

Comparison of construction results \*gauge adjusting tie plate : 6pcs (for 3pcs of Sleepers)

## Reduce the working time to 1/4

From our test result

< Existing product >

**Working time 12 min. 9 sec.**

Working procedure	Each Time (min. sec.)	Total time (min. sec.)
1 Take off the plate	40	40
2 Move the rail	38	1.18
3 Remove the bolt	50	2.08
4 Remove the base plate	17	2.25
5 Fill out the old hole	2.15	4.4
6 Return the base plate to the suitable place	13	4.53
7 Put the rail on the base plate	34	5.27
8 Tighten the plate spring temporarily	47	6.14
9 Adjust the gauge (with bar)	28	6.42
10 Mark the new position of the hold	46	7.28
11 Re-perforate the hold	2.02	9.3
12 Insert the bolt	1.2	10.5
13 Check the gauge distance	40	11.3
14 Tighten the plate spring (with torque)	39	12.09
<b>TOTAL</b>		<b>12.09</b>

< Gauge adjusting plate for non-ballasted track (For local train) >

**Working time 3 min. 8 sec.**

Working procedure	Each Time (min. sec.)	Total time (min. sec.)
1 Remove the screw spike nut (SLN)	39	39
2 Turn the upper piece for 90°		
3 Adjust the gauge (with bar)	27	1.06
4 Turn the bottom piece to the suitable position	15	1.21
5 Tighten the screw spike nut (SLN)	1.09	2.3
6 Check the gauge distance	38	3.08
<b>TOTAL</b>		<b>3.08</b>

**Working time became 1 / 4!  
(Cut the time by 9min. 1sec.)**

## Reduce the working process to 1 / 2

From our test result

< Existing product >

**14 processes**

< Gauge adjusting plates for non-ballasted track (for local train) >

**6 processes**

**Cut 8 processes**

## Reduce the tools to 1 / 3

From our test result

< Existing product >

**17 pcs of tools**

< Gauge adjusting plates for non-ballasted track (for local train) >

**6 pcs of tools**

**Cut 11 pcs of tools**

## No need to re-perforate

**Keep the tightness of sleepers without pulling in and out the bolt at the same position.**

## Delivery record

- Central Japan Railway Company
- East Japan Railway Company
- West Japan Railway Company
- Keikyū Corporation
- Odakyū Electric Railway Co., Ltd. and others

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 **SEKIGAHARA SEISAKUSHO LTD.**

Patented  
No.5128192

# GAUGE ADJUSTING TIE PLATES



 **SEKIGAHARA SEISAKUSHO LTD.**  
~ We create the future of railroad devices. ~

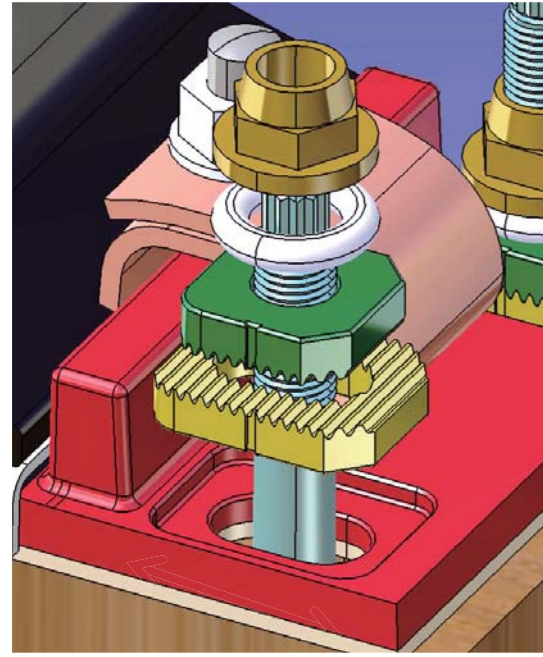
※Image figure of  
Gauge adjusting tie plates for  
non-ballasted tracks (for Shinkansen)

## How to use

This tie plate can adjust maximum 16mm without re-perforating the bolt hole by installing to the position where the gauge adjustment, correction of track and rail position adjustment is necessary. By sliding the adjusting piece upper and bottom side to right and left, bolt position at center, it is possible to move the tie plate by 1 mm pitch accurately.

