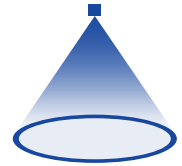


Tangential-flow hollow cone nozzles, stainless steel/brass version Series 302



Features:

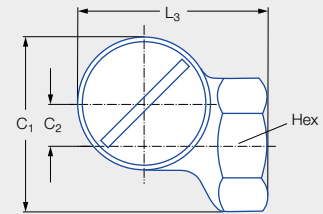
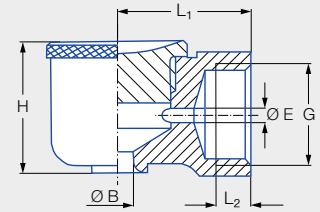
- Uniform atomization
- Clog-resistant nozzle without swirl insert

Applications:

- Humidification
- Dust control
- Sprinkling
- Foam control
- Adiabatic cooling



Series 302



G	Dimensions [in]							Weight [lb] (Brass)
	C ₁	C ₂	H	L ₁	L ₂	L ₃	Hex (mm)	
3/8 BSPP	1.34	0.31	0.91	0.91	0.26	1.42	22	0.20

Spray angle	Ordering number				Bore diameter B [in]	Narrowest free cross section Ø [in]	V̇ water [gal/min]								Spray diameter D [mm] (at p = 30 psi)	
	Type	Mat. no.		C onn.			p [psi]								H = 10 [in]	H = 20 [in]
		1Y	30													
		Stainless steel 316L	Brass				Female BSPP 3/8"									
10	15	30	Liters per min. 2 bar	45	75	100	145	H = 10 [in]	H = 20 [in]							
60°	302.364		●	00	0.06	0.06	0.10	0.12	0.17	0.63	0.21	0.27	0.31	0.37	11	17
	302.464	●	●	00	0.08	0.08	0.22	0.27	0.38	1.40	0.46	0.59	0.69	0.83	11	18
80°	302.545	●	●	00	0.19	0.09	0.35	0.43	0.60	2.24	0.74	0.95	1.10	1.32	14	26
90°	302.606	●	●	00	0.18	0.16	0.49	0.60	0.85	3.15	1.04	1.34	1.55	1.86	19	32
130°	302.368	●	●	00	0.12	0.04	0.10	0.12	0.17	0.63	0.21	0.27	0.31	0.37	26	43
	302.468	●	●	00	0.20	0.07	0.22	0.27	0.38	1.40	0.46	0.59	0.69	0.83	32	54
	302.548		●	00	0.20	0.10	0.35	0.43	0.60	2.24	0.74	0.95	1.10	1.32	38	65
	302.608	●	●	00	0.20	0.14	0.49	0.60	0.85	3.15	1.04	1.34	1.55	1.86	42	71
	302.668		●	00	0.30	0.14	0.70	0.85	1.21	4.50	1.48	1.91	2.21	2.66	44	77
	302.748	●	●	00	0.30	0.19	1.10	1.35	1.91	7.10	2.34	3.02	3.48	4.19	46	85

Available in NPT with adapter add-on.

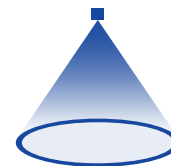
Conversion formula for this series: $\dot{V}_2 = \dot{V}_1 \cdot \sqrt{\frac{p_2}{p_1}}$

Ordering Type + Material no. + Code = Ordering no.
 example: 302.364 + 30 + 00 = 302.364.30.00



Assembly accessories can be found in Chapter 12
 "Accessories".

Tangential-flow hollow cone nozzles, plastic version Series 302

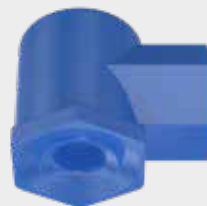


Features:

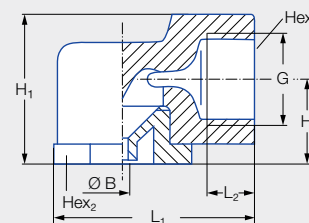
- Uniform atomization
- Clog resistant nozzle without swirl insert

Applications:

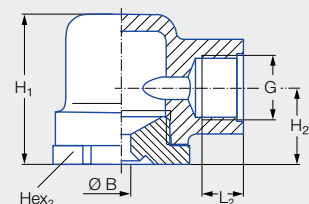
- Humidification
- Dust control
- Sprinkling
- Foam control
- Adiabatic cooling



