

## PRODUCT DESCRIPTION

**BASIC USE:** A stone masonry unit used for features, trim, ornamentation and facings. For interior and exterior use, in residential, commercial and institutional applications.

**COMPOSITION AND MATERIALS:** ARRIS-cast are manufactured stone units fabricated from Portland cement, coarse and fine aggregates, granulated blast furnace slag, select admixtures and natural oxide pigments. The units are formed using the vibrant dry tamped (VDT) casting method, resulting in high-density, severe-weathering masonry units, with one or more finished faces.

They may be site cut, trimmed and finished to custom lengths, shapes or sizes, as necessitated by site conditions.

**SHAPES AND SIZES:** ARRIS-cast units are available in a variety of shapes and sizes, up to a maximum length of 47-5/8" (1210 mm). Generally, length should be within 15 times the minimum profile thickness. Profiles such as margins, chamfers, notches and bullnoses are all available. Refer to the ARRIS-cast Products Guide for further information or contact your local Arriscraft representative or dealer.

**TOLERANCES:** ARRIS-cast Units are fabricated to the following tolerances:

- Unit Length: < L/360 or  $\pm 1/8"$  ( $\pm 3$  mm), whichever is greater, with no single deviation greater than  $1/4"$  (6 mm)
- Cross Sectional Dimensions:  $\pm 1/8"$  ( $\pm 3$  mm)
- Warp, Bow or Twist: < L/360 or  $\pm 1/8"$  ( $\pm 3$  mm), whichever is greater
- Location of Dowel Holes, Anchor Slots, Flashing Grooves, False Joints:
  - Formed Sides:  $1/8"$  (3 mm)
  - Unformed Sides:  $3/8"$  (10 mm)

Units shall exhibit a texture approximately equal to the approved sample when viewed under diffused daylight illumination at a 20 foot distance. Minor chipping resulting from shipment and delivery shall not be grounds for rejection. Minor chips shall not be obvious under diffused daylight illumination from a 20 foot distance.

**COLORS AND FINISHES:** ARRIS-cast units are available with a fine-grained texture similar to natural stone, in colors complementing the standard Renaissance® Masonry Unit colors. Custom colors are also available on a minimum order basis. Contact your local Arriscraft representative or dealer for additional information.

As a manufactured product, ARRIS-cast units are monitored for color consistency. Slight variations between batches may occur, and it is recommended that the installer mix units from different skids during installation. Color is intended to complement the corresponding Renaissance or Building Stone color. We suggest evaluating pre-cleaned samples of all specified masonry materials prior to assessing color compatibility. Actual color and texture may vary slightly from production.

**LIMITATIONS:** Manufactured masonry products are generally intended for above grade installations.

All manufactured masonry units, regardless of their composition, are inherently absorptive, and none are intended for use below grade. Units installed below grade will wick moisture from the soil that is in contact with the masonry units and create a condition known as "rising damp" in the masonry veneer.

In colder climates, masonry walls at grade may become exposed to de-icing compounds. Like all types of manufactured masonry units, cast stone masonry units should not be installed where they will be directly exposed to de-icing compounds used to melt snow and ice from pavements. For information about installing masonry at grade refer to the "At Grade Design Ideas" brochure.

## TECHNICAL DATA

ARRIS-cast units meet the requirements of ASTM C1364, Standard Specifications for Architectural Cast Stone.

## INSTALLATION

**Delivery:** ARRIS-cast units are delivered to the site in protective packaging.

**Handling:** Lift skids with proper and sufficiently long slings or forks with protection to prevent damage to units. Protect edges and corners.

**Storage:** Store ARRIS-cast units on level ground, in a manner designed to prevent damage and staining of units. Stack units on timbers or platforms at least 3" (75 mm) above grade. Place polyethylene or other plastic film between wood and other finished surfaces of units when stored for extended periods of time.

Stored units should be covered if exposed to extreme weather conditions.

Do not use de-icing compounds to remove ice from masonry surfaces.

**Preparatory Work:** It is advantageous to pre-dampen the units prior to placement in the wall. Damp units should be surface dry at the time of placement.

For additional information when constructing in hot or cold weather refer to the ARRISCRAFT•TECH bulletins titled Hot Weather Masonry Construction and Cold Weather Masonry Construction.

