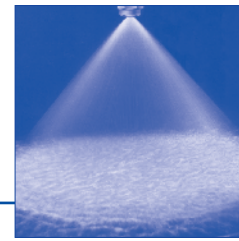




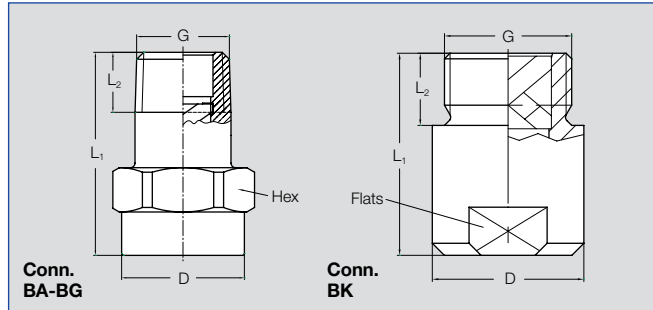
Axial-flow full cone nozzles PVDF version Series 460 / 461



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


Applications:

Pickling, Surface treatment,
rinsing, acid fume scrubbing.



Code	Dimensions [mm]				
	Male NPT G	L ₁	L ₂	D	Hex/Flats
BA	1/8 NPT	.87	.26	.51	14
BC	1/4 NPT	.87	.38	.51	14
BE	3/8 NPT	1.18	.39	.67	17
BG	1/2 NPT	1.71	.52	.87	22
BK	3/4 NPT	1.65	.59	1.24	27

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

Spray angle 	Type	Ordering no.		Orifice diameter [in]	Free passage [in]	Flow Rate (Gallons Per Minute)										Spray diameter D										
		Mat. no.	Connection					10 psi	20 psi	liters per minute		40 psi	60 psi	80 psi	100 psi	150 psi	at p=30 psi									
			5E			Male NPT					2 bar						30 psi	40 psi	60 psi	80 psi	100 psi	150 psi	H=8"	H=20"		
						PVDF	1/8"			1/4"															3/8"	1/2"
60°	460. 644	○	-	BC	-	-	-	.095	.075	.69	.91	4.0	1.1	1.2	1.4	1.6	1.7	2.0	9	22						
	460. 964	○	-	-	-	-	BK	.229	.193	4.3	5.7	25	6.7	7.5	8.8	9.9	10.8	12.7	9	22						
90°	460. 326	○	BA	-	-	-	-	.032	.022	.07	.09	0.4	.11	.12	.14	.16	.17	.20	15	34						
	460. 406	○	BA	-	-	-	-	.047	.033	.17	.23	1.0	.27	.30	.35	.40	.43	.51	15	34						
	460. 486	○	BA	-	-	-	-	.057	.047	.28	.36	1.6	.43	.48	.57	.63	.69	.82	15	34						
	460. 526	○	BA	-	-	-	-	.065	.051	.35	.46	2.0	.54	.60	.71	.79	.87	1.0	15	34						
	460. 606	○	BA	-	BE	-	-	.081	.057	.54	.72	3.2	.84	.95	1.1	1.2	1.4	1.6	15	34						
	460. 646	○	-	BC	-	-	-	.091	.071	.69	.91	4.0	1.1	1.2	1.4	1.6	1.7	2.0	15	38						
	460. 726	○	-	-	BE	-	-	.116	.079	1.1	1.4	6.3	1.7	1.9	2.2	2.5	2.7	3.2	15	38						
	460. 746	○	-	-	BE	-	-	.130	.075	1.2	1.6	7.1	1.9	2.1	2.5	2.8	3.1	3.6	15	38						
	460. 766	○	-	-	BE	-	-	.130	.095	1.4	1.8	8.0	2.1	2.4	2.8	3.2	3.5	4.1	15	38						
	460. 806	○	-	-	BE	-	-	.146	.106	1.7	2.3	10.0	2.7	3.0	3.5	4.0	4.3	5.1	15	38						
	460. 846	○	-	-	BE	-	-	.160	.126	2.2	2.8	12.5	3.3	3.8	4.4	5.0	5.4	6.4	15	38						
	460. 886	○	-	-	-	BG	-	.185	.122	2.8	3.6	16.0	4.3	4.8	5.7	6.3	6.9	8.2	15	38						
	460. 966	○	-	-	-	BG	-	.229	.150	4.3	5.7	25	6.7	7.5	8.8	9.9	10.8	12.7	15	38						
	461. 006	○	-	-	-	BG	-	.252	.150	5.4	7.2	32	8.4	9.5	11.1	12.5	13.7	16.1	15	38						
	461. 046	⊗	-	-	-	-	BK	.284	.209	6.9	9.1	40	10.7	12.0	14.1	15.9	17.3	20	15	38						

