Power Plant

Instructions for Assembly of the Power Plant & Interior

Kit Contents:

187 ea. white 1/16" laser cut acrylic parts
26 ea. frosted 1/16" laser cut acrylic parts
2 ea. 1/8" laser cut acrylic parts
18 ea. 1/4" laser cut acrylic parts
2 ea. cast resin small stack
1 ea. cast resin large stack
4 ea. cast resin curved manifold
2 ea. cast resin angled manifold
2 ea. cast resin cyclone
3 ea. cage ladder
1/16” x 2” styrene rod
1/8” x 7.5” styrene tube
3/16” x 7.5” styrene tube
1/4” x 7.5” styrene tube
Instructions with diagrams

Thank you for purchasing this kit. Please read these instructions completely before beginning and take your time. Allow parts to dry after painting or gluing and do not try to build this in one night.

Drawings of all the parts have been included for ease of part identification.

Practice gluing the acrylic together if you have never done it before. Scrap acrylic is included.

If by chance a part is missing or broken, please contact us indicating the kit name and part number and we will send you a replacement.

You will need the following items to assemble your model: Sharp hobby knife, file, paint (see “Painting Your Model”), paint brushes, glue (see “Gluing Acrylic”), modeling putty, track.
About the Kit

The prototype for this kit was built in the early part of the 20th century in a large urban city and still stands today. The plant was connected to the city steam system which provided over eighty buildings with steam heat and power. Similar plants were used to generate steam to power electric generating turbines located either in the same building or in an adjacent structure.

Coal is delivered by rail and unloaded in the double track hopper located on the side of the building. From there it is loaded into the tipple for storage. After being pulverized the coal is used to fire the furnaces that generate steam. Spent fuel is then loaded out of the bottom of the building into trucks or rail gondolas for disposal.

This structure is designed to be a destination point on your layout and will act as a customer for the coal that is brought down from the mines or delivered at the coal docks. It can be located in your city or as part of a large industrial complex that needs a lot of power. It will employ a lot of people so surround it with row-houses, shops, and small businesses.

The kit is built up in modules labeled as *units*. There are two units that stack on top of each other when completed to create the main building structure. In addition, there are five other units which are built separately and added to the main building to create the super structure. These include the coal dumper which attaches to the track side of the main building, and the conveyor which is built in 3 units and attaches to the track side and roof of the main building.

Parts are labeled in the instructions inside parentheses. The first number is the unit number and the second is the part number in that unit. For instance (3-6) would be part six in unit three. Units 1, 2, & 3 each have a base and top that are identified with a letter.

Many parts have engraved details on them. Be sure that these are facing out when gluing the parts together. It is easy to install these backwards by mistake.

Gluing Acrylic

Always glue acrylic in a well-ventilated area, and read the glue manufacturer’s label for instructions.

We recommend using Tenax-7R by Hebco or Plastruct brand “Plastic Weld Solvent Cement” (PPC-2 or PPC-16) or “Bondine Solvent Cement” (Bond-2 or BOND-16). Tenax-7R comes with a dispenser and Plastruct sells a Solvent Syringe (HT-8 or HT-10) and various other solvent dispensers. Most hobby shops carry these products or they may be ordered directly from Hebco (931)-796-7442 or Plastruct (626)-912-7016.

Acrylic must be glued together using a solvent that will melt the two edges and literally fuse them together. To do this, place the two pieces to be joined together and run a bead of solvent down the edge. Capillary action will suck the solvent into the joint and after several seconds the pieces will be fused. After only a few minutes the pieces will be strong enough to work with. The bond will be completely dry within twenty-four hours using the above-mentioned products.
Solvent can be dispensed two ways. Typically the solvent comes in a small bottle with a brush in the lid. The brush allows you to dispense a drop or two of solvent at a time. You may want to use a polyethylene bottle or syringe with a blunt needle dispenser. This allows larger amounts of solvent to be dispensed quickly and cleanly. Be sure the bottle you are using is approved for the solvent you are using or you may melt through it. These may be purchased from CMR.

For this model, glue the windows into each building unit using super glue (CA). We used super glue to attach many of the roof elements, as well. We also recommend using white glue for attaching some parts (where noted) because of its slower drying time and ease of cleaning up any excess.

Preparing Your Model for Painting

Lightly sand all parts to remove the raised edge created during the laser cutting process. In order to hide any seams use “hobbyist putty” such as Green Squadron modeling putty. Do this in a well ventilated area. Apply the putty over the seams; allow to dry overnight. Once the putty has dried use a sanding block to smooth. You may need to apply a second coat of putty and sand again.

