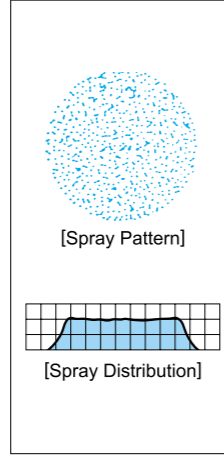
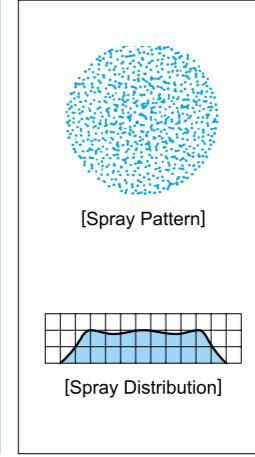
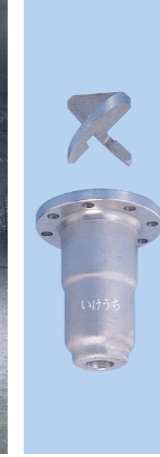


Small Capacity Full Cone Spray Nozzles



- [Features]**
- Full cone spray pattern with a round impact area and uniform distribution.
 - Features smallest spray capacity among full cone spray nozzles.
 - Unique design developed from new engineering concept to produce fine atomization by impinging two inflows inside vortex chamber.
 - Ceramic orifice and closer provide excellent wear-resistance.
- [Standard Pressure]**
0.5MPa for spray capacity codes of 006 and 008.
0.2MPa for spray capacity codes of 010 and over.
- [Applications]**
Spraying : Oils, lubricants, glues, etchants, etc.
Cleaning : Galvanizing, gases, etc.
Cooling : Machinery, gases, etc.

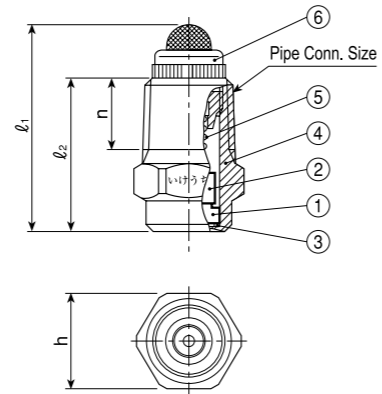
Flange-type, Large Capacity Full Cone Spray Nozzles



- [Features]**
- Full cone spray pattern with a round impact area and uniform distribution.
 - Flanged connection.
 - X-shaped whirler provides large free passage diameter for minimal clogging.
 - Adopting newly developed X-shaped whirler has shortened total length by 20% compared to conventional nozzles.
- [Standard Pressure]**
0.2MPa
- [Applications]**
Cooling : Gases, liquids, etc.
Reacting : Chemical plants, etc.
Spraying : Aeration, sea water desalination, etc.

J-series

J-series (with ceramic orifice inserted)	
Structure	<ul style="list-style-type: none"> • Spray orifice and closer are made of ceramics. • It can be disassembled into components. • All J nozzles are equipped with built-in strainers.
Material	<ul style="list-style-type: none"> • Metal parts : B (brass) or S303 (stainless steel 303) • Optional material : S316



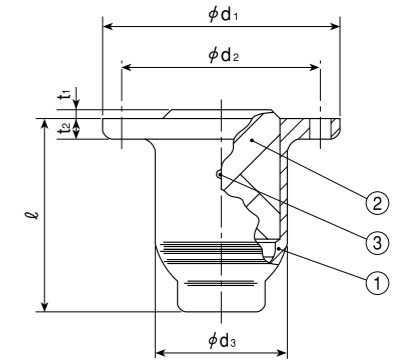
- ①Ceramic orifice ②Ceramic closer ③Packing (PTFE)
④Nozzle body ⑤Spring (S316)
⑥Strainer (B+S304 or S303+S304)

Series	Pipe Conn. Size	Dimensions(mm)				Mass(g)	
		ℓ ₁	ℓ ₂	h	n	B	S303
J	1/4 M	30.4	22.5	14	10.5	18.5	17.5

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

TJJX-series

TJJX-series	
Structure	<ul style="list-style-type: none"> • One-piece structure with removable X-shaped whirler fixed to nozzle body by lock bolt. • Flanged connection.
Material	<ul style="list-style-type: none"> • S304 (stainless steel 304) (SCS13) or S316 (stainless steel 316) (SCS14) • Optional material : S316L (SCS16)



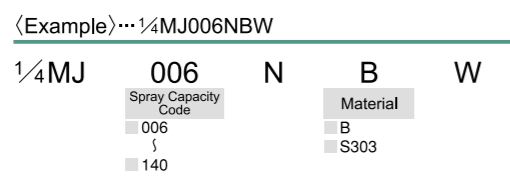
- ①Body ②Whirler ③Lock bolt

Series	Flange size	Dimensions(mm)						Flange (JIS 10K) Qty. of bolt holes	φ (mm)	Mass (kg)
		ℓ	φd ₁	φd ₂ PCD	φd ₃	t ₁	t ₂			
TJJX	4T	171	210	175	117	8	18	8	19	9.3
	5T	211	250	210	143	9	20	8	23	11.4
	6T	253	280	240	169	10	22	8	23	22.7

