

TP 110°/ 80° 32" 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	3.3	2.9	2.6	2.4	2.2	2.0	1.9	1.8	1.6	1.6	1.5	1.4	1.3	1.3	1.2	1.1	1.1
	30	0.09	4.0	3.6	3.2	2.9	2.7	2.5	2.3	2.2	2.0	1.9	1.8	1.7	1.6	1.5	1.5	1.4	1.3
11001VS	40	0.10	4.6	4.1	3.7	3.4	3.1	2.9	2.7	2.5	2.3	2.2	2.1	2.0	1.9	1.8	1.7	1.6	1.5
100 MESH	50	0.11	5.2	4.6	4.2	3.8	3.5	3.2	3.0	2.8	2.6	2.4	2.3	2.2	2.1	2.0	1.9	1.8	1.7
ORANGE	60	0.12	5.7	5.0	4.5	4.1	3.8	3.5	3.2	3.0	2.8	2.7	2.5	2.4	2.3	2.2	2.1	2.0	1.9
80015VS	20	0.11	4.9	4.4	3.9	3.6	3.3	3.0	2.8	2.6	2.5	2.3	2.2	2.1	2.0	1.9	1.8	1.7	1.6
	30	0.13	6.0	5.4	4.8	4.4	4.0	3.7	3.4	3.2	3.0	2.8	2.7	2.5	2.4	2.3	2.2	2.1	2.0
110015VS	40	0.15	7.0	6.2	5.6	5.1	4.6	4.3	4.0	3.7	3.5	3.3	3.1	2.9	2.8	2.7	2.5	2.4	2.3
100 MESH	50	0.17	7.8	6.9	6.2	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
GREEN	60	0.18	8.5	7.6	6.8	6.2	5.7	5.3	4.9	4.6	4.3	4.0	3.8	3.6	3.4	3.3	3.1	3.0	2.8
8002VS	20	0.14	6.5	5.8	5.2	4.8	4.4	4.0	3.7	3.5	3.3	3.1	2.9	2.8	2.6	2.5	2.4	2.3	2.2
	30	0.17	8.0	7.1	6.4	5.8	5.4	4.9	4.6	4.3	4.0	3.8	3.6	3.4	3.2	3.1	2.9	2.8	2.7
11002VS	40	0.20	9.3	8.3	7.4	6.8	6.2	5.7	5.3	5.0	4.6	4.4	4.1	3.9	3.7	3.5	3.4	3.2	3.1
50 MESH	50	0.22	10.4	9.2	8.3	7.6	6.9	6.4	5.9	5.5	5.2	4.9	4.6	4.4	4.2	4.0	3.8	3.6	3.5
YELLOW	60	0.25	11.4	10.1	9.1	8.3	7.6	7.0	6.5	6.1	5.7	5.4	5.1	4.8	4.5	4.3	4.1	4.0	3.8
8003VS	20	0.21	9.8	8.7	7.9	7.2	6.6	6.1	5.6	5.2	4.9	4.6	4.4	4.1	3.9	3.7	3.6	3.4	3.3
	30	0.26	12.1	10.7	9.7	8.8	8.0	7.4	6.9	6.4	6.0	5.7	5.4	5.1	4.8	4.6	4.4	4.2	4.0
11003VS	40	0.30	13.9	12.4	11.1	10.1	9.3	8.6	8.0	7.4	7.0	6.6	6.2	5.9	5.6	5.3	5.1	4.8	4.6
50 MESH	50	0.34	15.5	13.8	12.4	11.3	10.4	9.6	8.9	8.3	7.8	7.3	6.9	6.5	6.2	5.9	5.7	5.4	5.2
BLUE	60	0.37	17.0	15.1	13.6	12.4	11.4	10.5	9.7	9.1	8.5	8.0	7.6	7.2	6.8	6.5	6.2	5.9	5.7
8004VS	20	0.28	13.1	11.7	10.5	9.6	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
	30	0.35	16.1	14.3	12.8	11.7	10.7	9.9	9.2	8.6	8.0	7.6	7.1	6.8	6.4	6.1	5.8	5.6	5.4
11004VS	40	0.40	18.6	16.5	14.9	13.5	12.4	11.4	10.6	9.9	9.3	8.7	8.3	7.8	7.4	7.1	6.8	6.5	6.2
