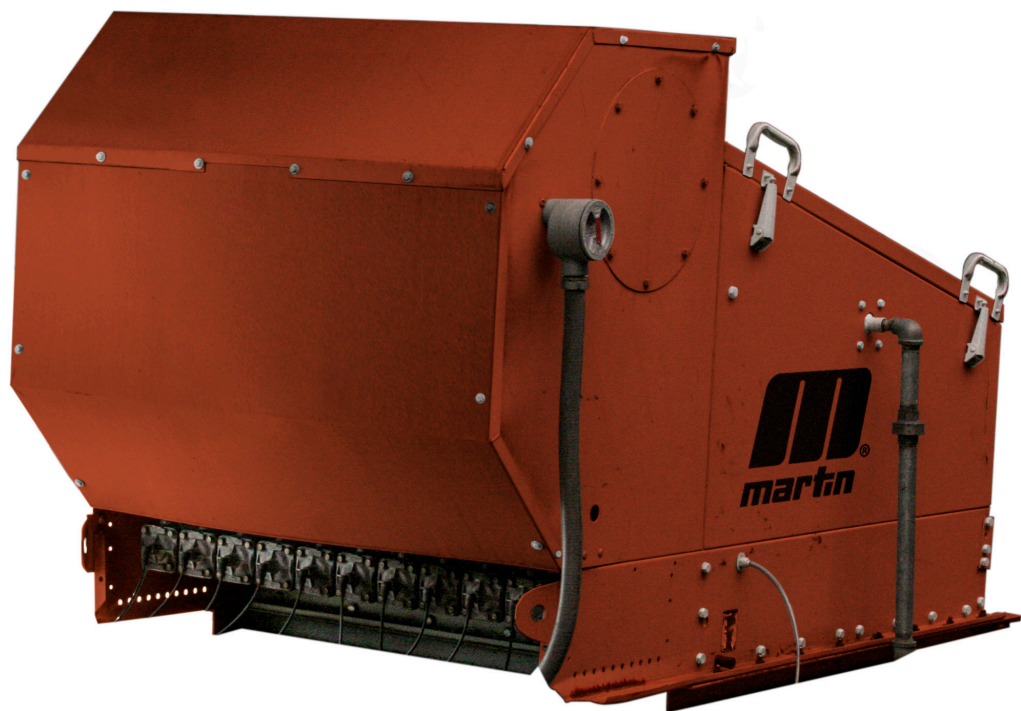


martin[®]

***Martin[®] Air Cleaner
with Envelope Filter***

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***Operator's Manual
M3416***

Important

MARTIN ENGINEERING HEREBY DISCLAIMS ANY LIABILITY FOR: DAMAGE DUE TO CONTAMINATION OF THE MATERIAL; USER'S FAILURE TO INSPECT, MAINTAIN AND TAKE REASONABLE CARE OF THE EQUIPMENT; INJURIES OR DAMAGE RESULTING FROM USE OR APPLICATION OF THIS PRODUCT CONTRARY TO INSTRUCTIONS AND SPECIFICATIONS CONTAINED HEREIN. MARTIN ENGINEERING'S LIABILITY SHALL BE LIMITED TO REPAIR OR REPLACEMENT OF EQUIPMENT SHOWN TO BE DEFECTIVE.

Observe all safety rules given herein along with owner and Government standards and regulations. Know and understand lockout/tagout procedures as defined by American National Standards Institute (ANSI) z244.1-1982, *American National Standard for Personnel Protection - Lockout/Tagout of Energy Sources - Minimum Safety Requirements* and Occupational Safety and Health Administration (OSHA) Federal Register, Part IV, 29 CFR Part 1910, *Control of Hazardous Energy Source (Lockout/Tagout); Final Rule*.

The following symbols may be used in this manual:



Danger: Immediate hazards that will result in severe personal injury or death.



Warning: Hazards or unsafe practices that could result in personal injury.



Caution: Hazards or unsafe practices that could result in product or property damages.



Important: Instructions that must be followed to ensure proper installation/operation of equipment.



Note: General statements to assist the reader.

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Introduction

General

The Martin® Air Cleaner with Envelope Filters is an automatic, reverse air dust filter designed to remove dust from the air in conveyor transfer points, silo vents, bucket elevators, and screens. The unit is made up of a group of filter elements mounted on a sealed frame. The elements are fitted side-by-side in an individual sealing arrangement that effectively separates the dirty (inlet) side of the filter from the clean (outlet) side. The elements are always removed for maintenance from the clean side of the filter.

This manual provides instructions for locating and installing the Martin® Air Cleaner at a conveyor transfer point or silo. For instructions on installing units on bucket elevators or screens, call Martin Engineering or a representative. Information on unit components, assembly, electrical requirements, operation, maintenance, and troubleshooting can be found in the *Dalamatic® Insertable Dust Filter User Manual* supplied with your unit.

Location requirements for transfer point installations

To ensure the air filter's maximum effectiveness, make sure the transfer point is properly sealed and designed with dust control in mind, as follows:

- **Chute length:** For standard materials or belt speeds up to 250 fpm (1.3 m/s), the transfer point chute length should equal 2 ft per 100 fpm (210 mm per 0.5 m/s) of belt speed. For very dusty materials or belt speeds of 300 fpm (1.5 m/s) and higher, the chute length should equal 3 ft per 100 fpm (914 mm per 0.5 m/s) of belt speed. When in doubt, make the chute longer.
- **Chute height:** For standard materials or belt speeds up to 250 fpm (1.3 m/s), the chute wall should be at least 12 in. (305 mm) high. For very dusty materials or belt speeds of 300 fpm (1.5 m/s) and higher, it should be at least 24 in. (610 mm) high.
- **Distance from load zone:** Locate air cleaner as far from actual load zone as possible, and 1/3 of the belt width back from the chute exit point.

For best results, install a dust curtain at the exit of the chute. For information on transfer point wear liners and sealing systems, call Martin Engineering or a representative.

References

The following documents are referenced in this manual:

- American National Standards Institute (ANSI) z244.1-1982, *American National Standard for Personnel Protection - Lockout/Tagout of Energy Sources - Minimum Safety Requirements*, American National Standards Institute, Inc., 1430 Broadway, New York, NY 10018.
- Federal Register, Volume 54, Number 169, Part IV, 29 CFR Part 1910, *Control of Hazardous Energy Source (Lockout/Tagout); Final Rule*, Department of Labor, Occupational Safety and Health Administration (OSHA), 32nd Floor, Room 3244, 230 South Dearborn Street, Chicago, IL 60604.
- **Dalamatic® Insertable Dust Filter User Manual*.
*Dalamatic® is a registered trademark of BTR Industrial Holdings Ltd.

Safety

All safety rules defined in the above documents and all owner/employer safety rules must be strictly followed when working on this equipment.

Materials required

In addition to standard hand tools, a hoist is required to install this equipment.

