TEFEN
FLOW & DOSING TECHNOLOGIES

Nozzles

Nozzles

Fan Nozzles

Fan nozzles for straight wetting pattern

Applications:

- Disinfection gate
- Weeds spraying
- Institution disinfection
- Food hygiene & sanitation

Features & Benefits

- Wide range of flow rates
- High distribution uniformity and coverage
- Easy setup
- Low maintenance
- Cost efficient

Configuration

- Supplied as a separate item or with accessories
- Inlet filter option

NOZZLES

Technical Data

- Operating pressure range: 2-10 bar
- Fan angle: 65°, 110°
- Flow rate: 0.296-3.212 l/m

Product code	Marking	α Angle	L mm	D	Lit per Min Bar 2	Lit per Min Bar 3	Lit per Min Bar 4	Lit per Min Bar 6	Lit per Min Bar 8	Lit per Min Bar 10	Colour
12210110057	110 005	110 °	12.2	14.8	0.296	0.362	0.417	0.513	0.585	0.658	Green
12210110209	110 02	110 °	12.2	14.8	1.20	1.45	1.70	2.00	2.267	2.533	Yellow
12210110255	110 025	110 °	12.2	14.8	0.623	0.780	0.899	1.106	1.267	1.428	Creme
12210110308	110 03	110 °	12.2	14.8	1.167	1.432	1.649	2.039	2.330	2.620	Blue
12210110406	110 04	110 °	12.2	14.8	1.434	1.760	2.032	2.501	2.857	3.212	Red
12210110503	110 05	110 °	12.2	14.8	1.627	2.027	2.350	2.893	3.315	3.737	Brown
12210165051	65 005	65 °	12.2	14.8	0.38	0.47	0.53	0.66	0.753	0.847	White
12210165052	65 005	65 °	12.2	14.8	0.38	0.47	0.53	0.66	0.753	0.847	Black

Accessories:

1/4" FEMALE 135° NOZZLE HOLDER CAT. NO.

Product code	R1	R2
32210000040	11⁄16" NC	¼" NPT

11/16" NUT FOR NOZZLE

Product code	Type
32272900082	11⁄16" NC

1/4" FEMALE STRAIGHT NOZZLE HOLDER

Product code	R1	R2
32210300042	11⁄16" NC	¼" NPT

1/4" MALE STRAIGHT NOZZLE HOLDER

Product code	R1	R2
32212200042	11⁄16" NC	¼" NPT

SPRAY GUN

Product code	End connector
22210004002	¼" female
22210011003	11⁄16" male

8MM NYLON RETRACTABLE COIL

Product code	Length
24050505058	5 feet
24050505108	10 feet
24050505158	15 feet

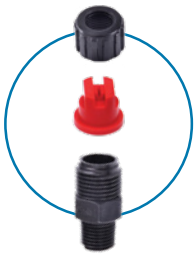
SPRAY GUN - IODINE

Product code	End connector
22210004004	¼" female

NOZZLE FILTER

Product code	Mesh	Colour	L mm	Colour
22212791100	100		21.1	White
*22212791000	100	Red	21.1	

* non drop



Nut 11/16" for nozzle
+ **Fan spray nozzle**
+ 1/4" female straight nozzle holder

Nozzles

Conical Spray Nozzles

For round, hollow, wetting pattern and fine spray

Applications:

- Agriculture cooling and humidity control
- Livestock cooling
- Vegetable climate control
- Cowshed disinfection udder
- Aeroponic system

Features & Benefits

- Maintains vital humidity levels that extend product shelf life
- Excellent droplet size
- Wide range of flow rates
- High distribution uniformity and coverage
- Easy setup
- Low maintenance
- Cost efficient

Configuration

- Single outlet
- 2 outlet + needle valve.
- Inlet filter: 150 micron / 100 mesh
- Non-drop filter (0.3 bar)
- ¼" NPT connection

NOZZLES

Technical Data

- Operating pressure range: 2-10 bar
- Recommended filtration: 100 micron / 150 mesh
- Fan angle: 65°, 80°, 105°
- Flow rate range: 0.035-0.817 l/m
- Avarege drop size: 75 micron at 4.0 bar

