

High Speed Falcon 650I Motzle Performance

METRIC				
Flow gpm	Bar	Nozzle m	Radius m/h	Flow l/s
2.1	4	11.3	0.68	0.19
3.0	6	11.9	0.98	0.27
3.3	2.5	4	12.0	0.75
3.6	6	12.7	1.22	0.31
3.9	8	14.2	1.49	0.42
4.2	10	14.2	1.83	0.51
4.4	12	14.8	2.24	0.62
4.6	14	15.0	2.58	0.72
4.8	16	15.4	2.85	0.79
5.0	18	16.0	3.15	0.88
5.5	4	12.5	0.81	0.23
6.0	6	13.3	1.33	0.37
6.5	8	14.5	1.57	0.44
7.0	10	14.5	1.93	0.54
7.5	12	15.4	2.35	0.65
8.0	14	16.2	2.71	0.75
8.5	16	15.8	3.00	0.83
9.0	18	16.4	3.29	0.91
9.5	4	12.5	0.98	0.24
10.0	6	13.7	1.28	0.36
10.5	8	14.9	1.72	0.48
11.0	10	14.9	2.11	0.59
11.5	12	16.2	2.56	0.71
12.0	14	16.2	2.76	0.77
12.5	16	16.2	3.17	0.88
13.0	18	16.6	3.50	0.97
13.5	4	12.5	3.83	1.07
14.0	6	13.4	1.48	0.41
14.5	8	14.6	1.97	0.55
15.0	10	15.3	2.42	0.67
15.5	12	16.5	2.95	0.82
16.0	14	16.2	3.36	0.93
16.5	16	17.1	3.73	1.04
17.0	18	18.0	4.07	1.13
17.5	4	12.3	1.56	0.29
18.0	6	13.1	1.06	0.43
18.5	8	15.1	2.08	0.58
19.0	10	15.4	2.57	0.71
19.5	12	16.8	3.12	0.87
20.0	14	16.2	3.54	0.98
20.5	16	17.5	3.96	1.10
21.0	18	18.0	4.30	1.20
21.5	4	11.9	1.11	0.31
22.0	6	13.1	1.61	0.45
22.5	8	15.5	2.20	0.61
23.0	10	14.9	2.70	0.75
23.5	12	16.8	3.27	0.91
24.0	14	16.2	3.74	1.04
24.5	16	18.0	4.17	1.16
25.0	18	18.0	4.53	1.26
25.5	4	11.9	1.11	0.31
26.0	6	13.1	1.61	0.45
26.5	8	15.5	2.20	0.61
27.0	10	14.9	2.70	0.75
27.5	12	16.8	3.27	0.91
28.0	14	16.2	3.74	1.04
28.5	16	18.0	4.17	1.16
29.0	18	18.0	4.53	1.26
29.5	4	11.9	1.11	0.31
30.0	6	13.1	1.61	0.45
30.5	8	15.5	2.20	0.61
31.0	10	14.9	2.70	0.75
31.5	12	16.8	3.27	0.91
32.0	14	16.2	3.74	1.04
32.5	16	18.0	4.17	1.16
33.0	18	18.0	4.53	1.26
33.5	4	11.9	1.11	0.31
34.0	6	13.1	1.61	0.45
34.5	8	15.5	2.20	0.61
35.0	10	14.9	2.70	0.75
35.5	12	16.8	3.27	0.91
36.0	14	16.2	3.74	1.04
36.5	16	18.0	4.17	1.16
37.0	18	18.0	4.53	1.26
37.5	4	11.9	1.11	0.31
38.0	6	13.1	1.61	0.45
38.5	8	15.5	2.20	0.61
39.0	10	14.9	2.70	0.75
39.5	12	16.8	3.27	0.91
40.0	14	16.2	3.74	1.04
40.5	16	18.0	4.17	1.16
41.0	18	18.0	4.53	1.26
41.5	4	11.9	1.11	0.31
42.0	6	13.1	1.61	0.45
42.5	8	15.5	2.20	0.61
43.0	10	14.9	2.70	0.75
43.5	12	16.8	3.27	0.91
44.0	14	16.2	3.74	1.04
44.5	16	18.0	4.17	1.16
45.0	18	18.0	4.53	1.26
45.5	4	12.5	0.81	0.23
46.0	6	13.4	1.48	0.41
46.5	8	14.6	1.97	0.55
47.0	10	15.3	2.42	0.67
47.5	12	16.5	2.95	0.82
48.0	14	16.2	3.36	0.93
48.5	16	17.1	3.73	1.04
49.0	18	18.0	4.07	1.13
49.5	4	12.3	1.56	0.29
50.0	6	13.1	1.06	0.43
50.5	8	15.1	2.08	0.58
51.0	10	15.4	2.57	0.71
51.5	12	16.8	3.12	0.87
52.0	14	16.2	3.54	0.98
52.5	16	17.5	3.96	1.10
53.0	18	18.0	4.30	1.20
53.5	4	11.9	1.11	0.31
54.0	6	13.1	1.61	0.45
54.5	8	15.5	2.20	0.61
55.0	10	14.9	2.70	0.75
55.5	12	16.8	3.27	0.91
56.0	14	16.2	3.74	1.04
56.5	16	18.0	4.17	1.16
57.0	18	18.0	4.53	1.26
57.5	4	11.9	1.11	0.31
58.0	6	13.1	1.61	0.45
58.5	8	15.5	2.20	0.61
59.0	10	14.9	2.70	0.75
59.5	12	16.8	3.27	0.91
60.0	14	16.2	3.74	1.04
60.5	16	18.0	4.17	1.16
61.0	18	18.0	4.53	1.26
61.5	4	11.9	1.11	0.31
62.0	6	13.1	1.61	0.45
62.5	8	15.5	2.20	0.61
63.0	10	14.9	2.70	0.75
63.5	12	16.8	3.27	0.91
64.0	14	16.2	3.74	1.04
64.5	16	18.0	4.17	1.16
65.0	18	18.0	4.53	1.26
65.5	4	11.9	1.11	0.31
