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The first step of the steel beam design is the classification of the section to know whether it is plastic, semi-plastic, compact, slender. T = 16 mm, P y = 275 N/mm 2. ε = (275/P y) 0.5 = 1. Check Flange. b/T = 100 / 16 = 6.25 < 9ε = 9 – Flange is Plastic. Check Web. d/t = 428 / 10 = 42.8 < 80ε = 80 – Web is Plastic.

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