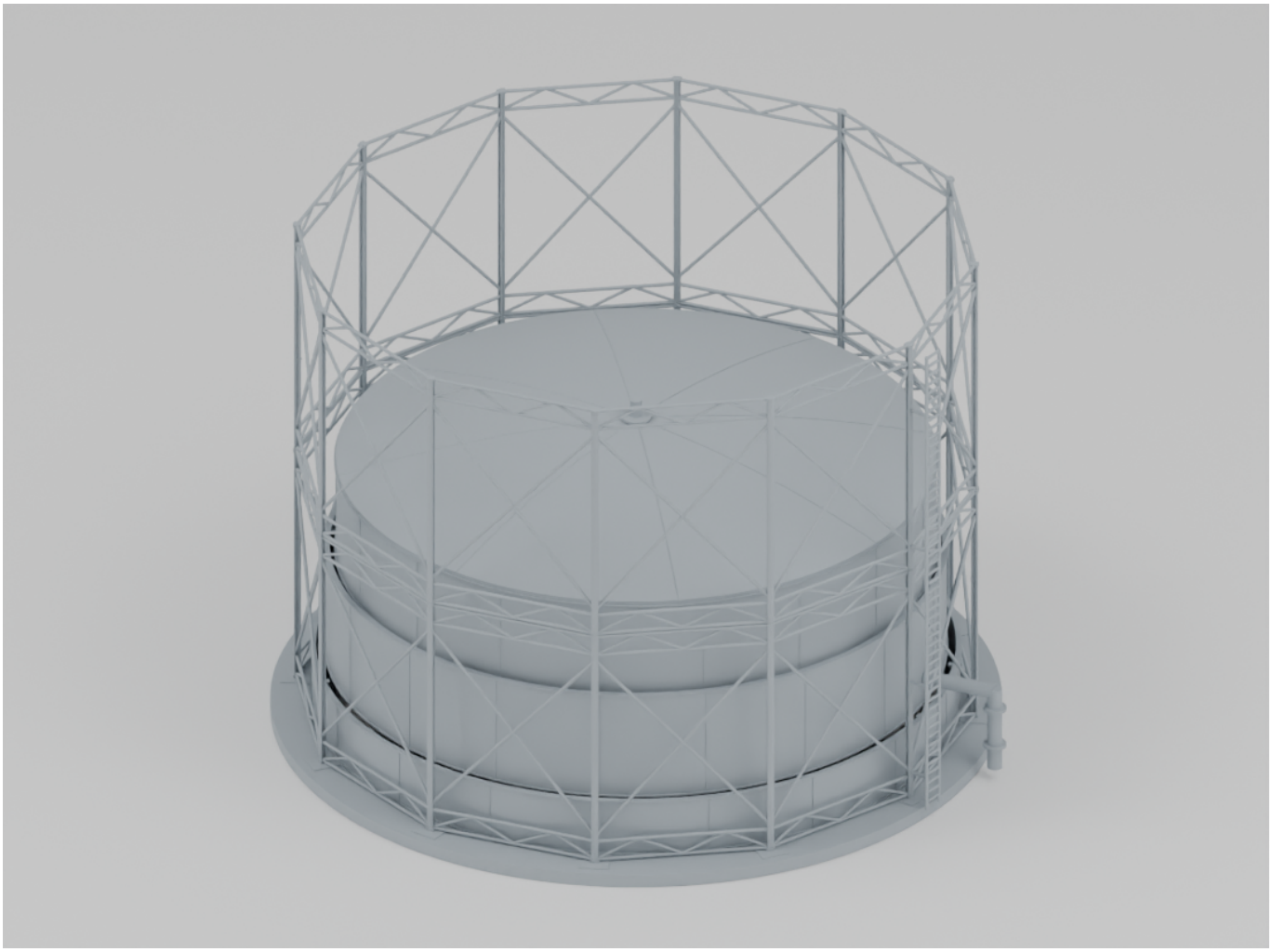
MODEL SCENERY CO.

MSC011 / ILLUSTRATED ASSEMBLY

Build your gasometer.

Frame-guided gasholder | N 1:148 and OO 1:76 | 48-piece resin kit



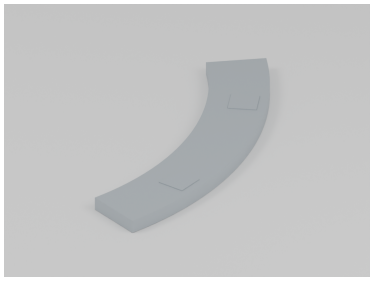
Nine numbered stages. Ten part types.

Identify the pieces, build the fixed bell, then add the twelve full-height cage panels. Orange shows the parts added at each stage; grey shows previous work.

Prototype assembly guide: based on the saved v0.2 CAD files. Cured fit and assembly have not yet been physically proven. Dry-fit each stage before using glue.

Check your pieces.

Letter codes are used throughout this booklet. Quantities are per complete model.

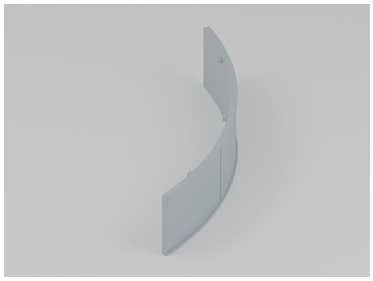


A / Foundation arc x6

Broad low ring segment with two column footings.

foundation-sector.stl

N test plate 05

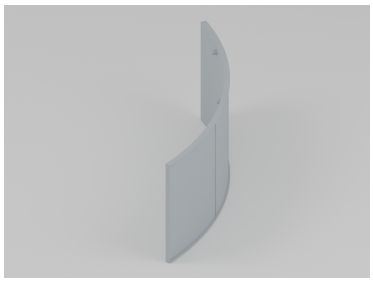


B / Water-tank arc x6

Shortest curved wall; inward-facing bell support ledges.

water-tank-sector.stl

N test plate 04: 5 / 05: 1

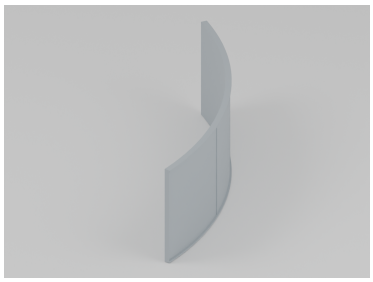


C / Lower bell arc x6

Taller curved wall; support ledges for the next course.

lower-bell-sector.stl

N test plate 04

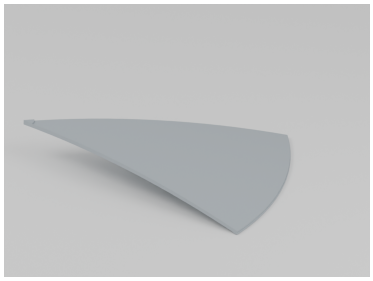


D / Upper bell arc x6

Narrower upper curved wall; no lower-bell seating ledges.

upper-bell-sector.stl

N test plate 04



E / Domed roof wedge x8

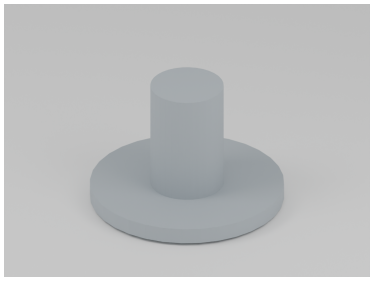
One eighth of the shallow dome, with radial seam.

crown-roof-sector.stl

N test plate 04: 5 / 05: 3

Check your pieces.

