

	Department of Design and Construction	SPECIFICATION BULLETIN	SB 26-003
Title: SPLIT SLEEVE COUPLINGS			
Prepared: 4/17/2026		Approved: 4/17/2026	
Mohammad Mahmud, P.E. Director, Specifications		How Sheen Pau, P.E. Associate Commissioner – Infrastructure Design	
Date		Date	

APPLICABILITY:

- This Specification Bulletin (SB) is effective for projects advertised on or after 4/24/2026.

SUPERSEDEENCE:

- This SB supersedes the following SBs: **None.**

ATTACHMENTS:

1. *Section 20.15 (5 pages)*

REVISIONS TO THE NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION STANDARD SEWER AND WATER SPECIFICATIONS, DATED 8/8/2022:

All references contained below are to the New York City Department of Environmental Protection Standard Sewer and Water Specifications, Dated August 8, 2022. Said Standard Specifications are hereby revised as follows:

- a) **Refer** to Section 20.15 - Split Sleeve Couplings
Add the new Section in Attachment 1 (5 pages)

For questions regarding this bulletin, please contact Richard Jones, jonesri@ddc.nyc.gov.

SECTION 20.15 – CARBON STEEL SPLIT-SLEEVE COUPLINGS

20.15.1 INTENT

These specifications describe the requirements of Carbon Steel Bolted, Split-Sleeve Couplings, Restrained or Non-Restrained, for the New York City Water Supply and Wastewater Systems.

20.15.2 GENERAL

The couplings furnished under these specifications must meet or exceed all requirements of the latest revision of AWWA C227 at the time of bidding, except as modified herein. Should any discrepancy be found between the AWWA standard and this NYC DEP specification, the NYC DEP specification will prevail. The decision of DEP will be final.

20.15.3 MANUFACTURER'S QUALIFICATIONS

- (A) These bolted, split-sleeve couplings must be produced by established reputable and experienced manufacturers who must certify that they have been producing couplings of a similar design, materials, and size, and in compliance with specifications similar to these for a minimum of three (3) years, and that these couplings are satisfactory in their performance and service under actual operating conditions at verifiable documented locations. Manufacturers new to DEP-BWSO must provide the names and addresses of the managing Engineer or Superintendent of three (3) municipalities or organizations who will verify the quality and performance of these types of couplings.
- (B) The manufacturer will be required to establish:
 - (1) That they currently have within their own organization a competent operating Quality Control department responsible for maintaining the high standards regarding materials inspection, welding, manufacturing, and testing of the work done in their plant. The Quality Control department must be adequately staffed and in operation during this contract.
 - (2) That they have a production force and plant facilities of a type and size suitable to perform the work required in a timely manner under this contract. All facilities proposed to be used for this work are subject to inspection and approval by DEP.
 - (3) To be approved, they must provide:
 - (a) Two (2) sets of proposed fully dimensioned drawings for all couplings with bill of materials & material specifications.
 - (b) Organizational chart.
 - (c) A set of Quality Control and Quality Assurance manuals (may be un-controlled).
 - (d) Production facilities' capacity and equipment list.
 - (e) Production force available and names of certified welders.
 - (f) Name and location of all the facilities to be used in the manufacture of these couplings.
 - (g) Name of three (3) municipalities with the contact's name, telephone number, and address where these couplings are presently used.
 - (h) Coupling cleaning procedures.
 - (i) Coupling markings and location on the body.
 - (j) Coupling numbering system, tag size, and location for the number tag.
 - (k) Hydro test equipment description and test procedure.

- (C) All welding procedures and qualifications must be based upon the current applicable welding code, such as ASME Boiler & Pressure Vessel Code (ASME BPVC) Section IX or AWS D1.1, or as approved by DEP.
- (D) Welders, welding operators, and welding procedures must be qualified to the code as specified in **Section 20.15.3(C)**. Certified welder's names, and the name and address of the qualifying / certifying authority are required. DEP may oversee the welding procedures and welder performance qualification test when due. List of equipment used for the welder qualifications must be provided to DEP before testing.
- (E) Use of any facility for the manufacturing, fabrication, or testing of these couplings without the prior approval of DEP will not be permitted.
- (F) All QA testing must be in accordance with DEP approved procedures. Testing procedures must be submitted by the manufacturer for approval.
- (G) Notarized Material Test Reports (chemical composition, tensile, and yield strength reports) are required for all sheet metal, plate, lugs, bolts / studs, nuts, and washers. Material certifications are required for all resilient materials. All reports must be in English and in United States Customary System (USCS).

20.15.4 MATERIAL

Bolted, split-sleeve couplings must be fabricated in accordance with these specifications to assure a 360-degree seal around the water pipe. All materials must meet or exceed the requirements of respective industry standards and this specification. These couplings must be fabricated to DEP approved drawings.

20.15.5 CHEMICAL AND PHYSICAL REQUIREMENTS

The requirements of ANSI, ASTM, AWWA, or other standards, to which reference is made anywhere in these specifications, must govern the physical, mechanical, and chemical characteristics of these coupling components unless specific exceptions are stated herein.