Before Installing Air Cleaner

IMPORTANT

The delivery service is responsible for damage occurring in transit. Martin Engineering CANNOT enter claims for damages. Contact your transportation agent for more information.

1. Inspect shipping container for damage. Report damage to delivery service immediately and fill out delivery service's claim form. Keep any damaged goods subject to examination.
2. Remove Martin® Air Cleaner from shipping container. Equipment in container should include air cleaner, upstand (if required), and controller.
3. If anything is missing, contact Martin Engineering or representative.



WARNING

Before installing equipment, turn off and lock out/tag out energy source to conveyor and conveyor accessories.

4. Turn off and lock out/tag out energy source according to ANSI standards (see "References").



WARNING

If equipment will be installed in an enclosed area, gas level or dust content must be tested before using a cutting torch or welding. Using a cutting torch or welding in an area with gas or dust may cause an explosion.

5. If using a cutting torch or welding, test atmosphere for gas level or dust content. Cover conveyor belt with fire retardant cover.

Installing Air Cleaner

1. Make sure conveyor belt structure and chutework will support air cleaner and upstand (if using). See Table I for weight specifications.
2. Determine how to best install air cleaner on your application. See Figures 1 and 2 for upstand dimensions and Figure 3 for air cleaner dimensions.

Table I. Martin® Air Cleaner and Upstand Part Numbers and Weights

| Air Cleaner | | | Horizontal Upstand | | Vertical Upstand | |
|------------------|----------------|----------------|--------------------|----------------|------------------|----------------|
| Martin Part No.* | DCE Model No. | Weight lb (kg) | Martin Part No. | Weight lb (kg) | Martin Part No. | Weight lb (kg) |
| 35238 | DLM V4/7-F1 | 353 (160) | 35338-H | 310 (141) | 35338-V | 160 (73) |
| 35239 | DLM V6/10-F1 | 375 (170) | 35339-H | 350 (159) | 35339-V | 240 (109) |
| 35240 | DLM V7/7-F1 | 496 (225) | 35340-H | 380 (172) | 35340-V | 245 (111) |
| 35241 | DLM V7/7-K3 | 518 (235) | 35340-H | 380 (172) | 35340-V | 245 (111) |
| 35242 | DLM V8/7-F1 | 463 (210) | 35341-H | 410 (186) | 35341-V | 270 (122) |
| 35243 | DLM V8/7-K3 | 551 (250) | 35341-H | 410 (186) | 35341-V | 270 (122) |
| 35244 | DLM V9/15-F1 | 397 (180) | 35342-H | 455 (206) | 35342-V | 325 (147) |
| 35245 | DLM V9/15-K3 | 419 (190) | 35342-H | 455 (206) | 35342-V | 325 (147) |
| 35246 | DLM V10/10-F1 | 540 (245) | 35343-H | 425 (193) | 35343-V | 310 (141) |
| 35247 | DLM V10/10-K3 | 562 (255) | 35343-H | 425 (193) | 35343-V | 310 (141) |
| 35248 | DLM V12/10-F1 | 595 (270) | 35344-H | 465 (211) | 35344-V | 350 (159) |
| 35249 | DLM V12/10-K3 | 595 (270) | 35344-H | 465 (211) | 35344-V | 350 (159) |
| 35250 | DLM V12/10-K5 | 617 (280) | 35344-H | 465 (211) | 35344-V | 350 (159) |
| 35251 | DLM V14/7-K3 | 816 (370) | 35345-H | 510 (231) | 35345-V | 330 (150) |
| 35252 | DLM V14/7-K5 | 838 (380) | 35345-H | 510 (231) | 35345-V | 330 (150) |
| 35253 | DLM V15/15-K3 | 606 (275) | 35346-H | 540 (245) | 35346-V | 425 (193) |
| 35254 | DLM V15/15-K5 | 628 (285) | 35346-H | 540 (245) | 35346-V | 425 (193) |
| 35255 | DLM V18/15-K3 | 650 (295) | 35347-H | 600 (272) | 35347-V | 470 (213) |
| 35256 | DLM V18/15-K5 | 672 (305) | 35347-H | 600 (272) | 35347-V | 470 (213) |
| 35257 | DLM V18/15-F6 | 705 (320) | 35347-H | 600 (272) | 35347-V | 470 (213) |
| 35258 | DLM V20/10-K3 | 893 (405) | 35348-H | 575 (261) | 35348-V | 420 (191) |
| 35259 | DLM V20/10-K5 | 915 (415) | 35348-H | 575 (261) | 35348-V | 420 (191) |
| 35260 | DLM V20/10-F6 | 948 (430) | 35348-H | 575 (261) | 35348-V | 420 (191) |
| 35261 | DLM V21/7-K3 | 1091 (495) | 35349-H | 625 (284) | 35349-V | 430 (195) |
| 35262 | DLM V21/7-K5 | 1113 (505) | 35349-H | 625 (284) | 35349-V | 430 (195) |
| 35263 | DLM V21/7-F6 | 1146 (520) | 35349-H | 625 (284) | 35349-V | 430 (195) |
| 35264 | DLM V30/10-K5 | 1213 (550) | 35350-H | 730 (331) | 35350-V | 550 (249) |
| 35265 | DLM V30/10-F6 | 1246 (565) | 35350-H | 730 (331) | 35350-V | 550 (249) |
| 35266 | DLM V30/10-F10 | 1301 (590) | 35350-H | 730 (331) | 35350-V | 550 (249) |
| 35267 | DLM V30/15-K5 | 1025 (465) | 35351-H | 720 (327) | 35351-V | 590 (267) |
| 35268 | DLM V30/15-F6 | 1058 (480) | 35351-H | 720 (327) | 35351-V | 590 (267) |
| 35269 | DLM V30/15-F10 | 1113 (505) | 35351-H | 720 (327) | 35351-V | 590 (267) |
| 35270 | DLM V45/15-F6 | 1378 (625) | 35352-H | 910 (413) | 35352-V | 760 (345) |
| 35271 | DLM V45/15-F10 | 1433 (650) | 35352-H | 910 (413) | 35352-V | 760 (345) |
| 35272 | DLM V45/15-K11 | 1444 (655) | 35352-H | 910 (413) | 35352-V | 760 (345) |
| 35273 | DLM V60/15-F6 | 1962 (890) | 35353-H | 950 (431) | 35353-V | 790 (358) |
| 35274 | DLM V60/15-F10 | 1962 (890) | 35353-H | 950 (431) | 35353-V | 790 (358) |
| 35275 | DLM V60/15-K11 | 1962 (890) | 35353-H | 950 (431) | 35353-V | 790 (358) |

*Standard unit. Add -EP to part number for explosion-proof unit.