50 MESH	50	0.45	20.7	18.4	16.6	15.1	13.8	12.8	11.9	11.1	10.4	9.8	9.2	8.7	8.3	7.9	7.5	7.2	6.9
RED	60	0.49	22.7	20.2	18.2	16.5	15.2	14.0	13.0	12.1	11.4	10.7	10.1	9.6	9.1	8.7	8.3	7.9	7.6
8005VS	20	0.35	16.4	14.6	13.1	11.9	11.0	10.1	9.4	8.8	8.2	7.7	7.3	6.9	6.6	6.3	6.0	5.7	5.5
	30	0.43	20.1	17.9	16.1	14.6	13.4	12.4	11.5	10.7	10.0	9.5	8.9	8.5	8.0	7.7	7.3	7.0	6.7
11005VS	40	0.50	23.2	20.6	18.6	16.9	15.5	14.3	13.3	12.4	11.6	10.9	10.3	9.8	9.3	8.8	8.4	8.1	7.7
50 MESH	50	0.56	25.9	23.1	20.8	18.9	17.3	16.0	14.8	13.8	13.0	12.2	11.5	10.9	10.4	9.9	9.4	9.0	8.6
BROWN	60	0.61	28.4	25.2	22.7	20.7	18.9	17.5	16.2	15.1	14.2	13.4	12.6	12.0	11.4	10.8	10.3	9.9	9.5

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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		
																	gpm	psi
1.1	1.0	1.0	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.07	20	8001VS
1.3	1.2	1.2	1.2	1.1	1.1	1.0	1.0	1.0	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.09	30	11001VS
1.5	1.4	1.4	1.3	1.3	1.2	1.2	1.2	1.1	1.1	1.1	1.0	1.0	1.0	1.0	0.9	0.10	40	100 MESH
1.7	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	1.1	1.0	0.11	50	ORANGE
1.8	1.7	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	0.12	60	
1.6	1.5	1.5	1.4	1.4	1.3	1.3	1.2	1.2	1.2	1.1	1.1	1.1	1.0	1.0	1.0	0.11	20	80015VS
1.9	1.9	1.8	1.7	1.7	1.6	1.6	1.5	1.5	1.4	1.4	1.3	1.3	1.3	1.2	1.2	0.13	30	110015VS
2.2	2.1	2.1	2.0	1.9	1.9	1.8	1.7	1.7	1.6	1.6	1.5	1.5	1.5	1.4	1.4	0.15	40	100 MESH
2.5	2.4	2.3	2.2	2.2	2.1	2.0	1.9	1.9	1.8	1.8	1.7	1.7	1.6	1.6	1.6	0.17	50	GREEN
2.7	2.6	2.5	2.4	2.4	2.3	2.2	2.1	2.1	2.0	2.0	1.9	1.8	1.8	1.8	1.7	0.18	60	
2.1	2.0	1.9	1.9	1.8	1.7	1.7	1.6	1.6	1.5	1.5	1.5	1.4	1.4	1.3	1.3	0.14	20	8002VS
2.6	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	1.6	1.6	0.17	30	11002VS
3.0	2.9	2.8	2.7	2.6	2.5	2.4	2.3	2.3	2.2	2.1	2.1	2.0	2.0	1.9	1.9	0.20	40	50 MESH
3.3	3.2	3.1	3.0	2.9	2.8	2.7	2.6	2.5	2.4	2.4	2.3	2.2	2.2	2.1	2.1	0.22	50	YELLOW
3.6	3.5	3.4	3.2	3.1	3.0	2.9	2.8	2.8	2.7	2.6	2.5	2.5	2.4	2.3	2.3	0.25	60	