20.15.6 DESIGN CRITERIA

- (A) These couplings must fit pipe outside diameters.
- (B) Couplings must be in two (2) halves for all sizes. Body and lugs material must be to ASTM A516 Grade 70.
- (C) The coupling must be in two sections bolted midsection in the horizontal position.
- (D) The lugs (bolt pads) must be to ASTM A516 fillet welded to the body. The lugs must be symmetrical on the centerline and the faces must remain parallel (up to 1/16th inch [0.06 inch] deflection of the edge is acceptable) when installed with the maximum torque permitted / listed by the manufacturer at the maximum hydro test pressure.
- (E) The lugs (bolt pads) must not deform during proof-of-design testing or field installation. The lugs, bolts / studs, and coupling body must not be deformed or have a crack in the welds or bolts / studs after the test pressure is released. The coupling must be suitable for re-installation with the same hardware after the test.
- (F) The weld undercut at the end of the lug must not exceed 1/16th inch (0.06 inch).
- (G) Shields to span the gap between the body sections must be stainless steel to ASTM A240 Type 316. They may be welded / bonded to the body or loose.
- (H) Coupling body must be of sufficient width to fully enclose and seal both pipe ends. For pipe sizes 84-inches and smaller, coupling body must have a minimum width of 10-inches. For pipe sizes greater than 84-inches, coupling body must have a minimum width of 12-inches.

- (I) Coupling body must be of sufficient thickness to withstand the rated pressure. (See **Section 20.15.8(C)**.) In no case will the coupling body thickness be less than 14 gauge (0.0747 inch).
- (J) Studs / bolts must comply with the requirements of ASTM A193 Grade B7 with Class 2A thread fit or of SAE Grade 5 with Class 2A thread fit. Bolt / stud threads must be protected from damage during shipping. Only fluoropolymer coated bolts / studs must be used.
- (K) The nuts must comply with the requirements of ASTM A194 Grade 2H with Class 2B thread fit. Only fluoropolymer coated nuts must be used.
- (L) Washers must comply with the requirements of ASTM F436 Type 1, meeting the dimensional standards of ASME B18.21.1. Fluoropolymer coated washers must be used.
- (M) There must not be any sharp edges or sharp corners.
- (N) Inside and outside of couplings must be thoroughly cleaned of sand, oxidation, rust, dust, or any other foreign matter before coating. All cleaning must be by shot blasting only; acids, other liquids, and/or brushes are not permitted. The coating surface must meet or exceed the surface requirements of the coating manufacturer.
- (O) Complete body of the coupling (inside and outside) must be coated with an epoxy coating. Fusion-Bonded Epoxy (FBE) coating must meet the requirements of AWWA C213 and must have a minimum cured-film thickness not less than 12 mils. The maximum cured-film thickness must not exceed the manufacturer's recommendation; Proof of manufacturer's recommendation must be submitted with the MTRs. The bolt holes may be coated to 3 mils only.

20.15.7 DESIGN DRAWINGS (FOR INITIAL APPROVAL ONLY)

- (A) Two (2) sets of proposed couplings drawings showing all dimensions, material thickness, materials specifications, welding procedures, quality assurance test procedures, and Proof of Design test conducted by the manufacturer must be submitted for approval to DEP-BWSO.
- (B) All dimensions must be in United States Customary System (USCS) units and Foot-Pound-Second system only. Metric equivalents are not acceptable.
- (C) Any item offered must not infringe upon any patent. Contractor / manufacturer must hold the City of New York safe and harmless and defend the City of New York from any claim arising out of patent infringement(s).
- (D) All couplings for the City of New York Water Supply and Wastewater Systems must be fabricated to the DEP approved drawings meeting the requirements of this specification.
- (E) The manufacturer / Contractor must verify the submittals required by the specifications and purchase order before shipping.

20.15.8 PROOF OF DESIGN TESTS

- (A) Proof of design is required for all couplings; this test must be repeated only if the coupling design, material, or fabrication process has changed.
- (B) One coupling of each pipe size or as required by the DEP fabricated to the approved drawings of the manufacturer must be installed on un-restrained steel test pipes of the same size as the coupling according to the manufacturer's approved installation procedures and subject to the test pressure.
- (C) A certified pressure gauge, at least 4-inch diameter with maximum pressure range of 600 psi, must be attached to the feeding pipe. The coupling must be pressurized with water at room temperature to one and half (1.5) times the rated pressure. The rated pressure for couplings 6-inch through 24-inch is 350 psi; 30-inch and above is 250 psi. There must be no leakage for one (1) hour; observed by noting the pressure drop in the attached pressure gauge. The pressure gauges used for the hydro test must have been certified for not more than one year on the day of the test. Proper certifications must

be provided to the Engineer at the time of the test. There must be at least two (2) pressure gauges in the system.