Sometimes it is necessary to sand or file the tabs slightly in order to get them to seat themselves into the slots. This is due to slight variations in acrylic thickness. If the tabs are not fitting into the slots you may need to file them back at an angle to fit properly.

Painting Your Model

For our building paint scheme, we used Krylon spray paints which are available in most hardware stores or directly from Sherwin Williams Paints. We also used “Poly Scale Acrylics” for details and weathering. These are available in most hobby shops.

Always test compatibility of your paint with the acrylic by painting and testing a small area first. Alcohol can cause acrylic to crack and “shatter”. Do not use alcohol to clean the parts or alcohol-based paints. If you apply washes to your building we recommend using a water-based wash.

If you plan to light your building’s interior, we recommend that you prime the building inside and out. This will prevent the walls from glowering.

We spray painted the main building and coal dumper khaki. We then hand-painted the engraved brick Polyscale “Mineral Red”, and the sills, lintels, and cinder block areas Polyscale “SP Lark Dark Gray”. Once dry, we made a khaki wash and applied it to each wall so the mortar lines would show. The building units were laid flat with a wall facing up and the wash was applied and allowed to dry. The unit was rotated to the next wall and the process was repeated, and so on.

We spray painted the windows flat black. Once dry, a Polyscale “Pacemaker Gray” wash was applied to each piece to bring out the engraved details.
The conveyor in the prototype was originally metal parts painted white. Over time, they have rusted and flaked becoming quite deteriorated. To create this look, our conveyor structure was primed gray and then lightly painted white using Polyscale “Reefer White”. Using a combination of washes and dry-brush application, we used Polyscale “Aged Concrete”, “Rust”, and “Roof Brown” to create the look of aged metal.

If you wish to weather or air brush your building, do so before installing the windows.

All rooftops were painted flat back and then had a brown wash applied.

**Window Glass**

Frosted acrylic is provided as the window glass for this kit. Note that only one side of the acrylic has a matte finish. When installing the window glass, be certain that the matte side is facing out to avoid reflection. The window glass pieces are labeled with the same part number as the wall behind which it will be attached.
Assembling the Units

This structure is asymmetrical in that opposite sides do not match one another in detail and character. The two short sides will be referred to as the “front” and “back” sides. The two longer sides will be referred to as the “track” and “alley” sides. Figure 1 shows base part (A) face up with the first set of wall parts ready to install into their appropriate places.

Please note that all pieces referred to as bases and tops (parts A-G) should have the part number facing up during assembly unless otherwise noted. This is the correct orientation to ensure that the tabs on the wall parts fit into the slots facing the right way.

Unit 1

Begin by taking base (A) and laying it flat on your work surface with the engraved part number facing up. The “front” side is indicated on the piece, and the “track” side has an indentation. Insert the tabs of the “front” wall (1-1) into the slots of part (A) and glue in place (see Figure 1 for orientation). Note that the tabs on the top and bottom of the wall parts are different sizes, and the engraved side of the part should be facing out. This is true for all parts unless otherwise noted.

Working counter-clockwise, next insert the tabs of the “track” wall (1-2) into the slots of part (A) and glue in place. The two walls should meet and be glued at the corner. Insert the tabs of the “back” wall (1-3) into the slots of part (A) and glue in place. Then, insert the tabs of the “alley” wall (1-4) into the slots of part (A) and glue in place to form a box. Make sure to glue all the corners together. Insert the top tabs of the assembly into the slots of part (B) with the engraved part number facing up. Check that all the tabs are seated properly and glue in place. See Figure 2.

Figure 1

Figure 2
Next, glue the brick trim pieces to the top of each wall abutting the cornice. Be certain to maintain the correct orientation of the pieces all around the unit so that the shorter bricks are always on top. Begin by glueing the trim to the “track” and “alley” sides first. Affix part (1-6) to the “track” side. It will fit between the engraved line on the right and the edge of the wall on the left. Glue part (1-8) to the “alley” side. This piece will be the same width as the wall. Glue the brick trim pieces to the short walls, noting that these pieces are wider than the walls so that they will overlap the trim pieces of the adjoining walls. Glue part (1-5) to the “front” wall. Glue part (1-7) to the “back” wall. See Figure 3.

![Figure 3](image1)

Fill and sand the corners of the assembly if necessary (see “Preparing your Model for Painting”).

