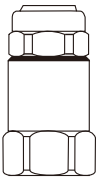
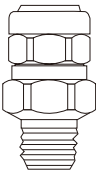
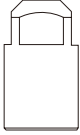
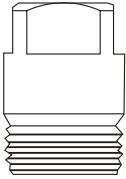


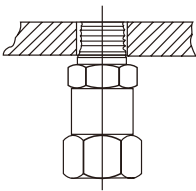
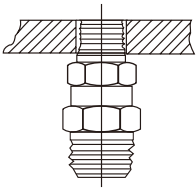
FULL CONE NOZZLES

STANDARD SPRAY

DIMENSIONS AND WEIGHTS

Standard	Nozzle Type	Inlet Conn. (in.)	Length (mm)	Dia. (mm)	Hex. (mm)	Net Weight (kg)
	NPG (F)	1/8	31	-	14.3	.03
		1/4	37.5	-	17.5	.04
		3/8	46	-	20.6	.07
		1/2	57	-	25.4	.17
	NPGG (M)	1/8	32.5	-	14.3	.02
		1/4	39.5	-	17.5	.04
		3/8	47	-	20.6	.07
		1/2	56.5	-	25.4	.17
	NPH Bar Stock (F)	3/4	55.5	32	-	.21
		1	70	38	-	.37
	NPHH (M)	1/8	22.2	12.7dia.	-	.03
		1/4	23	14 dia.	-	.01
		3/8	30	17 dia.	-	.03
		1/2	35	21 dia.	-	.04
		3/4	40.5	27	-	.10
		1	53	33	-	.20

Based on largest/heaviest version of each type.

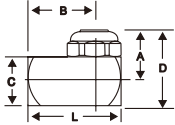
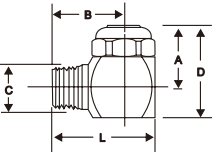
Wall-Mounted	Nozzle Type	Inlet Conn. (in.)	Length (mm)	Dia. (mm)	Hex. (mm)	Net Weight (kg)
	NPGD (F)	1/8	35.5	-	14.3	.03
		1/4	41	-	17.5	.04
		3/8	46	-	20.6	.07
		1/2	56	-	25.4	.13
	NPGGD (M)	1/8	37	-	14.3	.03
		1/4	43.5	-	17.5	.04
		3/8	47	-	20.6	.07
		1/2	55	-	25.4	.13

Based on largest/heaviest version of each type.

FULL CONE NOZZLES

STANDARD SPRAY

DIMENSIONS AND WEIGHTS

Standard	Nozzle Type	Inlet Conn. (in.)	A (mm)	B (mm)	C (mm)	D (mm)	L (mm)	Net Weight (kg)
	NPFGA (F)	1/8	17.5	16	14.3	24.5	23	.04
		1/4	22	20	17.5	31	29.5	.06
		3/8	25.5	22	20.6	36.5	32.5	.09
		1/2	39	27	25.4	51.5	40	.18
	NPMGA (M)	1/8	17.5	16.5	14.3	24.5	24	.04
		1/4	22	20.5	17.5	32	29.5	.06
		3/8	25.5	23	20.6	36.5	33.5	.09
		1/2	39	28.5	25.4	51.5	41.5	.18

Based on largest/heaviest version of each type.

MATERIALS

Material	Material Code	Nozzle Type							
		NPG	NPGG	NPH	NPHH	NPGD	NPGGD	NPFGA	NPMGA

Bar Stock:

Brass	(none)	•	•	•	•	•	•	•	•
Mild Steel	I	•	•	•	•	•	•	•	•
303 Stainless Steel	SS	•	•	•	•	•	•	•	•
316 Stainless Steel	316SS	•	•	•	•				
Polypropylene†	PP			•					
Polyvinyl Chloride	PVC	•	•	•	•				

Polypropylene is only available for H with 1-1/2" and 2" inlet connections.

STANDARD FULL
CONE NOZZLES

FULL CONE NOZZLES

SQUARE SPRAY



■ FEATURES AND BENEFITS

- Shape of a full cone spray, spray coverage a square, at 0.5 bar pressure, spray angle of 40 ° to 105 °.
- Unique vane design and large flow channels ensure excellent spray performance (in a wide range of pressure and flow rate).
- During the entire spray area, spray distribution, wide flow range available.
- For the occasion requires a rectangular spray, has good flow distribution overlap.