- (D) Torques required for the studs to properly install the coupling or the maximum torques permitted must be listed in the assembly instructions or on the coupling body.
- (E) After the hydro test, the coupling must be disassembled and checked for any visible damage / deformation to the body, lugs, bolts, nuts, and washers. Any leakage or damage to the coupling or its appurtenances will be a cause for rejection of that coupling's design or based upon the Engineer's determination of all couplings made to that design.

20.15.9 COUPLING MARKINGS

- (A) Each coupling body must be marked with the following information by stenciling in a non-washable ink or paint:
 - (1) Manufacturer's name.
 - (2) Pipe diameter.
 - (3) Country of manufacture.
 - (4) Letters "WSNY".
 - (5) All letters / numbers must not be less than 3/8th inch high unless approved otherwise.
- (B) Each coupling must have two (2) stainless steel sheet metal tags permanently attached to the body sections with the coupling's unique serial number stamped on it (preferably raised letters). The serial number must not be less than 1/8th inch high. No two (2) couplings must have the same serial number.
- (C) The serial number system must be explained on the drawings. The numbering system must preferably be as follows: Manufacturer two letter initials followed by unique coupling sequence number.
- (D) The tags must not have any sharp corners or edges.

20.15.10 QUALITY ASSURANCE INSPECTION AND TESTING

- (A) At least ten (10) working days prior to starting fabrication / manufacture, the manufacturer must send a notice for inspection to DEP-BWSO-ME&QA for DEP / DCAS purchase orders, and to DEP-BWSO-ME&QA as well as to DDC-QA for Contractor / Supply House orders. Unless advised otherwise, the manufacturer can proceed with fabrication.
- (B) Requests for shop inspection or Material Release and Shipping Authorization after partial or full completion of the purchase order must be sent to (based upon the ordering party) either DEP-BWSO-ME&QA or DDC-QA, accompanied by an affidavit of compliance stating that the listed couplings meet the requirements of this specification (a CD with the same information is acceptable). All Material Test Reports (MTRs) and Certifications must be properly identified with the applicable coupling serial number.
- (C) These couplings must be shipped only after receiving the Material Release and Shipping Authorization from the DEP-BWSO-ME&QA or DDC-QA Engineer / Inspector as applicable.
- (D) During shop inspections, DEP-BWSO-ME&QA or DDC-QA engineer / inspector must be provided with all material test reports / certifications for their review and approval. The engineer / inspector must be provided with all instruments needed for the inspection. If the manufacturer does not want the DEP-BWSO-ME&QA or DDC-QA engineer / inspector to handle their instruments, the manufacturer's engineer/ inspector must perform the tests in the presence of DEP-BWSO-ME&QA or DDC-QA engineer / inspector.
- (E) Re-welding (welding over a failed weld) is not permitted, unless the existing weld is fully grounded.
- (F) DEP-BWSO-ME&QA or DDC-QA engineer / inspector may visit the manufacturing facility at any time during fabrication of the couplings.

20.15.11 WARRANTY PERIOD

The Contractor must warrant the coupling to perform as per **Section 20.15** and to be free of any manufacturing defect for five (5) years after the receiving date at the New York City facility.

20.15.12 PACKING, HANDLING, AND SHIPPING

(A) REQUIRED DOCUMENTATION

- (1) Material Release & Shipping Authorization must include one (1) set of all MTRs and material certifications duly signed-off, along with the serial numbers of the couplings, ready for inspection. This information is preferred on a CD, and the CD must be enclosed / attached with the shipment.
- (2) Material Release & Shipping Authorization must be sent to DEP-BWSO-ME&QA for DEP / DCAS purchase orders and to DDC-QA for Supply House / DDC Contractor purchase orders. The inspecting agency will decide to perform onsite inspection or waive it.

(B) PACKAGING

- (1) Each coupling and appurtenances must be placed on a suitable skid with installation instructions. Coupling manufacturer's name, coupling pipe size, and serial number must be indicated on at least two (2) opposite sides on the outside of the coupling. The coupling must be so braced and placed on the skid that they are not damaged during transit to the designated delivery site and during storage.
- (2) Bolts, nuts, and washers for each coupling must be packed with the couplings on the same skid. The hardware must not damage the coupling, nor be damaged, during transit.
- (3) The cartons for hardware must be wrapped in polyethylene or protected by other means from water damage during shipment and storage.
- (4) The proposed method of shipping must be submitted to the DEP-BWSO-ME&QA Engineer for approval.
- (5) The exterior of the skid (visible through the protective wrappings) must be marked as follows, or as directed by the Contractor:

**PROPERTY OF THE CITY OF NEW YORK
BUREAU OF WATER & SEWER OPERATIONS OR CONTRACTORS NAME
PURCHASE ORDER NUMBER / CONTRACT NUMBER
DESTINATION ADDRESS
COUPLING(S) PIPE SIZE(S)
MONTH AND YEAR OF MANUFACTURE
VENDOR AND MANUFACTURER'S NAME AND ADDRESS
GROSS WEIGHT**