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NOZZLE FACTORY BY NORMIST



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■ HIGH PRECISION
PROFESSIONAL
MISTING SYSTEMS //

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COMPANY PROFILE

After foundation in 1974, Nor Elektronik Ltd. has focused on hightech manufacturing and high precision machining techniques. Nor Elektronik has served for Aerospace and defence industries mainly and decided to invest for manufacturing of professional misting equipment in 2000.

Since that time Nor Elektronik has been producing best misting nozzles around the globe thanks to its qualified team, precision machining experience and state of the art machining environment. All parts are being manufactured in its premises except high pressure pumps. Nor Elektronik's innovative approach has led company to achive patented Normatic® fast setup push in fittings for greenhouses which eliminates welding of stainless steel tubes.

Normist is one stop shopping solution for all clients and a major global player with exports to 86 countries. Company aims 100% customer satisfaction with fast and on time delivery of the systems.



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MISTING
NOZZLE

NORMIST

ANATOMY OF NORMIST MISTING NOZZLE

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- ▷ 316L insert. (Orifice part).
- ▷ Nozzle head. Machined from Stainless Steel 303 or 316.
- ▷ O ring from NBR or Viton.
- ▷ Impeller with 3 channels from SS.
- ▷ Spring from SS.
- ▷ NBR black ball for the anti-drip system.
- ▷ Body of the anti-drip system machined from Stainless Steel 303 or 316.
- ▷ O ring from NBR or Viton.



316L insert



316L inserts (Orifice parts)



AD valve springs



Black ball



Impeller



Anti-drip valve assembled





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MISTING
NOZZLE

NORMIST

NM SS 303 HEX SERIES W.OUT ANTI DRIP NOT CLEANABLE

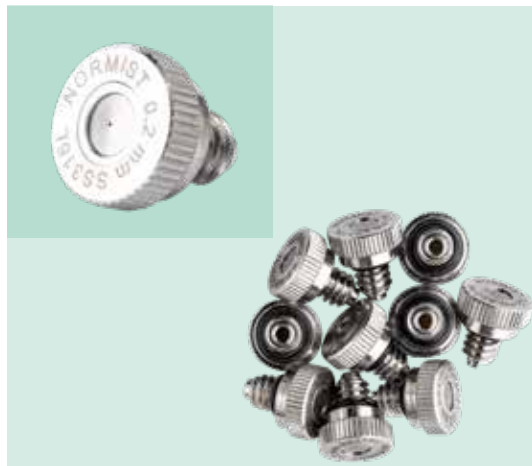
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- ▷ 0.15 to 0.70 mm orifice
- ▷ Nozzle body from SS 303
- ▷ Orifice part from 316L
- ▷ Thread M5, 10-24, 12-24
- ▷ Black NBR O ring



NM SS 316 KNURLED W.OUT ANTI DRIP NOT CLEANABLE

- ▷ 0.15 to 0.70 mm orifice
- ▷ Nozzle body from SS 316
- ▷ Orifice part from 316L
- ▷ Thread 10-24,
- ▷ Black NBR O ring



NM SS 303 HEX SERIES WITH ANTI DRIP, CLEANABLE

- ▷ 0.07* to 0.70 mm orifice
- ▷ Nozzle body from SS 303
- ▷ Orifice part from 316L
- ▷ Thread M5, 10-24, 12-24
- ▷ Black NBR O ring
- ▷ 0.07 mm nozzles must be used with reverse osmosis water and HP in line filters.



NM SS COMPACT ALL 303 WITH ANTI DRIP, CLEANABLE

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- ▷ 0.2 to 0.70 mm orifice
- ▷ Nozzle body from SS 303
- ▷ Orifice at the nozzle head
- ▷ Thread 10-24,
- ▷ Black NBR O ring



NM SS 316 KNURLED SERIES WITH ANTI DRIP AD. CLEANABLE

- ▷ 0.07* to 0.70 mm orifice
- ▷ Nozzle body from SS 316
- ▷ Orifice part from 316L
- ▷ Thread 10-24,
- ▷ Black NBR O ring
- ▷ 0.07 mm nozzles must be used with reverse osmosis water and HP in line filters.



1/8" NPT SS 303 NOZZLE WITH ANTI DRIP AND FILTER, CLEANABLE

- ▷ 0.07 to 0.70 mm orifice
- ▷ Nozzle body from SS 303
- ▷ Orifice part from SS 316
- ▷ Thread 1/8" NPT
- ▷ Black NBR O ring



9/16" NPT SS 303 NOZZLE WITH ANTI DRIP AND FILTER CLEANABLE

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- ▷ 0.07 to 0.70 mm orifice
- ▷ Nozzle body from SS 303
- ▷ Orifice part from SS 316
- ▷ Thread 1/8" NPT
- ▷ Black NBR O ring



NORMIST QUADRO SS 303 4X.060CC NOZZLE WITH ANTI DRIP NOT CLEANABLE

- ▷ 0.18, 0.20, 0.25 mm orifice
- ▷ Nozzle body from SS 303
- ▷ Orifice at the nozzle head
- ▷ Thread M4
- ▷ Black NBR O ring



NORMIST SS 303 M4 NOZZLE FOR QUADRO (AS SPARE PART)

- ▷ 0.18, 0.20, 0.25 mm orifice
- ▷ Nozzle body from SS 303
- ▷ Orifice at the nozzle head
- ▷ Thread M4
- ▷ Black NBR O ring



NORMIST MINI BRASS NOZZLE FOR 5 mm FITTINGS

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- ▷ 0.15, 0.20, 0.30 mm orifice
- ▷ Nozzle body from SS 303
- ▷ Orifice part from SS 316
- ▷ Thread M5
- ▷ Black NBR O ring



AUTOMATION SYSTEM FOR NOZZLES

O RING INSERTING MACHINE //



▷ ANTI-DRIP VALVE ASSEMBLING MACHINE

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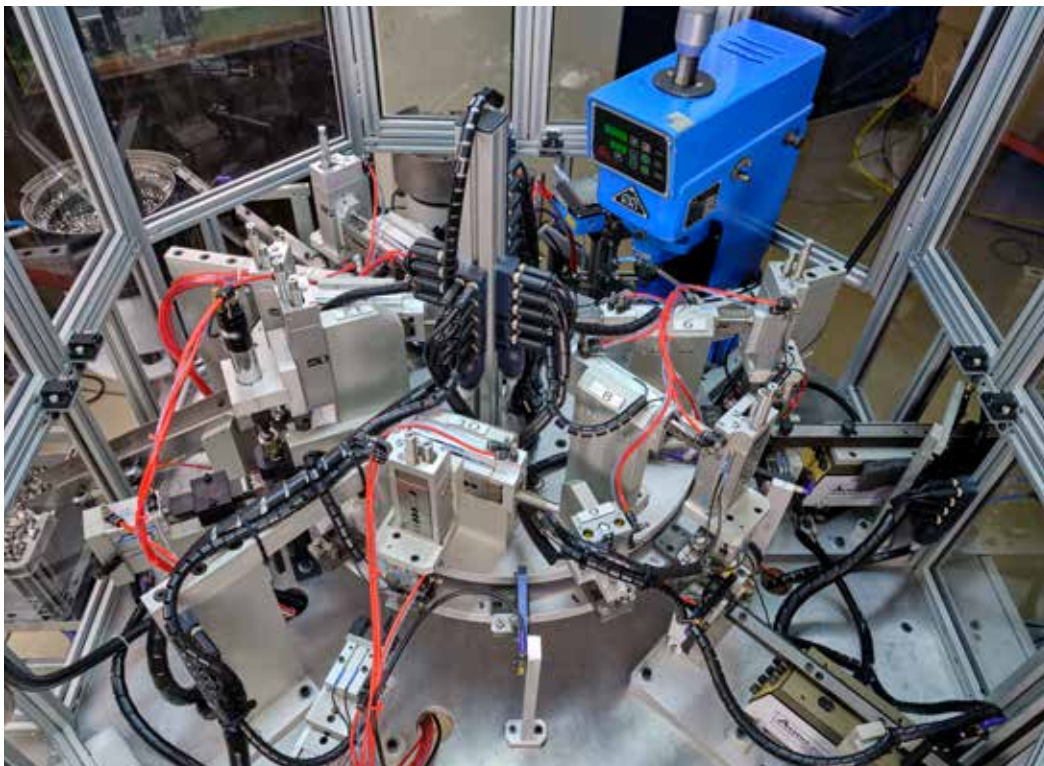
▷ ASSEMBLED ANTI-DRIP VALVE