Product code	Marking	α Angle	L mm	SW	Lit per Min Bar 2	Lit per Min Bar 3	Lit per Min Bar 4	Lit per Min Bar 6	Lit per Min Bar 8	Lit per Min Bar 10	Colour
22210011055	1 105	105°	11.5	14.5	0.058	0.068	0.078	0.098	0.111	0.125	Creme
22210011057	1 105	105°	11.5	14.5	0.058	0.068	0.078	0.098	0.111	0.125	Green
22210016502	1 65	65°	11.5	14.5	0.061	0.074	0.084	0.098	0.110	0.123	Black
22210018001	1 80	80°	11.5	14.5	0.063	0.078	0.092	0.117	0.135	0.153	White
22210018002	1 80	80°	11.5	14.5	0.063	0.078	0.092	0.117	0.135	0.153	Black
22210018011	1 80F	80°	11.5	14.5	0.035	0.042	0.049	0.059	0.067	0.075	Off White
22210018012	1 80F	80°	11.5	14.5	0.035	0.042	0.049	0.059	0.067	0.075	Black
22210028006	3 80	80°	11.5	14.5	0.350	0.430	0.520	0.630	0.723	0.817	Red

Accessories:

1/4" FEMALE 135° NOZZLE HOLDER CAT. NO.

Product code	R1	R2
32210000040	11/16" NC	1/4" NPT

11/16" NUT FOR NOZZLE

Product code	Type
32272900082	11/16" NC

Nut 11/16" for nozzle

+ **Conical spray nozzle**

+ 1/4" female/1/4" male straight nozzle holder

1/4" FEMALE STRAIGHT NOZZLE HOLDER

Product code	R1	R2
32210300042	11/16" NC	1/4" NPT

1/4" MALE STRAIGHT NOZZLE HOLDER

Product code	R1	R2
32212200042	11/16" NC	1/4" NPT

MISTING UNIT MARK 1

Product code	R1	R2	SW1	SW2	SW3	Colour
222729T0101	11/16" NC	1/4" NPT	17.5	16	17.5 mm	White
222729T0102	11/16" NC	1/4" NPT	17.5	16	17.5 mm	Black

Misting Unit Mark 1

+ Nut 11/16" for nozzle

+ **Conical spray nozzle**

NOZZLE FILTER

product code	Mesh	Colour	L mm	Colour
22212791100	100		21.1	White
*22212791000	100	Red	21.1	

* non drop

Nozzles

Conical spray nozzle with 1/8" NPT male thread

Applications:

- Disinfection and hygiene
- Agriculture cooling and humidity control
- Livestock cooling
- Vegetable climate control
- Aeroponic system

Features & Benefits

- Maintains vital humidity levels that extend product shelf life
- Excellent droplet size
- Wide range of flow rates
- High distribution uniformity and coverage
- Easy setup
- Low maintenance
- Cost efficient

Configuration

- Conical spray nozzle with 1/8" NPT male thread
- Non-Drop conical spray nozzles with 1/8" NPT male thread and a non- drop valve - automatic closing mechanism that operates when pressure drops below 0.3 bars.
- Conical spray nozzle with filter 150 micron / 100 mesh

Technical Data

- Provide round hollow wetting pattern and fine spray.
- Operating pressure range: 2-10 bar
- Operating pressure range - Non drop: 3-10 bar
- Recommended filtration: 100 micron / 150 mesh
- Spray angle: 80°, 105°, 120°, 145°
- Flow rate: 0.04 - 0.36 l/m
- Avarege drop size 75 micron at 4.0 bar

