

ROLL FORMING POST-CUT OR PRE-CUT: ADVANTAGES & DISADVANTAGES ON ARCHITECTURAL METAL PANELS

When selecting the options for pre-cut or post-cut in roll forming, one must weigh the options or advantages/disadvantages of each. The following information is provided on why manufacturers may select one option versus the other.

Advantages of post-cut roll forming:

- Increased production rates due to continuously fed materials in the roll forming line
- Entry end deformation and end flare deformation of finished part is reduced
- Increased tolling life of the roll forming stations
- May offer increased resistance to camber, twist and bow
- Part length ranges are increased (shorter and/or longer)

Disadvantages of post-cut roll forming:

- Panel deformation (compression of part) may occur depending upon panel design in cross section
- Higher maintenance cost due to the cut off die itself
- May require manual feeding of first part decreasing production rates in commonly changed profiles
- Limits the ability to offer pre-notched profiles
- Panel must be supported to avoid panel distortion or flatness of finished part

Advantages of pre-cut roll forming:

- Ability to produce parts with complex cross section design
- Offers economic value when many profiles are produced on the same machine due to decreased cut off die costs and maintenance
- Easier to offer pre-notched parts
- Easier to manually feed machine for small production runs
- Offers burr free ends when many thicknesses are offered in one profile

Disadvantages of pre-cut roll forming:

- Increased entry end and end flare deformation of finished part
- May require increased number of forming stations to hold shape
- Limits the ability to offer shorter length of finished part
- May require more floor space due to increased number of forming stations

Regardless of the production method chosen, it is common in the pre-formed metal roofing and wall panel community to use either pre- or post-cut production methods interchangeably.

Due to the associated advantages and disadvantages of the two roll forming options, end deformation (compression of part) on post cut panels and end flare deformation on pre-cut panels may require planning when panels are designed to be run horizontally on long length elevations. The panel-to-panel connections should be reviewed with regards to the installation process. Panels may need to be field cut prior to installation to bypass the end conditions of the roll formed panels when a splice plate of panel overlap is desired. Other options may be to provide a vertical accent detail (reveals, flush mount or hairline trims) to accommodate the desired building aesthetics. Consult with you ATAS Technical Team for further explanations or options.

View examples of : [vertical accent details](#)