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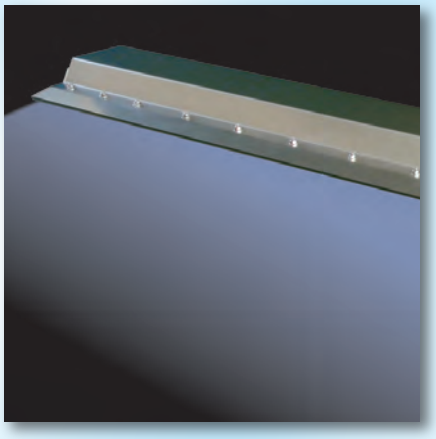
IKEUCHI
AIR NOZZLE CATALOG



"The Fog Engineers"

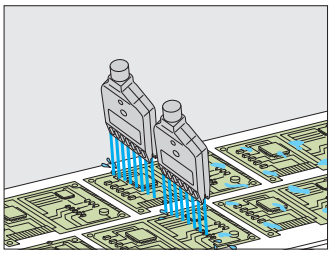
H. IKEUCHI & CO., LTD.

AIR NOZZLES provide solutions for problems in manufacturing plants.

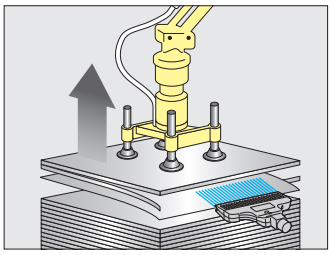
There are many areas in which air nozzles can make a difference; including productivity, product quality, cost cutting, noise reduction, and more. **IKEUCHI, the Fog Engineers,** to meet any customer demand, provides an extensive variety of products, from compact nozzles to entire systems, for applications from narrow spaces to large-scale lines.

Usage examples

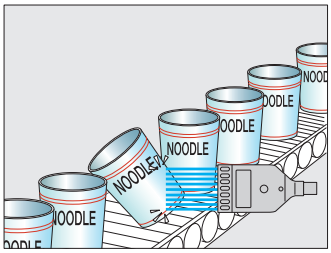
■Blow-off drying after washing



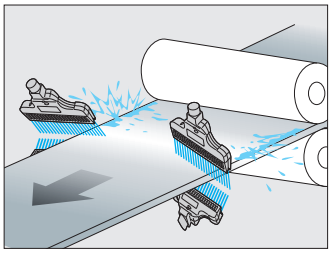
■Detachment (Preventing double sheet feeding for steel plates)



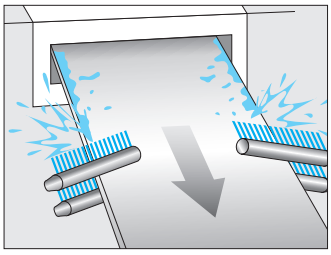
■Rejection of inferior products



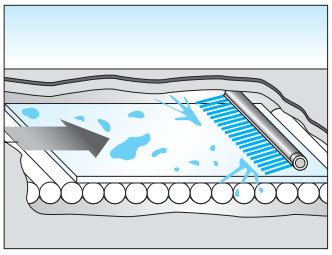
■Blowing off of dust under high temperatures



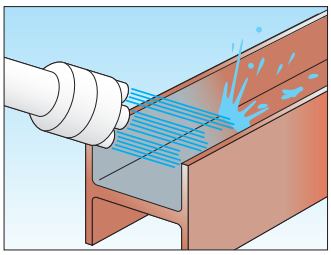
■Blowing off of liquid (Edge wiper for steel surface treatment)



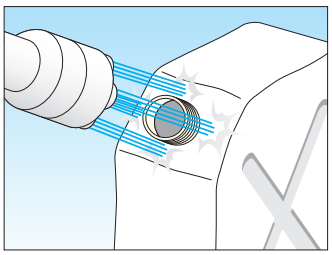
■Narrow space



■Blowing off of water from shaped steel



■Pinpoint cooling for molded plastic



Contents

Description for thread size and type (pipe connection size)

Threads noted in this catalog are tapered pipe threads (PT) unless otherwise specified.
"M" denotes male thread and "F" denotes female thread.

(Example)

1/4M: 1/4" male taper pipe thread, R1/4
1/4F: 1/4" female taper pipe thread, Rc1/4

Materials/ Specifications

- Materials are described as follows in this catalog.
- Air consumption (air volume) specified in this catalog is for reference only, not guaranteed.

	Description	Name of materials
Plastic resin	ABS	Acrylonitrile butadiene styrene
	FRPP	Glass-fiber reinforced polypropylene
	HTPVC	Heat-treated polyvinyl chloride
	POM	Polyacetal
	PP	Polypropylene
	PPS	Polyphenylene sulfide
	PTFE	Polytetrafluoroethylene
	PVC	Polyvinyl chloride

	Description	Name of materials
Metal	S303	Stainless steel 303
	S304	Stainless steel 304
	S316	Stainless steel 316
	S316L	Stainless steel 316L
	B	Brass (C3604)
Rubber	EPDM	Ethylene-propylene rubber
	FKM	Tetrafluoroethylene-propylene rubber
	NBR	Nitrile rubber

- Specifications of the products and contents of this catalog are subject to change without prior notice for purpose of product improvement.

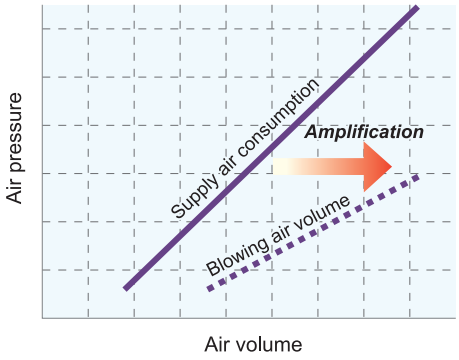
Air Booster Nozzles

TAIFUJet® series

The special configuration of TAIFUJet® takes in surrounding air and boosts powerful air flow.
Designed to have a uniform and efficient air flow, TAIFUJet® also excels at producing a quiet and solid stream of high impact air.

Save on Air Cost / High Spray Impact

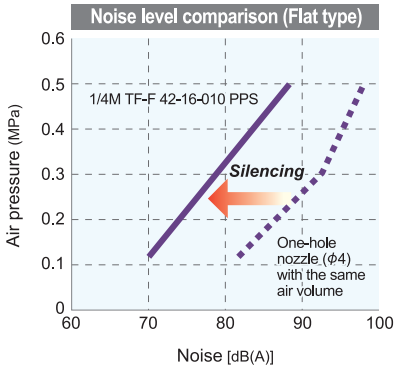
TAIFUJet®, uniquely designed to take in surrounding air and multiply air flow, produces a powerful air blow with high spray impact and minimal air consumption.

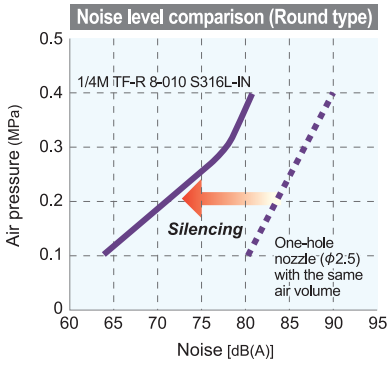


Low Noise Level (Quiet Operation)

TAIFUJet® is designed to have minimal noise levels.
Available in Flat type and Round type, depending on your usage.

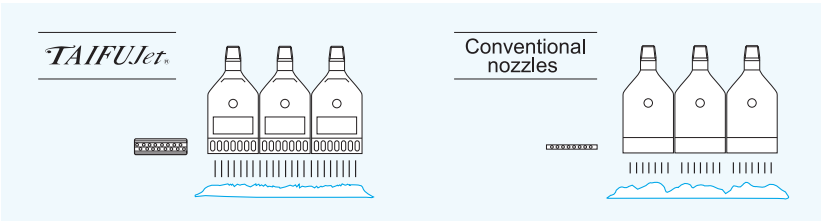
Spray condition
Background noise: 58 dB(A)
Spray direction: Horizontal
Spray height: 1 m
Measured at 1 m in front of nozzle





Uniform Spray Impact

To achieve the most efficient air flow, TAIFUJet® is designed with a staggered alignment of spray orifices and inlet holes, which results in uniform spray impact in spray width direction*.
Spray impact is stable even at a long distance. *Flat type utilizing compressor air only



For compressors

Flat Type
Plastic

FEATURES

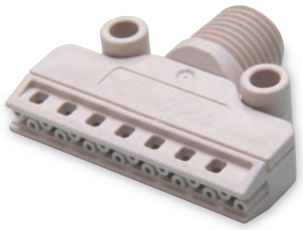
- Uniform distribution resulting from the unique flat design.
- Made of high chemical/heat resistant PPS.
- Designed to have minimal noise level.

Flat Type

【Spray pattern】

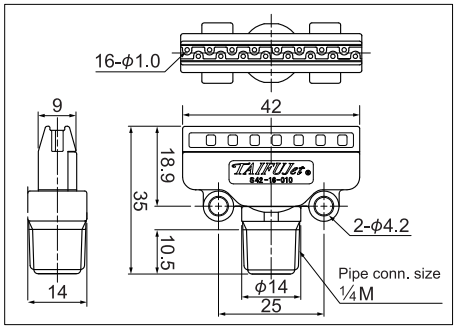
42 mm wide Short type

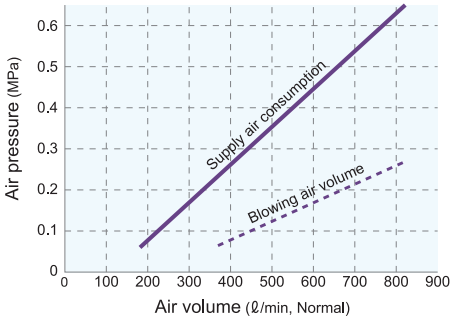
- ▸Compact, much shorter body (35 mm long) compared to the conventional 42 mm wide type.
- ▸Uniform distribution resulting from the unique flat design.



