HO Structure Kit

METRO POWER & LIGHT

933-4052

Thanks for purchasing this Cornerstone® kit. Please take a few minutes to read these instructions and study the drawings before starting. All parts are styrene plastic, so use compatible glue and paint to finish your model. PLEASE NOTE: This kit includes some parts that are not needed for assembly; these may be kept forfuture projects or discarded.

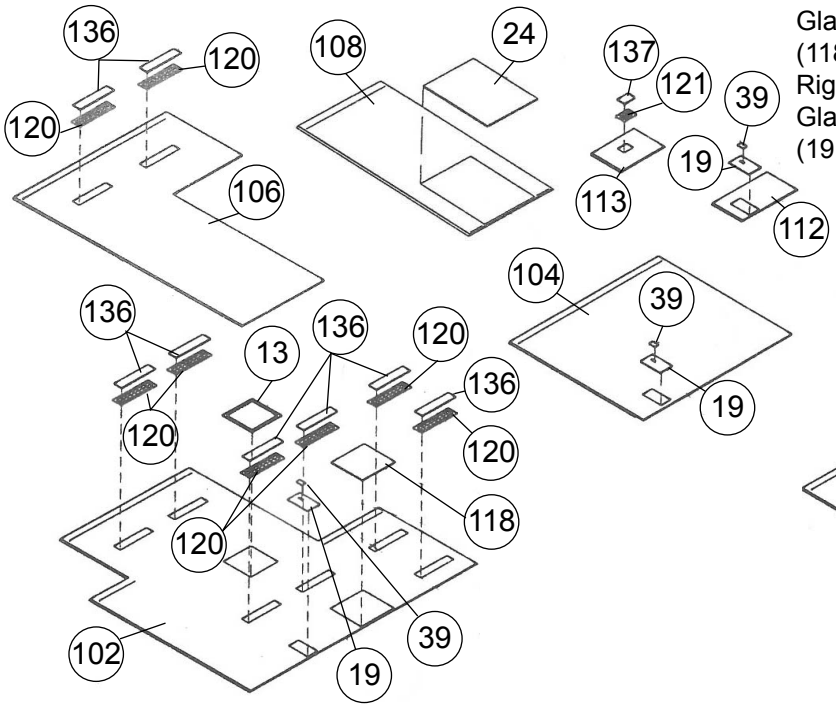
Power plants have been part of the American scene since 1879 when the first opened in San Francisco. Along with the light bulb, Edison also developed a power generation and distribution system that began operation in New York City in 1882, the first to provide continuous power for a large area. Using direct current (DC) that could only be transmitted a few miles these early systems were only practical for the most populous areas. Experiments using alternating current (AC) showed great promise while the development of step-up and step-down transformers greatly increased the distribution range. By the 1920s, moderncity homes could point with pride to all kinds of electric appliances from radios to refrigerators. Folks in rural areas began powering up in the 1930s as the government created the Rural Electrification Authority, further increasing demand. While the industry expanded rapidly over the next few decades to keep pace, the 1970s brought new laws designed to reduce airborne pollutants. Coupled with the energy crisis, and increasing concerns about public image, major changes occurred in the fundamental design of power plant buildings and support systems. Today, the backbone of the modern electrical system remains the powerhouse. Here you'll find coal-fired boilers generating steam to power turbines, which drive the generators making electricity. Low sulfur western coal is the primary fuel, delivered in unit trains from mine to power plant and back again. On arrival the coal is "fluidized" in a ball mill that pulverizes it into fine dust. Mixed with air and injected into a boiler, it ignites immediately so it burns more efficiently and many of the impurities are also burned, reducingharmful emissions and fly ash. Air cleaners filter the exhaust and recover additional particles before release. Much more efficient and designed to blend in better with their surroundings, the modern powerhouse is covered with corrugated steel, painted in a pleasing color. The grounds are carefully landscaped with numerous trees or native plants and flowers, which also hide security fences. A small sign indicating ownership, often with a public service message, may also be seen along a highway. Rail service has also been upgraded to speed unloading of unit trains using rotary dumpers and loop tracks to eliminate switching. Today's power plant is often a stand-alone industry on the outskirts of a major urban area. Large amounts of water are needed and this is usually supplied from a nearby lake or river, although pipelines and storage tanks are used at some facilities. Your finished model is typical of plants constructed since the 1980s for utilities in all parts of the country.

