**Lateral connection system by removable clamps for I or H profiles**

**Inventors:** Manuel Cabaleiro Núñez, José Antonio Vilán Vilán, Pedro Arias Sánchez, José Carlos Caamaño Martínez, Luis Berea Vázquez.

**Description**

The presented system allows detachable lateral connections, at right angles, type ‘cross beam to column flange’ of I and H standard profiles made of steel. The system uses standard mounting clamps without previous specific machining operations (as may be welding or drilling).

This patent consists in a lateral connection system at 90° angles of metal profiles type I or H, using supports pieces with slotted holes that allow the attachment of various sizes of standard profiles. For assembling the connecting support pieces, mounting clamps with bolts, nuts and flat washers are used. The supports are attached to the profile flanges, first to column flange, and then to the beam one.

**Innovative aspects and advantages**

The presented system allows detachable lateral connections, at right angles, type ‘cross beam to column flange’ of I and H standard profiles made of steel. The system uses standard mounting clamps without previous specific machining operations (as may be welding or drilling).

This detachable connection allow reconfiguration and reuse of parts in metal structures made of I or H profiles, which represents an economic and environmental advantage. The system allows saving time in the assembly process. The set has a system for adjusting the stiffness of the connection.
Commercial applications and potential users

- Industrial assemblies
- Metal structures
- Steel constructions

Patent status

Spanish patent.

Type of collaboration

Licence agreement or technical cooperation for further development.