【 NPG-SQ 】



Removable cap and vane
1/8" to 1/2" NPT
or BSPT (F)

【 NPGG-SQ 】



Removable cap and vane
1/8" to 1/2" NPT
or BSPT (M)

【 NPH-SQ 】



One-piece body
1" NPT or BSPT (F)

【 NPHH-SQ 】



One-piece body
1/8" to 3/4" NPT
or BSPT (M)

■ TYPICAL APPLICATION

- | | |
|---------------------------------|-----------------------------|
| • Gas Conditioning | • Liquid cleaning |
| • Cooling / Quenching | • Product washing / Rinsing |
| • Dust control | • Scrubber |
| • Fire suppression / Prevention | • Etching / Developing |

FULL CONE NOZZLES

SQUARE SPRAY

PERFORMANCE DATA

*At the stated pressure in bar.

Inlet Conn. (in.)	Nozzle Type				Capacity Size	Orifice Dia. Nom. (mm)	Max. Free Passage Dia. (mm)	Capacity (liters per minute)*										Spray Angle (°)*		
	NPG SQ	NPGG -SQ	NPHH SQ	NPH SQ				0.4	0.5	0.7	1.5	2	3	4	6	7	10	0.5	1.5	6
1/8	•	•	•		3.6SQ	1.6	1.3	1.0	1.1	1.3	1.8	2.1	2.6	3.0	3.6	3.9	4.6	40	52	47
	•	•	•		4.8SQ	1.9	1.3	1.3	1.5	1.7	2.5	2.9	3.5	4.0	4.8	5.2	6.1	48	63	57
	•	•	•		6SQ	2.4	1.3	1.7	1.9	2.2	3.1	3.6	4.4	5.0	6.0	6.5	7.7	60	66	60
1/4	•	•	•		10SQ	2.8	1.6	2.8	3.2	3.7	5.3	6.1	7.3	8.4	10.1	10.9	12.9	62	67	61
	•	•	•		12SQ	3.2	1.6	3.4	3.8	4.5	6.4	7.3	8.8	10.1	12.2	13.1	15.4	70	75	68
			•		14.5SQ	3.9	1.6	4.2	4.6	5.4	7.7	8.9	10.7	12.2	14.7	15.8	18.7	78	82	75
3/8	•	•	•		18SQ	4.0	2.4	5.2	5.8	6.8	9.6	11.0	13.3	15.2	18.3	19.7	22.9	71	75	68
1/2	•	•	•		29SQ	5.6	3.2	8.4	9.4	11.0	15.6	17.8	21.9	24.9	29.9	31.9	37.9	71	75	68
			•		36SQ	6.4	3.2	10.5	11.7	13.6	19.4	21.9	26.9	30.9	36.9	39.9	46.9	78	82	75
3/4			•		50SQ	6.7	4.4	14.6	16.2	19.0	26.9	30.9	36.9	41.9	50.9	54.9	64.9	71	75	68
1			•	•	106SQ	9.9	5.6	30.9	34.9	39.	56.9	64.9	78.9	89.9	108	116	136	78	80	73
1-1/4			•		177SQ	12.7	6.4	51.9	57.9	66.9	95.9	108	131	149	180	194	228	78	80	73
1-1/2			•		230SQ	14.3	8.7	67.9	74.9	87.9	123	141	170	194	235	252	297	73	77	70
2			•		290SQ	15.5	11.1	84.9	94.9	110	156	178	215	245	296	318	375	66	70	64
			•		360SQ	17.4	11.1	105	117	136	194	221	267	305	368	395	465	70	74	67
			•		480SQ	21	11.1	140	156	182	259	296	356	407	491	527	621	79	82	74
2-1/2			•		490SQ	19.8	14.3	143	159	186	264	302	364	415	501	538	634	62	67	61
			•		590SQ	22.2	14.3	173	192	224	318	364	438	500	603	648	763	75	78	71
			•		950SQ	28.6	17.5	279	309	361	513	586	706	806	972	1043	1230	81	84	76
5			•		2980SQ	47.6	28.6	877	972	1135	1612	1840	2218	2532	3051	3275	3859	89	91	83
6			•		5690SQ	81.8	44.5	1676	1857	2168	3079	3514	4235	4835	5826	6254	7370	102	105	95

Maximum Free Passage Diameter is the maximum diameter as listed of foreign matter that can pass through the nozzle without clogging.