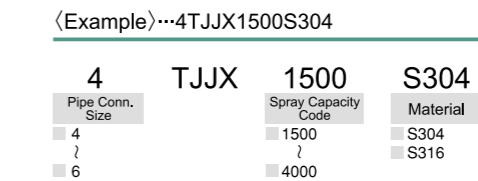
[Note] Appearance and dimensions may differ slightly depending on materials and nozzle codes.

Spray Capacity Code	Pipe Conn. Size	Spray Angle			Spray Capacity (ℓ/min)								Mean Drop. Dia. (μm)	Free Pass. Dia. (mm)	Strainer Mesh Size	
		0.1 MPa	0.2 MPa	0.5 MPa	0.1 MPa	0.15 MPa	0.2 MPa	0.3 MPa	0.5 MPa	0.7 MPa	1 MPa	1.5 MPa				2 MPa
006	1/4M	—	—	70°	—	—	—	0.07	0.09	0.10	0.12	0.14	0.16	130	0.2	200
008		—	—	70°	—	—	—	0.09	0.12	0.14	0.16	0.19	0.22	140	0.2	200
010		—	70°	65°	—	0.09	0.10	0.12	0.15	0.17	0.20	0.24	0.28	160	0.3	200
012		—	70°	65°	—	0.10	0.12	0.14	0.18	0.21	0.25	0.29	0.33	190	0.3	200
015		—	70°	65°	—	0.13	0.15	0.18	0.23	0.26	0.31	0.37	0.42	170	0.3	200
020		60°	70°	65°	0.14	0.17	0.20	0.24	0.30	0.35	0.41	0.49	0.56	190	0.3	200
025		65°	70°	67°	0.18	0.22	0.25	0.30	0.38	0.44	0.51	0.61	0.70	230	0.3	200
030		67°	70°	68°	0.22	0.26	0.30	0.36	0.45	0.52	0.61	0.73	0.83	220	0.4	150
040		67°	70°	68°	0.29	0.35	0.40	0.48	0.60	0.70	0.82	0.98	1.11	190	0.4	150
050		68°	70°	68°	0.36	0.44	0.50	0.60	0.75	0.87	1.02	1.22	1.39	290	0.5	150
060		68°	70°	68°	0.43	0.52	0.60	0.72	0.90	1.05	1.23	1.47	1.67	280	0.5	150
070		68°	70°	68°	0.51	0.61	0.70	0.84	1.05	1.22	1.43	1.71	1.95	350	0.6	150
080		68°	70°	68°	0.58	0.70	0.80	0.95	1.19	1.38	1.61	1.92	2.18	350	0.7	150
100		68°	70°	68°	0.72	0.87	1.00	1.19	1.49	1.72	2.01	2.40	2.72	350	0.7	100
120	68°	70°	68°	0.87	1.05	1.20	1.43	1.79	2.07	2.42	2.88	3.27	440	0.8	50	
140	68°	70°	68°	1.01	1.22	1.40	1.67	2.09	2.41	2.82	3.36	3.81	440	0.9	50	

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




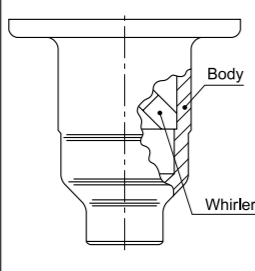
How to order Please inquire or order for a specific nozzle using this coding system.



[Note] TJJX with larger spray flow / larger flange is available upon request.

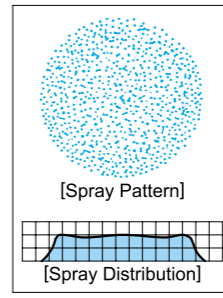
Related Products

For spraying slurry, TJJX nozzles made of highly wear-resistant SiC (silicon carbide) are available.

Series	Appearance	Structure	Features	Applications
TJJX-SiC			<ul style="list-style-type: none"> • Full cone spray pattern with a round impact area and uniform distribution. • X-shaped whirler provides large free passage diameter for minimal clogging. • Whole nozzle fired as one piece. • Highly wear-resistant and lightweight structure made of SiC. 	<ul style="list-style-type: none"> • Spraying recirculated water for water granulation, etc. • Other applications for spraying slurry, etc.

Wide-angle Full Cone Spray Nozzles

BBXP/BBXP-PVDF/BBXP-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 for minimal clogging.

