

# CONCEPT MODELS

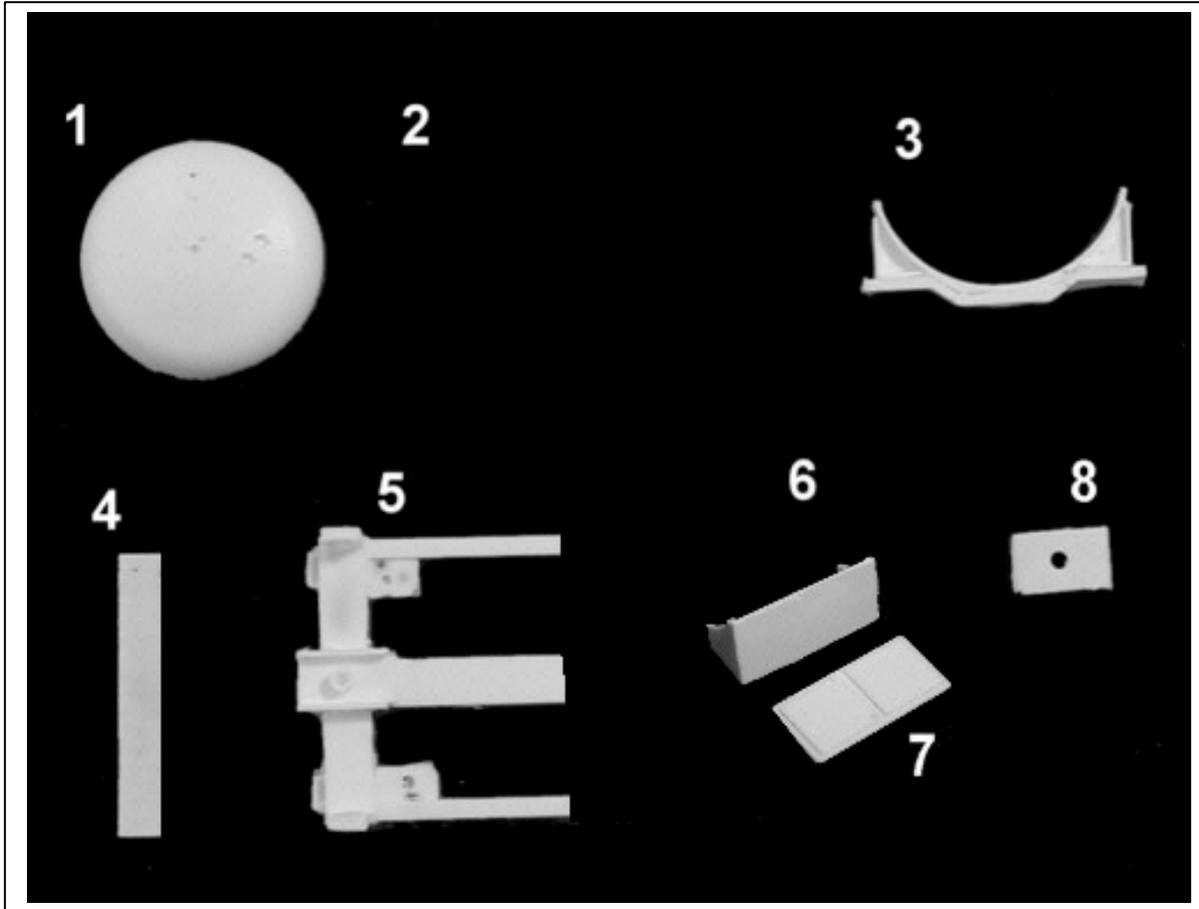
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**INSTRUCTIONS FOR PRODUCT  
IAPX 1027 CRYOGENIC TANK CAR**

## PARTS IAPX 1027 CRYO. TANK CAR



Item No.	PART NO.	DESCRIPTION	QTY.
1	1081	"Bumped" Heads-Pr	1
3	1002	Tank Saddles	2
4	1004	End Sill Deck (Wide)	2
5	1005	End Sill (.200 Sill)	2
6	1006	Control Box	2
7	1007	Control Box Face	2
8	1008	Coupler Cover (CM)	2
9	1034	Dome	1
10	8519	Tank Template	1
11		Vent Box	1
12	1058	Safety Vents	2

