

Orifice Selector Plate Application Chart:



NOTE:

- Use the charts below to choose the correct orifice size for your application.
- It is recommended that the pressure is kept between 15 and 40 psi for best distribution performance.
- For solutions other than water, divide by the appropriate conversion factor to get corrected GPM.
- This table is also available at www.johnblue.com, or use a QR code reader for this direct link:



SOLUTION WEIGHT (LBS/GAL)	CONVERSION FACTOR
9.0	0.96
10.0	0.91
11.0	0.87
12.0	0.83
14.0	0.77
16.0	0.72

PLATE "A":

		GPA for Water, 30" spacing						
		3	4	5	6	8	10	
Plate A, Position A 0.031 orifice	PSI	GPM/row	mph	mph	mph	mph	mph	mph
	10	0.06	4.0	3.0	2.4	2.0	1.5	1.2
	20	0.09	5.7	4.3	3.4	2.8	2.1	1.7
	30	0.11	6.9	5.2	4.2	3.5	2.6	2.1
	40	0.12	8.0	6.0	4.8	4.0	3.0	2.4
	50	0.14	9.0	6.7	5.4	4.5	3.4	2.7
	60	0.15	9.8	7.4	5.9	4.9	3.7	2.9
	70	0.16	10.6	8.0	6.4	5.3	4.0	3.2
	80	0.17	11.3	8.5	6.8	5.7	4.3	3.4

		GPA for Water, 30" spacing						
		3	4	5	6	8	10	
Plate A, Position C 0.069 orifice	PSI	GPM/row	mph	mph	mph	mph	mph	mph
	10	0.30	19.9	14.9	11.9	9.9	7.5	6.0
	20	0.43	28.1	21.1	16.9	14.0	10.5	8.4
	30	0.52	34.4	25.8	20.6	17.2	12.9	10.3
	40	0.60	39.7	29.8	23.8	19.9	14.9	11.9
	50	0.67	44.4	33.3	26.7	22.2	16.7	13.3
	60	0.74	48.7	36.5	29.2	24.3	18.3	14.6
	70	0.80	52.6	39.4	31.5	26.3	19.7	15.8
	80	0.85	56.2	42.1	33.7	28.1	21.1	16.9

		GPA for Water, 30" spacing						
		3	4	5	6	8	10	
Plate A, Position B 0.048 orifice	PSI	GPM/row	mph	mph	mph	mph	mph	mph
	10	0.15	9.6	7.2	5.8	4.8	3.6	2.9
	20	0.21	13.6	10.2	8.2	6.8	5.1	4.1
	30	0.25	16.7	12.5	10.0	8.3	6.2	5.0
	40	0.29	19.2	14.4	11.5	9.6	7.2	5.8
	50	0.33	21.5	16.1	12.9	10.8	8.1	6.5
	60	0.36	23.6	17.7	14.1	11.8	8.8	7.1
	70	0.39	25.4	19.1	15.3	12.7	9.5	7.6
	80	0.41	27.2	20.4	16.3	13.6	10.2	8.2

		GPA for Water, 30" spacing						
		3	4	5	6	8	10	
Plate A, Position D 0.099 orifice	PSI	GPM/row	mph	mph	mph	mph	mph	mph
	10	0.62	40.9	30.7	24.5	20.5	15.3	12.3
	20	0.88	57.8	43.4	34.7	28.9	21.7	17.4
	30	1.07	70.8	53.1	42.5	35.4	26.6	21.3
	40	1.24	81.8	61.4	49.1	40.9	30.7	24.5
	50	1.39	91.5	68.6	54.9	45.7	34.3	27.4
	60	1.52	100.2	75.1	60.1	50.1	37.6	30.1
	70	1.64	108.2	81.2	64.9	54.1	40.6	32.5
	80	1.75	115.7	86.8	69.4	57.8	43.4	34.7

PLATE "B":

		GPA for Water, 30" spacing						
		3	4	5	6	8	10	
Plate B, Position A 0.107 orifice	PSI	GPM/row	mph	mph	mph	mph	mph	mph
	10	0.72	47.8	35.8	28.7	23.9	17.9	14.3
	20	1.02	67.6	50.7	40.5	33.8	25.3	20.3
	30	1.25	82.8	62.1	49.7	41.4	31.0	24.8
	40	1.45	95.6	71.7	57.3	47.8	35.8	28.7
	50	1.62	106.8	80.1	64.1	53.4	40.1	32.1
	60	1.77	117.0	87.8	70.2	58.5	43.9	35.1
	70	1.92	126.4	94.8	75.9	63.2	47.4	37.9
	80	2.05	135.1	101.4	81.1	67.6	50.7	40.5

