

HydroPulse

Pneumatically Actuated - Flat Fan

DESIGN FEATURES

- Interchangeable flat fan spray tips
- Pneumatically actuated for crisp on/off spray
- Straight through porting for in-series set-up
- Variety of mounting brackets available

SPRAY CHARACTERISTICS

- Relatively coarse atomization
 - Uniform distribution with tapered edges for use in overlapping sprays
- Spray pattern:** Flat Fan
Spray angles: 0° to 110°
Flow rate: 0.084 to 101 l/min



HP01 Assembly



HP02 Assembly

Easy to maintain; drip-free performance!

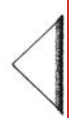
- **Fluid Connection Size:** 1/8", 1/4", Female, NPT/BSP
Two fluid ports are standard, allowing for an in-series setup; a plug to seal one port is included.
- **Maximum Fluid Pressure:** 41.3 bar
- **Air Cylinders:** Single-acting spring extend type. Air pressure retracts the rod and allows flow through the nozzle. Removing air pressure extends the rod and seals the nozzle. Double-acting cylinder available upon request.
- **Air Connection Size:** 1/8 Female NPT; 1/8 Female BSP Adapter automatically included when fluid connection is BSP
- **Air Cylinder Pressure:** Minimum: 2 bar^{*}; Maximum: 17.2 bar.
^{*}For larger BJ tips, more pressure may be required to break seal.
- **Frequency Rating:** Up to 180 cycles/minute, with an appropriate solenoid valve (Cv=0.08 minimum).
- **Weights:** HP01 Assembly: 0.59 kg; HP02 Assembly: 0.68 kg
- **Operating Temperature Range:** -26° to 204°C. Nylon Mounting Hardware: 121°C MAX
- **Standard Materials:**

Body: Nickel-plated Brass or 303 Stainless Steel

Internals: PTFE, Viton, 303SS

Air Cylinder: Stainless Steel, Anodized Aluminum, PTFE, and Viton®

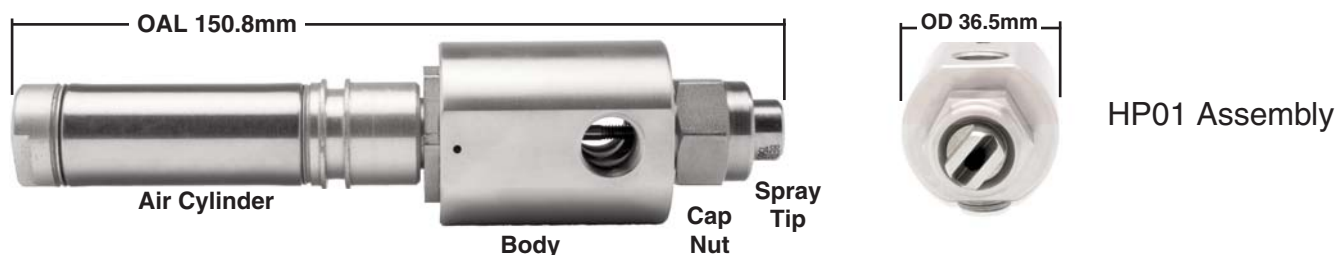
Fluid Seals: FDA-compliant Viton®



FAN

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

HP01 Assembly



HP02 Assembly



Dimensions are approximate. Check with BETE for critical dimension applications.

