



THE
SPRAY NOZZLE
PEOPLE

**PNEUMATIC
HYDROPULSE®
PHP**

Pneumatically Actuated



AUTOMATIC NOZZLES

DESIGN FEATURES

- ✓ Precise intermittent spray uses liquid pressure as the force for atomisation
- ✓ Interchangeable flat fan, full cone or hollow cone nozzle tips: BJ, BJH, CW and ST
- ✓ Pneumatically actuated for precise on/off spray directly on the target
- ✓ Straight through porting for fluid recirculation
- ✓ Hygienic connections and mounting brackets options

SPRAY CHARACTERISTICS

- ✓ Spray patterns: Flat Fan, full cone or hollow cone
- ✓ Max flow rate: 57.7 l/m
- ✓ Max liquid pressure: 42 bar
- ✓ Operating temp: -26° to 204°C
- ✓ Air cylinder pressure: 2 to 17 bar
- ✓ Material: 316 ss wetted components, Viton® (FKM) seals
- ✓ Connection: 1/4" NPT or BSPP, liquid; 1/8" NPT or BSPP, cylinder air; or DN10 tri-clamp



The PHP is a pneumatically actuated flat fan spray nozzle which improves product quality with uniform, repeatable coverage and drip-free performance. The HP can be fitted with a wide variety of different spray tips, with a variety of spray angles and flow rates. The addition of a spring loaded shut off system allows this nozzle to be cycled on and off rapidly making it suitable for precision spraying applications including:

Coating
Lubricating
Moistening
And more.

CALL NOW : +44 (0) 1273 400092

www.spray-nozzle.co.uk

The Go-to People for spray nozzle solutions

BJ Flow Rates and Dimensions
 Fan, Materials: Brass, 303 Stainless Steel and 316 ss

Nozzle Tip No.	Equiv Orifice Dia (mm)	K Factor	Litres per minute at BAR							Available Spray Angles
			0.3 bar	1 bar	2 bar	5 bar	10 bar	20 bar	40 bar	
BJ 0067	0.58	0.153	0.084	0.153	0.22	0.34	0.48	0.68	0.97	0, 15, 25, 40, 50, 65, 80
BJ 01	0.71	0.228	0.12	0.228	0.32	0.51	0.72	1.02	1.44	0, 15, 25, 40, 50, 65, 80, 95, 110
BJ 015	0.97	0.342	0.19	0.342	0.48	0.76	1.08	1.53	2.16	0, 15, 25, 40, 50, 65, 80, 95, 110
BJ 02	0.99	0.456	0.25	0.456	0.64	1.02	1.44	2.04	2.88	0, 15, 25, 40, 50, 65, 80, 95, 110
BJ 03	1.19	0.684	0.37	0.684	0.97	1.53	2.16	3.06	4.32	0, 15, 25, 40, 50, 65, 80, 95, 110
BJ 04	1.4	0.912	0.5	0.912	1.29	2.04	2.88	4.08	5.77	0, 15, 25, 40, 50, 65, 80, 95, 110
BJ 05	1.55	1.14	0.62	1.14	1.61	2.55	3.6	5.1	7.21	0, 15, 25, 40, 50, 65, 80, 95, 110
BJ 06	1.7	1.37	0.75	1.37	1.93	3.06	4.32	6.11	8.65	0, 15, 25, 40, 50, 65, 80, 95, 110
BJ 08	1.88	1.82	1	1.82	2.58	4.08	5.77	8.15	11.5	0, 15, 25, 40, 50, 65, 80, 95, 110
BJ 10	2.18	2.28	1.25	2.28	3.22	5.1	7.21	10.2	14.4	0, 15, 25, 40, 50, 65, 80, 95, 110
BJ 15	2.72	3.42	1.87	3.42	4.83	7.64	10.8	15.3	21.6	0, 15, 25, 40, 50, 65, 80, 95, 110

BJH Flow Rates and Dimensions
 Hollow cone, Materials: Tungsten Carbide Insert with 303 ss housing

Nozzle Tip No.	Equiv Orifice Dia	K Factor						Available Spray Angles
			2 bar	3 bar	4 bar	7 bar	30 bar	
BJH-018	0.18	0.018	-	-	-	0.048	0.099	5°, 10°, 15°, 20°, 25°, 30°, 33°, 40°, 50°
BJH-028	0.28	0.043	-	-	-	0.114	0.236	5°, 10°, 20°, 33°, 40°, 50°, 65°, 73°
BJH-038	0.38	0.079	-	-	-	0.209	0.433	10°, 20°, 33°, 40°, 50°, 65°, 73°, 80°, 90°, 100°
BJH-045	0.45	0.110	-	-	-	0.291	0.602	10°, 20°, 33°, 40°, 50°, 65°, 73°, 80°, 90°, 100°, 110°, 120°
BJH-053	0.53	0.152	0.215	0.263	0.304	0.402	0.833	10°, 20°, 33°, 40°, 50°, 65°, 73°, 80°, 90°, 100°, 110°, 120°
BJH-066	0.66	0.237	0.335	0.410	0.474	0.627	1.30	10°, 20°, 33°, 40°, 50°, 65°, 73°, 80°, 90°, 100°, 110°, 120°
BJH-078	0.78	0.330	0.467	0.572	0.660	0.873	1.81	10°, 20°, 33°, 40°, 50°, 65°, 73°, 80°, 90°, 100°, 110°, 120°
BJH-089	0.89	0.430	0.608	0.745	0.860	1.14	2.36	10°, 20°, 33°, 40°, 50°, 65°, 73°, 80°, 90°, 100°, 110°, 120°
BJH-099	0.99	0.532	0.752	0.921	1.06	1.41	2.91	10°, 20°, 33°, 40°, 50°, 65°, 73°, 80°, 90°, 100°, 110°, 120°
BJH-114	1.14	0.706	0.998	1.22	1.41	1.87	3.87	20°, 33°, 40°, 50°, 65°, 73°, 80°, 90°, 100°, 110°, 120°
BJH-129	1.29	0.904	1.28	1.57	1.81	2.39	4.95	20°, 33°, 40°, 50°, 65°, 73°, 80°, 90°, 100°, 110°, 120°
BJH-145	1.45	1.14	1.61	1.97	2.28	3.02	6.24	20°, 33°, 40°, 50°, 65°, 73°, 80°, 90°, 100°, 110°
BJH-160	1.60	1.39	1.97	2.41	2.78	3.68	7.61	20°, 33°, 40°, 50°, 65°, 73°, 80°, 90°, 100°
BJH-180	1.80	1.76	2.49	3.05	3.52	4.66	9.64	20°, 33°, 40°, 50°, 65°, 73°, 80°, 90°
BJH-191	1.91	1.98	2.80	3.43	3.96	5.24	10.8	20°, 33°, 40°, 50°, 65°, 73°, 80°