		GPA for Water, 30" spacing						
		3	4	5	6	8	10	
Plate B, Position C 0.142 orifice	PSI	GPM/row	mph	mph	mph	mph	mph	mph
	10	1.28	84.2	63.1	50.5	42.1	31.6	25.2
	20	1.80	119.0	89.3	71.4	59.5	44.6	35.7
	30	2.21	145.8	109.3	87.5	72.9	54.7	43.7
	40	2.55	168.3	126.2	101.0	84.2	63.1	50.5
	50	2.85	188.2	141.1	112.9	94.1	70.6	56.5
	60	3.12	206.1	154.6	123.7	103.1	77.3	61.8
	70	3.37	222.6	167.0	133.6	111.3	83.5	66.8
	80	3.61	238.0	178.5	142.8	119.0	89.3	71.4

		GPA for Water, 30" spacing						
		3	4	5	6	8	10	
Plate B, Position B 0.125 orifice	PSI	GPM/row	mph	mph	mph	mph	mph	mph
	10	0.99	65.2	48.9	39.1	32.6	24.5	19.6
	20	1.40	92.2	69.2	55.3	46.1	34.6	27.7
	30	1.71	112.9	84.7	67.8	56.5	42.4	33.9
	40	1.98	130.4	97.8	78.3	65.2	48.9	39.1
	50	2.21	145.8	109.4	87.5	72.9	54.7	43.7
	60	2.42	159.7	119.8	95.8	79.9	59.9	47.9
	70	2.61	172.5	129.4	103.5	86.3	64.7	51.8
	80	2.79	184.4	138.3	110.7	92.2	69.2	55.3

		GPA for Water, 30" spacing						
		3	4	5	6	8	10	
Plate B, Position D 0.150 orifice	PSI	GPM/row	mph	mph	mph	mph	mph	mph
	10	1.42	93.9	70.4	56.3	47.0	35.2	28.2
	20	2.01	132.8	99.6	79.7	66.4	49.8	39.8
	30	2.46	162.6	122.0	97.6	81.3	61.0	48.8
	40	2.85	187.8	140.9	112.7	93.9	70.4	56.3
	50	3.18	210.0	157.5	126.0	105.0	78.7	63.0
	60	3.49	230.0	172.5	138.0	115.0	86.3	69.0
	70	3.76	248.4	186.3	149.1	124.2	93.2	74.5
	80	4.02	265.6	199.2	159.4	132.8	99.6	79.7

Orifice Selector Plate Application Chart (continued):

PLATE "C":

			GPA for Water, 30" spacing						
			3	4	5	6	8	10	
Plate C, Position A	0.024 orifice	PSI	GPM/row	mph	mph	mph	mph	mph	mph
		10	0.04	2.4	1.8	1.4	1.2	0.9	0.7
		20	0.05	3.4	2.5	2.0	1.7	1.3	1.0
		30	0.06	4.2	3.1	2.5	2.1	1.6	1.2
		40	0.07	4.8	3.6	2.9	2.4	1.8	1.4
		50	0.08	5.4	4.0	3.2	2.7	2.0	1.6
		60	0.09	5.9	4.4	3.5	2.9	2.2	1.8
		70	0.10	6.4	4.8	3.8	3.2	2.4	1.9
		80	0.10	6.8	5.1	4.1	3.4	2.5	2.0

			GPA for Water, 30" spacing						
			3	4	5	6	8	10	
Plate C, Position C	0.059 orifice	PSI	GPM/row	mph	mph	mph	mph	mph	mph
		10	0.22	14.5	10.9	8.7	7.3	5.4	4.4
		20	0.31	20.5	15.4	12.3	10.3	7.7	6.2
		30	0.38	25.2	18.9	15.1	12.6	9.4	7.5
		40	0.44	29.1	21.8	17.4	14.5	10.9	8.7
		50	0.49	32.5	24.4	19.5	16.2	12.2	9.7
		60	0.54	35.6	26.7	21.4	17.8	13.3	10.7
		70	0.58	38.4	28.8	23.1	19.2	14.4	11.5
		80	0.62	41.1	30.8	24.7	20.5	15.4	12.3