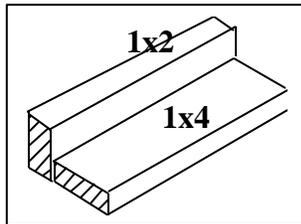
PART NO.	GENERIC PARTS	QTY.
1014	3/16" x 2-56 screws	2
1018	Brake Valve	1
1020	Brake Reservoir	1
1019	Brake Cylinder	1
1048	Brake Mech. Mount	1
1041	Brake Mech.	1
1010	Brake Wheel	1
	PVC Tank Tube – 42'-6" s.f.	1
1049	Placard Holders	4
1011	Small Pin	1
	Decals	1
	Instructions	1

## Tools

All basic model workers tools – files, motor-tool with fine burrs, hobby knife and HO scale rule, Wood blocks for holding parts square, metal square, etc.

Drills: #76, #72, #68, #50 (2-56 tap drill), #65

Music Wire .020" for handrails. Athearn stanchions for tanks cars.



This fixture is a great aid to assembly. It helps hold parts square while gluing and aids in drawing horizontal lines on tanks for tank cars.

## Instructions

**NOTE:** This kit consists of resin castings and must be assembled with an ACC cement (not provided) – both the thicker types as well as the thin. Solvent cements will **NOT** bond the parts together! They can dissolve them. Resin parts are more fragile than common styrene plastic used in injection molded models. Use reasonable care in handling and do not apply any solvents. The illustrations at the front show the general layout of parts for the car. Work very carefully when positioning the parts for gluing. ACC cements adhere very quickly and permanently.

## Gluing with ACC Cements – USE WITH CARE

ACC cements allow the modeler to work very quickly. A general rule is to use the thin cements to glue long joints taking advantage of capillary action that makes the cement run the length of the seam. The thicker cement is suited to applying large area parts to each other. An accelerator can be applied sparingly. One technique is to apply the glue to one part and the accelerator to the other part to be joined. I also use a Q-tip to apply a minute amount of accelerator to the glue after the parts have been joined. The accelerator triggers the ACC cement to set very quickly. It is only slightly slower with the thicker cement

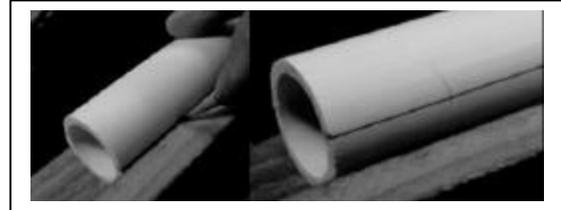
**PREPARATION** Wash the parts before assembling with a dish washing detergent such as “Dawn”. Rub lightly with a soft sponge.

## ASSEMBLY

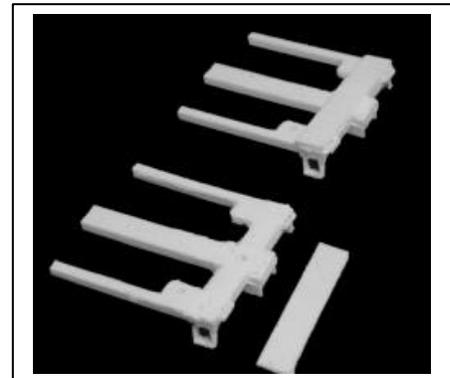
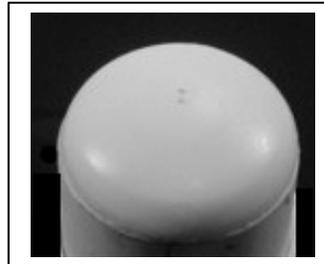
**1** Use a 45 degree centering tool to make opposite sides of the tube end. Draw longitudinal lines for top and bottom center. Use the above diagram to mark ring locations (on top) and truck locations (on bottom).



**2** Draw a line the length of the tube. Draw another line 180 degrees from the first. Label one line "top" and the other "bottom".

