AISI STANDARD

Errata to North American Specification for the Design of Cold-Formed Steel Structural Members


November 14, 2023

Specification: On page 50, revise Eq. F3.2-1, as follows:

### F3.2 Direct Strength Method

For the Direct Strength Method, the nominal flexural strength [resistance], $M_{n\ell}$, for local buckling shall be determined as follows:

For $\lambda_{\ell} \leq 0.776$

$$M_{n\ell} = \overline{M}_{ne} \frac{M_{ne}}{M_{ne}}$$  \hspace{1cm} (Eq. F3.2-1)

For $\lambda_{\ell} > 0.776$

$$M_{n\ell} = \left[ 1 - 0.15 \left( \frac{M_{cr\ell}}{M_{ne}} \right)^{0.4} \right] \left( \frac{M_{cr\ell}}{M_{ne}} \right)^{0.4} \overline{M}_{ne}$$  \hspace{1cm} (Eq. F3.2-2)

where

$$\lambda_{\ell} = \sqrt{\frac{M_{ne}}{M_{cr\ell}}}$$  \hspace{1cm} (Eq. F3.2-3)

$\overline{M}_{ne}$ = Lesser of $M_{ne}$ and $M_y$

$M_{ne}$ = Nominal flexural strength [resistance] for lateral-torsional buckling as defined in Section F2

$M_y$ = Member yield moment in accordance with Section F2.1

$M_{cr\ell}$ = Critical elastic local buckling moment, determined in accordance with Appendix 2, including the influence of holes if applicable

For members with holes, $M_{cr\ell}$ shall be determined including the influence of holes and and:

$$M_{n\ell} \leq M_{y\text{net}}$$  \hspace{1cm} (Eq. F3.2-4)

where

$M_{y\text{net}}$ = Member yield moment of net cross-section

$$= S_{\text{net}} F_y$$  \hspace{1cm} (Eq. F3.2-5)

where

$S_{\text{net}}$ = Net section modulus referenced to the extreme fiber at first yield

$F_y$ = Yield stress