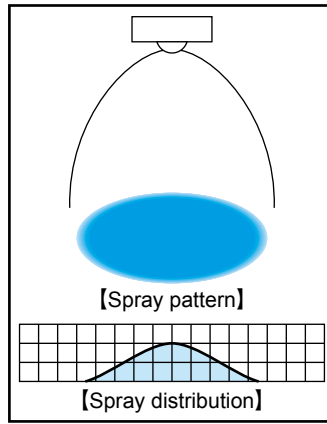


Medium Capacity Impinging-type Fine Fog Nozzles

AKIJet®



AKIJet® with T-type adaptor



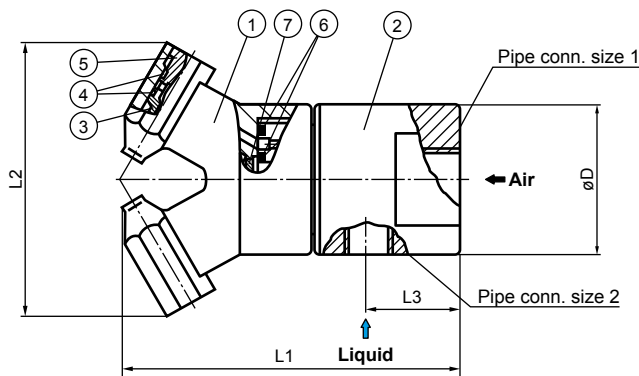
- Capable of producing non-wetting "Dry Fog" with a mean droplet diameter of 10 µm or less.*1
 - Fog stream, sprayed out from the two orifices apart, collides with each other and are further atomized by ultrasonic waves, resulting in creation of a uniform distribution of fine droplet sizes.
 - Using a special mixing adaptor, AKIJet® can mix two different liquids outside of the orifices while spraying.
- *1) Droplet diameter measured by the immersion sampling method.
Please see pages 6-7 for comparison with laser Doppler method.

APPLICATIONS

- Cooling: Gas, steel plates, refractories, moldings, glass
- Moisture control: Flue gas, concrete
- Combustion: Oil, waste water
- Others: Mixing two liquids, spray drying

DRAWING

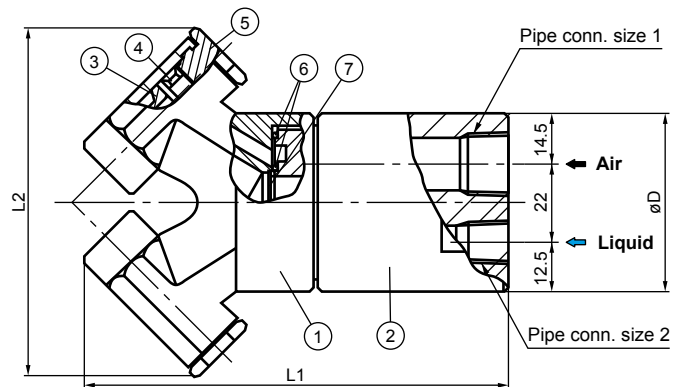
AKI37 S303 + TS303
AKI75 S303 + TS303



COMPONENTS AND MATERIALS

No.	Components	Standard materials
1	Nozzle body	S303 equivalent
2	Adaptor	S303
3	Nozzle tip	S303
4	O-ring	FKM
5	Plug	S303
6	Packing	PTFE
7	Strainer	S316

AKI150 S316 + HS316 (metal-to-metal seal)



COMPONENTS AND MATERIALS

No.	Components	Standard materials
1	Nozzle body	SCS14
2	Adaptor	S316
3	Nozzle tip	S316
4	Liner	S316
5	Plug	S316
6	O-ring	S321
7	Strainer	S316