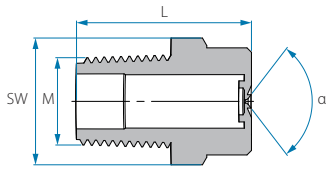
Nozzles

Conical spray nozzle with 1/8" NPT male thread

Conical Spray Nozzle 1/8" NPT

Conical spray nozzle with 1/8" NPT male thread

Product code	Marking	α Angle	Thread Size	L mm	D	Lit per Min Bar 2	Lit per Min Bar 3	Lit per Min Bar 4	Lit per Min Bar 6	Lit per Min Bar 8	Lit per Min Bar 10	Colour
22210211055	21 105	105°	⅛"	20.5	12.5	0.063	0.075	0.086	0.108	0.123	0.138	Creme
22210218008	21 80	80°	⅛"	20	12.5	0.060	0.070	0.080	0.093	0.104	0.115	Blue
22210078001	07 80	80°	⅛"	20.3	12.5	0.043	0.053	0.060	0.069	0.078	0.086	White
22210078002	07 80	80°	⅛"	20.3	12.5	0.043	0.053	0.060	0.069	0.078	0.086	Black
22210078003	07 80	80°	⅛"	20.3	12.5	0.043	0.053	0.060	0.069	0.078	0.086	Grey
22210221202	22 120	120°	⅛"	20.4	12.5	0.108	0.132	0.152	0.190	0.217	0.245	Black
22210078006	07 80F	80°	⅛"	19.8	12.5	0.038	0.047	0.054	0.064	0.073	0.081	Red
22210078011	07 80F	80°	⅛"	19.8	12.5	0.038	0.047	0.054	0.064	0.073	0.081	White
22210078012	07 80F	80°	⅛"	19.8	12.5	0.038	0.047	0.054	0.064	0.073	0.081	Black
22212201458	220 145	145°	⅛"	20.0	12.5	0.171	0.207	0.240	0.280	0.327	0.368	Blue



Non Drop Nozzle 1/8" NPT

Non-drop conical spray nozzles with 1/8" NPT male thread and a non-drop valve

Product code	Marking	Thread Size	α Angle	L mm	Lit per Min Bar 3	Lit per Min Bar 4	Lit per Min Bar 6	Lit per Min Bar 8	Lit per Min Bar 10	Colour
22211211055	21 105	⅛"	105°	20.5	0.072	0.084	0.106	0.123	0.140	Creme
22211211052	21 105	⅛"	105°	20.5	0.072	0.084	0.106	0.123	0.140	Black
22211218008	21 80	⅛"	80°	20	0.06	0.074	0.092	0.108	0.124	Blue
22211078001	07 80	⅛"	80°	20.3	0.046	0.053	0.069	0.081	0.092	White
22211078002	07 80	⅛"	80°	20.3	0.046	0.053	0.069	0.081	0.092	Black
22211078003	07 80	⅛"	80°	20.3	0.046	0.053	0.069	0.081	0.092	Grey
22211221202	22 120	⅛"	80°	20.4	0.120	0.142	0.182	0.213	0.244	Black
22211078006	07 80F	⅛"	80°	19.8	0.040	0.048	0.062	0.073	0.084	Red
22211078011	07 80F	⅛"	80°	19.8	0.040	0.048	0.062	0.073	0.084	White
22211078012	07 80F	⅛"	80°	19.8	0.040	0.048	0.062	0.073	0.084	Black
22212211458	220 145	⅛"	145°	20.0	0.168	0.205	0.257	0.313	0.360	Blue

Conical Spray Nozzle 1/8" NPT with Filter

Conical spray nozzle with filter

Product code	Marking	Thread Size	α Angle	L mm	Lit per Min Bar 2	Lit per Min Bar 3	Lit per Min Bar 4	Lit per Min Bar 6	Lit per Min Bar 8	Lit per Min Bar 10	Colour
22219211055	21 105	⅛"	105º	15	0.060	0.070	0.080	0.093	0.104	0.115	Creme
22219218008	21 80	⅛"	80º	15	0.060	0.070	0.080	0.093	0.104	0.115	Blue
22219078001	07 80	⅛"	80º	15	0.041	0.05	0.057	0.066	0.074	0.083	White
22219078002	07 80	⅛"	80º	15	0.041	0.05	0.057	0.066	0.074	0.083	Black
22219078003	07 80	⅛"	80º	15	0.043	0.053	0.060	0.069	0.078	0.086	Grey
22219221202	22 120	⅛"	120º	15	0.103	0.124	0.149	0.171	0.194	0.216	Black
22219078006	07 80F	⅛"	80º	15	0.040	0.046	0.053	0.061	0.068	0.075	Red
22219078012	07 80F	⅛"	80º	15	0.040	0.046	0.053	0.061	0.068	0.075	Black

