RECOMMENDED SEAL INSTALLATION PROCEDURE

1. PRIOR TO INSTALLING OF THE STRIP SEAL GLAND, INSTALLATION OF THE EXPANSION JOINT HARDWARE AND COMPONENTS (ANCHORS AND EXTRUSIONS) SHALL BE COMPLETED AND SATISFY THE DETAILS AS SHOWN IN THE SHOP DRAWINGS.

2. SEAL INSTALLER SHALL INSURE THAT THE OPENING AT THE EXPANSION JOINT (OPENING EQUALS THE WIDTH BETWEEN TOP OF THE INSIDE EDGES OF THE EXTRUSIONS) HAS BEEN SET TO A WIDTH REQUIRED BY TEMPERATURE AND IS A MINIMUM FIELD INSTALLATION WIDTH OR WIDER.

3. PRIOR TO INSTALLATION OF THE SEAL, THE EXTRUSION CAVITY MUST BE FREE OF ALL RUST, DIRT, OIL OR ANY OTHER FOREIGN MATTER THAT COULD BE DETRIMENTAL TO THE SEALING CAPABILITY OF THE NEOPRENE GLAND AND SHALL BE CLEANED WITH AN APPROVED SOLVENT (TOLUENE OR MEK). DRIED CONCRETE FROM THE DECK POURING OPERATION OR PIECES OF SAND & GRAVEL, IF LEFT IN THE CAVITY, WILL PREVENT THE SEAL FROM LOCKING INTO THE EXTRUSION CAVITY.

4. APPLY THE LUBRICANT/ADHESIVE TO THE INSIDE OF THE EXTRUSION CAVITY AND TO THE EAR LUGS ON BOTH SIDES OF THE EXPANSION JOINT.

NOTE: IT IS RECOMMENDED THAT THE INSTALLER APPLY THE LUBRICANT/ADHESIVE IN APPROXIMATE 1500 mm INCREMENTS. EXTRA TIME MAY BE REQUIRED TO INSTALL THE SEAL; THEREFORE, THESE SMALL INTERVALS WILL MINIMIZE THE CHANCE OF THE LUBRICANT/ ADHESIVE SETTING BEFORE THE SEAL HAS BEEN INSERTED.

5. TO BEGIN INSTALLATION, TAKE HOLD OF THE SEAL AND MANUALLY FOLD SEAL AS INDICATED IN FIGURE 1. CENTER FOLDED SEAL OVER EXPANSION JOINT OPENING.

6. INSERT SEAL INTO OPENING BETWEEN STEEL EXTRUSIONS. IN THIS, CARE SHOULD BE EXERCISED THAT THE SEAL IS NOT INSERTED THROUGH AND PAST THE JOINT OPENING. ONCE PROPERLY INSERTED, THE BOTTOM HALF OF THE GLAND EAR OR THE LOWER EAR LUGS SHOULD BE AUTOMATICALLY EXTENDED OUTWARD AND SEAT THEMSELVES INTO THE BOTTOM PORTION OF THE EXTRUSION CAVITY. SEE FIGURE 2 FOR COMPLETED SETUP OF INSTALLATION AT THIS TIME.

7. THE INSTALLER SHALL NOW PROCEED TO USE THE INSTALLATION TOOL AS SUPPLIED BY THE JOINT MANUFACTURER (PT. # 3020). PLEASE NOTE POSITION OF TOOL AS INDICATED IN FIGURE 3. THE TOOL MAY BE APPLIED TO EITHER SIDE OF THE EXTRUSION. WITH THE WORKING EDGE OF THE TOOL, APPLY FORCE TO THE WORKING POINT OF THE SEAL INDICATED IN FIGURE 3. WORK THE SEAL UPWARD TO ALLOW THE UPPER EAR LUG TO ROTATE TOWARD THE REAR OF THE EXTRUSION CAVITY & LOCK IN UNDER THE UPPER LIP. WORK THE TOOL IN SMALL SEGMENTS ALONG THE LENGTH OF THE JOINT. TO CONTINUE THE INSTALLATION, USE OF ONE TOOL TO HOLD THE UPPER EAR LUG AND A SECOND TOOL TO APPLY THE LEVER ACTION THAT IS RECOMMENDED UNTIL THE UPPER EAR LUG HAS BEEN PROPERLY SEATED AND LOCKED INTO THE UPPER PORTION OF THE EXTRUSION CAVITY.

8. UPON COMPLETING THE SECTION OF THE SEAL, REVERSE THE TOOL AS INDICATED IN FIGURE 4 AND FOLLOW THE SAME PROCEDURE AS OUTLINED IN STEP 7. HERE WE ARE SIMPLY WORKING THE TOOL ALONG THE OPPOSITE SIDE OF THE JOINT.

