

Drainage Grating Selection Guide

How to review drainage position, frame requirement, size and load direction

Guide Overview

The key to drainage grating selection is not only the length and width. Buyers should first clarify drainage position, frame requirement, traffic condition, single or double grating direction and installation condition. Morning Star's public communication starts from these practical factors and then moves into product matching and quotation review.

Step 1: Clarify the Drainage Scenario

Common application scenarios include:

- 1 Roadside stormwater inlets
- 2 Roadside channels and edge drains
- 3 Community and industrial drainage points
- 4 Basement and parking-area linear drainage
- 5 Factory drainage zones
- 6 Concentrated collection points in project works

Different scenarios drive different requirements. Roadside inlets focus more on load direction and frame stability. Residential and park drainage points care more about dimension matching, appearance and maintenance convenience. Garage and industrial drainage often focus on continuous drainage and service intensity.

Step 2: Confirm Single, Double or Trench-Cover Direction

Typical product directions include:

- 1 Single drainage grating
- 2 Double or paired gratings
- 3 Heavy-duty framed gully gratings
- 4 Long trench covers or linear-drain covers

If the project is a standard rainwater inlet, a single grating or framed grating is often the first direction. If the opening is wider, the flow is larger or the project uses roadside channels, a double-grating or trench-cover system may be more suitable.

Step 3: Confirm Dimensions Early

Dimensions are the base of every grating RFQ. Buyers should confirm:

- 1 Length
- 2 Width
- 3 Whether a frame is required
- 4 Outer frame dimensions
- 5 Thickness or frame depth
- 6 Slot direction or opening direction

Morning Star's current materials include common directions such as 400 x 600 mm, 450 x 750 mm, 500 x 700 mm, 750 x 450 mm and 740 x 420 mm. These are communication directions for first review, not final production drawings.

Step 4: Confirm Load Direction

Drainage grating projects often involve B125, C250 or D400 load directions. The first step is to confirm installation position:

- 1 Pedestrian or light-duty area
- 2 Community, park or ordinary vehicle area
- 3 Municipal roadside position
- 4 Heavy-duty position with long-term higher vehicle loads

If a project standard or drawing already exists, it should be submitted together with the inquiry. As with manhole covers, these load directions should be understood as project-review language rather than public certification claims without confirmed files.

Step 5: Confirm Material and Surface Direction

Morning Star's public-facing grating direction focuses mainly on ductile iron or cast-iron product lines. Buyers should first confirm:

- 1 Whether ductile iron is required as the main direction

- 2 Whether any specific material-grade request exists
- 3 Whether standard black asphalt coating or anti-rust treatment is expected
- 4 Whether anti-slip, wording, marking or appearance has special requirements

If the buyer needs public reports, standards files or specific documentation, that should be stated early in the review process.

Step 6: Confirm Frame and Installation Method

In many grating projects, the real difference is not the grating plate itself, but the frame and installation condition. Buyers should clarify:

- 1 With frame or without frame
- 2 Whether the frame must be supplied together
- 3 Whether an old frame already exists and must be matched
- 4 Whether the position is a single-point inlet or a continuous drainage run
- 5 Whether a complete trench-cover solution is needed

For replacement jobs, photos of both grating and frame are strongly recommended. Without the frame condition, installation mismatch becomes much more likely.

Step 7: Confirm Whether Customization Is Needed

Some drainage grating projects involve customization, including:

- 1 Special sizes
- 2 Special opening direction
- 3 Framed-structure adjustment
- 4 Logo or project marking
- 5 Double-grating or parallel arrangement requirements

If customization is needed, drawings, samples, photos, dimensions, quantity and application details should be sent together for a more efficient first review.

Step 8: Recommended RFQ Information

For better communication efficiency, buyers should send:

- 1 Product type

- 2 Application position
- 3 Length and width
- 4 Whether a frame is required
- 5 Load direction
- 6 Quantity
- 7 Drawing, sample or site photo
- 8 Whether customized opening direction, wording or structure is needed
- 9 Destination or shipment requirement

Common Selection Mistakes

- 1 Providing only length and width without saying whether a frame is required
- 2 Saying only "road use" without distinguishing pedestrian, vehicle or roadside position
- 3 Not providing opening direction or installation method
- 4 Sending only a front photo for replacement work without frame or back-side details
- 5 Requesting double-grating or system supply while asking quotation as if it were a single standard grating

Closing Note

Good drainage grating selection starts by clarifying drainage scenario, dimensions, frame requirement, load direction and installation conditions. Once those basics are clear, Morning Star can move faster on product matching, replacement review and quotation preparation.