3.1	3.0	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	0.21	20	8003VS
3.9	3.7	3.6	3.4	3.3	3.2	3.1	3.0	2.9	2.8	2.8	2.7	2.6	2.5	2.5	2.4	0.26	30	11003VS
4.5	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	2.8	0.30	40	50 MESH
5.0	4.8	4.6	4.4	4.3	4.1	4.0	3.9	3.8	3.7	3.6	3.5	3.4	3.3	3.2	3.1	0.34	50	BLUE
5.4	5.2	5.0	4.9	4.7	4.5	4.4	4.3	4.1	4.0	3.9	3.8	3.7	3.6	3.5	3.4	0.37	60	
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	0.28	20	8004VS
5.1	4.9	4.8	4.6	4.4	4.3	4.1	4.0	3.9	3.8	3.7	3.6	3.5	3.4	3.3	3.2	0.35	30	11004VS
5.9	5.7	5.5	5.3	5.1	5.0	4.8	4.6	4.5	4.4	4.2	4.1	4.0	3.9	3.8	3.7	0.40	40	50 MESH
6.6	6.4	6.1	5.9	5.7	5.5	5.4	5.2	5.0	4.9	4.7	4.6	4.5	4.4	4.3	4.1	0.45	50	RED
7.3	7.0	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	4.5	0.49	60	
5.3	5.1	4.9	4.7	4.5	4.4	4.2	4.1	4.0	3.9	3.8	3.7	3.6	3.5	3.4	3.3	0.35	20	8005VS
6.4	6.2	6.0	5.7	5.5	5.4	5.2	5.0	4.9	4.7	4.6	4.5	4.3	4.2	4.1	4.0	0.43	30	11005VS
7.4	7.1	6.9	6.6	6.4	6.2	6.0	5.8	5.6	5.5	5.3	5.2	5.0	4.9	4.8	4.6	0.50	40	50 MESH
8.3	8.0	7.7	7.4	7.2	6.9	6.7	6.5	6.3	6.1	5.9	5.8	5.6	5.5	5.3	5.2	0.56	50	BROWN
9.1	8.7	8.4	8.1	7.8	7.6	7.3	7.1	6.9	6.7	6.5	6.3	6.1	6.0	5.8	5.7	0.61	60	

TP 110°/ 80° 32" 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	19.7	17.5	15.7	14.3	13.1	12.1	11.2	10.5	9.8	9.3	8.7	8.3	7.9	7.5	7.2	6.8	6.6
	30	0.52	24.1	21.5	19.3	17.6	16.1	14.9	13.8	12.9	12.1	11.4	10.7	10.2	9.7	9.2	8.8	8.4	8.0
11006VS	40	0.60	27.8	24.8	22.3	20.3	18.6	17.1	15.9	14.9	13.9	13.1	12.4	11.7	11.1	10.6	10.1	9.7	9.3
	50	0.67	31.1	27.7	24.9	22.6	20.8	19.2	17.8	16.6	15.6	14.7	13.8	13.1	12.5	11.9	11.3	10.8	10.4
50 MESH GRAY	60	0.74	34.1	30.3	27.3	24.8	22.7	21.0	19.5	18.2	17.1	16.1	15.2	14.4	13.6	13.0	12.4	11.9	11.4
	20	0.63	29.3	26.1	23.5	21.3	19.6	18.0	16.8	15.6	14.7	13.8	13.0	12.3	11.7	11.2	10.7	10.2	9.8
8008VS	30	0.69	32.2	28.6	25.7	23.4	21.4	19.8	18.4	17.2	16.1	15.1	14.3	13.5	12.9	12.3	11.7	11.2	10.7
	40	0.80	37.1	33.0	29.7	27.0	24.8	22.8	21.2	19.8	18.6	17.5	16.5	15.6	14.9	14.1	13.5	12.9	12.4