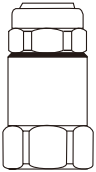
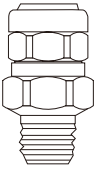
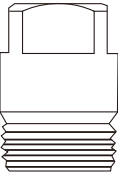
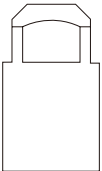
STANDARD FULL
CONE NOZZLES

FULL CONE NOZZLES

SQUARE SPRAY

STANDARD FULL
CONE NOZZLES

DIMENSIONS AND WEIGHTS

Standard	Nozzle Type	Inlet Conn. (in.)	Length (mm)	Dia. (mm)	Net Weight (kg)
	NPG-SQ (F)	1/8	31	14.3 hex.	.03
		1/4	37.5	17.5 hex.	.04
	NPGG-SQ (M)	1/8	32.5	14.3 hex.	.02
		1/4	40	17.5 hex.	.04
	NPHH-SQ (M)	1/8	22.5	13	.01
		1/4	23	13.5	.01
		3/8	30	16.5	.03
		1/2	35	20.5	.04
		3/4	40.5	27	.10
	NPH-SQ Bar Stock (F)	1	68	38	.37

Based on largest/heaviest version of each type.

MATERIALS

Material	Material Code	Nozzle Type			
		NPG-SQ	NPGG-SQ	NPHH-SQ	NPH-SQ

Bar Stock:

Brass	(none)	•	•	•	•
303 Stainless Steel	SS	•	•	•	•
316 Stainless Steel	316SS	•	•	•	•
Polyvinyl Chloride	PVC	•	•	•	

Other materials available upon request.

ORDERING INFO

Standard Nozzles				
1/4	NPG	-	SS	10SQ
I	I		I	I
Inlet Conn.	Body Type		Material Code	Capacity Size

BSPT connections require the addition of a “B” prior to the nozzle body inlet connection.

FULL CONE NOZZLES

NARROW ANGLE SPRAY 15°/30°



■ FEATURES AND BENEFITS

- Narrow angle full cone shape spray pattern with round impact area and spray angles of 15° and 30° at 3 bar.
- Under the same conditions, this nozzle type can produce higher impact force in unit area than the wide-angle nozzles, especially for high-pressure washing.
- Unique vane design and large flow channels ensure excellent control and uniform spray distribution.
- Various materials available.

【 NPG-15 】



Removable cap and vane
1/8" to 1/2" NPT or BSPT (F)

【 NPGG-15 】



Removable cap and vane
1/8" to 1/2" NPT or BSPT (M)

【 NPG-30 】



Removable cap and vane
1/8" to 3/4" NPT or BSPT (F)

【 NPGG-30 】



Removable cap and vane
1/8" to 3/4" NPT or BSPT (M)

【 NPGG-15 】



One-piece body
Removable vane
3/4" to 3" NPT or BSPT (F)

【 NPG-30 】



One-piece body
Removable vane
1" to 2-1/2" NPT or BSPT (M)

■ TYPICAL APPLICATION

- Cleaning and washing that requires deep penetration and / or spray induced turbulence
- Desuperheating of steam
- Cooling and cleaning inside of ducts and pipes
- Pressure washing

FULL CONE NOZZLES

NARROW ANGLE SPRAY 15°/30°

PERFORMANCE DATA

*At the stated pressure in bar.

