



N Scale GAS STORAGE TANK 933-3819

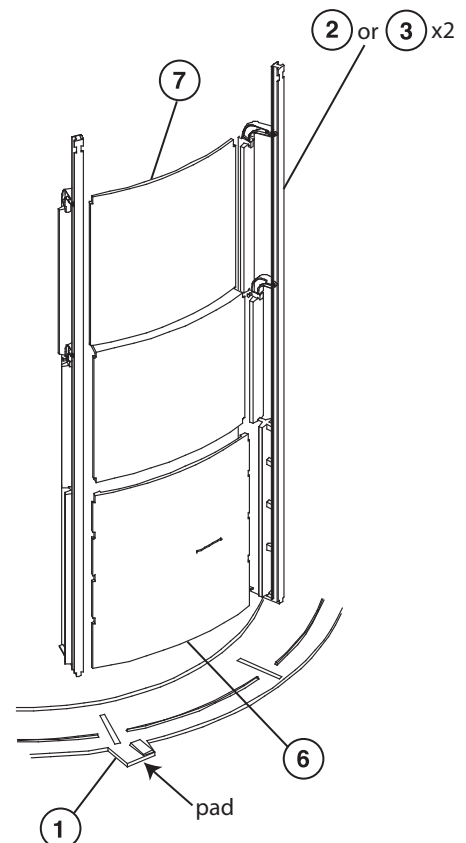
Thanks for purchasing this Cornerstone kit. Please take a few minutes to read these instructions and study the drawings before starting construction. All parts are made of styrene plastic, so use compatible paint and glue to assemble and finish your model.

