968	○	-	-	-	CG	-	5.90	4.10	14.36	18.95	25.00	29.40	36.07	41.26	47.59	680	1330
	461. 048	⊗	-	-	-	-	AK	7.60	4.90	22.97	30.31	40.00	47.04	57.71	66.02	76.15	680	1330

B = bore diameter · E = narrowest free cross section

⊗ Material PP (Material no. 53), connection 3/4 BSPT (Code CK)

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. + Code = Ordering no.
for ordering: 460. 408 + 5E + CA = 460. 408. 5E. CA