NOZZLE ASSEMBLING AUTOMATION //



NOZZLE ASSEMBLING AUTOMATION //



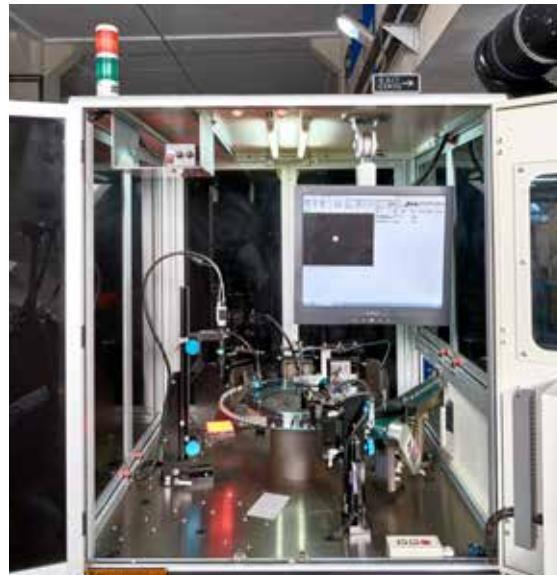


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COMPACT AND
QUADRO NOZZLES
ORIFICE TESTING
AUTOMATION //



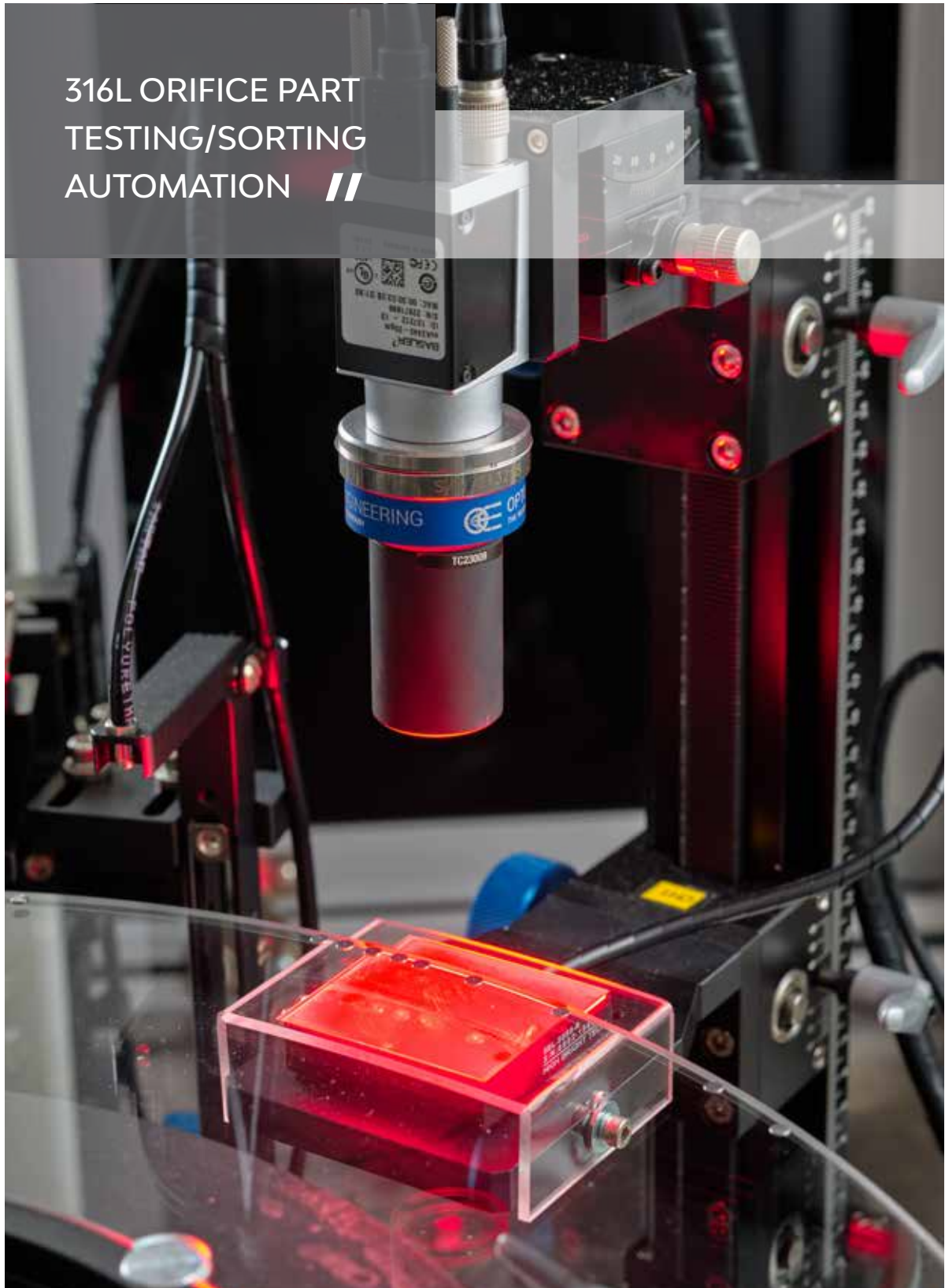
COMPACT AND QUADRO NOZZLES ORIFICE TESTING AUTOMATION //



Compact and Quadro nozzles orifice are machined while the nozzle head body is produced by CNC STAR sliding lathe machine. If the micro tool machining the orifice will be damaged for any reason, all orifices machined will be damaged.

So we are testing the entire production by this machine.

316L ORIFICE PART
TESTING/SORTING
AUTOMATION //



316L ORIFICE PART TESTING/SORTING AUTOMATION //



We are testing the entire orifice parts for centering errors. All parts exceeding 25μ are rejected.

As some of our customers ask for lower centering tolerances, we can supply nozzles at 3 groups.

GROUP S. The tolerance of this group is $0-25\mu$. Median error is $\pm 8/11\mu$. This is the default tolerance.

GROUP B. The tolerance of this group is $0-16\mu$. Median error is $\pm 5/7\mu$

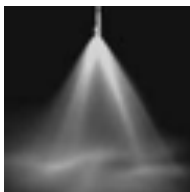
GROUP A. The tolerance of this group is $0-08\mu$. Median error is $\pm 2.5/3.5\mu$



ORIFICE OPENING TO 316 ORIFICE PART (INSERT)

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Orifice opening is made by SARIX discharge machines. These special machines are for drilling very small holes with very high precision and good surface finish. If the surface quality of orifice is not good, droplet size of the mist will not be small and shape of the mist will be disturbed. We have 5 CNC SARIX machines.



▷ Disturbed Mist



▷ Bed Centered Orifice



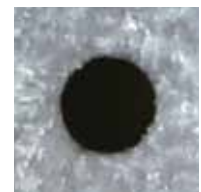
▷ Good Centered Orifice



▷ Unsuitable Orifice



▷ Unsuitable Orifice



▷ NORMIST Orifice



CNC SARIX MICRO HOLE DRILLING MACHINES //



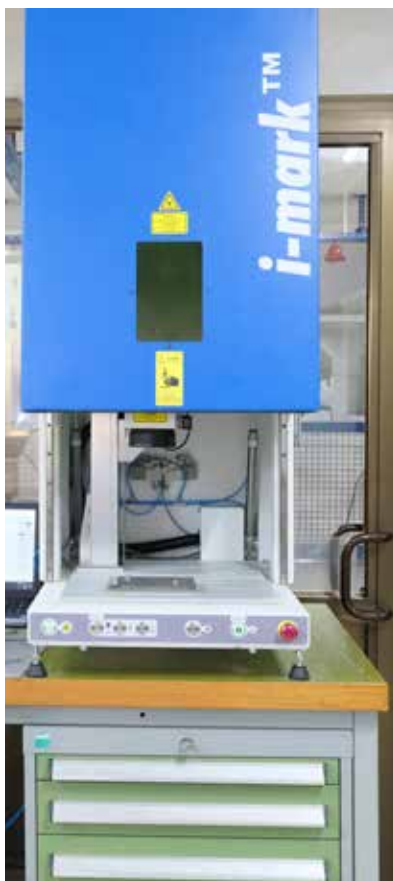
CNC SARIX MICRO HOLE DRILLING MACHINES //



FINAL OPERATIONS //



Final operations are lazer marking and packing.



LASER MARKED NOZZLES //



CAPACITY 100 AND 300 NOZZLES //



MEASURING DROPLET SIZE

Today the best way to measure the droplet size of a nozzle is to use a special lazer droplet size measuring machine. Since 2005 we are using a droplet size measuring system. At the end of 2020 we received our new laser measuring system, Malvern Spraytec for more accurate droplet size reports.

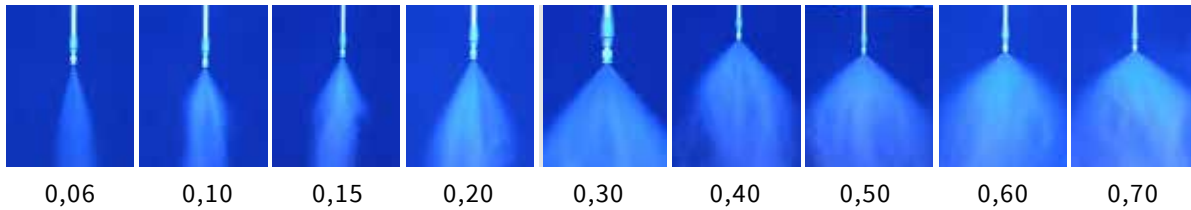
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QUALITY CONTROL
EQUIPMENT //

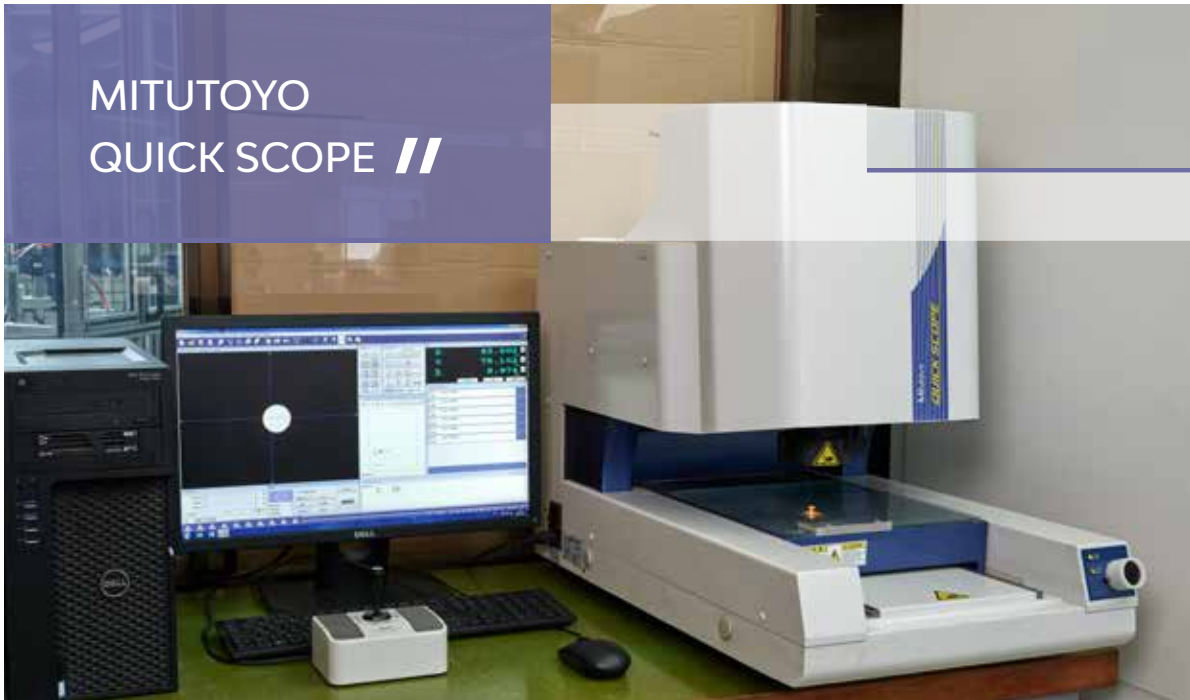


MIST ACCORDING TO ORIFICE DIAMETER (mm)

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MITUTOYO QUICK SCOPE //



MITUTOYO QUICK SCOPE

This video microscope is located in the nozzle production area. Before opening orifices we calibrate all SARIX machines with this automatic microscope. We have very precise jigs supporting 100 Orifice parts. After completion off drilling all holes, we are measuring the first (1) and the last (100) parts.