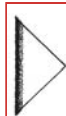
Flat Fan (BJ) - Fan Tip Dimensions

Nozzle Tip Number	Equiv. Orifice Diameter (mm)	K Factor	LITERS PER MINUTE @ BAR							Standard Available Spray Angles*
			0.3 bar	1 bar	2 bar	5 bar	10 bar	20 bar	40 bar	
BJ 0067	0.580	0.153	0.084	0.153	0.220	0.340	0.480	0.680	0.970	0, 15, 25, 40, 50, 65, 80
BJ 0077	0.580	0.175	0.096	0.175	0.250	0.390	0.550	0.780	1.11	73
BJ 01	0.710	0.228	0.120	0.228	0.320	0.510	0.720	1.02	1.44	0, 15, 25, 40, 50, 65, 80, 95, 110
BJ 0116	0.910	0.264	0.140	0.264	0.370	0.590	0.840	1.18	1.67	73
BJ 015	0.970	0.342	0.190	0.342	0.480	0.760	1.08	1.53	2.16	0, 15, 25, 40, 50, 65, 80, 95, 110
BJ 02	0.990	0.456	0.250	0.456	0.640	1.02	1.44	2.04	2.88	0, 15, 25, 40, 50, 65, 80, 95, 110
BJ 03	1.19	0.684	0.370	0.684	0.970	1.53	2.16	3.06	4.32	0, 15, 25, 40, 50, 65, 80, 95, 110
BJ 04	1.40	0.912	0.500	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	0.620	1.14	1.61	2.55	3.60	5.10	7.21	0, 15, 25, 40, 50, 65, 80, 95, 110
BJ 06	1.70	1.37	0.750	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	1.00	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	5.10	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
*HP 02 ONLY										
BJ 20	3.18	4.56	2.5	4.56	6.45	10.2	14.4	20.4	28.8	0, 15, 25, 40, 50, 65, 80, 95, 110
BJ 30	3.67	6.84	3.74	6.84	9.67	15.3	21.6	30.6	43.2	0, 15, 25, 40, 50, 65, 80, 95, 110
BJ 40	3.97	9.12	4.99	9.12	12.9	20.4	28.8	40.8	57.7	0, 15, 25, 40, 50, 65, 80, 95, 110
BJ 50	4.37	11.4	6.24	11.4	16.1	25.5	36	51	72.1	15, 25, 40, 50, 65, 80, 95, 110
BJ 60	4.76	13.7	7.49	13.7	19.3	30.6	43.2	61.1	86.5	15, 25, 40, 50, 65, 80, 95, 110
BJ 70	5.16	16.0	8.74	16.0	22.6	35.7	50.4	71.3	101	15, 25, 40, 50, 65, 80, 95, 110

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

BJ tip materials: Brass, 303SS, and 316SS

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



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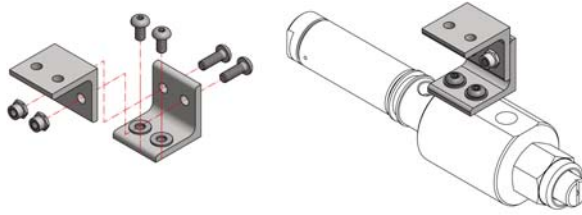
Call for the name of your nearest BETE representative.