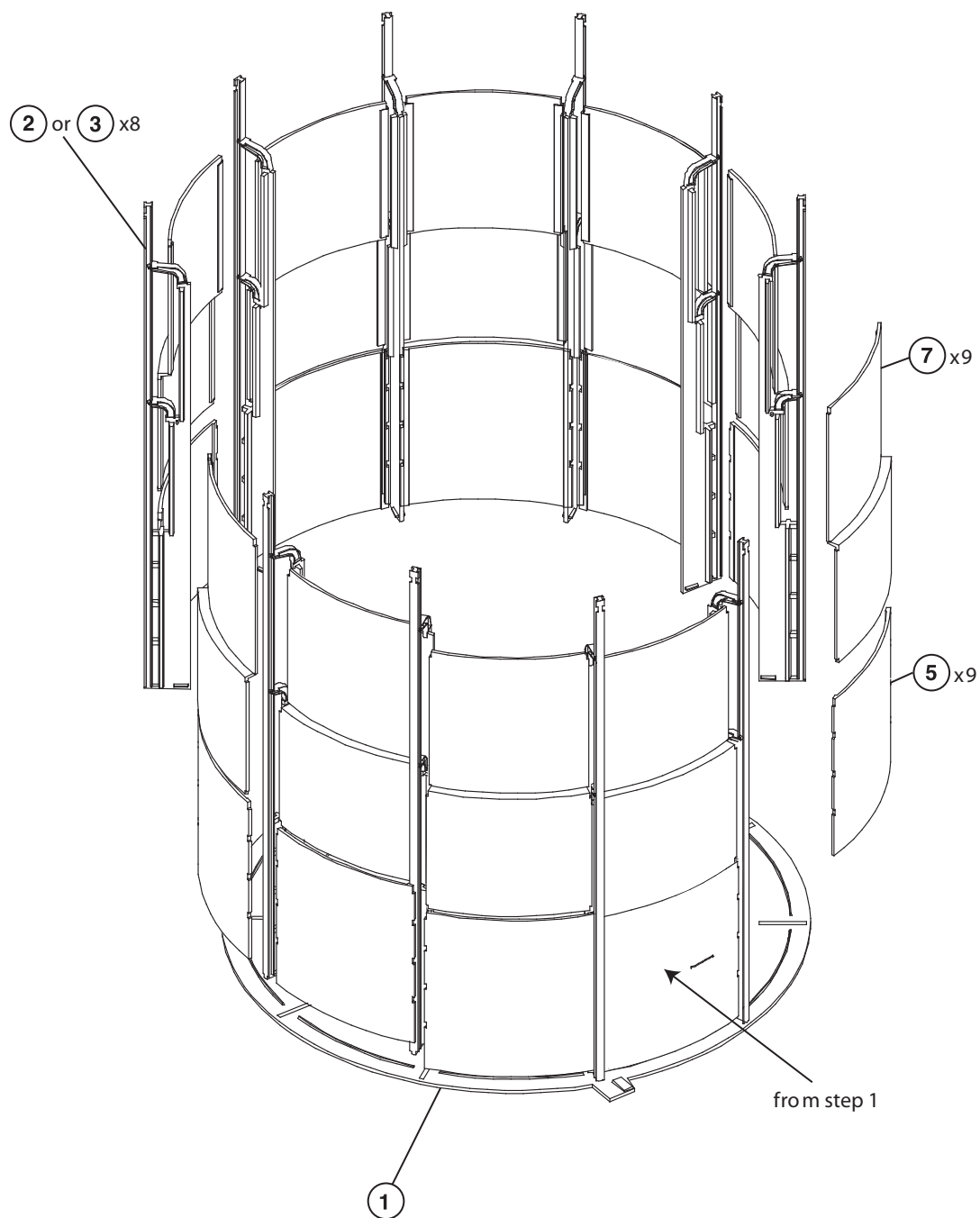
Long before electricity and natural gas, American homes and industries were powered by coal gas, also known as “town” or “manufactured gas.” Produced in small facilities as a byproduct of converting soft coal into coke for fuel, the gas was then blended with oil vapor to improve combustion, and piped into a neighborhood network of underground pipes. With no way to adjust production, customers would see a severe drop in line pressure each morning as demand increased rapidly, followed by a gradual increase overnight when demand was lower. To offset this, most plants added small storage cylinders, but the introduction of high-pressure pipes and related distribution equipment early in the 20th century made it possible to replace multiple small plants with a single large facility. With the capacity to generate huge volumes of gas, these facilities were also equipped with one or more telescopic gasholders, black giants that dominated city skylines. Their ingenious design allowed the tank to expand and hold any surplus produced overnight then gradually lower as demand increased and maintain even line pressure. The lowest portion of the tank was filled with water almost to its top forming an airtight seal. Above were from one to four telescoping sections made of lightweight steel, known as “lifts.” The bottom of each had a u-shaped rim called the “dip,” while the upper edge had an n-shaped rim, called the “cup,” which were also sealed with water. As the tank was pressurized, the cup and dip of each lift hooked together, pulling the next section upward. As pressure decreased, the cups and dips would slowly drop from bottom to top, allowing each lift to settle, maintaining even pressure throughout the system. To keep the sections aligned, lifts rode on guide rails supported by a spider web of steel trusses on the outside of the tank. Advances in electrical generation and distribution, discoveries of huge reserves of cheaper and cleaner natural gas and public pressure to regulate toxic wastes brought an end to the gas works, with the last commercial operation shutting down in 1966, although some private industrial production continued into the 1990s. As one of the tallest buildings in most cities and towns, your new Gas Storage Tank will be the most visible point of any gas works and is equally at home with many large industries such as a steel works. A typical plant had a wide range of rail traffic, including inbound hoppers of coal, while outbound shipments included coke and tank cars of coal tar. For figures, vehicles and accessories to set the scene see your dealer, check out the latest Walther's Model Railroad Reference book or visit our web site at walthers.com for more ideas.

BEFORE STARTING....

You can build your model as a tall or short tank to represent different volumes of gas inside; for the tall version use Large Supports (10x 2), for the short version, use Small Supports (10x 3).

