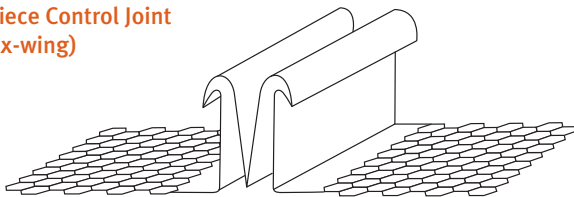




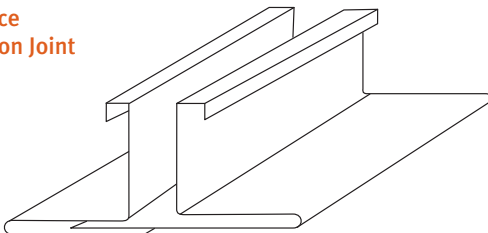
Stress Relief Joints in Portland Cement Based Plaster

ASTM C 1063 requires stress relief joints to be installed on framed structures with portland cement plaster cladding. Panel size should be limited to 144 square feet for walls and 100 square feet for ceilings. The distance between stress relief joints should not exceed 18 lineal feet. Panels should be kept as square as possible and not exceed a ratio of 2¹/₂ to 1. Location of stress control joints may be more important and are recommended to be located at floor lines, where changes in substrate occur and off the corners of windows and doors. When cement plaster is applied directly over masonry and/or concrete, no stress relief joints other than those at the locations of the structural masonry joints are required. However, they may be used to provide good start and stop locations for plastering (See Bulletin 60.210). One-piece stress joints (control joints) are for anticipated minor movement and/or stress. Two-piece stress relief joints (expansion joints) allow for greater amounts of anticipated stress or movement in more than one direction when used in conjunction with the proper framing.

One-piece Control Joint
(XJ-15 x-wing)



Two-piece
Expansion Joint



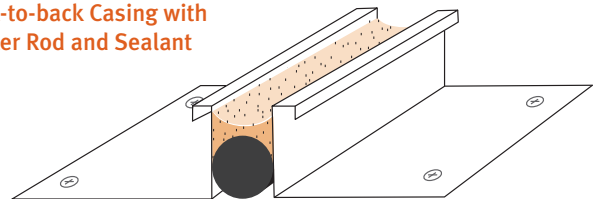
When vertical expansion joints are installed with the lath, sheathing and framing are broken (separated) behind the joint, the water-resistant barrier should remain continuous. Walls designed with sheathing panels to provide lateral (shear) resistance should not have expansion joints, but may employ control joints.

ASTM C 1063 requires the lath not to be continuous behind control joints. However, ASTM does not define or differentiate a control joint from an expansion joint, but new language is pending. Expansion joints (as herein defined) must have the lath broken and supporting framing behind the must have a double stud at the vertical location of the joint. Control joints (as herein defined) may have lath continuous and be wire tied to the lath.

Where no framing support is provided, the lath should run continuously to a framing support and the control joint wire tied to the lath. An expanded wing control joint will enable the installer to make this tie connection.

It is also acceptable to use back-to-back casing beads with a backer rod and sealant as an expansion joint. The water resistant membrane must be continuous, the width of the gap should be between 3/8 to 1 inch.

Back-to-back Casing with
Backer Rod and Sealant



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