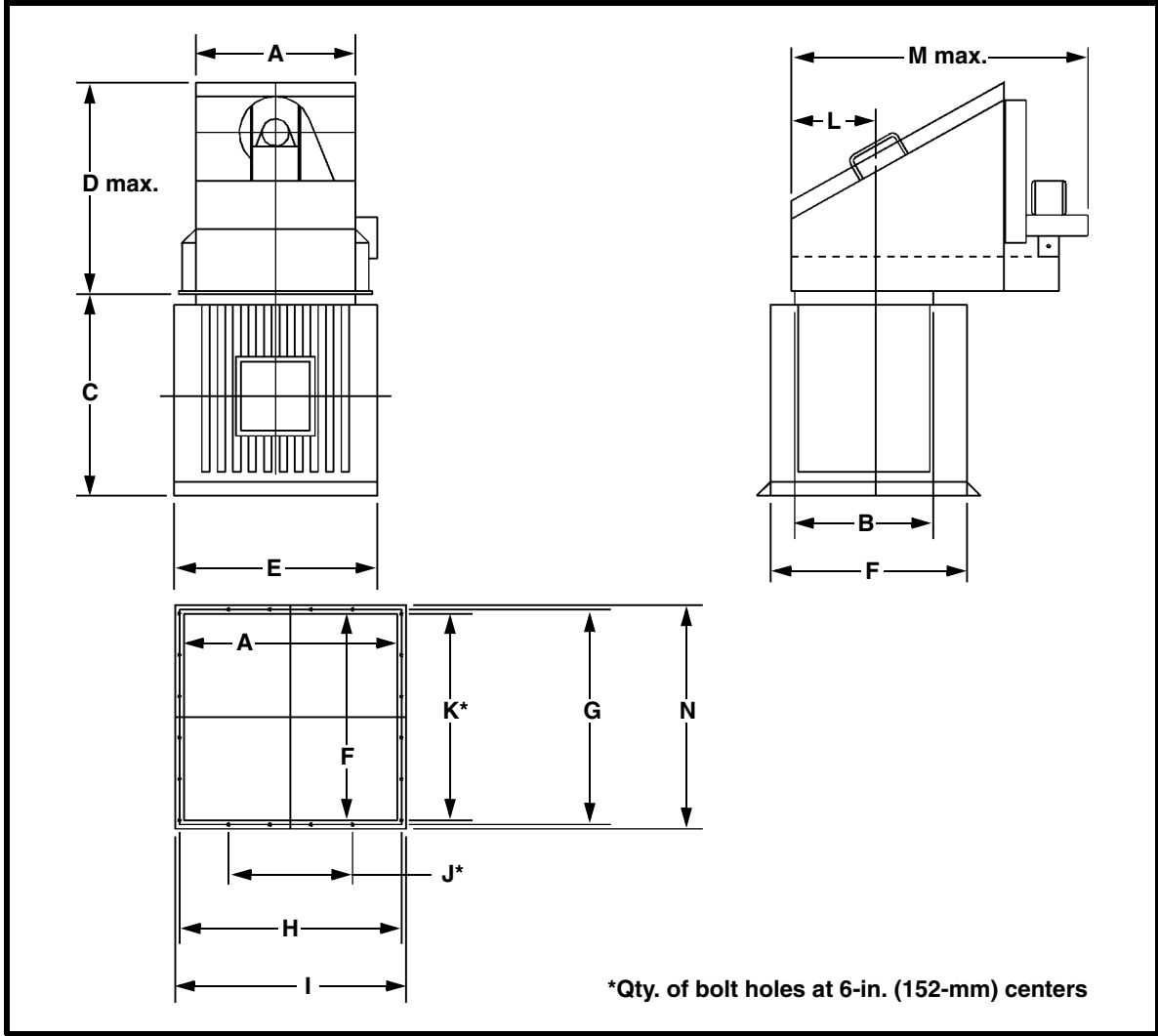


Figure 1. Dimensions for Vertical Upstands†
(part 1 of 2)

| Dim. ref. | Model Type | | | | | | | |
|-----------|---------------|---------------|---------------|-----------------|---------------|---------------|-----------------|-----------------|
| | V4/7 | V6/10 | V7/7 | V8/7 | V9/15 | V10/10 | V12/10 | V14/7 |
| A | 23-1/8 (587) | 23-1/8 (587) | 38-7/8 (987) | 23-1/8 (587) | 23-1/8 (587) | 38-7/8 (987) | 23-1/8 (587) | 38-7/8 (987) |
| B | 20-1/8 (511) | 20-1/8 (511) | 20-1/8 (511) | 40-13/16 (1037) | 20-1/8 (511) | 20-1/8 (511) | 40-13/16 (1037) | 40-13/16 (1037) |
| C | 27-3/4 (705) | 39-3/4 (1010) | 27-3/4 (705) | 27-3/4 (705) | 59-1/4 (1505) | 39-3/4 (1010) | 39-3/4 (1010) | 27-3/4 (705) |
| D | 32-1/4 (819) | 32-1/4 (819) | 34 (864) | 35-3/4 (908) | 32-1/4 (819) | 34 (864) | 35-3/4 (908) | 35-3/4 (908) |
| E | 29-1/2 (749) | 29-1/2 (749) | 45-1/4 (1149) | 29-1/2 (749) | 29-1/2 (749) | 45-1/4 (1149) | 29-1/2 (749) | 45-1/4 (1149) |
| F | 28-1/2 (724) | 28-1/2 (724) | 28-1/2 (724) | 51-1/4 (1302) | 28-1/2 (724) | 28-1/2 (724) | 51-1/4 (1302) | 51-1/4 (1302) |
| G | 31 (787) | 31 (787) | 31 (787) | 53-3/4 (1365) | 31 (787) | 31 (787) | 53-3/4 (1365) | 53-3/4 (1365) |
| H | 32 (813) | 32 (813) | 47-3/4 (1213) | 32 (813) | 32 (813) | 47-3/4 (1213) | 32 (813) | 47-3/4 (1213) |
| I | 33-1/2 (851) | 33-1/2 (851) | 49-1/4 (1251) | 33-1/2 (851) | 33-1/2 (851) | 49-1/4 (1251) | 33-1/2 (851) | 49-1/4 (1251) |
| J | 4 | 4 | 7 | 5 | 4 | 7 | 5 | 7 |
| K | 5 | 5 | 5 | 8 | 5 | 5 | 8 | 8 |
| L | 12-1/4 (311) | 12-1/4 (311) | 12-1/4 (311) | 22-5/8 (575) | 12-1/4 (311) | 12-1/4 (311) | 22-5/8 (575) | 22-5/8 (575) |
| M | 43-1/8 (1095) | 43-1/8 (1095) | 43-1/8 (1095) | 64 (1626) | 43-1/8 (1095) | 43-1/8 (1095) | 64 (1626) | 64 (1626) |
| N | 32-1/2 (826) | 32-1/2 (826) | 32-1/2 (826) | 55-1/4 (1403) | 32-1/2 (826) | 32-1/2 (826) | 55-1/4 (1403) | 55-1/4 (1403) |

