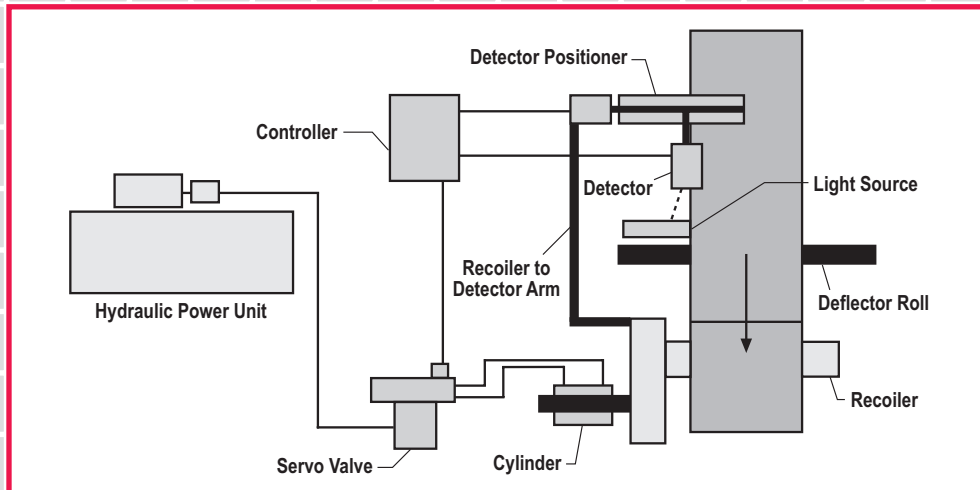


## Recoiler Edge Guide Control System Fixed Arm Type System



This closed loop proportional control system uses an edge detector that moves with the recoiler. Located just prior to the deflector roll, the edge detector is attached to a mechanical arm that reaches back, and is attached to the recoiler.

The detector senses the edge of the incoming strip and provides an analog output proportional to the lateral position of the strip edge. This signal is processed by the electronic controller. The electronic controller compares the detector signal to the set (guide) point, any difference results in an output to the hydraulic servo system which will move the recoiler, carrying the edge detector along with it until the detector's field of view is "centered" over the strip edge. The result is that the recoiler continuously follows the lateral position of the incoming strip edge.

Once the strip is cinched to the tension reel mandrel, the edge detector, with its' small field of view, has to be positioned directly in line with the strip edge. These requirements are typically addressed by mounting the edge detector to a detector positioner. The positioner could be motorized with push button control or the positioner could be automatically controlled with a self-seek circuit.

Optional coil stagger wind circuit is available. This circuit adjusts the output of the electronic controller so that the strip is wound with a constant changing offset. This prevents the edge build-up from the bead at the edges of plated or painted coils that can cause sway-backed or telescoping rolls.

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