JIG TOOL FOR ORIFICE (100 pcs) OPENING WITH SARIX MACHINES

VIEWS FROM OUR CNC PRODUCTION WORKSHOP



WE HAVE 13 STAR AUTOMATIC LATHES



WE HAVE 4 MAZAK TURNING CENTERS



WE WILL RECEIVE THIS INDEX MACHINE AT EARLY MARCH

NORMIST HIGH PERFORMANCE MISTING NOZZLES FLOW LIST //

NOZZLE TYPES	ORIFICE Ø	SPRAY ANGLE	DROPLET SIZE Dn50	DROPLET SIZE Dn90	50 Bar 725 PSI	60 Bar 970 PSI	70 Bar 1000 PSI	80 Bar 1160 PSI	90 Bar 1305 PSI	100 Bar 1450 PSI
NMSS303 NMSS316 NMSS COMPACT 1/8" SS 303 WITH A.D. 9/16" SS 303 WITH A.D. NM MINI BRASS NORMIST QUADRO	0.060 mm 0.003"	20°	0.93µ	1.50µ	.015 .004	.017 .0045	.019 .005	.020 .0053	.022 .0058	.023 .0060
	0.10 mm 0.004"	40°	1.42µ	2.49µ	.022 LPM .006 GPM	.027 LPM .007 GPM	.030 LPM .008 GPM	.039 LPM .010 GPM	.042 LPM .011 GPM	.044 LPM .012 GPM
	0.15 mm 0.006"	54°	1.70µ	3.20µ	.043 .011	.047 .012	.050 .013	.058 .015	.064 .017	.068 .018
	0.20 mm 0.008"	60°	2.38µ	5.26µ	.063 .017	.071 .019	.075 .020	.081 .021	.085 .022	.091 .024
	0.30 mm 0.012"	80°	3.20µ	8.99µ	.091 .024	.102 .027	.105 .028	.116 .031	.122 .032	.132 .035
	0.40 mm 0.016"	89°	3.98µ	10.21µ	.128 .034	.142 .037	.150 .040	.159 .042	.169 .045	.185 .050
	0.50 mm 0.020"	94°	4.37µ	13.88µ	.160 .042	.180 .047	.190 .050	.195 .052	.209 .055	.228 .060
	0.60 mm 0.024"	100°	5.53µ	18.07µ	.180 .047	.196 .052	.210 .056	.228 .060	.241 .064	.225 .067
	0.70 mm 0.028"	105°	7.77µ	21.46µ	.209 .055	.228 .060	.240 .064	.256 .068	.274 .072	.294 .077

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SHORT FORM REPORT FOR A 0.07 mm NOZZLE //

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Particle Size Distribution
Active Measurement
Start+55 (s)

8 Dec 2021 - 13:13:21

Standard Values:

Trans = 84.6 (%)

Cv = 8.439 (PPM)

SSA = 0.3527 (m²/cc)

Dn(10) = 0.6935 (μm)

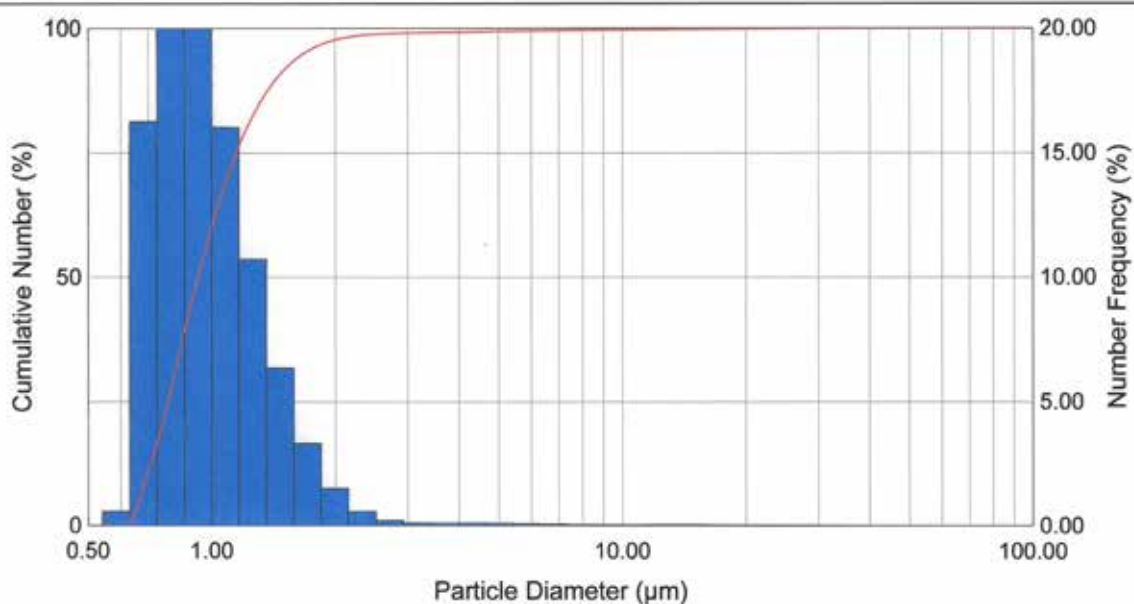
Dn(50) = 0.9228 (μm)

Dn(90) = 1.441 (μm)

Span = 0.8101

D[3][2] = 17.01 (μm)

D[4][3] = 35.39 (μm)



Size (μm)	% N <	% N	Size (μm)	% N <	% N	Size (μm)	% N <	% N
0.117	0.00	0.00	2.51	98.88	0.57	54.12	100.00	0.00
0.136	0.00	0.00	2.93	99.08	0.20	63.10	100.00	0.00
0.158	0.00	0.00	3.41	99.19	0.10	73.56	100.00	0.00
0.185	0.00	0.00	3.98	99.29	0.10	85.77	100.00	0.00
0.215	0.00	0.00	4.64	99.39	0.10	100.00	100.00	0.00
0.251	0.00	0.00	5.41	99.48	0.09	116.59	100.00	0.00
0.293	0.00	0.00	6.31	99.55	0.07	135.94	100.00	0.00
0.341	0.00	0.00	7.36	99.61	0.05	158.49	100.00	0.00
0.398	0.00	0.00	8.58	99.65	0.04	184.79	100.00	0.00
0.464	0.00	0.00	10.00	99.69	0.04	215.44	100.00	0.00
0.541	0.00	0.00	11.66	99.74	0.04	251.19	100.00	0.00
0.631	0.57	0.57	13.59	99.78	0.05	292.87	100.00	0.00
0.736	16.83	16.26	15.85	99.83	0.05	341.46	100.00	0.00
0.858	39.37	22.55	18.48	99.87	0.04	398.11	100.00	0.00
1.00	60.41	21.04	21.54	99.91	0.04	464.16	100.00	0.00
1.17	76.45	16.03	25.12	99.94	0.03	541.17	100.00	0.00
1.36	87.16	10.71	29.29	99.96	0.02	630.96	100.00	0.00
1.58	93.51	6.35	34.15	99.98	0.02	735.64	100.00	0.00
1.85	96.82	3.31	39.81	99.99	0.01	857.70	100.00	0.00
2.15	98.31	1.49	46.42	99.99	0.01	1000.00	100.00	0.00

SHORT FORM REPORT FOR A 0.10 mm NOZZLE //

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Average Particle Size Distribution

25 Jan 2021 - 11:00:12

(average size distribution, weighted)

0,10 mm Normist nozzle TEST @ 70 bar.smealExp 001 - 25 Jan 2021\Averages\0,10 mm normist nozzle te 1.psd

Sample : 0,10 mm normist nozzle test

Start+0 (s) :: +1:01 (s)

Standard Values:

Trans = 56.0 (%)

Cv = 27.71 (PPM)

SSA = 0.3837 (m²/cc)

Dn(10) = 1.023 (μm)

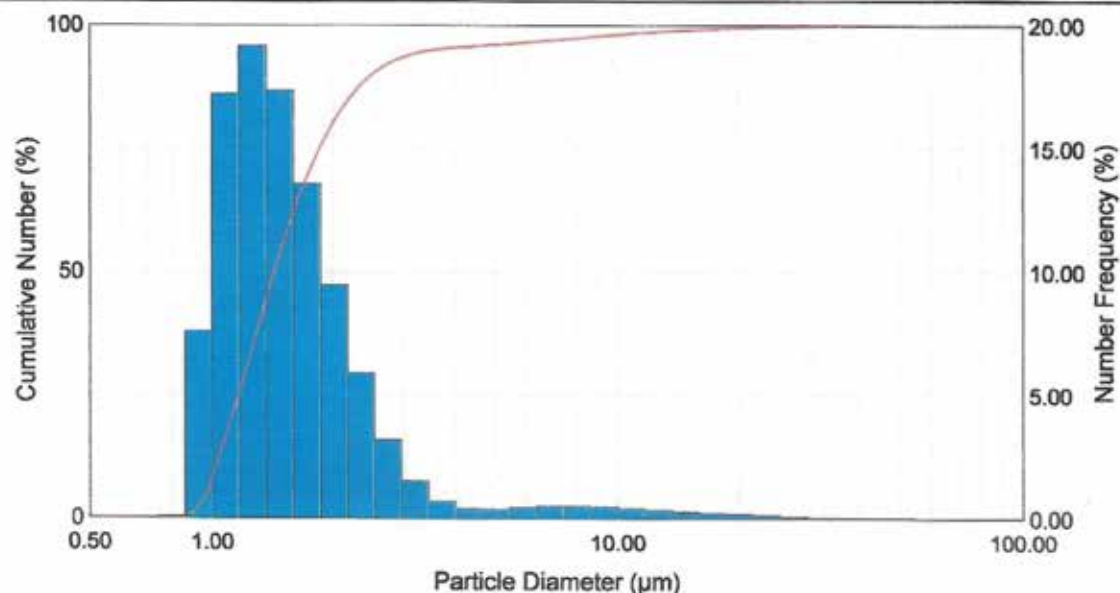
Dn(50) = 1.428 (μm)

Dn(90) = 2.493 (μm)

Span = 1.03

D[3][2] = 15.64 (μm)

D[4][3] = 26.5 (μm)



Size (μm)	% N <	% N	Size (μm)	% N <	% N	Size (μm)	% N <	% N
0.117	0.00	0.00	2.51	90.21	5.86	54.12	100.00	0.01
0.136	0.00	0.00	2.93	93.41	3.19	63.10	100.00	0.00
0.158	0.00	0.00	3.41	94.93	1.52	73.56	100.00	0.00
0.185	0.00	0.00	3.98	95.60	0.67	85.77	100.00	0.00
0.215	0.00	0.00	4.64	95.98	0.38	100.00	100.00	0.00
0.251	0.00	0.00	5.41	96.35	0.37	116.59	100.00	0.00
0.293	0.00	0.00	6.31	96.79	0.44	135.94	100.00	0.00
0.341	0.00	0.00	7.36	97.28	0.49	158.49	100.00	0.00
0.398	0.00	0.00	8.58	97.77	0.49	184.79	100.00	0.00
0.464	0.00	0.00	10.00	98.23	0.46	215.44	100.00	0.00
0.541	0.00	0.00	11.66	98.64	0.41	251.19	100.00	0.00
0.631	0.00	0.00	13.59	98.99	0.35	292.87	100.00	0.00
0.736	0.00	0.00	15.85	99.28	0.29	341.46	100.00	0.00
0.858	0.06	0.06	18.48	99.51	0.23	398.11	100.00	0.00
1.00	7.63	7.58	21.54	99.69	0.18	464.16	100.00	0.00
1.17	24.85	17.22	25.12	99.81	0.13	541.17	100.00	0.00
1.36	44.02	19.17	29.29	99.90	0.08	630.96	100.00	0.00
1.58	61.35	17.33	34.15	99.95	0.05	735.64	100.00	0.00
1.85	74.90	13.55	39.81	99.98	0.03	857.70	100.00	0.00
2.15	84.35	9.45	46.42	99.99	0.01	1000.00	100.00	0.00