For additional railroad equipment, structures, figures, vehicles and other details to bring your new power plant to life, see your local hobby dealer, check out the latest Walthers HO Reference Book or visit us online at walthers.com.

1) Note the correct orientation of all Windows, Doors and Glass and glue to inside of Walls as shown.

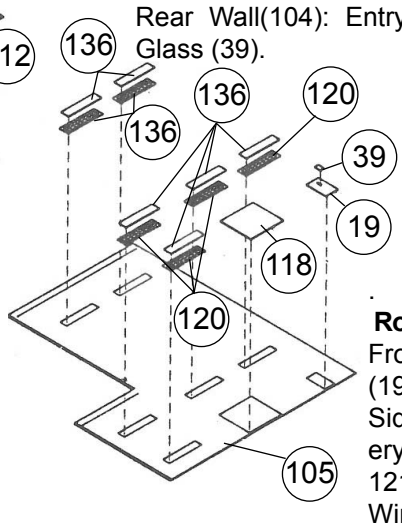
Powerhouse:

Front Wall (106): Large Windows (2x 120), Large Window Glass (2x 136).
Optional for Small Front Wall (108): Rail Car Access Door (24) - using recessed lines on the inside of Wall as a guide, carefully cut opening; test fit Door and glue inplace.



Left Wall (102): Large Windows (6x 120), Large Window Glass (6x 136), Wall Insert (100), Double Access Door (118), Entry Door (19), Entry Door Glass (39).
Right Wall (105): Large Windows (6x 120), Large Window Glass (6x 136), Double Access Door (118), Entry Door (19), Entry Door Glass (39).

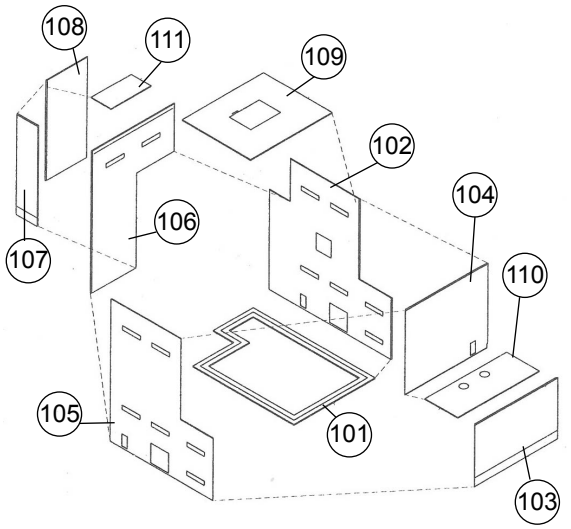
Rear Wall(104): Entry Door (19), Entry Door Glass (39).



Rooftop Machinery House:
Front Wall (112): Entry Door (19), Entry Door Glass (39).
Side Walls (2x 113): Machinery House Windows (2x 121), Machinery House Window Glass (2x 137).

Powerhouse

1) Using raised ridges on Base (101) as a guide, glue Walls (102, 103, 105) to inside edge of Base and at each inside corner as shown. Glue Rear Wall (104) to inside edge of both Side Walls on upper half as shown. Glue long edge of Front Wall (106) to inside corner of Right Wall and to upper edge of Left Wall. Glue Small Extension Wall (107) to Base and inside corner of Front Wall. Glue Small Front Wall (108; shown here without door) to lower inside edge of Left Wall and Small Front Wall.



2) Glue Main Roof (109) and Small Front Roof (111) in place as shown. Be sure the openings in the Rear Roof (110) face the Wall and glue in place.

3) Using raised ridges on Main Roof as a guide, glue Machinery House Walls (112, 2x 113, 114) to inside edge of Roof and at each inside corner as shown. Glue Machinery House Roof (115) to completed wall assembly.