Letter codes are used throughout this booklet. Quantities are per complete model.

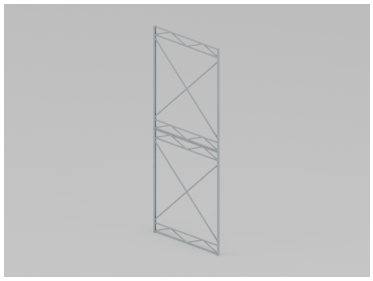


F / Crown cap x1

Small central disc and upright finial.

crown-cap.stl

N test plate 05

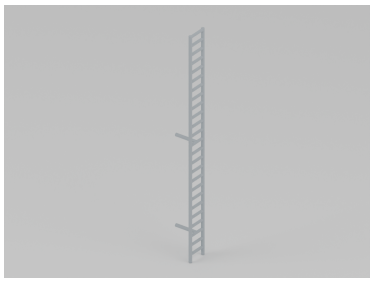


G / Full-height cage panel x12

Two storeys of lattice in one panel, with mitred ends.

full-height-guide-bay.stl

N test plate 05

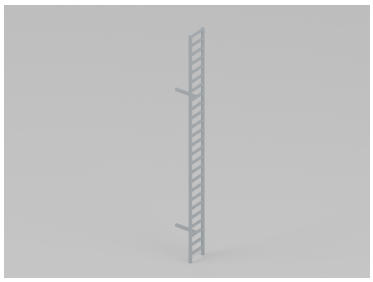


H / Lower ladder x1

Mark from the file name before removing supports.

lower-ladder.stl

N test plate 05

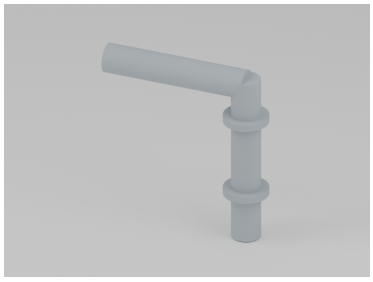


I / Upper ladder x1

Keep separate from H until the ladder is fitted.

upper-ladder.stl

N test plate 05



J / Pipe assembly x1

Bent pipe with two flange collars. Supplied as one piece.

inlet-pipe.stl

N test plate 04

A clean, square build.

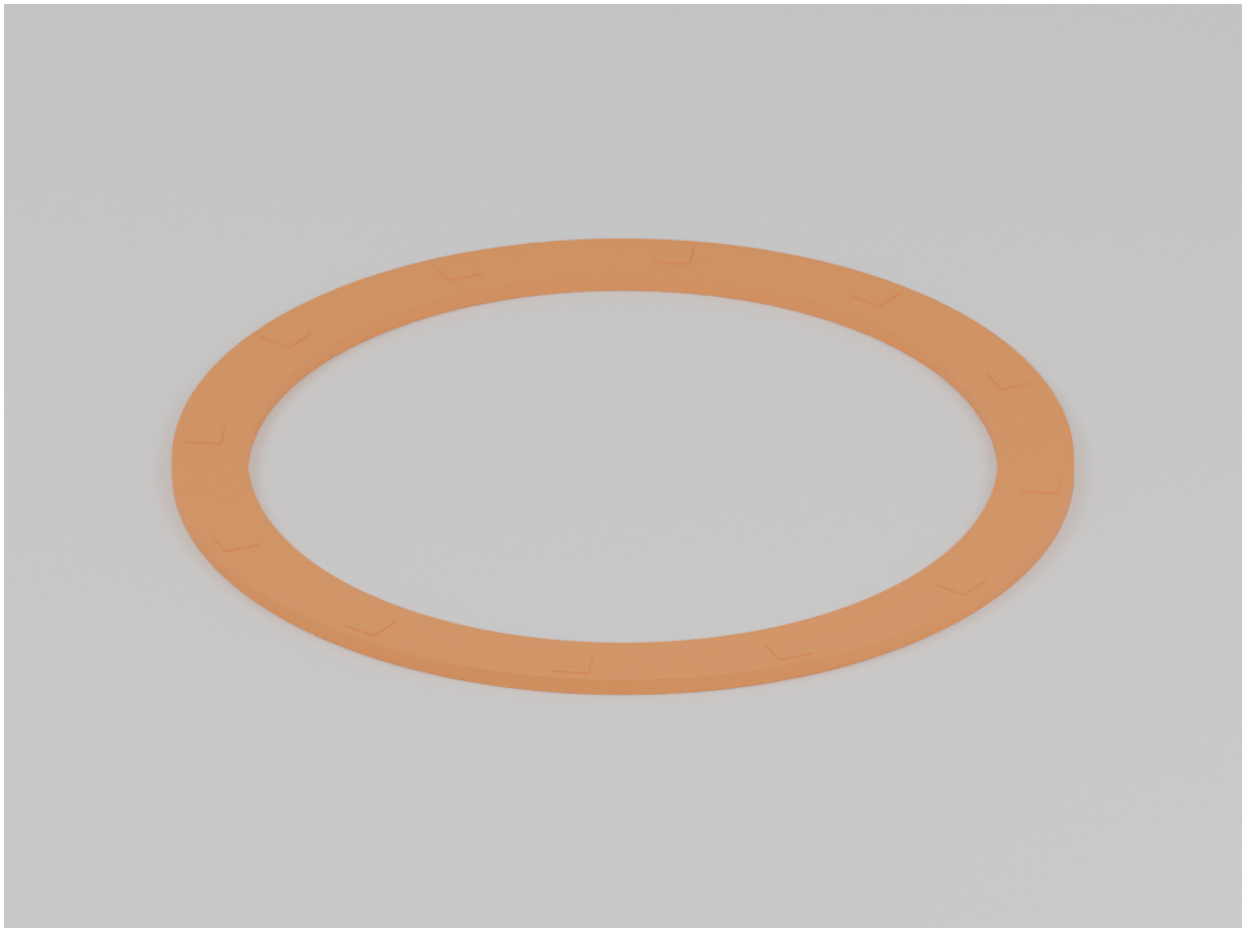
This is a glue-together static display model, not a snap-fit or moving mechanism.

1. Use fully washed, dry and cured parts. Inspect for bowed cage panels, missing lattice, broken ladder rungs and distorted sector edges. Resolve damaged parts before assembly.
2. Label ten small trays A to J. Count 48 pieces. For the current N layout, plate 04 supplies 23 pieces and plate 05 supplies 25. Print each current TWO-PLATE-EDGE plate once; ignore older plate allocations.
3. Use a flat board, a small square, low-tack tape, a fine file and tweezers. The final page is an actual-size N alignment jig. Protect it with a clear release sheet so glue cannot bond the model to the paper.
4. Dry-fit before gluing. Use a resin-compatible modelling adhesive such as small amounts of cyanoacrylate; follow its label. Ordinary polystyrene kit cement is not intended to weld cured resin. Keep glue away from skin and eyes.
5. Remove support marks carefully. If sanding cured resin, control the dust and follow the resin maker's handling advice. Do not heat or force a bowed panel into position.
6. Prime and paint inaccessible inside faces before closing the cage. Leave bonding faces clean. Use thin paint coats and keep all seating ledges free of paint build-up.

