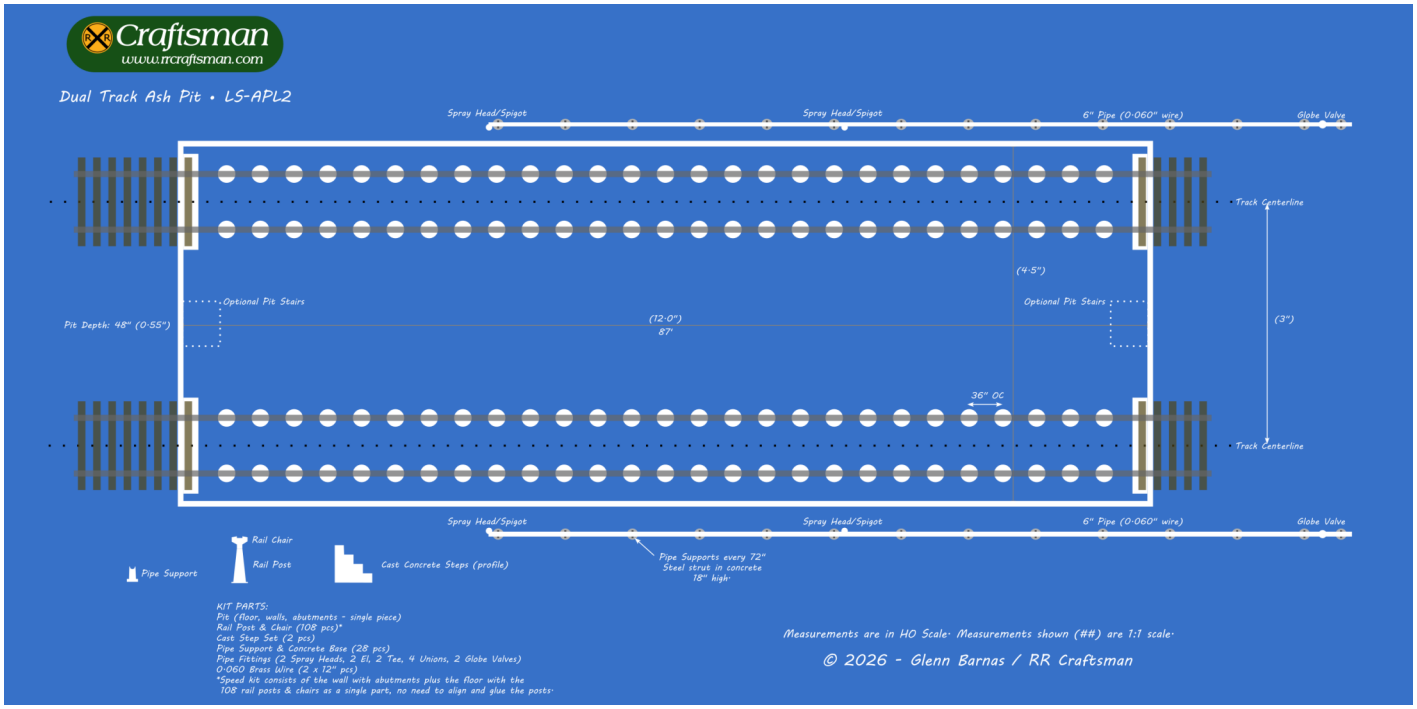
LS-APL2S – 2-Track Large Ash Pit

This kit produces a 2-track ash pit about 85 feet long. This kit is based on a design used by the Reading Railroad, but is typical of those found in medium to large engine terminals that service coal-burning steam locomotives. The kit contains optional steps for each end of the pit as well as details for the pipes and fittings used to cool the hot ashes.

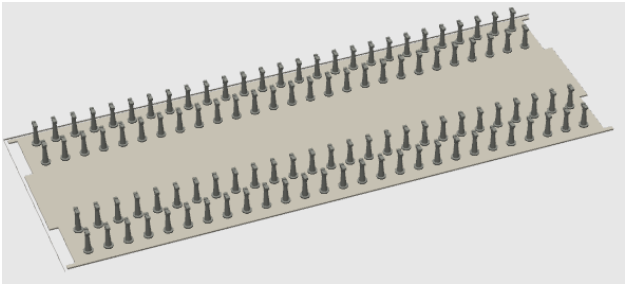


The tracks are spaced such that ashes and cinders are raked into the center of the pit. From there they can be moved to a truck or rail car by the use of a conveyor or an overhead crane equipped with a clamshell bucket.