11008VS	50	0.89	41.5	36.9	33.2	30.2	27.7	25.5	23.7	22.1	20.7	19.5	18.4	17.5	16.6	15.8	15.1	14.4	13.8
	60	0.98	45.5	40.4	36.4	33.1	30.3	28.0	26.0	24.3	22.7	21.4	20.2	19.1	18.2	17.3	16.5	15.8	15.2
8010SS	20	0.71	32.8	29.2	26.2	23.9	21.9	20.2	18.7	17.5	16.4	15.4	14.6	13.8	13.1	12.5	11.9	11.4	10.9
	30	0.87	40.2	35.7	32.2	29.2	26.8	24.7	23.0	21.4	20.1	18.9	17.9	16.9	16.1	15.3	14.6	14.0	13.4
11010SS	40	1.00	46.4	41.3	37.1	33.8	30.9	28.6	26.5	24.8	23.2	21.8	20.6	19.5	18.6	17.7	16.9	16.1	15.5
	50	1.12	51.9	46.1	41.5	37.7	34.6	31.9	29.6	27.7	25.9	24.4	23.1	21.8	20.8	19.8	18.9	18.0	17.3
50 MESH	60	1.23	56.8	50.5	45.5	41.3	37.9	35.0	32.5	30.3	28.4	26.8	25.3	23.9	22.7	21.7	20.7	19.8	18.9
	20	1.06	49.2	43.8	39.4	35.8	32.8	30.3	28.1	26.3	24.6	23.2	21.9	20.7	19.7	18.8	17.9	17.1	16.4
8015SS	30	1.30	60.3	53.6	48.2	43.8	40.2	37.1	34.4	32.2	30.1	28.4	26.8	25.4	24.1	23.0	21.9	21.0	20.1
	40	1.50	69.6	61.9	55.7	50.6	46.4	42.8	39.8	37.1	34.8	32.8	30.9	29.3	27.8	26.5	25.3	24.2	23.2
11015SS	50	1.68	77.8	69.2	62.3	56.6	51.9	47.9	44.5	41.5	38.9	36.6	34.6	32.8	31.1	29.6	28.3	27.1	25.9
	60	1.84	85.2	75.8	68.2	62.0	56.8	52.5	48.7	45.5	42.6	40.1	37.9	35.9	34.1	32.5	31.0	29.7	28.4
8020SS	20	1.41	65.6	58.3	52.5	47.7	43.7	40.4	37.5	35.0	32.8	30.9	29.2	27.6	26.2	25.0	23.9	22.8	21.9
	30	1.73	80.4	71.4	64.3	58.5	53.6	49.5	45.9	42.9	40.2	37.8	35.7	33.8	32.2	30.6	29.2	28.0	26.8
11020SS	40	2.00	92.8	82.5	74.3	67.5	61.9	57.1	53.0	49.5	46.4	43.7	41.3	39.1	37.1	35.4	33.8	32.3	30.9
	50	2.24	103.8	92.2	83.0	75.5	69.2	63.9	59.3	55.3	51.9	48.8	46.1	43.7	41.5	39.5	37.7	36.1	34.6
50 MESH	60	2.45	113.6	101.0	90.9	82.7	75.8	69.9	64.9	60.6	56.8	53.5	50.5	47.9	45.5	43.3	41.3	39.5	37.9

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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		
6.3	6.1	5.8	5.6	5.4	5.2	5.1	4.9	4.8	4.6	4.5	4.4	4.3	4.1	4.0	3.9	0.42	20	8006VS 11006VS
7.7	7.4	7.2	6.9	6.7	6.4	6.2	6.0	5.9	5.7	5.5	5.4	5.2	5.1	5.0	4.8	0.52	30	
8.9	8.6	8.3	8.0	7.7	7.4	7.2	7.0	6.8	6.6	6.4	6.2	6.0	5.9	5.7	5.6	0.60	40	50 MESH GRAY