| Dim. ref. | Model Type | | | | | | |
|-----------|---------------|-----------------|-----------------|----------------|----------------|-----------------|----------------|
| | V15/15 | V18/15 | V20/10 | V21/7 | V30/10 | V30/15 | V45/15 |
| A | 38-7/8 (987) | 23-1/8 (587) | 38-7/8 (987) | 38-7/8 (987) | 38-7/8 (987) | 38-7/8 (987) | 38-7/8 (987) |
| B | 20-1/8 (511) | 40-13/16 (1037) | 40-13/16 (1037) | 64-7/16 (1637) | 64-7/16 (1637) | 40-13/16 (1037) | 64-7/16 (1637) |
| C | 59-1/4 (1505) | 59-1/4 (1505) | 39-3/4 (1010) | 27-3/4 (705) | 39-3/4 (1010) | 59-1/4 (1505) | 59-1/4 (1505) |
| D | 34 (864) | 36-1/2 (927) | 36-1/2 (927) | 42 (1067) | 42 (1067) | 37-1/2 (927) | 42 (1067) |
| E | 45-1/4 (1149) | 29-1/2 (749) | 45-1/4 (1149) | 45-1/4 (1149) | 45-1/4 (1149) | 49-1/4 (1251) | 49-1/4 (1251) |
| F | 28-1/2 (724) | 51-1/4 (1302) | 51-1/4 (1302) | 72 (1829) | 72 (1829) | 51-1/4 (1302) | 72 (1829) |
| G | 31 (787) | 53-3/4 (1365) | 53-3/4 (1365) | 81-1/2 (2070) | 81-1/2 (2070) | 53-3/4 (1365) | 81-1/2 (2070) |
| H | 47-3/4 (1213) | 32 (813) | 47-3/4 (1213) | 47-3/4 (1213) | 47-3/4 (1213) | 51-3/4 (1314) | 51-3/4 (1314) |
| I | 49-1/4 (1251) | 33-1/2 (851) | 49-1/4 (1251) | 49-1/4 (1251) | 49-1/4 (1251) | 53-1/4 (1353) | 53-1/4 (1353) |
| J | 7 | 5 | 7 | 7 | 7 | 8 | 8 |
| K | 5 | 8 | 8 | 12 | 12 | 8 | 12 |
| L | 12-1/4 (311) | 22-5/8 (575) | 22-5/8 (575) | 32-1/2 (826) | 32-1/2 (826) | 22-5/8 (575) | 32-1/2 (826) |
| M | 43-1/8 (1095) | 64 (1626) | 64 (1626) | 87-5/8 (2226) | 88-3/4 (2254) | 68-1/8 (1730) | 88-3/4 (2254) |
| N | 32-1/2 (826) | 55-1/4 (1403) | 55-1/4 (1403) | 83 (2108) | 83 (2108) | 55-1/4 (1403) | 83 (2108) |

**Figure 1. Dimensions for Vertical Upstands†
in. (mm) (part 2 of 2)**

†All bolt holes are 7/16-in. dia. and are symmetrical about centerline. Dimensions M and P are based on F-type unit installations. Access door is 20 x 20 in. (508 x 508 mm).