SHORT FORM REPORT FOR A 0.15 mm NOZZLE //

www.normist.org

Average Particle Size Distribution

25 Jan 2021 - 10:33:22

(average size distribution, weighted)

0,15 mm Normist nozzle TEST @ 70 bar.smea\Exp 002 - 25 Jan 2021\Averages\0,15 mm normist nozzle te 1.psd

Sample : 0,15 mm normist nozzle test

Start+0 (s) :: +30 (s)

Standard Values:

Trans = 47.1 (%)

Cv = 44.05 (PPM)

SSA = 0.3168 (m²/cc)

Dn(10) = 1.184 (μm)

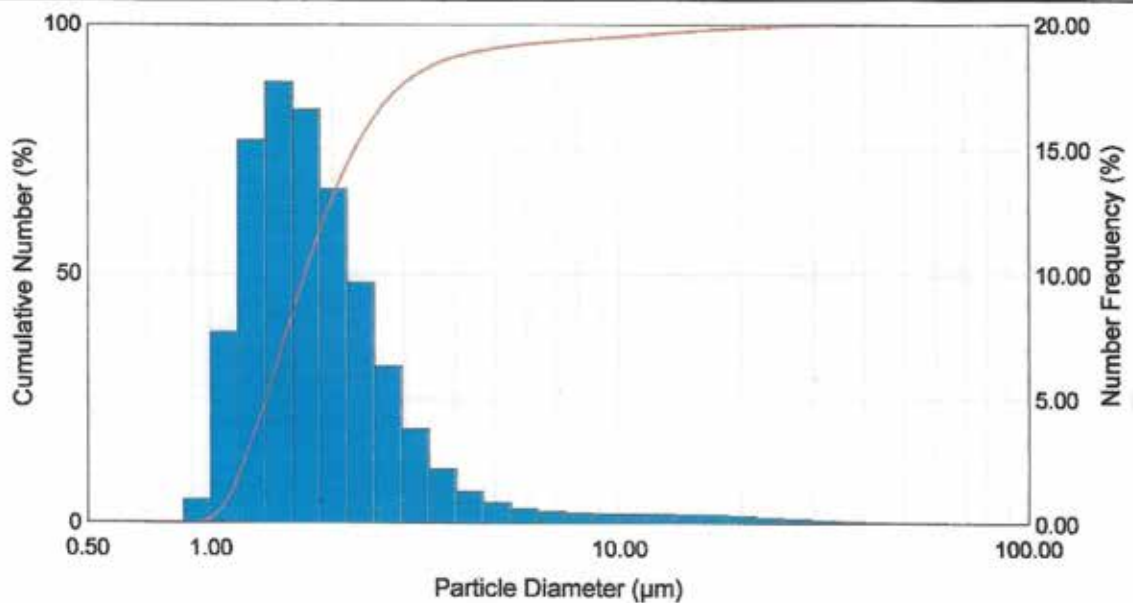
Dn(50) = 1.707 (μm)

Dn(90) = 3.197 (μm)

Span = 1.18

D[3][2] = 18.94 (μm)

D[4][3] = 30.35 (μm)



Size (μm)	% N <	% N	Size (μm)	% N <	% N	Size (μm)	% N <	% N
0.117	0.00	0.00	2.51	81.27	9.66	54.12	99.99	0.02
0.136	0.00	0.00	2.93	87.58	6.31	63.10	100.00	0.01
0.158	0.00	0.00	3.41	91.37	3.79	73.56	100.00	0.00
0.185	0.00	0.00	3.98	93.53	2.17	85.77	100.00	0.00
0.215	0.00	0.00	4.64	94.81	1.27	100.00	100.00	0.00
0.251	0.00	0.00	5.41	95.64	0.83	116.59	100.00	0.00
0.293	0.00	0.00	6.31	96.26	0.62	135.94	100.00	0.00
0.341	0.00	0.00	7.36	96.76	0.50	158.49	100.00	0.00
0.398	0.00	0.00	8.58	97.19	0.43	184.79	100.00	0.00
0.464	0.00	0.00	10.00	97.59	0.40	215.44	100.00	0.00
0.541	0.00	0.00	11.66	97.97	0.39	251.19	100.00	0.00
0.631	0.00	0.00	13.59	98.36	0.38	292.87	100.00	0.00
0.736	0.00	0.00	15.85	98.73	0.37	341.46	100.00	0.00
0.858	0.00	0.00	18.48	99.07	0.34	398.11	100.00	0.00
1.00	0.93	0.93	21.54	99.37	0.29	464.16	100.00	0.00
1.17	8.58	7.65	25.12	99.60	0.23	541.17	100.00	0.00
1.36	23.94	15.36	29.29	99.76	0.17	630.96	100.00	0.00
1.58	41.64	17.70	34.15	99.87	0.11	735.64	100.00	0.00
1.85	58.22	16.58	39.81	99.94	0.07	857.70	100.00	0.00
2.15	71.61	13.38	46.42	99.97	0.03	1000.00	100.00	0.00

A COMPLETE REPORT FOR A 0.2 mm NOZZLE //

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Average Particle Size Distribution

25 Jan 2021 - 10:39:45

(average size distribution, weighted)

0,20 mm Normist nozzle TEST @ 70 bar.smea\Exp 001 - 25 Jan 2021\Averages\0,20 mm normist nozzle te 1.psd

Sample : 0,20 mm normist nozzle test

Start+0 (s) :: +30 (s)

Standard Values:

Trans = 49.0 (%)

Cv = 49.67 (PPM)

SSA = 0.2697 (m²/cc)

Dn(10) = 1.701 (μm)

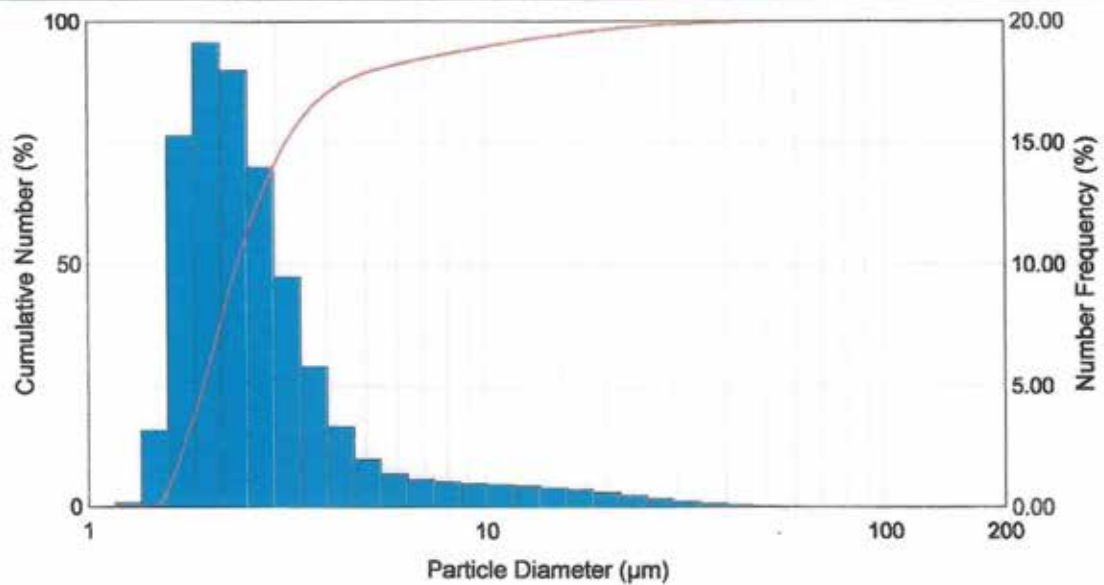
Dn(50) = 2.383 (μm)

Dn(90) = 5.262 (μm)

Span = 1.494

D[3][2] = 22.25 (μm)

D[4][3] = 35.22 (μm)



Size (μm)	% N <	% N	Size (μm)	% N <	% N	Size (μm)	% N <	% N
0.117	0.00	0.00	2.51	55.75	17.98	54.12	99.96	0.05
0.136	0.00	0.00	2.93	69.72	13.97	63.10	99.98	0.02
0.158	0.00	0.00	3.41	79.22	9.49	73.56	100.00	0.01
0.185	0.00	0.00	3.98	85.00	5.78	85.77	100.00	0.00
0.215	0.00	0.00	4.64	88.32	3.32	100.00	100.00	0.00
0.251	0.00	0.00	5.41	90.30	1.98	116.59	100.00	0.00
0.293	0.00	0.00	6.31	91.68	1.38	135.94	100.00	0.00
0.341	0.00	0.00	7.36	92.83	1.15	158.49	100.00	0.00
0.398	0.00	0.00	8.58	93.89	1.05	184.79	100.00	0.00
0.464	0.00	0.00	10.00	94.87	0.98	215.44	100.00	0.00
0.541	0.00	0.00	11.66	95.78	0.91	251.19	100.00	0.00
0.631	0.00	0.00	13.59	96.62	0.84	292.87	100.00	0.00
0.736	0.00	0.00	15.85	97.39	0.77	341.46	100.00	0.00
0.858	0.00	0.00	18.48	98.06	0.68	398.11	100.00	0.00
1.00	0.00	0.00	21.54	98.63	0.57	464.16	100.00	0.00
1.17	0.00	0.00	25.12	99.09	0.45	541.17	100.00	0.00
1.36	0.16	0.16	29.29	99.43	0.34	630.96	100.00	0.00
1.58	3.33	3.17	34.15	99.66	0.24	735.64	100.00	0.00
1.85	18.63	15.30	39.81	99.82	0.15	857.70	100.00	0.00
2.15	37.77	19.14	46.42	99.91	0.09	1000.00	100.00	0.00

SHORT FORM REPORT FOR A 0.30 mm NOZZLE //

www.normist.org

Average Particle Size Distribution

25 Jan 2021 - 15:29:55

(average size distribution, weighted)

0,30 mm Normist nozzle TEST @ 70 bar.smeal\Exp 004 - 25 Jan 2021\Averages\0,30 mm Normist nozzle te 4.psd

Sample : 0,30 mm Normist nozzle test

Start+0 (s) :: +1:01 (s)

Standard Values:

Trans = 52.3 (%)

Dn(10) = 2.285 (μm)

