Korber Models

Scale Model Railroad Structures

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Model 958 O Scale 13 1/8"L x 8"W x 10 1/4"H MILL WORKS

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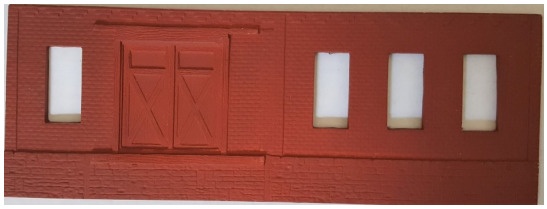
Introduction

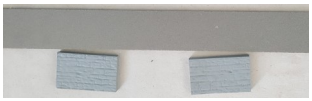
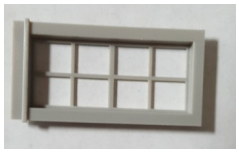
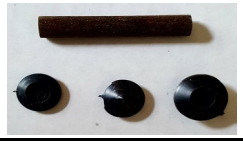
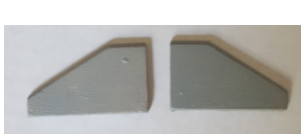
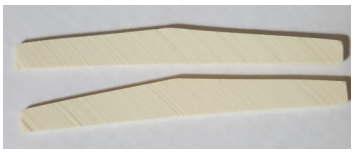
Many towns and cities had a Mill Works. It is a place where it all begins. Factories like this one were busy crafting various tools aimed at powering the industrial growth from the steam through the transition era. This model is a single story brick industrial building that is a perfect fit on your pike.
The Korber Mill Works model includes molded brick details, roof top details, covered loading dock, water tower and injection molded windows to bring life to your model railroad.
Buildings like this are still in use across the land serving different uses in the community. This structure fits nicely as a key business on your layout ranging from steam thru modern era.
It includes easy-to-follow assembly instructions. You can follow the simple, step by step instructions outlined in this document to easily assemble this great looking addition to your layout. We have covered not only the key required steps to build the building so you can get it on your layout the quickest, but have also included several optional steps to enhance the appearance. These enhancements are based on submissions from modelers just like you who have taken the Korber structures to the next level, and now by following a few extra steps you can achieve the same results.

Before you start you may want to read through the instructions to get a feel for the things you will be doing, and the basic order in which they will be done. You are on your way to adding a centerpiece to your layout, so let's get started!

Parts list & Templates – (What's in the box)

Take a few minutes to locate all the parts in the box to make sure you have all the pieces you will need and that the quantities are right. You may also want to spread these parts out so that you have a small separate stack of each part and make it easy to find each as you start the assembly process.

Qty	Description	Qty	Description
1	Side Wall w/ 1 double door & 4 windows Load dock goes on this side  **SIDE WALL #2**	1	Side Wall w/ 1 double door and 4 windows  **SIDE WALL #4**
1	Front Wall w/ single door and 2 windows  **FRONT WALL #3**	1	Back Wall w/ 3 windows  **BACK WALL #1**

Qty	Description	Qty	Description
1	Loading dock deck 	1	Loading dock roof 3 7/8” 
1	Loading dock foundation walls 	13	Windows plus 1 sheet clear plastic 
4	Cotter pins 	2	Down spout Wires 
1	Dock Stairs 	1	Large smoke stack 
1	Front Stairs w/ foundation wall  	1	Small smoke stack 
2	Roof supports for main roof 	2	Loading dock roof supports 
1	Building Roof 	1	Loading dock roof beam 3 5/8” x 1/4” 
1	Roof top Water Tank 4 supports, 1 barrel, 1 top,1 bottom , 1 pipe 	2	Roof support beams 10 1/2” x 1/4” 

Materials needed – (What else might I need that is not included)

The Korber Building, like any kit, requires a few additional items to complete the construction. We have included a list here, including some color and brand suggestions based on our experience; however you may use any product that fits the function. Please also note that some items are listed as options such that they either make assembly simpler, or are needed only for optional steps

Flat paint, choice of colors, for doors, windows, trim

“Red” automotive primer spray paint to cover all molded brick surfaces such as Krylon Ruddy Brown

Antique white craft paint for cement lines

Light grey or cement color paint for cement foundation and frame

Rust Oleum camouflage flat spray paints work well for painting window frames, gutters and doors

CA glue accelerator (optional) (turns any CA glue into quick set glue (optional)
Medium grit sandpaper or emery board
Testor's Dull-cote™ (optional)
Small clamps (optional)
Flat black or grimy black spray paint (optional)

Also, you may want 1/4" bass or balsa wood for extra strength in inside corners. You can paint them same as inside wall color or leave natural.

1 - Parts preparation & painting

Look over all the molded parts and remove any flashing that might be left on them. Flashing is the thin pieces of the molding material that may be left in widow openings and along edges in the molded parts. This can quickly be removed with a razor type knife, a small file, or an emery board. Some may require more grooming than others. Then it is time to wash parts with soaping water to clean of residue from mold release agent. Dry completely.

