

Comparison of OMF vs IMF vs SMF

	<u>OMF</u>	<u>IMF</u>	<u>SMF</u>
Deformation Capabilities	Minimal	Limited	Significant
Story Drift Angle	None specified	0.02 radians	0.04 radians
Connection Flexural Strength	1.1RyMp	Performance confirmed by testing per AISC 341, Ch K; connection achieves 80%Mp at story drift angle = 0.02 radians	Performance confirmed by testing per AISC 341, Ch K; connection achieves 80%Mp at story drift angle = 0.04 radians
Connection Shear Strength	V for load combination including overstrength plus shear from application of $E_mh = 2[1.1RyMp]/L_{cf}$	V for load combination including overstrength plus shear from application of $E_mh = 2[1.1RyMp]/L_h$	V for load combination including overstrength plus shear from application of $E_mh = 2[1.1RyMp]/L_h$
Panel Zone Strength	AISC 360, J10.6	AISC 360, J10.6	AISC 360, J10.6 Equations J10-11 & J10-12
Panel Zone Thickness	AISC 360, J10.6 as required	AISC 360, J10.6 as required	$t \geq (dz+wz)/90$

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Continuity Plates	As required by AISC 341, Section E1.6b	Match tested or AISC 358, Section 2.4.4 and E3.6f	Match tested or AISC 358, Section 2.4.4 and E3.6f
Beam-Column Proportions	No requirements	No requirements	$\Sigma M^*_{pc} / \Sigma M^*_{pb} > 1.0$
Width-Thickness Limitations	AISC 360	AISC 341 Section D1.1, Moderately Ductile Member	AISC 341 Section D1.1, Highly Ductile Member
Stability Bracing of Beams	AISC 360	Bracing per AISC 341 for Moderately Ductile Member	Bracing per AISC 341 for Highly Ductile Member
Column Splices	AISC 360	AISC 341 Section D2.5 and E2.6g	AISC 341 Section D2.5 and E3.6g
Protected Zones	Not required	Yes, as governed by connection in AISC 358	Yes, as governed by connection in AISC 358