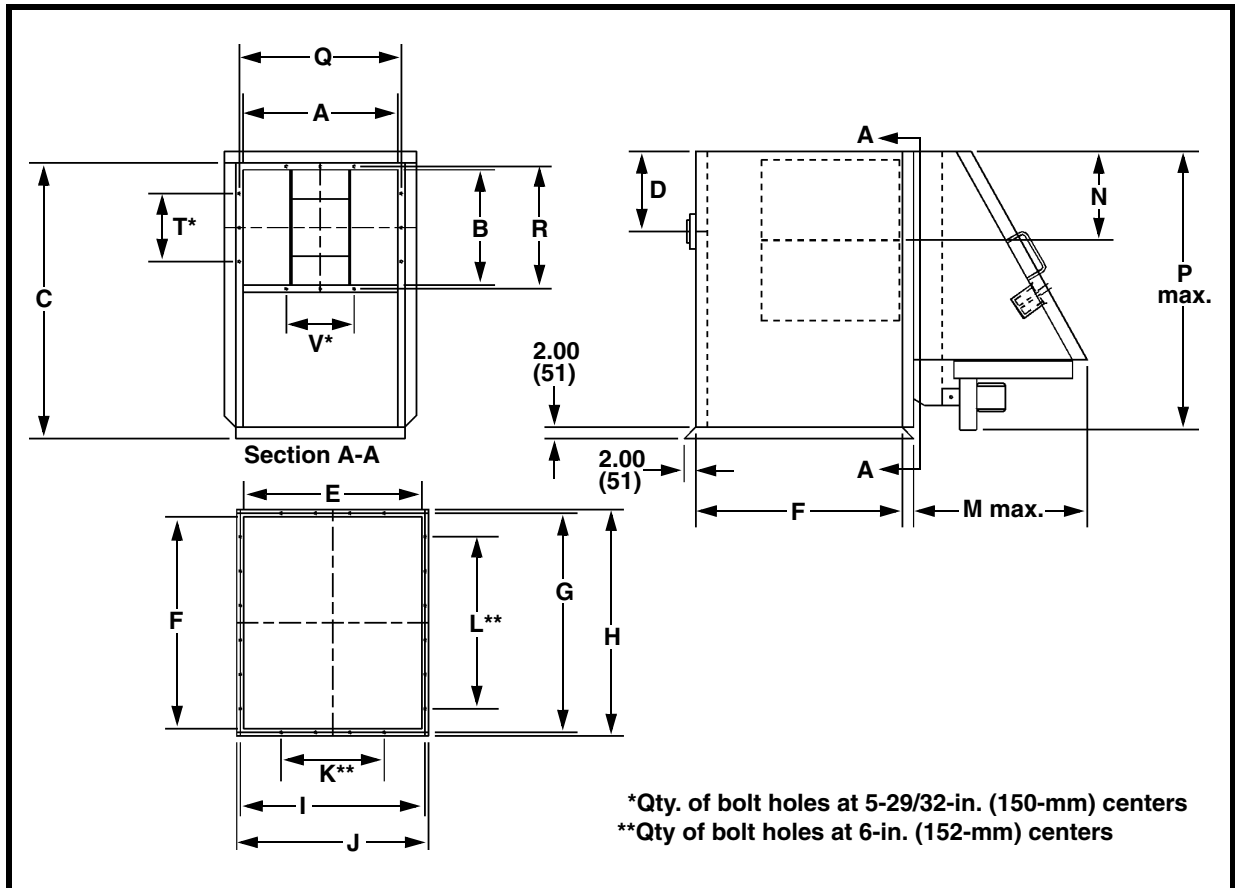


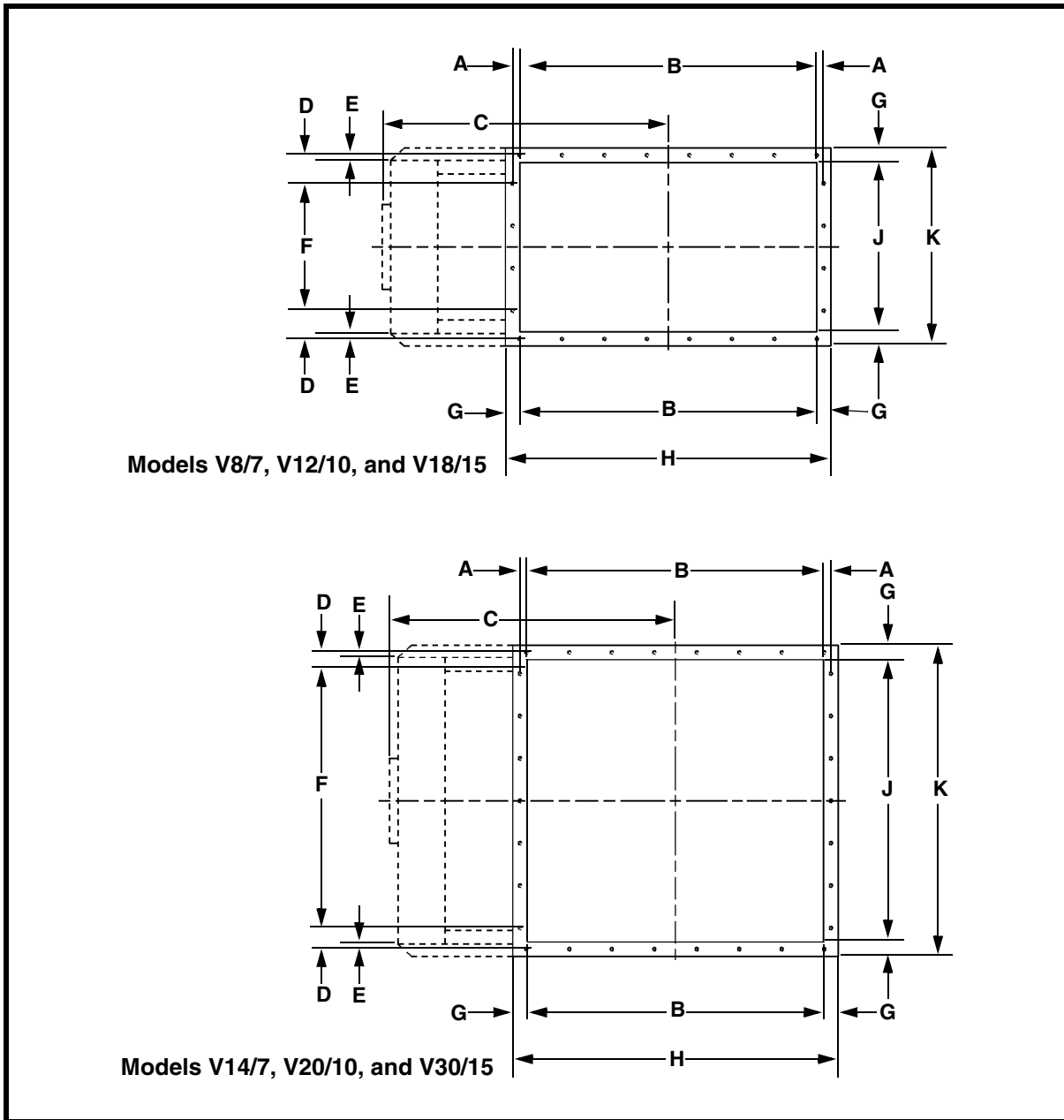
Figure 2. Dimensions for Horizontal Upstands†
 (part 1 of 2)

| Dim. ref. | Model Type | | | | | | | |
|-----------|---------------|---------------|---------------|-----------------|---------------|---------------|-----------------|-----------------|
| | V4/7 | V6/10 | V7/7 | V8/7 | V9/15 | V10/10 | V12/10 | V14/7 |
| A | 23-1/8 (587) | 23-1/8 (587) | 38-7/8 (987) | 23-1/8 (587) | 23-1/8 (587) | 38-7/8 (987) | 23-1/8 (587) | 38-7/8 (987) |
| B | 20-1/8 (511) | 20-1/8 (511) | 20-1/8 (511) | 40-13/16 (1037) | 20-1/8 (511) | 20-1/8 (511) | 40-13/16 (1037) | 40-13/16 (1037) |
| C | 48-1/8 (1222) | 48-1/8 (1222) | 48-1/8 (1222) | 70-13/16 (1799) | 48-1/8 (1222) | 48-1/8 (1222) | 70-13/16 (1799) | 70-13/16 (1799) |
| D | 14 (356) | 14 (356) | 14 (356) | 24-1/2 (622) | 14 (356) | 14 (356) | 24-1/2 (622) | 24-1/2 (622) |
| E | 29-1/2 (749) | 29-1/2 (749) | 45-1/4 (1149) | 29-1/2 (749) | 29-1/2 (749) | 45-1/4 (1149) | 29-1/2 (749) | 49-1/4 (1251) |
| F | 35-1/2 (902) | 45-1/2 (1156) | 35-1/2 (902) | 35-1/2 (902) | 65 (1651) | 45-1/2 (1156) | 45-1/2 (1156) | 35-1/2 (902) |
| G | 38 (965) | 48 (1219) | 38 (965) | 38 (965) | 67-1/2 (1715) | 48 (1219) | 48 (1219) | 38 (965) |
| H | 39-1/2 (1003) | 49-1/2 (1257) | 39-1/2 (1003) | 39-1/2 (1003) | 69 (1753) | 49-1/2 (1257) | 49-1/2 (1257) | 39-1/2 (1003) |
| I | 32 (813) | 32 (813) | 47-3/4 (1213) | 32 (813) | 32 (813) | 47-3/4 (1213) | 32 (813) | 51-3/4 (1314) |
| J | 33-1/2 (851) | 33-1/2 (851) | 49-1/4 (1251) | 33-1/2 (851) | 33-1/2 (851) | 49-1/4 (1251) | 33-1/2 (851) | 53-1/4 (1353) |
| K | 4 | 4 | 7 | 4 | 4 | 7 | 4 | 8 |
| L | 6 | 7 | 6 | 6 | 10 | 7 | 7 | 6 |
| M | 32-1/4 (819) | 32-1/4 (819) | 34 (864) | 35-3/4 (908) | 32-1/4 (819) | 34 (864) | 35-3/4 (908) | 35-3/4 (908) |
| N | 12-1/4 (311) | 12-1/4 (311) | 12-1/4 (311) | 22-5/8 (575) | 12-1/4 (311) | 12-1/4 (311) | 22-5/8 (575) | 22-5/8 (575) |
| P | 42-1/8 (1070) | 42-1/8 (1070) | 42-1/8 (1070) | 42-1/8 (1070) | 64 (1626) | 42-1/8 (1070) | 64 (1626) | 64 (1626) |
| Q | 25-5/8 (651) | 25-5/8 (651) | 41-3/8 (1051) | 25-5/8 (651) | 25-5/8 (651) | 41-3/8 (1051) | 25-5/8 (651) | 41-3/8 (1051) |
| R | 22-5/8 (575) | 22-5/8 (575) | 22-5/8 (575) | 42-5/16 (567) | 22-5/8 (575) | 42-5/16 (567) | 42-5/16 (567) | 22-5/8 (575) |
| T | 3 | 3 | 3 | 7 | 3 | 3 | 2 | 7 |
| V | 3 | 3 | 6 | 3 | 3 | 6 | 3 | 6 |

