



Cloudburst™ Nozzle Droplet Size


Distribution for CB108, CB112, CB115 and CB120

Test Protocol

High magnification “freeze flash” photography with calibrated background
 10 randomly selected nozzles of each size placed into rigid stainless steel nozzle extension which is fed by a CB405-.13-120V pump module with factory calibrated pressure gauge at 1000 psi. Individual droplets are then counted and measured giving a distribution of droplets sizes.

Droplet Distribution for 0.2 mm/ 0.008” Nozzles (CB108)


Percent per 1000 droplets



		Microns						
		< 2 mic	< 5 mic	< 10 mic	< 15 mic	< 20 mic	< 25 mic	< 30 mic
PSI	1000	41%	73%	89%	95%	98%	99%	100%
	800	40%	72%	88%	95%	98%	99%	100%
	650	37%	69%	87%	93%	87%	99%	100%
	500	35%	67%	86%	93%	97%	99%	100%
	350	35%	64%	83%	90%	95%	98%	99%
	250	33%	60%	78%	86%	92%	96%	98%

Droplet Distribution for 0.3 mm/ 0.012” Nozzles (CB112)

Percent per 1000 droplets



		Microns								
		< 2 mic	< 5 mic	< 10 mic	< 15 mic	< 20 mic	< 25 mic	< 30 mic	< 40 mic	< 50 mic
PSI	1000	39%	69%	87%	93%	99%	99%	100%	100%	100%
	800	37%	68%	86%	93%	99%	99%	99%	100%	100%
	650	36%	66%	85%	93%	99%	99%	100%	100%	100%
	500	35%	66%	85%	93%	99%	99%	100%	100%	100%
	350	35%	64%	84%	91%	98%	98%	99%	100%	100%
	250	35%	61%	82%	90%	98%	98%	99%	100%	100%
	100	33%	60%	79%	87%	95%	95%	99%	100%	100%
	60	35%	56%	73%	82%	92%	92%	94%	98%	100%



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Distribution for CB108, CB112, CB115 and CB120

Droplet Distribution for 0.4 mm/ 0.016" Nozzles (CB115)

Percent per 1000 droplets



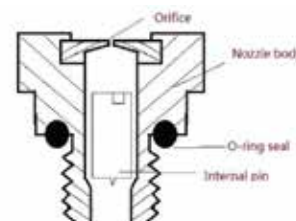
		Microns								
		< 2 mic	< 5 mic	< 10 mic	< 15 mic	< 20 mic	< 25 mic	< 30 mic	< 40 mic	< 50 mic
PSI	1000	33%	63%	82%	91%	95%	98%	99%	100%	100%
	800	33%	61%	81%	90%	95%	98%	99%	100%	100%
	650	30%	58%	78%	88%	94%	97%	99%	100%	100%
	500	30%	58%	79%	88%	94%	97%	99%	100%	100%
	350	30%	59%	79%	88%	94%	97%	99%	100%	100%
	250	30%	55%	76%	85%	92%	96%	99%	100%	100%
	100	28%	54%	74%	83%	89%	93%	99%	98%	100%
	60	29%	53%	72%	80%	86%	91%	94%	97%	99%

Droplet Distribution for 0.5 mm/ 0.020" Nozzles (CB120)

Percent per 1000 droplets



		Microns								
		< 2 mic	< 5 mic	< 10 mic	< 15 mic	< 20 mic	< 25 mic	< 30 mic	< 40 mic	< 50 mic
PSI	1000	29%	58%	79%	88%	94%	97%	99%	100%	100%
	800	30%	58%	79%	88%	94%	97%	99%	100%	100%
	650	30%	57%	78%	88%	93%	97%	99%	100%	100%
	500	29%	55%	77%	87%	93%	96%	98%	100%	100%
	350	29%	52%	74%	84%	90%	95%	97%	99%	100%
	250	27%	51%	73%	84%	90%	94%	97%	99%	100%
	100	26%	58%	78%	87%	92%	96%	97%	100%	100%
	60	30%	52%	72%	80%	86%	91%	94%	97%	99%





Cloudburst™ Nozzle Flow Chart

for CB108, CB112, CB115 and CB120

Flow Test Protocol

Nozzles are tested every 3 months for consistency and flow. Sample size 40 nozzles per size. Measurement Methodology.

Equipment

Cloudburst CB420-120v pump module with factory calibrated pressure gauge and sight glass flow meter feeding a 40 nozzle continuous loop utilizing welded 3/8" stainless steel mist line.

Test

40 nozzles are installed on the mist line. Pressure is increased to predetermined levels and total flow is noted both as the pressure is increased and is it decreased to those same levels. Test is performed twice, if total flow is more than 2% higher.

Model # O-Ring Color	Orifice Ø	PSI	60	100	150	200	350	500	650	800	1000	1500
CB106	0.15 mm	LPM			0.023	0.026	0.033	0.036	0.043	0.046	0.05	0.076
		LPH			1.380	1.560	1.980	2.160	2.580	2.760	3.000	4.560
	0.006"	GPM			0.006	0.007	0.008	0.009	0.011	0.012	0.013	0.020
		GPH			0.360	0.420	0.480	0.540	0.660	0.720	0.780	1.200
CB108	0.2 mm	LPM			0.028	0.033	0.046	0.048	0.056	0.066	0.07	0.081
		LPH			1.680	1.980	2.760	2.880	3.360	3.960	4.200	4.860
	0.008"	GPM			0.007	0.008	0.012	0.013	0.015	0.017	0.018	0.021
		GPH			0.420	0.480	0.720	0.780	0.900	1.020	1.080	1.260
CB112	0.3mm	LPM	0.028	0.036	0.045	0.048	0.063	0.007	0.078	0.088	0.093	0.116
		LPH	1.680	2.160	2.700	2.800	3.780	4.080	4.680	5.280	5.580	6.960
	0.012"	GPM	0.007	0.009	0.012	0.013	0.016	0.018	0.020	0.023	0.026	0.030
		GPH	0.420	0.540	0.720	0.780	0.960	1.080	1.200	1.380	1.560	1.800
CB115	0.4 mm	LPM	0.045	0.051	0.070	0.085	0.108	0.116	0.126	0.140	0.150	0.165
		LPH	2.700	3.060	4.200	5.100	6.480	6.960	7.560	8.400	9.000	9.900
	0.016"	GPM	0.011	0.013	0.018	0.022	0.028	0.030	0.033	0.036	0.040	0.043
		GPH	0.660	0.780	1.080	1.320	1.680	1.800	1.980	2.160	2.400	2.580
CB120	0.5mm	LPM	0.056	0.070	0.083	0.088	0.113	0.133	0.15	0.158	0.165	0.166
		LPH	3.360	4.200	4.980	5.280	6.780	7.980	9.000	9.480	9.900	9.960
	0.020"	GPM	0.015	0.018	0.021	0.023	0.030	0.035	0.040	0.042	0.043	0.045
		GPH	0.900	1.08	1.260	1.380	1.800	2.100	2.400	2.520	2.580	2.700