



# ERGO<sup>®</sup> Access Assembly Specification

## General

This specification is applicable for where an ergonomic hinged style manhole frame with a cover or grate is desired. Frames shall be made from gray or ductile iron and covers and grates shall be made from ductile iron. Castings shall be ERGO<sup>®</sup> Access Assembly or approved equal. Approved equal must meet the requirements of this specification.

## Material

Manufacturer shall certify that the gray iron conforms to ASTM A48/AASHTO M105 Class 35B and ductile iron conforms to ASTM A536. Castings must contain a minimum of 85% recycled content.

## Markings

All products shall have the product name or series number (example: ERGO<sup>®</sup>), country of origin, specific part number, production date, material information, and the manufacturers identification or name (EJ) permanently cast on the product. The top of manhole covers shall have the country of origin and manufacturers identification. Bottom of the casting shall have the product name or series number, part number, production date (example: mm/dd/yy) for tracking purposes, and material quality (such as ASTM A536) to verify the materials used. Castings without proper markings shall be rejected.

## Product Specifics

**Cover:** Covers and grates shall be provided with a continuous vulcanized one piece EPDM gasket with a shore durometer of 70  $\pm$ 5 permanently attached to the cover. Cover or grate shall not weigh more than 120 lbs. An integrated Slip Resistant surface shall be cast into the cover surface. The hinge shall have a drain to allow for proper debris and foreign object removal. The cover or grate shall positively lock at 90° to prevent accidental closure and open fully to 120°. For ergonomic purposes the cover or grate must be removable at 120°. The cover shall also include a single multi-tool lifting slot adjacent to the edge of the cover and opposite to the hinge to facilitate opening/lifting/prying once unlocked. The lifting slot must be open to the edge of the cover to allow for prying. Nominal cover diameter shall be 26" with a 24" clear opening or 30" with a 28" clear opening.

**Frame:** Frame shall have a 24" or 28" clear opening. Frames shall have a minimum of four 1" holes/slots for anchoring purposes. Frames shall be 4", 6" or 7" in height. Slots for embedment/lightening are not allowed in frame flange.

## Product Options

If desired provisions for an all stainless steel unique head security keyed camlock mechanism shall be provided by the manufacture. When the mechanism is installed the key shall remain in the lid while the locking cam is in the open (unlocked) position. When closed and positively locked the key can be removed. When not in use the camlock key hole shall be covered with a plastic plug to prevent infiltration of debris. If needed a EPDM plug can be provided to limit infiltration through the hinge drain.

## Certification/Standards Compliance

ASTM A536	Material
ASTM A48	Material
ASTM C1028	Coefficient of Friction Exceeding .90
AASHTO M105	Material
AASHTO M306	Product Performance/Quality
ISO 9001:2008	Quality Assurance

## Quality Assurance

System of manufacturing quality assurance must conform to the requirements of ISO 9001:2008 and be certified by a third party. Each assembly must also be in full compliance of all AASHTO M306 requirements.