CALL 413-772-0846

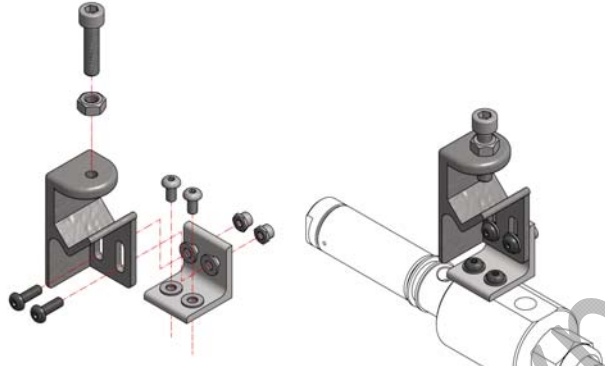
HydroPulse

Optional Mounting Bracket Kits

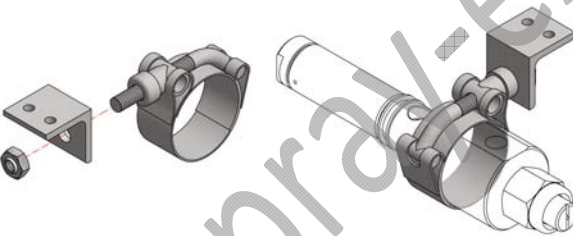
**Kit 01
Angle Bracket**



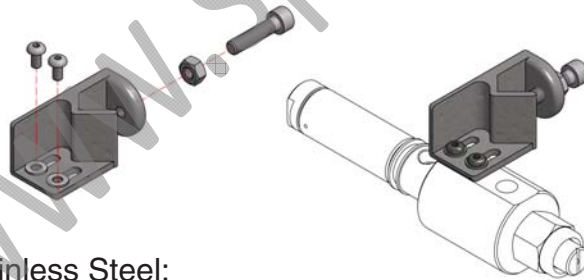
**Kit 02
V-Block Bracket**



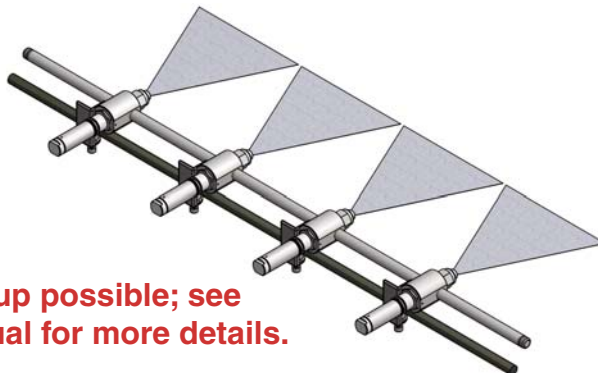
**Kit 03
Clamp Bracket**



**Kit 04
Direct Mount
V-Block Bracket**

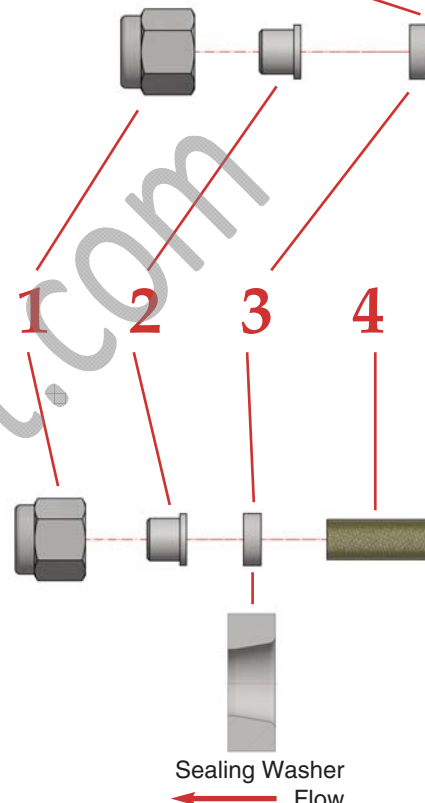
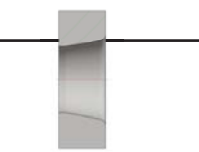


Brackets: 316 Stainless Steel;
Hardware: 18-8SS with Nylon locking insert



**In-series set-up possible; see
instruction manual for more details.**

Sealing Washer
Flow



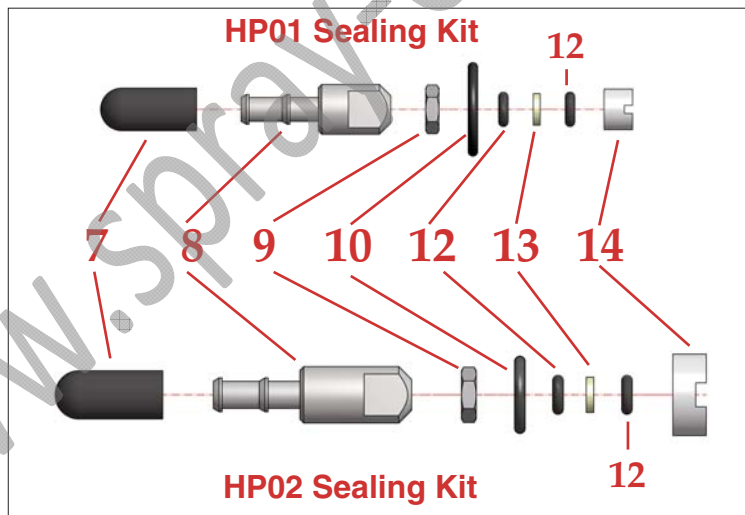
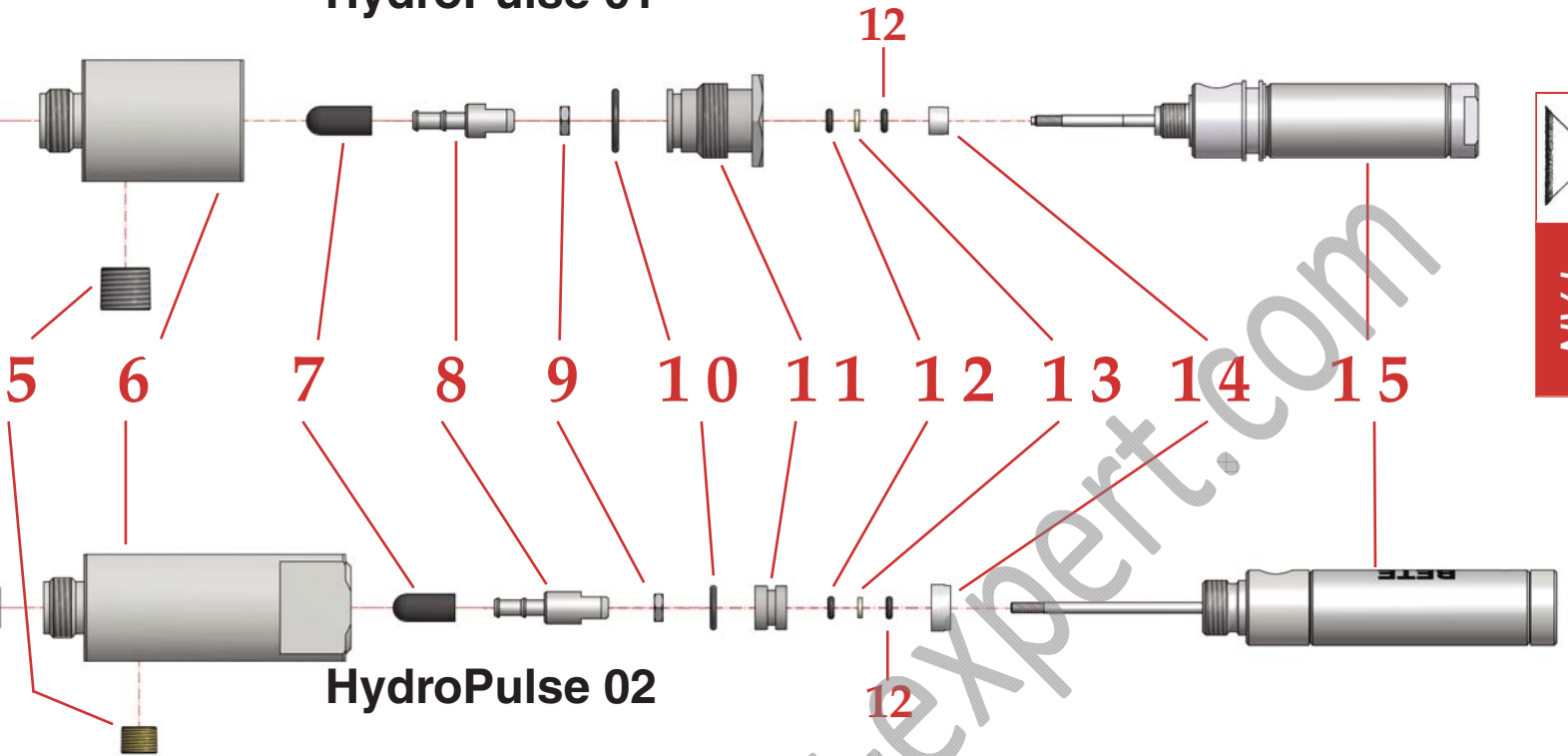
Sealing Washer
Flow

