

KAWASAKI STEEL TECHNICAL REPORT

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*Special Issue on 'H-Shapes with
Fixed Outer Dimension' and 'Steel Pipe'*

Development of a Process for Manufacturing Rolled H-Shapes with Light-Webs

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Synopsis:

A process for manufacturing light-web rolled H-shape

cool the upper surface of the web and increase the temperature difference; therefore, water cooling should only

heating suffers from a decrease in the rolling efficiency
due to the heating time required and an increase in the

Flat water-cooling

Read of data
Section size, cooling condition,
temperature distribution at RU exit,
chemical composition, etc.

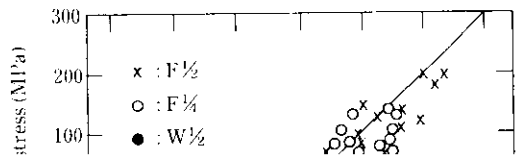


Table 1 Dimension of light-web H-shapes

| | |
|-------------------------------|------------|
| Thickness ratio (t_f/t_w) | ≤ 3.0 |
| Web depth (H) | 400 - 600 |

4 Study on Tandem Rolling in Roughing Universal Mills

web, in addition to the above-mentioned residual stress problem that causes web buckling. Here, a deterioration of the material quality means an increase in the yield

the web reduction in a usual FU rolling is as low as a few percent.

| | | | | |
|------|----|----|----|----|
| Pass | 10 | 14 | 18 | 22 |
|------|----|----|----|----|

ties (H: $550 \times 200 \times 6 \times 16$ mm)

the FU mill.

(3) The web temperature was maintained by tandem