CW Flow Rates and Dimensions
Full Cone and Hollow Cone, 80° and 120° Spray Angles
Materials: Brass, 303 ss, 316 ss

Nozzle Tip No.	Approx. Orifice Dia (mm)	K Factor	Litres per minute at BAR							
			0.5 bar	0.7 bar	1 bar	2 bar	3 bar	5 bar	10 bar	15 bar
CW25	1.14	0.59	0.42	0.50	0.59	0.81	0.99	1.25	1.73	2.10
CW50	1.37	1.17	0.85	0.99	1.17	1.63	1.97	2.50	3.47	4.19
CW75	1.60	1.76	1.27	1.49	1.76	2.44	2.95	3.75	5.20	6.29
CW100	2.18	2.35	1.70	1.99	2.35	3.25	3.94	5.01	6.93	8.39

ST Flow Rates and Dimensions
Spray Angles: Full Cone 90° and 120° Hollow Cone
Materials: Cobalt Alloy 6

Nozzle Tip No.	Approx. Orifice Dia (mm)	K Factor	Litres per minute at BAR							
			0.5 bar	0.7 bar	1 bar	2 bar	3 bar	5 bar	10 bar	20 bar
ST6	2.38	3.19	2.26	2.67	3.19	4.5	5.5	7.1	10.1	14.3
ST8	3.18	5.93	4.19	4.96	5.93	8.4	10.3	13.2	18.7	26.5
ST10	3.97	9.12	6.45	7.63	9.12	12.9	15.8	20.4	28.8	40.8

Ask our technical sales engineers about additional products and services to optimise your spraying process.

Spray Calibration Solutions

Easy-to-use, fast measurement solutions to ensure accurate nozzle installation and maintenance, reduce water wastage and identify nozzle wear.



Spray Pattern & Droplet Distribution



Nozzle Flow Calibrators



Nozzle Cleaning Kit

Complete Spray Bars

Tailored nozzle selections and spray bar designs that integrate seamlessly with your new or existing setup.

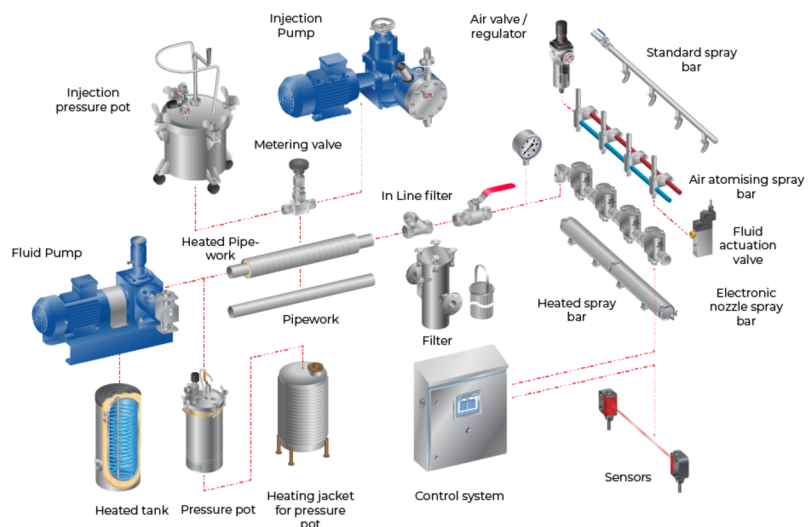
- ✓ Expert nozzle selection and placement
- ✓ Efficient spray coverage
- ✓ Fast turnaround time
- ✓ Reduced design burden
- ✓ High-quality spray bars



Complete Custom Spraying Systems

Complete spraying systems built around your goals and application.

- ✓ Tailored upstream components supplied individually or as part of complete system
- ✓ Custom pipework, pumps, tanks, sensors, valves, heating, control panels and more
- ✓ Seamless integration with existing processes
- ✓ Built to budget and ROI targets
- ✓ End-to-end support: design, install, maintain



THE GO-TO PEOPLE FOR SUCCESSFUL SPRAY ENGINEERING