66.0	6	13.1	1.61	0.45
66.5	8	15.5	2.20	0.61
67.0	10	14.9	2.70	0.75
67.5	12	16.8	3.27	0.91
68.0	14	16.2	3.74	1.04
68.5	16	18.0	4.17	1.16
69.0	18	18.0	4.53	1.26
69.5	4	11.9	1.11	0.31
70.0	6	13.1	1.61	0.45
70.5	8	15.5	2.20	0.61
71.0	10	14.9	2.70	0.75
71.5	12	16.8	3.27	0.91
72.0	14	16.2	3.74	1.04
72.5	16	18.0	4.17	1.16
73.0	18	18.0	4.53	1.26
73.5	4	11.9	1.11	0.31
74.0	6	13.1	1.61	0.45
74.5	8	15.5	2.20	0.61
75.0	10	14.9	2.70	0.75
75.5	12	16.8	3.27	0.91
76.0	14	16.2	3.74	1.04
76.5	16	18.0	4.17	1.16
77.0	18	18.0	4.53	1.26
77.5	4	11.9	1.11	0.31
78.0	6	13.1	1.61	0.45
78.5	8	15.5	2.20	0.61
79.0	10	14.9	2.70	0.75
79.5	12	16.8	3.27	0.91
80.0	14	16.2	3.74	1.04
80.5	16	18.0	4.17	1.16
81.0	18	18.0	4.53	1.26
81.5	4	11.9	1.11	0.31
82.0	6	13.1	1.61	0.45
82.5	8	15.5	2.20	0.61
83.0	10	14.9	2.70	0.75
83.5	12	16.8	3.27	0.91
84.0	14	16.2	3.74	1.04
84.5	16	18.0	4.17	1.16
85.0	18	18.0	4.53	1.26
85.5	4	11.9	1.11	0.31
86.0	6	13.1	1.61	0.45
86.5	8	15.5	2.20	0.61
87.0	10	14.9	2.70	0.75
87.5	12	16.8	3.27	0.91
88.0	14	16.2	3.74	1.04
88.5	16	18.0	4.17	1.16
89.0	18	18.0	4.53	1.26
89.5	4	11.9	1.11	0.31
90.0	6	13.1	1.61	0.45
90.5	8	15.5	2.20	0.61
91.0	10	14.9	2.70	0.75
91.5	12	16.8	3.27	0.91
92.0	14	16.2	3.74	1.04
92.5	16	18.0	4.17	1.16
93.0	18	18.0	4.53	1.26
93.5	4	11.9	1.11	0.31
94.0	6	13.1	1.61	0.45
94.5	8	15.5	2.20	0.61
95.0	10	14.9	2.70	0.75
95.5	12	16.8	3.27	0.91
96.0	14	16.2	3.74	1.04
96.5	16	18.0	4.17	1.16
97.0	18	18.0	4.53	1.26
97.5	4	11.9	1.11	0.31
98.0	6	13.1	1.61	0.45
98.5	8	15.5	2.20	0.61
99.0	10	14.9	2.70	0.75
99.5	12	16.8	3.27	0.91
100.0	14	16.2	3.74	1.04
100.5	16	18.0	4.17	1.16
101.0	18	18.0	4.53	1.26
101.5	4	11.9	1.11	0.31
102.0	6	13.1	1.61	0.45
102.5	8	15.5	2.20	0.61
103.0	10	14.9	2.70	0.75
103.5	12	16.8	3.27	0.91
104.0	14	16.2	3.74	1.04
104.5	16	18.0	4.17	1.16
105.0	18	18.0	4.53	1.26
105.5	4	11.9	1.11	0.31
106.0	6	13.1	1.61	0.45
106.5	8	15.5	2.20	0.61
107.0	10	14.9	2.70	0.75
107.5	12	16.8	3.27	0.91
108.0	14	16.2	3.74	1.04
108.5	16	18.0	4.17	1.16
109.0	18	18.0	4.53	1.26
109.5	4	11.9	1.11	0.31
110.0	6	13.1	1.61	0.45
110.5	8	15.5	2.20	0.61
111.0	10	14.9	2.70	0.75
111.5	12	16.8	3.27	0.91
112.0	14	16.2	3.74	1.04
112.5	16	18.0	4.17	1.16
113.0	18	18.0	4.53	1.26
113.5	4	11.9	1.11	0.31
114.0	6	13.1	1.61	0.45
114.5	8	15.5	2.20	0.61
115.0	10	14.9	2.70	0.75
115.5	12	16.8	3.27	0.91
116.0	14	16.2	3.74	1.04
116.5	16	18.0	4.17	1.16
117.0	18	18.0	4.53	1.26
117.5	4	11.9	1.11	0.31
118.0	6	13.1	1.61	0.45
118.5	8	15.5	2.20	0.61
119.0	10	14.9	2.70	0.75
119.5	12	16.8	3.27	0.91
120.0	14	16.2	3.74	1.04
120.5	16	18.0	4.17	1.16
121.0	18	18.0	4.53	1.26
121.5	4	11.9	1.11	0.31
122.0	6	13.1	1.61	0.45
122.5	8	15.5	2.20	0.61
123.0	10	14.9	2.70	0.75
123.5	12	16.8	3.27	0.91
124.0	14	16.2	3.74	1.04
124.5	16	18.0	4.17	1.16
125.0	18	18.0	4.53	1.26
125.5	4	11.9	1.11	0.31
126.0	6	13.1	1.61	0.45
126.5	8	15.5	2.20	0.61
127.0	10	14.9	2.70	0.75
127.5	12	16.8	3.27	0.91
128.0	14	16.2	3.74	1.04
128.5	16	18.0	4.17	1.16
129.0	18	18.0	4.53	1.26
129.5	4	11.9	1.11	0.31
130.0	6	13.1	1.61	0.45
130.5	8	15.5	2.20	0.61
131.0	10	14.9	2.70	0.75
131.5	12	16.8	3.27	0.91
132.0	1			