Span = 2.097

Cv = 46.36 (PPM)

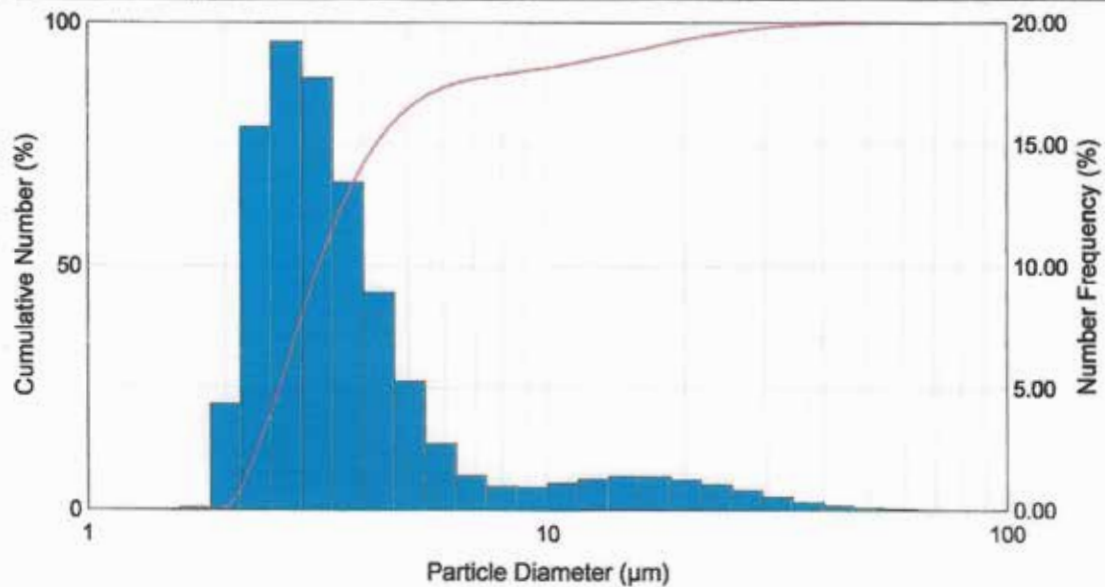
Dn(50) = 3.198 (μm)

D[3][2] = 22.7 (μm)

SSA = 0.2643 (m²/cc)

Dn(90) = 8.991 (μm)

D[4][3] = 31.9 (μm)



Size (μm)	% N <	% N	Size (μm)	% N <	% N	Size (μm)	% N <	% N
0.117	0.00	0.00	2.51	20.14	15.70	54.12	99.96	0.08
0.136	0.00	0.00	2.93	39.34	19.20	63.10	99.99	0.03
0.158	0.00	0.00	3.41	57.05	17.70	73.56	100.00	0.01
0.185	0.00	0.00	3.98	70.47	13.43	85.77	100.00	0.00
0.215	0.00	0.00	4.64	79.40	8.92	100.00	100.00	0.00
0.251	0.00	0.00	5.41	84.65	5.25	116.59	100.00	0.00
0.293	0.00	0.00	6.31	87.35	2.71	135.94	100.00	0.00
0.341	0.00	0.00	7.36	88.75	1.40	158.49	100.00	0.00
0.398	0.00	0.00	8.58	89.72	0.97	184.79	100.00	0.00
0.464	0.00	0.00	10.00	90.66	0.94	215.44	100.00	0.00
0.541	0.00	0.00	11.66	91.75	1.09	251.19	100.00	0.00
0.631	0.00	0.00	13.59	93.02	1.27	292.87	100.00	0.00
0.736	0.00	0.00	15.85	94.40	1.38	341.46	100.00	0.00
0.858	0.00	0.00	18.48	95.79	1.38	398.11	100.00	0.00
1.00	0.00	0.00	21.54	97.05	1.26	464.16	100.00	0.00
1.17	0.00	0.00	25.12	98.09	1.04	541.17	100.00	0.00
1.36	0.00	0.00	29.29	98.86	0.78	630.96	100.00	0.00
1.58	0.01	0.01	34.15	99.39	0.53	735.64	100.00	0.00
1.85	0.11	0.10	39.81	99.71	0.32	857.70	100.00	0.00
2.15	4.45	4.34	46.42	99.88	0.17	1000.00	100.00	0.00

SHORT FORM REPORT FOR A 0.40 mm NOZZLE //

www.normist.org

Average Particle Size Distribution

25 Jan 2021 - 15:46:11

(average size distribution, weighted)

0,40 mm Normist nozzle TEST @ 70 bar.smea\Exp 002 - 25 Jan 2021\Averages\0,40 mm Normist nozzle te 1.psd

Sample : 0,40 mm Normist nozzle test

Start+0 (s) :: +1:01 (s)

Standard Values:

Trans = 42.2 (%)

Cv = 55.22 (PPM)

SSA = 0.2942 (m²/cc)

Dn(10) = 2.803 (μm)

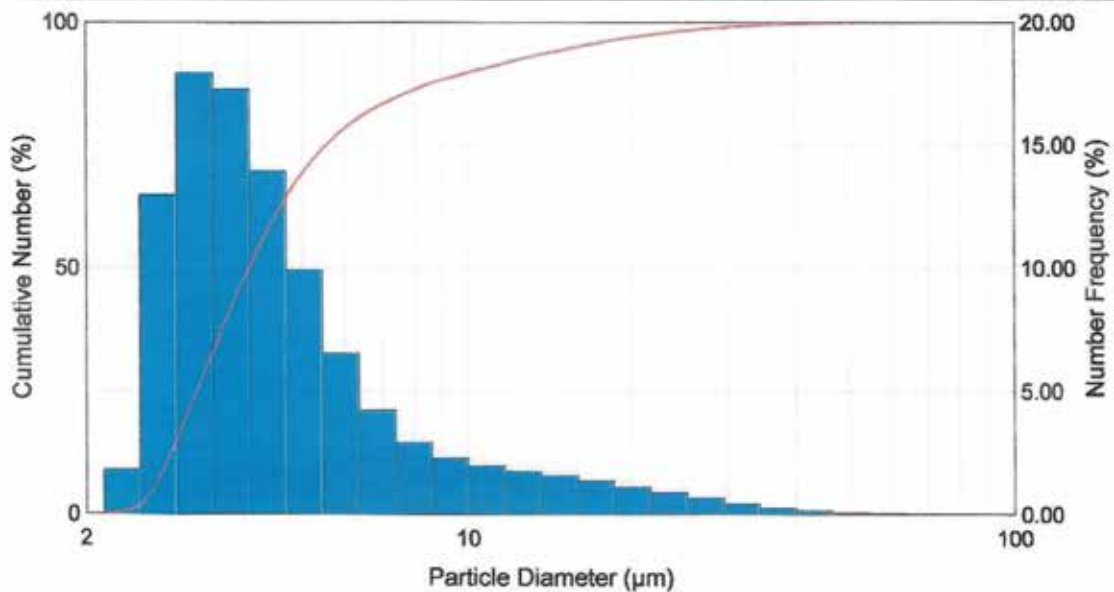
Dn(50) = 3.981 (μm)

Dn(90) = 10.21 (μm)

Span = 1.862

D[3][2] = 20.39 (μm)

D[4][3] = 31.27 (μm)



Size (μm)	% N <	% N	Size (μm)	% N <	% N	Size (μm)	% N <	% N
0.117	0.00	0.00	2.51	1.84	1.80	54.12	99.95	0.08
0.136	0.00	0.00	2.93	14.80	12.96	63.10	99.98	0.03
0.158	0.00	0.00	3.41	32.73	17.93	73.56	100.00	0.01
0.185	0.00	0.00	3.98	50.00	17.27	85.77	100.00	0.00
0.215	0.00	0.00	4.64	63.92	13.92	100.00	100.00	0.00
0.251	0.00	0.00	5.41	73.82	9.90	116.59	100.00	0.00
0.293	0.00	0.00	6.31	80.32	6.50	135.94	100.00	0.00
0.341	0.00	0.00	7.36	84.53	4.21	158.49	100.00	0.00
0.398	0.00	0.00	8.58	87.44	2.91	184.79	100.00	0.00
0.464	0.00	0.00	10.00	89.72	2.27	215.44	100.00	0.00
0.541	0.00	0.00	11.66	91.68	1.96	251.19	100.00	0.00
0.631	0.00	0.00	13.59	93.44	1.76	292.87	100.00	0.00
0.736	0.00	0.00	15.85	95.02	1.58	341.46	100.00	0.00
0.858	0.00	0.00	18.48	96.39	1.37	398.11	100.00	0.00
1.00	0.00	0.00	21.54	97.51	1.13	464.16	100.00	0.00
1.17	0.00	0.00	25.12	98.39	0.88	541.17	100.00	0.00
1.36	0.00	0.00	29.29	99.03	0.64	630.96	100.00	0.00
1.58	0.00	0.00	34.15	99.46	0.43	735.64	100.00	0.00
1.85	0.00	0.00	39.81	99.72	0.27	857.70	100.00	0.00
2.15	0.03	0.03	46.42	99.87	0.15	1000.00	100.00	0.00

SHORT FORM REPORT FOR A 0.50 mm NOZZLE //

www.normist.org

Average Particle Size Distribution
(average size distribution, weighted)
0,50 mm Normist nozzle TEST @ 70 bar.smea\Exp 002 - 25 Jan 2021\Averages\0,50 mm Normist nozzle te 1.psd
Sample : 0,50 mm Normist nozzle test
Start+0 (s) :: +1:01 (s)

25 Jan 2021 - 16:15:16

Standard Values:

Trans = 66.1 (%)

Cv = 41.28 (PPM)

SSA = 0.1917 (m²/cc)

Dn(10) = 2.958 (μm)

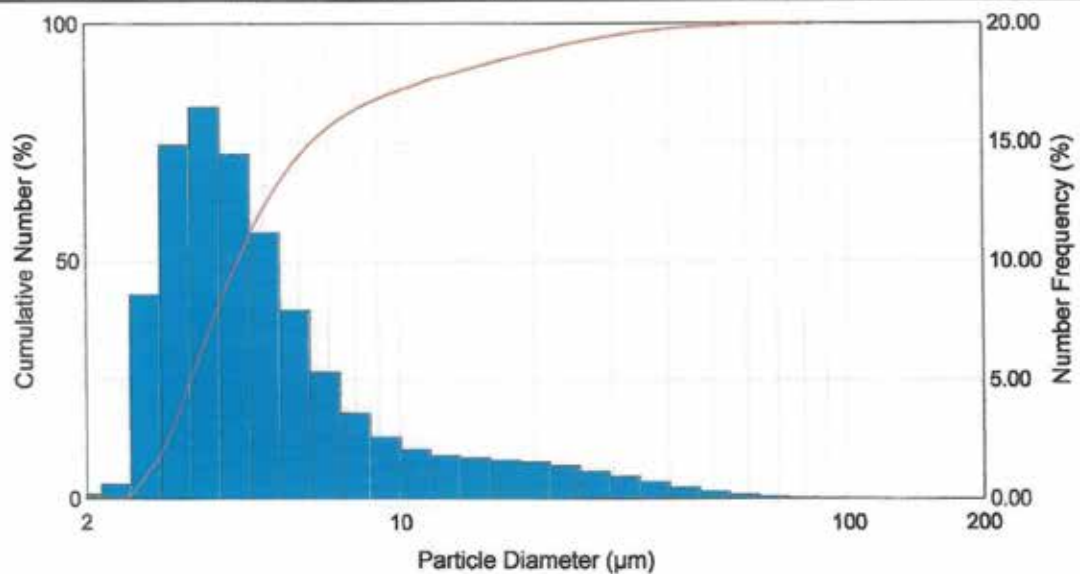
Dn(50) = 4.376 (μm)