Material: PPS
Mass: 9 g
Max. air pressure: 0.7 MPa (100 psi)
Max. allowable temperature: 120°C (240°F)

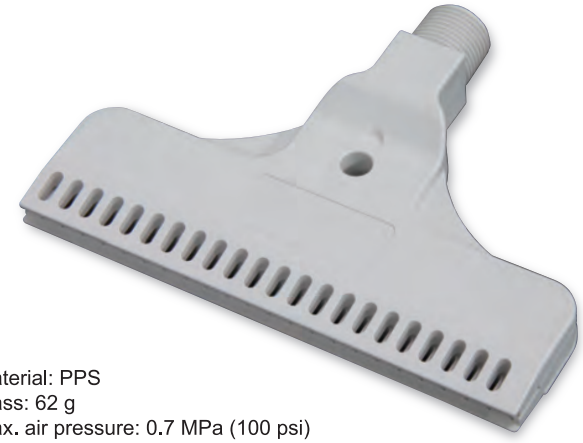
■Dimensions





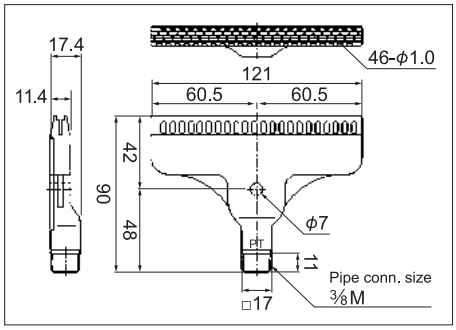
121 mm wide Broad type

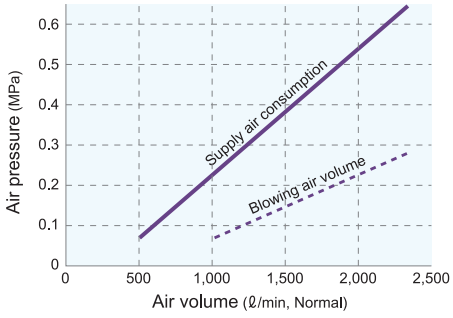
- ▸Powerful air nozzle dramatically multiplies the supplied air volume.
- ▸Spray width is three times broader than our conventional flat type (42 mm wide).



Material: PPS
Mass: 62 g
Max. air pressure: 0.7 MPa (100 psi)
Max. allowable temperature: 120°C (240°F)

■Dimensions





How to order

Please inquire or order using these product codes.

①42 mm wide, short type

1/4M (PT) TF-FS 42-16-010 PPS

Thread type
■(PT) ■(NPT)

②121 mm wide, broad type

3/8M (PT) TF-F 121-46-010 PPS

Thread type
■(PT) ■(NPT)

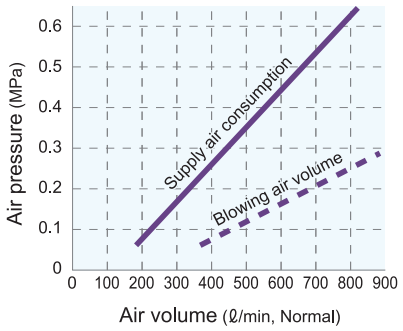
Air Booster Nozzles

42 mm wide

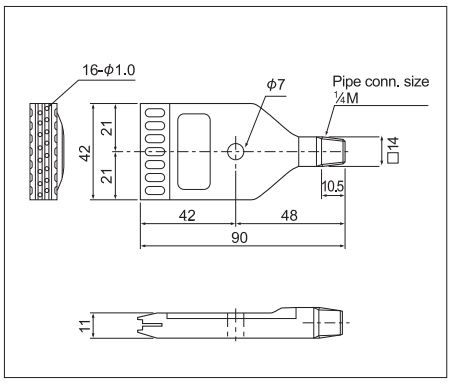
- ▸Uniform distribution resulting from the unique flat design.
- ▸42 mm wide standard flat air nozzle with ϕ1.0 mm orifice.

Flat Type

【Spray pattern】



■ **Dimensions**



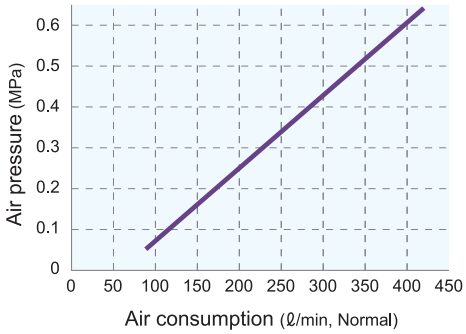
Material: PPS
Mass: 30 g
Max. air pressure: 0.7 MPa (100 psi)
Max. allowable temperature: 120°C (240°F)

24 mm wide Compact type

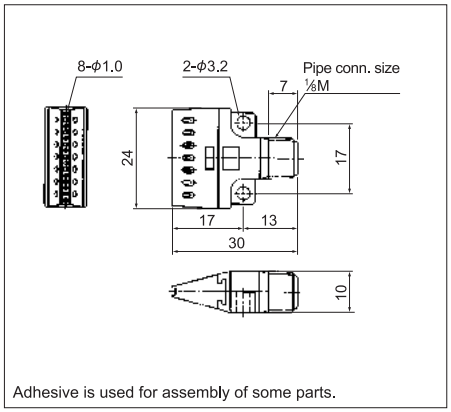
- ▸Ultra-compact air nozzle (24 mm wide, 30 mm long) with equal high spray impact and minimal noise level.
- ▸Compact enough to install in a narrow space, such as for blow-off drying in corners.

Flat Type

【Spray pattern】



■ **Dimensions**



Material: PPS
Mass: 4 g
Max. air pressure: 0.7 MPa (100 psi)
Max. allowable temperature: 120°C (240°F)

How to order

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

①42 mm wide type

1/4M (PT) TF-F 42-16-010 PPS

Thread type
- (PT)
- (NPT)

②24 mm wide, compact type

1/8M TF-F 24-8-010 PPS-IN

For compressors

Flat Type
Stainless Steel

FEATURES

- Powerful air nozzle dramatically multiplies the supplied air volume.
- Uniform distribution resulting from the unique flat design.

Flat Type

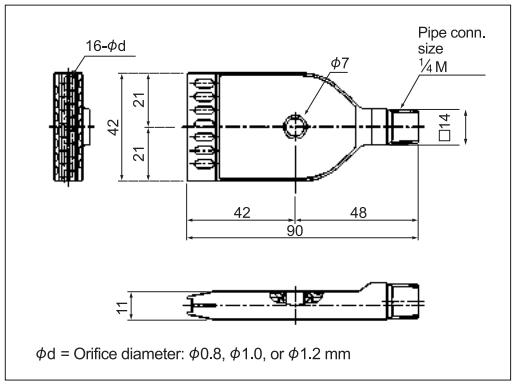
【Spray pattern】

42 mm wide

- ▸42 mm wide standard flat air nozzle, available in three orifice diameters: ϕ0.8, ϕ1.0, or ϕ1.2 mm.
- ▸Made of stainless steel with high resistance to shock and heat.

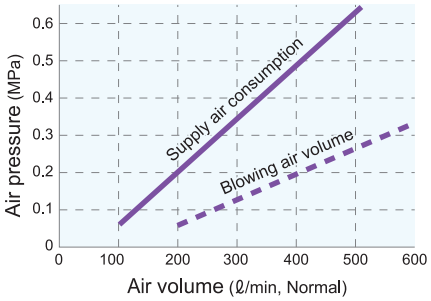
Material: S316L equivalent
Mass: 144 g
Max. air pressure: 1.0 MPa (140 psi)
Max. allowable temperature: 400°C (750°F)

■ **Dimensions**

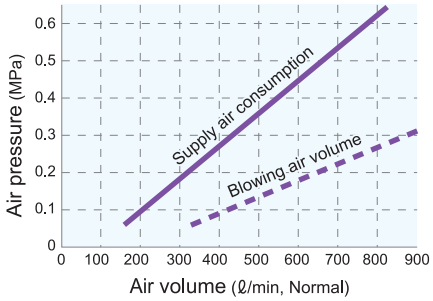


ϕd = Orifice diameter: ϕ0.8, ϕ1.0, or ϕ1.2 mm

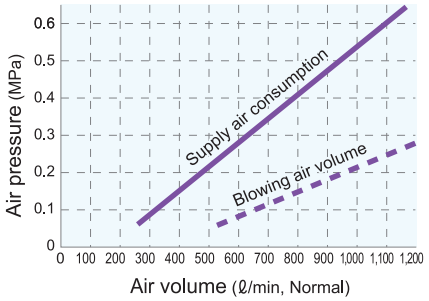
【Orifice diameter ϕ0.8】



【Orifice diameter ϕ1.0】



【Orifice diameter ϕ1.2】

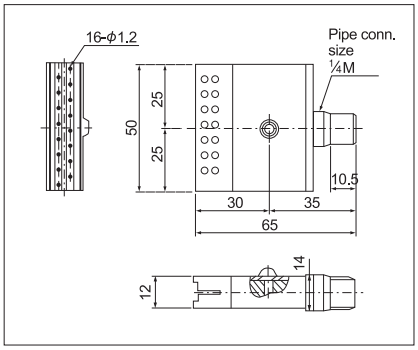


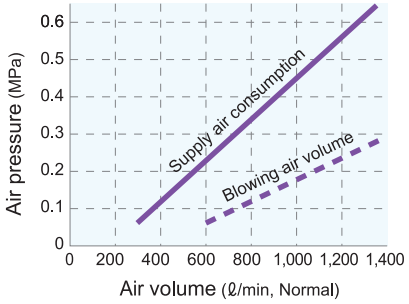
50 mm wide

- ▸Compact and wider flat air nozzle, 50 mm wide and 65 mm long.

Material: S304
Mass: 140 g
Max. air pressure: 1.0 MPa (140 psi)
Max. allowable temperature: 400°C (750°F)

■ **Dimensions**





How to order

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

①42 mm wide type <Example> ¼M (PT) TF-F 42-16-010 S316L-IN

1/4M (PT) TF-F 42-16-010 S316L-IN

Thread type
- (PT)
- (NPT)

Orifice diameter code
- 008 (ϕ0.8)
- 010 (ϕ1.0)
- 012 (ϕ1.2)

②50 mm wide type

1/4M TF-F 50-16-012 S304

Air Booster Nozzles

For compressors

Long Flat Type

Stainless Steel

FEATURES

- Long flat type designed for blowing air over greater widths.
- 13 spray width types, 100 mm–1,400 mm, are available.
- Space-saving design, suitable for narrow places.
- Air inlet connection at both ends available for size 500 mm and longer, yields more space savings.
- Made of stainless steel with high resistance to shock and heat.

