

**TP 110°/ 80° 19" TIP SPACING**

ALL VALUES BASED ON WATER FOR OTHER LIQUIDS SEE USEFUL FORMULAS AND CONVERSIONS

mph		4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10.0	10.5	11.0	11.5	12.0	
psi gpm																			
8001VS	20	0.07	5.5	4.9	4.4	4.0	3.7	3.4	3.2	3.0	2.8	2.6	2.5	2.3	2.2	2.1	2.0	1.9	1.8
	30	0.09	6.8	6.0	5.4	4.9	4.5	4.2	3.9	3.6	3.4	3.2	3.0	2.9	2.7	2.6	2.5	2.4	2.3
11001VS	40	0.10	7.8	6.9	6.3	5.7	5.2	4.8	4.5	4.2	3.9	3.7	3.5	3.3	3.1	3.0	2.8	2.7	2.6
100 MESH	50	0.11	8.8	7.8	7.0	6.4	5.8	5.4	5.0	4.7	4.4	4.1	3.9	3.7	3.5	3.3	3.2	3.0	2.9
ORANGE	60	0.12	9.5	8.5	7.6	6.9	6.4	5.9	5.4	5.1	4.8	4.5	4.2	4.0	3.8	3.6	3.5	3.3	3.2
80015VS	20	0.11	8.3	7.4	6.6	6.0	5.5	5.1	4.7	4.4	4.1	3.9	3.7	3.5	3.3	3.2	3.0	2.9	2.8
	30	0.13	10.2	9.0	8.1	7.4	6.8	6.3	5.8	5.4	5.1	4.8	4.5	4.3	4.1	3.9	3.7	3.5	3.4
110015VS	40	0.15	11.7	10.4	9.4	8.5	7.8	7.2	6.7	6.3	5.9	5.5	5.2	4.9	4.7	4.5	4.3	4.1	3.9
100 MESH	50	0.17	13.1	11.7	10.5	9.5	8.8	8.1	7.5	7.0	6.6	6.2	5.8	5.5	5.3	5.0	4.8	4.6	4.4
GREEN	60	0.18	14.4	12.8	11.5	10.5	9.6	8.8	8.2	7.7	7.2	6.8	6.4	6.1	5.8	5.5	5.2	5.0	4.8
8002VS	20	0.14	11.0	9.8	8.8	8.0	7.3	6.8	6.3	5.9	5.5	5.2	4.9	4.6	4.4	4.2	4.0	3.8	3.7
	30	0.17	13.5	12.0	10.8	9.8	9.0	8.3	7.7	7.2	6.8	6.4	6.0	5.7	5.4	5.2	4.9	4.7	4.5
11002VS	40	0.20	15.6	13.9	12.5	11.4	10.4	9.6	8.9	8.3	7.8	7.4	6.9	6.6	6.3	6.0	5.7	5.4	5.2
50 MESH	50	0.22	17.5	15.6	14.0	12.7	11.7	10.8	10.0	9.3	8.8	8.2	7.8	7.4	7.0	6.7	6.4	6.1	5.8
YELLOW	60	0.25	19.1	17.0	15.3	13.9	12.8	11.8	10.9	10.2	9.6	9.0	8.5	8.1	7.7	7.3	7.0	6.7	6.4
