

TECHNICAL DATA SHEET

DESCRIPTION

The D220XL transitional coupler is used to mechanically couple two different rebar sizes together. It consists of thick walled tubes, specially designed lock shear bolts, serrated grip rails and a weldment disc. The D220XL is made from USA melted and rolled steel.

APPLICATION

The D220XL is a Type 2 coupler used to mechanically couple two different diameter rebar together. Commonly used in structures to join the larger rebar used in the foundation to smaller diameter rebar used above grade.

PRODUCT SPECIFICATION

- Made to order to mechanically couple any configuration of different sized rebar together from sizes #4 (13mm) through #18 (57mm)
- Available in plain, epoxy coated or galvanized finish
- Designed to achieve type 2 mechanical connection when used with Grade 75 / 80 rebar



FEATURES

- Quick and easy to install
- No bar end preparation
- Installation at the job site
- Used in tension, compression, and seismic applications

BENEFITS

- Saves time and money
- No fabrication required
- One product for all applications
- Configured to suit need

HOW TO SPECIFY

Specific:

Mechanical connections shall be Bar Lock® Rebar Splices as manufactured by Dayton Superior Corp.

Generic:

The mechanical connection shall meet building code requirements of developing in tension and compression as required by _____ (insert name here). The mechanical connection shall be made from lock shear bolt couplers with serrated gripping rails manufactured from high quality steel. All couplers shall be installed per the manufacturer's approved procedures.

TECHNICAL DATA

| Bar Size | | | Side A (small side) | | | | Side B (large side) | | | | Total Length |
|----------|-------------|--------|---------------------|--------------|-----------|-----------------|---------------------|--------------|-----------|-----------------|--------------|
| US | Metric (mm) | CN (M) | Barrel Size | Length (in.) | Bolt Qty. | Head Size (in.) | Barrel Size | Length (in.) | Bolt Qty. | Head Size (in.) | |
| #4 | [13] | [10] | #4 | 2.2 | 2 | 0.50 | #5 | 2.5 | 2 | 0.50 | 4.75 |
| #5 | [16] | [15] | #6 | 3.2 | 2 | 0.50 | #6 | 3.2 | 3 | 0.50 | 6.30 |
| #6 | [19] | [20] | #7 | 5.1 | 4 | 0.50 | #8 | 5.1 | 4 | 0.50 | 10.16 |
| #7 | [22] | -- | #8 | 5.3 | 4 | 0.63 | #10 | 6.0 | 4 | 0.63 | 11.33 |
| #8 | [25] | [25] | #9 | 5.8 | 3 | 0.75 | #19 | 5.8 | 4 | 0.75 | 11.50 |
| #9 | [29] | [30] | #11 | 7.0 | 3 | 0.75 | #11 | 7.0 | 5 | 0.75 | 14.02 |
| #10 | [32] | -- | #10 | 6.0 | 4 | 0.75 | #14 | 8.5 | 6 | 0.75 | 14.52 |
| #11 | [36] | [35] | #11 | 7.3 | 5 | 0.75 | #14 | 8.5 | 6 | 0.75 | 15.75 |
| #14 | [43] | [45] | #14 | 8.5 | 6 | 0.75 | #18 | 13.8 | 10 | 0.75 | 22.35 |

This table lists commonly ordered transition sizes. Other sizes are available.

Transition Couplers are available in S/CA-Series (shown above), L-Series and XL-Series in sizes #4-#18.

APPROVALS / COMPLIANCE

- ACI 318 Type 2 (ASTM A615 Grade 75 or 80, A706 Grade 80 Rebar)
- ICC AC-133
- Army Corps of Engineers CW 03210
- AASHTO
- International Building Code (IBC)

INSTALLATION

1. Insert the end of the first rebar into the coupler (for that size rebar) until it contacts the weldment disc.
2. Holding the first rebar in place, tighten all bolts on that half until they are hand tight against the rebar.
3. Insert the end of the second rebar into the coupler (for that size rebar) until it contacts the weldment disc.
4. Holding the second rebar in place, tighten all bolts on that half until they are hand tight against the rebar.
5. In a random, alternating pattern, tighten all bolts to approximately 50% of the specified bolt torque value.
6. In a random, alternating pattern, tighten all bolts to approximately 75% of the specified bolt torque value.

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7. In a random, alternating pattern, tighten all bolts until all the heads of the bolts shear off.

Note:

A. Prior to tightening, the serrated rails **MUST** remain aligned in the same position as they were manufactured. If they are damaged or knocked out of alignment while positioning, installation **MUST** cease and a new coupler used.

B. Bolt tightening **MUST** be done in a random alternating pattern similar to tightening the lug nuts on an automobile wheel.

C. A high-quality, 1" -pneumatic drive, impact wrench with at least 100 psig air flow and 185 CFM of delivered air through a no less than 0.75" hose **MUST** be used for installation.

RELATED PRODUCTS

- D250XL Standard Bar Lock®
- D230XL Weldable Bar Lock® Couplers
- D251/D252 Bar Lock® End Anchors

HOW TO ORDER

- Specify: (1) quantity, (2) name, (3) bar size side A, side B, (4) finish Example: 500, D220XL Bar Lock® Rebar Transitional Couplers, #11 to #18, Plain

D220XL is a made to order product. Please allow for lead time.

MANUFACTURER

Dayton Superior Corporation
1125 Byers Road
Miamisburg, OH 45342
Customer Service: 888-977-9600
Technical Services: 877-266-7732
Website: www.daytonsuperior.com

WARRANTY (ACCESSORIES)

Limited Warranty. Dayton warrants, for a period of 60 days from the date of shipment (three years from the date of shipment in the case of formwork, excluding any consumable Products included with such formwork), that Products and any associated application drawings and engineering services provided by Dayton ("Ancillary Services") will be free from defects in material and workmanship and, in the case of custom designed formwork, that the formwork will meet the specifications set forth in the design drawings approved by Dayton and Customer. Any claim under this warranty must be made in writing within such warranty period. If any Product and/or Ancillary Service covered by a timely claim are found to be defective, Dayton will, within a reasonable time, make any necessary repairs or corrections or, at Dayton's option, replace the Product. Unless pre-authorized by Dayton in writing, Dayton will not accept any charges for correcting defects or accept the return of any Product. This warranty will not apply to any Products that have been subjected to misuse, neglect, storage damage, misapplication, accident or any other damage caused by any person other than Dayton, or that have not been maintained in accordance with Dayton's specifications. THIS LIMITED WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES AS TO THE PRODUCTS AND ANCILLARY SERVICES. DAYTON MAKES NO OTHER WARRANTIES OR GUARANTEES, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE. THE REMEDIES SET FORTH IN THIS SECTION ARE CUSTOMER'S EXCLUSIVE REMEDY FOR BREACH OF WARRANTY.