DIMENSIONS

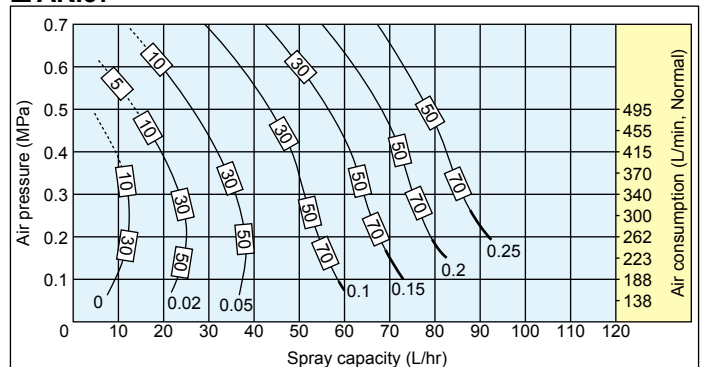
Nozzle code	L1 (mm)	L2 (mm)	L3 (mm)	øD (mm)	Pipe connection size		Free passage diameter (mm)		Mass (g)
					1 (Air)	2 (Liquid)	Air	Liquid	
AKI37	72.5	62	19	33	Rc1/4	Rc1/8	0.4	0.6	300
AKI75	100	87	30	49	Rc3/8	Rc1/4	0.4	0.8	880
AKI150	105	94	—	49	Rc3/8	Rc1/4	0.9	1.1	970

FLOW-RATE DIAGRAMS

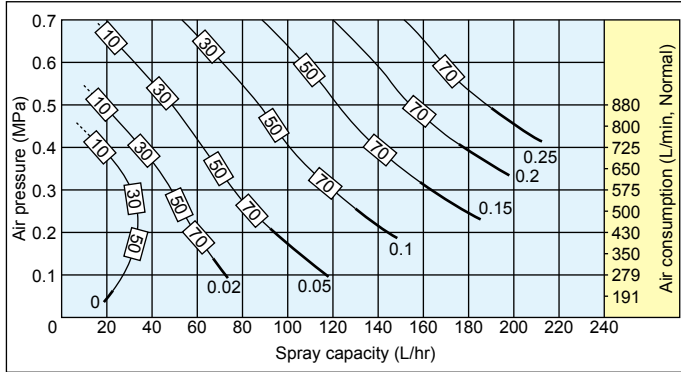
How to read the chart

1. The spray capacity shown is for one nozzle.
2. Thin solid lines (—) represent fine atomization zone. Bold lines (—) represent semi-fine atomization zone.
3. Figures at the foot of each curve indicate liquid pressures in MPa.
4. Figures in squares □ on each curve indicate Sauter mean diameters (µm) measured by the immersion sampling method.

