



Practical Practices™ PP01-04K

Clarification for determining Automotive Paint Booths from 12 to 24 feet in height

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In January, Kidde® Fire Systems announced coverage enhancements to the new automotive paint booth system. The Design, Installation, Operation and Maintenance Manual (DIOM), 83-100036-001, was updated to include the new coverages and pipe parameters. Part of the update includes two tables (Table 4-2 and Table 4-3) that delineate the coverage areas at one-foot height increments. Table 4-2 is in "English" measurements (feet, inches) and Table 4-3 is in metric measurements.

The purpose of these two tables is to give examples of nozzle coverages based on a booths height and width. On the same page in the manual (page 4-3), we state the ends of the envelope of the area and long side per nozzle, for booths between 12 and 24 feet in height.

- Maximum module volume per nozzle:
1260 cubic feet (35.68 cubic meters) for booths at any height
- Maximum module height per nozzle
24 feet (7.32 meters)
- Maximum module area:
105 sq. feet (9.75 square meters) for heights of 12 feet (3.66 meters) and less
52.5 sq. feet (4.88 square meters) for heights of 24 feet (7.32 meters)
- Maximum module side length:
14 feet (4.27 meters) at 12 feet (3.66 meters) in height
10 feet (3.05 meters) at 24 feet (7.32 Meters) in height

Tables 4-2 and 4-3 do not clearly delineate the actual parameters of the nozzle coverages. Included with this Practical Practice are two tables that include the maximum nozzle side and maximum nozzle area at ½-foot (0.1524 meter) increments.

The tables in this document do not replace the ones in DIOM, 83-100036-001, but are meant to enhance them. We hope you find these tables helpful.

Table 1 (PP01-04K)

**Area Coverage per Nozzle of
Automotive Paint Booths from 12 to 24 Feet High
“English” Measurements**

Height (feet)	Maximum Long Side	Side 2	Maximum Square Feet	Volume cubic feet
12.0	14.00	7.50	105.00	1260
12.5	13.84	7.29	100.80	1260
13.0	13.67	7.09	96.92	1260
13.5	13.51	6.91	93.33	1260
14.0	13.33	6.75	90.00	1260
14.5	13.17	6.60	86.90	1260
15.0	13.00	6.46	84.00	1260
15.5	12.84	6.33	81.29	1260
16.0	12.67	6.22	78.75	1260
16.5	12.51	6.11	76.36	1260
17.0	12.33	6.01	74.12	1260
17.5	12.17	5.92	72.00	1260
18.0	12.00	5.83	70.00	1260
18.5	11.84	5.75	68.11	1260
19.0	11.67	5.68	66.32	1260
19.5	11.51	5.62	64.62	1260
20.0	11.33	5.56	63.00	1260
20.5	11.17	5.51	61.46	1260
21.0	11.00	5.45	60.00	1260
21.5	10.84	5.41	58.60	1260
22.0	10.67	5.37	57.27	1260
22.5	10.51	5.33	56.00	1260
23.0	10.33	5.30	54.78	1260
23.5	10.17	5.27	53.62	1260
24.0	10.00	5.25	52.50	1260

Table 2 (PP01-04K)

**Area Coverage per Nozzle of
Automotive Paint Booths from 12 to 24 Feet High
Metric Measurements**

Height (meters)	Maximum Long Side	Side 2	Maximum Square Meters	Volume cubic meters
3.66	4.27	2.29	9.75	35.68
3.81	4.22	2.22	9.36	35.68
3.96	4.17	2.16	9.00	35.68
4.11	4.12	2.11	8.67	35.68
4.27	4.06	2.06	8.36	35.68
4.42	4.01	2.01	8.07	35.68
4.57	3.96	1.97	7.80	35.68
4.72	3.91	1.93	7.55	35.68
4.88	3.86	1.89	7.32	35.68
5.03	3.81	1.86	7.09	35.68
5.18	3.76	1.83	6.89	35.68
5.33	3.71	1.80	6.69	35.68
5.49	3.66	1.78	6.50	35.68
5.64	3.61	1.75	6.33	35.68
5.79	3.56	1.73	6.16	35.68
5.94	3.51	1.71	6.00	35.68
6.10	3.45	1.69	5.85	35.68
6.25	3.40	1.68	5.71	35.68
6.40	3.35	1.66	5.57	35.68
6.55	3.30	1.65	5.44	35.68
6.71	3.25	1.64	5.32	35.68
6.86	3.20	1.62	5.20	35.68
7.01	3.15	1.62	5.09	35.68
7.16	3.10	1.61	4.98	35.68
7.32	3.05	1.60	4.88	35.68