Colour key: orange = new parts; grey = parts already assembled. The diagrams use actual N CAD meshes. The same sequence applies to OO, but the N jig must not be used for OO.

Make the foundation.

NEW PARTS A x6 | Dry-fit first, then glue

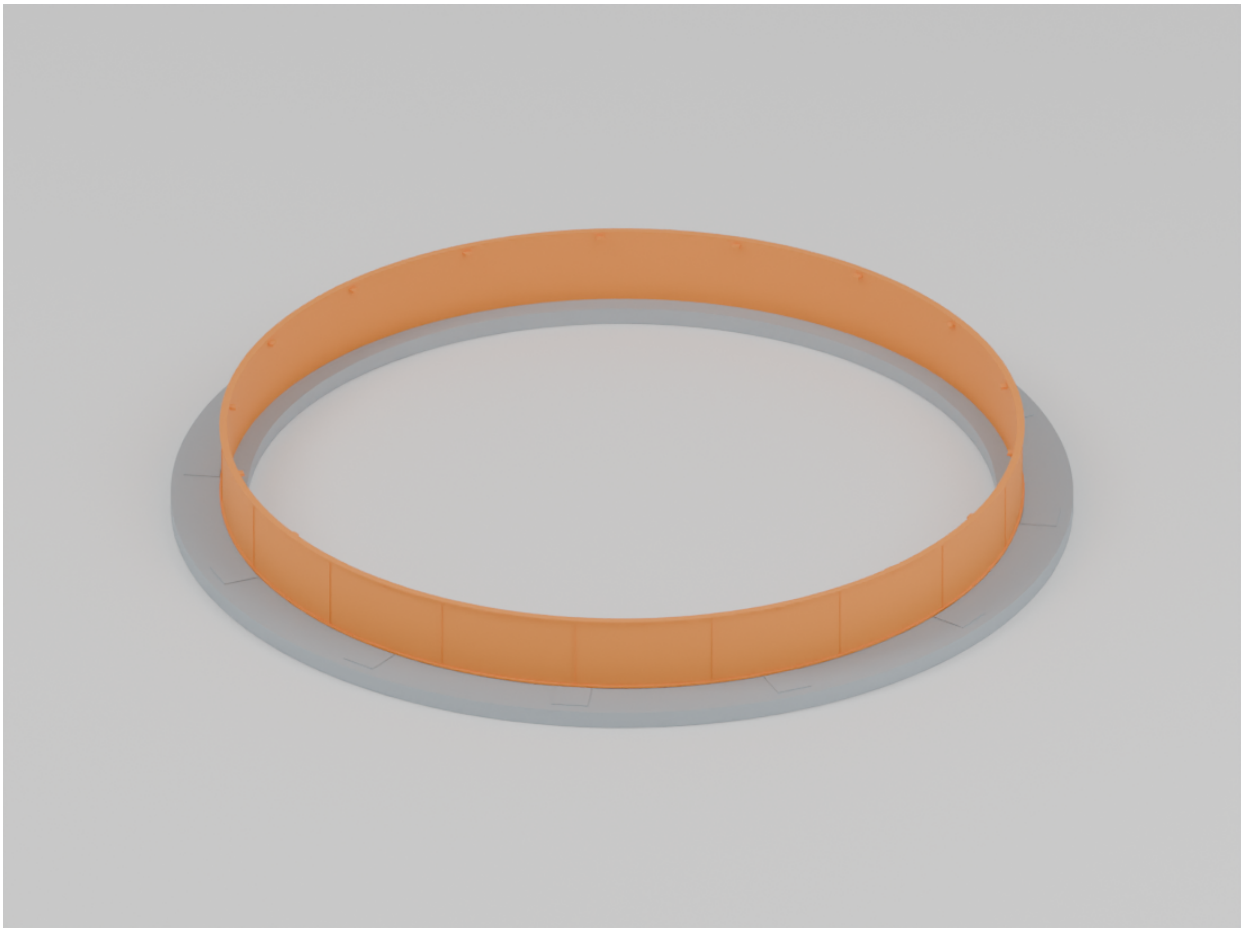


1. Lay six foundation arcs A on the flat jig. Footing pads face upwards; the open centre stays empty.
2. Each arc covers 60 degrees. Fit all six before gluing. The two pads per arc give twelve cage-column positions, 30 degrees apart.
3. Tape the dry-fitted ring to hold alignment. Glue the radial end faces, checking that the ring lies flat and the twelve footing centres match the jig. Allow the joints to set.

Do not build the cage yet. A flat, round foundation is the reference for every later stage.

Build the water-tank ring.

