

## Curved Hoisting Monorails

Curved hoisting monorails accommodate unique and specific hoisting needs. They can follow simple curves, or compound forms moving different directions with different radii, and tangential straights.

The design radius of curved monorails should always be made as large as is reasonably possible. Ideally the centerline radius should not be smaller than 12-14 times the flange width.

Although forming tighter than this recommendation is possible, the result of the tighter radius is that the flange width can be reduced (sometimes as much as 3/8"). This reduction has the potential to jeopardize the safe and smooth travel of a hoist trolley around the curve.

It is the job of engineering to be aware of this, and to make sure proper trolley selection, adjustment, and inspection are ensured.

Some beams, as they come from the mill, are not suitable for curved monorails if flange widths, overall squareness and uniformity are out of tight tolerances.

We have observed the following conditions in beams as delivered:

- Flange width variance of more than 1/2" over 30'

- Flanges that are not parallel to each other

- Web that is not centered on the flanges

- Differences in flange width of top as compared to bottom

We have had to reject beams as un-formable due to these issues. Please ensure that beams selected for monorails adhere to a high standard of tolerances regarding these areas.

Atlas Industries Ltd will in no way accept any responsibility for any curved monorail hoisting failures that are due to the improper management of the following areas:

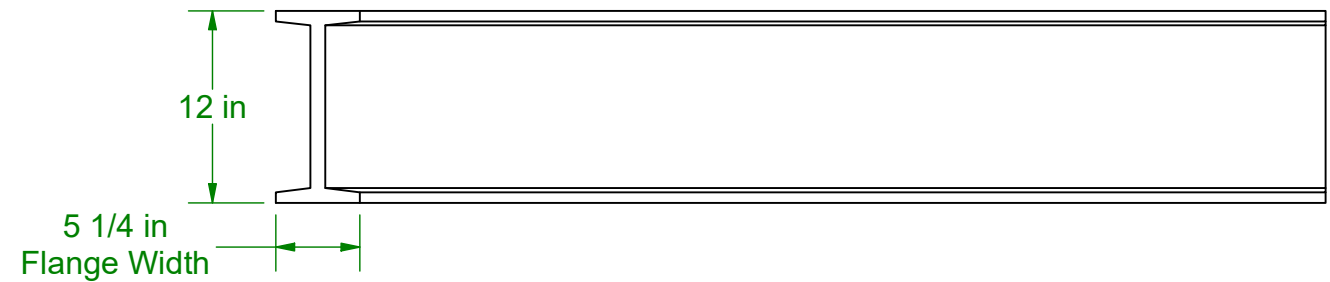
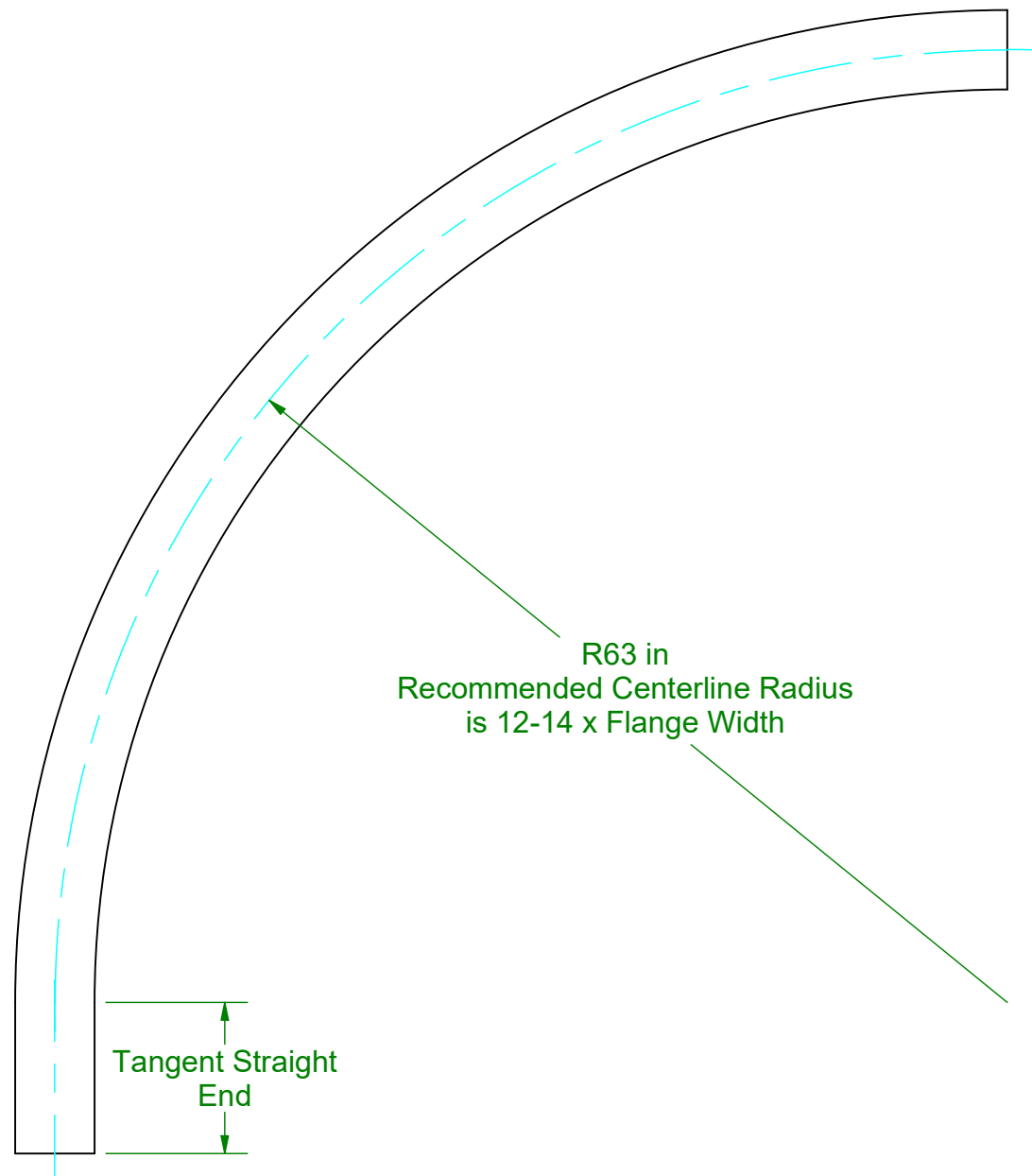
Engineering, design, trolley selection or improper adjustment, lack of safety inspection, or material quality where we have not provided the beam.