Inlet Conn. (in.)	Nozzle Type			Capacity Size	Orifice Dia. Nom. (mm)	Capacity (liters per minute)*											Spray Angle (°)*		
	NPG-15	NPGG-15	NPH-15			0.7	1.5	2	3	4	6	7	10	15	20	0.7	3	7	
1/8	●	●		1507	1.6	1.2	1.9	2.2	2.7	3.1	3.8	4.1	4.9	6.1	7.0	13	15	15	
	●	●		1514	2.4	2.6	3.8	4.4	5.4	6.3	7.7	8.3	10.0	12.3	14.2	13	15	15	
1/4	●	●		1530	3.2	5.6	8.3	9.6	11.7	13.6	16.7	18.0	21.9	25.9	30.9	13	15	15	
3/8	●	●		1550	4.4	9.4	13.9	16.0	19.6	22.9	27.9	29.9	35.9	43.9	50.9	13	15	15	
1/2	●	●		1590	5.6	17.1	24.9	28.9	35.9	40.9	49.9	53.9	64.9	78.9	91.9	13	15	15	
3/4			●	15150	7.5	28.9	41.9	47.9	58.9	67.9	83.9	89.9	107	131	152	13	15	15	
1			●	15280	9.9	52.9	77.9	89.9	110	127	155	168	201	246	284	13	15	15	
1-1/4			●	15430	12.3	81.9	119	138	169	195	239	258	309	379	437	14	15	15	
1-1/2			●	15630	15.1	119	175	202	248	287	351	380	454	556	642	14	15	15	
2			●	151150	20.2	218	320	370	453	523	641	693	828	1014	1171	14	15	15	
2-1/2			●	151750	24.6	333	488	563	690	797	976	1054	1260	1544	1783	14	15	15	
3			●	152500	29.4	476	697	805	986	1139	1395	1507	1801	2206	2547	14	15	15	
4			●	154500	39.7	857	1255	1450	1776	2050	2512	2713	3243	3972	4586	14	15	15	
5			●	157000	48.8	1334	1953	2256	2763	3190	3907	4221	5045	6179	7135	14	15	15	

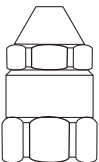
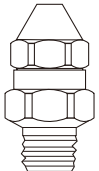
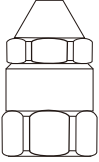
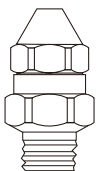
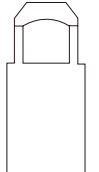
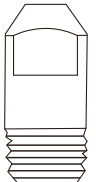
*At the stated pressure in bar.

Inlet Conn. (in.)	Nozzle Type			Capacity Size	Orifice Dia. Nom. (mm)	Capacity (liters per minute)*										Spray Angle (°)*		
	NPG-30	NPGG-30	NPHH-30			1	1.5	2	3	4	6	7	10	15	20	1	3	7
1/8	●	●		3001.4	.79	.31	.38	.44	.54	.63	.77	.83	.9	1.1	1.3	17	30	31
	●	●		3002.5	.79	.56	.69	.80	.98	1.0	1.3	1.4	1.7	2.1	2.4	17	30	32
	●	●		3004	1.2	.90	1.0	1.2	1.5	1.7	2.1	2.3	2.8	3.4	4.0	26	30	32
	●	●		3007	1.6	1.5	1.9	2.2	2.7	3.1	3.8	4.1	4.9	6.1	7.0	23	30	30
1/4	●	●		3009	2.0	2.0	2.4	2.8	3.5	4.0	4.9	5.3	6.4	7.8	9.1	23	30	30
3/8	●	●		3014	2.4	3.1	3.8	4.4	5.4	6.3	7.7	8.3	10.0	12.3	14.2	25	30	30
1/2	●	●		3030	3.2	6.7	8.3	9.6	11.7	13.6	16.7	18.0	21.9	25.9	30.9	26	30	31
3/4	●	●		3050	4.4	11.3	13.9	16.0	19.6	22.9	27.9	29.9	35.9	43.9	50.9	26	30	31
1			●	3070	5.2	15.9	19.4	22.9	27.9	31.9	38.9	41.9	49.9	61.9	70.9	27	30	30
			●	30100	6.4	22.9	27.9	31.9	38.9	45.9	55.9	59.9	71.9	87.9	101.9	27	30	30
1-1/4			●	30150	7.5	33.9	41.9	47.9	58.9	67.9	83.9	89.9	107	131	152	27	30	30
			●	30200	8.7	45.5	55.5	63.5	78.5	90.5	111	120	143	176	203	27	30	30
1-1/2			●	30250	9.5	56.5	69.5	80.5	98.5	113	139	150	179	220	254	27	30	30
			●	30300	10.3	67.5	83.5	96.5	117	136	167	180	215	264	305	27	30	30
2			●	30350	11.1	79.5	97	112	137	159	194	210	251	308	356	28	30	30
			●	30400	11.9	90.5	111	128	157	181	222	240	287	352	407	28	30	30
			●	30500	13.5	113	139	160	196	227	278	301	359	440	509	28	30	30
2-1/2			●	30600	14.7	136	167	192	236	273	334	361	431	529	611	28	30	30
			●	30700	15.9	159	194	225	275	318	390	421	504	617	713	28	30	30
			●	301000	19.1	227	278	321	394	455	557	602	720	882	1018	28	30	30
			●	301100	19.8	250	306	354	433	500	613	662	792	970	1120	28	30	30
			●	301200	20.6	273	334	386	473	546	669	723	864	1058	1222	28	30	30

