

Sample Product Specification

V1 4/16/19



Introduction:

This section is intended as general guidance for designers who want to specify HRC products in their project specifications. This content can be added to section 03 21 00 for reinforcing steel or could be added a standalone section, 03 21 [###] [insert section number here] covering mechanical splicing systems and headed bar systems for reinforcing bars.

Sample Specification:

DIVISION: 03 00 00 – CONCRETE

SECTION: 03 21 00 – REINFORCING STEEL

1. General

1.1 Summary

- A. This section includes
 - a. Mechanical splicing systems for reinforcing bars
 - b. Headed reinforcing bar systems

1.2 Related Sections

- A. The following sections are related to this section
 - a. Section 03 20 00 – Concrete Reinforcing
 - b. Section 03 30 00 – Cast-in-Place Concrete

1.3 References

- A. American Concrete Institute (ACI)
 - a. ACI 318: Building Code Requirements for Structural Concrete
- B. American Society of Testing and Materials (ASTM)
 - a. ASTM A970: Standard Specification for Headed Steel Bars for Concrete Reinforcement
- C. International Building Code (IBC)
 - a. 2006, 2009, 2012, 2015, 2018 International Building Code
- D. International Code Council Evaluation Services (ICC-ES)
 - a. ESR-2764
- E. Uniform Evaluation Services (IAPMO UES)
 - a. UES ER-177

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V1 4/16/19



2. Products

2.1 Manufacturers

A. Acceptable manufacturers

- a. Headed Reinforcement Corporation
11200 Condor Ave, Fountain Valley, CA 92708
(714) 557-1455
www.hrc-usa.com
engineer@hrc-usa.com

2.2 Mechanical Splicing Systems for Reinforcing Bars

A. Swivel Type Straight Threaded Couplers with Upset Bar Ends: *Consists of a threaded male coupler component, threaded female coupler component and two steel reinforcing bars that are prepared with headed upset ends.*

- a. HRC product: HRC 500 Series Splicing System
- b. <https://www.hrc-usa.com/hrc-500-series/>
- c. **Reference ICC-ES ESR-2764 section 3.1 for detailed description**

2.3 Headed Reinforcing Bar Systems

A. Forged Head: *Heads are integrally factory-forged where the heads are produced by deforming the steel reinforcing bar end(s) in a forging process.*

- a. HRC product: HRC 555 Headed Bars
- b. <https://www.hrc-usa.com/hrc-555-headed-rebar/>
- c. **Reference IAPMO-UES ER-177 section 3.1 for detailed description**

B. Field Installed Head: *Heads use a wedged grip system with a spring and tension bolt that are installed on the end(s) of a torch cut, sheared or saw cut reinforcing bar.*

- a. HRC product: HRC 670 Field Installed Heads
- b. <https://www.hrc-usa.com/hrc-670-series/>
- c. **Reference IAPMO-UES ER-177 section 3.1 for detailed description**

3. Installation

3.1 General

A. Follow all manufacturer's recommendations and written instructions during installation.

3.2 Installation

A. HRC 500 Series Splicing System

- a. **Reference ICC-ES ESR-2764 section 4.2**

B. HRC 555 Headed Bars

- a. **Reference IAPMO-UES ER-177 section 4.2**

C. HRC 670 Field Installed Heads

- a. **Reference IAPMO-UES ER-177 section 4.2**

Warning:

HRC products are designed to meet and exceed the standards referenced in this document, but individual project specifications and quality control requirements apply. HRC destructively tensile tests finished products daily as part of our quality control, but cannot be responsible for material furnished by local fabricators and/or contractors using HRC related equipment or components. Aspects of structural design, evaluation of product fitness for use, suitability or similar attributes are the responsibility of others.