**Installation:** ARRIS-cast units must be installed using approved materials and techniques for each specific installation.

Construct masonry veneer with an adequate number of elastic movement joints, properly located to accommodate differential movement. Refer to ARRISCRAFT•NOTE – Building Movement Joints for further information.

Construct masonry veneer in accordance with [TMS 402-11/ACI 530-11/ASCE 5-11, Building Code Requirements for Masonry Structures in the United States](#), and any local requirements stipulated by the authorities having jurisdiction. Mortar joints between units in any direction should be  $3/8"$  (10 mm) thick. Set units in full beds of mortar. Leave joints with exposed tops or under relieving angles open for sealant. Rake mortar joints  $3/4"$  for pointing. Tack point joints to a concave profile, except those designated to receive joint sealant.

Mortar for cast stone masonry units should conform to ASTM C270-05a; Standard Specification for Mortar for Unit Masonry; Type N prepared to the Proportion specification method using a Portland cement-lime mix, proportioned to a 1:1:6 ratio. This ratio refers to:

- 1 part Portland cement (ASTM C150, Type I);
- 1 part hydrated lime (ASTM C207, Type S-Special); and

- 6 parts masonry sand (ASTM C144).

When properly combined with the appropriate quantity of water, it will produce a general-purpose mortar, exhibiting good workability and board life in its plastic state, and good durability and flexibility in its hardened state.

For further information, refer to ARRISCRAFT•NOTE – Mortar for Masonry Veneer.

Arriscraft recommends constructing masonry veneer with proper drainage mechanisms, including clear draining air spaces, through wall flashing membranes and weep hole vents. Ensure joints between sills, caps, copings and watertable units are properly sealed with a good quality backer rod and joint sealant.

Refer to ARRISCRAFT•NOTE – Moisture Management for further information.

ARRIS-cast units must be connected to a structural substrate with an approved masonry connection system, designed by the consultant for each specific installation. Refer to ARRISCRAFT•NOTE – Connectors – Part II, Dimension Stone Anchors.

## AVAILABILITY AND COST

**Availability:** ARRIS-cast units are available worldwide. Delivery times for orders will vary based on the complexity of what is required.

Arriscraft cannot be responsible for delays due to fire, acts of God, or any other cause beyond its control or which could not be reasonably foreseen.

Contact Arriscraft for a list of dealers in your area.

**Cost:** Quoted on a project basis for job-specific manufacturing to project requirements.

## WARRANTY

Arriscraft warrants its products against deterioration for the life of the building, provided the products have been erected and used according to accepted masonry standards, within the guidelines of local building codes and as recommended by the manufacturer.

Complete warranty information is outlined on the Arriscraft standard form of Product Warranty.

## MAINTENANCE

ARRIS-cast units should have excess mortar removed from their faces by brushing as they are placed within the wall at the point of tooling.

Clean ARRIS-cast units in accordance with the cleaning guidelines in ARRISCRAFT•CARE. Some masonry detergents and cleaning systems can change the color of masonry products. Acid-based cleaning agents will darken the color of the masonry units.

Always pre-test cleaning agents and methods on the job-site mock-up panel or a small inconspicuous area of the wall. The Consultant and/or Owner should approve the test area prior to the start of full-scale cleaning operations.

Some water repellent sealers may be applied to Arriscraft cast stone units.

Refer to ARRISCRAFT•CARE – Cleaning Guidelines and ARRISCRAFT•NOTE – Cleaning Masonry for further information.

## TECHNICAL SERVICES

Arriscraft offers consultation services to assist with the preparation of details, specifications and with pricing. Enquiries are attended to promptly and without obligation.

## RELATED REFERENCES

Arriscraft distributes an integrated technical information system including:

- ARRISCRAFT•CADD are sample details which are available in .dwg, .dxf, and .pdf formats
- ARRISCRAFT•DATA are product data sheets
- ARRISCRAFT•NOTE are technical discussions with respect to building construction issues and
- ARRISCRAFT•SPEC are master guide specification sections.

All of these technical resources are available to be downloaded from the Arriscraft web site at [www.arriscraft.com](http://www.arriscraft.com).

Arriscraft also makes available samples for color and finish, coursing charts, and copies of test reports upon request.