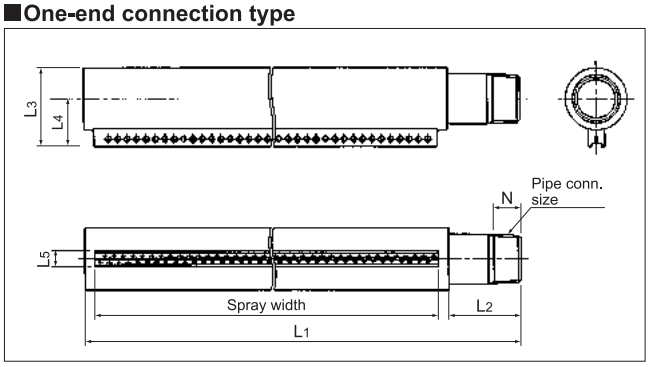
Flat Type

【Spray pattern】

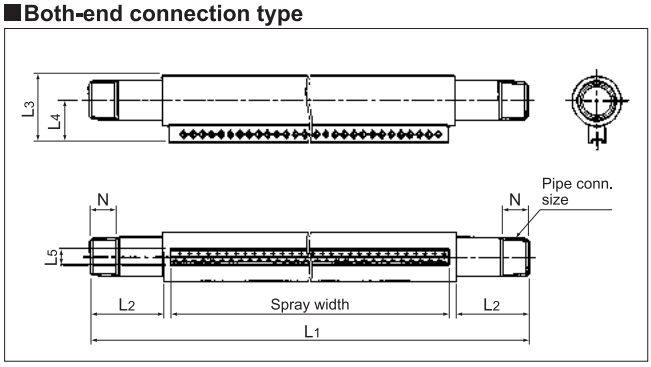
Material: S304
Max. air pressure: 1.0 MPa (140 psi)
Max. allowable temperature: 400°C (750°F)

Product code	Spray width (mm)	Orifice diameter (mm)	Number of orifices	Air consumption (ℓ/min, Normal)		
				0.1 MPa	0.3 MPa	0.5 MPa
100- 40-010	100	1.0	40	580	1,150	1,720
150- 58-010	150		58	850	1,700	2,550
200- 78-010	200		78	1,100	2,200	3,300
300-118-010	300		118	1,500	2,950	4,400
400-156-010	400		156	1,750	3,450	5,150
500-196-010	500		196	2,500	5,000	7,400
600-234-010	600		234	2,800	5,500	8,200
700-274-010	700		274	3,000	6,000	9,000
800-312-010	800		312	4,100	8,100	12,200
900-352-010	900		352	4,300	8,600	12,900
1000-390-010	1,000		390	4,800	9,400	14,000
1200-468-010	1,200		468	5,200	10,400	15,500
1400-546-010	1,400		546	7,500	15,000	22,500

■One-end connection type



■Both-end connection type



■Dimensions and mass

Product code	Pipe conn. size	Outer dimensions (mm)						Mass (g)
		L1	L2	L3	L4	L5	N	
100- 40-010	½M	156	40	37	23	9	14	360
150- 58-010		203	40	37	23	9	14	500
200- 78-010		254	40	37	23	9	14	640
300-118-010		357	40	37	23	9	14	850
400-156-010		455	40	37	23	9	14	1,100
500-196-010	¾M	557	40	44	27	9	15	2,000
600-234-010		655	40	44	27	9	15	2,400
700-274-010		758	40	44	27	9	15	2,800
800-312-010	1M	856	40	52	31	9	18	3,200
900-352-010		959	40	52	31	9	18	5,100
1000-390-010		1,056	40	52	31	9	18	5,600
1200-468-010		1,257	40	52	31	9	18	6,700
1400-546-010	1½M	1,457	40	70	40	9	20	13,800

■Dimensions and mass

Product code	Pipe conn. size*	Outer dimensions (mm)						Mass (g)
		L1	L2	L3	L4	L5	N	
500-196-010	2-½M	597	40	37	23	9	14	1,750
600-234-010		695	40	37	23	9	14	2,050
700-274-010		798	40	37	23	9	14	2,400
800-312-010	2-¾M	896	40	44	27	9	15	3,250
900-352-010		999	40	44	27	9	15	3,650
1000-390-010		1,096	40	44	27	9	15	4,000
1200-468-010		1,297	40	44	27	9	15	4,750
1400-546-010	2-1M	1,497	40	52	31	9	18	8,800

*For both-end connection type, pipe connection size is indicated as "the number of inlets" - "thread size".

How to order

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

<Example> ¾M TF-PF 500-196-010 S304

Pipe conn. size **TF - PF** **Product code** **S304**

For compressors

Round Type

FEATURES

- High impact solid stream of air blown from eight holes.
- Standard round type air nozzle for high-impact, pinpoint blowing.
- Compact design, lightweight.
- Quiet operation with noise level reduced by more than 10 dB (A) compared to conventional one-hole air nozzle.
- For applications which require high spray impact air blow into gaps and narrow spaces (pipes, etc.).

Round Type

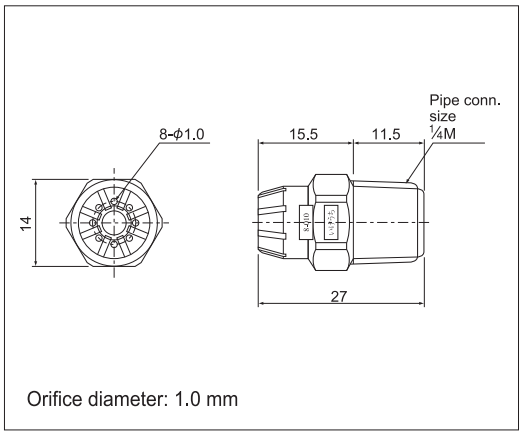
【Spray pattern】

Plastic

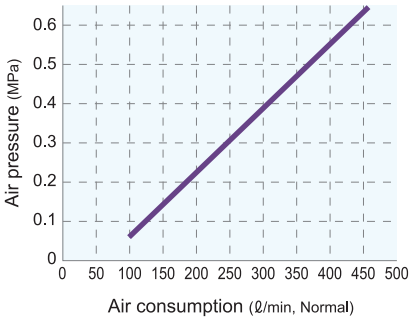
▸Affordable, made of PP.

Material: PP
Mass: 2 g
Max. air pressure: 0.7 MPa (100 psi)
Max. allowable temperature: 60°C (140°F)

■Dimensions



Orifice diameter: 1.0 mm

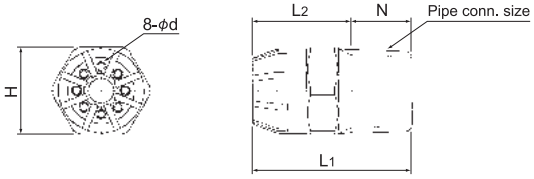


Stainless Steel

▸Made of stainless steel S316L with high resistance to shock, heat and chemicals.
▸Two pipe connection size types, 1/8M and 1/4M, and five orifice diameter types, ϕ0.8 mm–ϕ1.6 mm, are available.
▸Use in air with large amounts of foreign matter is possible.

Material: S316L equivalent
Max. air pressure: 1.0 MPa (140 psi)
Max. allowable temperature: 400°C (750°F)

■Drawing



ϕd = Orifice diameter: ϕ0.8, ϕ1.0, ϕ1.2, ϕ1.4, or ϕ1.6 mm

Orifice diameter code	Pipe conn. size		Orifice diameter (mm)	Air consumption (ℓ/min, Normal)		
	1/8M	1/4M		0.1 MPa	0.3 MPa	0.5 MPa
8-008	○	—	0.8	80	155	235
8-010	○	○	1.0	125	245	365
8-012	○	○	1.2	180	360	540
8-014	○	○	1.4	240	480	720
8-016	—	○	1.6	320	630	940

"○" shows availability of the item.
Note: Surface gloss may vary depending on nozzle size.

■Dimensions and mass

Pipe conn. size	Orifice diameter (mm)				Mass (g)
	L1	L2	H	N	
1/8M	20	13	12	7	7
1/4M	25	15.5	14	9.5	12

How to order

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

①Plastic

1/4M TF-R 8-010 PP-IN

②Stainless steel <Example> 1/8M TF-R 8-010 S316L-IN

1/8M TF-R 8-010 S316L-IN

Pipe connection size
■1/8M
■1/4M

Orifice diameter code
■8-008 ■8-012 ■8-016
■8-010 ■8-014

Air Booster Nozzles

For compressors

Cluster Header
3-Cluster Header

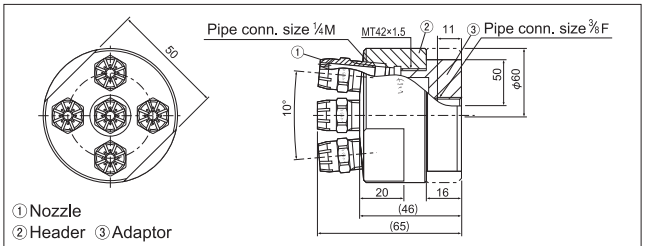
FEATURES

- Header with a cluster of multiple round-type stainless steel air nozzles.
- The unit is made of a cluster of nozzles. One cluster can be equipped with 4, 5, or 7 nozzles upon request.
- Also available is the multiple-nozzle triple cluster type, consisting of three clusters of multiple-nozzles in one unit, for application of stronger power.

Cluster header

▸**Header with a cluster of 5 round-type stainless steel air nozzles.**

■**Dimensions**



① Nozzle
② Header ③ Adaptor

- ① = 1/4M round-type stainless steel air nozzles
- Total air volume = Air volume for 1 pc. of round-type stainless steel air nozzle x the number of nozzles
- Available with 4 pcs., 5 pcs., or 7 pcs. of nozzles mounted
- Inquire with us for the light-weight type (header and adaptor made of aluminum A6061).

Sealing materials are used for assembly of some parts.

Triple cluster header

▸**Triple cluster header includes 3 clusters each equipped with 7 round-type stainless steel air nozzles.**

For details, please inquire with us.

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

<Example> ⅜F TF-M5R 8-010 S303

3/8F TF-M5R 8-010 S303

Orifice diameter code*
■8-010 ■8-012 ■8-014 ■8-016

*For details of the orifice diameter code, please refer to round-type stainless steel air nozzles on page 8.

Air Blow Gun with TAIFUJet® Air duster gun unit

Materials:
【Nozzle】PP, PPS
【Gun】PPS, POM, etc.

Approx. air volume (when flow regulating valve is set Max.)

- Round type nozzle (TF-R-8-010)
  : 180 L/min, Normal at 0.2 MPa air pressure
- Compact flat type nozzle (TF-F24-8-010)
  : 170 L/min, Normal at 0.2 MPa air pressure
- Flat type nozzle (TF-F42-16-010)
  : 340 L/min, Normal at 0.2 MPa air pressure

For compressors

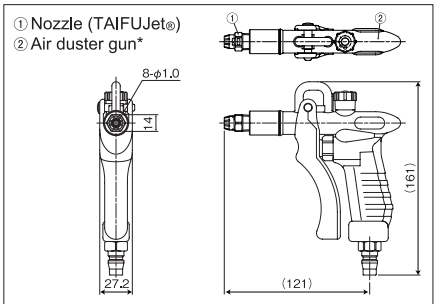
Air Blow Gun

FEATURES

- Easier handling with air duster gun. Three types available.
- Air capacity adjustability (as standard equipment)

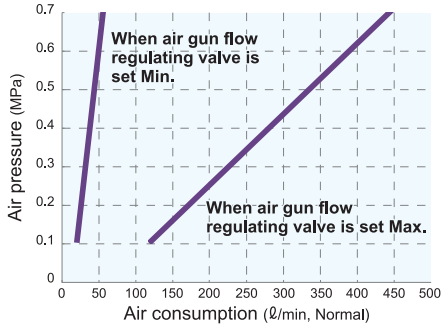
■**Dimensions (w/ round-type TAIFUJet®)**

① Nozzle (TAIFUJet®)
② Air duster gun*



*Includes a one-touch fitting for air supply connection.

【Round type nozzle + Gun】



How to order Please inquire or order for a specific nozzle using these product codes.