Series 302



Type 302.32x-302.48x

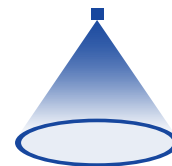


Type 302.52x-302.96x

Type	G	Dimensions [in]						Weight [lb]	P _{max} [psi]
		H ₁	H ₂	L ₁	L ₂	Hex ₁ (mm)	Hex ₂ (mm)		
302.32x-302.48x	3/8 NPT/BSPP	1.08	0.65	1.71	0.39	22	22	0.03	75
302.52x-302.96x	3/8 NPT/BSPP	1.34	0.73	1.46	0.39	22	22	0.04	75

Spray angle	Ordering number						Bore diameter B [in]	Narrowest free cross section Ø [in]	V̇ water [gal/min]						Spray diameter D [in] (at p = 30 psi)	
	Type	Mat. no.			Connection				p [psi]							
		51	5E	53	Female											
		PA	PVDF	PC	3/8" NPT	3/8" BSPP									H = 10 [in]	H = 20 [in]
10	15	30	Liters per min. 2 bar	45	75											
60°	302.364	●		●	-	00	0.05	0.05	0.10	0.12	0.17	0.63	0.21	0.27	13	24
	302.464	●		●	-	00	0.08	0.08	0.22	0.27	0.38	1.40	0.46	0.59	13	24
90°	302.326	●	●		-	00	0.04	0.04	0.06	0.08	0.11	0.40	0.13	0.17	19	30
	302.366	●	●		-	00	0.05	0.05	0.10	0.12	0.17	0.63	0.21	0.27	19	31
	302.406	●	●		-	00	0.06	0.06	0.16	0.19	0.27	1.00	0.33	0.42	19	32
	302.486	●		●	-	00	0.08	0.08	0.25	0.30	0.43	1.60	0.53	0.68	20	33
	302.526	●		●	BF	00	0.20	0.08	0.31	0.38	0.54	2.00	0.66	0.85	20	34
	302.566	●		●	-	00	0.20	0.09	0.39	0.47	0.67	2.50	0.82	1.06	20	35
	302.606	●		●	BF	00	0.20	0.13	0.49	0.60	0.85	3.15	1.04	1.34	21	37
	302.686	●			BF	00	0.30	0.13	0.78	0.95	1.34	5.00	1.65	2.12	21	40
	302.766	●			BF	00	0.35	0.17	1.24	1.52	2.15	8.00	2.63	3.40	21	41
	302.846	●		●	BF	00	0.43	0.20	1.94	2.37	3.36	12.50	4.11	5.31	21	41
	302.886	●	●	●	BF	00	0.43	0.25	2.48	3.04	4.30	16.00	5.26	6.80	21	41
	302.966	●			BF	00	0.43	0.34	3.88	4.75	6.72	25.00	8.23	10.62	21	41





Spray angle	Ordering number						Bore diameter B [in]	Narrowest free cross section Ø [in]	V̇ water [gal/min]						Spray diameter D [in] (at p = 30 psi)	
	Type	Mat. no.			Connection				10	15	30	Liters per min. 2 bar	45	75	H = 10 [in]	H = 20 [in]
		51	5E	53	Female											
		PA	PVDF	PP	3/8" NPT	3/8" BSPP										
130°	302.328		●			00	0.05	0.03	0.06	0.08	0.11	0.40	0.13	0.17	25	37
	302.368	●	●			00	0.07	0.04	0.10	0.12	0.17	0.63	0.21	0.27	26	40
	302.408	●	●			00	0.14	0.05	0.16	0.19	0.27	1.00	0.33	0.42	27	44
	302.488	●		●		00	0.20	0.06	0.25	0.30	0.43	1.60	0.53	0.68	28	49
	302.528	●			BF	00	0.20	0.08	0.31	0.38	0.54	2.00	0.66	0.85	30	52
	302.568	●				00	0.20	0.09	0.39	0.47	0.67	2.50	0.82	1.06	31	56
	302.608	●	*●	●	BF	00*	0.20	0.13	0.49	0.60	0.85	3.15	1.04	1.34	32	59
	302.648	●			BF	00	0.30	0.12	0.62	0.76	1.07	4.00	1.32	1.70	34	63
	302.688	●			BF	00	0.30	0.13	0.78	0.95	1.34	5.00	1.65	2.12	35	65
	302.728	●			BF	00	0.30	0.16	0.98	1.20	1.69	6.30	2.07	2.68	36	67
	302.768	●			BF	00	0.35	0.17	1.24	1.52	2.15	8.00	2.63	3.40	37	68
	302.848	●			BF	00	0.43	0.20	1.94	2.37	3.36	12.50	4.11	5.31	38	69
	302.888	●		●	BF	00	0.43	0.25	2.48	3.04	4.30	16.00	5.26	6.80	38	70
	302.968	*●	●		BF	00*	0.43	0.34	3.88	4.75	6.72	25.00	8.23	10.62	39	71

