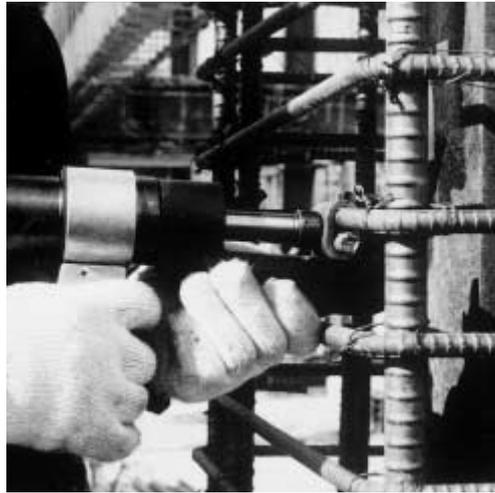


OS HOOP CLIP

A new method for joining small diameter reinforcing bars.
May be used in splicing tension bars, column ties, and stirrups.



Studies of recent earthquakes in both Japan and the United States made by the Architectural Institute of Japan have indicated the advisability of using continuous tie bars in columns.

This may be accomplished through the use of continuous spiral ties or by connecting the ends of square column ties.

The OS Hoop Clip provides a cold method for making tie connections which will exceed the yield strength of the bars and will not alter the metallurgical properties of the steel.

Under extreme compressive loads such as those experienced in columns under earthquake loading, continuous ties help restrain the concrete within the interior of the column.

Characteristics:

- 1) A reliable connection is secured, exceeding 135% of the nominal yield point of the steel.
- 2) Cost is low.
- 3) The connections can be made quickly, at a rate of up to 400 per man-day.
- 4) Unskilled labor may be used.
- 5) The integrity of the connection may be quickly determined by visual inspection.
- 6) The connection can be made outdoors under any weather condition.
- 7) Relatively quiet operation.

Method:

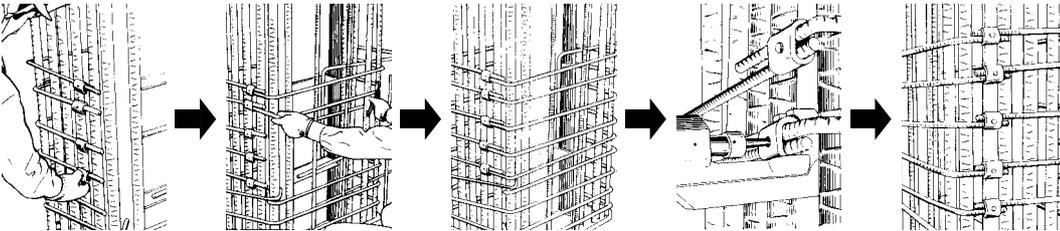
The device used for joining reinforcing bars is called "OS Hoop Clip".

It employs a steel sleeve with an oval cross section which will accommodate two reinforcing bars of the diameter being connected, and a steel wedge.

The procedure is outlined below:

- 1) The sleeve is placed over one end of the tie bar.
Bar ends are overlapped and the sleeve is positioned so that each bar extends beyond the end of the sleeve at least one bar diameter.
- 2) The wedge is driven through the holes in the sleeve until the head of the wedge extends only above the sleeve.

Operating procedure:



Squeeze Joint System Applicable Re-Bar

Re-Bar GRADE : SD295A, SD295B, SD345

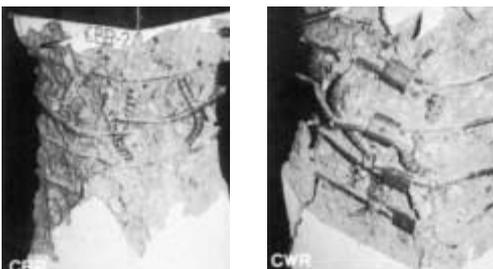
Size of Re-Bar : D10, D13, D16, D19

Shape of Re-Bar : Deformed Re-Bar according to the JIS G3112

Application

- 1) Densely reinforced concrete columns.
- 2) Beam-column connection.
- 3) Columns with irregular or rectangular sectional shapes where spirals cannot be used.
- 4) Stirrups.
- 5) Longitudinal splices in tension reinforcing bars.

Center Compression Test



Steel Reinforced Concrete Structure Joint Layout