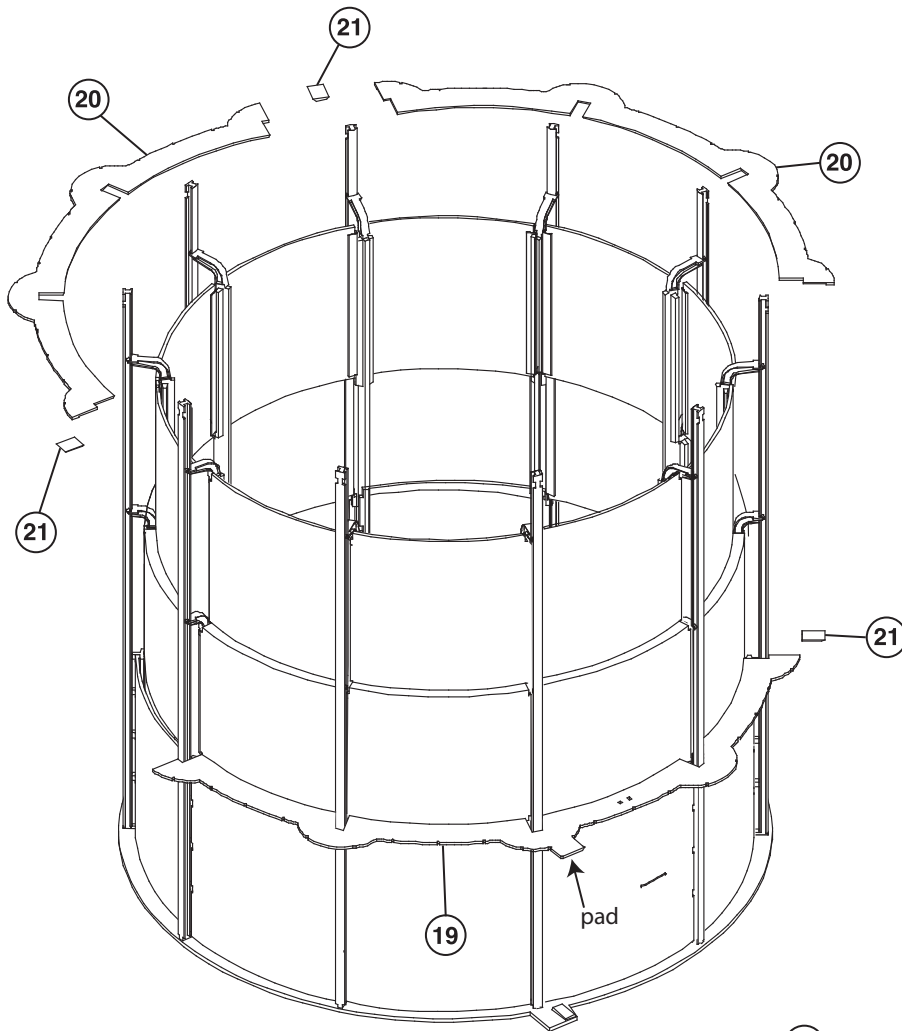
1) Begin construction at the small pad on the Base (1) as shown; insert lower tabs on two Supports (2 or 3) into slots in Base and glue where parts meet. PLEASE NOTE: Lower Tank Section with Stair Support (6) must be installed here: align slots on back with tabs on inside of Supports as shown, and glue at inside edges and to Base.





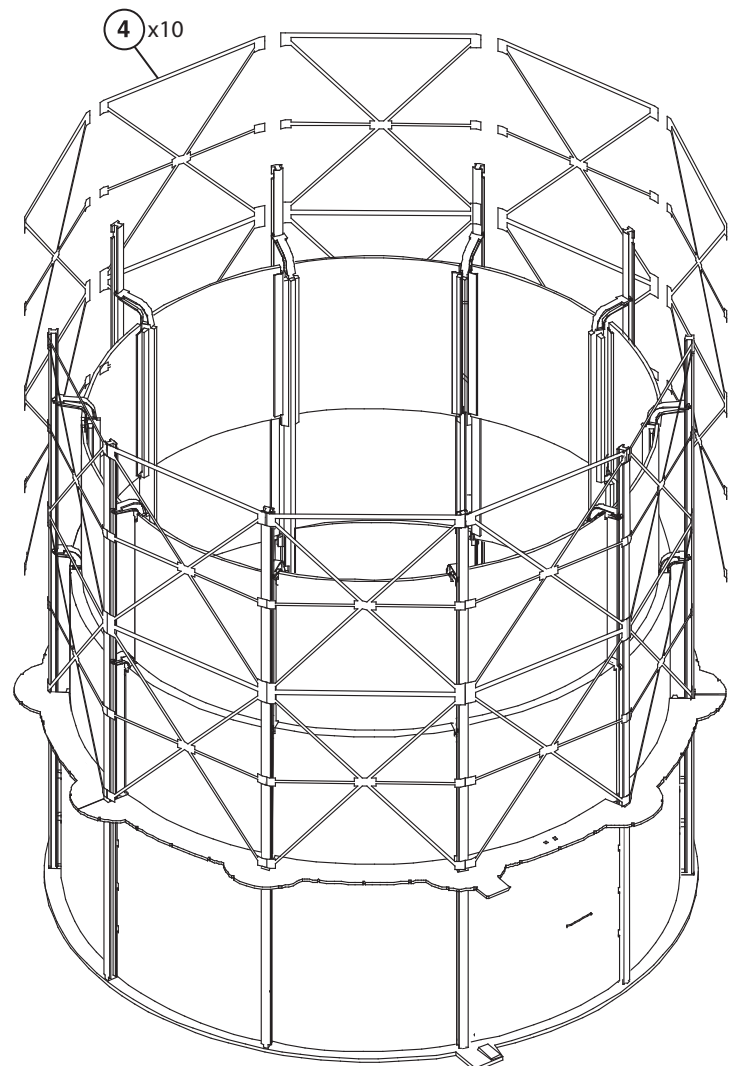
2) Glue remaining supports (8x 2 or 3) into slots in Base. Align slots on back with tabs on inside of Supports as shown, and glue Lower Tank Sections (9x 5) at inside edges and to Base.

