

EHP

Electric HydroPulse, Hygienic Design

Electric-actuated HydroPulse® Spray Nozzles assure precision volumes of expensive ingredients and compounds are sprayed directly onto the processing target, with overspray waste virtually eliminated. The HydroPulse® Electric Food Grade Hygiene spray nozzles can be paired with the FlexFlow™ Precision Spray Control system which provides ultimate timing control, achieving uniform coverage even if conveyor speed is adjusted.



Key product features

Electric Hydropulse® - Hygienic Design	
Liquid inlet connection	1/8", NPT or BSPT, or 1/2" tri-clamp
Maximum liquid flow rate	3.8 LPS
Maximum rated pressure	17.2
Thermal insulation class	F (155°C/311°F)
Power	9.4W @24 VDC
Maximum cycle frequency	150 cycles/sec
Nozzle construction	Stainless steel wetted components, Food grade Viton® (FKM) seals compliant with CFR 21.1700.2600, hygienic design

ELECTRIC

How it works

Electric HydroPulse (EHP) spray nozzles do not require a compressed air source and are capable of cycling on/off up to 150 cycles per second. These features afford the option of using high-frequency cycling known as Pulse Width Modulation (PWM) to vary the liquid spray flow rate at constant supply pressure with little change in spray performance by adjusting the duty cycle. When the spray cycles at a high enough frequency, coverage uniformity is maintained because the duration between pulses of spray is short enough to ensure there are no gaps in the spray coverage.



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Applications

FOOD PROCESS COATING OPERATIONS

- Application of antimicrobial agents for food safety
- Application of preservatives and mold inhibitors to help extend shelf life
- Application of egg wash
- Coat bottles to minimize scuff damage
- Apply water to balance moisture loss from the freezing process
- Apply coatings and release agents to pans, cookie sheets, and conveyors to prevent sticking
- Apply viscous coatings like syrups, glazes, and chocolate

BENEFITS

- Control a wide range of flow rates
- Guarantee an even and uniform application rate
- Reduce consumption of expensive coatings
- Reduce overspray waste and improve product quality
- Exact target coatings secure a clean and safe environment
- Promote increased production
- Reduce maintenance and downtime
- Reliable spray dosing provides an accurate calorie count
- Apply flavorings, oil, and butter to enhance the appearance and improve the taste of products

Flow data

Flat fan tips

Tip	K Factor	Litres per minute @ BAR								
		0.3	0.5	0.7	1	2	5	10	15	17
BJ0039	0.089	0.049	0.063	0.074	0.089	0.126	0.199	0.281	0.345	0.367
BJ005	0.114	0.062	0.081	0.095	0.114	0.161	0.255	0.360	0.442	0.470
BJ0067	0.153	0.084	0.108	0.128	0.153	0.216	0.342	0.484	0.593	0.631
BJ0077	0.175	0.096	0.124	0.146	0.175	0.247	0.391	0.553	0.678	0.722
BJ01	0.228	0.125	0.161	0.191	0.228	0.322	0.510	0.721	0.883	0.940
BJ0116	0.264	0.145	0.187	0.221	0.264	0.373	0.590	0.835	1.022	1.088
BJ015	0.342	0.187	0.242	0.286	0.342	0.484	0.765	1.081	1.325	1.410
BJ0154	0.351	0.192	0.248	0.294	0.351	0.496	0.785	1.110	1.359	1.447
BJ02	0.456	0.250	0.322	0.382	0.456	0.645	1.020	1.442	1.766	1.880
BJ0231	0.526	0.288	0.372	0.440	0.526	0.744	1.176	1.663	2.037	2.169
BJ03	0.684	0.375	0.484	0.572	0.684	0.967	1.529	2.163	2.649	2.820
BJ0308	0.702	0.385	0.496	0.587	0.702	0.993	1.570	2.220	2.719	2.894
BJ0385	0.877	0.480	0.620	0.734	0.877	1.240	1.961	2.773	3.397	3.616
BJ04	0.912	0.500	0.645	0.763	0.912	1.290	2.039	2.884	3.532	3.760
BJ0462	1.053	0.577	0.745	0.881	1.053	1.489	2.355	3.330	4.078	4.342
BJ05	1.139	0.624	0.805	0.953	1.139	1.611	2.547	3.602	4.411	4.696

Full cone tips

Tip	K factor	Litres per minute @ BAR							
		0.5	0.7	1	2	3	5	10	17
CW25-F	0.587	0.42	0.50	0.59	0.81	0.98	1.25	1.73	2.22
CW50-F	1.17	0.84	0.99	1.17	1.62	1.96	2.49	3.45	4.43
CW75-F	1.76	1.27	1.49	1.76	2.44	2.95	3.75	5.19	6.67
CW100-F	2.35	1.70	1.99	2.35	3.26	3.94	5.01	6.94	8.90

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