10.0	9.6	9.2	8.9	8.6	8.3	8.0	7.8	7.5	7.3	7.1	6.9	6.7	6.6	6.4	6.2	0.67	50	
10.9	10.5	10.1	9.7	9.4	9.1	8.8	8.5	8.3	8.0	7.8	7.6	7.4	7.2	7.0	6.8	0.74	60	
9.4	9.0	8.7	8.4	8.1	7.8	7.6	7.3	7.1	6.9	6.7	6.5	6.3	6.2	6.0	5.9	0.63	20	8008VS 11008VS
10.3	9.9	9.5	9.2	8.9	8.6	8.3	8.0	7.8	7.6	7.4	7.1	7.0	6.8	6.6	6.4	0.69	30	
11.9	11.4	11.0	10.6	10.2	9.9	9.6	9.3	9.0	8.7	8.5	8.3	8.0	7.8	7.6	7.4	0.80	40	50 MESH WHITE
13.3	12.8	12.3	11.9	11.4	11.1	10.7	10.4	10.1	9.8	9.5	9.2	9.0	8.7	8.5	8.3	0.89	50	
14.6	14.0	13.5	13.0	12.5	12.1	11.7	11.4	11.0	10.7	10.4	10.1	9.8	9.6	9.3	9.1	0.98	60	
10.5	10.1	9.7	9.4	9.1	8.7	8.5	8.2	8.0	7.7	7.5	7.3	7.1	6.9	6.7	6.6	0.71	20	8010SS 11010SS
12.9	12.4	11.9	11.5	11.1	10.7	10.4	10.0	9.7	9.5	9.2	8.9	8.7	8.5	8.2	8.0	0.87	30	
14.9	14.3	13.8	13.3	12.8	12.4	12.0	11.6	11.3	10.9	10.6	10.3	10.0	9.8	9.5	9.3	1.00	40	50 MESH
16.6	16.0	15.4	14.8	14.3	13.8	13.4	13.0	12.6	12.2	11.9	11.5	11.2	10.9	10.6	10.4	1.12	50	
18.2	17.5	16.8	16.2	15.7	15.2	14.7	14.2	13.8	13.4	13.0	12.6	12.3	12.0	11.7	11.4	1.23	60	
15.8	15.1	14.6	14.1	13.6	13.1	12.7	12.3	11.9	11.6	11.3	10.9	10.6	10.4	10.1	9.8	1.06	20	8015SS 11015SS
19.3	18.5	17.9	17.2	16.6	16.1	15.6	15.1	14.6	14.2	13.8	13.4	13.0	12.7	12.4	12.1	1.30	30	
22.3	21.4	20.6	19.9	19.2	18.6	18.0	17.4	16.9	16.4	15.9	15.5	15.1	14.7	14.3	13.9	1.50	40	50 MESH
24.9	23.9	23.1	22.2	21.5	20.8	20.1	19.5	18.9	18.3	17.8	17.3	16.8	16.4	16.0	15.6	1.68	50	
27.3	26.2	25.3	24.4	23.5	22.7	22.0	21.3	20.7	20.1	19.5	18.9	18.4	17.9	17.5	17.0	1.84	60	
21.0	20.2	19.4	18.7	18.1	17.5	16.9	16.4	15.9	15.4	15.0	14.6	14.2	13.8	13.5	13.1	1.41	20	8020SS 11020SS
25.7	24.7	23.8	23.0	22.2	21.4	20.7	20.1	19.5	18.9	18.4	17.9	17.4	16.9	16.5	16.1	1.73	30	
29.7	28.6	27.5	26.5	25.6	24.8	24.0	23.2	22.5	21.8	21.2	20.6	20.1	19.5	19.0	18.6	2.00	40	50 MESH
33.2	31.9	30.7	29.6	28.6	27.7	26.8	25.9	25.2	24.4	23.7	23.1	22.4	21.8	21.3	20.8	2.24	50	
36.4	35.0	33.7	32.5	31.4	30.3	29.3	28.4	27.6	26.7	26.0	25.3	24.6	23.9	23.3	22.7	2.45	60	