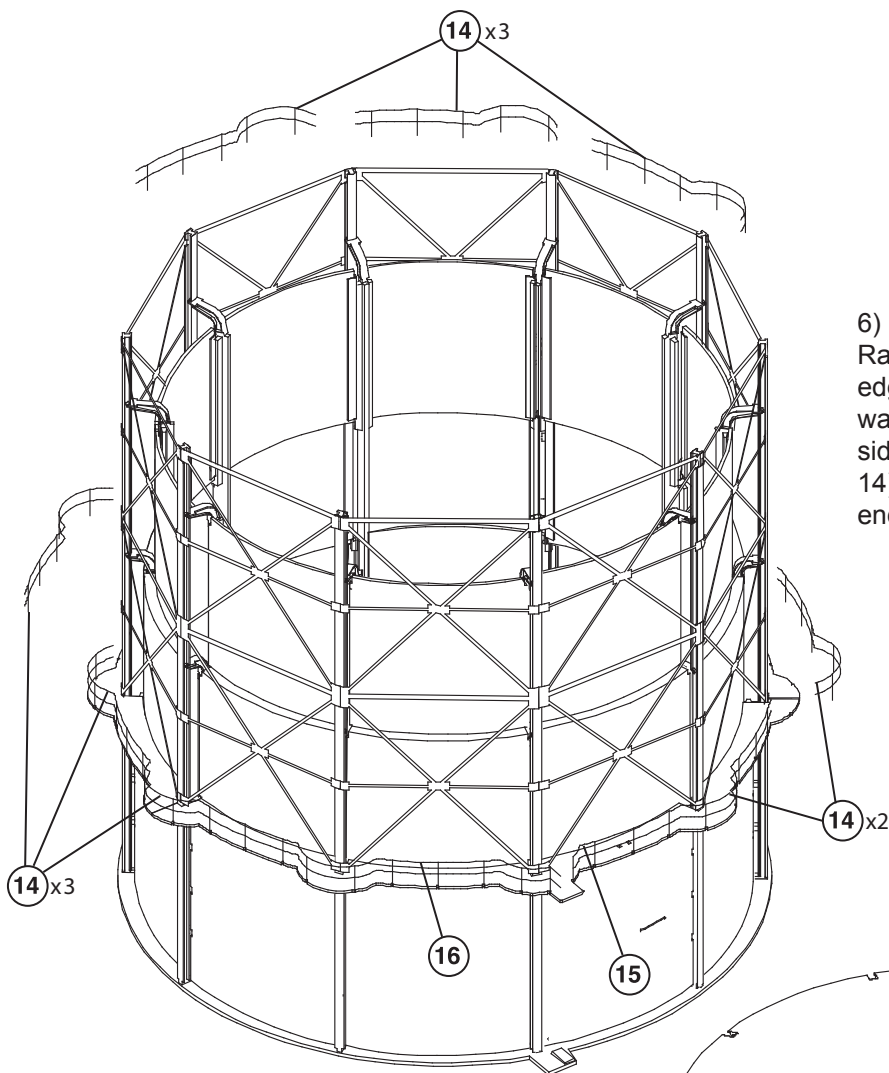
3) Slide Upper Tank Sections (9x 7) inside Supports until bottom edge rests on Lower Tank Sections, and glue at inside edges where parts meet.



4) Align landing on Front Walkway (19) with pad on Base and slide into place over supports: align and slide Side Walkways (2x 20) as shown. Glue Splice Plates (3x 21) on underside of walkways where parts meet.

5) PLEASE NOTE: When installing Cross Braces (10x 4), be sure the horizontal braces is at the top, and the open end at the bottom. Carefully align the L-shaped tabs on the horizontal braces with the openings in the top of each Support and the remaining braces along the inside edge of each support, and glue in place.

