

HydroPulse®

PHP - Pneumatically Actuated - BJ & BJH Flat Fan - CW Full/Hollow Cone - ST Full Cone

DESIGN FEATURES

- Interchangeable spray tips
- Pneumatically actuated for crisp on/off spray
- Mounting brackets available
- Straight through porting for in-series set-up

SPRAY CHARACTERISTICS

- Precision volume sprays directly on the target
- Reduced waste and minimal overspray maintain a clean, safe environment
- Uniform and repeatable coverage improves product consistency

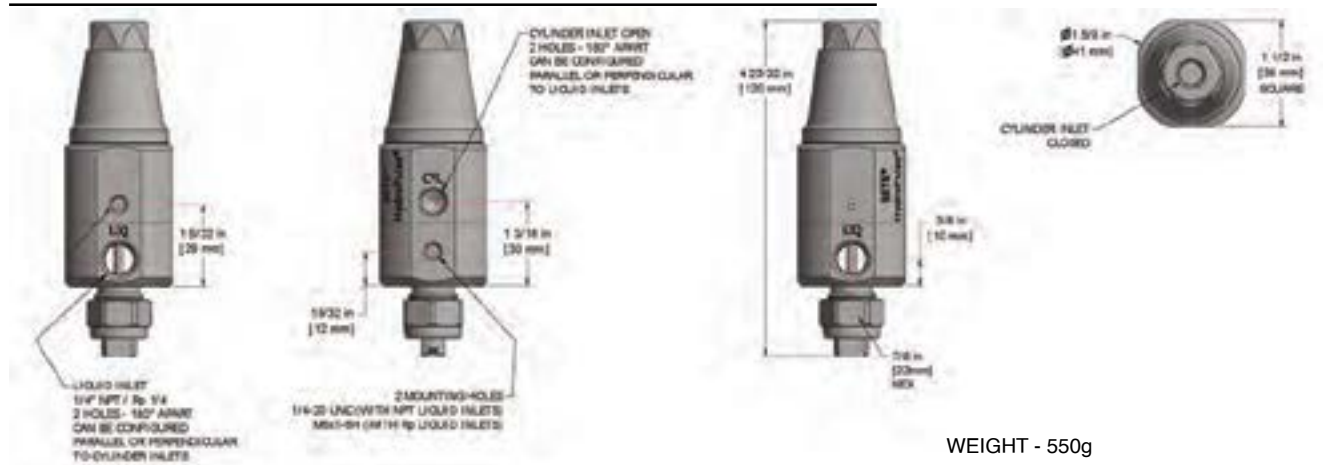
Spray pattern: Flat Fan, Full Cone, Hollow Cone

Spray angles: 0° to 120°

Flow rate: 0.048 to 57.7 L/min



AUTOMATIC



WEIGHT - 550g

BJ Flow Rates
Fan, 0°, 15°, 25°, 40°, 50°, 65°, 80°, 95°, 110° Spray Angles

	K Factor	Nozzle Inlet Pressure, bar							Equiv. Orifice Diameter (mm)	Standard Available Spray Angles*	
		0.3	1	2	5	10	20	40			
BJ 0067	0.153	0.084	0.153	0.220	0.340	0.480	0.680	0.970	0.580	0, 15, 25, 40, 50, 65, 80	
BJ 01	0.228	0.120	0.228	0.320	0.510	0.720	1.02	1.44	0.710	0, 15, 25, 40, 50, 65, 80, 95, 110	
BJ 015	0.342	0.190	0.342	0.480	0.760	1.08	1.53	2.16	0.970	0, 15, 25, 40, 50, 65, 80, 95, 110	
BJ 02	0.456	0.250	0.456	0.640	1.02	1.44	2.04	2.88	0.990	0, 15, 25, 40, 50, 65, 80, 95, 110	
BJ 03	0.684	0.370	0.684	0.970	1.53	2.16	3.06	4.32	1.19	0, 15, 25, 40, 50, 65, 80, 95, 110	
BJ 04	0.912	0.500	0.912	1.29	2.04	2.88	4.08	5.77	1.40	0, 15, 25, 40, 50, 65, 80, 95, 110	
BJ 05	1.14	0.620	1.14	1.61	2.55	3.60	5.10	7.21	1.55	0, 15, 25, 40, 50, 65, 80, 95, 110	
BJ 06	1.37	0.750	1.37	1.93	3.06	4.32	6.11	8.65	1.70	0, 15, 25, 40, 50, 65, 80, 95, 110	
BJ 08	1.82	1.00	1.82	2.58	4.08	5.77	8.15	11.5	1.88	0, 15, 25, 40, 50, 65, 80, 95, 110	
BJ 10	2.28	1.25	2.28	3.22	5.10	7.21	10.2	14.4	2.18	0, 15, 25, 40, 50, 65, 80, 95, 110	
BJ 15	3.42	1.87	3.42	4.83	7.64	10.8	15.3	21.6	2.72	0, 15, 25, 40, 50, 65, 80, 95, 110	
BJ 20	4.56	2.5	4.56	6.45	10.2	14.4	20.4	28.8	3.18	0, 15, 25, 40, 50, 65, 80, 95, 110	
BJ 30	6.84	3.74	6.84	9.67	15.3	21.6	30.6	43.2	3.67	0, 15, 25, 40, 50, 65, 80, 95, 110	
BJ 40	9.12	4.99	9.12	12.9	20.4	28.8	40.8	57.7	3.97	0, 15, 25, 40, 50, 65, 80, 95, 110	