Arc Adjustment

The arc is adjustable from 40° - 360° (PC units only). All part-circle Falconer® 6504 rotors are factory preset to approximately 180 degrees. The rotor is adjusted from the right trip. The left trip is fixed.

Align Fixed Left Trip (A)

1. Pull up turret and turn to the left trip point (counterclockwise).
Caution: If the rotor does not turn easily, first turn it right (clockwise) to the right trip point.
2. Next, turn the body until the arrow points in the direction you want to set the left edge trip.

To increase the arc: (B)

1. While holding the nozzle turret at the fixed left stop, insert screwdriver into the adjustment socket.
2. Turn the screwdriver counter clockwise (+) to increase the arc.
3. Each full counterclockwise turn of the screwdriver will add 45 degrees of arc.
4. When the maximum arc of 360 degrees has been set, you will feel some resistance in the adjustment screw. Do not adjust the rotor beyond the maximum arc.

To decrease the arc: (C)

1. While holding the turret at the fixed left stop, insert screwdriver into the arc adjustment socket.
2. Turn the screwdriver clockwise (-) to decrease the arc.
3. Each full clockwise turn of the screwdriver will remove 45 degrees of arc.
4. When the minimum arc of 40 degrees has been set, you will feel some resistance in the adjustment screw. Do not adjust the rotor below the minimum arc.

Radius Adjustment: (radius can be reduced up to 25%) (D)

- Turn the screwdriver clockwise to reduce radius.

Nozzle Installation (E & F)

- Insert the Pull-up Tool into the pull-up slot, turn 90 degrees, and lift up stem. Use the hold up tool to support the riser in this extended position.
- Loosen the radius adjustment screw until it no longer obstructs the nozzle opening in the nozzle housing.
- Insert the color-coded nozzle firmly into the opening until it is flush with the nozzle turret.
- Tighten the radius adjustment screw clockwise to secure the nozzle.
- To remove the nozzle, first back out the radius adjustment screw. Then insert a flat-head screwdriver into the slot in the lower right side of the nozzle to pry it loose.