8003VS	20	0.21	16.6	14.7	13.3	12.1	11.0	10.2	9.5	8.8	8.3	7.8	7.4	7.0	6.6	6.3	6.0	5.8	5.5
	30	0.26	20.3	18.1	16.3	14.8	13.5	12.5	11.6	10.8	10.2	9.6	9.0	8.6	8.1	7.7	7.4	7.1	6.8
11003VS	40	0.30	23.4	20.8	18.8	17.1	15.6	14.4	13.4	12.5	11.7	11.0	10.4	9.9	9.4	8.9	8.5	8.2	7.8
50 MESH	50	0.34	26.2	23.3	20.9	19.0	17.5	16.1	15.0	14.0	13.1	12.3	11.6	11.0	10.5	10.0	9.5	9.1	8.7
BLUE	60	0.37	28.7	25.5	22.9	20.9	19.1	17.7	16.4	15.3	14.3	13.5	12.7	12.1	11.5	10.9	10.4	10.0	9.6
8004VS	20	0.28	22.1	19.7	17.7	16.1	14.7	13.6	12.6	11.8	11.1	10.4	9.8	9.3	8.8	8.4	8.0	7.7	7.4
	30	0.35	27.0	24.0	21.6	19.7	18.0	16.6	15.5	14.4	13.5	12.7	12.0	11.4	10.8	10.3	9.8	9.4	9.0
11004VS	40	0.40	31.3	27.8	25.0	22.7	20.8	19.2	17.9	16.7	15.6	14.7	13.9	13.2	12.5	11.9	11.4	10.9	10.4
50 MESH	50	0.45	34.9	31.1	27.9	25.4	23.3	21.5	20.0	18.6	17.5	16.4	15.5	14.7	14.0	13.3	12.7	12.2	11.6
RED	60	0.49	38.3	34.0	30.6	27.9	25.5	23.6	21.9	20.4	19.1	18.0	17.0	16.1	15.3	14.6	13.9	13.3	12.8
8005VS	20	0.35	27.7	24.6	22.1	20.1	18.4	17.0	15.8	14.8	13.8	13.0	12.3	11.6	11.1	10.5	10.1	9.6	9.2
	30	0.43	33.8	30.1	27.1	24.6	22.6	20.8	19.3	18.0	16.9	15.9	15.0	14.2	13.5	12.9	12.3	11.8	11.3
11005VS	40	0.50	39.1	34.7	31.3	28.4	26.1	24.0	22.3	20.8	19.5	18.4	17.4	16.5	15.6	14.9	14.2	13.6	13.0
50 MESH	50	0.56	43.7	38.8	35.0	31.8	29.1	26.9	25.0	23.3	21.8	20.6	19.4	18.4	17.5	16.6	15.9	15.2	14.6
BROWN	60	0.61	47.8	42.5	38.3	34.8	31.9	29.4	27.3	25.5	23.9	22.5	21.3	20.1	19.1	18.2	17.4	16.6	15.9

