

## Longitudinal Bends

### Suggested Minimal Bend Radius

Grade		Thickness in.	Up to ¼	Over ¼ to ½	Over ½ to 1	Over 1 to 1-5/8	Over 1-5/8 to 2
Imperial	Metric	Thickness mm.	Up to 6	Over 6 to 12	Over 12 to 25	Over 25 to 40	Over 40 to 50
38W	260W		1 ½ t	1 ½ t	2t	3t	-
44W	300W		1 ½ t	2t	3t	4t	-
50W	350W		2 ½ t	2 ½ t	4t	-	-
QT100			3 ½ t	3 ½ t	6t	-	-
AR400			5t	5t	-	-	-
Hardox 400			5t	5t	-	-	-

t= thickness in in. or mm

\* Hot forming is recommended for all thicknesses not showing a value.

\* Since temperature can be a major cause of bend failure, in no case should bending be carried out at a metal temperature below 60°F (15°C)

\* Material of 50 ksi 350 Mpa and higher yield strength will require bending greater bending and hold-down force than lower strength steels and provisions must be made for a greater than usual degree of springback.

\* The cold bending of structural shapes is a most difficult task and the steel producer should be consulted before cold bending of any degree of severity carried out.