NEW PARTS B x6 | Dry-fit first, then glue

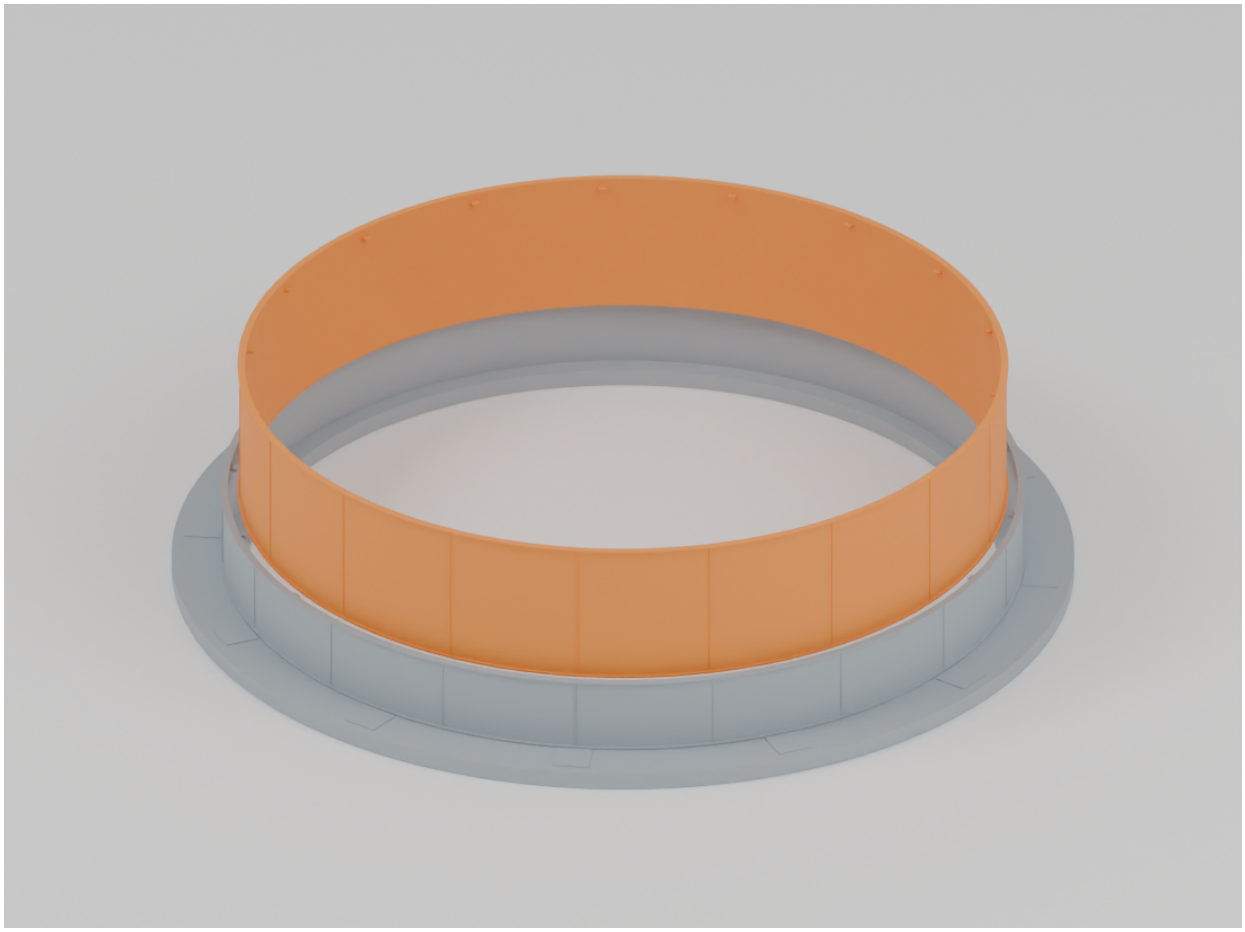


1. Identify the six short wall arcs B. The small seating ledges point inward, towards the centre of the holder.
2. Arrange all six at 60-degree intervals on the foundation, concentric with the footing circle. Keep the outside plate seams and collars facing out.
3. Dry-fit the lower bell at the next stage before fixing B permanently. Glue adjoining sector edges and the tank-to-foundation contact after the trial fit.

B is the short outer wall. Do not confuse it with either of the taller bell courses.

Fit the lower bell.

NEW PARTS C x6 | Dry-fit first, then glue

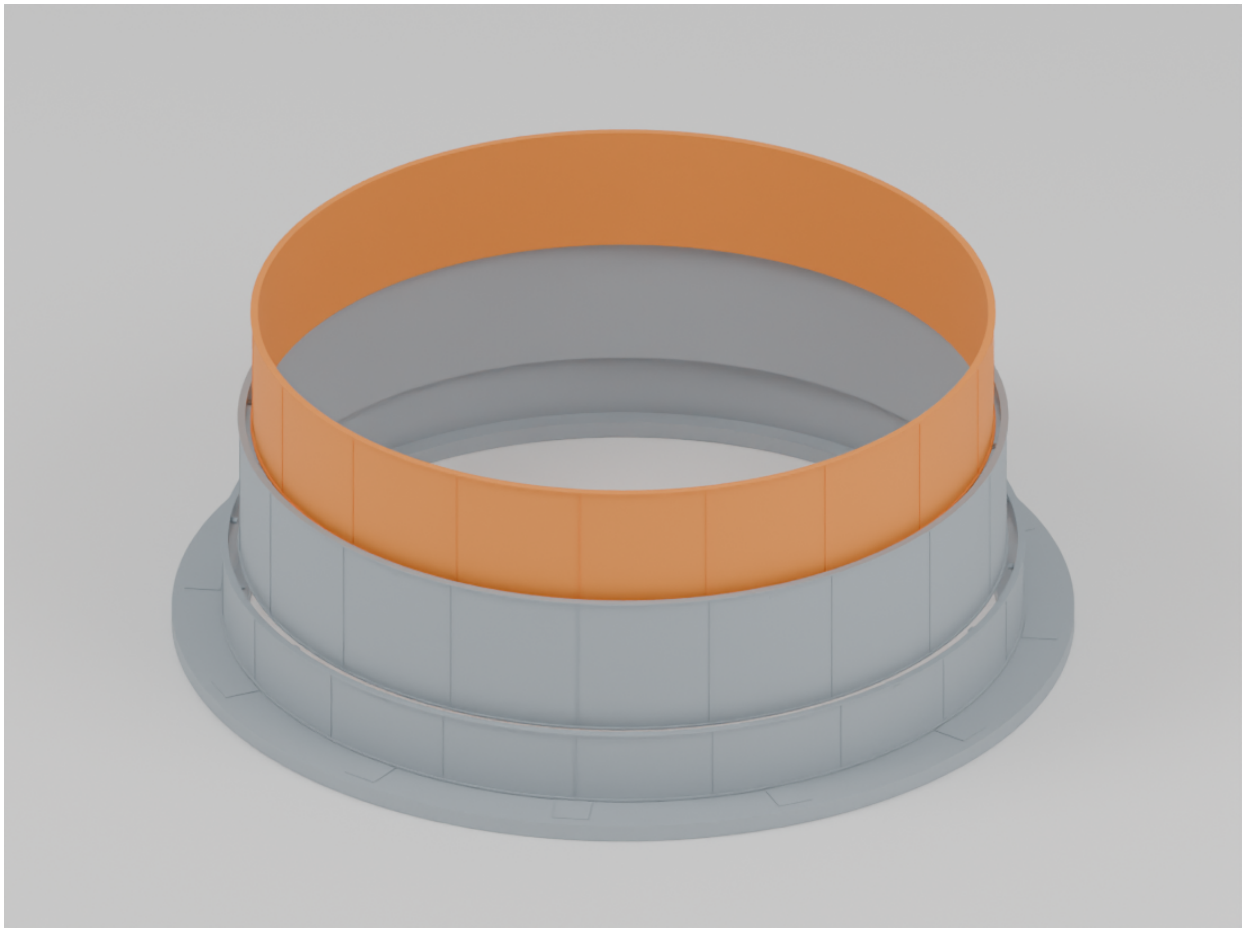


1. Join six lower-bell arcs C into a ring, with the visible plate seams outside and the next set of seating ledges inside.
2. Lower the ring inside B. Its bottom edge rests on B's internal ledges, slightly below the tank rim. It must not drop to the foundation.
3. Check that C is concentric and level all the way round. Test upper bell D before finally gluing C's radial joints and support contacts.

The rings overlap vertically, like telescopic courses, but this model stays at one fixed display height.

Fit the upper bell.

