Large-Part Anodizing Guide

NIA's large anodizing line accommodates parts up to 330 inches long, 60 inches deep and 42 inches wide. Send the complete part geometry for review: overall dimensions alone do not resolve racking, handling or finish access.

Large-line planning envelope

Dimension	Maximum part dimension
Length	330 inches / 27 feet 6 inches
Depth	60 inches
Width	42 inches

Dimensions are stated as length x depth x width. Confirm the processing orientation with NIA, especially for irregular shapes and assemblies. The 330-inch figure is the maximum part length, not a tank dimension.

Documented large-line finish options

• Caustic etch or acid etch preparation.

• Two-step architectural coloring in champagne, bronze and black families.

• Organic black dye.

Hardcoat and red or blue organic dye are listed under the small line in NIA's capabilities information. Discuss the required process before selecting a line based only on part size.

Show the whole part

Include protrusions, welded features, end plates and other attached components in the dimensions. Identify part weight and any sensitive or flexible sections so handling can be reviewed.

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Planning and next steps

Plan racking and visible surfaces

Mark faces that are visible after installation and areas where contact marks are acceptable. Ask NIA to review the proposed racking locations before cosmetic requirements eliminate every practical contact point.

Review cavities and assemblies

Identify blind features, hollow sections, overlapping joints and installed components. Discuss how the part can be oriented for processing and drainage, and whether assembly should occur after finishing.

Prepare a complete quote request

- Drawing and profile section, overall dimensions and weight per part.
- Alloy and temper, quantity per release and expected repeat volume.
- Coloring process, surface preparation, finish specification and approved sample reference.
- Critical surfaces, masking, contact-mark limits and dimensional requirements.
- Packaging expectations, pickup or delivery needs and requested date.

Agree on packaging before shipment

Discuss support for long pieces, separation of cosmetic faces, part identification and how the load will be moved at each location. Identify returnable racks or special packaging in the quote request.

NIA's capabilities document describes logistics assistance for larger requirements. Confirm the arrangement and schedule for the specific order before dispatching material.

Request a large-part review

Contact NIA with your drawing and project requirements to review the next step.

Sources: NIA Capabilities 2025, pages 7-8 and 10-11; large-line length corrected by NIA to 330 inches.