* Material only available in BSPP

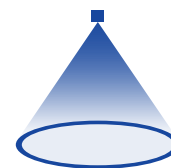
Conversion formula for this series: $\dot{V}_2 = \dot{V}_1 \cdot \sqrt{\frac{p_2}{p_1}}$

Ordering Type + Material no. = Ordering no.
example: 302.328 + 5E = 302.328.5E



Assembly accessories can be found in Chapter 12 "Accessories".

Tangential-flow hollow cone nozzles, plastic version with bayonet quick-release system Series 302



Features:

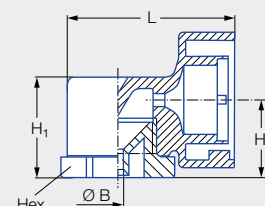
- Uniform atomization
- Clog-resistant nozzle without swirl insert
- Quick and secure assembly thanks to bayonet quick-release system
- Fixed alignment

Applications:

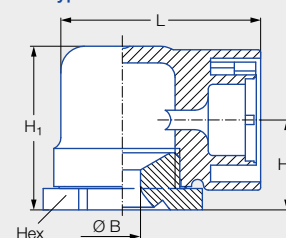
- Humidification
- Dust control
- Sprinkling
- Foam control
- Adiabatic cooling



Series 302



Type 302.32x-302.54x



Type 302.6xx.51.KB

Type	Connection	Dimensions [in]				Weight [lb]	p _{max} [psi]
		H ₁	H ₂	L	Hex (mm)		
302.32x-302.54x	KB	0.86	0.66	1.42	22	0.03	75
302.6xx.51	KB	1.34	0.75	1.65	30	0.04	75

Spray angle	Ordering number				Bore diameter B [in]	Narrowest free cross section Ø [in]	V̇ water [gal/min]						Spray diameter D [in] (at p = 30 psi)	
	Type	Mat. no.		Connection			p [psi]						H = 10 [in]	H = 20 [in]
		51	56											
		PA	POM				Bayonet quick-release system							
							10	15	30	Liters per min. 2 bar	45	75		
45°	302.503	●		KB	0.081	0.081	0.28	0.34	0.48	1.80	0.59	0.76	8	17
60°	302.464		●	KB	0.077	0.077	0.22	0.27	0.38	1.40	0.46	0.59	11	21
80°	302.545		●	KB	0.091	0.091	0.35	0.43	0.60	2.24	0.74	0.95	18	32
90°	302.326	●	●	KB	0.041	0.041	0.06	0.08	0.11	0.40	0.13	0.17	16	28
	302.406	●	●	KB	0.061	0.061	0.16	0.19	0.27	1.00	0.33	0.42	16	29
	302.486	●		KB	0.083	0.083	0.25	0.30	0.43	1.60	0.53	0.68	18	31
	302.606	●		KB	0.197	0.126	0.49	0.60	0.85	3.15	1.04	1.34	21	39
	302.686		●	KB	0.300	0.133	0.78	0.95	1.34	5.00	1.65	2.12	21	40
130°	302.368		●	KB	0.051	0.051	0.10	0.12	0.17	0.63	0.21	0.27	26	43
	302.408	●	●	KB	0.079	0.079	0.16	0.19	0.27	1.00	0.33	0.42	27	47
	302.468	●		KB	0.094	0.094	0.22	0.27	0.38	1.40	0.46	0.59	27	49
	302.488	●		KB	0.108	0.108	0.25	0.30	0.43	1.60	0.53	0.68	28	51

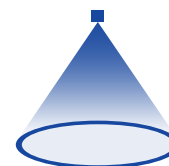
Conversion formula for this series: $\dot{V}_2 = \dot{V}_1 \cdot \sqrt{\frac{p_2}{p_1}}$

Ordering example: 302.503 + 51 + KB = 302.503.51.KB



Assembly accessories can be found in Chapter 12 "Accessories".