Preparation

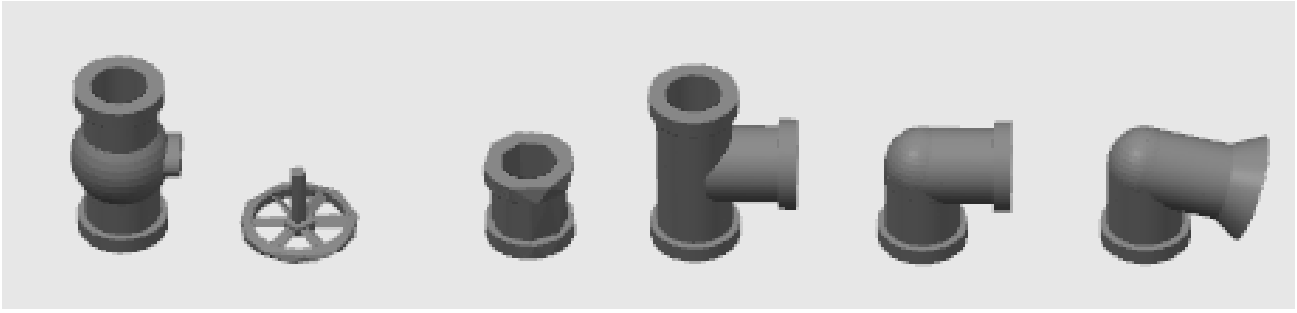
Take a moment to familiarize yourself with the parts. Assembly is fairly simple and straightforward.

- Pit Floor - Molded in 2 colors - concrete tan and gray. The rail supports can be painted and weathered. Paint / weather the concrete floor first, then carefully place the painting mask over the supports, allowing the rail supports to be painted and weathered separately from the floor.



- Pit Walls - Produced in a concrete tan color. The floor may need to be filed or sanded to create a snug but not overly tight fit.
- Pit Stairs - these are optional and would be placed at one or both ends of the pit. Glue using a drop of thick plastic cement *after* painting the floor. Scrape the paint from the floor where the stairs will be installed.

- Pipe Supports - Produced in 2 colors - the base represents a cement column with an embedded steel support. The .060 wire “pipe” is glued onto these supports and then placing them along the outside of the pit wall. The base should be painted a concrete color while the support is painted in your typical equipment color. Note that the support has two small/thin flanges that spread onto the concrete pad and should be painted as such.
- Pipe Fittings - A collection (L-R) of valves, valve wheels, unions, tees, elbows, and spray jets, all cored for .060” brass wire.



Note the difference between the elbow and the spray jet! The spray jet angles more than 90-degrees and has a cone shape on the spray end.

- Pipe -2 pieces of .060” brass rod represent 4” pipe used to feed and control the cooling jets. This is slightly oversized (about 4.6”) but .050 rod is harder to find.

Assembly

- Paint the parts as suggested. Any plastic-compatible paint can be used. Be sure to scrape any paint away from surfaces that will be glued - particularly the floor to wall joint.
- We recommend using a good solvent-based liquid cement for joining the floor and wall assembly! Unlike styrene, the PLA material used to produce this kit will not craze when excess glue is applied. Still - apply with a brush or Q-tip to prevent affecting the paint.
  The plastic to metal connections should be made with CA.
- Glue the stairs to the floor with a medium-viscosity plastic cement such as Model Master Liquid Cement. Remove paint from any mating surfaces before gluing. The floor and walls can be glued with the medium viscosity liquid plastic cement. Add a drop of CA to the 4 corners and the center of the long side to "clamp" the parts while the cement cures. Make sure that the floor is correctly and evenly aligned with the bottom of the pit walls.
- Prepare the pit opening and fit the pit assembly into the opening. The rails should just rest on the pit wall. Consult the blueprint for positioning the track. There should be one tie inside the pit resting on the abutment. Add an 0.010 styrene shim if necessary - the kit is sized for Walthers/Shinohara Code 83 track All other ties inside the pit area should be removed. The rail is a press-fit into the support chairs. Press the rail carefully and then apply a drop of liquid CA to secure the rail to the chairs. If using code-70 rail, you may need to add weight to the rails and use a track gauge to ensure alignment.
    - Make sure that the pit is secured to the baseboard before installing the track/rails! You may need to shim your opening to get the proper fit. The track should be laid directly on the "ground" without any roadbed.
- The water pipes can be assembled at the workbench. The pipe should rise out of the ground, through an Ell fitting before connecting to the valve. The pipe supports are placed about every 6 feet and close to both sides of the valve - do not glue at this time!
    - The valves can be installed with the control wheels either vertical or horizontal. If horizontal mounting is used, the wheel should face away from the pit/track.
    - Locate the position of the first spray jet about ⅓ of the pit length from the end with the valve. If the distance between this location and the valve exceeds 20-feet, install a union, then install a Tee and glue with CA, ensuring that the tee is pointing straight up. Secure the union (if used) between the tee and the valve Insert a small piece of pipe into the tee and put a spray jet on the top, Secure with CA.
    - Insert unions as needed - at least one per 20-feet, then trim the pipe so it ends about ⅓ of the pit length from the other end. Install an Ell pointing straight up, then install a short piece of pipe and the second spray head.
      Repeat this for the other side, making sure that the spray jets face into the pit!
    - Position the pipe supports on either side of the valve, then every 6 feet, repeating for the other pipe assembly. Secure with CA. Paint and weather the entire pipe assembly - base is concrete, metal support and pipe/fittings are either black or silver with significant rust.

Detailing

Hot ash creates steam and an acidic environment. There will likely be rust everywhere!

The ashes dumped by the locomotive need to be raked or shoveled into the center area where they can be removed by a conveyor or some form of clamshell bucket and crane. Adding some rakes, shovels, and a rack to hold these will be appropriate details.

Piles of ash / cinders will accumulate below the tracks and in the corners. RR Craftsman “clean dirt”, dyed gray and black and then mixed can be used to create realistic results.