Round type nozzle + Gun	**1/4MTF-R-8-010PP-IN + Air duster TD-30H**
Compact flat type nozzle + Gun	**1/8MTF-F24-8-010PPS-IN + Air duster TD-30H**
Flat type nozzle + Gun	**1/4MTF-F42-16-010PPS + Air duster TD-30H**

For blowers

Flat Type

FEATURES

- Air nozzle with a 42 mm wide even jet.
- Blower air nozzles, reducing energy cost to one-third of that for compressed air driven nozzles.
- Unique design combining air-amplification, even air flow distribution, and low-noise capabilities.

Flat Type

【Spray pattern】

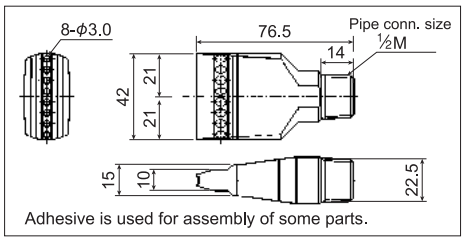
Plastic **TF-BF**

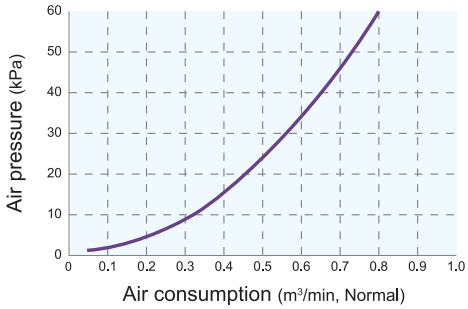
Material: ABS
Mass: 26 g
Max. air pressure: 100 kPa (14 psi)
Max. allowable temperature: 80°C (170°F)

Metal **TF-BF**

Material: Aluminum A5052
Mass: 65 g
Max. air pressure: 100 kPa (14 psi)
Max. allowable temperature: 316°C (600°F)

■Dimensions





For blowers

Round Type

FEATURES

- Blower air nozzles, reducing energy cost to one-third of that for compressed air driven nozzles.
- Unique design combining air-amplification, even air flow distribution, and low-noise capabilities.

Round Type

【Spray pattern】

▸**Air nozzle with pinpoint aim for gaps and narrow spaces.**

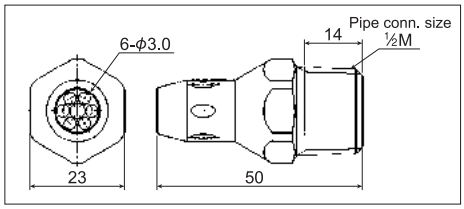
Plastic **TF-BR**

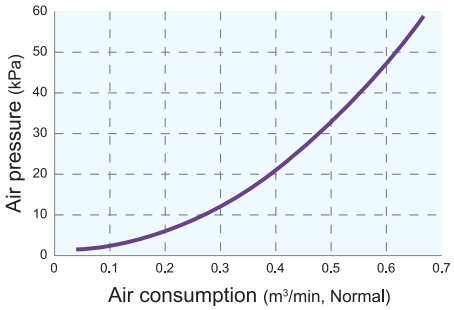
Material: ABS
Mass: 8 g
Max. air pressure: 100 kPa (14 psi)
Max. allowable temperature: 80°C (170°F)

Metal **TF-BR**

Material: Aluminum A5052
Mass: 20 g
Max. air pressure: 100 kPa (14 psi)
Max. allowable temperature: 400°C (750°F)

■Dimensions





How to order Please inquire or order for a specific nozzle using these product codes (select material).

Flat Type

<Example> ½M TF-BF 42-8-030 ABS

1/2M TF-BF 42-8-030 ABS

Material
- ABS
- A5052

Round Type

<Example> ½M TF-BR 6-030 ABS

1/2M TF-BR 6-030 ABS

Material
- ABS
- A5052

Air Booster Nozzles

TAIFUJet® series

For blowers

Long Flat Type

FEATURES

- Blower-air driven, long flat type for air blowing over greater widths.
- Space-saving design, suitable for narrow places.
- Made of plastic resin (PPS nozzle tip and HTPVC pipe header) or Aluminum.
- Configured as combinations of ϕ3 mm orifices in 42 mm-wide tip units. Available in lengths of multiples of 42 mm.

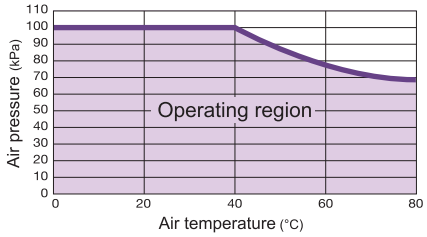
Flat Type

【Spray pattern】

Plastic ▸Lightweight plastic, long type.

Material: PPS (nozzle tip), HTPVC (pipe header)
Orifice diameter: 3.0 mm
Max. air pressure: 100 kPa (14 psi)
Max. allowable temperature: 80°C (170°F)

■Operating pressure range

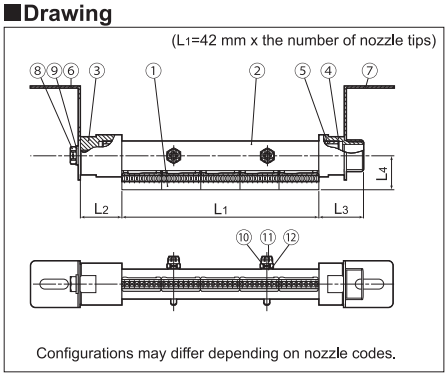


■Material

No.	Component	Material	Remark
①	Nozzle tip	PPS	
②	Pipe	HTPVC	
③	Cap	HTPVC	PPS for 2½"
④	Adaptor	HTPVC	PPS for 2½"
⑤	Sleeve	HTPVC	
⑥	Plate (Fixed)	S304	Optional
⑦	Plate (Loose)	S304	Optional
⑧	Bolt (M10)	S304	Optional
⑨	Washer (10)	S304	Optional
⑩	Bolt (M6)	S304	
⑪	Packing	PTFE	
⑫	Washer (6)	S304	

Sealing materials are used for assembly of some parts.

■Drawing



Configurations may differ depending on nozzle codes.

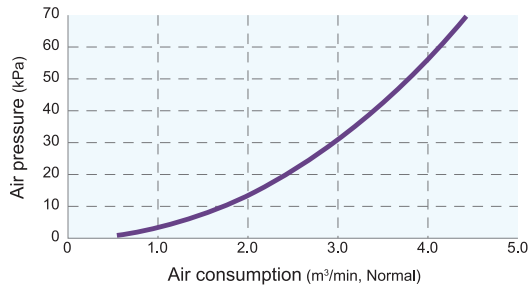
■Dimensions and mass

Pipe conn. size	Number of nozzle tips	Outer dimensions (mm)				Mass (g)	
		L1	L2	L3	L4	TAIFUJet®	Plate
1M	2 – 5	84 – 210	45	48	36	180 – 270	200
1½M	6 – 13	252 – 546	56	66	44	530 – 840	500
2M	14 – 22	588 – 924	66	73	50	1,350 – 1,830	500
2½M	23 – 38	966 – 1,596	74	84	58	2,940 – 3,900	500

STANDARD PLASTIC MODELS

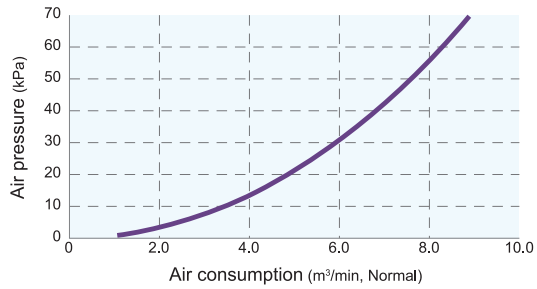
■1", 210 mm spray width

Nozzle code: 1M TF-BPF 210-40-030 PPS+HTPVC



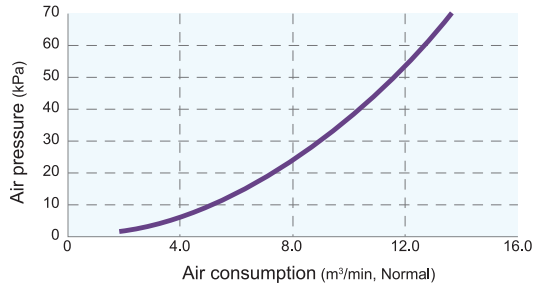
■1½", 420 mm spray width

Nozzle code: 1½M TF-BPF 420-80-030 PPS+HTPVC



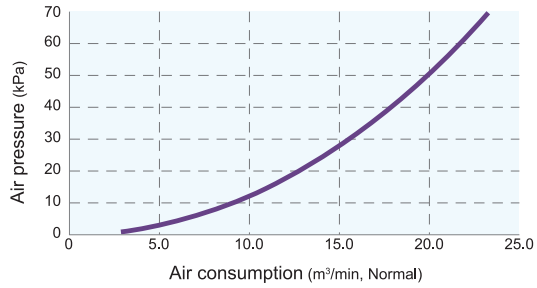
■2", 630 mm spray width

Nozzle code: 2M TF-BPF 630-120-030 PPS+HTPVC



■2½", 1,008 mm spray width

Nozzle code: 2½M TF-BPF 1008-192-030 PPS+HTPVC



Metal ▸Heat-resistant aluminum, long type.

Material: Aluminum
Orifice diameter: 3.0 mm
Max. air pressure: 100 kPa (14 psi)
Max. allowable temperature: 316°C (600°F)

How to order Please contact us for required spray widths and we will contact you with the technical specifications.

