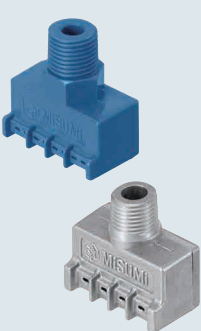


Air Nozzles

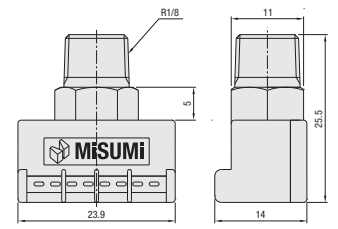
90° Type

Air Nozzles – 90° Type

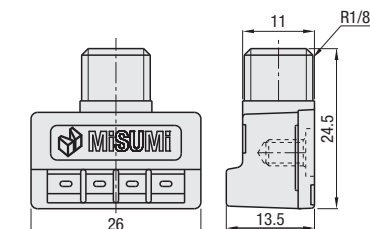


RoHS 10

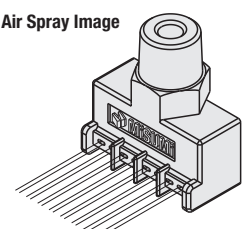
AFTR



AFTRA



Air Spray Image



Type	Material	Surface Treatment	Max. Operating Pressure	Heat Resistant Temperature
AFTR	Thermoplastic (ABS Plastic)	—	0.7 MPa	70°C
AFTRA	Aluminum Casting Alloy 383.0	Electroless Nickel Plating	0.7 MPa	200°C

Part Number	Type	No.	Orifice	Air Flow Rate NL/min (for 0.3 MPa)	Weight (g)
AFTR	15		8-Ø0.6 x 1.5	210	4
AFTRA			4-Ø0.8 x 1.8	190	10

Features

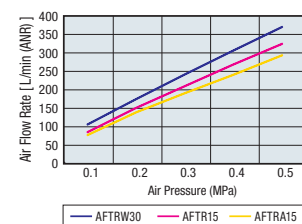
Air Nozzles are more compact than Standard Type.
(Width: Approx. 60%, Overall Length: Approx. 45% more compact)

- ⓘ To prevent damage
 - Avoid excessive tightening of screw.
 - Avoid shocks to the screw.

Part Number Example

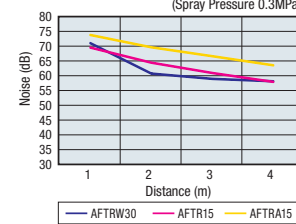
Part Number: **AFTR15**

Air Flow Rate Property Table

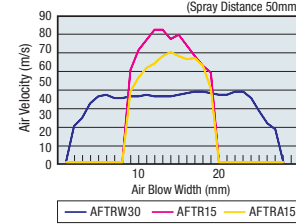


ⓘ Values on the graph are for reference, not guaranteed.

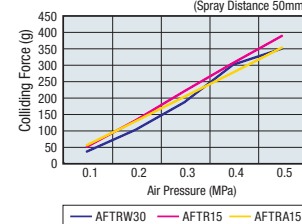
Quietness Property Table



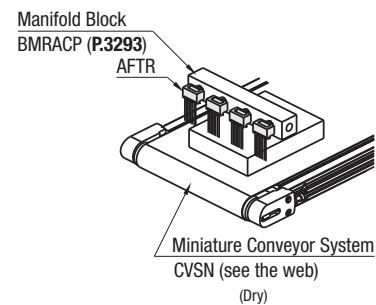
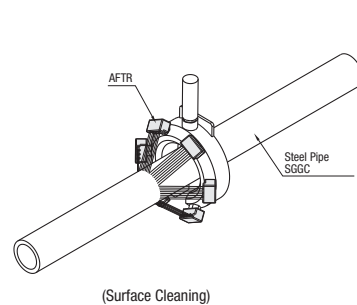
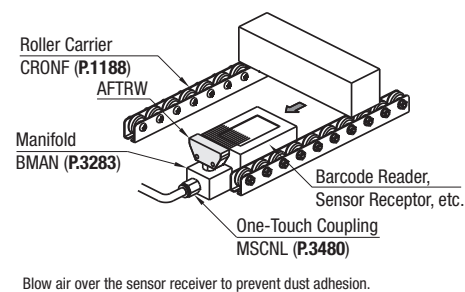
Velocity Property Table



Air Colliding Force Property Table




Application Example



Air Nozzles

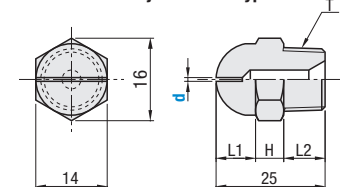
Economy Type

Air Nozzles – Economy Type

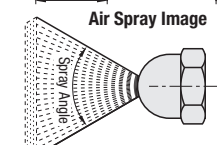


RoHS 10

NZAK Narrow Injection Port Type



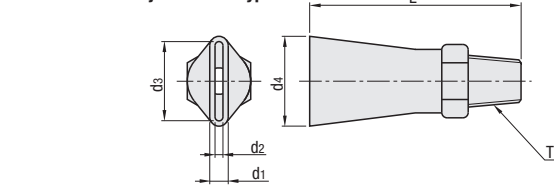
Air Spray Image



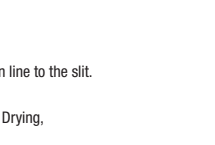
Features
Gas spreads fan-like in line to the slit.