| Dim. ref. | Model Type | | | | | | |
|-----------|---------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| | V15/15 | V18/15 | V20/10 | V21/7 | V30/10 | V30/15 | V45/15 |
| A | 38-7/8 (987) | 23-1/8 (587) | 38-7/8 (987) | 38-7/8 (987) | 38-7/8 (987) | 38-7/8 (987) | 38-7/8 (987) |
| B | 20-1/8 (511) | 40-13/16 (1037) | 40-13/16 (1037) | 64-7/16 (1637) | 64-7/16 (1637) | 40-13/16 (1037) | 64-7/16 (1637) |
| C | 48-1/8 (1222) | 70-13/16 (1799) | 70-13/16 (1799) | 94-7/16 (2399) | 94-7/16 (2399) | 70-13/16 (1799) | 94-7/16 (2399) |
| D | 14 (356) | 24-1/2 (622) | 24-1/2 (622) | 24-1/2 (622) | 24-1/2 (622) | 24-1/2 (622) | 24-1/2 (622) |
| E | 45-1/4 (1149) | 29-1/2 (749) | 49-1/4 (1251) | 49-1/4 (1251) | 49-1/4 (1251) | 49-1/4 (1251) | 49-1/4 (1251) |
| F | 65 (1651) | 65 (1651) | 45-1/2 (1156) | 35-1/2 (902) | 45-1/2 (1156) | 65 (1651) | 65 (1651) |
| G | 67-1/2 (1715) | 67-1/2 (1715) | 48 (1219) | 38 (965) | 48 (1219) | 67-1/2 (1715) | 67-1/2 (1715) |
| H | 69 (1753) | 69 (1753) | 49-1/2 (1257) | 39-1/2 (1003) | 49-1/2 (1257) | 69 (1753) | 69 (1753) |
| I | 47-3/4 (1213) | 32 (813) | 51-3/4 (1314) | 51-3/4 (1314) | 51-3/4 (1314) | 51-3/4 (1314) | 51-3/4 (1314) |
| J | 49-1/4 (1251) | 33-1/2 (851) | 53-1/4 (1353) | 53-1/4 (1353) | 53-1/4 (1353) | 53-1/4 (1353) | 53-1/4 (1353) |
| K | 7 | 4 | 8 | 8 | 8 | 8 | 8 |
| L | 10 | 10 | 7 | 6 | 7 | 10 | 10 |
| M | 35 (889) | 36-1/2 (927) | 36-1/2 (927) | 42 (1067) | 42 (1067) | 37-1/2 (953) | 42 (1067) |
| N | 12-1/4 (311) | 22-5/8 (575) | 22-5/8 (575) | 34-1/2 (876) | 34-1/2 (876) | 22-5/8 (575) | 34-1/2 (876) |
| P | 42-1/8 (1070) | 64 (1626) | 64 (1626) | 87-5/8 (2226) | 91-3/4 (9330) | 80-1/8 (2035) | 91-3/4 (9330) |
| Q | 41-3/8 (1051) | 25-5/8 (651) | 41-3/8 (1051) | 41-3/8 (1051) | 41-3/8 (1051) | 41-3/8 (1051) | 41-3/8 (1051) |
| R | 22-5/8 (575) | 42-5/16 (567) | 42-5/16 (567) | 66-15/16 (1700) | 66-15/16 (1700) | 42-5/16 (567) | 66-15/16 (1700) |
| T | 3 | 7 | 7 | 11 | 11 | 7 | 11 |
| V | 6 | 3 | 6 | 6 | 6 | 6 | 6 |

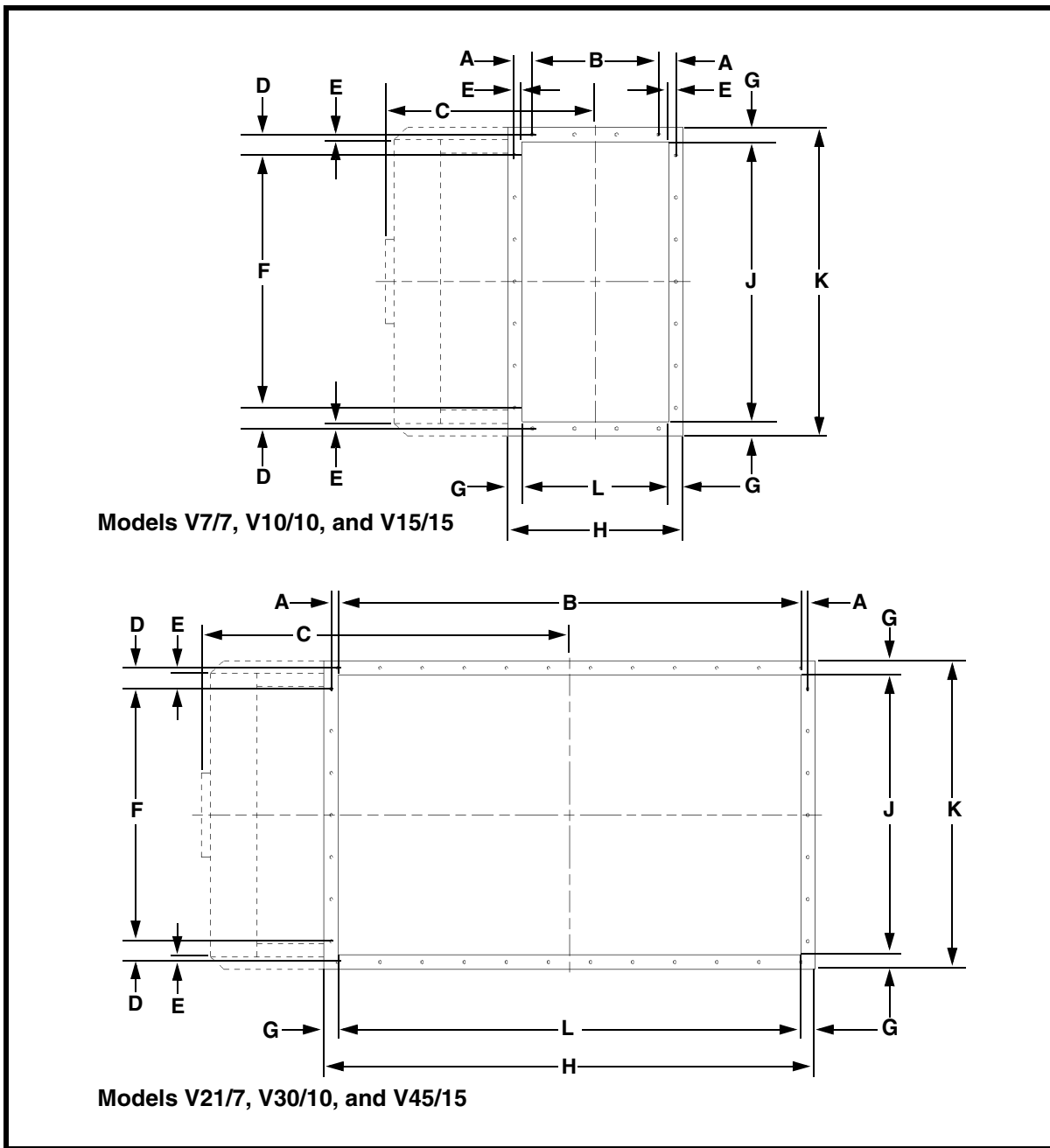
**Figure 2. Dimensions for Horizontal Upstands†
in. (mm) (part 2 of 2)**