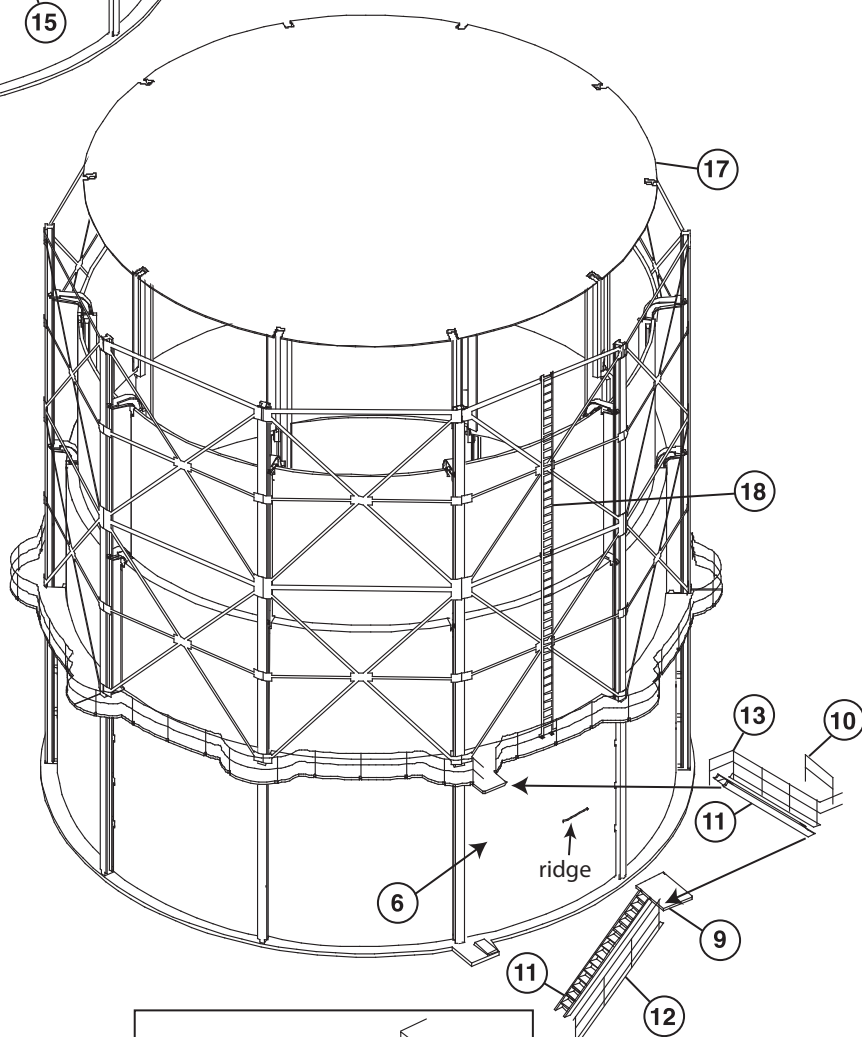




6) Begin by gluing lower legs of Left Front Railing (16) to inset areas along outside edge on left side of landing and Front Walkway, glue Right Front Railing (15) to right side as shown. Glue remaining Railings (8x 14) to Front and Side Walkways and where ends meet as shown.

7) PLEASE NOTE: Two sets of Stairways (11) are provided: the notched end is the top for both. Begin assembly by gluing the angled edge of Lower Landing (9) to raised ridge on Wall (6); be sure this part dries level. Glue the first (upper) Stairway to the outside edge of both the landing on the Upper Walkway and the Lower Landing. Align end post of Upper Handrail (13) with open end of Railing (16), and glue to outside (right) edge of upper Stairway. Align end post of Lower Landing Handrail (10) with open end of Upper Railing: glue where parts meet and to Lower Landing. Glue the remaining (lower) Stairway to the inside left of the Lower Landing. Glue Lower Railing (12) to outside (right) edge of Lower Stairway.

8) PLEASE NOTE: Access Ladder (18) has pegs on the back that fit around the horizontal beams on the bracing as shown. Glue lower end of Ladder with L-shaped supports into alignment holes on Walkway, and to horizontal braces where parts meet. Complete assembly by sliding Roof (17) over Supports and glue to top of tank walls where parts meet.



SIGNS

To mount signs, simply cut the desired name and, using a small drop of white glue on the back, glue it in place.

Notch on top of stairs fits up under the pads