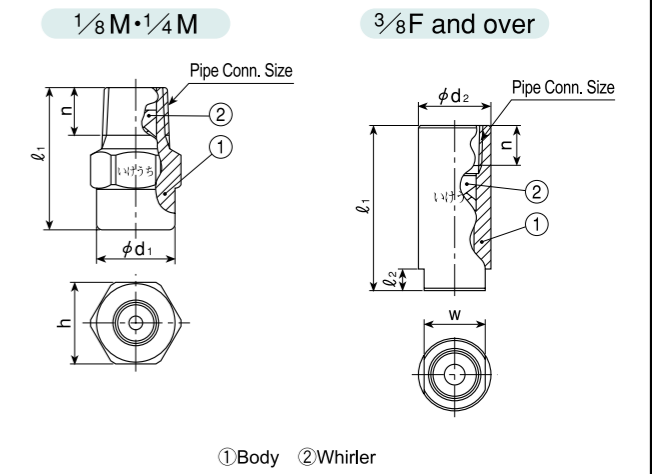
[Standard Pressure]
 0.2MPa for spray capacity codes of 015-060.
 0.35MPa for spray capacity codes of 10 and over.

- [Applications]**
- Cleaning : Gases, incinerator fumes, machinery, eliminators, screen, tanks, gravel, stones, sand, etc.
 Cooling : Gases, machineries, tanks, steels, etc.
 Spraying : Water treatment, aeration, foam breaking, fire extinguishing, dust suppression, sea water desalination, etc.

BBXP-series

BBXP-series	
Structure	• One-piece structure with press-fit X-shaped whirler.
Material	<ul style="list-style-type: none"> • Sizes 1/8M - 3/4F : S303 (stainless steel 303) • Sizes 1/2F - 1F : B (brass) or S303 • Sizes 1 1/2F or larger : S316 (SCS14) • Optional material : S316L (SCS16) or others

Series	Pipe Conn. Size	Dimensions(mm)							Mass(g)	
		ℓ ₁	ℓ ₂	h	w	φd ₁	φd ₂	n	B	S303 (S316)
BBXP	1/8M	21	—	12	—	11.5	—	7	—	11
	1/4M	29	—	14	—	13.5	—	10.5	—	19.5
	3/8F	45.5	6	—	17	—	20	11	—	75
	1/2F	56	8	—	22	—	25	14	150	140
	3/4F	73	10	—	27	—	32	15	320	300
	1F	94	14	—	34	—	40	17	625	585
	1 1/2F	131	20	—	50	—	58	19	—	1760
	2F	168	24	—	60	—	70	23	—	2980
	2 1/2F	199	27	—	80	—	90	27	—	5890
	3F	220	30	—	90	—	105	30	—	9400
4F	278	40	—	115	—	130	36	—	16100	

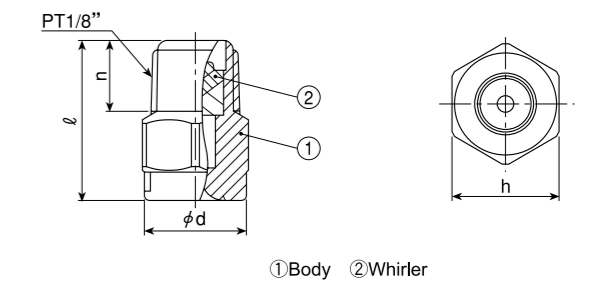


[Note] Appearance and dimensions may differ slightly depending on materials and nozzle codes.

BBXP-PVDF series

BBXP-PVDF series	
Structure	• One-piece structure with press-fit X-shaped whirler.
Material	• PVDF (polyvinylidene fluoride)

Series	Pipe Conn. Size	Dimensions(mm)				Mass(g)	
		ℓ	h	n	φd	PVDF	
BBXP-PVDF	1/8M	18	12	8	11.5	2	
	1/4M	22	14	11.5	11.5	4.1	

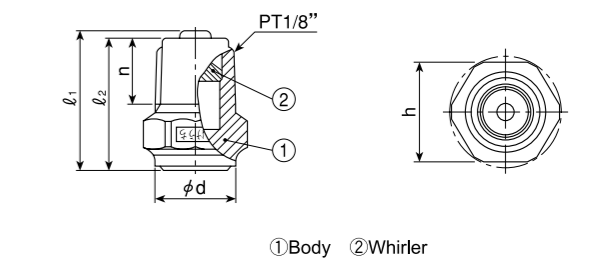


[Note] Appearance and dimensions may differ slightly depending on materials and nozzle codes.

BBXP-PVC series

BBXP-PVC series	
Structure	• One-piece structure with removable X-shaped whirler.
Material	• PVC (polyvinyl chloride)

Series	Pipe Conn. Size	Dimensions(mm)					Mass(g)	
		ℓ ₁	ℓ ₂	h	n	φd	PVC	
BBXP-PVC	1/8M	16.9	16	12	8	10	1.4	



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