Air Booster Nozzles

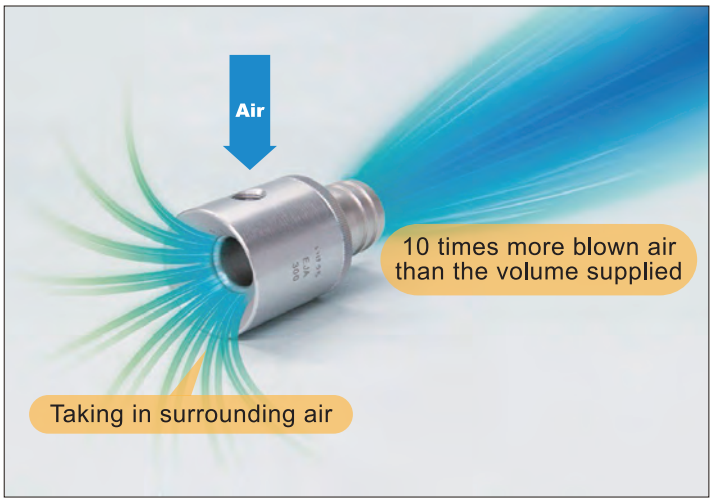
EJA series

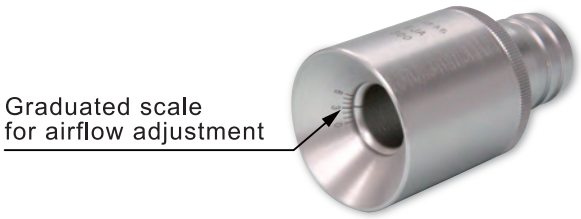
For compressors

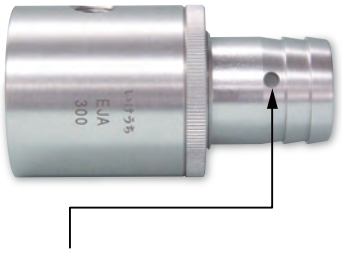
Stainless Steel

FEATURES

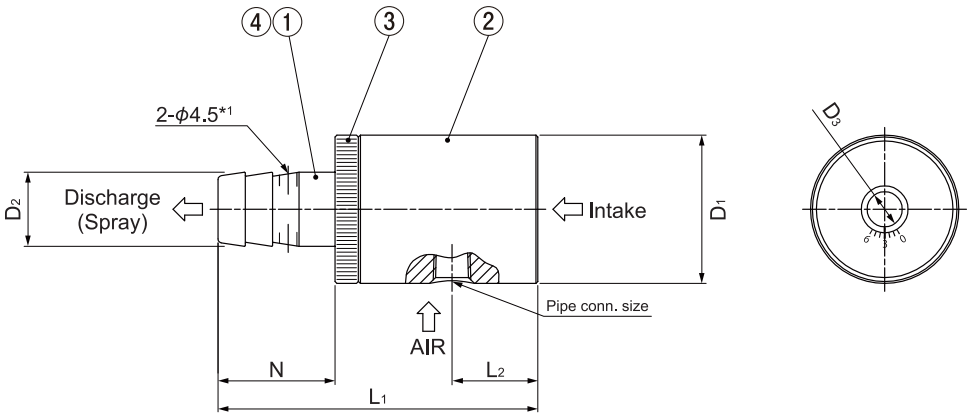
- Air booster nozzles producing powerful air blow with small air consumption.
- Graduated scale markings on the nozzle allow for accurate adjustment of blown air volume and intake air volume.
- Made of stainless steel with high wear resistance.







■Drawing



■Dimensions and mass

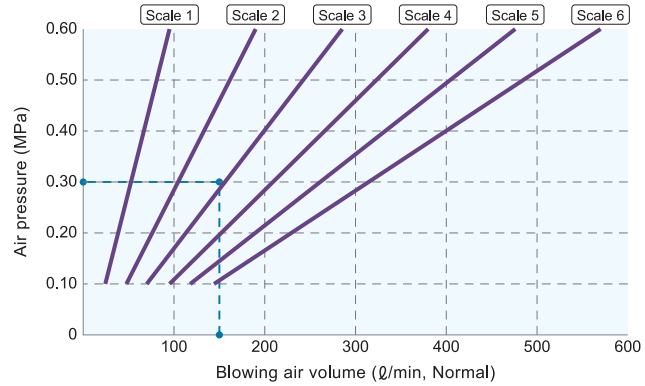
Pipe connection size	Outer dimensions (mm)					Mass (g)
	L_1	L_2	ϕD_1	ϕD_2	ϕD_3	
1/8F	82	22	38	19	9	405
1/4F	91	24	50.8	32	20	700
3/8F (450)	101	27	76.3	50.8	40	1,520
3/8F (750)	104	29	101.6	76.3	62	2,370

Figures in ( ) after the pipe connection sizes indicate the air capacity codes.

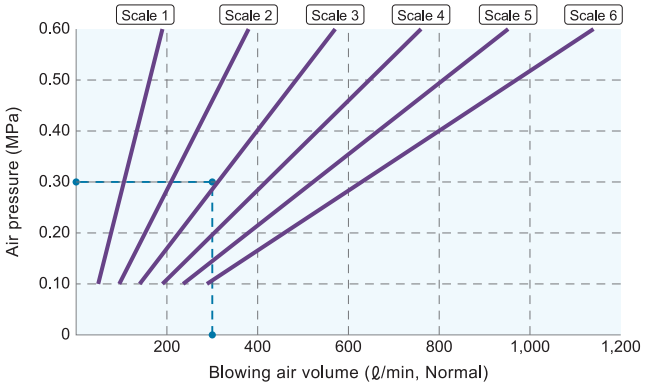
Component	Material
① Body	S303
② Adaptor	S303
③ Lock nut	S303
④ O-ring	NBR

*1) Position of opening for airflow adjustment with round rod

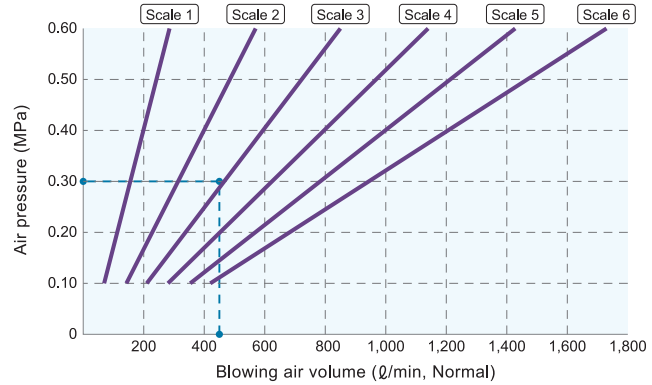
EJA150



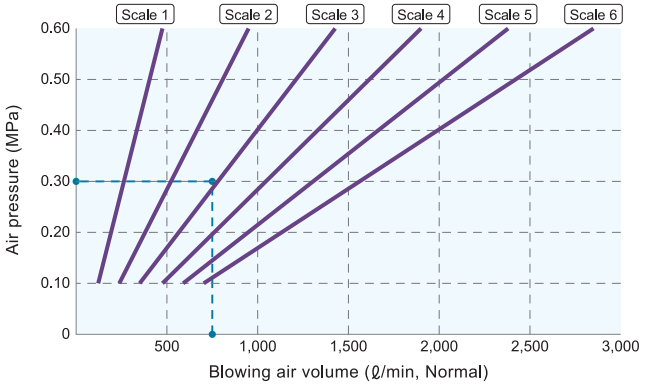
EJA300



EJA450



EJA750



Scales 1–6 are the graduated scale markings on the nozzle for airflow adjustment.

Air capacity code	Pipe connection size	Air consumption (ℓ/min, Normal)*2				
		0.1 MPa	0.2 MPa	0.3 MPa	0.4 MPa	0.5 MPa
150	1/8F	71	109	150	193	238
300	1/4F	142	219	300	386	476
450	3/8F	212	328	450	579	714
750	3/8F	354	546	750	965	1,190

*2) Measured with airflow adjustment scale set to "3".

How to order

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

<Example> 1/4F EJA 300 S303

1/4F — Pipe connection size
- 1/8F
- 1/4F
- 3/8F

EJA

300 — Air capacity code
- 150
- 300
- 450
- 750

S303

Multi-orifice Flat Spray Nozzles HF series

For compressors

Disassemblable
Stainless Steel

FEATURES

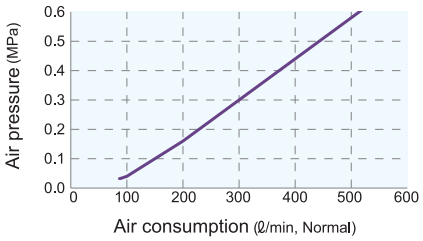
- Produces uniform air flow from multi orifices.
- Noise level reduced by more than 10 dB (A) compared to a one-hole air nozzle.
- Compact design, 47 mm in length (47.5 mm for 3/8M).
- Detachable into three parts, easy to clean the nozzle orifices.
- Made of stainless steel with high resistance to shock and heat.

7 orifices

【Spray pattern】

7-012 Air spray width and thickness (mm)

Pressure	0.1 MPa		0.3 MPa		0.4 MPa	
Distance	Width	Thickness	Width	Thickness	Width	Thickness
50 mm	60	40	60	60	60	60
150 mm	110	80	120	120	120	120
300 mm	150	120	190	150	200	160

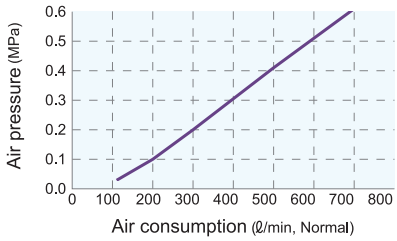


14 orifices

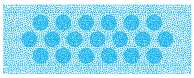
【Spray pattern】

14-010 Air spray width and thickness (mm)

Pressure	0.1 MPa		0.3 MPa		0.4 MPa	
Distance	Width	Thickness	Width	Thickness	Width	Thickness
50 mm	60	40	70	60	80	60
150 mm	120	80	140	120	150	120
300 mm	170	120	200	150	220	160



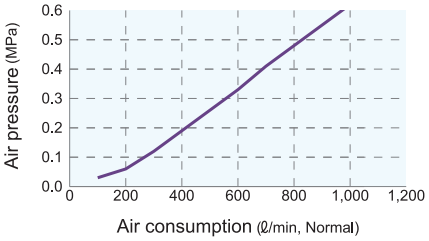
19 orifices



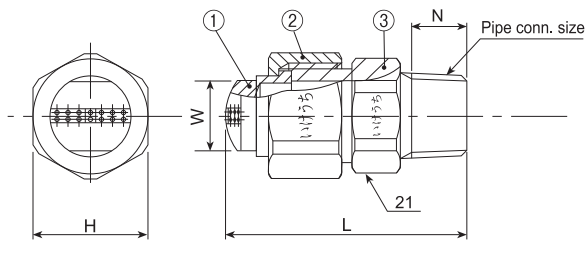
【Spray pattern】

19-010 Air spray width and thickness (mm)

Pressure	0.1 MPa		0.3 MPa		0.4 MPa	
Distance	Width	Thickness	Width	Thickness	Width	Thickness
50 mm	60	40	80	60	80	60
150 mm	120	80	140	120	150	120
300 mm	180	120	210	150	230	160



■ Drawing



①Spray tip ②Cap ③Adaptor

(Drawing of 14 orifices type)

Material: S303 (Optional material: S316)
Max. allowable temperature: 400°C (750°F)

■ Dimensions and mass

Pipe connection size	Outer dimensions (mm)				Mass (g)
	L	H	W	N	
1/4M	47.0	23.0	14.0	10.5	70
3/8M	47.5	23.0	14.0	11.0	75

How to order

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

<Example> 1/4M HF 7-012 S303

1/4M Pipe conn.size
- 1/4M
- 3/8M

HF

7-012 Nozzle code
- 7-012
- 14-010
- 19-010

S303

Flat Spray Nozzles

VZ series

For compressors

Disassemblable

Metal

FEATURES

- Wide-angle flat spray: spray angle of 90° provides larger spray coverage.
- Three-piece structure. Air spray volume can be adjusted by changing spray tips.
- Capable of steam spraying.