$$\text{Flow Rate (l/min)} = K \sqrt{\text{bar}}$$

BJ tip materials: Brass, 303SS, 316SS

Spray angle performance varies with pressure. Contact BETE for specific data on critical applications.

TO ORDER: specify pipe size, connection type, nozzle number, spray angle, and material.



BJH Flow Rates, Spray Angles, and Dimensions Fan, 5° to 120° Spray Angles

Nozzle Number	K Factor	LITERS PER MINUTE @ BAR					Equivalent Orifice Dia.(mm)	Available Spray Angles
		2 bar	3 bar	4 bar	7 bar	30 bar		
BJH-0.18	0.018	-	-	-	0.048	0.099	0.18	5°, 10°, 15°, 20°, 25°, 30°, 33°, 40°, 50°
BJH-0.23	0.029	-	-	-	0.077	0.159	0.23	5°, 10°, 15°, 20°, 25°, 30°, 33°, 40°, 50°, 65°
BJH-0.28	0.043	-	-	-	0.114	0.236	0.28	5°, 10°, 20°, 33°, 40°, 50°, 65°, 73°
BJH-0.33	0.059	-	-	-	0.156	0.323	0.33	5°, 10°, 20°, 33°, 40°, 50°, 65°, 73°, 80°, 90°
BJH-0.38	0.079	-	-	-	0.209	0.433	0.38	10°, 20°, 33°, 40°, 50°, 65°, 73°, 80°, 90°, 100°
BJH-0.43	0.100	-	-	-	0.265	0.548	0.43	10°, 20°, 33°, 40°, 50°, 65°, 73°, 80°, 90°, 100°, 110°, 120°
BJH-0.45	0.110	0.156	0.191	0.220	0.291	0.602	0.45	
BJH-0.48	0.125	0.177	0.217	0.250	0.331	0.685	0.48	
BJH-0.53	0.152	0.215	0.263	0.304	0.402	0.833	0.53	
BJH-0.58	0.183	0.259	0.317	0.366	0.484	1.00	0.58	
BJH-0.63	0.216	0.305	0.374	0.432	0.571	1.18	0.63	
BJH-0.66	0.237	0.335	0.410	0.474	0.627	1.30	0.66	10°, 20°, 33°, 40°, 50°, 65°, 73°, 80°, 90°, 100°, 110°, 120°
BJH-0.68	0.251	0.355	0.435	0.502	0.664	1.37	0.68	
BJH-0.73	0.289	0.409	0.501	0.578	0.765	1.58	0.73	
BJH-0.78	0.330	0.467	0.572	0.660	0.873	1.81	0.78	
BJH-0.84	0.383	0.542	0.663	0.766	1.01	2.10	0.84	
BJH-0.89	0.430	0.608	0.745	0.860	1.14	2.36	0.89	
BJH-0.94	0.480	0.679	0.831	0.960	1.27	2.63	0.94	20°, 33°, 40°, 50°, 65°, 73°, 80°, 90°, 100°, 110°, 120°
BJH-0.99	0.532	0.752	0.921	1.06	1.41	2.91	0.99	
BJH-1.04	0.587	0.830	1.02	1.17	1.55	3.22	1.04	
BJH-1.09	0.645	0.912	1.12	1.29	1.71	3.53	1.09	
BJH-1.14	0.706	0.998	1.22	1.41	1.87	3.87	1.14	
BJH-1.19	0.769	1.09	1.33	1.54	2.03	4.21	1.19	
BJH-1.24	0.835	1.18	1.45	1.67	2.21	4.57	1.24	20°, 33°, 40°, 50°, 65°, 73°, 80°, 90°, 100°
BJH-1.29	0.904	1.28	1.57	1.81	2.39	4.95	1.29	
BJH-1.32	0.945	1.34	1.64	1.89	2.50	5.18	1.32	
BJH-1.35	0.990	1.40	1.71	1.98	2.62	5.42	1.35	
BJH-1.40	1.06	1.50	1.84	2.12	2.80	5.81	1.40	
BJH-1.45	1.14	1.61	1.97	2.28	3.02	6.24	1.45	
BJH-1.50	1.22	1.73	2.11	2.44	3.23	6.68	1.50	20°, 33°, 40°, 50°, 65°, 73°, 80°, 90°, 100°
BJH-1.55	1.31	1.85	2.27	2.62	3.47	7.18	1.55	
BJH-1.57	1.34	1.90	2.32	2.68	3.55	7.34	1.57	
BJH-1.60	1.39	1.97	2.41	2.78	3.68	7.61	1.60	
BJH-1.65	1.48	2.09	2.56	2.96	3.92	8.11	1.65	
BJH-1.70	1.57	2.22	2.72	3.14	4.15	8.60	1.70	
BJH-1.75	1.66	2.35	2.88	3.32	4.39	9.09	1.75	20°, 33°, 40°, 50°, 65°, 73°, 80°, 90°
BJH-1.80	1.76	2.49	3.05	3.52	4.66	9.64	1.80	
BJH-1.83	1.82	2.57	3.15	3.64	4.82	9.97	1.83	
BJH-1.85	1.86	2.63	3.22	3.72	4.92	10.2	1.85	
BJH-1.91	1.98	2.80	3.43	3.96	5.24	10.8	1.91	20°, 33°, 40°, 50°, 65°, 73°, 80°

