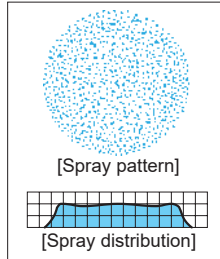


Wide-angle Full Cone Spray Nozzles

BBXP BBXP-PVDF/PVC



[Features]

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

[Standard pressure]

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

[Applications]

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

Full Cone

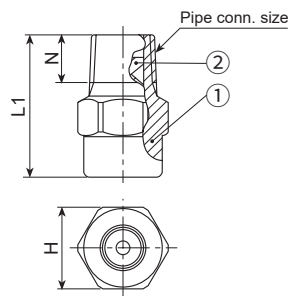
BBXP series

BBXP series	
Structure	<ul style="list-style-type: none"> • One-piece structure with a press-fit X-shaped whirler. The size R1/4 with spray capacity code 040–060 and the size R3/8 standard models include a C-ring.
Material	<ul style="list-style-type: none"> • Sizes R1/8– Rc1: S303 • Sizes Rc1*1/2 or larger: S316 • Optional material: S316L or others

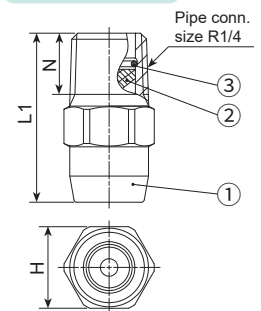
DWG No.	Pipe conn. size ¹	Dimensions (mm)						Mass (g)
		L1	L2	H	W	øD	N	
①	R1/8	21	—	12	—	—	7	11
	R1/4 (015, 020)	21	—	14	—	—	10.5	20
	R1/4 (030)	21.5	—	14	—	—	10.5	20
②	R1/4 (040–060)	29	—	14	—	—	10.5	21
③	R3/8	36.5	6	—	17	20	11	55
	Rc3/8	45.5	6	—	17	20	11	75
④	Rc1/2	56	8	—	22	25	14	140
	Rc3/4	73	10	—	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 sizes indicate the spray capacity codes.
[Note] Appearance and dimensions may differ slightly depending on materials and nozzle codes.

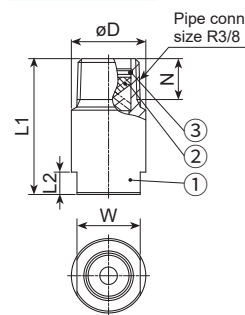
① R1/8, R1/4



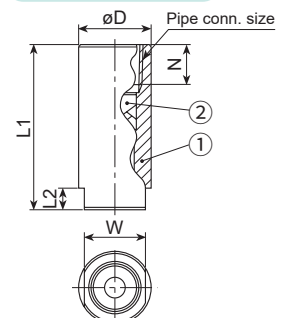
② R1/4



③ R3/8



④ Rc3/8 and over



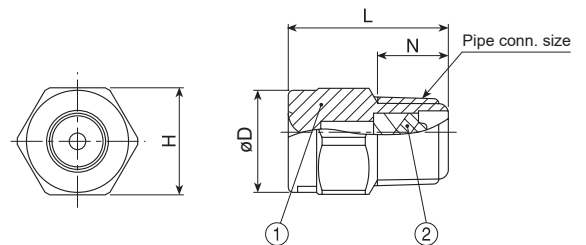
① Nozzle body ② Whirler ③ C-ring

BBXP-PVDF series

BBXP-PVDF series	
Structure	<ul style="list-style-type: none"> • One-piece structure with a press-fit X-shaped whirler.
Material	<ul style="list-style-type: none"> • PVDF

Pipe conn. size	Dimensions (mm)				Mass (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 materials and nozzle codes.

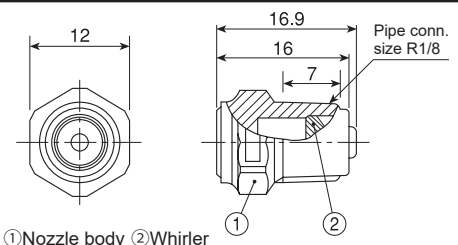


① Nozzle body ② Whirler

BBXP-PVC series

BBXP-PVC series	
Structure	<ul style="list-style-type: none"> • One-piece structure with a X-shaped whirler.
Material	<ul style="list-style-type: none"> • PVC
Mass	<ul style="list-style-type: none"> • 1.4 g

[Note] Appearance and dimensions may differ slightly depending on materials and nozzle codes.



① Nozzle body ② Whirler

Wide-angle Full Cone Spray Nozzles

BBXP/BBXP-PVDF/BBXP-PVC series

Full Cone

BBXP series

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	0.9
040	○	○	110	120	112	—	2.12	2.91	3.51	4.00	5.03	5.81	6.67	7.72	350	1.3
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											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 1 1/2	Rc 2	Rc 2 1/2	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	420	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	4.7	
40				○							124	120	112	13.3	16.9	23.2	27.9	31.8	40.0	46.3	53.1	61.4	630	6.0	
50				○							125	120	113	16.7	21.0	29.0	34.9	39.8	50.0	57.8	66.3	76.7	710	8.9	
60					○						124	120	112	20.0	25.3	34.7	41.9	47.7	60.0	69.4	79.6	92.1	900	10.2	
80					○						125	120	113	26.7	33.7	46.3	55.8	63.7	80.0	92.5	106	123	1,000	14.3	
100						○					123	120	111	33.3	42.1	57.9	69.8	79.6	100	115	135	155	1,100	19.0	
150						○					124	120	112	50.0	63.2	86.9	105	120	150	175	200	230	1,100	19.0	
200							○				124	120	112	66.7	84.3	115	140	160	200	230	265	310	1,100	19.0	
300							○				125	120	113	100	125	175	210	240	300	350	400	460	1,100	19.0	
400								○			124	120	112	135	170	235	280	320	400	465	530	615	1,100	19.0	
500								○			125	120	113	170	210	290	350	400	500	580	665	770	1,100	19.0	
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	1,100	19.8	
1200										○	125	120	113	400	505	695	840	955	1,200	1,390	1,590	1,840	1,200	21.7	

BBXP-PVDF series

Spray capacity code*2	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

*2) Nozzle body colors differ depending on the spray capacity codes: BBXP008 and BBXP020 are black (BLA), BBXP015 is gray (GRA).

BBXP-PVC series [1/8MBBXP030PVC-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

Please inquire or order for a specific nozzle using this coding system.

①BBXP series (metal)

⟨Example⟩ 1/8M BBXP 015 S303

1/8M BBXP 015 S303

Pipe conn. size ³	Spray capacity code	Material ⁴
1/8M	015	S303
3/8M	3	S316
4F	1200	

②BBXP-PVDF series

⟨Example⟩ 1/8M BBXP 020 PVDF (BLA)

1/8M BBXP 020 PVDF (BLA)

Pipe conn. size ³	Spray capacity code	Nozzle color
1/8M	008	BLA (BBXP008, 020)
1/4M	015	GRA (BBXP015)
	020	

③BBXP-PVC series

1/8MBBXP030PVC-IN

*3) "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.

*4) See "Material" information on page 78 for standard materials by each size.