†All bolt holes are 7/16-in. dia. and are symmetrical about centerline. Dimensions M and P are based on F-type unit installations. Access door is 20 x 20 in. (508 x 508 mm).



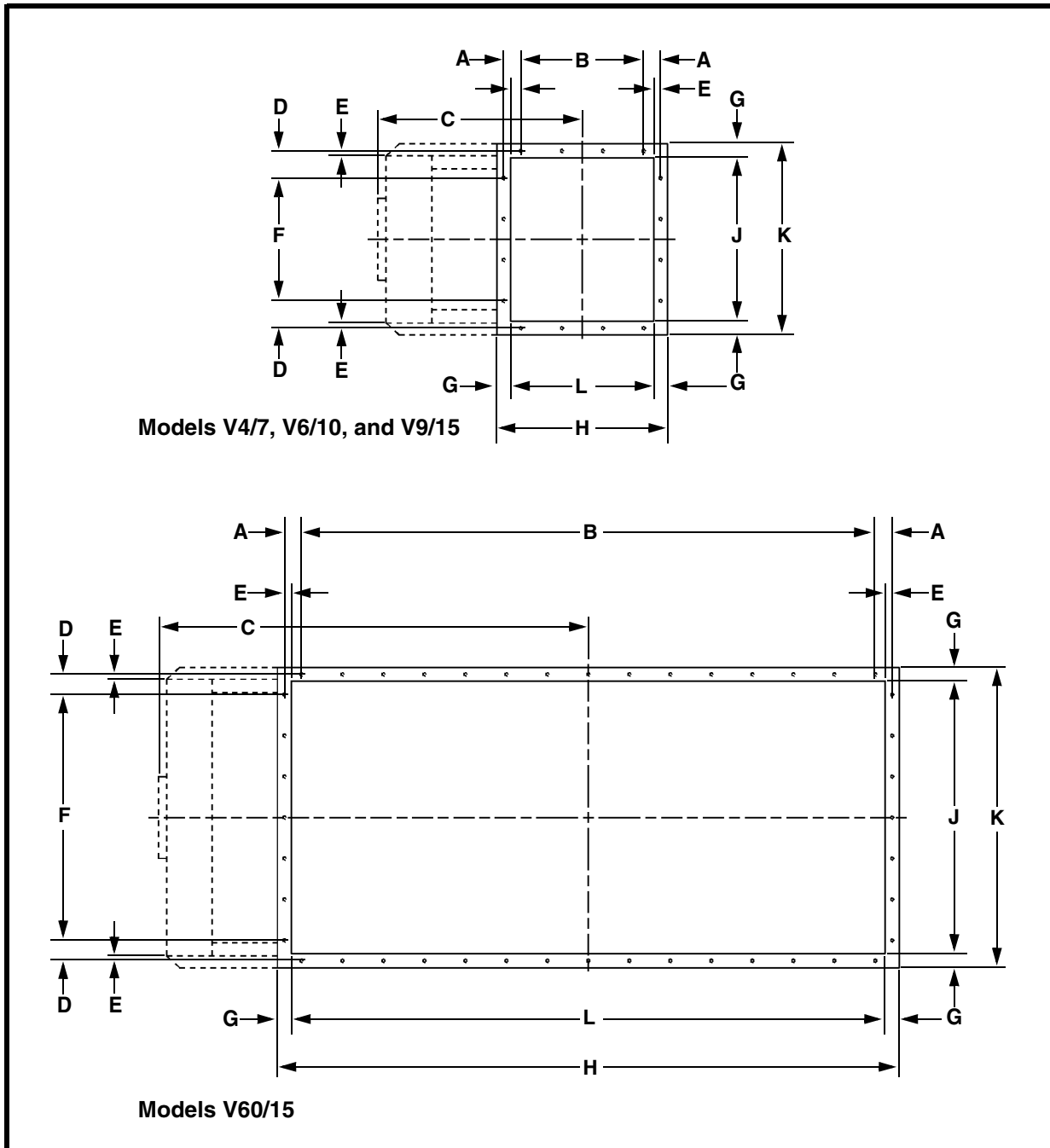
**Figure 3. Aperture and Mounting Flange Dimensions for Martin[®] Air Cleaner Units*
(part 1 of 4)**

*All bolt holes are 15/32-in. dia. for 3/8-in. set screws, at 5-29/32-in. (150-mm) centers, and symmetrical about centerline.



**Figure 3. Aperture and Mounting Flange Dimensions for Martin® Air Cleaner Units*
(part 2 of 4)**

*All bolt holes are 15/32-in. dia. for 3/8-in. set screws, at 5-29/32-in. (150-mm) centers, and symmetrical about centerline.



**Figure 3. Aperture and Mounting Flange Dimensions for Martin® Air Cleaner Units*
(part 3 of 4)**

*All bolt holes are 15/32-in. dia. for 3/8-in. set screws, at 5-29/32-in. (150-mm) centers, and symmetrical about centerline.

