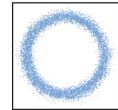


## STANDARD ANGLE SPRAY NOZZLES

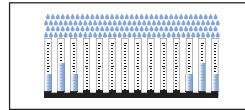
PE/PF hollow cone nozzles generate a ring-shaped spray pattern with finely atomized droplets and work on the tangential flow principle. Inside these nozzles there is an axial groove that injects the liquid tangentially into the vortex chamber where the strong centrifugal force produces a high rotational velocity and generates a finely atomized liquid flow. As these nozzles have a large inside free passage and no swirl insert, they offer the maximum resistance to clogging. PE/PF nozzles are widely used in many production processes and their variety of spray angles and capacities make them suitable for all kinds of working environments.

### Thread specification

Female thread (PE series): BSPT, NPT  
Male thread (PF series): BSP, NPT



Spray section



Concave distribution



HOLLOW CONE NOZZLES

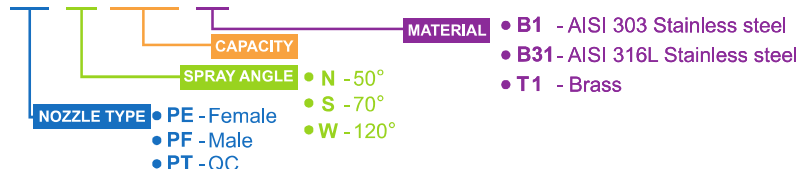
## STANDARD ANGLE SPRAY NOZZLES

◁	RF	PEN	PFN	PTN	Code	DE	DU	Capacity at different pressure values (l/min) (bar)								Dimensions mm			
	RG	Female	Male	QC				0.5	0.7	1.0	2.0	3.0	5.0	7.0	10	H	L	L1	
	inch					mm	mm												
50°	3/8"		•	•	2180	5.9	7.9	7.35	8.69	10.4	14.7	18.0	23.2	27.5	32.9	24	34	35	
			•	•	2220	7.5	7.9	8.98	10.6	12.7	18.0	22.0	28.4	33.6	40.2				
			•	•	2390	8.7	9.5	15.9	18.8	22.5	31.8	39.0	50.3	59.6	71.2				
70°	1/8"		•		0390	0.79	1.2	0.16	0.19	0.23	0.32	0.39	0.50	0.60	0.71	19	24	26	
			•		0780	1.6	1.6	0.32	0.38	0.45	0.64	0.78	1.01	1.19	1.42				
		•	•		1160	2.0	2.0	0.65	0.77	0.92	1.31	1.60	2.07	2.44	2.92				
		•	•		1230	2.4	2.4	0.94	1.11	1.33	1.88	2.30	2.97	3.51	4.20				
		•	•		1390	3.2	3.2	1.59	1.88	2.25	3.18	3.90	5.03	5.96	7.12				