Tangential-flow hollow cone nozzles Series 308



Features:

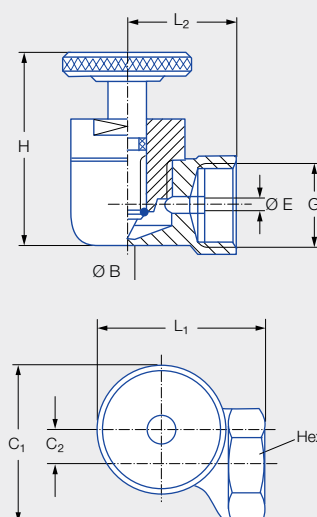
- Uniform atomization
- Clog-resistant nozzle without swirl insert
- Adjustable flow rate

Applications:

- Humidification in air washers
- Dust control
- Spraying onto filters
- Foam control
- Cooling



Series 308



G	Dimensions [in]						Weight [lb]
	C ₁	C ₂	H	L ₁	L ₂	Hex (mm)	
3/8 BSPP	1.34	0.31	1.57	1.42	0.91	22	0.33

Spray angle	Ordering number		Bore diameter B [in]	Narrowest free cross section Ø [in]	V _{max} water [gal/min]							Spray diameter D [in] (at p = 30 psi)	
	Type	Mat. no.			p [psi]								
		30											
		Brass											
					5	10	15	30	Liters per min. 2 bar	75	145	H = 10 [in]	H = 20 [in]
90°	308.466	●	0.08	0.08	0.15	0.22	0.27	0.38	1.40	0.59	0.83	17	33
	308.606	●	0.16	0.16	0.35	0.49	0.60	0.85	3.15	1.34	1.86	18	33

Conversion formula for this series: $\dot{V}_2 = \dot{V}_1 \cdot \sqrt{\frac{p_2}{p_1}}$

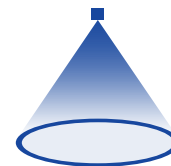
Ordering Type + Material no. = Ordering no.
 example: 308.466 + 30 = 308.466.30



Assembly accessories can be found in Chapter 12 "Accessories".

Tangential-flow hollow cone nozzles

Series 304/306/307



Features:

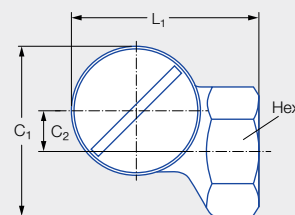
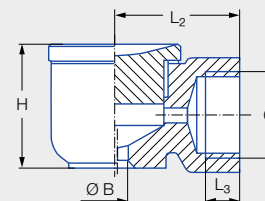
- Uniform atomization
- Clog-resistant nozzle without swirl insert

Applications:

- Storage tank cooling
- Foam control
- Dust control
- Surface treatment
- Absorption



Series 304/306/307



Series	G	Dimensions [in]							Weight [lb] (Brass)
		C ₁	C ₂	H	L ₁	L ₂	L ₃	Hex (mm)	
304	1/2 BSPP	1.69	0.43	1.30	1.81	1.18	0.43	27	0.45
306/307	3/4 BSPP	2.13	0.51	1.69	2.36	1.57	0.51	36	0.90

Spray angle	Ordering number			Bore diameter B [in]	Narrowest free cross section Ø [in]	V̇ water [gal/min]								Spray diameter D [in] (at p = 30 psi)	
	Type	Mat. no.				p [psi]								H = 10 [in]	H = 20 [in]
		1Y	30												
		Stainless steel 316L	Brass												
						5	10	30	Liters per min. 2 bar	45	75	100	145		
90°	304.706	●	●	0.201	0.201	0.61	0.87	1.50	5.60	1.84	2.38	2.75	3.31	20	39
	304.796	●	●	0.350	0.236	1.04	1.47	2.55	9.50	3.13	4.04	4.66	5.61	20	39
	306.906	●	●	0.354	0.354	1.97	2.79	4.84	18.00	5.92	7.65	8.83	10.63	22	41
	306.976	●	●	0.531	0.394	2.91	4.11	7.12	26.50	8.72	11.26	13.00	15.65	22	41
130°	304.818		●	0.472	0.197	1.16	1.64	2.85	10.60	3.49	4.50	5.20	6.26	47	83
	304.898	●	●	0.472	0.276	1.86	2.64	4.57	17.00	5.59	7.22	8.34	10.04	49	87
	306.978		●	0.748	0.287	2.91	4.11	7.12	26.50	8.72	11.26	13.00	15.65	51	93
	307.018	●	●	0.748	0.339	3.67	5.20	9.00	33.50	11.02	14.23	16.43	19.79	51	93

Available in NPT with adaptor add-on.

Conversion formula for this series: $\dot{V}_2 = \dot{V}_1 \cdot \sqrt{\frac{p_2}{p_1}}$

Ordering example: 304.706 + 1Y = 304.706.1Y



Assembly accessories can be found in Chapter 12 "Accessories".