| Dim. ref. | Model Type | | | | | |
|--------------|---------------------------|---------------------------|--------------------------|---------------------------|------------------------|--------------------|
| | V8/7 V12/10, V18/15 | V14/7 V20/10 V30/15 | V7/7 V10/10 V15/15 | V21/7 V30/10 V45/15 | V4/7 V6/10 V9/15 | V60/15 |
| A | 1 (25) | 1 (25) | 2-15/32 (75) | 1 (25) | 2-15/32 (63) | 2-15/32 (63) |
| B | 41-11/32 (1050) | 41-11/32 (1050) | 17-23/32 (450) | 64-31/32 (1650) | 17-23/32 (450) | 82-11/16 (2100) |
| C | 41-11/32 (1050) | 41-11/32 (1050) | 27-3/4 (705) | 53-5/32 (1350) | 27-3/4 (705) | 63-3/8 (1610) |
| D | 3-15/16 (100) | 2-15/16 (75) | 2-15/16 (75) | 2-15/16 (75) | 3-15/16 (100) | 2-15/16 (75) |
| E | 1 (25) | 1 (25) | 1 (25) | 1 (25) | 1 (25) | 1 (25) |
| F | 17-23/32 (450) | 35-7/16 (900) | 35-7/16 (900) | 35-7/16 (900) | 17-23/32 (450) | 35-7/16 (900) |
| G | 1-31/32 (50) | 1-31/32 (50) | 1-31/32 (50) | 1-31/32 (50) | 1-31/32 (50) | 1-31/32 (50) |
| H | 45-9/32 (1150) | 45-9/32 (1150) | 24-19/32 (625) | 68-29/32 (1750) | 24-19/32 (625) | 89-9/16 (2275) |
| J | 23-5/8 (600) | 39-3/8 (1000) | 39-3/8 (1000) | 39-3/8 (1000) | 23-5/8 (600) | 39-3/8 (1000) |
| K | 27-9/16 (700) | 42-5/16 (1075) | 42-5/16 (1075) | 42-5/16 (1075) | 27-9/16 (700) | 42-5/16 (1075) |
| L | — | — | 20-21/32 (525) | 64-31/32 (1650) | 20-21/32 (525) | 85-5/8 (2175) |

Figure 3. Aperture and Mounting Flange Dimensions for Martin® Air Cleaner Units in. (mm) (part 4 of 4)

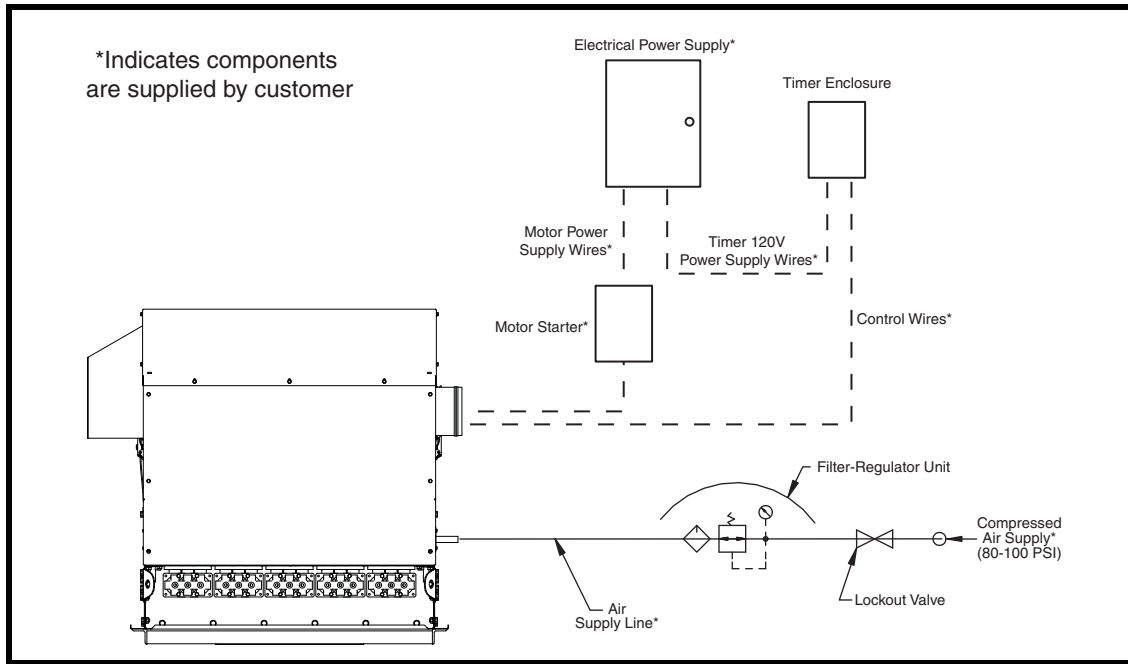


Figure 4. Electrical and Plumbing Detail

Electrical connections



All electrical work must be done to National Electrical Code (NEC) standards. See “References.”



For explosion-proof air cleaner units, properly ground unit to earth by connecting a ground wire to ground lug on unit. Failure to properly ground the unit can result in a static electricity explosion, damage to equipment, and severe injury or death.



1. For explosion-proof units, properly connect a ground wire to the unit’s ground lug (located on the unit next to the symbol shown) to prevent static electricity buildup. Use the brass screw provided to connect the ground wire to the unit.
2. Check the grounding of each filter cartridge with volt/ohm meter:
 - a. Touch one probe to the filter media.
 - b. Touch other probe to grounding lug on base.
 - c. All resistance measurements must be less than 10 ohms. If greater than 10 ohms inspect grounding strap to ensure contact with filter media.
3. Check grounding through motor and solenoid enclosure.

Operation and Maintenance

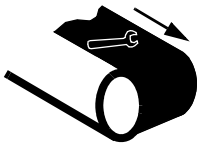
IMPORTANT

Read entire section before beginning work.

⚠ WARNING

Air cleaner may produce loud noise when mounted on structure. See OSHA 1910.95 for guidelines. If required, wear ear protection to avoid impairment or loss of hearing.

1. If Martin® Air Cleaner produces loud noise according to OSHA 1910.95, wear ear protection.



⚠ WARNING

Failure to remove tools from installation area and conveyor belt before turning on energy source can cause serious injury to personnel and damage to belt.

2. Remove all tools and fire retardant cover from installation area and conveyor belt.



⚠ DANGER

Do not touch or go near conveyor belt or conveyor accessories when conveyor belt is running. Body or clothing can get caught and pull body into conveyor belt, causing severe injury or death.

3. Turn on conveyor belt.
4. Operate and maintain Martin® Air Cleaner according to *Dalamatic® Insertable Dust Filter User Manual* supplied with your unit.

Part Numbers

See the Table I on page 5 for Martin® Air Cleaner unit assembly part numbers.

Replacement Envelope Filter Part Numbers

| P/N | Description | Length in. (mm) |
|-----------|---|--------------------|
| 35850-07A | Anti-Static Media with Oleophobic Treatment | 27.00 (686) |
| 35850-07N | Nomex (High Temperature) | 27.00 (686) |
| 35850-07T | 16% Polyester with Oleophobic Treatment | 27.00 (686) |
| 37010-07 | Replacement Cage | 27.00 (686) |
| 35850-10A | Anti-Static Media with Oleophobic Treatment | 39.00 (991) |
| 35850-10N | Nomex (High Temperature) | 39.00 (991) |
| 35850-10T | 16% Polyester with Oleophobic Treatment | 39.00 (991) |
| 37010-10 | Replacement Cage | 39.00 (991) |
| 35850-15A | Anti-Static Media with Oleophobic Treatment | 60.00 (1524) |
| 35850-15N | Nomex (High Temperature) | 60.00 (1524) |
| 35850-15T | 16% Polyester with Oleophobic Treatment | 60.00 (1524) |
| 37010-15 | Replacement Cage | 60.00 (1524) |

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