Continued on next page.

⊗ material PP (material no. 53), connection 3/4 NPT (Conn. BK)

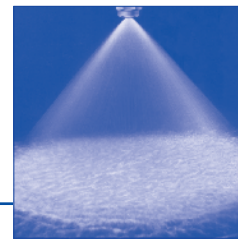
Example **Type** + **Material no.** + **Conn.** = **Ordering no.**
for ordering: **460. 644** + **5E** + **BC** = **460. 644. 5E. BC**



Conversion formula for the above series: $V_2 = V_1 \sqrt{\frac{P_2}{P_1}}$





Axial-flow full cone nozzles PVDF version Series 460 / 461



Spray angle 	Ordering no.						Orifice diameter [in]	Free passage [in]	Flow Rate (Gallons Per Minute)							Spray diameter D at p=30 psi 	
	Type	Mat. no. 5E PVDF	Connection						10 psi	20 psi	liters per minute 2 bar	40 psi	80 psi	100 psi	150 psi	H=8"	H=20"
			Male NPT														
			1/8"	1/4"	3/8"	1/2"											
120°	460. 408	○	BA	-	-	-	.047	.033	.17	.23	1.0	.30	.40	.43	.51	27	52
	460. 488	○	BA	-	-	-	.059	.039	.28	.36	1.6	.48	.63	.69	.82	27	52
	460. 528	○	BA	-	-	-	.065	.047	.35	.46	2.0	.60	.79	.87	1.0	27	52
	460. 608	○	BA	-	-	-	.083	.055	.54	.72	3.5	.95	1.2	1.4	1.6	27	52
	460. 648	○	-	BC	-	-	.096	.063	.69	.91	4.0	1.2	1.6	1.7	2.0	27	52
	460. 728	○	-	-	BE	-	.122	.075	1.1	1.4	6.3	1.9	2.5	2.7	3.2	27	52
	460. 748	○	-	-	BE	-	.130	.075	1.2	1.6	7.1	2.1	2.8	3.1	3.6	27	52
	460. 768	○	-	-	BE	-	.138	.075	1.4	1.8	8.0	2.4	3.2	3.5	4.1	27	52
	460. 808	○	-	-	BE	-	.150	.094	1.7	2.3	10.0	3.0	4.0	4.3	5.1	27	52
	460. 848	○	-	-	BE	-	.165	.106	2.2	2.8	12.5	3.8	5.0	5.4	6.4	27	52
	460. 888	○	-	-	-	BG	.181	.122	2.8	3.6	16.0	4.8	6.3	6.9	8.2	27	52
	460. 968	○	-	-	-	BG	.232	.161	4.3	5.7	25.0	7.5	9.9	10.8	12.7	27	52
	461. 048	⊗	-	-	-	-	.299	.193	6.9	9.1	40.0	12.0	15.9	17.3	20	27	52

⊗ material PP (material no. 53), connection 3/4 NPT (Conn. BK)

Example **Type** + **Material no.** + **Conn.** = **Ordering no.**
for ordering: 460. 408 + 5E + BA = 460. 408. 5E. BA