Dn(90) = 13.88 (μm)

Span = 2.496

D[3][2] = 31.3 (μm)

D[4][3] = 46.28 (μm)



Size (μm)	% N <	% N	Size (μm)	% N <	% N	Size (μm)	% N <	% N
0.117	0.00	0.00	2.51	0.79	0.60	54.12	99.66	0.30
0.136	0.00	0.00	2.93	9.36	8.57	63.10	99.84	0.18
0.158	0.00	0.00	3.41	24.23	14.88	73.56	99.93	0.09
0.185	0.00	0.00	3.98	40.72	16.48	85.77	99.98	0.04
0.215	0.00	0.00	4.64	55.22	14.50	100.00	99.99	0.02
0.251	0.00	0.00	5.41	66.41	11.19	116.59	100.00	0.01
0.293	0.00	0.00	6.31	74.30	7.90	135.94	100.00	0.00
0.341	0.00	0.00	7.36	79.62	5.32	158.49	100.00	0.00
0.398	0.00	0.00	8.58	83.24	3.61	184.79	100.00	0.00
0.464	0.00	0.00	10.00	85.84	2.61	215.44	100.00	0.00
0.541	0.00	0.00	11.66	87.93	2.08	251.19	100.00	0.00
0.631	0.00	0.00	13.59	89.76	1.84	292.87	100.00	0.00
0.736	0.00	0.00	15.85	91.49	1.72	341.46	100.00	0.00
0.858	0.00	0.00	18.48	93.13	1.65	398.11	100.00	0.00
1.00	0.00	0.00	21.54	94.68	1.55	464.16	100.00	0.00
1.17	0.00	0.00	25.12	96.07	1.39	541.17	100.00	0.00
1.36	0.00	0.00	29.29	97.25	1.18	630.96	100.00	0.00
1.58	0.00	0.00	34.15	98.18	0.94	735.64	100.00	0.00
1.85	0.00	0.00	39.81	98.88	0.70	857.70	100.00	0.00
2.15	0.19	0.19	46.42	99.36	0.48	1000.00	100.00	0.00

SHORT FORM REPORT FOR A 0.60 mm NOZZLE //

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Average Particle Size Distribution

25 Jan 2021 - 16:26:30

(average size distribution, weighted)

0,60 mm Normist nozzle TEST @ 70 bar.smea\Exp 002 - 25 Jan 2021\Averages\0,60 mm Normist nozzle te 1.psd

Sample : 0,60 mm Normist nozzle test

Start+0 (s) :: +1:00 (s)

Standard Values:

Trans = 64.4 (%)

Cv = 58.36 (PPM)

SSA = 0.1453 (m²/cc)

Dn(10) = 3.59 (μm)

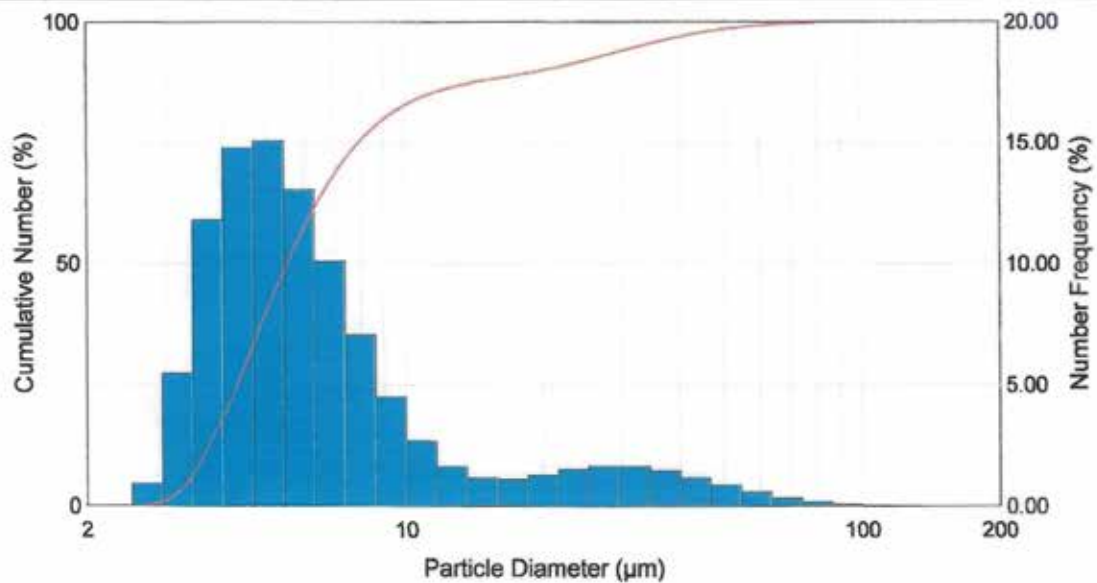
Dn(50) = 5.527 (μm)

Dn(90) = 20.07 (μm)

Span = 2.983

D[3][2] = 41.3 (μm)

D[4][3] = 56.17 (μm)



Size (μm)	% N <	% N	Size (μm)	% N <	% N	Size (μm)	% N <	% N
0.117	0.00	0.00	2.51	0.01	0.01	54.12	98.87	0.84
0.136	0.00	0.00	2.93	0.94	0.93	63.10	99.42	0.55
0.158	0.00	0.00	3.41	6.39	5.44	73.56	99.73	0.32
0.185	0.00	0.00	3.98	18.19	11.81	85.77	99.89	0.16
0.215	0.00	0.00	4.64	32.98	14.79	100.00	99.97	0.07
0.251	0.00	0.00	5.41	48.05	15.08	116.59	99.99	0.03
0.293	0.00	0.00	6.31	61.12	13.07	135.94	100.00	0.01
0.341	0.00	0.00	7.36	71.22	10.09	158.49	100.00	0.00
0.398	0.00	0.00	8.58	78.25	7.04	184.79	100.00	0.00
0.464	0.00	0.00	10.00	82.74	4.49	215.44	100.00	0.00
0.541	0.00	0.00	11.66	85.43	2.69	251.19	100.00	0.00
0.631	0.00	0.00	13.59	87.06	1.63	292.87	100.00	0.00
0.736	0.00	0.00	15.85	88.23	1.17	341.46	100.00	0.00
0.858	0.00	0.00	18.48	89.34	1.11	398.11	100.00	0.00
1.00	0.00	0.00	21.54	90.62	1.28	464.16	100.00	0.00
1.17	0.00	0.00	25.12	92.13	1.51	541.17	100.00	0.00
1.36	0.00	0.00	29.29	93.78	1.65	630.96	100.00	0.00
1.58	0.00	0.00	34.15	95.41	1.63	735.64	100.00	0.00
1.85	0.00	0.00	39.81	96.87	1.45	857.70	100.00	0.00
2.15	0.00	0.00	46.42	98.03	1.16	1000.00	100.00	0.00

SHORT FORM REPORT FOR A 0.70 mm NOZZLE //

www.normist.org

Average Particle Size Distribution

25 Jan 2021 - 16:34:33

(average size distribution, weighted)

0,70 mm Normist nozzle TEST @ 70 bar.smea\Exp 002 - 25 Jan 2021\Averages\0,70 mm Normist nozzle te 1.psd

Sample : 0,70 mm Normist nozzle test

Start+0 (s) :: +1:01 (s)

Standard Values:

Trans = 32.6 (%)

Cv = 128 (PPM)

SSA = 0.1679 (m²/cc)

Dn(10) = 3.379 (μm)

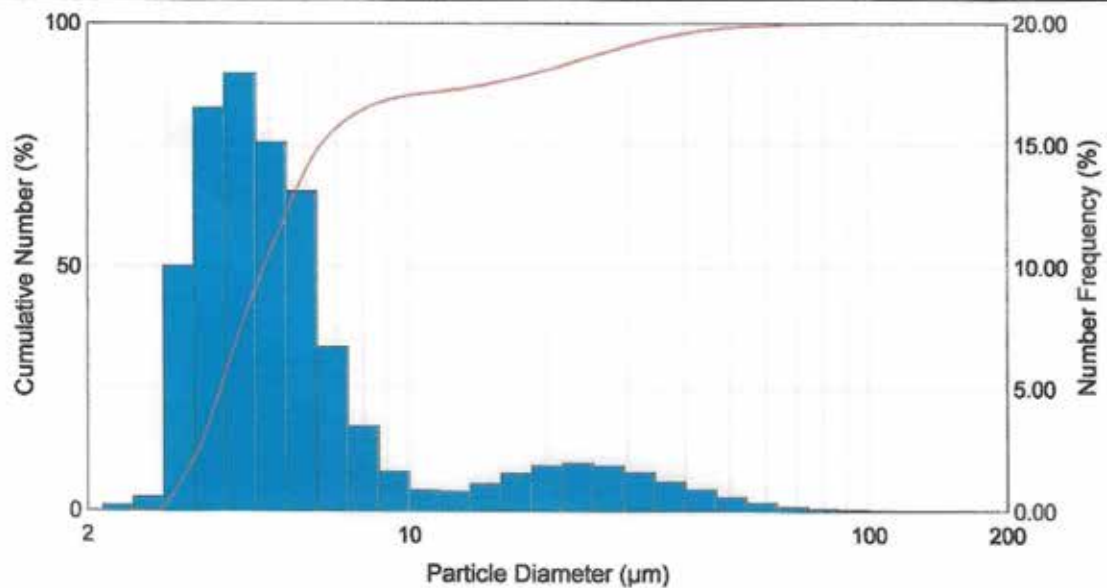
Dn(50) = 4.865 (μm)

Dn(90) = 19.37 (μm)

Span = 3.286

D[3][2] = 35.73 (μm)

D[4][3] = 48.55 (μm)