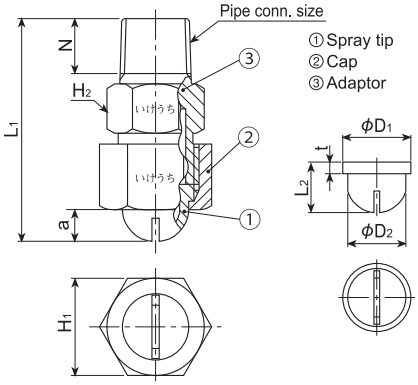
Flat Type

【Spray pattern】

▸Produces a flat spray pattern of air or steam.

Material: S303, B (brass)
(Optional material: S316)
Max. allowable temperature: 400°C (750°F) for S303
200°C (390°F) for Brass

■Drawing



Structure:
- Comprises three parts: spray tip, cap, and adaptor.
- Worn-out spray tip can be replaced separately.
- Cap and adaptor are exchangeable with those of three-piece structure standard flat spray nozzles (for liquids).

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

■Dimensions and mass [Complete nozzle]

Pipe connection size	Outer dimensions (mm)					Mass (g)	
	L_1	H_1	H_2	N	a	S303	B
1/4M	43	19	17	10.5	6.5	44	47
3/8M	48.5	23	21	11	9.5	73	78

■Dimensions and mass [Spray tip]

Pipe connection size of complete nozzle	Outer dimensions (mm)				Mass (g)	
	L_2	ϕD_1	ϕD_2	t	S303	B
1/4M	11	14.5	12.5	2.5	4.7	5.0
3/8M	14	18	16	2.5	7.7	8.1

Spray angle code	Air capacity code	Pipe connection size 1/4M	Pipe connection size 3/8M	Air capacity (ℓ/min, Normal) 0.05 MPa	0.1 MPa	0.2 MPa	0.3 MPa	0.5 MPa	0.7 MPa	Steam capacity (kg/hr) 0.05 MPa	0.1 MPa	0.2 MPa	0.3 MPa	0.5 MPa	0.7 MPa	Free passage diameter (mm)
90	150	○		55.7	77.6	116	154	230	307	2.62	3.56	5.27	6.97	10.3	13.7	0.2
	200	○		73.1	102	152	202	302	402	3.44	4.67	6.92	9.14	13.6	17.9	0.3
	250	○		90.5	126	188	250	374	498	4.26	5.78	8.57	11.3	16.8	22.2	0.4
	300	○		108	150	224	298	446	594	5.08	6.90	10.2	13.5	20.0	26.5	0.5
	350	○		125	175	261	346	518	690	5.90	8.00	11.9	15.7	23.2	30.7	0.6
	400	○		143	199	297	394	590	786	6.72	9.12	13.5	17.9	26.5	35.0	0.7
	450	○		160	223	333	443	662	882	7.54	10.2	15.2	20.0	29.7	39.3	0.8
	500	○		177	247	369	491	734	977	8.36	11.3	16.8	22.2	32.9	43.5	0.9
	550		○	199	278	414	551	823	1,096	9.38	12.7	18.8	24.9	36.9	48.8	0.6
	600		○	219	305	455	605	905	1,205	10.3	14.0	20.7	27.4	40.6	53.7	0.7
	650		○	235	328	489	650	972	1,295	11.1	15.0	22.3	29.4	43.6	57.7	0.8
	700		○	253	353	526	700	1,047	1,394	11.9	16.2	24.0	31.7	46.9	62.1	0.8
	750		○	272	380	566	753	1,126	1,500	12.8	17.4	25.8	34.1	50.5	66.8	0.9
	900		○	326	454	677	901	1,347	1,794	15.3	20.8	30.8	40.7	60.4	79.9	1.1
	1130		○	406	566	844	1,122	1,678	2,235	19.1	25.9	38.4	50.8	75.2	99.5	1.4

Standard pressure: 0.3 MPa

How to order

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

①Complete nozzle <Example> 1/4M VZ 150 S303

1/4M	VZ	150	S303
Pipe conn. size: 1/4M, 3/8M		Air capacity code: 150 – 1130	Material: S303, B

②Spray tip only <Example> 1/4 VZ 150 S303

1/4	VZ	150	S303
Pipe conn. size: 1/4, 3/8		Air capacity code: 150 – 1130	Material: S303, B

Flat Spray Nozzles

SAP series

Material: S304

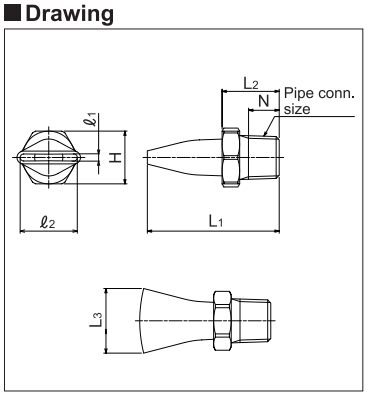
For blowers

Stainless Steel

FEATURES

- Compact enough to install in a narrow space. 1/8M size is 29 mm long.
- Pressure loss is minimal to enable high spray impact performance.
- Compared to conventional, general-purpose air nozzles, SAP series provides larger spray coverage.

■ **Drawing**



■ **Dimensions and mass**

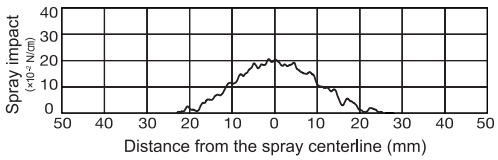
Pipe conn. size	Outer dimensions (mm)							Mass (g)
	L1	L2	L3	ℓ1	ℓ2	H	N	
1/8M	29	13	14.7	1.5	13	12	7	10
1/4M	37	17.5	18.9	1.5	17	14	10.5	16

Pipe conn. size	Air consumption (ℓ/min, Normal)				
	10 kPa	20 kPa	30 kPa	40 kPa	50 kPa
1/8M	120	170	208	239	266
1/4M	167	235	287	330	368

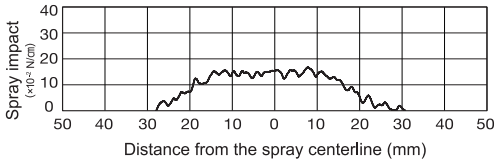
Compressor air can be used.
(The above chart shows blower air consumption)

■ **Spray impact distribution**

【1/8MSAP13-15S304】 at air pressure 20 kPa, air consumption 0.17 m³/min (Normal), spray height 100 mm



【1/4MSAP17-15S304】 at air pressure 20 kPa, air consumption 0.24 m³/min (Normal), spray height 100 mm



How to order Please inquire or order for a specific nozzle as below.

①**Pipe connection size: 1/8M**

1/8M SAP 13-15 S304

②**Pipe connection size: 1/4M**

1/4M SAP 17-15 S304

Solid Stream Jet

CCP-A series

Material: S303

For compressors

Stainless Steel

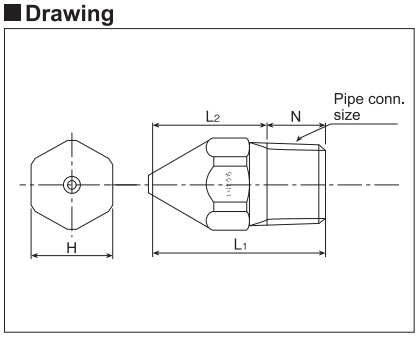
FEATURES

- Spraying air in a solid stream through a single orifice yields strong propagation for highly effective air blowing.
- Product lineup orifice diameters range from ϕ1.0 to ϕ2.5 mm.
- Delivering good performance for low cost, ideal for use in large quantities.

Round Type

【Spray pattern】

■ **Drawing**

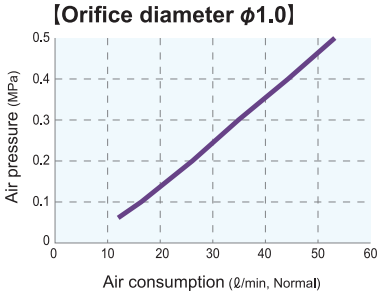


■ **Dimensions and mass**

Pipe conn. size	Outer dimensions (mm)				Mass (g)
	L1	L2	H	N	
1/8M	21	14	10	7	7.2
1/4M	30	19.5	14	10.5	19

Orifice diameter code	Pipe conn. size	Air consumption (ℓ/min, Normal)					Orifice diameter (mm)
		0.1 MPa	0.2 MPa	0.3 MPa	0.4 MPa	0.5 MPa	
ϕ1.0A	1/8M 1/4M	17	26	35	44	53	1.0
ϕ1.5A		40	60	80	100	120	1.5
ϕ2.0A		70	104	138	172	206	2.0
ϕ2.5A		109	162	215	268	321	2.5

【Orifice diameter ϕ1.0】



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

<Example> 1/8M CCP ϕ1.0A S303

1/8M **CCP** **ϕ1.0A** **S303**

Pipe conn. size
- 1/8M
- 1/4M

Orifice diameter code
- ϕ1.0A
- ϕ1.5A
- ϕ2.0A
- ϕ2.5A

Slit Nozzles (Air Curtain) SLNHA-H series

For compressors

Stainless Steel /PVC

FEATURES

- Produces laminar air flow with uniform spray impact distribution.
- Compact and space-saving design.

For liquid spraying, available is SLNH-H series with uniform spray flow distribution. For details please refer to our hydraulic spray nozzle catalog.

Flat Type

【Spray pattern】

Material: S304, PVC

■Lightweight type

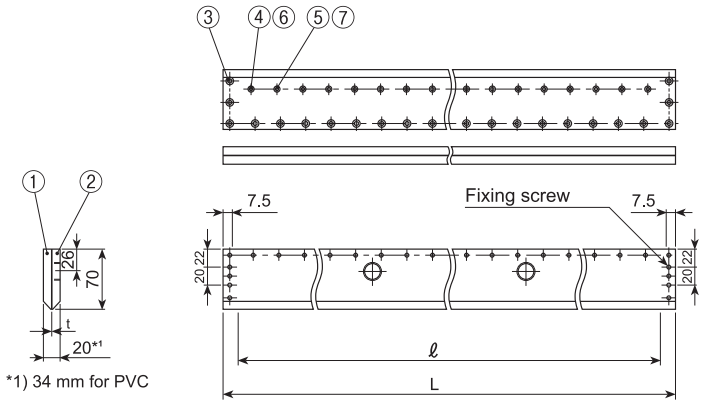
Please inquire with us for details of lightweight type.

■Dimensions and mass

Slit length ℓ (mm)	Slit opening t (mm)	Number of inlets	Thread size		Total length (mm)	Mass (kg)	
			Fluid inlet	Fixing	L	S304	PVC
530	0.1	2	3/8F	M5	560	5.0	1.5
700			1/2F		730	6.5	1.9
810					840	7.5	2.2
900					930	8.0	2.5
1,400		3			1,430	12.0	4.0

Depth of the fixing screw is 8 mm for S304, 10 mm for PVC.
Appearance and dimensions may differ slightly depending on materials and nozzle codes.