Accessories:

HIGH FLOW NOZZLE

Product code	Marking	α Angle	Thread Size	Lit per Min Bar 2	Lit per Min Bar 3	Lit per Min Bar 4	Lit per Min Bar 6	Colour
22210311055	31 105	105º	⅛"	0.084	0.096	0.118	0.120	Creme
*22219311055	31 105	105º	⅛"	0.080	0.090	0.102	0.110	

* With filter

ACCESSORIES FOR NOZZLES

Product code	Product
38000000054	PVC Protector Cap for Nozzle
37212793200	Cap Strainer 200 mesh

The PVC cap protects the delicate upper nozzle crown from external mechanical damage.

Nozzles

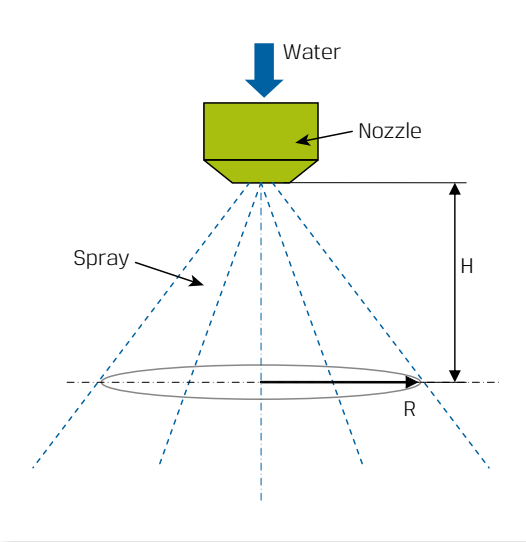
Droplet size measurements

Conical spray nozzle with 1/8" NPT male: Research conducted by the Technion – Israel Institute of Technology on Tefen nozzles provides additional information regarding the droplet size measurement as per velocity, flux and fluid mix.

Measurement methodology

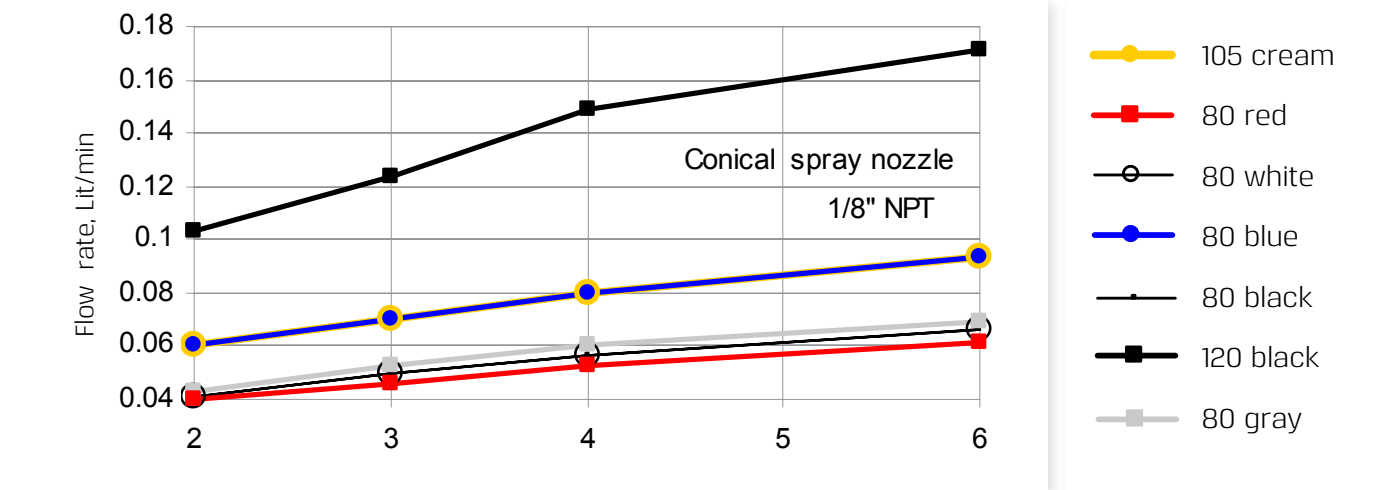
Measurements of vertical spray characteristics were carried out with 75mm downstream at 10mm steps along the perpendicular radius of the spray cone. The spray angle was measured according to the liquid flux distribution and digital photographs.

