Metering Orifices

Meter Your Flow with Wilger Orifices

Metering Orifices Provide a Simple, Leak-Free Solution that Eliminates the Need for Additional Components.

- Orifice is Placed into Flow Indicator Outlet Fitting for Easy Access
- Ribs On Bottom of Metering Orifice Prevent Ball from Restricting Flow, Eliminating Need for Ball Retainer
- Orifices Available to Meter Flows Ranging from 0.004 to 8.0 GPM

To select a Metering Orifice from the chart below, follow these steps:

Step 1: Calculate the Flow Rate Required Per Flow Indicator with the following formula:

Flow Rate = Application Rate (US gal/acre) x Speed (mph) x Outlet Spacing (inches) x # of Outlets per Flow Indicator x Conversion Factor * ÷ 5940

** The Metering Orifice Selection Chart is based on water. Fertilizer is heavier than water, so a larger orifice is required for a given flow rate of fertilizer, compared to water. To determine the conversion factor for a given fertilizer, obtain the weight for one US gallon or the specific gravity of the fertilizer and select the applicable conversion factor below.*

Weight (lbs/US Gallon)	10.00	10.50	11.00	11.50	12.00	12.50	13.00	13.50	14.00
Specific Gravity	1.20	1.26	1.32	1.38	1.44	1.50	1.56	1.62	1.68
Conversion Factor	1.10	1.12	1.15	1.17	1.20	1.22	1.25	1.27	1.30

Step 2: Select a Metering Orifice and operating pressure. On the chart below, locate the flow rates closest to your requirement. Select a Metering Orifice with a flowrate at an operating pressure in the middle of its range *(i.e. at 15 - 20 PSI)*.

Part Number	Pressure (psi)					
	5	10	15	20	30	40
21009-XX	0.004	0.005	0.006	0.007	0.009	0.010
21013-XX	0.008	0.011	0.013	0.016	0.019	0.022
21015-XX	0.010	0.014	0.018	0.020	0.025	0.029
21018-XX	0.015	0.021	0.025	0.029	0.036	0.042
21020-XX	0.018	0.026	0.032	0.037	0.045	0.052
21022-XX	0.022	0.031	0.037	0.043	0.053	0.061
21025-XX	0.028	0.039	0.048	0.056	0.068	0.079
21026-XX	0.030	0.043	0.052	0.060	0.074	0.085
21028-XX	0.035	0.049	0.060	0.069	0.085	0.098
21029-XX	0.038	0.054	0.066	0.077	0.094	0.11
21031-XX	0.043	0.061	0.075	0.087	0.11	0.12
21033-XX	0.052	0.073	0.090	0.10	0.13	0.15
21035-XX	0.056	0.079	0.096	0.11	0.14	0.16
21037-XX	0.061	0.086	0.11	0.12	0.15	0.17
21039-XX	0.067	0.095	0.12	0.13	0.17	0.19
21040-XX	0.072	0.10	0.13	0.14	0.18	0.20
21043-XX	0.082	0.12	0.14	0.16	0.20	0.23
21047-XX	0.097	0.14	0.17	0.19	0.24	0.27
21049-XX	0.10	0.15	0.18	0.21	0.26	0.29
21052-XX	0.12	0.17	0.21	0.24	0.29	0.33
21053-XX	0.12	0.17	0.21	0.24	0.30	0.35
21055-XX	0.13	0.19	0.23	0.27	0.33	0.38
21057-XX	0.14	0.20	0.24	00.28	0.35	0.40

Part Number	Pressure (psi)					
	5	10	15	20	30	40
21060-XX	0.16	0.22	0.27	0.32	0.39	0.45
21061-XX	0.16	0.23	0.29	0.33	0.40	0.47
21063-XX	0.17	0.25	0.30	0.35	0.43	0.49
21064-XX	0.18	0.25	0.31	0.36	0.44	0.51
21065-XX	0.18	0.26	0.32	0.37	0.45	0.52
21067-XX	0.20	0.28	0.34	0.39	0.48	0.56
21070-XX	0.22	0.31	0.37	0.43	0.53	0.61
21073-XX	0.23	0.33	0.40	0.47	0.57	0.66
21075-XX	0.25	0.35	0.42	0.49	0.60	0.69
21078-XX	0.27	0.39	0.47	0.54	0.67	0.77
21081-XX	0.29	0.41	0.50	0.58	0.71	0.82
21086-XX	0.33	0.47	0.57	0.66	0.81	0.94
21089-XX	0.35	0.49	0.60	0.69	0.85	0.98
21091-XX	0.37	0.52	0.64	0.74	0.91	1.05
21093-XX	0.39	0.55	0.67	0.77	0.95	1.09
21096-XX	0.42	0.59	0.72	0.83	1.02	1.18
21097-XX	0.43	0.61	0.74	0.86	1.05	1.21
21098-XX	0.44	0.62	0.76	0.88	1.08	1.25
21103-XX	0.46	0.65	0.80	0.92	1.13	1.30
21104-XX	0.48	0.68	0.83	0.96	1.17	1.35
21107-XX	0.52	0.73	0.90	1.04	1.27	1.47
21110-XX	0.55	0.77	0.95	1.09	1.34	1.55
21113-XX	0.58	0.82	1.01	1.16	1.42	1.64
21116-XX	0.61	0.86	1.05	1.22	1.49	1.72

Part Number	Pressure (psi)					
	5	10	15	20	30	40
21120-XX	0.63	0.89	1.09	1.26	1.54	1.78
21125-XX	0.69	0.98	1.20	1.39	1.70	1.96
21128-XX	0.72	1.02	1.25	1.45	1.77	2.04
21130-XX	0.75	1.06	1.30	1.50	1.84	2.12
21132-XX	0.78	1.10	1.34	1.55	1.90	2.19
21136-XX	0.84	1.19	1.46	1.68	2.06	2.38
21140-XX	0.89	1.26	1.55	1.79	2.19	2.53
21144-XX	0.93	1.31	1.61	1.85	2.27	2.62
21147-XX	0.95	1.35	1.65	1.90	2.33	2.69
21150-XX	1.02	1.44	1.77	2.04	2.50	2.89
21152-XX	1.05	1.49	1.82	2.10	2.58	2.98
21156-XX	1.10	1.55	1.90	2.20	2.69	3.11
21161-XX	1.16	1.63	2.00	2.31	2.83	3.27
21166-XX	1.21	1.71	2.10	2.42	2.97	3.43
21171-XX	1.33	1.88	2.30	2.66	3.26	3.76
21177-XX	1.41	2.00	2.45	2.83	3.46	4.00
21182-XX	1.47	2.08	2.55	2.95	3.61	4.17
21187-XX	1.56	2.21	2.70	3.12	3.82	4.41
21196-XX	1.73	2.45	3.00	3.46	4.24	4.90
21205-XX	1.87	2.65	3.25	3.75	4.59	5.30
21213-XX	2.02	2.85	3.49	4.03	4.94	5.70
21218-XX	2.11	2.98	3.65	4.21	5.16	5.96
21234-XX	2.45	3.47	4.25	4.91	6.01	6.94
21250-XX	2.83	4.00	4.90	5.66	6.93	8.00

Metering Orifices

Part No.	Description
WL 21009-00 thru 21250-00 *	Metering Orifice with FKM.....
WL 21009-V0 thru 21250-V0 *	Metering Orifice with Viton®.....

** The (3) numbers following 21 are the orifice size in 0.000"; Suffix (-00) for FKM, (-V0) for Viton®.*

— Less 10% on 50 of One Size —

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