9. UPON COMPLETING STEP 8, THE INSTALLER SHALL REPEAT 3 THROUGH 8 UNTIL THE TOTAL LENGTH HAS BEEN INSTALLED.

10. IT IS RECOMMENDED THAT THE INSTALLER INSPECT THE OVERALL SEAL INSTALLATION AND ENSURE THAT THE SEAL HAS BEEN PROPERLY INSTALLED AND LOCKED IN THE EXTRUSION CAVITY. ANY PORTION OF THE SEAL NOT LOCKED PROPERLY MUST BE CORRECTED AT ONCE FOLLOWING STEPS 7 AND 8.

11. INSTALLATION IS NOW COMPLETE. ALLOW LUBRICANT/ADHESIVE APPROXIMATELY 24 HOURS TO FULLY CURE.

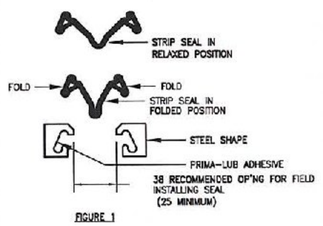


FIGURE 1

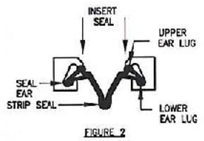


FIGURE 2

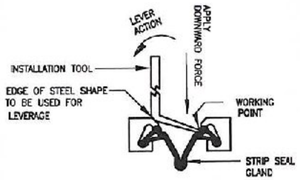


FIGURE 3

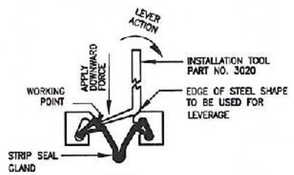


FIGURE 4

MATERIAL SPECIFICATIONS

STEEL EDGE & CENTER BEAMS – All beams are made of ASTM A 588 domestic grade steel and have grooves which grip the neoprene locking seal.

NEOPRENE LOCKING SEAL – The neoprene locking seal is bonded to the steel beams with Prima-Lub Adhesive. The strip-seal shall be extruded polychloropene meeting the requirements as ASTM D2628 with the exception of the recovery and compression deflection test requirements.

COMPRESSION SPRING C-306 – This compression spring is composed of urethane, epoxy and 1.2 mm thick teflon sheet. The compression spring sits on top of the support bar.

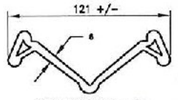
BEARING C-307 – The bearing is composed of urethane, epoxy and 1.2 mm thick teflon sheet on which the support bar slides on.

CONTROL SPRING – The control spring which is located between the support bars act to equalize the expansion of each seal. The control spring is made of URETHANE.

STAINLESS STEEL SHEETING – Stainless steel is used on the sliding surfaces of the support bar that contact the teflon surface of the bearing and compression spring. The stainless steel shall be ASTM A240, Type 304, No. 2B finish.

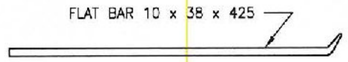
PRIMA-LUB ADHESIVE – Prima-lub Adhesive is used to bond the neoprene locking seal to the steel extrusions. This adhesive shall be a one-part moisture curing polyurethane and hydrocarbon solvent mixture.

SEAL TREATMENTS AT CURB
(TO BE USED FOR ANGLES GREATER THAN 60°)

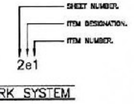


SE-300 SEAL

INSPECTION REQUIRED



SEAL INSTALLTION TOOL



MARK SYSTEM

INSTALLATION PROCEDURE

STEP 1. VERIFY THE DIMENSIONS OF THE BLOCKOUT IN SECTION A-A ON SHEET 2. CORRECT AS NECESSARY.

STEP 2. LOOSEN BOLTS AT SHIPPING CLAMPS IF REQUIRED TO ADJUST THE JOINT SEAL ASSEMBLY. PRESET THE THE EXPANSION JOINT SEAL ASSEMBLY OPENING AS DIRECTED BY THE FIELD ENGINEER. TIGHTEN BOLTS ON THE SHIPPING CLAMPS. (STEP 2 MAY BE PERFORMED BEFORE OR AFTER THE EXPANSION JOINT HAS BEEN LIFTED INTO THE BLOCKOUT. FOR EASE OF SETTING THE EXPANSION JOINT STEP 2 SHALL BE PERFORMED BEFORE SETTING THE JOINT INTO THE BLOCKOUT.

STEP 3. LIFT AND PLACE EXPANSION JOINT SEAL ASSEMBLY INTO BLOCKOUT. WHILE JOINT SEAL ASSEMBLY IS SUSPENDED, INSTALL LEVELING DEVICES AND ADJUST TO PROPER GRADE AND ELEVATION.

STEP 4. CHECK JOINT SEAL ASSEMBLY FOR ALIGNMENT WITH CURBS. REMOVE LIFTING ANGLES AND GRIND WELDS SMOOTH.

