

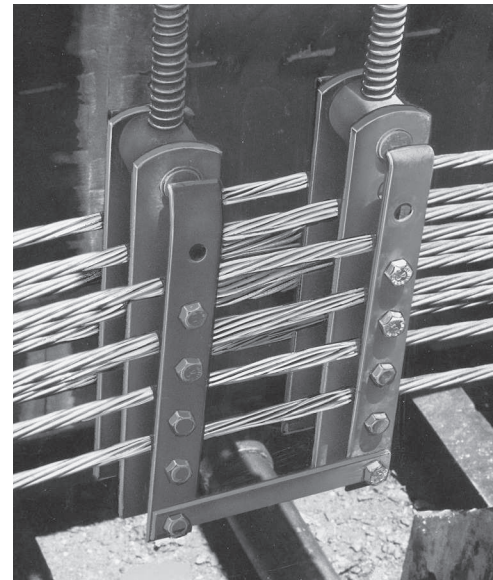
Prestress Strand Restraining Devices

By deflecting some of the prestressing strands, in a precast prestressed concrete beam, a more favorable distribution of stresses within the concrete beam is obtained. When using deflected strands, the eccentricity of the prestressing force is reduced in the area of decreasing dead load moment. By reducing the tensile stresses in the concrete, the load that can be applied to the beam can be increased by an amount equal to the weight of the beam itself.

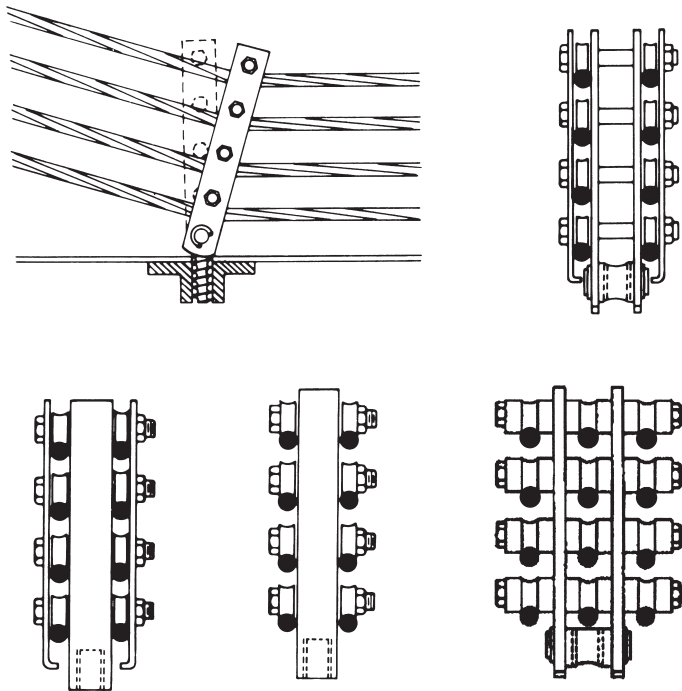
The benefits obtainable through strand deflection are such that many precast prestressed concrete plants are designed so that the prestress strands can be deflected. When using depressed strands, it is necessary that strand restraining devices be provided at the points within the concrete beam where the strand deflections occur.

Working closely with many prestressed concrete producers, Dayton Superior has developed a complete line of strand restraining devices. Since 1958 Dayton Superior strand deflection devices have been recognized and accepted as the industry standard. All units are manufactured on a production basis and are produced with positive (no welding) mechanical connections.

These units maintain a clear distance of 1-1/2" from bottom of the strand restraining device to beam bottom yet still hold a 2" dimension from the centerline of the strand to the beam bottom.



View of Strand Restraining Device
"Free-turning" rollers contribute additional safety reducing frictional resistance.



Large variety of styles available to fit your needs!

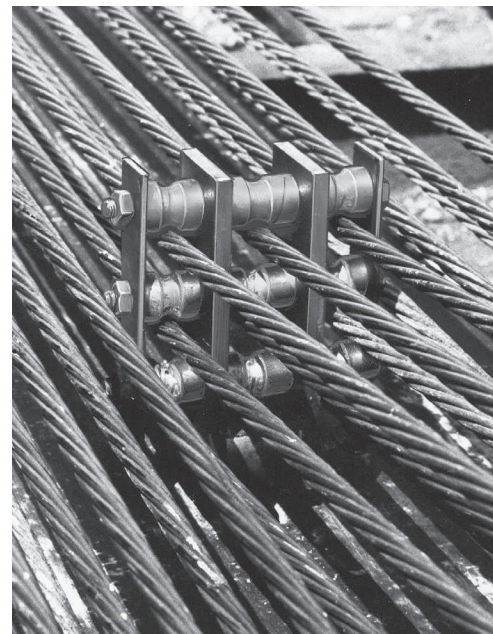


Illustration of swivel action as strand restraining device responds to strand tensioning.

Note: For more information on the complete prestressing system or individual components, request a copy of the Prestress Strand Deflection Device Handbook