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; positive sealing performance!

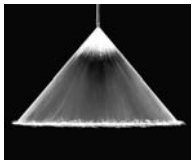
- **Fluid Connection Size:** 1/8, 1/4, Female, NPT/BSP
  Two fluid ports are standard, allowing for an in-series setup; a plug to seal one port is included.
- **Maximum Fluid Pressure:** 41.3 bar
- **Air Cylinders:** Single-acting spring extend type. Air pressure retracts the rod and allows flow through 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

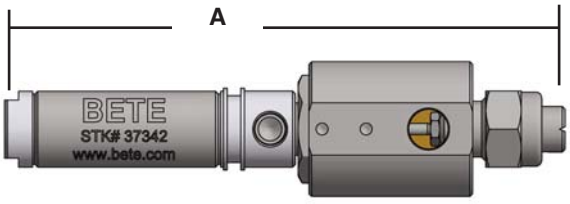
  Internals: PTFE, Viton, 303SS

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

  Fluid Seals: FDA-compliant Viton®



Fan 80°



A - Overall Length (mm)	
HP01	HP02
152.4	192.8

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
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

***HP 02 ONLY**

Flow Rate (L/min) = K√bar

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

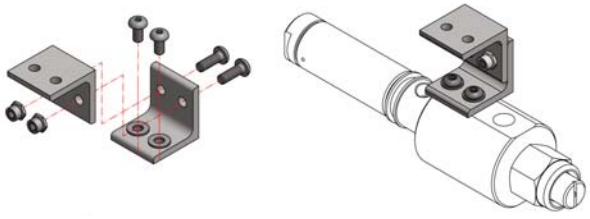
Spray angle performance varies with pressure. Contact BETE for specific data on critical applications.