Paint the unit as described in “Painting Your Model,” and set aside to dry. See Figure 4.

![Figure 4](image2)
Paint the windows parts (1-9) through (1-12) and then apply a light wash. When dry, glue frosted window glass behind each wall using the corresponding part number engraved on each part. See Figure 5.

![Figure 5](image1)

Glue window assemblies behind each of the four outer walls of Unit 1. Install part (1-9) behind the “front” side, and part (1-10) behind the “track” side, part (1-11) behind the “back” side, and part (1-12) behind the “alley” side. See Figure 6.

![Figure 6](image2)
Unit 2

Begin this unit by working on the walls prior to building the box. Take parts (2-2) and (2-4) and lay them flat on your work surface with the back of the part facing you (engraved side facing down). Glue a part (2-6) to the top of each wall making certain that the top and sides are flush. This creates a double thick wall at the top. Next, take part (2-1) and (2-3) and lay them flat on your work surface with the back of the pieces facing you (engraved side facing down). Glue a part (2-5) to the top of each wall making certain the top contours are flush. Parts (2-5) will be 1/16” shorter on either side than the wall part to which it is attached. See Figure 7.

Take base (C) and lay it flat on your work surface with the engraved part number facing up. The “front” side is indicated on the piece, and the “track” side has an indentation. Insert the tabs of the “front” wall (2-1) into the slots of part (C) and glue in place. Working counter-clockwise, insert the tabs of the “track” wall (2-2) into the slots of part (C) and glue in place. The two walls should meet and be glued at the corner. Insert the tabs of the “back” wall (2-3) into the slots on the remaining short side of part (C) and glue in place. Then, insert the tabs of the “alley” wall (2-4) into the slots on the last side of part (C) and glue in place to form a box. Check that all the tabs are seated properly. Make sure to glue all the corners together. Parts (2-5) and (2-6) on the tops of the walls will abut at right angles. See Figure 8.
Now that the basic box structure is together, the “front” and “back” walls are built up with an additional layer. Glue part (2-7) to the “front” wall using the small window openings as your guide for centering the parts. Glue part (2-8) to the “back” wall. See Figure 9.

![Figure 9](image)

**Figure 9**

Install the roof. Take the unit and place it upside down on your work surface. Put part (D) inside the unit and nestle it flat against bottom of parts (2-5) and (2-6). Glue in place. See Figure 10.

![Figure 10](image)

**Figure 10**

Fill and sand the corners of the assembly if necessary. You may also wish to sand the top edge of the unit where several pieces are layered together. Paint the unit and set aside to dry.
Paint the windows, parts (2-9) through (2-12), and then apply a light wash. Once dry, glue frosted window glass behind each corresponding piece. Then, glue window assemblies behind each of the four outer walls of Unit 2. Install part (2-9) behind the “front” wall, and part (2-10) behind the “track” side, part (2-11) behind the “back” side, and part (2-12) behind the “alley” side. See Figure 11.

**Figure 11**

**Assembling the Main Building**

Now that you have built both of the building units, it is time to assemble them. Make sure that the top of Unit 1 and the bottom of Unit 2 are perfectly flat and smooth. Sand or file off any imperfections as necessary. Glue Unit 1 and Unit 2 together by running a bead of glue along where the cornices meet. It will be easier to glue the units together upside down. See Figure 12.

Once completed, touch up any glue and paint imperfections along the cornices.
Coal Dumper - Unit 3

Begin by installing track to the 1/8" base part (E). Take a straight piece of track (not included in kit) and remove the ties for the length of rail that will attach to the base. Make sure that ties remain on either end of the track to keep it in gauge. Attach the rail to the base with super glue (CA) using the engraved lines as your guide. Paint the base and rail brown, and dry brush with black around the dump openings. Once dry, sand paint off the top of the rails. See Figure 13.

It is best to construct this unit as a separate structure that is removable from its base. Plan ahead and work accordingly. Set the wall pieces into the base during construction to keep the building square, but do not glue them to the base.

