

Manhole Cover Selection Guide

How to review application, dimensions, frame matching and load direction

Guide Overview

This guide helps buyers organize the key information needed for manhole cover selection before a full specification pack is available. Morning Star's public communication principle is straightforward: confirm application position, dimensions, structure and load direction first, then move into quotation and drawing review. That approach is faster and reduces mismatching risk.

Step 1: Confirm the Application

Manhole covers should be selected by use condition before model naming. Common scenarios include:

- 1 Municipal road access points
- 2 Residential roads and community service areas
- 3 Parks, plazas and landscape paving zones
- 4 Schools, hospitals and public-building surroundings
- 5 Utility chambers for telecom, power, water and sewer systems
- 6 Old-cover replacement projects

Each scenario has different priorities. Road projects focus more on load direction, frame stability and long-term maintenance. Community and landscape projects pay more attention to appearance, anti-slip performance and installation coordination. Replacement projects care most about matching the existing opening and frame.

Step 2: Confirm the Cover Type

Typical selection directions include:

- 1 Round manhole covers for roads, utility networks and standard municipal access
- 2 Square manhole covers for communities, public buildings and service openings
- 3 Anti-settlement covers for heavier road use and maintenance-sensitive road surfaces
- 4 Recessed or concealed covers for paved, landscaped or visually sensitive areas

5 Custom wording or logo covers for utilities that need clear identification

If the buyer is not sure about the type yet, application position, site photos and basic dimensions can still be enough for a first direction review.

Step 3: Dimensions Must Be Confirmed Early

Dimension mismatch is one of the most common reasons for failed review. Buyers should confirm at least:

- 1 Clear opening
- 2 Outer frame size
- 3 Thickness or frame depth
- 4 Cover-to-frame fitting method
- 5 Any unusual structure or installation restriction

For round covers, common clear-opening directions include 600 mm, 700 mm, 800 mm and 900 mm series. For square covers, common directions include 500 x 500 mm, 600 x 600 mm, 700 x 700 mm and 800 x 800 mm. These values are only first-round communication directions. Final production should still rely on drawings, samples or confirmed dimensions.

Step 4: Confirm Load Direction

Load direction determines whether the product is suitable for the target position. Buyers often mention A15, B125, C250 or D400. In Morning Star's public wording, these are treated as project requirement directions, not as standalone certification claims when documents are not yet under public confirmation.

As a practical communication route:

- 1 Pedestrian or light-duty areas should first confirm whether only foot traffic or light traffic is involved
- 2 Community roads and ordinary vehicle areas should confirm the type of vehicles using the area
- 3 Municipal road or heavier-duty areas should clarify whether long-term higher loads are expected
- 4 If the project file already specifies a standard or load requirement, it should be sent with the inquiry

If the buyer only says "D400" without dimensions, structure or application details, that is still not enough for a proper quotation review.

Step 5: Confirm Material and Surface Direction

Morning Star's main public product direction is ductile iron for manhole covers. Depending on the project, other directions may be reviewed, but the first-round communication usually only needs to clarify:

- 1** Whether ductile iron is the preferred direction
- 2** Whether a specific grade or test requirement is needed
- 3** Whether the buyer expects standard black asphalt coating, anti-rust treatment or another surface direction
- 4** Whether appearance, wording clarity or landscape effect matters

If the project needs public test reports, certification files or specific material grades, the buyer should mention that early so the review can stay within verified-document boundaries.

Step 6: Confirm Whether Customization Is Needed

Customization is common in manhole-cover projects. Typical custom items include:

- 1** Utility wording such as WATER, SEWER, STORM and TELECOM
- 2** City names, project names and project numbers
- 3** Logos or patterns
- 4** Special size or structure requirements
- 5** Structural matching for old-cover replacement

If customization is needed, it is more efficient to send wording, logo file, photos, drawings, quantity and application details in one package.

Step 7: How to Communicate Old-Cover Replacement

Many replacement projects do not have complete drawings. They can still start from site evidence, but key dimensions are required. Buyers should prepare:

- 1** Front photo of the old cover
- 2** Back photo or frame photo

- 3 Clear opening
- 4 Outer frame size
- 5 Thickness or frame depth
- 6 Existing wording or utility marking
- 7 Quantity and application position

If only photos are available without dimensions, a rough direction review may still be possible, but not an accurate quotation.

Step 8: Recommended RFQ Information

For faster and more accurate quotation review, buyers should send:

- 1 Product type
- 2 Application position
- 3 Clear opening and frame dimensions
- 4 Load direction or project-standard requirement
- 5 Quantity
- 6 Whether wording, logo or project marking is needed
- 7 Drawing, sample or old-cover photo
- 8 Destination or shipment requirement

Common Selection Mistakes

- 1 Providing only one outer diameter or a vague "cover size" without clear opening and frame details
- 2 Saying only "heavy duty" or "D400" without describing the actual use area
- 3 Sending only product screenshots without site condition or dimensions
- 4 Adding wording or logo requirements too late in the quotation process
- 5 Assuming old-cover photos alone are enough while ignoring thickness, frame depth and fitting structure

Closing Note

The key to manhole-cover selection is not choosing a product that looks roughly similar. The key is clarifying application, dimensions, load direction and customization requirement first. Once that foundation is complete, Morning Star can support first-round matching, replacement review and quotation preparation much more efficiently.