FULL CONE NOZZLES

NARROW ANGLE SPRAY 15°/30°

DIMENSIONS AND WEIGHTS

Standard	Nozzle Type	Inlet Conn. (in.)	Length (mm)	Dia. (mm)	Hex. (mm)	Net Weight (kg)
	NPG-15 (F)	1/8	35.5	-	17.5	.06
		1/4	43	-	20.6	.09
		3/8	54	-	25.4	.17
		1/2	66.5	-	31.8	.31
	NPGG-15 (M)	1/8	39	-	17.5	.06
		1/4	45	-	20.6	.09
		3/8	55.5	-	25.4	.17
		1/2	70	-	31.8	.31
	NPG-30 (F)	1/8	35.5	-	17.5	.06
		1/4	43	-	20.6	.09
		3/8	54	-	25.4	.17
		1/2	66.5	-	31.8	.31
		3/4	84	-	38.1	.57
	NPGG-30 (M)	1/8	39	-	17.5	.06
		1/4	45	-	20.6	.09
		3/8	55.5	-	25.4	.17
		1/2	70	-	31.8	.31
		3/4	87.5	-	38.1	.57
	NPH-15 Bar Stock (F)	3/4	72	32	-	.43
		1	92	38	-	.57
		1-1/4	117	47.5	-	1.14
	NPHH-30 (M)	1	92	33.5	-	.57
		1-1/4	127	43	-	1
		1-1/2	155	47.5	-	1.5
		2	200	60.5	-	3.4
		2-1/2	264	73	-	5.5

Based on largest/heaviest version of each type.

MATERIALS

Material	Material Code	Nozzle Type					
		NPG 15	NPGG 15	NPG 30	NPGG 30	NPH 15	NPHH 30

Bar Stock:

Brass	(none)	•	•	•	•	•	
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303 Stainless Steel

SS	•	•	•	•	•	•	•
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Cast:

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Brass

(none)			•	•	•	•	
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316 Stainless Steel/303 Caps

316SS			•	•	•	•	
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Other materials available upon request.

ORDERING INFO

Standard Nozzles				
3/8	NPG	-	SS	1550
Inlet Conn.	Body Type		Material Code	Capacity Size
3/4	NPGG	-	SS	3050
Inlet Conn.	Body Type		Material Code	Capacity Size

BSPT connections require the addition of a "B" prior to the nozzle body inlet connection.

STANDARD FULL
CONE NOZZLES

FULL CONE NOZZLES

WIDE ANGLE SPRAY



■ FEATURES AND BENEFITS

- Wide-angle full cone-shaped spray pattern with round impact area and spray angles from 120° to 125° at 0.7 bar.
- Unique vane design with large flow passages provides superior control and uniform distribution.
- Removable caps and vanes for easy inspection and cleaning on most models.
- Removable vane has location marks for proper positioning after cleaning.
- Set screw secures vane in the nozzle to ensure it is not dislodged by vibration.
- For installations with space limitations, right-angle mounting options allow for mounting at a 90° angle.

