BUILDING TRUST

WESTEC STAINLESS STEEL – MASTER SPECIFICATION

SUGGESTED MASTER SPECIFICATION
SECTION 03255 STAINLESS STEEL WATERSTOPS

PART 1 GENERAL

1.01 SECTION INCLUDES:

A. Provision of waterstops embedded in concrete and spanning control, expansion, and/or construction joints to create a continuous diaphragm to prevent fluid migration.

B. Formed metallic waterstops for use in concrete joints when non-metallic waterstops are inappropriate, such as severe chemical and high service temperature environments.

1.02 REFERENCE

A. Chemical resistant waterstop performance is not currently governed by state or federal standard specifications. EPA Title 40 CFR requires the use of chemical resistant waterstop.

1.03 QUALITY ASSURANCE

A. Waterstop manufacturer shall demonstrate five years (minimum) continuous, successful experience in production of waterstops.

B. Store waterstops in protected area to prevent damage prior to installation.

1.04 SUBMITTALS

A. Submit manufacturer's test data for chemical resistance.

B. Submit shop drawings and fabrication drawings indicating placement of waterstop and shop fabrications.
Westec CAD shop drawings and fab drawings are a free service by Sika.

PART 2 PRODUCTS

2.01 MATERIALS

A. Provide formed stainless steel grade [316L], gauge [20] Westec waterstop as manufactured by Sika profile style number (fill in profile style number).

B. The stainless steel waterstop shall be suitable for severe chemical and high service temperature environments when non-metallic waterstops are not acceptable, as determined by specific testing for the application.

C. Performance Requirements as follows:

Property	Test Method	GRADE 316L
Ultimate Tensile Strength	ASTM A 370	75,000 psi (515 Mpa)
Duct Elongation in 2" min.	ASTM A 370	40%
Rockwell B Hardness	ASTM A 370	95 max.
Yield Strength	ASTM A 370	30,000 psi (205 Mpa)

2.02 ACCESSORIES

A. Provide factory made waterstop fabrications for all changes of direction, intersections, and transitions leaving only straight butt joint splices for the field.

B. TIG welding equipment.

PART 3 EXECUTION

3.01 PREPARATION

A. Ensure steel reinforcing bars do not interfere with proper position of waterstop.

B. Clean concrete joints and waterstop of dirt and construction debris prior to second pour of concrete.

3.02 INSTALLATION

A. Lap metal waterstop at splices and continuously weld exposed edge on containment side. Use .035 diameter 316 stainless steel alloy filler rod for grade 316L stainless steel.

B. Weld factory supplied intersections and directional changes to straight length sections per method of 3.02.A.

C. All welds to be made by qualified welder with TIG welding experience.

D. Splices to be free from defects as defined in "Field Quality Control" in section 3.03

E. Center waterstop on joint with peak of "V" section oriented toward containment side.

F. Seal base (open side) of "V" expansion area in metal waterstop with one layer of two-inch wide duct tape.

G. At expansion joints, keep "V" area unembedded.

H. Place concrete without disturbing waterstop and thoroughly vibrate concrete to maximize intimate contact between waterstop and concrete.

I. After first pour, clean protruding waterstop leg to ensure full contact of second pour.

3.03 FIELD QUALITY CONTROL

A. Waterstop splicing defects which are unacceptable include, but are not limited to the following:

1. Tensile strength less than 80 percent of parent section.
2. Misalignment of "V" section and flanges greater than 1/16 inch.

3. Visible porosity or “burn-through” in the weld.
4. Adhesive bonds, free lap joints, or lap joints with mechanical fasteners.
5. Misalignment of waterstop splices resulting in misalignment of waterstop in excess of ½ inch in 10 feet.

END OF SECTION

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