List of Equations:

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| **I SECTION (I-BEAM)** | | |
| Sectional properties of I-beam | | |
| **Parameter** | **Symbol** | **Equation** |
| Cross section area | A | A = 2Bh + Hb |
| Area moment of inertia | Ixx | Ixx = H3b/12 + 2[h3B/12 + hB(H+h)2/4] |
| Area moment of inertia | Iyy | Iyy = b3H/12 + 2(B3h/12) |
| Section modulus | Sxx | Sxx = 2Ixx/(H + 2h) |
| Section modulus | Syy | Syy = 2Iyy/B |
| Center of gravity | xcog | xcog=B/2 |
| Center of gravity | ycog | ycog=H/2 + h |
| Mass | M | M = ALρ |
| Radius of gyration | r | r = (I/A)^0.5 |
| Polar moment of inertia | J | J = Ixx + Iyy |