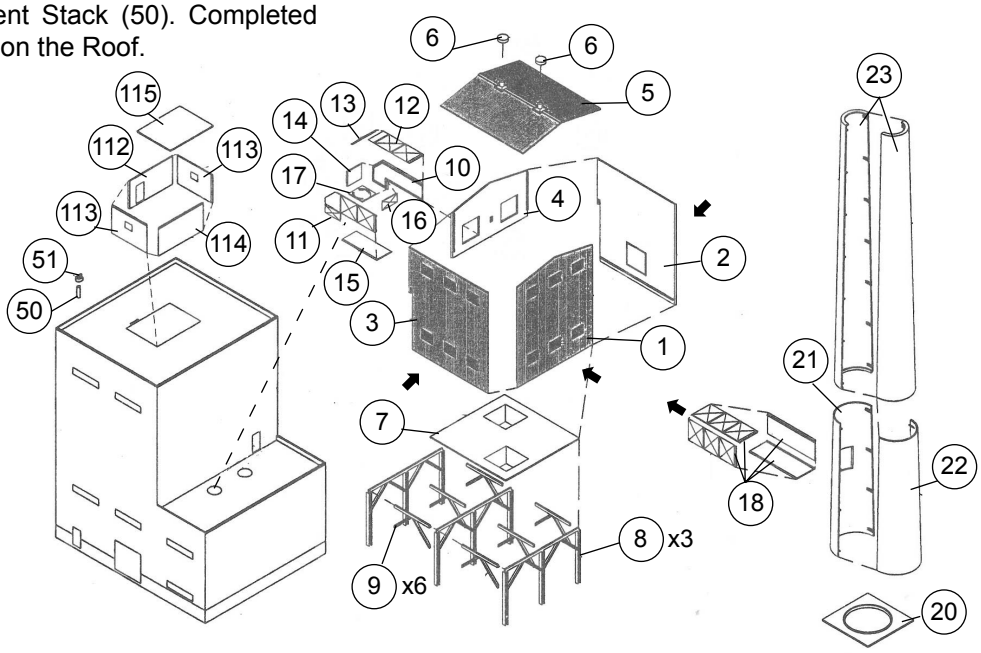
4) Glue Directional Intake Vent (51) to Vent Stack (50). Completed Intake can be glued at any convenient spot on the Roof.

Dust Collector ("Bag House")

PLEASE NOTE: Determine the location of the Smokestack before assembly. Carefully cut one opening for the smokestack duct-work in either Wall 1, 2 or 3 using the recessed lines on the back as a guide.

1) Using raised ridges on the lower edge of Bag House Walls (1, 2, 3) as a guide, glue Bag House Floor (7) to inside edges, and glue Walls at inside corners. Glue Small Bag House Wall (4) to inside edges of Side Walls (2, 3) as shown.

2) Glue Cross Braces (3x 9) between Floor Supports (3x 8) as shown. When dry, glue Support Assemblies to Floor.



3) Duct Assemblies – Make Two.
Glue Long Duct Base (15) to raised ridges to inside rear of Left (11) and Right (12) Duct Sides. Make sure the raised ring on the bottom of the Duct Connector (17) faces downward; glue to bottom front of sides. Glue Small Rear Duct Wall (16) and Front Duct Wall (14) to Sides. Glue Long Duct Top (12) to rear and short Duct Top (13) to top of Sides.

4) Center the Bag House alongside Wall (103). Align the Duct Connectors on both completedducts with the openings in the Rear Roof, and with the openings in the Bag House Wall (4) as shown; adjust as needed and glue both duct assemblies in place.

5) Glue Bag House Roof (5) to completed Wall assembly. Glue Bag House Vents (2x 6) to mounting points on Roof.

Smokestack

1) Glue Lower Smokestack Halves (21, 22) together. Using raised ring on Smokestack Base (20) as a guide, glue lower assembly to Base. Glue Upper Smokestack Halves (2x 23) together and to lower assembly.

2) Using raised ridges on inside edges, glue Smokestack Duct Walls (4x 18) together, to opening in Smokestack and to opening in Bag House Wall.

DECALING

1. After cutting out the decal, dip in water for 10 seconds, remove and let stand for 1 minute. Slide decal onto surface, position and then blot off any excess water.
2. Lightly brush Micro Sol® on top. This will soften the decal allowing it to conform to irregular surfaces. DO NOT TOUCH DECAL while wet!
3. When the decal is thoroughly dry, check for any trapped air bubbles. Prick them with the point of a small pin or hobby knife blade and apply more Micro Sol®.