■Drawing



*1) 34 mm for PVC

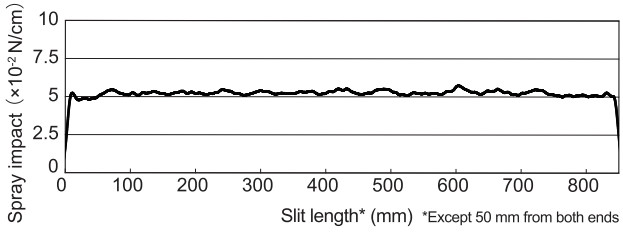
①Body A (S304)
②Body B (S304)
③Bolt [M5×10] (S304)
④Bolt [M4×8] (S304)
⑤Bolt [M4×10] (S304)
⑥O-ring [P-4] (FKM)
⑦O-ring (FKM)

The above drawing is of stainless steel SLNHA-H series.
Please contact us for the drawing for PVC-made SLNHA-H series.

■Spray impact distribution

【Nozzle: SLNHA-H 850×0.1】

- Slit opening: 0.1 mm
- Slit length: 850 mm
- Spray height: 5 mm
- Air pressure: 0.05 MPa
- Air consumption: 1,090 ℓ/min, Normal



*Except 50 mm from both ends

Spray impact

Max. value: 5.7×10^{-2} N/cm

Min. value: 5.0×10^{-2} N/cm

Median value: 5.4×10^{-2} N/cm

Deviation from median: +/−6.5%

Slit length (mm)	Slit opening (mm)	Air consumption (ℓ/min, Normal)*2							
		0.01 MPa	0.02 MPa	0.03 MPa	0.04 MPa	0.05 MPa	0.06 MPa	0.07 MPa	0.08 MPa
530	0.1	209	355	472	570	657	736	810	880
700		276	469	623	753	868	972	1,070	1,160
810		319	543	721	871	1,000	1,130	1,240	1,350
900		355	603	802	968	1,120	1,250	1,380	1,490
1400		552	938	1,250	1,510	1,740	1,940	2,140	2,330

*2) The above air consumption is for reference only and subject to design changes.

How to order

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

<Example> 2-3/8F SLNHA-H 530×0.1 PVC

2 - **3/8F** **SLNHA-H** **530** **×0.1** **PVC**

- **2** (Number of inlets): ■2 ■3
- **3/8F** (Thread size): ■3/8F ■1/2F
- **530** (Slit length): ■530 ■700 ■810 ■900 ■1400
- **PVC** (Material): ■S304 ■PVC

Slit Nozzles (Air Curtain) SLNHA-NA series

For compressors

Stainless Steel

FEATURES

- No need to adjust slit opening width after maintenance. No slit adjustment bolts.
- Uniform air flow is optimal for blow-off drying of PCB and flat panels.

Flat Type

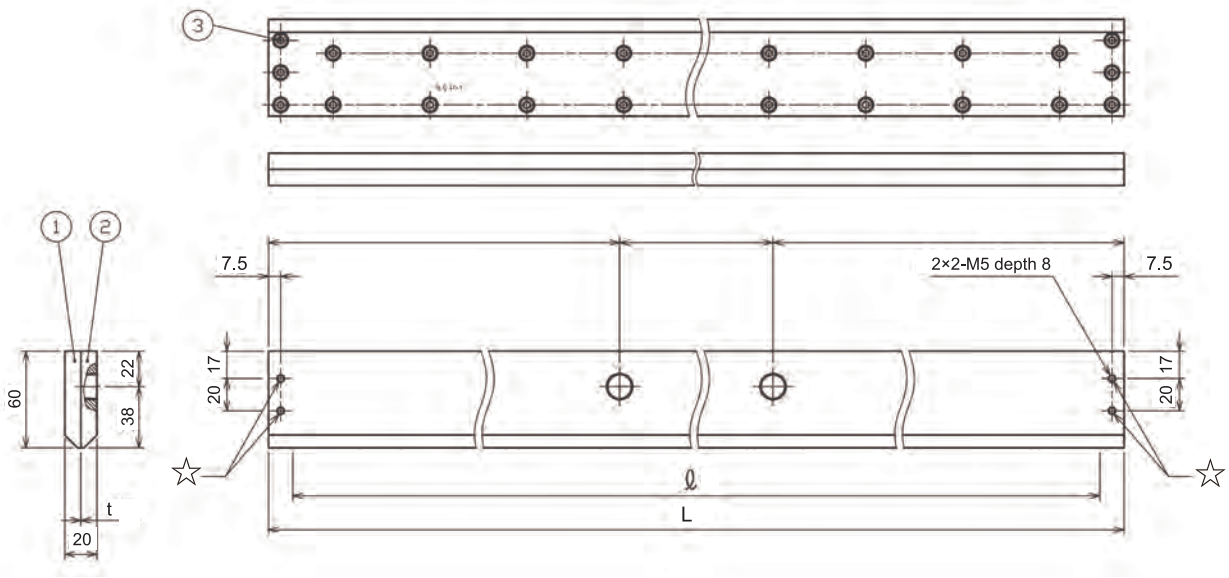
【Spray pattern】

■Dimensions and mass

Slit length ℓ (mm)	Slit opening t (mm)	Number of inlets*	Thread size		Total length L (mm)	Mass (kg)	Material
			Fluid inlet	Fixing			
530	0.1 or 0.2	2–3	3/8F	M5	560	4.6	S304
700		3–5			730	6.0	
810					840	6.9	
900					930	7.7	
1,400		5–7			1,430	12.0	

*The number of inlets differs by slit opening width.

■Drawing

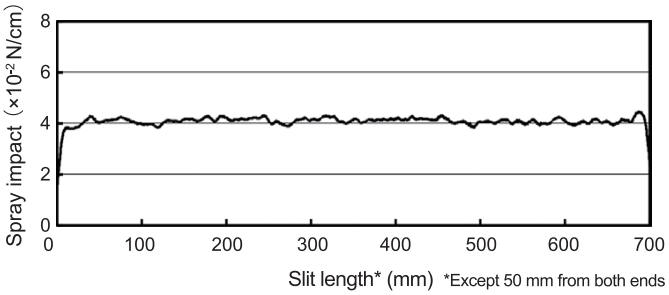


①Body A
②Body B
③Bolt (M5×10)
☆Fixing screw

■Spray impact distribution

【Nozzle: SLNHA-NA 700×0.1】

- Slit opening: 0.1 mm
- Slit length: 700 mm
- Spray height: 5 mm
- Air pressure: 0.05 MPa
- Air consumption: 720 ℓ/min, Normal



Spray impact

Max. value: 4.31×10^{-2} N/cm

Min. value: 3.83×10^{-2} N/cm

Median value: 4.07×10^{-2} N/cm

Deviation from median: +/−5.9%

Slit length (mm)	Slit opening (mm)	Air consumption (ℓ/min, Normal)							
		0.01 MPa	0.02 MPa	0.03 MPa	0.04 MPa	0.05 MPa	0.06 MPa	0.08 MPa	0.10 MPa
530	0.1	198	299	389	471	545	617	747	865
700		262	395	514	622	720	815	986	1,140
810		303	457	595	720	834	943	1,140	1,320
900		337	507	661	800	926	1,050	1,270	1,470
1400		524	789	1,030	1,240	1,440	1,630	1,970	2,290
530	0.2	397	598	778	942	1,090	1,230	1,490	1,730
700		524	789	1,030	1,240	1,440	1,630	1,970	2,290
810		606	913	1,190	1,440	1,670	1,890	2,280	2,640
900		674	1,020	1,320	1,600	1,850	2,100	2,540	2,940
1400		1,050	1,580	2,060	2,490	2,880	3,260	3,950	4,570

How to order

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

<Example> 2-3/8F SLNHA-NA 530×0.1 S304

2 - **3/8F** **SLNHA-NA** **530** × **0.1** **S304**

Number of inlets*
- 2
- 3
- 4
- 5
- 6
- 7

Slit length
- 530
- 700
- 810
- 900
- 1400

Slit opening
- 0.1
- 0.2

*Inquire with us for the number of inlets, which is determined by the slit opening width.

Slit Nozzles (Air Curtain) SLNB series

For blowers

Stainless Steel

FEATURES

- Pressure loss is minimal to enable high spray impact performance. Long thin slit with tapered nose is suitable for installation in a narrow space such as between support rolls.
- Drastic energy saving is achieved by switching from compressor-using type.

Flat Type

【Spray pattern】

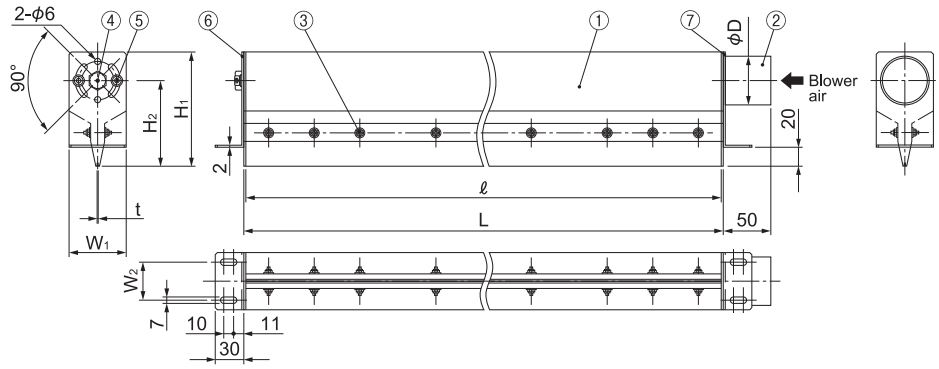
Material: S304

■Dimensions and mass

Air inlet type	Slit length ℓ (mm)	Slit opening t (mm)	Outer dimensions (mm) L	H1	H2	W1	W2	φD	Mass (kg)
D38	400	0.5	404	105	80	50	30	38.0	1.9
	600		604						2.7
	800		804						3.5
	1,000		1,004						4.3
D50	1,200		1,204	120	90	60	40	50.8	5.9
D38	400	1.0	404	105	80	50	30	38.0	1.9
D50	600		604	120	90	60	40	50.8	3.2
	800		804						4.1
D65	1,000		1,004	140	102.5	75	50	63.5	6.2
	1,200		1,204						7.4

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

■Drawing



①Body
②Inlet pipe
③Adjusting bolt (M4)
④Bolt (M10)
⑤Bolt (M5)
⑥⑦Bracket

■Spray impact distribution

【Nozzle: SLNB1000×0.1】

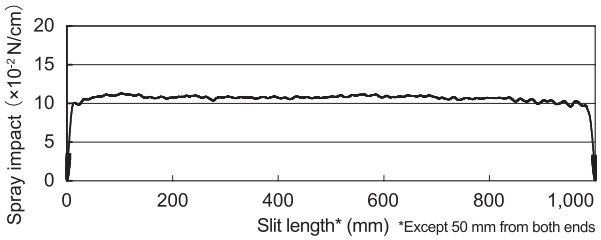
Slit opening: 1.0 mm

Slit length: 1,000 mm

Spray height: 5 mm

Air pressure: 5.2 kPa

Air consumption: 5,000 ℓ/min, Normal



Spray impact

Max. value: 11.29×10⁻² N/cm

Min. value: 9.69×10⁻² N/cm

Median value: 10.49×10⁻² N/cm

Deviation from median: +/−7.6%

Slit length (mm)	Slit opening (mm)	Air consumption (m³/min, Normal)* 5 kPa	10 kPa	15 kPa	20 kPa	25 kPa	30 kPa
400	0.5	0.97	1.60	2.01	2.58	3.01	3.40
600		1.45	2.39	3.18	3.87	4.51	5.10
800		1.94	3.19	4.24	5.17	6.01	6.80
1000		2.42	3.99	5.30	6.46	7.52	8.50
1200		2.91	4.79	6.36	7.75	9.02	10.20
400	1.0	1.91	2.81	3.52	4.13	4.67	5.16
600		2.87	4.22	5.28	6.19	7.00	7.74
800		3.82	5.62	7.04	8.23	9.34	10.33
1000		4.78	7.03	8.80	10.32	11.67	12.91
1200		5.73	8.43	10.56	12.39	14.01	15.49

*The above air consumption is for reference only and subject to design changes.