NEW PARTS D x6 | Dry-fit first, then glue

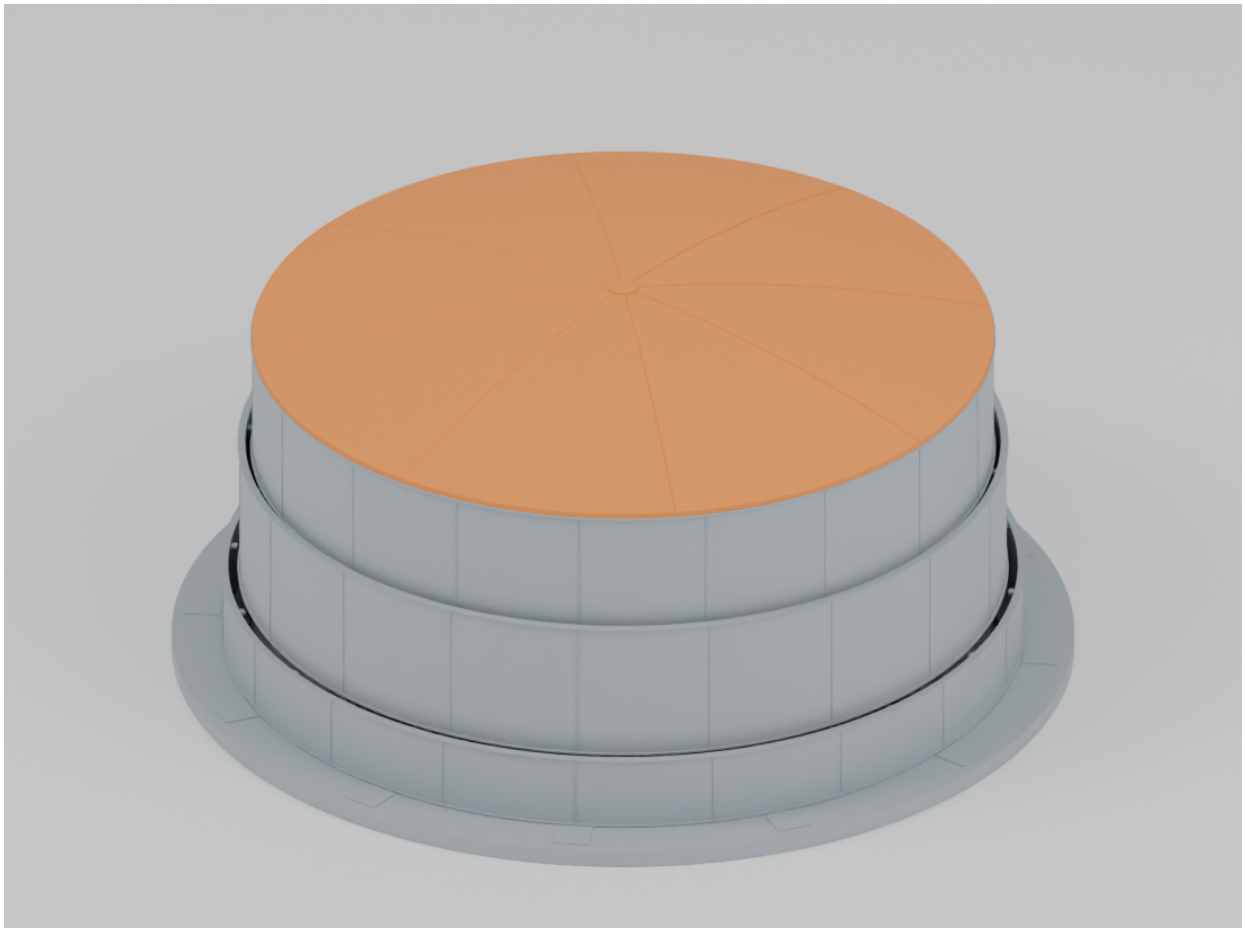


1. Join six upper-bell arcs D into the smaller ring. Keep the plate seams on the outside.
2. Place D inside C, resting its bottom edge on C's seating ledges. The crown will sit on the top edge of D.
3. Use the roof wedges for a trial fit before gluing D. Check the top rim is level; correct a high joint with light fitting work, not force.

Do not glue the bell courses as one flat stack. Their different diameters nest inside one another.

Assemble the dome.

NEW PARTS E x8 | Dry-fit first, then glue

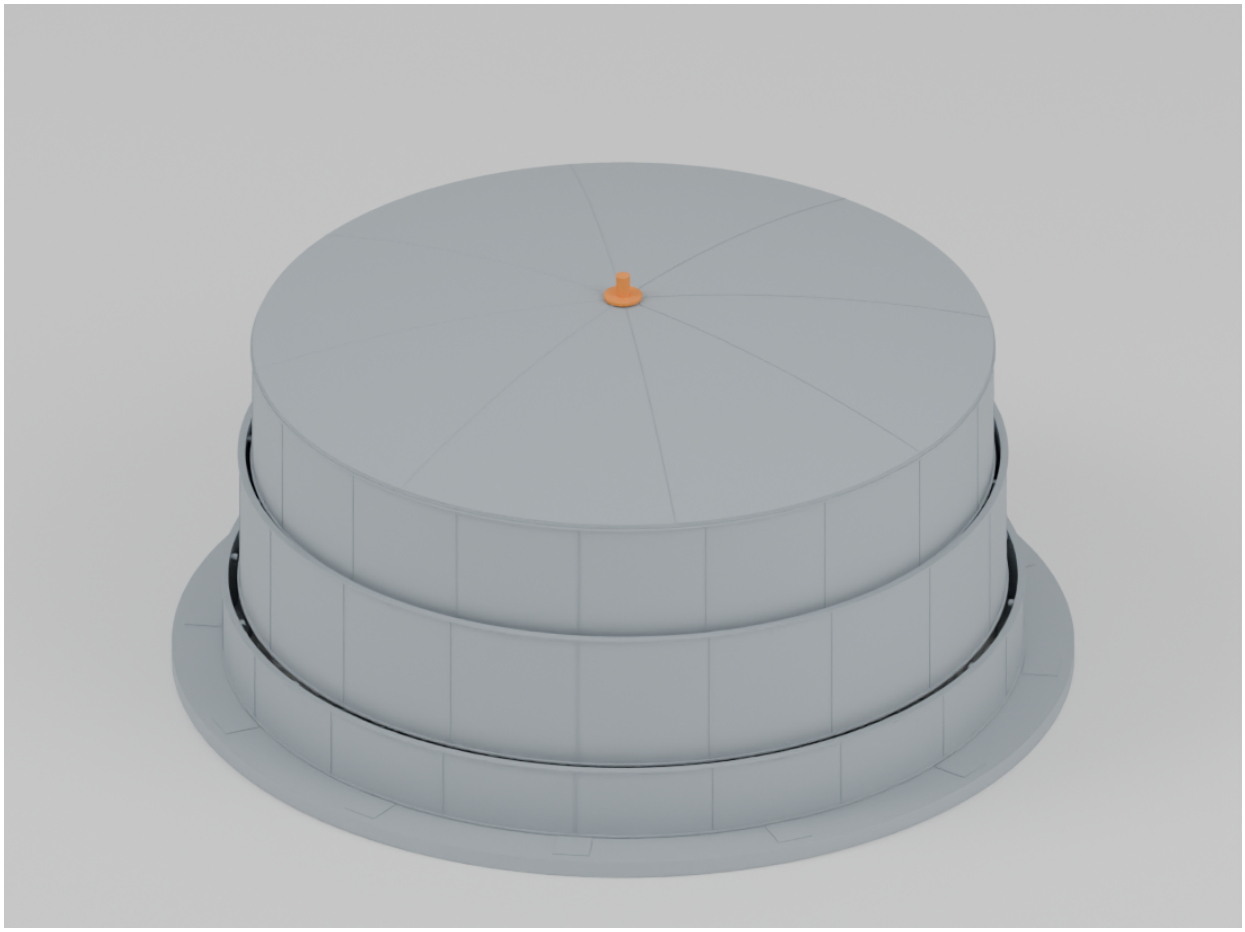


1. Dry-fit eight wedges E into a complete dome, 45 degrees per wedge. The curved detailed surface faces upwards; the hollow surface faces down.
2. Align the radial edges and the eight small central boss segments. Join the radial faces in small groups, then dry-fit the complete dome on D.
3. The underside bearing lip locates on the upper bell. Once the dome sits evenly, glue its sector joints and seat it on D. Avoid squeezing or flattening the shallow dome.

Lightly dress a tight seam if needed. The roof and ring must retain their circular shape.

Finish the crown.