	1/4"		•	•		0781	1.6	1.6	0.32	0.38	0.45	0.64	0.78	1.01	1.19	1.42	23	32	32
		•	•	•	1161	2.0	2.0	0.65	0.77	0.92	1.31	1.60	2.07	2.44	2.92				
		•	•	•	1231	2.4	2.4	0.94	1.11	1.33	1.88	2.30	2.97	3.51	4.20				
		•	•	•	1391	3.6	3.6	1.59	1.88	2.25	3.18	3.90	5.03	5.96	7.12				
		•	•	•	1631	4.0	4.0	2.57	3.04	3.64	5.14	6.30	8.13	9.62	11.5				
	3/8"		•	•		1780	4.4	4.4	3.18	3.77	4.50	6.37	7.80	10.1	11.9	14.2			
		•	•		1392	3.6	3.2	1.59	1.88	2.25	3.18	3.90	5.03	5.96	7.12	24	34	35	
		•	•		1632	4.4	4.0	2.57	3.04	3.64	5.14	6.30	8.13	9.62	11.5				
		•	•		1782	5.2	4.4	3.18	3.77	4.50	6.37	7.80	10.1	11.9	14.2				
		•	•		2118	5.9	5.6	4.78	5.65	6.75	9.55	11.7	15.1	17.9	21.4				
	1/2"		•	•		2157	7.1	6.4	6.41	7.58	9.06	12.8	15.7	20.3	24.0	28.7			
		•	•		2196	7.5	7.5	8.00	9.47	11.3	16.0	19.6	25.3	29.9	35.8				
		•	•		2230	8.3	7.9	9.39	11.1	13.3	18.8	23.0	29.7	35.1	42.0				
		•	•		2197	9.5	6.4	8.00	9.47	11.3	16.0	19.6	25.3	29.9	35.8	31	50	50	
		•	•		2231	9.5	7.5	9.39	11.1	13.3	18.8	23.0	29.7	35.1	42.0				
	3/4"		•	•		2310	9.5	9.1	12.7	15.0	17.9	25.3	31.0	40.0	47.4	56.6			
		•	•	•	2391	9.5	11.1	15.9	18.8	22.5	31.8	39.0	50.3	59.6	71.2				
		•	•	•	2470	9.5	13.1	19.2	22.7	27.1	38.4	47.0	60.7	71.8	85.8				
		•	•		2311	12.7	7.9	12.7	15.0	17.9	25.3	31.0	40.0	47.4	56.6	39	55	58	
		•	•		2392	12.7	9.5	15.9	18.8	22.5	31.8	39.0	50.3	59.6	71.2				
		•	•		2471	12.7	11.1	19.2	22.7	27.1	38.4	47.0	60.7	71.8	85.8				
		•	•		2550	12.7	12.7	22.5	26.6	31.8	44.9	55.0	71.0	84.0	100				
		•	•		2630	12.7	14.3	25.7	30.4	36.4	51.4	63.0	81.3	96.2	115				
•		•		2700	12.7	14.7	28.6	33.8	40.4	57.2	70.0	90.4	107	128					
•		•		2780	12.7	15.9	31.8	37.7	45.0	63.7	78.0	101	119	142					
•	•		2860	12.7	17.1	35.1	41.5	49.7	70.2	86.0	111	131	157						
		•	•		2940	12.7	18.3	38.4	45.4	54.3	76.8	94.0	121	144	172				

