

Connection Types AISC 358 Summary

<u>Type of Connection</u>	<u>SMF Span/Depth</u>	<u>IMF Span/Depth</u>
Reduced Beam Section (RBS)	7	5
Bolted Unstiffened Extended End-Plate	7	5
Bolted Stiffened Extended End-Plate	7	5
Bolted Flange Plate (BFP)	9	7
Welded Unreinforced Flange-Welded Web (WUF-W)	7	5
Kaiser Bolted Bracket (KBB)	9	9
ConXtech	7	5
SidePlate	4.5	3
Simpson Strong-Tie Strong Frame	No Limits	No Limits
Double Tee	9	9

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<u>Type of Connection</u>	<u>Beam Depth Limit</u>	<u>Beam Weight Limit</u>	<u>Beam tbf</u>	<u>Beam Width Req.</u>
Reduced Beam Section (RBS)	W36x	300 lb/ft	1.75"	None
Bolted Unstiffened Extended End-Plate	Table 6.1, AISC 358	None	1"	None
Bolted Stiffened Extended End-Plate	Table 6.1, AISC 358	None	0.75"	None
Bolted Flange Plate (BFP)	W36x	150 lb/ft	1"	None
Welded Unreinforced Flange-Welded Web (WUF-W)	W36x	150 lb/ft	1"	None
Kaiser Bolted Bracket (KBB)	W33x	130 lb/ft	1"	6" to 10" min based on type of bracket
ConXtech	W18x-W30x	132 lb/ft	1"	12" Max
SidePlate	W40x**	302 lb/ft**	2.5"	Typically 1.5-2" less than column
Simpson Strong-Tie Strong Frame	W16x	None	0.40"	None
Double Tee	W24x	55 lb/ft	0.625"	None

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<u>Type of Connection</u>	<u>Column Depth Limit</u>	<u>Column Weight Limit</u>	<u>Column tbf</u>
Reduced Beam Section (RBS)	W36x	None	None
Bolted Unstiffened Extended End-Plate	W36x	None	None
Bolted Stiffened Extended End-Plate	W36x	None	None
Bolted Flange Plate (BFP)	W36x	None	None
Welded Unreinforced Flange-Welded Web (WUF-W)	W36x	None	None
Kaiser Bolted Bracket (KBB)	W36x	None	None
ConXtech	HSS 16x16 or 16" Built Up Box Column	None	3/8" Min
SidePlate	W44x	None	None
Simpson Strong-Tie Strong Frame	W18x	None	None
Double Tee	W36x	None	None

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<u>Type of Connection</u>	<u>Protected Zone Length</u>	<u>First Lateral Brace</u>
Reduced Beam Section (RBS)	dbeam to end of RBS cut	Near RBS cut, no greater than $d/2$ away
Bolted Unstiffened Extended End-Plate	Lesser Of: dbeam OR $3*bf$ from face of column	Per AISC 341
Bolted Stiffened Extended End-Plate	Lesser Of: dbeam OR $3*bf$ from face of column	Per AISC 341
Bolted Flange Plate (BFP)	Plates and bolted flanges of beam + dbeam	No greater than $1.5d_{beam}$ away from face of column
Welded Unreinforced Flange-Welded Web (WUF-W)	dbeam from face of column	Between dbeam and $1.5d_{beam}$ away from face of column
Kaiser Bolted Bracket (KBB)	Plates and bolted flanges of beam + dbeam	Between dbeam and $1.5d_{beam}$ away from face of column
ConXtech	dbeam to end of RBS cut	Per AISC 341
SidePlate	$0.833*d_{beam}$ past SidePlate**	Per AISC 341 past end of SidePlate
Simpson Strong-Tie Strong Frame	Yield Links, Shear Plate, and portion of beam in contact with them	AISC 360
Double Tee	Plates and bolted flanges of beam + dbeam	Between dbeam and $1.5d_{beam}$ away from farthest bolt