Size (μm)	% N <	% N	Size (μm)	% N <	% N	Size (μm)	% N <	% N
0.117	0.00	0.00	2.51	0.24	0.24	54.12	99.39	0.56
0.136	0.00	0.00	2.93	0.76	0.52	63.10	99.71	0.32
0.158	0.00	0.00	3.41	10.78	10.02	73.56	99.88	0.17
0.185	0.00	0.00	3.98	27.31	16.53	85.77	99.96	0.08
0.215	0.00	0.00	4.64	45.22	17.92	100.00	99.99	0.03
0.251	0.00	0.00	5.41	60.32	15.09	116.59	100.00	0.01
0.293	0.00	0.00	6.31	73.42	13.10	135.94	100.00	0.00
0.341	0.00	0.00	7.36	80.11	6.69	158.49	100.00	0.00
0.398	0.00	0.00	8.58	83.56	3.45	184.79	100.00	0.00
0.464	0.00	0.00	10.00	85.17	1.61	215.44	100.00	0.00
0.541	0.00	0.00	11.66	86.01	0.84	251.19	100.00	0.00
0.631	0.00	0.00	13.59	86.81	0.79	292.87	100.00	0.00
0.736	0.00	0.00	15.85	87.93	1.12	341.46	100.00	0.00
0.858	0.00	0.00	18.48	89.46	1.54	398.11	100.00	0.00
1.00	0.00	0.00	21.54	91.31	1.85	464.16	100.00	0.00
1.17	0.00	0.00	25.12	93.28	1.97	541.17	100.00	0.00
1.36	0.00	0.00	29.29	95.14	1.86	630.96	100.00	0.00
1.58	0.00	0.00	34.15	96.73	1.59	735.64	100.00	0.00
1.85	0.00	0.00	39.81	97.96	1.23	857.70	100.00	0.00
2.15	0.00	0.00	46.42	98.83	0.87	1000.00	100.00	0.00

NOZZLE HOLDERS

www.normist.org



1. 5 mm nickel plated brass fitting for 5 mm Ø Nylon pipe.
2. 8 mm nickel plated brass fitting only for 8 mm Ø Nylon pipe.
3. 10 mm SS304 and SS316 Normatic fitting for SS tube.
4. 10 mm SS304 and SS316 Normatic double nozzle fitting for SS tube. (120°)
5. 10 mm SS304 and SS316 Normatic double nozzle fitting for SS tube. (180°)
6. 3/8" Nylon tube to nozzle adaptor
7. Line end fitting with one nozzle.
8. 3/8" nickel plated brass or SS divider for 4 - 6 - 8 nozzles (for beach umbrella)
9. 10 and 12 mm compression fitting for one nozzle (any type)
10. 10 and 12 mm compression fitting for double nozzles (any type)
11. 10 and 12 mm compression fitting for triple nozzles (any type)
12. Pre-machined 10 mm SS 304 or 316 lines for nozzles. (any type) 3 M and 6 M long.



HIGH PRECISION
PROFESSIONAL
MISTING SYSTEMS //

www.normist.org

MISTING
NOZZLE

NORMIST

HIGH PRESSURE INLINE FILTER FOR NOZZLES

www.normist.org

To use an inline high pressure filter at all installations is very important. All high pressure pumps are source of metal chips, plastic, elastomer and locktite particles. These particles will block nozzles. All our nozzles are cleanable but it is not easy to unfix many thousands nozzles at a greenhouse, to disassemble, to clean all, assemble all and re-attach all nozzles.



CENTERING ERROR OF THE ORIFICE

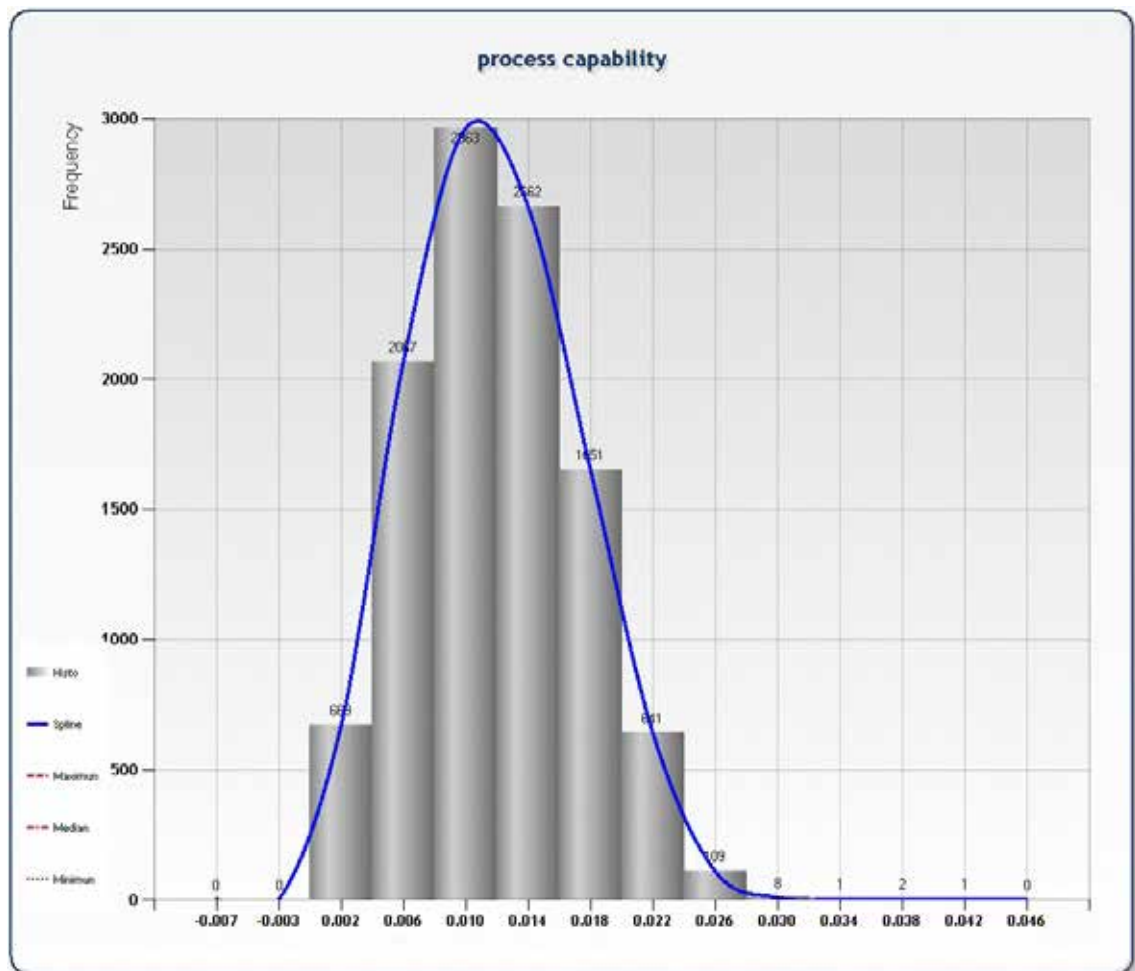
www.normist.org

After now we will offer 3 groups for centering error of our nozzles.

Group S. At this group you will receive nozzles having a tolerance between 0-25 μ . Median error is $\pm 8/11 \mu$. Default

Group B. At this group you will receive nozzles having a tolerance between 0-16 μ . Median error is $\pm 5/7 \mu$.

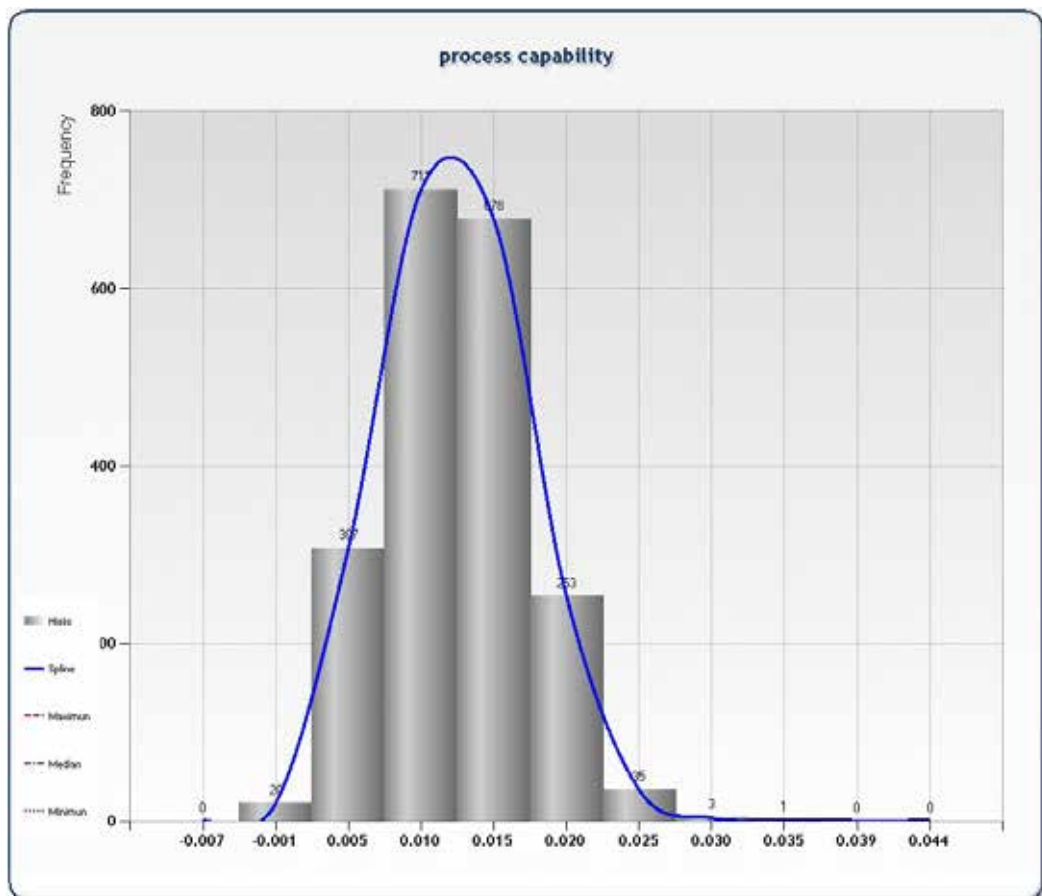
Group A. At this group you will receive nozzles having a tolerance between 0-08 μ . Median error is $\pm 2.5/3.5 \mu$.



Tested Orifice part quantity is 4852
Median tolerance of the lot is 0.009 μ . Tolerances between 0-25 microns are accepted.
26 μ and higher are rejected.

