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Choosing Between Three Girt Offsets

Which Girt Offset Should I Choose?

Many times, when filling out an order document or entering a building into eQuote you have probably thought to yourself “which girt offset should I choose?”. The following guidance will help enable you to make the most informed decision for your project.

The girt offset is defined as the distance from the side or end wall ‘steel line’ to the outside face of the supporting column flange. NBS offers three standard girt offsets to choose from when laying out and ordering a building. They are: bypass, inset, or flush (see Figure 1). The bypass condition will have either an 8”, 9-1/2” or 12” offset, the inset condition will have a 1” offset, and the flush condition will have a 0” offset.

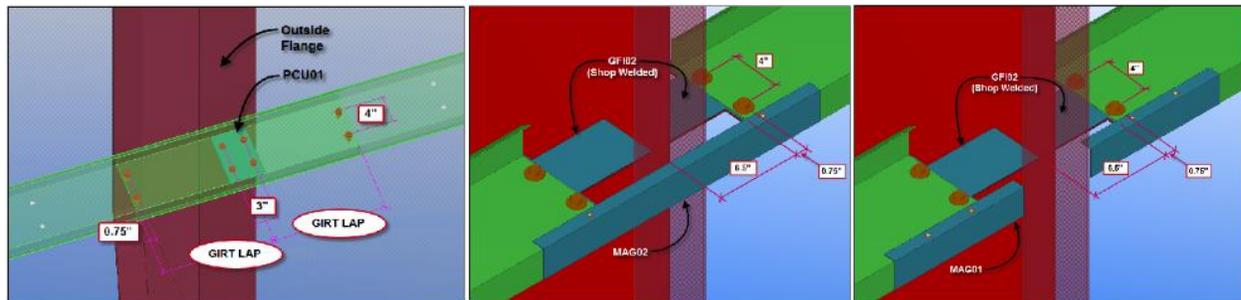


Figure 1 (Offset Conditions; may differ based on project) – (From left to right) Bypass, Inset, Flush

Bypass girt systems are designed as continuous members due to the lap formed at each column location. This greatly reduces material thickness and creates a stiffer system while reducing cost. Another benefit is that there is no compression of the blanket insulation at the building columns.

Inset and Flush girt systems are designed as simple span members since they cannot span continuously past the columns. This results in a much heavier girt system being required, and additional material needing to be installed across the column flange for panel attachments. One benefit of inset and flush girts is that the columns are set back into the girt cavity creating greater clearance between columns. For these offset conditions, the blanket insulation is compressed at the building columns. The major drawback to the inset and flush option is the cost. On average this option will increase the cost of the girt system by 30% - 100% depending on span lengths.

For example, a 100' x 200' x 16' building with 25' column spacing will increase by more than 4,000 pounds of girts when changed from bypass to inset or flush. This results in a 95% increase on the girt system weight and an overall increase in the building weight by 8%. Thus, making the bypass option a much more economical solution.