



**When installing Nelson studs on a metal deck or steel,
The ferrules should be removed before the concrete pours.**



Leaving the ferrules in place has several concerns:

1. Welds are to be visually tested - ferrules in place means the stud weld was not visually tested.
2. In place ferrules will not allow a proper development of concrete to bond around the stud.
3. A study was performed by Nelson in 2006 to determine if the ferrules needed to be removed. The study found that it is important that the broken ferrules are not collected into piles and scattered evenly over the deck and wetted before concrete is poured. However, wetting the ferrule could create excessive moisture on the deck and change the concrete locally.

CONFIRMING SCATTERING AND NOT OVERLY WETTED FERRULES IS DIFFICULT AND UNLIKELY, AND THEREFORE, NOT RECOMMENDED.



The team should confirm that all ferrules are broken from each stud to confirm a visual review of the welds and that the deck is clean before the concrete pours.

It is recommended that the removal of the ferrules be added to the ironworker's scope of work.