CENTERING ERROR OF THE ORIFICE

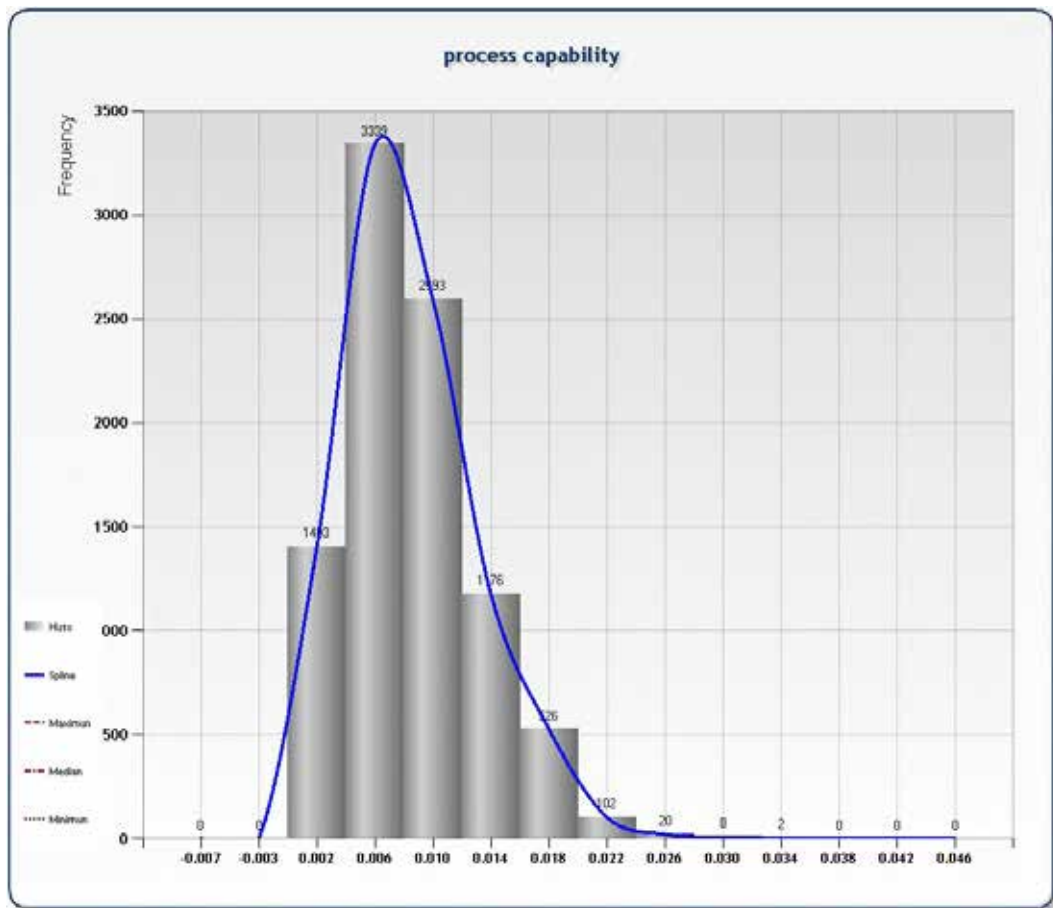
www.normist.org



Tested Orifice part quantity is 2013
Median tolerance of the lot is 0.011 μ . Tolerances between 0-25
microns are accepted.
26 μ and higher are rejected.

CENTERING ERROR OF THE ORIFICE

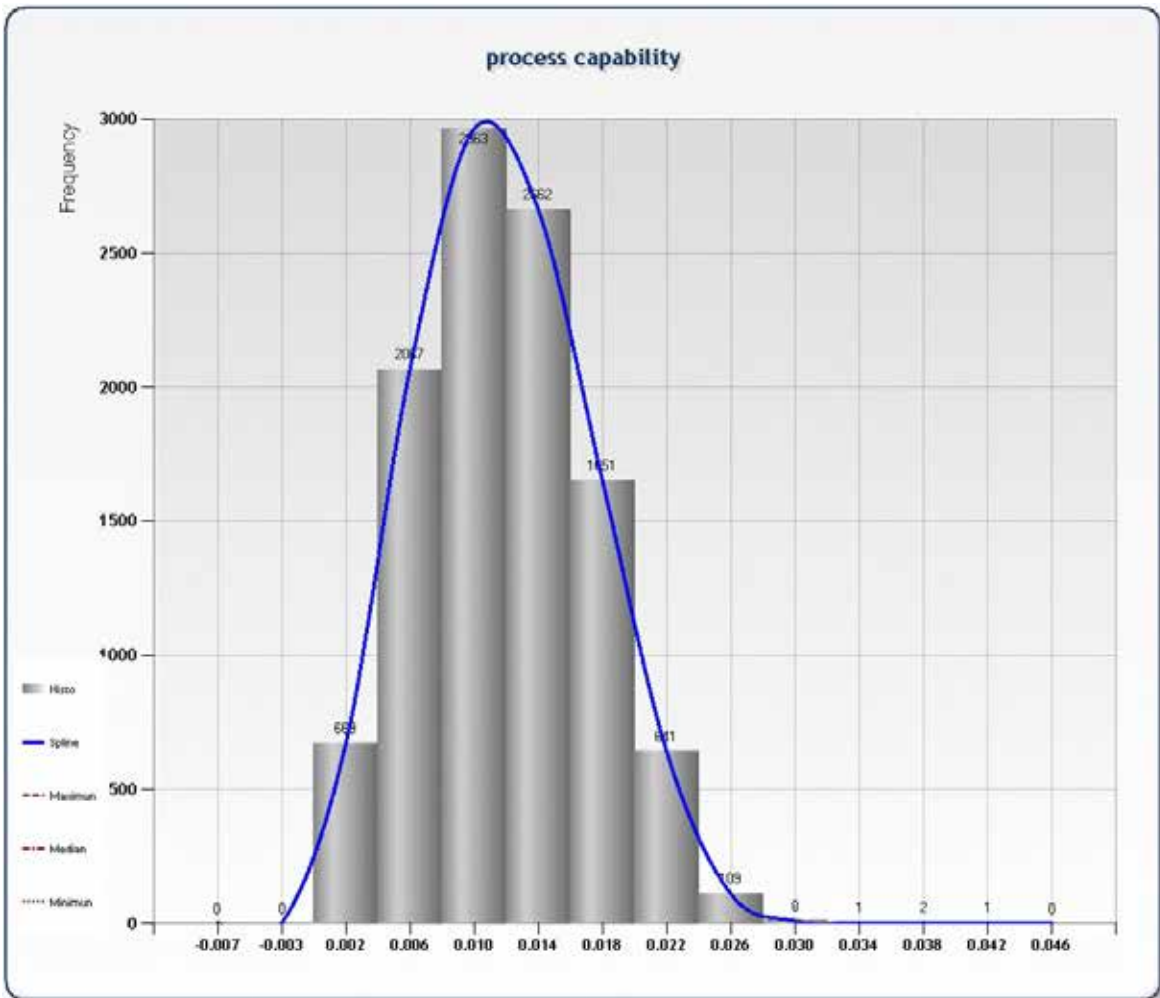
www.normist.org



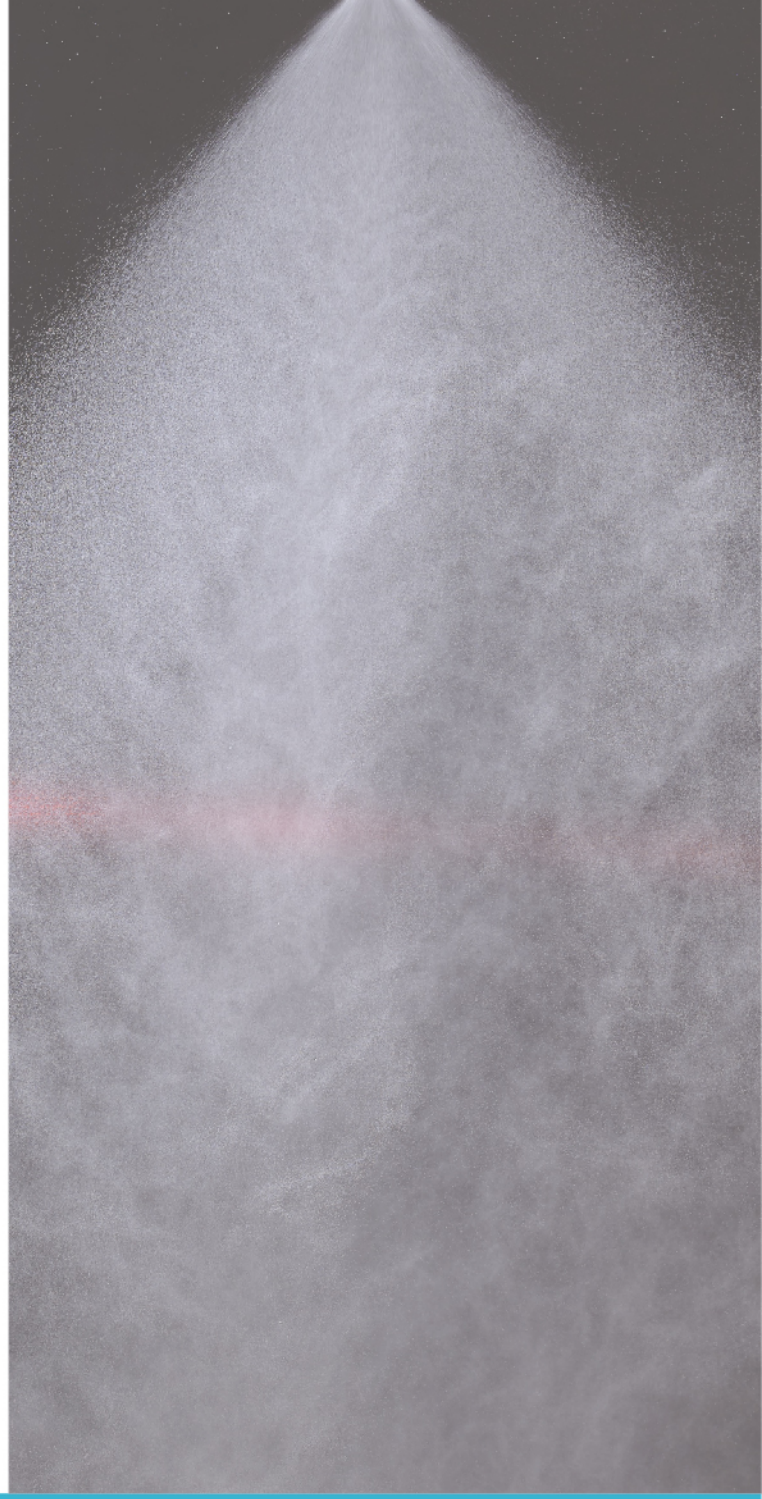
Tested Orifice part quantity is 9171
Median tolerance of the lot is 0.082 μ . Tolerances between 0-25 microns are accepted.
26 μ and higher are rejected.

CENTERING ERROR OF THE ORIFICE

www.normist.org



Tested Orifice part quantity is 10000
Median tolerance of the lot is 0.089 μ . Tolerances between 0-25 microns are accepted.
26 μ and higher are rejected.



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