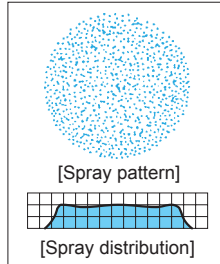


# Wide-angle Full Cone Spray Nozzles

Some Models are Made-to-Order **BBXP BBXP-PVDF/PVC**

Full Cone



- Wide-angle full cone spray pattern with a round impact area and uniform distribution.
- The 120° spray angle provides a larger spray coverage than other nozzles.
- Spray capacity ranges from small to medium.
- X-shaped whirler provides a large free passage diameter, minimizing clogging.

**[STANDARD PRESSURE]**

0.2 MPa for spray capacity codes 008–060.  
0.35 MPa for spray capacity codes 10 and higher.

**[APPLICATIONS]**

**Cleaning:** Gas, incinerator fumes, machinery, eliminators, screen, tanks, parts, crushed stone, earth and sand  
**Cooling:** Gas, machineries, tanks, steel plates  
**Spraying:** Water treatment, aeration, foam breaking, fire extinguishing, dust suppression, sea water desalination equipment

**BBXP SERIES**

(Size Rc4: Made-to-Order)

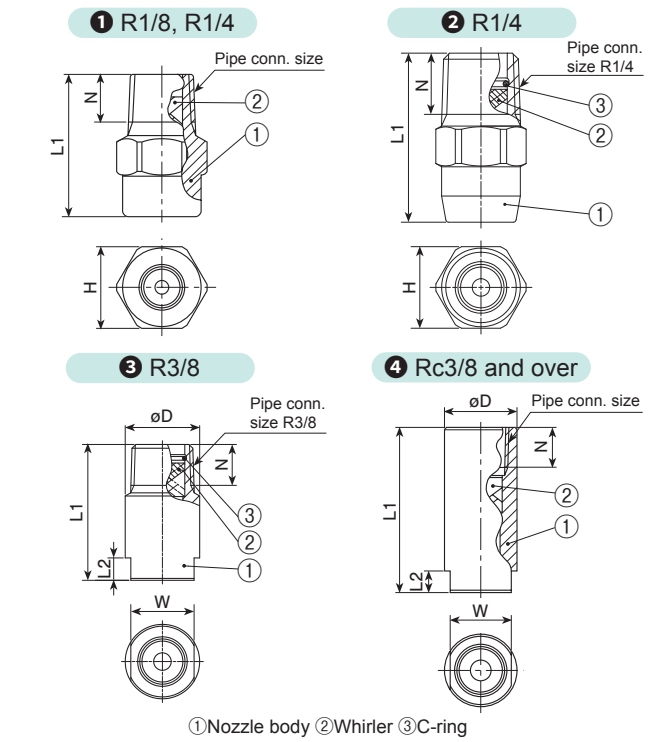
Structure	<ul style="list-style-type: none"> <li>• One-piece structure with a press-fitted X-shaped whirler.</li> <li>Size R1/4 with spray capacity codes 040–060 and size R3/8 standard models include a C-ring.</li> </ul>
Material	<ul style="list-style-type: none"> <li>• Sizes R1/8– Rc1: S303</li> <li>• Sizes Rc1 1/2 or larger: S316</li> <li>SPECIAL ORDER MATERIAL: S316L or others</li> </ul>

DWG No.	Pipe conn. size <sup>1)</sup>	Dimensions (mm)						Weight (g)
		L1	L2	H	W	øD	N	
①	R1/8	21	–	12	–	–	7	11
	R1/4 (015, 020)	21	–	14	–	–	10.5	20
	R1/4 (030)	21.5	–	14	–	–	10.5	20
②	R1/4 (040–060)	29	–	14	–	–	10.5	21
③	R3/8	36.5	6	–	17	20	11	55
	Rc3/8	45.5	6	–	17	20	11	75
④	Rc1/2	56	8	–	22	25	14	140
	Rc3/4	73	10	–	27	32	15	300
	Rc1	94	14	–	34	40	17	585
	Rc1 1/2	131	20	–	50	58	19	1,760
	Rc2	168	24	–	60	70	23	2,980
	Rc2 1/2	199	27	–	80	90	27	5,890
	Rc3	220	30	–	90	105	30	9,400
	Rc4	278	40	–	115	130	36	16,100

\*1) Figures in ( ) after the pipe connection size indicate the spray capacity code.

[Note] Appearance and dimensions may differ slightly depending on material and nozzle code.