Take the 1/8" base part (E) and put it flat on your work surface facing up. Use part (F) as your guide to orienting all lettered parts. Working counter-clockwise, set all wall parts in place, but do not glue to the base. Parts (3-1) are the “front” and “back” walls, part (3-2) is the “side” wall, and part (3-3) is the “common” wall that will abut the main building structure when complete. The base on the “common” wall side has an indentation. Note that there is a door opening on the “common” wall that will be inside the structure leading into the main building. Glue part (F) on top of the walls noting the engraved “front” is on the correct side. Remove walls and top from the base and glue all corners together. Place assembly back into base, but do not glue, to keep the walls square. See Figure 14.
Glue the brick trim parts to the top of each wall abutting the cornice. Be certain to maintain the correct orientation of the parts. The shorter bricks are always on top. Begin by gluing the trim part (3-5) to the “side” wall. This piece is the same length as the wall and will be flush on both ends. Glue part (3-7) to the “common” wall with the left side flush. Glue part (3-4) to the “front” wall. Note that part (3-4) is 1/16” shorter than part (3-6). Part (3-4) should be flush on the left and overlap the edge of part (3-5) on the right. Glue part (3-6) to the “back” wall with both sides overlapping the edge of the trim of the adjoining walls. See Figure 15.

![Figure 15](image1)

Glue the roof part (G) centered front to back on top of part (F) with the “common” wall side being flush. Be careful not to let melted acrylic fill in the slots of this part, as these are for the parapet walls. Glue parts (3-8) to the “front” and “back” of part (G), part (3-9) to the “side”, and part (3-10) to the extension of the “common” wall. See Figure 16.

![Figure 16](image2)

Refer to the illustrations in the “Final Assembly” chapter of this document, and the schematic drawings on the parts sheet if you have any questions as to how these parts fit together and join with the rest of the model.

Paint the unit and set aside to dry.

Paint the window part (3-11). Once dry, glue frosted window glass in place. Glue window assembly into the unit behind the “side” wall part (3-2).

If desired, glue the structures to the base part (E). See Figure 17.

![Figure 17](image3)
Conveyor Bottom - Unit 4

Begin with part (4-1). Note the orientation of the window in relationship to the part. Glue part (4-2) to the left side and part (4-3) to the right side of part (4-1) at right angles. Stand assembly upright and glue part (4-4) on the bottom to form the base. Part (4-5) is affixed facing the front on the angle formed by part (4-2) and (4-3). See Figure 18.

Glue the grid to the surface of each of the corresponding parts. The grid parts are the same size as the underlying parts and do not abut each other. They may be attached in any order with the exception of part (4-5A) which should be attached last due to the angle of the piece. See Figure 19.

Prime the unit gray, lightly paint white, and then weather the surface to look like rusted metal. There would be quite a bit of coal dust along the bottom. Hand-paint the window mullions black. Attach the frosted window glass behind the window opening. See Figure 20.

Set the unit aside to install later.
Conveyor Middle - Unit 5

Begin with part (5-1). Using the tabs to help with placement, glue part (5-2) to the left side and part (5-3) to the right side of (5-1). Glue the bottom part (5-4) in place to square up the assembly. See Figure 21.

Next, assemble the center section of the unit. Note that parts (5-6) through (5-8) are the same on the right and left sides but installed in reverse. Attach part (5-6) to the center left side of the unit. Use part (5-10) x2 as braces to keep the assembly square. Repeat with the other part (5-6) on the right side. See Figure 22.

Attach part (5-7) at a right angle to part (5-6) on both the left and right sides. Glue part (5-5) in place to form the base of the center section. Make certain that the engraved lines are facing up and situated to the back of the unit. Part (5-5) will sit slightly below the tops of the walls leaving a lip along the roof. See Figure 23.
Take part (5-9) and glue one part (5-8) to either side of it at right angles. Glue part (5-11) x2 between the parts to act as braces and to keep the assembly square. Do not place braces too close to the windows as window glass will be installed later. See Figure 24.

Attach assembly to part (5-5) using the engraved lines as your placement guide. See Figure 25.

Glue one part (5-12) to each of the top parts (5-2) and (5-3). Glue part (5-15) in place to act as the bottom of this section of the unit and to keep it square. See Figure 26.
Glue one part (5-13) to each part (5-12). Glue part (5-14) between parts (5-13). Glue the top part (5-17) in place to keep the assembly square. Fill and sand the top seams if necessary. See Figure 27.

Test fit part (5-16), which serves as the top back of the unit. Do not glue in at this time so that there is access to install the window glass later.

Glue grid to all corresponding pieces of the unit. Use the window openings as your guide. Grid pieces may be applied in any order with the exception of three pieces on the top section. Part (5-14A) must be glued in place prior to parts (5-13A) x2. Glue grid part (5-16A) to (5-16). All edges should be flush. This assembly will be installed in the unit after the window glass is in place. See Figure 28.