NEW PARTS F x1 | Dry-fit first, then glue

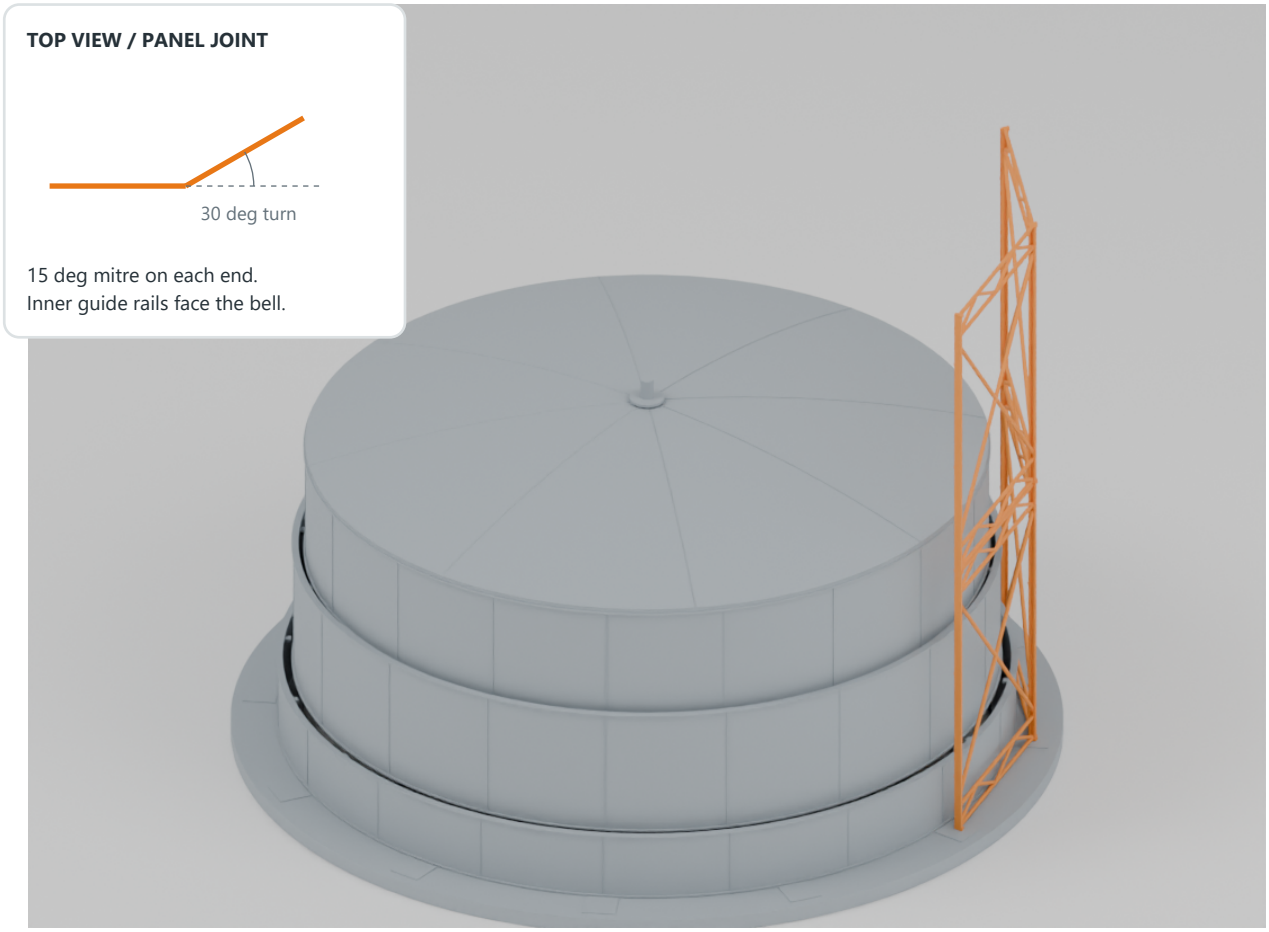


1. Find the small cap F. Its flat disc faces down and its short central finial points up.
2. Dry-fit it over the central boss formed by the eight roof wedges. Check that it is centred from above.
3. Apply a small spot of glue to the cap seat and place F. Leave the bell assembly undisturbed while the adhesive sets.

Hold the model by its foundation or shell, never by the crown cap.

Start the guide cage.

NEW PARTS G x2 of 12 | Dry-fit first, then glue

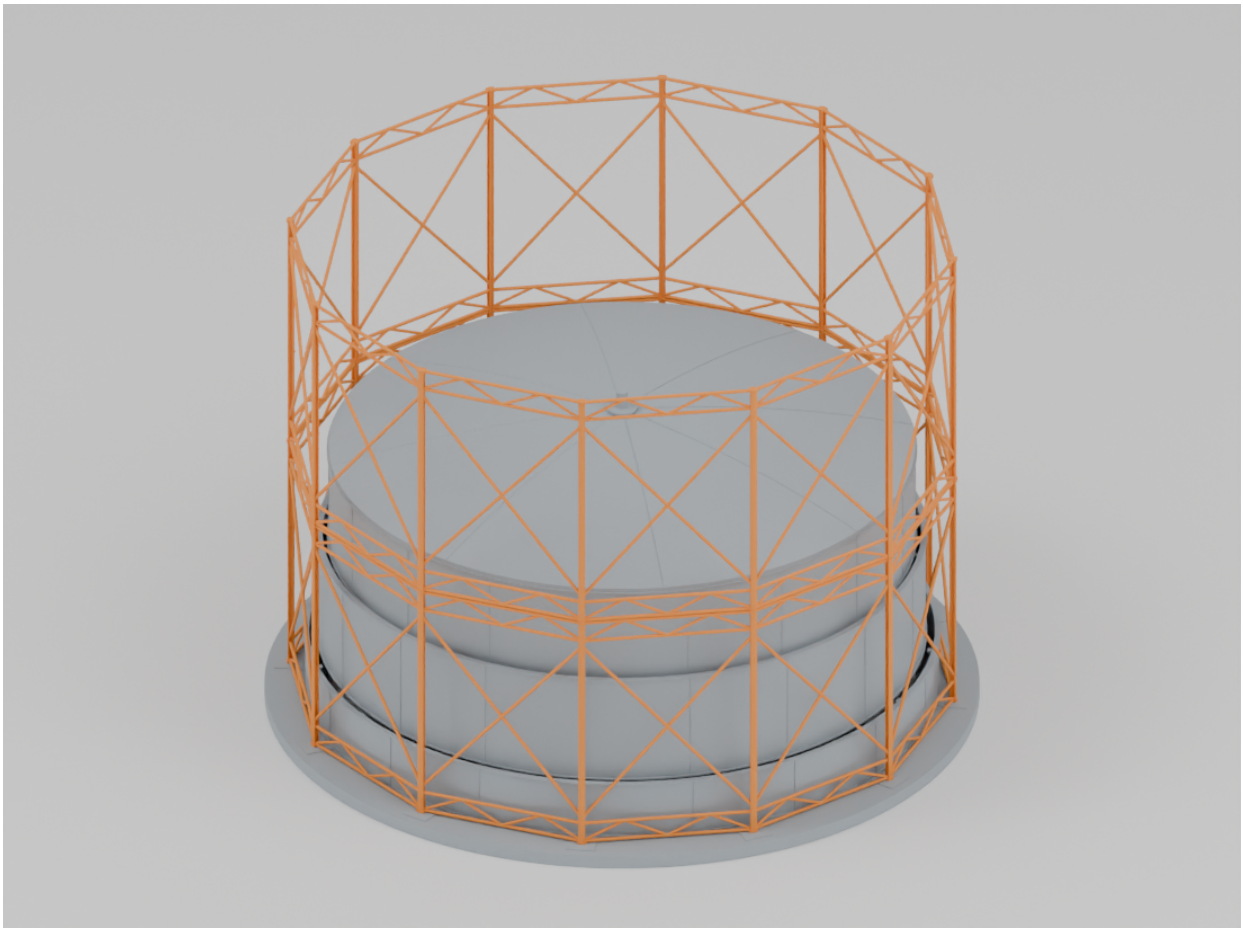


1. Identify the inner face of each G panel by the projecting guide rail and its small clips. These face the bell, not the outside.
2. Test two neighbouring panels on three consecutive footing pads. Each full-height panel spans 30 degrees. Both end faces have 15-degree mitres.
3. Bring the mitred ends together so their half uprights form one shared column. Keep both panels vertical. Tack the joint and footing contacts only after checking the fit.