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ALL VALUES BASED ON WATER FOR OTHER LIQUIDS SEE USEFUL FORMULAS AND CONVERSIONS

																mph			
12.5	13.0	13.5	14.0	14.5	15.0	15.5	16.0	16.5	17.0	17.5	18.0	18.5	19.0	19.5	20.0				
																gpm		psi	
1.8	1.7	1.6	1.6	1.5	1.5	1.4	1.4	1.3	1.3	1.3	1.2	1.2	1.2	1.1	1.1	0.07	20	8001VS 11001VS 100 MESH ORANGE	
2.2	2.1	2.0	1.9	1.9	1.8	1.8	1.7	1.6	1.6	1.6	1.5	1.5	1.4	1.4	1.4	0.09	30		
2.5	2.4	2.3	2.2	2.2	2.1	2.0	2.0	1.9	1.8	1.8	1.7	1.7	1.6	1.6	1.6	0.10	40		
2.8	2.7	2.6	2.5	2.4	2.3	2.3	2.2	2.1	2.1	2.0	1.9	1.9	1.8	1.8	1.8	0.11	50		
3.1	2.9	2.8	2.7	2.6	2.5	2.5	2.4	2.3	2.2	2.2	2.1	2.1	2.0	2.0	1.9	0.12	60		
2.7	2.5	2.5	2.4	2.3	2.2	2.1	2.1	2.0	1.9	1.9	1.8	1.8	1.7	1.7	1.7	0.11	20	80015VS 110015VS 100 MESH GREEN	
3.3	3.1	3.0	2.9	2.8	2.7	2.6	2.5	2.5	2.4	2.3	2.3	2.2	2.1	2.1	2.0	0.13	30		
3.8	3.6	3.5	3.3	3.2	3.1	3.0	2.9	2.8	2.8	2.7	2.6	2.5	2.5	2.4	2.3	0.15	40		
4.2	4.0	3.9	3.8	3.6	3.5	3.4	3.3	3.2	3.1	3.0	2.9	2.8	2.8	2.7	2.6	0.17	50		
4.6	4.4	4.3	4.1	4.0	3.8	3.7	3.6	3.5	3.4	3.3	3.2	3.1	3.0	2.9	2.9	0.18	60		
3.5	3.4	3.3	3.1	3.0	2.9	2.8	2.8	2.7	2.6	2.5	2.4	2.4	2.3	2.3	2.2	0.14	20	8002VS 11002VS 50 MESH YELLOW	
4.3	4.2	4.0	3.9	3.7	3.6	3.5	3.4	3.3	3.2	3.1	3.0	2.9	2.8	2.8	2.7	0.17	30		
5.0	4.8	4.6	4.5	4.3	4.2	4.0	3.9	3.8	3.7	3.6	3.5	3.4	3.3	3.2	3.1	0.20	40		
5.6	5.4	5.2	5.0	4.8	4.7	4.5	4.4	4.2	4.1	4.0	3.9	3.8	3.7	3.6	3.5	0.22	50		
6.1	5.9	5.7	5.5	5.3	5.1	4.9	4.8	4.6	4.5	4.4	4.3	4.1	4.0	3.9	3.8	0.25	60		
5.3	5.1	4.9	4.7	4.6	4.4	4.3	4.1	4.0	3.9	3.8	3.7	3.6	3.5	3.4	3.3	0.21	20	8003VS 11003VS 50 MESH BLUE	
6.5	6.3	6.0	5.8	5.6	5.4	5.2	5.1	4.9	4.8	4.6	4.5	4.4	4.3	4.2	4.1	0.26	30		
7.5	7.2	6.9	6.7	6.5	6.3	6.1	5.9	5.7	5.5	5.4	5.2	5.1	4.9	4.8	4.7	0.30	40		
8.4	8.1	7.8	7.5	7.2	7.0	6.8	6.5	6.3	6.2	6.0	5.8	5.7	5.5	5.4	5.2	0.34	50		
9.2	8.8	8.5	8.2	7.9	7.6	7.4	7.2	7.0	6.7	6.6	6.4	6.2	6.0	5.9	5.7	0.37	60		
7.1	6.8	6.6	6.3	6.1	5.9	5.7	5.5	5.4	5.2	5.1	4.9	4.8	4.7	4.5	4.4	0.28	20	8004VS 11004VS 50 MESH RED	
8.7	8.3	8.0	7.7	7.5	7.2	7.0	6.8	6.6	6.4	6.2	6.0	5.8	5.7	5.5	5.4	0.35	30		
10.0	9.6	9.3	8.9	8.6	8.3	8.1	7.8	7.6	7.4	7.1	6.9	6.8	6.6	6.4	6.3	0.40	40		
11.2	10.7	10.4	10.0	9.6	9.3	9.0	8.7	8.5	8.2	8.0	7.8	7.6	7.4	7.2	7.0	0.45	50		
12.3	11.8	11.3	10.9	10.6	10.2	9.9	9.6	9.3	9.0	8.8	8.5	8.3	8.1	7.9	7.7	0.49	60		
8.9	8.5	8.2	7.9	7.6	7.4	7.1	6.9	6.7	6.5	6.3	6.1	6.0	5.8	5.7	5.5	0.35	20	8005VS 11005VS 50 MESH BROWN	
10.8	10.4	10.0	9.7	9.3	9.0	8.7	8.5	8.2	8.0	7.7	7.5	7.3	7.1	6.9	6.8	0.43	30		
12.5	12.0	11.6	11.2	10.8	10.4	10.1	9.8	9.5	9.2	8.9	8.7	8.4	8.2	8.0	7.8	0.50	40		
14.0	13.4	12.9	12.5	12.1	11.7	11.3	10.9	10.6	10.3	10.0	9.7	9.4	9.2	9.0	8.7	0.56	50		
15.3	14.7	14.2	13.7	13.2	12.8	12.3	12.0	11.6	11.3	10.9	10.6	10.3	10.1	9.8	9.6	0.61	60		