**DRAWING**



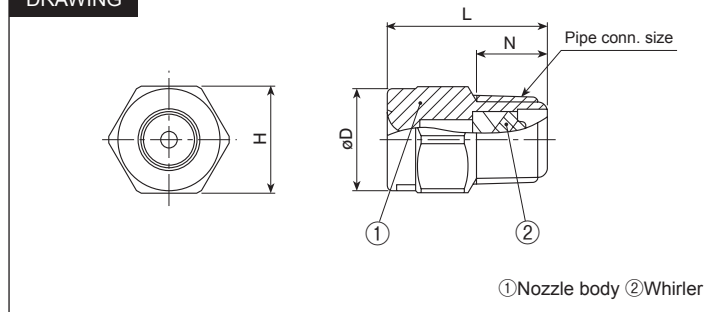
**BBXP-PVDF SERIES**

Structure	• One-piece structure with a press-fitted X-shaped whirler.
Material	• PVDF

Pipe conn. size	Dimensions (mm)				Weight (g)
	L	H	øD	N	
R1/8	18	12	11	8	2
R1/4	22	14	12	11.5	4.1

[Note] Appearance and dimensions may differ slightly depending on material and nozzle code.

**DRAWING**

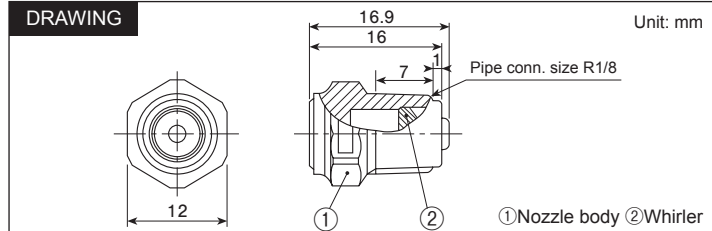


**BBXP-PVC**

Structure	• One-piece structure with an X-shaped whirler.
Material	• PVC
Weight	• 1.4 g

[Note] Appearance and dimensions may differ slightly depending on material and nozzle code.

**DRAWING**



# Wide-angle Full Cone Spray Nozzles BBXP/BBXP-PVDF/BBXP-PVC SERIES

Full Cone

## BBXP Series (metal)

Spray capacity code	Pipe conn. size		Spray angle (°)			Spray capacity (L/min)								Mean drop. dia. (µm)	Free pass. dia. (mm)	
	R1/8	R1/4	0.05 MPa	0.2 MPa	0.5 MPa	0.03 MPa	0.05 MPa	0.1 MPa	0.15 MPa	0.2 MPa	0.35 MPa	0.5 MPa	0.7 MPa			1 MPa
015	○	○	—	120	112	—	—	1.09	1.32	1.50	1.88	2.18	2.50	2.89	300	0.7
020	○	○	110	120	112	—	1.06	1.46	1.75	2.00	2.51	2.91	3.34	3.86	340	0.9
030	○	○	112	120	113	—	1.59	2.18	2.63	3.00	3.77	4.36	5.00	5.79	340	1.3
040		○	110	120	112	—	2.12	2.91	3.51	4.00	5.03	5.81	6.67	7.72	350	1.4
050		○	112	120	113	—	2.65	3.64	4.38	5.00	6.28	7.27	8.34	9.64	340	1.7
060		○	114	120	114	2.51	3.18	4.37	5.26	6.00	7.54	8.72	10.0	11.6	430	1.7