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

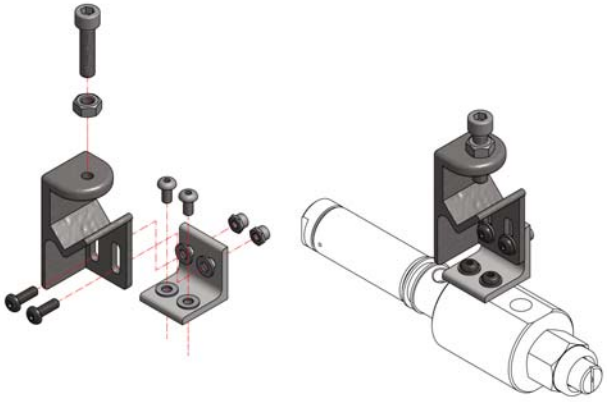
HydroPulse

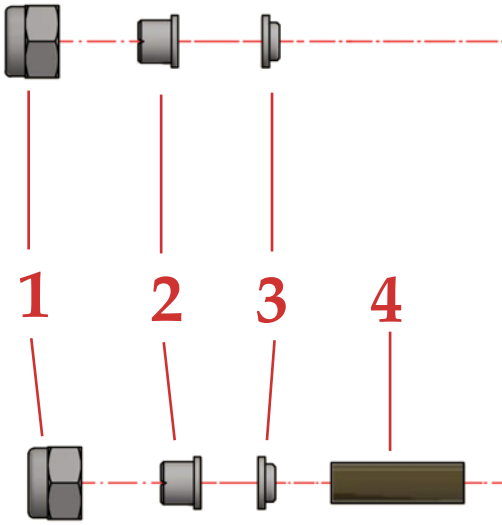
Optional Mounting Bracket Kits

Kit 01
Angle Bracket

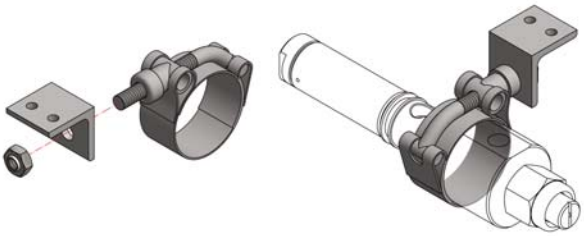


Kit 02
V-Block Bracket

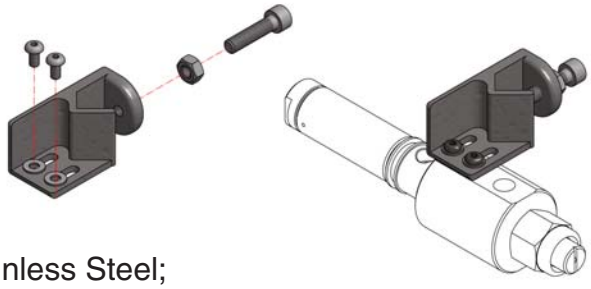




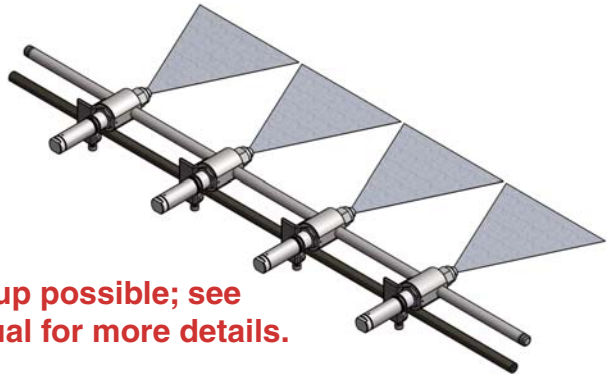
Kit 03
Clamp Bracket



Kit 04
Direct Mount
V-Block Bracket



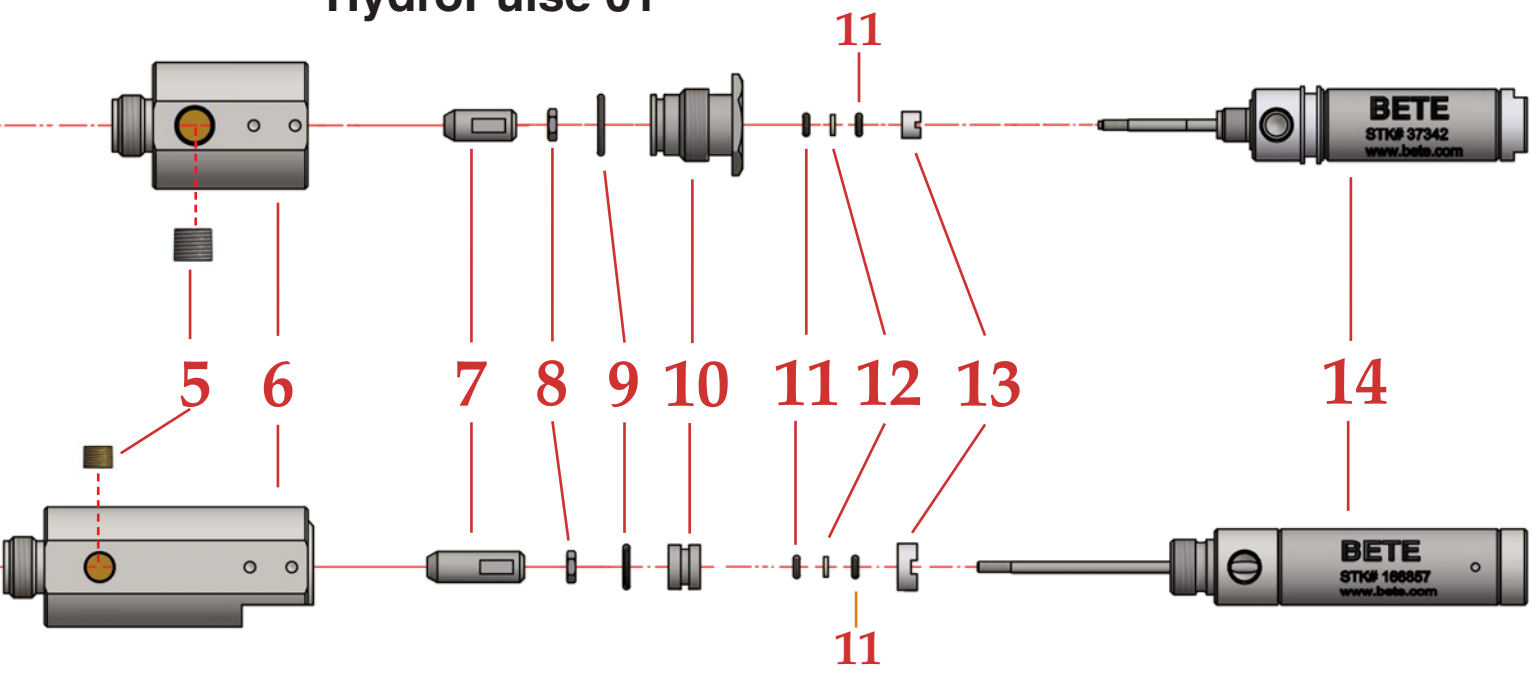
Brackets: 316 Stainless Steel;
Hardware: 18-8SS with Nylon locking insert



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

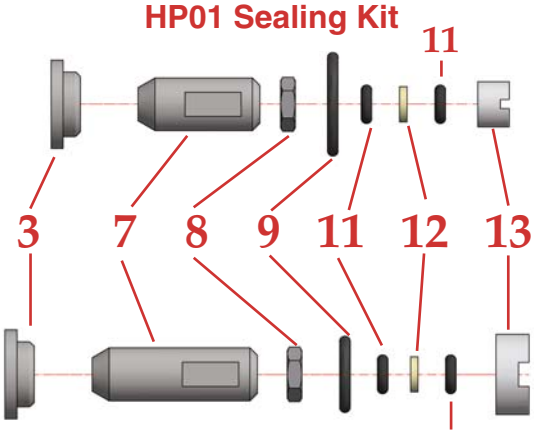
Item Number	Part Name
1	CAP NUT
2	TIP (BJ, BJH, CW, ST)
3	SEALING WASHER
4	FLOW CONDITIONER (HP 02 ONLY)
5	HEX SOCKET PLUG
6	BODY
7	SEALING TIP
8	JAM NUT
9	BUSHING O-RING
10	BUSHING
11	AIR CYLINDER O-RING (x2)
12	BACK-UP RING
13	COMPRESSIBLE BUSHING
14	AIR CYLINDER

HydroPulse 01



HydroPulse 02

HP01 Sealing Kit



HP02 Sealing Kit

TO ORDER

Spray Set-up Number

1/4	HP01	BJ01	80	A	01	B

- **Size**: 1/8" 1/4"
- **Series Style**: 01 02
- **Tip Series and Number**: BJ (BJ20-70 only available for Body Style 02)
- **Spray Angle**
- **Actuation**: A – HP 01 Pneumatic Cylinder; B – HP 02 Pneumatic Cylinder; C – HP 01 Double-acting Pneumatic Cylinder
- **Mounting Hardware**: 00 (no kit) 01 02 03 04
- **Threads**: B = BSP; omit for NPT

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