**TP 110°/ 80° 19" TIP SPACING**

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mph		4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10.0	10.5	11.0	11.5	12.0	
8006VS	20	0.42	33.1	29.5	26.5	24.1	22.1	20.4	18.9	17.7	16.6	15.6	14.7	14.0	13.3	12.6	12.1	11.5	11.0
	30	0.52	40.6	36.1	32.5	29.6	27.1	25.0	23.2	21.7	20.3	19.1	18.1	17.1	16.3	15.5	14.8	14.1	13.5
11006VS	40	0.60	46.9	41.7	37.5	34.1	31.3	28.9	26.8	25.0	23.4	22.1	20.8	19.7	18.8	17.9	17.1	16.3	15.6
	50	0.67	52.4	46.6	42.0	38.1	35.0	32.3	30.0	28.0	26.2	24.7	23.3	22.1	21.0	20.0	19.1	18.2	17.5
50 MESH GRAY	60	0.74	57.4	51.1	46.0	41.8	38.3	35.4	32.8	30.6	28.7	27.0	25.5	24.2	23.0	21.9	20.9	20.0	19.1
	20	0.63	49.4	43.9	39.5	35.9	32.9	30.4	28.2	26.3	24.7	23.2	22.0	20.8	19.8	18.8	18.0	17.2	16.5
8008VS	30	0.69	54.2	48.1	43.3	39.4	36.1	33.3	31.0	28.9	27.1	25.5	24.1	22.8	21.7	20.6	19.7	18.8	18.1
	40	0.80	62.5	55.6	50.0	45.5	41.7	38.5	35.7	33.3	31.3	29.4	27.8	26.3	25.0	23.8	22.7	21.7	20.8
11008VS	50	0.89	69.9	62.1	55.9	50.8	46.6	43.0	39.9	37.3	34.9	32.9	31.1	29.4	27.9	26.6	25.4	24.3	23.3
	60	0.98	76.6	68.1	61.3	55.7	51.1	47.1	43.8	40.9	38.3	36.0	34.0	32.3	30.6	29.2	27.9	26.6	25.5
8010SS	20	0.71	55.3	49.1	44.2	40.2	36.8	34.0	31.6	29.5	27.6	26.0	24.6	23.3	22.1	21.1	20.1	19.2	18.4
	30	0.87	67.7	60.2	54.1	49.2	45.1	41.7	38.7	36.1	33.8	31.9	30.1	28.5	27.1	25.8	24.6	23.5	22.6
11010SS	40	1.00	78.2	69.5	62.5	56.8	52.1	48.1	44.7	41.7	39.1	36.8	34.7	32.9	31.3	29.8	28.4	27.2	26.1
	50	1.12	87.4	77.7	69.9	63.5	58.3	53.8	49.9	46.6	43.7	41.1	38.8	36.8	35.0	33.3	31.8	30.4	29.1
50 MESH	60	1.23	95.7	85.1	76.6	69.6	63.8	58.9	54.7	51.1	47.9	45.1	42.6	40.3	38.3	36.5	34.8	33.3	31.9
	20	1.06	82.9	73.7	66.3	60.3	55.3	51.0	47.4	44.2	41.5	39.0	36.9	34.9	33.2	31.6	30.2	28.8	27.6
8015SS	30	1.30	101.5	90.2	81.2	73.8	67.7	62.5	58.0	54.1	50.8	47.8	45.1	42.7	40.6	38.7	36.9	35.3	33.8
	40	1.50	117.2	104.2	93.8	85.3	78.2	72.1	67.0	62.5	58.6	55.2	52.1	49.4	46.9	44.7	42.6	40.8	39.1
11015SS	50	1.68	131.1	116.5	104.9	95.3	87.4	80.7	74.9	69.9	65.5	61.7	58.3	55.2	52.4	49.9	47.7	45.6	43.7
	60	1.84	143.6	127.6	114.9	104.4	95.7	88.4	82.0	76.6	71.8	67.6	63.8	60.5	57.4	54.7	52.2	49.9	47.9
8020SS	20	1.41	110.5	98.2	88.4	80.4	73.7	68.0	63.2	58.9	55.3	52.0	49.1	46.5	44.2	42.1	40.2	38.4	36.8
	30	1.73	135.4	120.3	108.3	98.5	90.2	83.3	77.4	72.2	67.7	63.7	60.2	57.0	54.1	51.6	49.2	47.1	45.1
11020SS	40	2.00	156.3	138.9	125.1	113.7	104.2	96.2	89.3	83.4	78.2	73.6	69.5	65.8	62.5	59.5	56.8	54.4	52.1
	50	2.24	174.8	155.3	139.8	127.1	116.5	107.5	99.9	93.2	87.4	82.2	77.7	73.6	69.9	66.6	63.5	60.8	58.3
50 MESH	60	2.45	191.4	170.1	153.1	139.2	127.6	117.8	109.4	102.1	95.7	90.1	85.1	80.6	76.6	72.9	69.6	66.6	63.8

