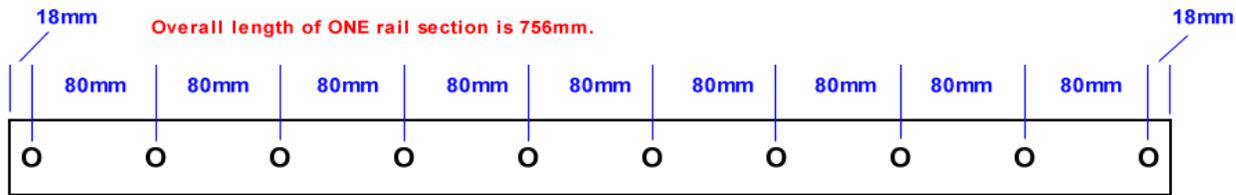
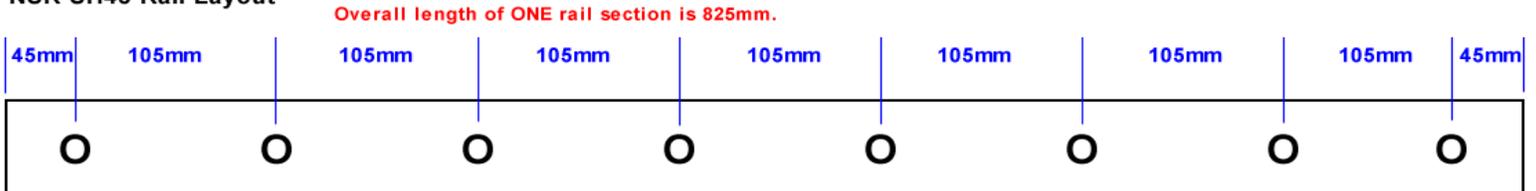


# Rail Butting Notes

## NSK SH35 Rail Layout



## NSK SH45 Rail Layout



The NSK SH rail segments (in both the 35mm and 45mm sizes) can be used singly or combined in butted fashion to achieve longer lengths. Above are drawings that show the layouts of the respective sizes.

- For the SH35 material, the overall rail length is 756mm. There are 10 mounting holes in the rail, and these are 80mm apart with the exception of the end holes. The end holes are located 18mm from the end of the rail to the center of the hole on each end.
- For the SH45 material, the overall rail length is 825mm. There are 8 mounting holes in the rail, and these are 105mm apart with the exception of the end holes. The end holes are located 45mm from the end of the rail to the center of the hole on each end.

The concept of butting pieces of rail together to obtain longer rails should be clear, but we want to point out a few things.

1. Where the rails join will result in an irregular pattern for the mounting hole locations. For the 35mm material, there will be approximately 36mm between mounting holes where a joint occurs. For the 45mm material, there will be approximately 90mm between mounting holes where a joint occurs. If you intend to butt rails, you **SHOULD NOT** pre-drill mounting holes in your base before the rails are delivered to you. Wait until you have them in your possession; this will ensure that you can accurately locate the mounting holes.
2. The ends of these rails are precisely cut, but very small gaps might be present when you “kiss” them up. We’re talking SMALL. This is not typically an issue with larger sizes of linear guideways because the ball bearings in the carriages are large enough to traverse any such miniscule gaps without a hiccup. Traditionally butt joints for linear rail require very careful grinding and fitting to get a perfect fit. This is time-consuming and expensive. What we are offering is a less-expensive alternative that is entirely suitable for just about any application. If you have a well-prepared base to which your rails will be fixed, you will have a smooth operating system