【 NPG-W 】



Three-piece construction
(body/cap/vane)
Removable cap and vane
1/8" to 1/2" NPT or BSPT (F)

【 NPGG-W 】



Three-piece construction
(body/cap/vane)
Removable cap and vane
1/8" to 1/2" NPT or BSPT (M)

【 NPFGA-W 】



Angle type
Removable cap and vane
1/8" to 1/2" NPT or BSPT (F)

【 NPMGA-W 】



Corner type
Removable cap and vane
1/8" to 1/2" NPT or BSPT (M)

【 NPH-W 】



Integrate body
3/4" to 1" NPT or BSPT (F)

【 NPHH-W 】



Integrate body
1/8" to 1-1/2" NPT or
BSPT (M)

FULL CONE NOZZLES

WIDE ANGLE SPRAY

MATERIALS

Material	Material Code	Nozzle Type					
		NPG-W	NPGG-W	NPFGA-W	NPMGA-W	NPHH-W	NPH-W
Bar Stock:							
Brass	(none)	●	●	●	●	●	●
303 Stainless Steel	SS	●	●	●	●	●	●
316 Stainless Steel	316SS	●	●	●	●	●	●
Polypropylene†	PP						●
Polyvinyl Chloride	PVC	●	●			●	

Polypropylene is only available for NPH with 1-1/2" and 2" inlet connections

ORDERING INFO

Standard Nozzles				
1/4	NPG	-	SS	12W
Inlet Conn.	Body Type		Material Code	Capacity Size

BSPT connections require the addition of a "B" prior to the nozzle body inlet connection.

TYPICAL APPLICATION

- Cooling of primary metals and other materials
- Gas Conditioning
- Gas scrubbing, washing, cooling
- Washing / Cleaning
- Dust control

STANDARD FULL CONE NOZZLES



FULL CONE NOZZLES

WIDE ANGLE SPRAY

PERFORMANCE DATA

*At the stated pressure in bar.

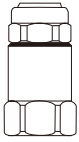
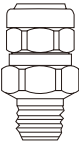
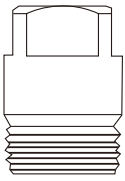
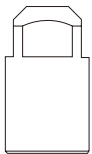
Inlet Conn. (in.)	Nozzle Type						Capacity Size	Orifice Dia. Nom. (mm)	Max. Free Passage Dia. (mm)	Capacity (liters per minute)*										Spray Angle (°)*		
	Standard Type				Angle					0.4	0.5	0.7	1	1.5	2	3	4	6	0.4	0.7	6	
	NPG W	NPGG W	NPHH W	NPH W	NPFGA W	NPMGA W																
1/8	•	•					1.5W	1.2	.64	-	-	.56	.66	.80	.92	1.0	1.2	1.4	-	120	86	
	•	•	•				2.8W	1.6	1.0	-	-	1.0	1.2	1.4	1.6	2.0	2.3	2.8	-	120	102	
	•	•	•		•	•	4.3W	2.0	1.0	-	-	1.5	1.8	2.2	2.6	3.1	3.6	4.3	-	120	102	
	•	•					5.6W	2.4	1.0	-	1.7	2.0	2.4	2.9	3.4	4.1	4.7	5.6	-	120	102	
	•	•	•		•	•	8W	2.4	1.3	-	2.5	2.9	3.5	4.2	4.8	5.9	6.7	8.1	-	120	103	
1/4	•	•					10W	2.8	1.3	2.8	3.2	3.7	4.4	5.3	6.1	7.3	8.4	10.1	112	120	103	
	•	•					12W	3.2	1.3	3.4	3.8	4.5	5.3	6.4	7.3	8.8	10.1	12.2	114	120	103	
	•	•	•		•	•	14W	3.6	1.6	4.0	4.5	5.2	6.2	7.5	8.5	10.3	11.8	14.2	114	120	103	
3/8	•	•	•				17W	4.0	1.6	4.9	5.5	6.4	7.5	9.1	10.4	12.6	14.5	17.3	114	120	103	
	•	•	•		•	•	20W	4.4	2.4	5.8	6.4	7.5	8.9	10.7	12.3	14.8	16.9	19.9	114	120	104	
	•	•	•				24W	4.8	2.4	7.0	7.7	9.0	10.7	12.9	14.7	17.9	19.9	24.9	114	120	104	
	•	•	•				27W	5.2	2.8	7.9	8.7	10.2	12.0	14.5	16.6	19.9	22.9	27.9	114	120	106	
1/2	•	•	•				30W	5.6	2.8	8.8	9.7	11.3	13.4	16.1	18.4	21.9	24.9	30.9	114	120	108	
	•	•	•		•	•	35W	6.0	3.2	10.2	11.3	13.2	15.6	18.8	21.9	25.9	29.9	35.9	114	120	108	
	•	•	•				40W	6.4	3.2	11.7	13.0	15.1	17.9	21.9	24.9	29.9	33.9	40.9	114	120	108	
	•	•	•				45W	6.4	3.6	13.2	14.6	17.1	19.9	23.9	27.9	33.9	37.9	45.9	114	120	110	
	•	•	•		•	•	50W	6.7	4.0	14.6	16.2	19.0	21.9	26.9	30.9	36.9	41.9	50.9	114	120	112	
3/4			•	•			6W	9.9	4.4	20.9	22.9	26.9	30.9	36.9	41.9	50.9	57.9	68.9	115	120	112	
1			•	•			11W	13.1	5.6	37.9	41.9	48.9	56.9	68.9	77.9	92.9	105	125	117	120	117	
1-1/4			•	•			16W	15.5	6.4	55.9	60.9	70.9	82.9	99.9	112	134	153	183	118	121	119	
1-1/2			•	•			24W	18.3	10.3	83.9	91.9	106	124	149	169	202	229	274	119	124	119	
2				•			47W	25.0	11.1	163	180	209	244	292	332	397	450	538	120	124	119	
2-1/2				•			70W	31.8	14.3	243	268	311	364	435	494	591	671	802	120	125	119	
3				•			95W	34.9	17.5	330	364	423	495	591	671	802	911	1089	120	125	119	
4				•			188W	50.8	20.6	654	722	837	980	1171	1329	1589	1804	2156	120	125	119	