There is no half-height cage seam. Do not place two full-height panels above one another.

Close the twelve-panel cage.

NEW PARTS G x10 remaining | Dry-fit first, then glue

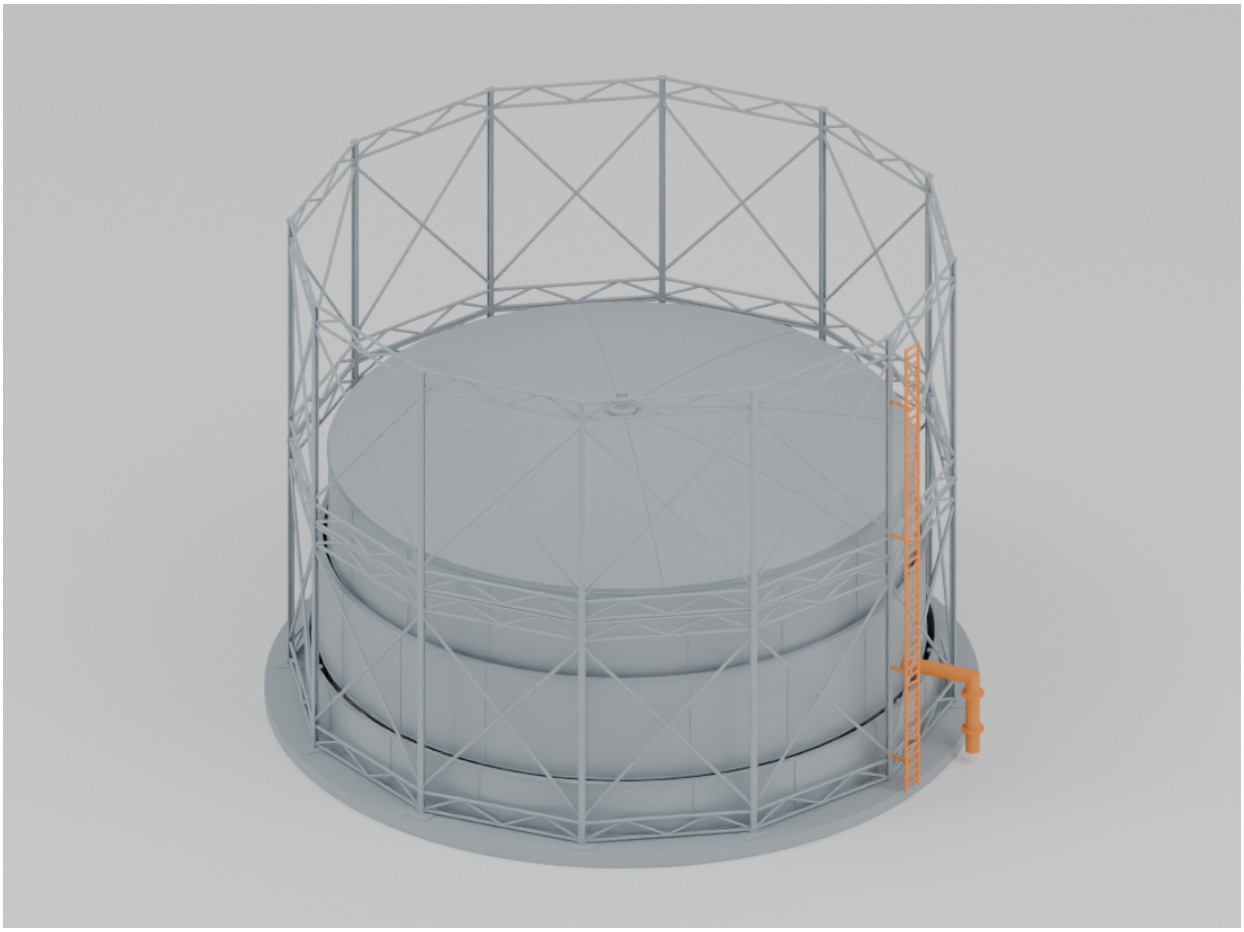


1. Continue around the foundation, adding one G panel at a time. Match each shared upright to its footing and align the lower, middle and upper girders.
2. Before the last joints set, dry-fit the final panel. Check all twelve bays form a regular ring, without leaning inwards or squeezing the bell.
3. Adjust the still-loose joints to close the cage evenly, then glue. Use a small square to check vertical columns. Let the complete cage set before handling.

Do not force the last panel into a gap. A closing error is a cue to recheck angles and accumulated joint gaps.

Add ladder and pipe.