Item Number	Part Name
1	CAP NUT
2	TIP
3	SEALING WASHER
4	FLOW CONDITIONER (HP 02 ONLY)
5	HEX SOCKET PLUG
6	BODY
7	SEALING TIP
8	BARBED BASE
9	JAM NUT
10	BUSHING O-RING
11	BUSHING
12	AIR CYLINDER O-RING (x2)
13	BACK-UP RING
14	COMPRESSIBLE BUSHING
15	AIR CYLINDER

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

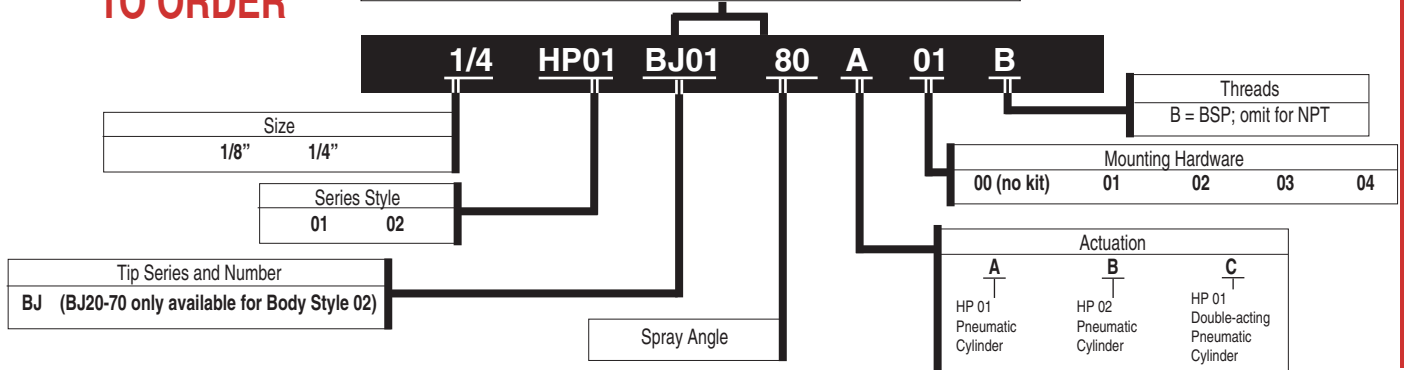
Pneumatically Actuated - Low Flow Flat Fan

HydroPulse 01



TO ORDER

Spray Set-up Number



CALL 413-772-0846
Call for the name of your nearest BETE representative.