Figure 27          Figure 28
Prime the unit gray, lightly paint white, and then weather the surface to look like rusted metal. Hand-paint the window mullions black. Glue the frosted window glass in place. Glue the back part (5-16) in place. Paint roofs black. See Figure 29.

Set the unit aside to install later.
**Conveyor Roof Transition - Unit 6**

Put the base part (6-1) flat on your work surface. Glue parts (6-2), (6-3) x2, and (6-4) to the base to form a box. Install part (6-5) to form the top. Fill and sand top seams, if necessary. See Figure 30.

![Figure 30](image30.png)

Affix the grid parts (6-2A) and (6-4A) to their corresponding pieces. Use the window opening for placement of part (6-2A). Make certain the orientation of part (6-4A) matches (6-2A), as the part is not symmetrical with the smaller squares on top. See Figure 31.

![Figure 31](image31.png)

Prime the unit gray, lightly paint white, and then weather the surface to look like rusted metal. Hand-paint the window mullions black. Glue the frosted window glass in place. Paint the roof black. See Figure 32.

![Figure 32](image32.png)

Set the unit aside to install later.
Conveyor Roof - Unit 7

Begin by putting part (7-1) flat on your work surface. Be sure that the windows are located to the top of all the parts as you assemble them. Using the tabs to help with placement, glue part (7-2) to the “front” as shown. Glue one part (7-3) to the left and right side of the “front”. Attach one part (7-4) to each part (7-3). Part (7-5) goes to the right of the front (“track side”), and part (7-7) goes to the left of the front (“alley side”). Note that part (7-5) and (7-7) are not symmetrical. Make certain the orientation is correct before glueing in place (see parts diagram and photos). Part (7-6) attaches between (7-5) and (7-7) to form the back. Install the top part (7-8). Fill and sand top seams, if necessary. See Figure 33.

Affix the grid parts (7-2A) through (7-7A) to their corresponding pieces. The grid pieces are the same size as the underlying pieces. Parts (7-5A) and (7-7A) should be attached first, and the other grid parts may then be attached in any order. Also, note the correct orientation of parts (7-3A) & (7-4A) prior to glueing in place. See Figure 34.

Prime the unit gray, lightly paint white, and then weather the surface to look like rusted metal. Hand-paint the window mullions black. Glue the frosted window glass in place. Paint the roof black. See Figure 35.

Set the unit aside to install later.
Vent Bases

You will need to construct 4 vent bases for the curved manifolds to sit on. Three of these will be constructed in the same manner, and the fourth will be narrower than the others to accommodate other roof elements.

To create the vent base, thread parts onto a 1/4” styrene tube in part order: 4, 2, 4, 3, 4, 3, 4, 2, 4. See Figure 36

Note that piece (B-4) is 1/4” thick, while all the other pieces are 1/16” thick. Also, piece (B-3) is slightly shorter than piece (B-2) to allow for the space which the manifold will sit in.

Set the base of the assembly on a flat surface to keep everything square. Glue all the pieces together including styrene tube. Once dry, cut off the styrene tube and sand flush with the acrylic on the ends. Cap each end with one part (B-1), which does not have a guide opening, making certain they are square with the rest of the assembly and flush on the bottom. Attach part (B-1) with the number facing into the assembly. Finally, attach one part (B-5) centered to the top of the assembly. See Figure 37.

Repeat above process two more times to create three vent bases.

To create the shorter vent base, thread parts onto a 1/4” styrene tube in part order: 4, 2, 4, 3, 4, 3, 6. See Figure 37

Note that piece (B-6) is 1/8” thick.

Set the base of the assembly on a flat surface to keep everything square. Glue all pieces together including the styrene tube. Once dry, cut off the styrene tube and sand flush with the acrylic on the ends. Cap only the end next to part (B-4) with one part (B-1), making certain it is square with the rest of the assembly. The other end next to part (B-6) does not get an end cap. Finally, attach one part (B-5) to the top of the assembly and flush with the uncapped end. See Figure 37.

Prime the unit gray, lightly paint white, and then weather the surface to look like rusted metal.

Set these assemblies aside to install later.
Chimneys, Manifolds & Cyclones

Remove any flash from the cast resin pieces using sand paper or a knife. Clean all parts thoroughly with soap and water to remove any mold release and residue. Prime gray. Paint the cyclones dark brown and weather. All other parts should be painted white, and then weathered to look like rusted metal. See Figure 38.

Set aside to install later.