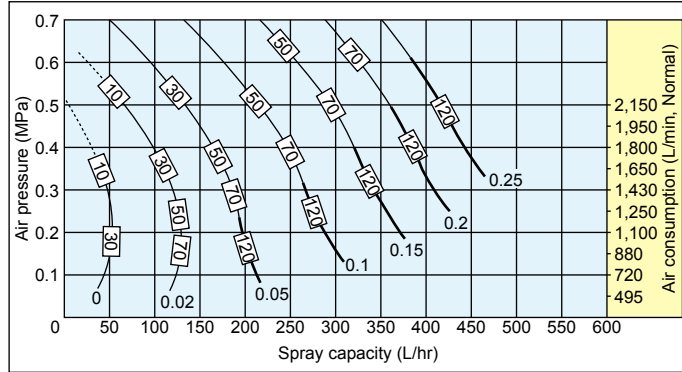
AKI37



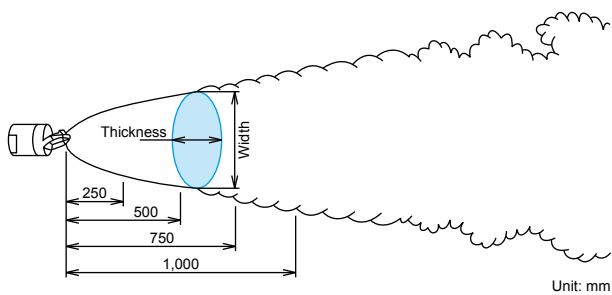
■ AKI75



■ AKI150



SPRAY DIMENSIONS



■ AKI37

Air pressure (MPa)	Liquid pressure (MPa)	Spray width (mm)				Spray thickness (mm)			
		250 mm	500 mm	750 mm	1,000 mm	250 mm	500 mm	750 mm	1,000 mm
0.2	0	230	350	430	500	160	260	340	400
	0.02	260	390	470	530	150	250	330	400
	0.05	250	370	450	510	140	240	320	390
	0.10	210	310	380	410	160	260	340	400
0.3	0	220	350	440	500	140	240	320	400
	0.02	250	380	470	540	150	260	340	420
	0.05	270	400	490	560	140	240	330	410
	0.10	260	390	480	550	150	260	340	420
0.4	0.02	230	350	440	520	140	270	360	410
	0.05	260	390	490	560	160	290	380	450
	0.10	280	420	520	590	150	280	370	430
	0.15	270	400	510	580	150	280	370	440
0.5	0.05	220	360	460	530	140	250	350	430
	0.10	270	410	500	570	160	280	380	460
	0.15	290	430	520	590	150	270	370	450
	0.20	250	390	480	550	160	280	390	470

■ AKI75

Air pressure (MPa)	Liquid pressure (MPa)	Spray width (mm)				Spray thickness (mm)			
		250 mm	500 mm	750 mm	1,000 mm	250 mm	500 mm	750 mm	1,000 mm
0.2	0	340	460	540	590	160	270	360	430
	0.02	180	300	390	460	220	330	430	510
	0.05	150	250	340	410	270	400	500	590
	0.10	160	260	350	420	330	470	580	670
0.3	0	280	400	480	540	150	260	350	420
	0.02	360	490	570	630	170	280	380	460
	0.05	190	320	410	490	230	360	450	520
	0.10	180	290	390	460	290	420	510	580
0.4	0.02	300	420	510	570	170	280	380	460
	0.05	350	490	580	660	180	300	400	480
	0.10	190	300	390	460	240	360	460	530
	0.15	170	280	370	450	260	390	480	550
0.5	0.05	330	480	580	660	170	290	400	480
	0.10	280	420	500	560	190	320	420	500
	0.15	220	320	410	480	230	360	450	540
	0.20	190	300	390	460	250	370	470	550

■ AKI150

Air pressure (MPa)	Liquid pressure (MPa)	Spray width (mm)				Spray thickness (mm)			
		250 mm	500 mm	750 mm	1,000 mm	250 mm	500 mm	750 mm	1,000 mm
0.2	0	260	360	460	520	150	260	370	460
	0.02	250	350	450	500	200	320	420	510
	0.05	270	370	480	550	180	300	400	490
	0.10	290	400	510	590	190	310	410	500
0.3	0	250	380	480	540	150	250	370	460
	0.02	310	440	550	640	190	290	410	510
	0.05	300	430	530	610	170	280	400	500
	0.10	290	420	520	600	180	300	420	520
0.4	0.02	270	400	520	590	160	280	400	500
	0.05	300	440	550	630	180	300	420	520
	0.10	320	470	590	670	160	280	400	500
	0.15	330	480	610	700	170	290	410	510
0.5	0.05	270	420	530	640	160	260	360	460
	0.10	320	490	610	730	180	280	390	490
	0.15	330	500	630	750	170	270	370	470
	0.20	350	530	660	780	170	270	390	490

Note: The above data were measured with tap water in a laboratory, in windless conditions.

HOW TO ORDER

Please inquire or order for a specific nozzle as follows.

AKI37 S303 + TS303

AKI75 S303 + TS303

AKI150 S316 + HS316 (metal-to-metal seal)