Maximum Free Passage Diameter is the maximum diameter as listed of foreign matter that can pass through the nozzle without clogging.

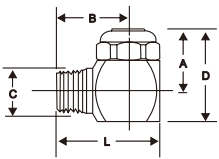
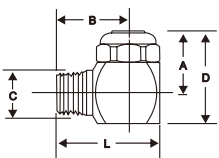
FULL CONE NOZZLES

WIDE ANGLE SPRAY

DIMENSIONS AND WEIGHTS

Standard	Nozzle Type	Inlet Conn. (in.)	Length (mm)	Dia. (mm)	Hex. (mm)	Net Weight (kg)
	NPG-W (F)	1/8	31	-	14.3	.03
		1/4	37.5	-	17.5	.04
		3/8	46	-	20.6	.07
		1/2	57	-	25.4	.17
	NPGG-W (M)	1/8	32.5	-	14.3	.02
		1/4	39.5	-	17.5	.04
		3/8	47	-	20.6	.07
		1/2	56.5	-	25.4	.17
	NPHH-W (M)	1/8	17.5	13	-	.01
		1/4	23	14	-	.01
		3/8	24	17	-	.03
		1/2	35	21	-	.04
		3/4	40.5	27	-	.10
		1	53	33	-	.20
		1-1/4	69.8	42.9	-	.41
		1-1/2	82.6	50.8	-	.57
	NPH-W Bar Stock (F)	3/4	55.5	32	-	.21
		1	70	38	-	.37

STANDARD FULL
CONE NOZZLES

Standard	Nozzle Type	Inlet Conn. (in.)	A (mm)	B (mm)	C (mm)	D (mm)	L (mm)	Net Weight (kg)
	NPFGA-W (F)	1/8	17.5	15.9	14.3	24.6	23	.04
		1/4	22.2	19.8	17.5	31	29.5	.06
		3/8	25.4	22.2	20.6	36.5	32.5	.09
		1/2	38.9	27	25.4	51.6	40	.18
	NPMGA-W (M)	1/8	17.5	16.7	14.3	24.6	24	.04
		1/4	22.2	20.6	17.5	31.8	29.5	.06
		3/8	25.4	23	20.6	36.5	33.5	.09
		1/2	38.9	28.6	25.4	51.6	41.5	.18