The parts in the kit will need to be painted to the final colors you select, and it is much easier to do this step before you assemble them. All the wall sections come colored in a brick red or yellow coloring, however many modelers find a light coat of flat red auto primer spray paint gives not only a great look, but also makes it easier to add the mortar color lines to the walls later on. In a well ventilated area (outside is good) apply a coat to the inside (smooth side) of all the brick wall sections first; once dry, do the same to the other side. By painting the **BACK** side first you avoid any marks that might appear on the brick textured side.

Use a similar process for the window frames and doors. You may want to paint both of these types of pieces the same color to create a theme for your building.

The internal wooden pieces do not need to be painted as they are for structural support only.

Option

An optional step that adds a great deal of realism to any model of a brick building is to add the mortar lines to contrast with the red brick color. The ability to lay the wall sections on a flat surface, when done prior to assembly, makes this detail step simpler. There are several ways to do this, including use of water based paint (Antique White or Light Grey latex well diluted with water until the consistency is as thin as milk), some commercially available products, and the use of light spackling compound to fill mortar joints, In all of these approaches the general concept is to spread the white product you are using over the brick walls, filling in the mortar line groves in the wall section, and then removing the excess from the top of the bricks. We will walk through the water based paint method.

One simple method we have used is to dilute some water based antique white or light grey craft paint to create a soupy like consistency.

- Cover entire wall section with diluted white paint, letting it settle and collect in the mortar lines
- Wait a few seconds and lightly wipe off excess paint using a slightly damp paper towel or soft cloth until paint is removed from the brick surface, but not the mortar joints
- Keep flat and let dry before moving so the paint in the joints does not run
- To remove haze from brick surface, apply a thin layer of Dull-Cote and wipe gently
- It may require several applications to achieve the mortar line that you want

The good news with this option is that if you don't like it, the paint is water based, so you can get it wet, remove it, and start over.

The foundation should be painted a cement or light grey color once assembled. There are other cement details that also can be highlighted with the cement color you choose.

Once dry, this area should be washed using a mix of either watered down black paint, or alcohol and India ink. The purpose of the wash is to settle the black color in the grooves/joints around the bricks and give definition. The wash should not be so dark as to overpower the cement/light grey color.

2 - Assembly & Install windows

The windows are made from injection molded plastic and will have a clear plastic sheet stock applied over the opening from the inside of the model to form a finished window.

- Carefully remove any flashing from the window frames
- If the window frames have not been painted, and if you would like to do so, paint them now and let them dry before moving to the next step
- Place the walls to which you want to add windows brick side up on a flat surface
- The windows are designed to overlay the window opening from the front, or outside of the building, and will not fit inside the window opening if installed from the back
- Apply a small amount of glue around the edge of the frame and insert over the openings on the wall sections
- Let the glued windows dry before moving the wall sections to a vertical position to avoid glue running or the windows falling out
- Prepare to cut and glue small pieces of window clear plastic material over the back of each window. Consider the following two window detailing option for the windows: **I do this step after all walls are assembled and building put together. This is so when I weather the building the chalks and stains don't get on the window plastic.**
- If you want the window panes to have a hazed affect, lightly sand the window material until you've achieved desired haze effect prior to cutting into small window pieces
- You may also detail the windows with shades by covering the top portion of the window material with masking tape

3 - Assembly of Steps

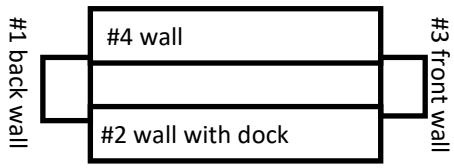
The steps come in three molded parts. These parts are glued together to form a set of cement steps with side walls.

- Sand and trim parts to match up. You may need to trim top step to match side walls of steps.
- Place a small amount of glue along the edge of steps then attach the foundation wall to it, that way the glue won't show above the steps
- On the step for loading dock, just glue edge to loading dock decking and small dab of glue on wall **when assembled.**
- Once the steps are assembled and the glue has dried, the piece should be painted a cement color and left to dry. **Do not install at this moment.**

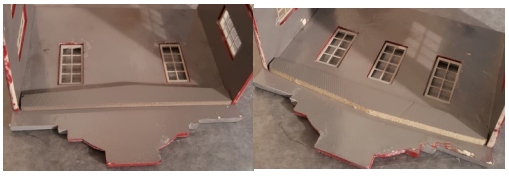
4 - Assembly of Main Structure

Once all the sides are painted and windows installed and glue has setup, it is now time to put the building together.

- Align the wall sections #1, #2,#3, and #4 as shown on the floor plan diagram. Make sure walls #2 and #4 ends are smooth and square. Some sanding may be required.



- Now glue together the sides and fronts making sure corners are square. Use clamps and squaring all sides. **If being used**, glue wooden corner support pieces into the interior corners of structure to provide additional stability when handling the kit during remainder of the assembly process.



- Once wall structure is dry it is time to put in Roof supports. Use the 2 roof support pieces and install on inside wall ends. You can either have them fit flat or angled depending on how you want roof to look. Just remember both sides need to match. They are to come to the top edge of the side walls. Once properly fit ,you can glue in place.