Nozzle test layout



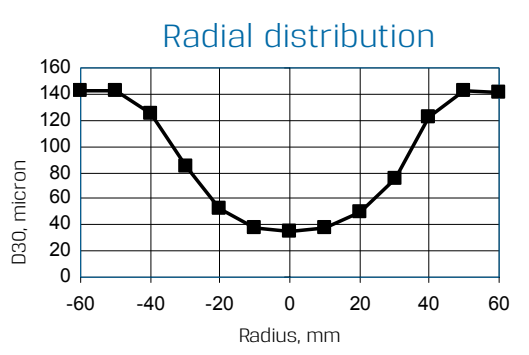
Water flow rate vs. water pressure for different nozzles

(Data from Internet).

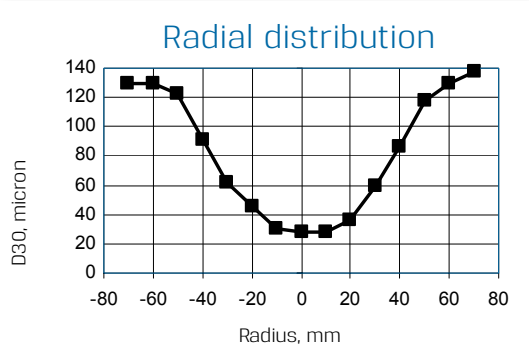


NOZZLES

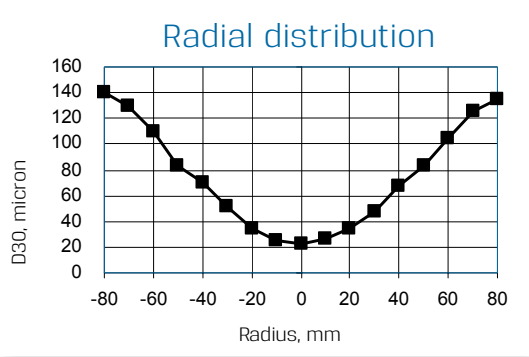
Droplet size measurements for 22210078003



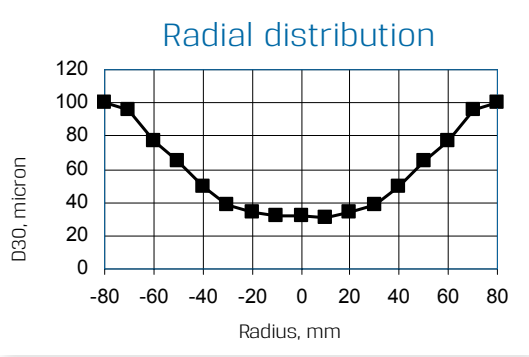
Droplet size measurements for 22210218008



Droplet size measurements for 22210211055



Droplet size measurements for 22211221202



About Tefen

Tefen is a leading company in the field of flow products and dosing pumps. The company produces a high-quality wide range of fittings and complementary flow products and a line of hydraulic and electric proportional dosing pumps for a variety of industries and purposes, such as animal healthcare, disinfection, sanitation, agriculture, and industrial applications.

For more than four decades, we have provided our clients and partners with reliable technologies and products that meet their flow and dosing control challenges. Integrity, quality and excellence are the core values that are the foundation of our products, manufacturing facilities, customer service and work environment.

Tefen's dedication to quality and outstanding customer service has won the confidence of loyal and satisfied customers all over the world. Tefen's products are sold in more than 50 countries through a large network of distributors.

TEFEN
FLOW & DOSING TECHNOLOGIES

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