$$\text{Flow Rate (l/min)} = K \sqrt{\text{bar}}$$

Standard Materials: Tungsten Carbide Insert with 303 Stainless Steel Housing

CW Flow Rates and Dimensions

Full Cone and Hollow Cone, 80° and 120° Spray Angles

Nozzle Number	K Factor	LITERS PER MINUTE @ BAR								Approx. Orifice Dia.(mm)
		0.5 bar	0.7 bar	1 bar	2 bar	3 bar	5 bar	10 bar	15 bar	
CW25	0.587	0.424	0.497	0.587	0.814	0.984	1.25	1.73	2.10	1.14
CW50	1.17	0.848	0.993	1.17	1.63	1.97	2.50	3.47	4.19	1.37
CW75	1.76	1.27	1.49	1.76	2.44	2.95	3.75	5.20	6.29	1.60
CW100	2.35	1.70	1.99	2.35	3.25	3.94	5.01	6.93	8.39	2.18

$$\text{Flow Rate (l/min)} = K (\text{bar})^{0.47}$$

Standard Materials: Brass, 303 Stainless Steel, and 316 Stainless Steel.

ST Flow Rates and Dimensions

Full Cone, 90° (FCN) and 120° (FC) Spray Angles

Nozzle Number	K Factor	LITERS PER MINUTE @ BAR								Approx. (mm) Orifice Dia.
		0.5 bar	0.7 bar	1 bar	2 bar	3 bar	5 bar	10 bar	20 bar	
ST6	3.19	2.26	2.67	3.19	4.5	5.5	7.1	10.1	14.3	2.38
ST8	5.93	4.19	4.96	5.93	8.4	10.3	13.2	18.7	26.5	3.18
ST10	9.12	6.45	7.63	9.12	12.9	15.8	20.4	28.8	40.8	3.97

$$\text{Flow Rate (l/min)} = K \sqrt{\text{bar}}$$

Standard Materials: 316 Stainless, Cobalt Alloy 6

Spray angle performance varies with pressure. Contact BETE for specific data on critical applications.