## How to adjust

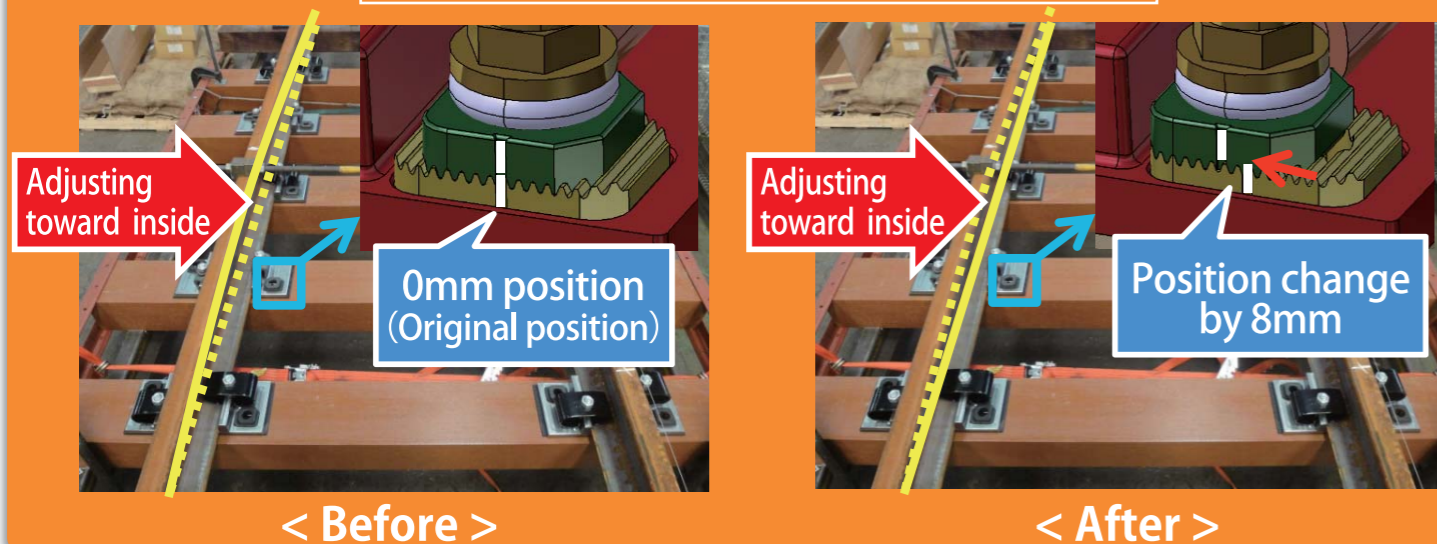
Possible to adjust with ballast tampering machine (Verification on process).  
Possible to adjust by workmen.



## Added value

- Improve the safety work
  - Reduce the working time - Adjustment is completed with only the parts at sight without any replacing parts.
  - Reduce necessary tools - No need to pull out bolts or repair work for sleepers.
- Extend the lifetime of sleepers and improve the working environment
  - Reduce the total cost by longer lifetime of sleepers.
  - Reduce the industrial wastes by omitting the perforating procedure.

### Example : Correction of rail gauge



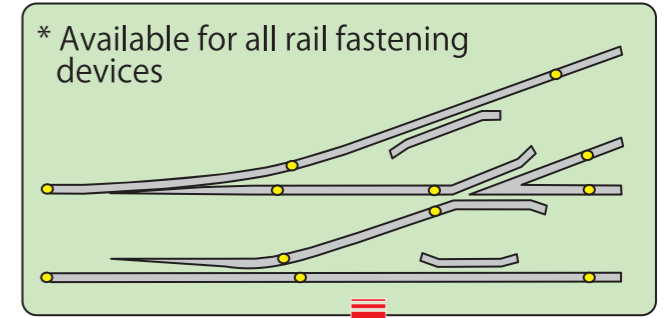
## Product Line-up

< Gauge adjusting tie plates for non-ballasted tracks >



For Shinkansen  
(above and below pictures from JR Central)

< Gauge adjusting tie plates for turnouts >



For Local train  
(picture : part of turnout)

Products	For 60K Local train	For 50N Local train	For 60K Shinkansen
Gauge adjusting tie plates for non-ballasted tracks	○	○	○
Gauge adjusting tie plates for turnouts	○	○	○

## Characteristics

- No need to re-perforate the bolt hole
- Possible to adjust the range : **MAXIMUM 16mm**

## Advantages

- **More comfortable** to ride in
- **Shorter** adjusting time
- **Simplified** maintenance
- Improvement of **safety for adjusting work**
- Improvement of the **working environment**
- **Extending** the lifetime of the sleepers

※Send us inquiry for your development of tightening devices!