**TP 110°/ 80° 19" TIP SPACING**

ALL VALUES BASED ON WATER FOR OTHER LIQUIDS SEE USEFUL FORMULAS AND CONVERSIONS

12.5	13.0	13.5	14.0	14.5	15.0	15.5	16.0	16.5	17.0	17.5	18.0	18.5	19.0	19.5	20.0	mph		
10.6	10.2	9.8	9.5	9.1	8.8	8.6	8.3	8.0	7.8	7.6	7.4	7.2	7.0	6.8	6.6	0.42	20	8006VS 11006VS
13.0	12.5	12.0	11.6	11.2	10.8	10.5	10.2	9.9	9.6	9.3	9.0	8.8	8.6	8.3	8.1	0.52	30	
15.0	14.4	13.9	13.4	12.9	12.5	12.1	11.7	11.4	11.0	10.7	10.4	10.1	9.9	9.6	9.4	0.60	40	50 MESH GRAY
16.8	16.1	15.5	15.0	14.5	14.0	13.5	13.1	12.7	12.3	12.0	11.7	11.3	11.0	10.8	10.5	0.67	50	
18.4	17.7	17.0	16.4	15.8	15.3	14.8	14.4	13.9	13.5	13.1	12.8	12.4	12.1	11.8	11.5	0.74	60	
15.8	15.2	14.6	14.1	13.6	13.2	12.7	12.3	12.0	11.6	11.3	11.0	10.7	10.4	10.1	9.9	0.63	20	8008VS 11008VS
17.3	16.7	16.0	15.5	14.9	14.4	14.0	13.5	13.1	12.7	12.4	12.0	11.7	11.4	11.1	10.8	0.69	30	
20.0	19.2	18.5	17.9	17.2	16.7	16.1	15.6	15.2	14.7	14.3	13.9	13.5	13.2	12.8	12.5	0.80	40	50 MESH WHITE
22.4	21.5	20.7	20.0	19.3	18.6	18.0	17.5	16.9	16.4	16.0	15.5	15.1	14.7	14.3	14.0	0.89	50	
24.5	23.6	22.7	21.9	21.1	20.4	19.8	19.1	18.6	18.0	17.5	17.0	16.6	16.1	15.7	15.3	0.98	60	
17.7	17.0	16.4	15.8	15.2	14.7	14.3	13.8	13.4	13.0	12.6	12.3	11.9	11.6	11.3	11.1	0.71	20	8010SS 11010SS
21.7	20.8	20.1	19.3	18.7	18.0	17.5	16.9	16.4	15.9	15.5	15.0	14.6	14.2	13.9	13.5	0.87	30	
25.0	24.0	23.2	22.3	21.6	20.8	20.2	19.5	18.9	18.4	17.9	17.4	16.9	16.5	16.0	15.6	1.00	40	50 MESH
28.0	26.9	25.9	25.0	24.1	23.3	22.5	21.8	21.2	20.6	20.0	19.4	18.9	18.4	17.9	17.5	1.12	50	
30.6	29.5	28.4	27.4	26.4	25.5	24.7	23.9	23.2	22.5	21.9	21.3	20.7	20.2	19.6	19.1	1.23	60	
26.5	25.5	24.6	23.7	22.9	22.1	21.4	20.7	20.1	19.5	19.0	18.4	17.9	17.5	17.0	16.6	1.06	20	8015SS 11015SS
32.5	31.2	30.1	29.0	28.0	27.1	26.2	25.4	24.6	23.9	23.2	22.6	22.0	21.4	20.8	20.3	1.30	30	
37.5	36.1	34.7	33.5	32.3	31.3	30.3	29.3	28.4	27.6	26.8	26.1	25.3	24.7	24.0	23.4	1.50	40	50 MESH
41.9	40.3	38.8	37.4	36.2	35.0	33.8	32.8	31.8	30.8	30.0	29.1	28.3	27.6	26.9	26.2	1.68	50	
45.9	44.2	42.5	41.0	39.6	38.3	37.1	35.9	34.8	33.8	32.8	31.9	31.0	30.2	29.5	28.7	1.84	60	
35.4	34.0	32.7	31.6	30.5	29.5	28.5	27.6	26.8	26.0	25.3	24.6	23.9	23.3	22.7	22.1	1.41	20	8020SS 11020SS
43.3	41.7	40.1	38.7	37.3	36.1	34.9	33.8	32.8	31.9	30.9	30.1	29.3	28.5	27.8	27.1	1.73	30	
50.0	48.1	46.3	44.7	43.1	41.7	40.3	39.1	37.9	36.8	35.7	34.7	33.8	32.9	32.1	31.3	2.00	40	50 MESH
55.9	53.8	51.8	49.9	48.2	46.6	45.1	43.7	42.4	41.1	39.9	38.8	37.8	36.8	35.8	35.0	2.24	50	
61.3	58.9	56.7	54.7	52.8	51.0	49.4	47.9	46.4	45.0	43.8	42.5	41.4	40.3	39.3	38.3	2.45	60	