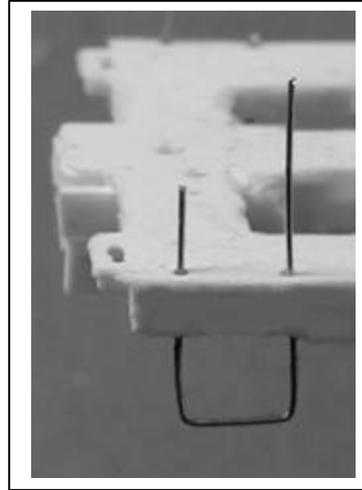


**3** Cement the Ends (1) to the tank tube. The "B" end has a provision for the brake wheel. The pressure end piece should be located as shown in step eight where the brake mechanism will be installed. Use Squadron's Green Putty to smooth the joints.

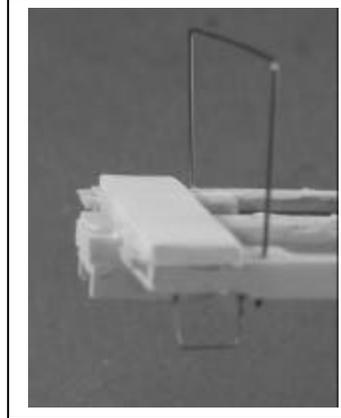




**4** If you prefer to make steps from wire, file off the stirrups and drill for either .015" or .020" as you prefer. The holes should be slightly oversize to admit the ACC cement. Bend the wire and install as shown. After the cement is completely set. Use a cutoff disk in a motor tool to grind off the excess wire flush to the surface and add the decking to the end sills.



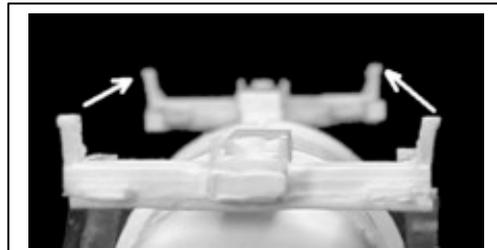
**5** Make a hand railing from .020" steel (not provided) and install as shown in the End Sill (5). It will be necessary to drill with a .020" drill (#76). Make sure the hand railings are perpendicular to the end decks.



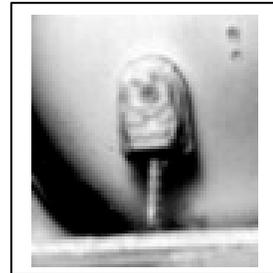
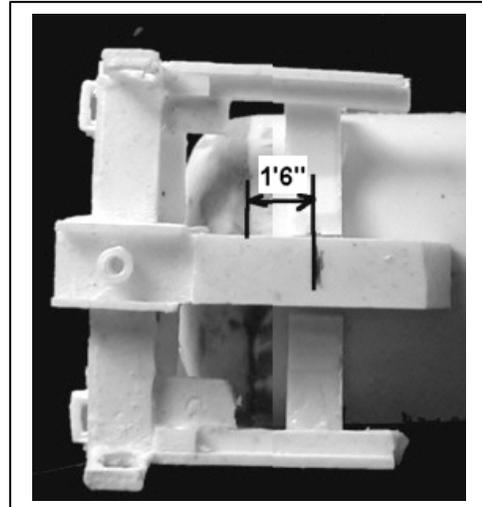
**6** Position the sill so that the inside edge of the sill is about even with the end of the tank. The handrails should be ~1 s.f. from the end of the tank. Measure 1'-6" from the end of the tank tube and mark the position of the truck center. Trim the truck mount of the part and bevel the end. Cut and bevel the other end sill assembly. Attach the first end sill as shown.



