
GABIONS

PART 1 GENERAL**1.1 Related Work**

- .1 Section [02371](#)Rip Rap
- .2 Section [05500](#)Metal Fabrication

1.2 References

- .1 ANSI/ASTM D 638M-[89], Test Method for Tensile Properties of Plastic [Metric].
- .2 ASTM A 313-[87], Specification for Chromium-Nickel Stainless and Heat-Resisting Steel Spring Wire.
- .3 ASTM A 764-[79], Specification for Steel Wire, Carbon, Drawn, Galvanized and Galvanized at Size for Mechanical Springs.
- .4 CAN/CSA-G164-[M92], Hot Dip Galvanizing of Irregularly Shaped Articles.

PART 2 PRODUCTS**2.1 Materials**

- .1 Gabion baskets:
 - .1 Factory fabricated so that sides, ends, lid and internal diaphragms readily assemble at site into rectangular baskets of sizes as indicated.
 - .2 Single unit construction or with joints having strength and flexibility equal to that of mesh.
 - .3 When length exceeds horizontal width, provide diaphragms of same mesh as gabion walls to divide basket into equal cells of length not in excess of horizontal width.
 - .4 Wire mesh gabions:
 - .1 Wire mesh to be expanded aluminum mesh with uniform 13mm honeycomb (hexagonal Holes) pattern. Perimeter edges of mesh to be securely selvedged so that joints formed by connecting selvedges are as strong as body of mesh.
- .2 Wire to have following dimensions:
 - .1 Mesh: 3.0 mm diameter.
 - .2 Selvedges: 3.8 mm diameter.
 - .3 Binding: 2.0 mm diameter.
- .3 Wire: Perforated aluminum 0.063 gauge.

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- .4 Interlocking wire fasteners: [galvanized steel to ASTM A 764, finish 1, class 1, type 3] [stainless steel to ASTM A 313].
- .5 Stone fill:
 - .1 Hard, durable, abrasion resistant such that it will not disintegrate from action of wetting and drying, wave action, freezing and thawing cycles.
 - .2 Minimum 50 mm to maximum 100 mm dimension for individual stones.
- .6 Geotextile filter: to Section [02072](#) - **Geotextiles**

PART 3 EXECUTION**3.1 Installation**

- .1 Install gabions to lines and grades as indicated on plans and details.
- .2 Excavate for gabions in accordance with Section [02315](#)- **Excavating Trenching and Backfilling**.

3.2 Placing Gabions

- .1 Wherever possible, place baskets in position prior to filling with stones.

3.3 Filling Baskets and Mats

- .1 Tension geogrid gabions according to manufacturer's instructions before filling with stone. Do not release wall tension until sufficient stone fill has been placed to prevent wall slackening.
- .2 On exposed faces of gabions, place stones by hand with flattest surfaces bearing against face mesh to produce satisfactory alignment and appearance.

END OF SECTION - 02372