Spray capacity code	Pipe connection size <sup>2</sup>											Spray angle (°)			Spray capacity (L/min)								Mean drop. dia. (µm)	Free pass. dia. (mm)
	R 3/8	Rc 3/8	Rc 1/2	Rc 3/4	Rc 1	Rc 1½	Rc 2	Rc 2½	Rc 3	Rc 4	0.15 MPa	0.35 MPa	0.7 MPa	0.03 MPa	0.05 MPa	0.1 MPa	0.15 MPa	0.2 MPa	0.35 MPa	0.5 MPa	0.7 MPa	1 MPa		
10	○	○									123	120	111	3.34	4.21	5.79	6.98	7.96	10.0	11.6	13.3	15.3	340	2.0
12	○	○									124	120	112	4.00	5.06	6.95	8.37	9.55	12.0	13.9	15.9	18.4	340	2.0
14	○	○									124	120	112	4.67	5.90	8.10	9.77	11.1	14.0	16.2	18.6	21.5	340	2.3
16	○	○									125	120	113	5.33	6.74	9.25	11.2	12.7	16.0	18.5	21.2	24.6	340	2.6
18			○								123	120	111	6.00	7.58	10.4	12.6	14.3	18.0	20.8	23.9	27.6	420	2.8
20			○								123	120	111	6.67	8.43	11.6	14.0	15.9	20.0	23.1	26.5	30.7	420	2.8
23			○								124	120	112	7.67	9.69	13.3	16.0	18.3	23.0	26.6	30.5	35.3	480	2.8
26			○								124	120	112	8.67	11.0	15.1	18.1	20.7	26.0	30.1	34.5	39.9	480	2.8
30				○							123	120	111	10.0	12.6	17.4	20.9	23.9	30.0	34.7	39.8	46.0	580	3.8
40				○							124	120	112	13.3	16.9	23.2	27.9	31.8	40.0	46.3	53.1	61.4	580	4.7
50				○							125	120	113	16.7	21.0	29.0	34.9	39.8	50.0	57.8	66.3	76.7	580	4.7
60					○						124	120	112	20.0	25.3	34.7	41.9	47.7	60.0	69.4	79.6	92.1	630	5.4
80					○						125	120	113	26.7	33.7	46.3	55.8	63.7	80.0	92.5	106	123	630	6.0
100						○					123	120	111	33.3	42.1	57.9	69.8	79.6	100	115	135	155	900	7.2
150						○					124	120	112	50.0	63.2	86.9	105	120	150	175	200	230	900	8.4
200							○				124	120	112	66.7	84.3	115	140	160	200	230	265	310	710	8.9
300							○				125	120	113	100	125	175	210	240	300	350	400	460	900	10.2
400								○			124	120	112	135	170	235	280	320	400	465	530	615	1,000	14.3
500								○			125	120	113	170	210	290	350	400	500	580	665	770	1,000	14.3
600									○		124	120	112	200	255	350	420	480	600	695	795	920	1,100	19.0
700									○		125	120	113	235	295	405	490	550	700	810	930	1,070	1,100	19.0
900										○	124	120	112	300	380	520	630	720	900	1,041	1,195	1,380	1,200	19.8
1200										○	125	120	113	400	505	695	840	955	1,200	1,390	1,590	1,840	1,200	21.7

\*2) BBXP900 and BBXP1200 (with thread size Rc4) are made-to-order.

## BBXP-PVDF Series

Spray capacity code <sup>3</sup>	Pipe conn. size		Spray angle (°)			Spray capacity (L/min)								Mean droplet diameter (µm)	Free passage diameter (mm)	Nozzle body color	
	R1/8	R1/4	0.05 MPa	0.2 MPa	0.5 MPa	0.03 MPa	0.05 MPa	0.1 MPa	0.15 MPa	0.2 MPa	0.35 MPa	0.5 MPa	0.7 MPa				1 MPa
008	○		—	120	112	—	—	0.58	0.70	0.80	1.00	1.16	1.33	1.54	280	0.5	BLA
015	○	○	—	120	112	—	—	1.09	1.32	1.50	1.88	2.18	2.50	2.89	340	0.8	GRA
020	○		110	120	113	—	1.06	1.46	1.75	2.00	2.51	2.91	3.34	3.86	340	1.2	BLA

\*3) Nozzle body color differs depending on the spray capacity code: BBXP008 and BBXP020 are black (BLA), BBXP015 is gray (GRA).

## BBXP-PVC [1/8M BBXP 030 PVC-IN]

Spray angle (°)			Spray capacity (L/min)								Mean droplet diameter (µm)	Free passage diameter (mm)	
0.05 MPa	0.2 MPa	0.5 MPa	0.03 MPa	0.05 MPa	0.1 MPa	0.15 MPa	0.2 MPa	0.3 MPa	0.5 MPa	0.7 MPa			1 MPa
115	120	110	—	1.59	2.18	2.63	3.00	3.54	4.36	5.00	5.79	350	1.5

## HOW TO ORDER

To inquire about or order a specific nozzle please refer to this coding system.

### BBXP (metal)

Example: 1/8M BBXP 015 S303

1/8M	BBXP	015	S303
Pipe conn. size <sup>4</sup>		Spray capacity code	Material <sup>5</sup>
1/8M		015	S303
1/4M		1200	S316

### BBXP-PVDF

Example: 1/8M BBXP 020 PVDF (BLA)

1/8M	BBXP	020	PVDF (BLA)
Pipe conn. size <sup>4</sup>		Spray capacity code	Material
1/8M		008	BLA (BBXP008, 020)
1/4M		015	GRA (BBXP015)
		020	

### BBXP-PVC

1/8M BBXP 030 PVC-IN

Pipe conn. size <sup>4</sup>	Spray capacity code	Material
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The BBXP series with thread size Rc4 are made-to-order.

\*4) "M" indicates male thread ("R" of the ISO standard) and "F" indicates female thread ("Rc" of the ISO standard), e.g. 1/8M = R1/8.

\*5) See "Material" information on page 75 for standard material (S303 or S316) for each size.