How to order

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

<Example> D65 SLNB 1200×1.0 S304-S-A

D65 **SLNB** **1200** × **1.0** **S304-S-A**

Air inlet type: D38, D50, D65

Slit length: 400, 600, 800, 1000, 1200

Slit opening: 0.5, 1.5

Universal Ball Joints UT series

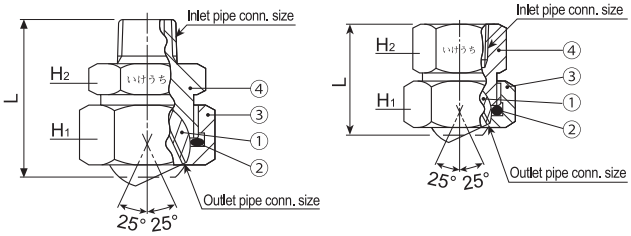
FEATURES Metal

- Accurate nozzle alignment is possible after connected to pipe.
- Adjust spray direction over a range of 50 degrees as desired.
- Available from 1/8" to 3/4" in pipe connection size.

Material: S303, B (brass)
(Optional material: S316 or others)

This photo is UT Ball Joint with an air nozzle.

Drawing



Dimensions and mass

*WAF = width across flats

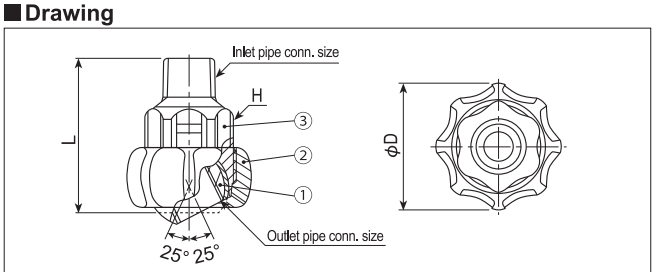
Ball joint code (Inlet x Outlet)	Inlet pipe conn. size	Outlet pipe conn. size	Dimensions (mm)			Mass (g)	
			L	H1(WAF)*	H2(WAF)*	S303	B
UT1/8M×1/8F	1/8M	1/8F	32.5	22	21	56	60
UT1/4M×1/8F	1/4M	1/8F	36.0	22	21	60	65
UT1/4M×1/4F	1/4M	1/4F	39.5	29	24	100	110
UT3/8M×1/4F	3/8M	1/4F	40.0	29	24	110	115
UT3/8M×3/8F	3/8M	3/8F	47.5	35	30	190	205
UT1/2M×1/2F	1/2M	1/2F	54.5	41	41	325	350
UT3/4M×3/4F	3/4M	3/4F	61.5	50	46	490	525
UT1/8F×1/8F	1/8F	1/8F	28.5	22	21	63	69
UT1/4F×1/8F	1/4F	1/8F	28.5	22	21	58	63
UT1/4F×1/4F	1/4F	1/4F	33.5	29	24	110	120
UT3/8F×1/4F	3/8F	1/4F	33.5	29	24	100	110
UT3/8F×3/8F	3/8F	3/8F	44.5	35	30	220	235
UT1/2F×1/2F	1/2F	1/2F	48.5	41	41	375	405
UT3/4F×3/4F	3/4F	3/4F	55.5	50	46	560	600

FEATURES Plastic

- Adjust spray direction while spraying (up to 0.3 MPa).
- No O-ring! Easy installation by hand.
- Light weight, only half of metal joint.
- Low price due to injection-molded construction.

Material:
- Adaptor and cap: FRPP
- Ball: FRPP + PP + EPDM

Drawing



Dimensions and mass

Ball joint code (Inlet x Outlet)	Inlet pipe conn. size	Outlet pipe conn. size	Dimensions (mm)			Mass (g)
			L	H	ϕD	
UT1/8M×1/8F	1/8M	1/8F	38.0	21	32	12
UT1/4M×1/8F	1/4M	1/8F	40.0	21	32	13
UT1/4M×1/4F	1/4M	1/4F	40.0	21	32	12
UT3/8M×1/8F	3/8M	1/8F	41.0	21	32	13
UT3/8M×1/4F	3/8M	1/4F	41.0	21	32	12

How to order

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

Metal <Example> UT 1/8M×1/8F S303

UT 1/8M × 1/8F S303

- 1/8M: Inlet pipe conn. type
- 1/8F: Outlet pipe conn. size
- S303: Material (S303, B)

Plastic <Example> UT 1/8M×1/8F FRPP-IN

UT 1/8M × 1/8F FRPP-IN

- 1/8M: Inlet pipe conn. size
- 1/8F: Outlet pipe conn. size

Cautions

Metal UT Use UT-S303 at pressure **under 15 MPa**, UT-B (brass) **under 4 MPa**.

Plastic UT Use UT-FRPP at pressure **under 1 MPa** (at room temperature).

Do not use UT Ball Joints under conditions where sudden change of water pressure occurs.

Universal Joints WUT series

Photo is WUT Universal Joint with a spray nozzle.

FEATURES

- 360° rotatable to adjust spray direction.
- Includes a rotating lock to keep the nozzle direction fixed.
- Stabilizing function suppresses internal turbulent flow.
- Withstands high pressure up to 3 MPa.
- Safe design prevents parts from dropping off when the lock is released.

How to order

Please inquire or order as below.

WUT 1/4M × 1/4F SCS13

⚠ Cautions for use

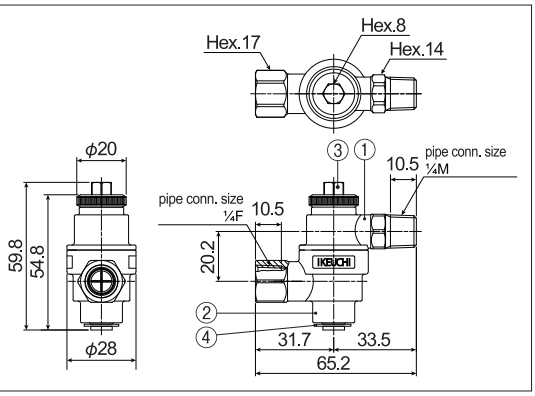
- **The bolt may loosen because of vibration if it is screwed in by hand. Tighten with a torque-wrench at 6 N·m.**
- **Maximum working pressure is 3 MPa.**
- **When used with a solid stream jet nozzle, slightly turbulent flow occurs.**

■ Dimensions

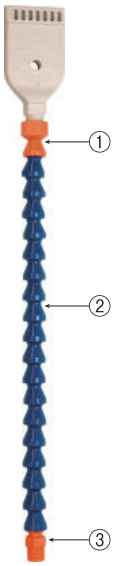
Materials:
Adaptor: SCS13
Bolt: S303
E-ring: S304
O-ring: NBR

Mass: 146g

①②Adaptor
③Bolt
④E-ring

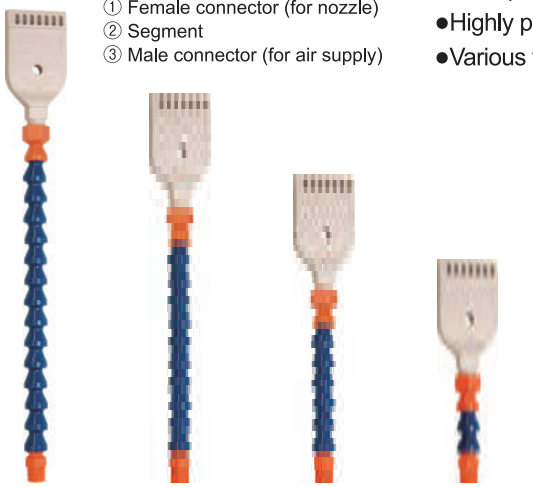


Flexible Tube FT series



Materials: POM
Max. allowable temperature: 65°C (140°F)

① Female connector (for nozzle)
② Segment
③ Male connector (for air supply)



Number of segments	Number of segments	Number of segments	Number of segments	Number of segments
18 pcs.	**14 pcs.**	**10 pcs.**	**6 pcs.**	**2 pcs.**

Photo is Flexible Tube with TAIFUJet® (42-mm wide type).

FEATURES

- Tube path and angle can be adjusted as desired.
- Highly pliable hose holds its shape well and will not spring back.
- Various types of air nozzles can be attached according to your usage.

■ Dimensions and mass

*Total length excludes the nozzle.

Screw size for Air supply ③	Screw size for Nozzle ①	Total length* (mm)	Number of segments (Quantity)	Mass (g)
1/8M	1/8F	71	2	8.6
		131	6	15.4
		190	10	22.2
		249	14	29.0
		309	18	35.8
1/4M	1/4F	76	2	9.2
		135	6	16.0
		194	10	22.8
		254	14	30.0
		313	18	36.4
1/4M	1/8F	71	2	9.0
		131	6	15.8
		190	10	22.6
		250	14	28.6
		309	18	36.2

How to order

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

When air supply screw size ③ is **1/4M** <Example> FT ¼M×¼F 76-2 POM

FT 1/4M × 1/4F 76-2 POM

- 1/4F: Nozzle connecting screw size ①
  - 1/8F
  - 1/4F
- 76-2: Total length - Number of segments
  - When nozzle connecting side ① is size **1/8F**: 71-2, 131-6, 190-10, 250-14, 309-18
  - When nozzle connecting side ① is size **1/4F**: 76-2, 135-6, 194-10, 254-14, 313-18

When air supply screw size ③ is **1/8M**

<Example>
FT ⅛M×⅛F 71-2 POM

FT 1/8M × 1/8F 71-2 POM

- 71-2: Total length - Number of segments
  - 71-2, 131-6, 190-10, 249-14, 309-18

⚠ Cautions for use

Use FT series at air pressure **under 0.3 MPa**.
(In some cases, the tube may not remain fixed depending on the nozzle type and/or tube length due to its spray reaction force).

"The Fog Engineers"

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