

Short-classified links achieve shear forces whose values are highly dependent on the cross-sectional area of the body, so that the WF cross-section may achieve a higher shearing force than the tubular link. With an 89% body area of the WF body area, the tubular link also achieves an 89% shear value of the WF link shear force.

The larger rotation angle given on the short link, the shear force values that occur in the WF link decreases (from step 8 to step 11 down by 2.75% of average per step), this is due to local buckling that occurs on WF links. Meanwhile, the shear force values in tubular links are more stable when there is the addition of cyclic rotation angle.

On the Long links, neither WF links nor tubular links could not achieve the nominal shear force shear value. The tubular link only achieves a value of V about 61.81% of its nominal shear force value, whereas the WF link reaches 64.10% of its nominal shear value.

The larger rotation angle is given in the Long Link, the shear force value that occurs in the WF link decreases, this is caused by lateral buckling that occurs in the WF link. Meanwhile, the shear force values in tubular links are more stable when there is the addition of cyclic rotation angle.

On the Intermediate links, both WF links and tubular links, the achieved shear force could not reach nominal shear force shear value. The tubular link only reaches V value 69.16% of its nominal shear force value, whereas the WF 200.150 link reaches 57.55% of the nominal shear value, and the WF 200. 200 link reaches only about 38.77% of the crossed V_n value.

The larger the rotation angle given in the Intermediate Link, the shear force value that occurs in the WF link decreases, this is caused by lateral buckling that occurs in the WF link. Meanwhile, the shear force values in tubular links are more stable when there is the addition of cyclic rotation angle.

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