Please contact us if you have any questions about the formability of hoisting mono-rail designs.










This is an example of S12X40.8 Monorail.  
The flange width of this monorail is 5.25".  
Therefore, the recommended centerline radius will be at least  
12 X 5.25" which is 63".

N/A

|  |  |     |            |  |                               |                                 |  |                          |
|--|--|-----|------------|--|-------------------------------|---------------------------------|--|--------------------------|
|  <div><div>220 AVE J S<br/>SASKATOON, SK<br/>306-244-1133</div><div><div>Atlas</div><div>INDUSTRIES LTD.</div></div></div> <div>UNLESS SPECIFIED OTHERWISE THIS DRAWING INFORMATION AND SUBJECT MATTER IS THE SOLE AND EXCLUSIVE PROPERTY OF ATLAS INDUSTRIES LTD AND IS NOT TO BE COPIED OR REPRODUCED IN ANY WAY.</div> | 220 AVE J S<br>SASKATOON, SK<br>306-244-1133                                 |     | MM/DD/YYYY |  | TITLE<br><br>Curved Monorails | MATERIAL: Steel, Carbon         |  |                          |
|  | DRAWN:   | MOH | 10/19/2021 |  |                               | DRAWING NUMBER:                 |  | REVISION<br><br><b>A</b> |
|  | APPROVED:  |     |            |  |                               | <b>WORK ORDER-1-A</b>           |  |                          |
|  | DEFAULT TOLERANCES U.N.O.  |     |            |  |                               |                                 |  |                          |
|  | SAW ± <sup>1</sup> / <sub>16</sub> " TORCH ± <sup>1</sup> / <sub>8</sub> "   |     |            |  |                               | <b>CLIENT: Atlas Industries</b> |  |                          |
|  | FAB ± <sup>1</sup> / <sub>16</sub> " ANGULAR ±1°                             |     |            |  |                               |                                 |  |                          |
|  | HOLES ± <sup>1</sup> / <sub>64</sub> " R, ± <sup>1</sup> / <sub>32</sub> " L |     |            |  |                               |                                 |  | SHEET SIZE: <b>B</b>     |

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