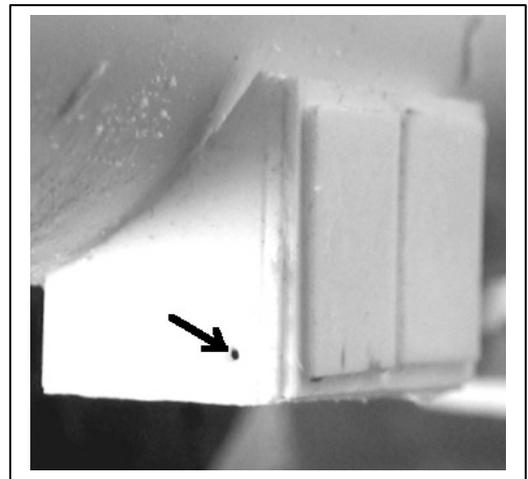
**7** Attach the other end sill making sure that the ends are in parallel alignment.



**8** Cut the saddle halves in half. Trim the saddle halves so that the ends. Measure 1' (s.f.) on the tank tube (not the pressure end) and mark for the saddles and the Cut back the side stringers to match the saddle halves when installed at the truck location The saddle halves connect to the bottom of the tank and center sill. The side stringers should be cemented to the saddles. (This is a generic photo.)

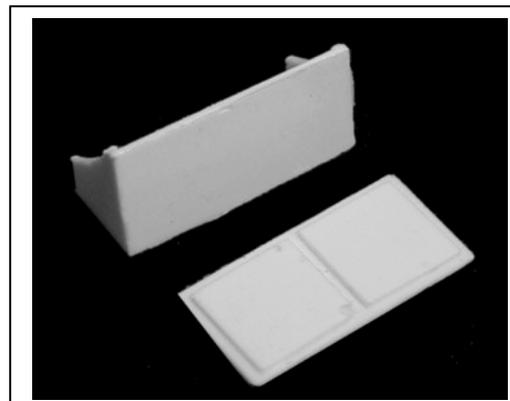


**9** Drill the end of the tank that has the small indentations for pilot holes. Install the brake mechanism mount and Ajax brake mechanism as shown. Install the brake wheel with a small pin. Install the rest of the brake components per diagram.



**10** Cement the Control Box Face (7) to the Control Box (6). Make two. Drill a small hole in the location shown on each side of the control boxes.

**11** Cement the Control Box Face (8) to the front of the Control Box (7). Fit the control box to the tank. Use of motor tool to trim the supports so that the bottom will be parallel to the track and the face will be close to inline with the tank side as shown on the tank template. Do each side..



**12** Install safety railings which run from sill to sill on the sides. I use .020" steel music wire for the railings and Athearn stanchions for the supports. Your local hobby shop will have to supply these. Placards are mounted to the end sills by drilling a hole up through the deck. Trim two of them and glue to the tank saddle as shown. (This is an example photo.)



**13** Install the brake valve and brake reservoir as shown. The brake cylinder is attached to the bottom of the tank inline with the brake mechanism behind the truck towards the center of the car. The brake cylinder is cemented on the bottom on the same side of the brake valve. Make sure it will clear the trucks when they are installed.



## PAINING

If you followed the instructions for cleaning the parts before assembly, you are ready to paint

- 1) Now that Floquil has left the scene I'm buying gloss white from ACE hardware as an enamel part of their rust proof line. A half pint goes a long way. With the gloss white, I skip the primer and just use two coats of white with excellent results.
- 2) White and light colors can be diluted up to 50-50 with thinner. Two coats of white with plenty of drying time in between are recommended.
- 3) Mask and paint the bottom of the tank a light blue.
- 4) If you used the suggested gloss white paint you're ready to decal since decals are placed only on the white areas. If you used a different paint, a flat finish, overcoat with Testor's Glosscote and then apply decals.

## DECALING

The decals provided are a very thin film decal film. Success with these decals depends on following these instructions.

- 1) Cut out the decal segment you are going to apply.
- 2) Dip the decal in warm water which has had 1 drop of DAWN kitchen detergent. Do not leave the decal to soak in the water.
- 3) Slide the decal directly onto the wetted surface with a small brush. Position with the brush. Remove excess water with a tissue.

NOTE: The glue used for the decal sheet is different than what has been used in the past. The water does not dissolve the glue. Water causes a chemical reaction causing an almost immediate release of the decal. For this reason once the decal has been wetted it must be used quickly. It cannot be re-wetted later for use.

- 4) When completely dry, top coat the decals with Testor's Dullcote for best results.