### HOW TO MAKE UP THE NOZZLE CODE

EX.: PES 1160 B1

PE S 1160 XX



WIDE ANGLE SPRAY NOZZLES

120°	RF RG inch	PEW Female	PFW Male	PTW QC	Code	DE mm	DU mm	Capacity at different pressure values								Dimensions mm			
								(l/min) (bar)								H	L	L1	
								0.5	0.7	1.0	2.0	3.0	5.0	7.0	10				
120°	1/8"	•	•		0390	0.79	1.2	0.16	0.19	0.23	0.32	0.39	0.50	0.60	0.71	19	24	26	
					0780	1.6	1.6	0.32	0.38	0.45	0.64	0.78	1.01	1.19	1.42				
		•	•		1200	2.0	2.8	0.82	0.97	1.15	1.63	2.00	2.58	3.06	3.65				
					1230	2.4	2.8	0.94	1.11	1.33	1.88	2.30	2.97	3.51	4.20				
		•	•		1270	2.4	3.2	1.10	1.30	1.56	2.20	2.70	3.49	4.12	4.93				
					1320	2.0	4.4	1.31	1.55	1.85	2.61	3.20	4.13	4.89	5.84				
		•	•		1390	3.2	3.2	1.59	1.88	2.25	3.18	3.90	5.03	5.96	7.12				
	1510				3.2	4.4	2.08	2.46	2.94	4.16	5.10	6.58	7.79	9.31					
	•	•		1700	4.0	4.4	2.86	3.38	4.04	5.72	7.00	9.04	10.7	12.8					
	1/4"	•	•	•		0781	1.6	1.6	0.32	0.38	0.45	0.64	0.78	1.01	1.19	1.42	23	32	32
						1130	1.6	3.2	0.53	0.63	0.75	1.06	1.30	1.68	1.99	2.37			
		•	•	•		1160	1.6	4.4	0.65	0.77	0.92	1.31	1.60	2.07	2.44	2.92			
						1190	1.6	5.6	0.78	0.92	1.10	1.55	1.90	2.45	2.90	3.47			
		•	•	•		1271	2.0	3.2	1.10	1.30	1.56	2.20	2.70	3.49	4.12	4.93			
						1321	2.0	4.4	1.31	1.55	1.85	2.61	3.20	4.13	4.89	5.84			
		•	•	•		1391	3.6	3.2	1.59	1.88	2.25	3.18	3.90	5.03	5.96	7.12			
						1511	3.6	4.4	2.08	2.46	2.94	4.16	5.10	6.58	7.79	9.31			
		•	•	•		1600	3.6	5.6	2.45	2.90	3.46	4.90	6.00	7.75	9.17	11.0			
						1701	4.0	4.4	2.86	3.38	4.04	5.72	7.00	9.04	10.7	12.8			
		•	•	•		1780	4.8	4.4	3.18	3.77	4.50	6.37	7.80	10.1	11.9	14.2			
1860						4.0	5.6	3.51	4.15	4.97	7.02	8.60	11.1	13.1	15.7				
•		•	•		1940	4.8	5.6	3.84	4.54	5.43	7.68	9.40	12.1	14.4	17.2				
	2117				6.0	5.6	4.78	5.65	6.75	9.55	11.7	15.1	17.9	21.4					
3/8"	•	•			1512	3.6	4.4	2.08	2.46	2.94	4.16	5.10	6.58	7.79	9.31	24	34	35	
					1601	3.6	5.6	2.45	2.90	3.46	4.90	6.00	7.75	9.17	11.0				
	•	•			1702	4.4	4.4	2.86	3.38	4.04	5.72	7.00	9.04	10.7	12.8				
					1781	5.2	4.4	3.18	3.77	4.50	6.37	7.80	10.1	11.9	14.2				
	•	•			1861	4.4	5.6	3.51	4.15	4.97	7.02	8.60	11.1	13.1	15.7				
					1941	5.2	5.6	3.84	4.54	5.43	7.68	9.40	12.1	14.4	17.2				
	•	•			2102	4.4	7.5	4.16	4.93	5.89	8.33	10.2	13.2	15.6	18.6				
					2110	5.2	6.0	4.49	5.31	6.35	8.98	11.0	14.2	16.8	20.1				
	•	•	•		2118	6.0	5.6	4.78	5.65	6.75	9.55	11.7	15.1	17.9	21.4				
					2133	6.0	6.0	5.43	6.42	7.68	10.9	13.3	17.2	20.3	24.3				
	•	•	•		2157	7.1	6.0	6.41	7.58	9.06	12.8	15.7	20.3	24.0	28.7				
					2172	6.0	7.9	7.02	8.31	9.93	14.0	17.2	22.2	26.3	31.4				
•	•	•		2196	7.5	7.5	8.00	9.47	11.3	16.0	19.6	25.3	29.9	35.8					
				2220	7.5	7.9	8.98	10.6	12.7	18.0	22.0	28.4	33.6	40.2					
1/2"		•	•	2391	9.5	11.1	15.9	18.8	22.5	31.8	39.0	50.3	59.6	71.2	31	50	50		
3/4"		•		2630	12.7	14.3	25.7	30.4	36.4	51.4	63.0	81.3	96.2	115	39	55	58		

HOLLOW CONE NOZZLES

(STARCH NOZZLE) **PFS 1122 F5**

STARCH NOZZLE

In papermaking, the application of starch by spraying is a very common process aid used to provide additional paper strength and to improve the quality, surface and printability of the paper. Our **PFS 1122 F5** is a nozzle specially designed for spraying starch. Its bottom part in ceramic provides an excellent wear-resistance and its internal vaneless design minimizes clogging.



75°	RF inch	Code	D mm	Capacity at different pressure values							
				(l/min) (bar)							
				0.5	0.7	1.0	2.0	3.0	5.0	7.0	10
75°	1/4"	1122	2.0	0.51	0.59	0.72	1.00	1.22	1.55	1.86	2.22