NEW PARTS H x1 + I x1 + J x1 | Dry-fit first, then glue

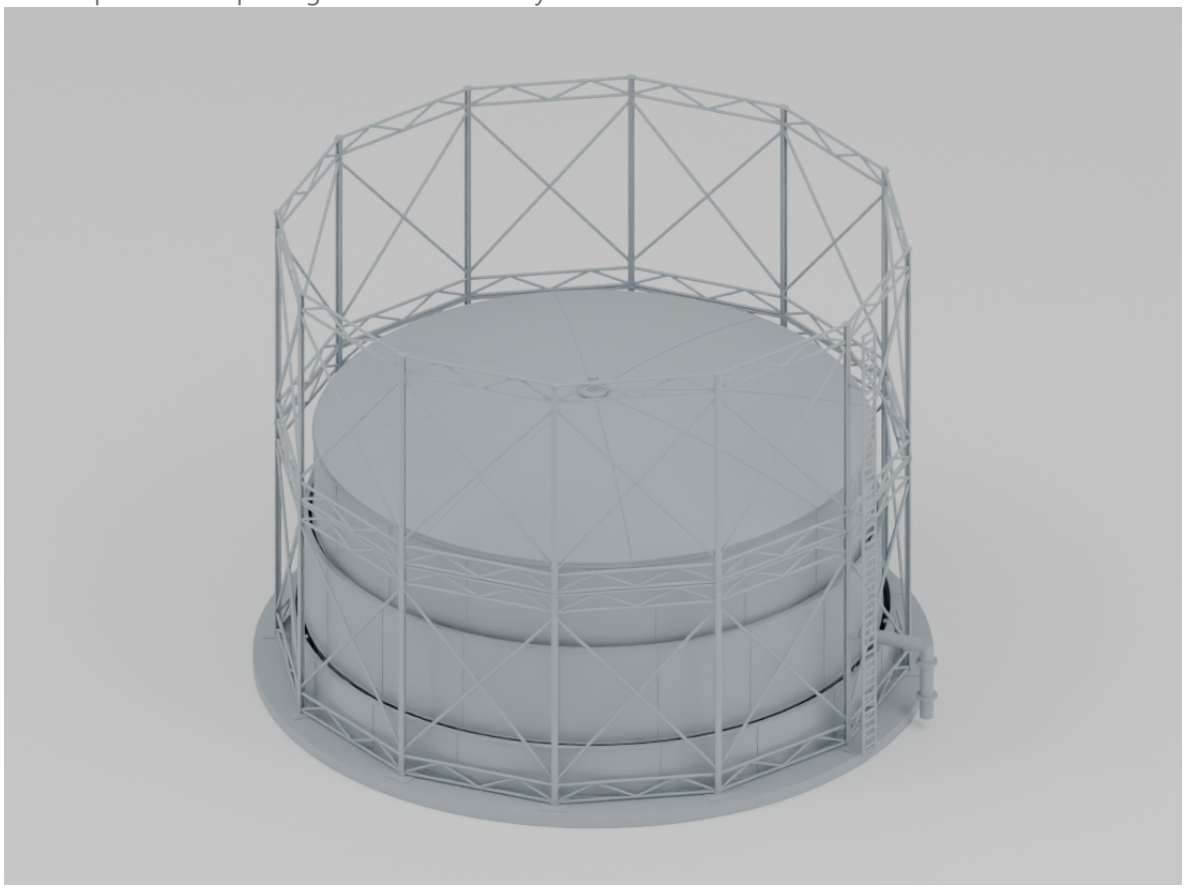


1. At the reference column marked 0 degrees on the jig, fit lower ladder H outside the cage. Its mounting clips point towards the column; the rails face outward.
2. Place upper ladder I directly above H. Align and butt-join both rails at the cage's middle level. Test all bracket contacts before applying small glue spots.
3. Place J beside the tank at the jig's 15-degree pipe mark, half a bay round from the ladder. Its long vertical leg stands outside; the horizontal arm points towards the lower bell. Test clearance to the cage and tank, then glue the contacts.

The assembly-coordinate pipe mesh already includes its 15-degree position. Printed loose parts still need to be physically oriented as shown.

Ready for the gasworks.

Finish and inspect before placing the model on a layout.



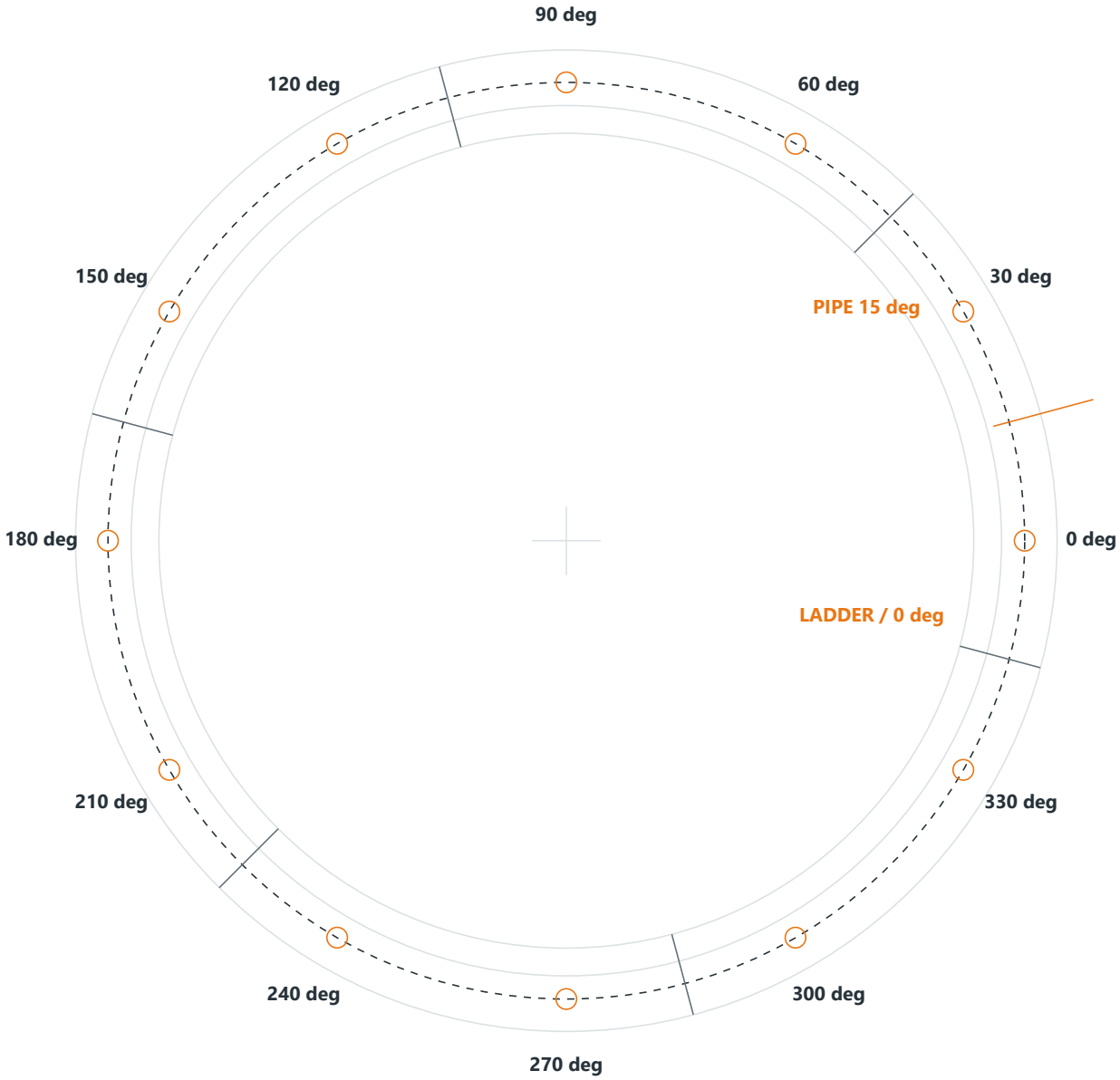
1. Check all twelve cage columns are upright and share the footing centres. Look across the top girders: the ring should be level, not twisted.
2. Check the bell is centred, the dome seated, the cap vertical and both ladder halves aligned. Inspect the pipe for contact with a brace.
3. Finish the paintwork with thin coats. Dark grey or green steelwork, muted tank colours and restrained rust are possible finishes; no single railway-company livery is prescribed.
4. This is a dry scenic model. Do not fill it with water or connect gas. Lift it by the foundation. Keep the long lattice and ladder protected in storage.

First build feedback: note any joint needing filler or sanding, bowed panel or weak fitting. This booklet follows the nominal CAD assembly; physical fit remains to be confirmed.

MSC011 / PRINT AT 100% / ACTUAL SIZE

N gauge alignment jig.

N 1:148 only. Disable Fit to page. Check the 100 mm line before building on this sheet.



Orange circles: twelve column centres. Dashed circle: guide radius 66.892 mm.
Outer foundation diameter: 143.243 mm. Thin inner circle: foundation inside edge.
Six radial ticks: foundation joins. The pipe sits halfway between 0 and 30 degrees.



THIS LINE MUST MEASURE 100 mm