- Now is the time to put in 1/4” wood supports along the top edge center for added support to keep roof piece from sagging.
- You will need to cut the wood to get a tight fit between both roof support pieces leaving a 1/2” to 5/8”gap between the two supports. This is to allow the water tower pipe to come through roof. Once snuggly fit in place, glue pieces so top edge is even with angle of roof support pieces. Allow to dry thoroughly.

- If you are leaving the roof flat, you do not need to cut roof along the middle seam. If having angled you will need to cut along seem and then use making tape to cover the seam after installed. I use black making tape that is 1 inch wide I get from Hobby Lobby.
- Make sure the roof fits snuggly in place . This may call for some sanding. If roof piece is warped, use a hair dryer on hot or a heat gun. Once heated up, place on flat surface and place heavy objects on top till the roof cools completely. Glue roof to supports and wooded pieces.

5 - Build and Install Loading Dock and Roof

- The loading dock has four pieces, a front section, two sides and a top section. Trim the pieces to be equal or lower by 1/8” of brick base. [this 1/8” below allows for a flush look when top is put on.] Create a three sided “U” shaped part.
- Glue the “U” shaped base to the side of the building. Note that the dock sides should mate to slots in the side wall of the building rear.

- Dry fit the loading dock top of the loading dock base you have just attached to the building, some light trimming or sanding may be needed to get a tight fit to the building just below the loading dock doors. Once you are satisfied with the fit , glue the loading dock top to the base and the rear of the building.

- The loading dock roof has a black tar look to it that faces up, and attaches to the rear of the building in a slot above the freight doors. This roof section is supported by plastic braces that glue to side of freight door roof support. See picture for supports placements.
- Once the supports are dry add the wood front support. Then it is time for the loading dock roof to be placed and glued down. Then add the side steps to side of dock.

6. Roof top water tower and stove pipes

- Remove all parts still on a sprue with a sprue nipper or a sharp razor blade. File as needed making sure any unwanted “nubs” are removed.
- Place the tank bottom, bottom side up on your work surface and install the legs in the four holes in the tank bottom. Do not glue at this point.

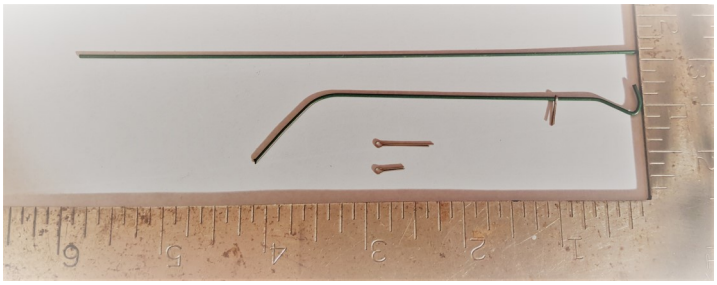
- Mate the cross supports up to the legs adjacent to them to create a corner joint. The cross supports have a small tab at the end of them that fits into a small hole in the adjacent leg. Glue the joints and hold together until the corner sets. Repeat for the other three corners.
- Once the four corner joints of the leg assembly have dried, remove the leg assembly from the tank bottom, and apply a drop of glue into the leg holes in the tank bottom. Re-insert the four legs into the leg holes in the tank bottom.
- Once dry, stand the tank bottom on the four legs, and set the tank body on top of the tank bottom. Glue in place.
- Next simply add the tank top to the top of the tank body, glue in to pace. The end product should look like the photo on the opposite page to the left.
- Optionally you can glue the dowel in hole in the center of the bottom of the tank to represent the large pipe running to the tank

- Spray paint the entire model (usually black, white or grey) and let dry.
- To add a weathered look, spray the entire model with flat black from a distance. This will give a sooty look to the tank. Once done you can spray the completed structure with Dullcote to remove any gloss or shine.
- The stove pipe have 4 parts. Paint them all black then assemble. Add to building in large hole.
- The other pipe is I piece that just needs painted and glued in hole that you drill for it . 11/64” size hole and for water pipe.

7 - Final Detailing – Weathering

If you have not already done so, place and glue the steps assembled in an earlier step in front of the side and front doors.

You can now add the down spouts to your building. Locate the side of building desired for the down spout, then drill a small 3/64 diameter hole in wall at top and bottom for the cotter pin anchors. Cut the cotter pins down so they don't stick through the wall.



Next bend the green down spout wires to acceptable shape and size and fit in the cotter pin circular ends with a dab of glue.

Use pliers to tighten the wire squeezing the cotter pin to the wire.

Your Korber Building is now assembled and ready for placement on the layout. You may wish to provide some additional weathering before you install it as a building next to the tracks would be a heavily used structure with a layer of soot, and would rarely look brand new. There are 2 smoke stacks for roof if desired. Just glue them to flat roof parts.

To add a weathered look, spray the entire model with flat black from a distance. This will give a sooty look to the building. .

Spray the completed structure with Dullcote to remove any gloss or shine. If you choose not to detail the inside of your structure, or light it, an effective and quick way to make a good looking background building is to cover the widows with black construction paper from the inside. This creates a dark building look that is more desirable than the view in to an otherwise empty shell of a building.