Applications
Steam humidification, Drying, Air Blow, etc.

NZAL Wide Injection Port Type



Air Spray Image



Features
Air sprayed at wide angle.

Applications
Dust Proof, Air Blow, etc.

Material: 304 Stainless Steel

Part Number	Type	No.	d	T	L	L ₁	L ₂	H	B ₁	B ₂	Mass (g)
NZAK	1		0.6	R1/8	22	8	8	6	12	13.8	22
			0.8	R1/8	22	8	8	6	12	13.8	22
			1.0	R1/4	25	8.5	10	6.5	14	16	20
			1.2	R1/4	25	8.5	10	6.5	14	16	20
NZAL	11		3.1	R1/8	40	3.1	1.5	10	11.6	15	
			3.5	R1/8	40	3.5	1.5	15	17	20	
			3.5	R1/8	45	3.5	1.5	18.5	20.5	30	

Projection Angle

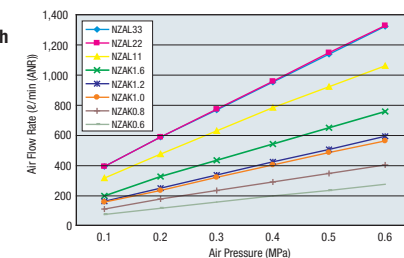
Pressure [Mpa]	Spray Angle										Projection Angle		
	NZAK										11	22	33
	1-0.6	1-0.8	1-1.0	1-1.2	1-1.6	2-0.6	2-0.8	2-1.0	2-1.2	2-1.6			
0.1	55°	60°	65°	65°	70°	60°	65°	70°	65°	70°	25°	50°	55°
0.2	60°	65°	75°	75°	75°	65°	70°	75°	70°	70°			
0.3	65°	70°	75°	75°	70°	70°	75°	80°	75°	75°			
0.4	70°	75°	80°	80°	80°	75°	80°	85°	80°	80°			
0.5	75°	80°	80°	80°	85°	80°	85°	85°	85°	85°			
0.6	80°	80°	85°	85°	85°	85°	85°	85°	85°	85°			

ⓘ Listed values are for reference, not guaranteed.

Part Number Example

Part Number: **NZAK2** - d
NZAL11 - 1.0

Air Flow Rate Property Graph

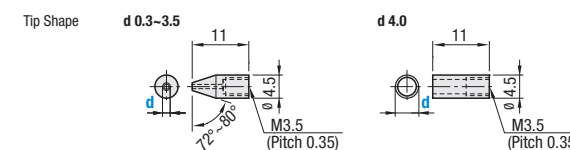


ⓘ Values on the graph are for reference, not guaranteed.

Vacuum Attachments Chip Type



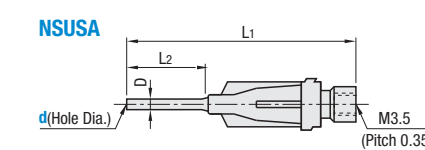
Type	Material	Surface Treatment	Heat Resistance Temp.	Electrical Resistance
NICR	Low Cadmium Brass	Brass (Nickel / Chrome Plating)	200°C	—
NIFE	PTFE (Teflon)	—	260°C	10 ¹⁴ Ω
NIK	Conductive PEEK	—	250°C	10 ⁷ Ω



Features
Brass: Low cost and heat resistant.
Teflon: As the material is soft, the adsorbing work is not easily scratched, and it is excellent in chemical resistance.
Conductive PEEK: Convenient in handling small electronic parts that require static protection.

ⓘ Please use in combination with Holder for Mini-Vacuum Suction Cup Tip Threaded (MHLDK P.3542) and Vacuum Pen (MKPEN - MKPEL).

Vacuum Attachments Fine Type



ⓘ Material: End Part: 304 Stainless Steel
Resin Part: Polypropylene

Part Number	Type	d	D	L ₁	L ₂		
NSUSA		0.10	0.23	29.35	6.35		
		0.15	0.3				
		0.20	0.41				
		0.33	0.64				
		0.51	0.81	35.7	12.7		
		0.84	1.27				
		1.37	1.65				
		1.52	1.83				
		NICR NIFE NIK		0.3			
				0.4			
0.5							
0.6							
0.7							
0.8							

Part Number Example

Part Number: **NICR.3**
NSUSA0.15

ⓘ d3.5 is not available for NIK.