

PROSOCO Stitch-Tie Specification (revised 4/29/2021)

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Masonry repair systems
- B. Related Requirements:
 - 1. Section 040120.91 "Unit Masonry Restoration"
 - 2. Section 040140.91 "Stone Restoration"

1.2 References

- A. ASTM A276 – Standard Specification for Stainless Steel Bars and Shapes
- B. ASTM A580 – Standard Specification for Stainless Steel Wire
- C. ASTM C1093 – Standard Practice for Accreditation of Testing Agencies for Masonry

1.3 ALLOWANCES

- A. See Section 012100 "Allowances" for description of allowances affecting items specified in this Section.

1.4 DEFINITIONS

- A. Helical wall anchor: An anchor which incorporates a helical pitch thread that provides the self-threading installation into a pre-drilled hole in the masonry. This system provides a tension-free threaded connection method between the existing wythes of material.
- B. CMU(s): Concrete masonry unit(s).

1.5 PREINSTALLATION MEETINGS

- A. Preinstallation Conference: Conduct conference at **[Project site] <Insert location>**.

1.6 SUBMITTALS

- A. Product Data: For each type of product.
 - 1. Helical tie: Manufacturer's data sheets on each product to be used, indicating size, length, and material.

1.7 QUALITY ASSURANCE

A. Qualifications:

1. Testing Agency: Qualified in accordance with ASTM C1093 for testing indicated.
2. Manufacturer: Provide design, engineering and technical assistance for the selection, application, and installation of appropriate anchoring system for the project
3. Installer: Knowledgeable contractor experienced in the proper use and installation of anchoring systems, including coordination with wall assembly components.

1.8 MOCKUPS

A. Provide a mock-up for evaluation of application workmanship.

1. Finish areas designated by Architect.
2. Do not proceed with remaining work until workmanship is approved by Architect.
3. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.
4. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.9 DELIVERY, STORAGE, AND HANDLING

A. Store products in manufacturer's unopened packaging until ready for installation.

PART 2 - PRODUCTS

2.1 SOURCE LIMITATIONS

A. Obtain helical ties from an acceptable manufacturer:

1. PROSOCO: 3741 Greenway Circle, Lawrence, KS 66046.
 - a. TEL: 1-800-255-4255
 - b. EMAIL: customercare@prosoco.com

2.2 TIES AND ANCHORS

A. Helical ties: Provide an in-plane flexible connection between wythes of material, while maintaining a threaded connection to resist out-of-plane loading for both tension and compression resistance.

1. Application:
 - a. Masonry veneer to solid concrete backup
 - 1) PROSOCO Asymmetric Stitch-Tie

- b. Masonry veneer to hollow CMU backup
 - 1) PROSOCO Stitch-Tie
 - c. Masonry Veneer to timber backup
 - 1) PROSOCO Stitch-Tie
 - d. Mass brick masonry
 - 1) PROSOCO Stitch-Tie
- B. Materials: Provide ties and anchors specified in this article that are made from materials that comply with the following unless otherwise indicated:
- 1. Stainless Steel Wire: ASTM A580/A580M, Type 304 or Type 316.

PART 3 - EXECUTION

3.1 Preparation

- A. Locate anchors in the area to be anchored per project drawings and details.

3.2 INSTALLATION, GENERAL

A. Helical tie installation

- 1. Select proper anchor length by field verification.
- 2. Drill proper pilot hole size per the anchor type. See manufacturer's product data for recommendations.
- 3. Install helical tie into the dry setting too mounted in an SDS drill.
- 4. Drive the helical tie anchor in the pilot hole and into the backup material.
- 5. The setting tool will recess the helical tie approximately 3/8 inch from the surface.
- 6. Conceal anchor with specified grout or caulk.
- 7. Space anchors in a staggered pattern not more than 16 inches on center vertically and 16 inches on center horizontally. Install additional anchors within 12 inches of openings at intervals, not exceeding 8 inches around the perimeter.

3.3 FIELD QUALITY CONTROL

- A. Site testing is encouraged for verification of helical tie load capacity. Each construction site is unique and the appropriate use of this product is the responsibility of the engineers, architects, and other professionals who are familiar with the specific requirements of the project.
 - 1. Testing Agency: [**Owner will engage**] [**Engage**] a qualified testing agency to perform tests and inspections. Allow inspectors access to scaffolding and work areas as needed to perform tests and inspections. Retesting of materials that fail to comply with specified requirements will be at Contractor's expense.