

# PANDROL® FASTCLIP INSTALLATION

## INSTRUCTIONS

### General:

The PANDROL® FASTCLIP is a captive system which means that all components are delivered to the work site secured to the tie or cast plate. The advantages of the FASTCLIP system will translate to reduction in material handling and storage, installation and maintenance labor, and inventory of components. Longer service life of the individual parts will be another added cost savings and a benefit to overall maintenance.

The FASTCLIP assembly for a concrete tie consists of four FASTCLIPs with toe insulators attached, four side post insulators, two rail seat pads and four cast in place shoulders. The FASTCLIP assembly for an insulated cast plate is comprised of the cast plate with integral shoulders, two FASTCLIPs with toe insulators attached, two side post insulators and a rail seat pad. A noninsulated assembly has the cast plate with the integral shoulders and two FASTCLIPs with the toe insulators attached. A base plate pad is required with the cast plate if it is being used on a slab track or wood tie application.

FASTCLIP concrete ties can be installed with track laying and renewal equipment such as a P811 or by cranes with lifting beams. If wood ties are preplated with FASTCLIP cast plates the same equipment can be used for the installation.

FASTCLIP Joint Assemblies should be used at insulated and noninsulated joints. The standard FASTCLIP will have to be removed and the joint plate and joint clip installed. (For more details on FASTCLIP Joint Assembly installation procedures, please see the FASTCLIP Joint Assembly instruction sheet.)

### Clip Positions:

The FASTCLIP has three captive positions which are defined below.

The "Installed Position" is where the clip legs are fully driven against the side post insulator and the clip toe is securing the rail.

The "Rail Ready Position" is the positioning of the clip on the side post insulator but not on the rail. This position allows the rail to be removed, thermally adjusted, or changed without disturbing the other components.

The "Maintenance Position" is when the clip is clear of the side post insulator. This position allows for the side post insulators to be removed for inspection, replacement or to aid with pad replacement.

Clips will only need to be fully removed from the shoulder when replacement of the clip or toe insulator is required.



### Installation and Destressing:

Because everything is secured to the tie during transit and installation, simply lay and seat the rail and push the clips to refusal.

Any type of installation can have the clips applied and removed by machinery or with hand tools. Obviously, higher production numbers would be achieved with machinery. Whichever method of clip manipulation is used, it is critical that the tie is tightly nipped or tamped to the rail. It is also necessary to check that the rail seat area and the rail base are clear of debris for a trouble free installation.

If destressing of the rail is required after the clips have been applied, merely pull the clips to the Rail Ready position, and then reapply after the rail has been adjusted. If rail heating equipment is used for thermal adjustment, care should be taken to keep the open flame off of the toe and side post insulators. It is recommended that the flame be directed at the rail head and upper web portion, also that the heating unit be raised while stopped as excessive heat can cause the insulators to become brittle or melt. If the insulators are discolored or bubbled from excessive heating it is necessary to change these components.

### Hand Tools:

A brief overview of how each of the three FASTCLIP hand tools operate follows. If hand tools are the primary means of clip application it has been found that a team of five to six men can efficiently install FASTCLIP ties. Two men would operate the tie lifters and the rest would operate the installation tools.

FASTCLIP tools supplied by Heslin Steel Fab or others have been designed with safety and ease of operation in mind. Each hand tool is designed to be used by only one operator at a time. *Please note that unauthorized modifications to the tools are not recommended. Accidents, injuries or damages caused by modification or the misuse, intentional or otherwise, of the hand tools are not the responsibility of Pandrol USA.*

Do not retract a clip when someone is standing behind the clip being retracted, as the clip may suddenly release from the shoulder past the "maintenance position".

### Summary:

- ▶ All components arrive captive on the tie or cast plate to the job site.
- ▶ Concrete or wood tie systems are available as well as slab track applications.
- ▶ Reduction in labor, material handling and storage.
- ▶ Reduced maintenance costs through longer component life and less inventory.
- ▶ Clips can be installed or removed either manually or mechanically.



- ▶ Ensure that the rail seat area and the rail base are clean and free of debris for an efficient installation. Ties must be tamped or nipped firmly against the rail.
- ▶ Keep direct flame and excessive heat from insulators.
- ▶ FASTCLIP Joint Assemblies should be used at all insulated and standard joints.
- ▶ Equipment is available from Racine Railroad Products, Modern Track Machinery, Rosenquist represented by Esco, and Matweld.
- ▶ Contact Pandrol USA for further details or specifications. Please see the FASTCLIP brochure for additional information and diagrams.



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