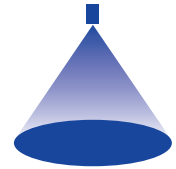


➤ Axial-flow full cone nozzles Series 419 FreeFlow



Features:

- Non clogging due to very large free cross sections
- Very stable spray angle
- Uniform liquid distribution

Applications:

- Cleaning and washing processes
- Dust control
- Absorption
- Distillation

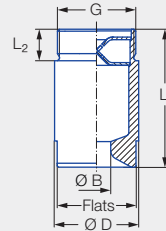


Figure 1

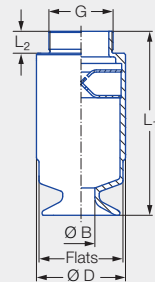



Figure 2

Series 419

Type	Connection	Figure	G	Dimensions [in]				Weight [lb]
				L ₁	L ₂	Ø D	Flats (mm)	
419.3xx	BV	1	2 NPT	4.13	0.94	2.52	60	2.6
419.4xx	BV	2	2 NPT	6.42	0.94	3.15	75	4.4
419.51x	BV	2	2 NPT	7.83	0.94	4.02	95	8.2
419.51x	BY	2	2 1/2 NPT	7.95	1.06	4.02	95	8.4
419.54x	BY	2	2 1/2 NPT	7.95	1.06	4.02	95	8.4
419.57x	BY	2	2 1/2 NPT	9.09	1.06	4.53	105	11.5
419.57x	MA	2	3 NPT	9.17	1.18	4.53	105	11.5
419.6xx	MA	2	3 NPT	9.92	1.18	4.80	115	11.9


Spray angle ¹	Ordering number				Bore diameter B [in]	Narrowest free cross sections Ø [in]	V̇ water gal/min						Spray diameter D [in] (at p = 30 psi)		
	Type	Mat. no.	Connection				p [psi]						 H = 20 [in] H = 40 [in]		
			1Y	2 NPT			2 1/2 NPT	3 NPT	5	7	15	Liters per min. 1 bar			30
									Stainless steel 316L						
90°	419.366	●	BV			0.75	0.69	32.61	37.31	50.60	189	66.77	96.33	47	87
	419.396	●	BV			0.83	0.69	39.17	44.81	60.78	227	80.20	115.70	47	87
	419.446	●	BV			0.94	0.81	52.28	59.81	81.13	303	107.05	154.44	47	87
	419.486	●	BV			1.14	0.81	65.39	74.81	101.48	379	133.90	193.18	47	87
	419.516	●	BV	BY		1.15	0.95	78.50	89.81	121.83	455	160.70	231.92	47	87
	419.546	●		BY		1.30	0.95	92.82	106.20	144.05	538	190.08	274.22	47	87
	419.576	●		BY	MA	1.38	1.07	111.11	127.12	172.43	644	277.52	328.25	47	87
	419.606	●			MA	1.48	1.19	130.78	149.62	202.96	758	267.80	386.36	47	87
419.626	●			MA	1.69	1.19	163.39	186.93	253.56	947	334.57	482.69	47	87	
120°	419.368	●	BV			0.87	0.69	32.61	37.31	50.60	189	66.77	96.33	65	114
	419.398	●	BV			0.95	0.69	39.17	44.81	60.78	227	80.20	115.70	65	114
	419.448	●	BV			0.96	0.81	52.28	59.81	81.13	303	107.05	154.44	65	114
	419.488	●	BV			1.16	0.81	65.39	74.81	101.48	379	133.90	193.18	65	114
	419.518	●	BV	BY		1.15	0.95	78.50	89.81	121.83	455	160.70	231.92	65	114
	419.548	●		BY		1.34	0.95	92.82	106.20	144.05	538	190.08	274.22	65	114
	419.578	●		BY	MA	1.38	1.13	111.11	127.12	172.43	644	277.52	328.25	65	114
	419.608	●			MA	1.50	1.27	130.78	149.62	202.96	758	267.80	386.36	65	114
419.628	●			MA	1.71	1.27	163.39	186.93	253.56	947	334.57	482.69	65	114	

¹ Spray angle at 1 bar.

Also available in metric thread.

Conversion formula for this series: $\dot{V}_2 = \dot{V}_1 \cdot \left(\frac{p_2}{p_1}\right)^{0.4}$
(≤ 10 bar)

Ordering Type + Material no. + Connection = Ordering no.
example: 419.366 + 1Y + BV = 419.366.1Y.BV

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