STEP 5. PRIOR TO PLACEMENT OF CONCRETE, ALL PRESTRESS DEVICES SHALL BE REMOVED. DEVICES ON TOP OF THE JOINT SHALL REMAIN IF THEIR LOCATION WILL NOT INTERFERE WITH CONCRETE PLACEMENT OR EXPANSION JOINT PERFORMANCE.

STEP 6. TEMPERATURE AND JOINT OPENING SHOULD BE CHECKED FOR ANY DISCREPENCIES FROM INITIAL ADJUSTMENT.

STEP 7. CONTRACTOR SHALL AT THIS TIME HAVE REQUIRED FORM WORK IN PLACE.

STEP 8. ALL CONCRETE PLACEMENT SHALL BE IN ACCORDANCE WITH THE SPECIFICATION.

STEP 9. UPON COMPLETEING CONCRETE PLACEMENT OPERATIONS, LOOSEN NUTS AT SHIPPING CLAMPS. THE ENGINEER SHALL DETERMINE WHEN REMOVAL OF THE LEVELING DEVICES WILL BE PERMITTED.

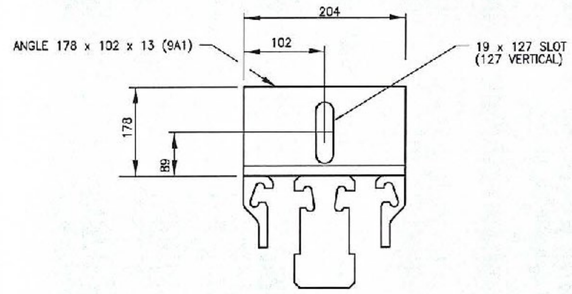
STEP 10. CONTRACTOR SHALL REMOVE ALL TEMPORARY DEVICES FROM TOP OF JOINT SEAL ASSEMBLY, GRIND WELDS SMOOTH, AND TOUCH UP ALL AREAS OF DAMAGED GALVANIZING.

STEP 11. CONTRACTOR SHALL PERFORM STEP 1 THRU STEP 10 FOR STAGE 2 OF CONSTRUCTION AFTER ASSEMBLING THE BOLTED FIELD SPLICE.

STEP 12. CONTRACTOR SHALL INSTALL BARRIER COVER PLATES.

NO WELDING

NOT APPLICABLE



LIFTING DEVICE ASSEMBLY

THIS IS A TEMPORARY DEVICE

NOTE:
1. LIFTING ANGLES SHALL BE PLACED BY THE FABRICATOR TO ACHIEVE A LEVEL LIFT FOR PLACEMENT (2 PER JT.SECTION).
2. THE CONTRACTOR SHALL REMOVE AFTER THE JOINT IS SET IN BLOCKOUT, PRIOR TO PRESETTING OF JOINT.
3. THE CONTRACTOR SHALL REMOVE BY GRINDING WELDS SMOOTH AND SHALL TOUCH UP ANY DAMAGED GALVANIZED AREAS.

TVGA CONSULTANTS

☐ NO EXCEPTIONS TAKEN ☐ REJECTED
☐ FURNISH AS CORRECTED
☒ REVISE AND RESUBMIT

ENGINEER has reviewed Shop Drawings and Samples and other data which Contractor is required to submit, only for conformance with the information given in the Contract Documents and compatibility with the design concept of the completed Project as a functioning whole as indicated in the Contract Documents. Such reviews do not extend to means, methods, techniques, sequences or procedures of construction or to safety precautions and programs incident thereto. Such reviews do not extend to any LEED certification or accreditation. Contractor is responsible for dimensions to be confirmed and correlated at the job site; for information that pertains solely to the fabrication processes or to techniques of construction; and for coordination of the work of all trades.

BY: Andrea
DATE: 6/1/2016

VERMONT AGENCY OF TRANSPORTATION

COUNTY: BENNINGTON
PROJECT NO.: AC NH 019-1(51)
CAPITAL PROJECT ID NO.: -
BRIDGE NO.: B15, B15N, B15S
WBA PRODUCT DESCRIPTION: MODULAR
WBA PRODUCT NO.: STM126770AA

DRAWING ACTION:

SUBMITTED FOR APPROVAL

1/20/10

NO	DESCRIPTION	NAME	DATE
3			
2			
1			

Watson Bowman Acme
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95 Pineview Drive
Amherst, NY 14228
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BASF The Chemical Company

PROJECT:
WWII VETERAN'S MEMORIAL HIGHWAY
VT ROUTE 279, PRINCIPAL ARTERIAL

WBA MODULAR STM-600 EXPANSION JOINT DETAILS

DETAILED BY: TPL	DATE: 12/23/09
CHECKED BY: TEB	DATE: 1/7/10
SCALE: NTS	WBA JOB NO.: 126770
SHEET NO.: 13 of 14	DRAWING NO.: B-27569