			GPA for Water, 30" spacing						
			3	4	5	6	8	10	
Plate C, Position B	0.039 orifice	PSI	GPM/row	mph	mph	mph	mph	mph	mph
		10	0.10	6.3	4.8	3.8	3.2	2.4	1.9
		20	0.14	9.0	6.7	5.4	4.5	3.4	2.7
		30	0.17	11.0	8.2	6.6	5.5	4.1	3.3
		40	0.19	12.7	9.5	7.6	6.3	4.8	3.8
		50	0.22	14.2	10.6	8.5	7.1	5.3	4.3
		60	0.24	15.5	11.7	9.3	7.8	5.8	4.7
		70	0.25	16.8	12.6	10.1	8.4	6.3	5.0
		80	0.27	18.0	13.5	10.8	9.0	6.7	5.4

			GPA for Water, 30" spacing						
			3	4	5	6	8	10	
Plate C, Position D	0.084 orifice	PSI	GPM/row	mph	mph	mph	mph	mph	mph
		10	0.45	29.4	22.1	17.7	14.7	11.0	8.8
		20	0.63	41.6	31.2	25.0	20.8	15.6	12.5
		30	0.77	51.0	38.3	30.6	25.5	19.1	15.3
		40	0.89	58.9	44.2	35.3	29.4	22.1	17.7
		50	1.00	65.8	49.4	39.5	32.9	24.7	19.8
		60	1.09	72.1	54.1	43.3	36.1	27.0	21.6
		70	1.18	77.9	58.4	46.7	39.0	29.2	23.4
		80	1.26	83.3	62.5	50.0	41.6	31.2	25.0

PLATE "D":

			GPA for Water, 30" spacing						
			3	4	5	6	8	10	
Plate D, Position A	0.116 orifice	PSI	GPM/row	mph	mph	mph	mph	mph	mph
		10	0.85	56.2	42.1	33.7	28.1	21.1	16.8
		20	1.20	79.4	59.6	47.7	39.7	29.8	23.8
		30	1.47	97.3	73.0	58.4	48.6	36.5	29.2
		40	1.70	112.3	84.2	67.4	56.2	42.1	33.7
		50	1.90	125.6	94.2	75.3	62.8	47.1	37.7
		60	2.08	137.6	103.2	82.5	68.8	51.6	41.3
		70	2.25	148.6	111.4	89.1	74.3	55.7	44.6
		80	2.41	158.8	119.1	95.3	79.4	59.6	47.7

			GPA for Water, 30" spacing						
			3	4	5	6	8	10	
Plate D, Position C	0.148 orifice	PSI	GPM/row	mph	mph	mph	mph	mph	mph
		10	1.39	91.4	68.6	54.8	45.7	34.3	27.4
		20	1.96	129.3	97.0	77.6	64.6	48.5	38.8
		30	2.40	158.3	118.8	95.0	79.2	59.4	47.5
		40	2.77	182.8	137.1	109.7	91.4	68.6	54.8
		50	3.10	204.4	153.3	122.6	102.2	76.7	61.3
		60	3.39	223.9	167.9	134.4	112.0	84.0	67.2
		70	3.66	241.9	181.4	145.1	120.9	90.7	72.6
		80	3.92	258.6	193.9	155.1	129.3	97.0	77.6

			GPA for Water, 30" spacing						
			3	4	5	6	8	10	
Plate D, Position B	0.133 orifice	PSI	GPM/row	mph	mph	mph	mph	mph	mph
		10	1.12	73.8	55.4	44.3	36.9	27.7	22.1
		20	1.58	104.4	78.3	62.6	52.2	39.2	31.3
		30	1.94	127.9	95.9	76.7	63.9	47.9	38.4
		40	2.24	147.6	110.7	88.6	73.8	55.4	44.3
		50	2.50	165.1	123.8	99.0	82.5	61.9	49.5
		60	2.74	180.8	135.6	108.5	90.4	67.8	54.2
		70	2.96	195.3	146.5	117.2	97.7	73.2	58.6
		80	3.16	208.8	156.6	125.3	104.4	78.3	62.6

			GPA for Water, 30" spacing						
			3	4	5	6	8	10	
Plate D, Position D	0.162 orifice	PSI	GPM/row	mph	mph	mph	mph	mph	mph
		10	1.66	109.5	82.1	65.7	54.8	41.1	32.9
		20	2.35	154.9	116.2	92.9	77.4	58.1	46.5
		30	2.87	189.7	142.3	113.8	94.9	71.1	56.9
		40	3.32	219.1	164.3	131.4	109.5	82.1	65.7
		50	3.71	244.9	183.7	146.9	122.5	91.8	73.5
		60	4.06	268.3	201.2	161.0	134.1	100.6	80.5
		70	4.39	289.8	217.3	173.9	144.9	108.7	86.9
		80	4.69	309.8	232.3	185.9	154.9	116.2	92.9