Cyclone Stands

Attach the four smaller parts (C-1) in between the two larger parts (C-2). There should be one at either end, and two in the center that match up with the vertical posts in (C-2). See Figure 39.

Paint assembly brown and weather.

Glue cyclones in the stand using super glue (CA), making certain that they are both facing the same direction. See Figure 40.

Set assembly aside to install later.
Fire Escapes

Five fire escapes are included in your kit. They will be used on the back wall of the main building. Two are wider and one does not have an opening for the ladder. The rest are all identical.

To assemble each fire escape, sit base flat on your work surface. Attach the sides at right angles with the base. These parts are the same width as the base. Next, attach the front at a right angle to the base. This part is wider than the width of the base and will overlap the edges of the side pieces. See Figure 41.

Paint the fire escapes black. Attach each assembly to the main building using super glue (CA). The back of each fire escape has a tab that will fit into the window opening to help with placement and stabilization of the assembly. Attach to the back of the building in the same order that they appear on the parts sheet. The ladder openings in the fire escape should align vertically. Thread the ladder through the openings and attach at each level using super glue (CA). See Figure 42.

Steps

Glue parts (S-2) between parts (S-1) to form a box. Attach part (S-3) to the top of the box. Part (S-3) should be flush with the box on one long side (this will be the back), and the other three sides will have a small overhang.

To make stairs, stack parts (S-4) through (S-8) on top of each other. The largest part is on the bottom, smallest on top, and the pieces should be flush on one short side. Attach stairs to the box on the right side and flush with the back of the box. See Figure 43.

Prime gray, paint concrete, and then weather by applying a black wash.

Set assembly aside to install later.
Final Assembly

Refer to photos at the end of the document for final placement of parts.

- The building has a steam pipe located at the entrance to the coal dumper. In the winter, hoses were attached to this and it was used to thaw frozen coal in the hopper cars prior to dumping. Construct steam pipe for Unit 1 using 1/8" tube and 1/16" rod as shown in the illustration below. Paint the steam pipe black and attach in the opening on the “track” side wall. See Figure 44.

![Figure 44]

- Install pipes in the front and back walls of Unit 1 by using small lengths of styrene tube and inserting them into the round openings at the bottom of the walls. Paint black.

- Attach the coal dumper (Unit 3) to the main building on the “track” side.

- Attach the conveyor middle unit (Unit 5) to the top of the Unit 3 and the side of the main building (Unit 2). Use the windows in Unit 2 as your guide, centering them in the two openings of Unit 5. Use white glue. See Figure 45.

![Figure 45]

- Attach the conveyor bottom unit (Unit 4) inside Unit 3 so that it is aligned with Unit 5 above it. Use white glue. See Figure 46.

- Attach the conveyor roof transition (Unit 6) using white glue. This unit will abut the solid panel of part (5-16A) on the back of Unit 5.

- Attach the conveyor roof unit (Unit 7) using white glue. Center to the roof of the main building, and make certain that the “front” of the unit faces the “front” of the main building. The
roof transition unit will abut the solid panel on the track side of Unit 7.

- Attach the chimneys using the engraved circles on the conveyor roof unit part (7-8) as your placement guide. Use super glue (CA). The large chimney is situated to the “front” of the building. Test fit the angled manifolds against the large chimney as the tolerances are very tight. Be sure to orient the seams and top grid of the three chimneys consistently.

- Attach the curved manifolds to the vent bases using super glue (CA). The manifold fits in the opening created by part #5 on the vent base. On each manifold, one end is flat to fit on the vent base, and the other end is curved to fit against the chimney. Be sure to orient the direction of the manifold on the short base correctly.

- Attach the angled manifolds to the main building roof and large chimney at the front of the building. Attach the vents with curved manifolds to the main building roof and smaller chimneys. Use super glue (CA).

- Assemble cage ladders and glue to the chimneys using super glue (CA).

- Glue the cyclone stand onto Unit 7 between two chimneys.

- Using styrene tubing, create pipes and vents. Attach to the main building roof and conveyor roof unit. Use super glue (CA).

- Apply a brown wash to all rooftops and vents.

- Two sidewalk pieces are included with your kit for use on the front side of the main building. Prime gray, paint concrete, and then weather by applying a black wash. Attach the steps to the sidewalk below the freight door using the engraved lines as your guide. See Figure 47.

Your building is finished and ready to install on your layout. You may add lights and other details. We thank you for purchasing this kit from CMR and hope that you have enjoyed building it. Be sure to see our other kits at www.cmrtrain.com.