**Hot Rolled Steel Round**, is widely used for all general fabrication and repairs in industrial maintenance, agricultural implements, transportation equipment, ornamental work, etc. HR Steel Rounds have a slightly grainy textured finish.

* Specifications: ASTM A36  (A36 has a density of 7,800 kg/m3 (0.28 lb/cu in). Young's Modulus of 200 GPa (29,000,000 psi), Poisson's ratio of 0.32, and a shear modulus of 75 GPa (10,900,000 psi)
* AKA: HR round, round bar
* Applications: frame work, braces, supports,  shafts, axels, etc.
* Workability: Easy to Weld, Cut, Form, and Machine
* Mechanical Properties: Brinell = 112, Tensile = 58-80,000 +/-,  Yield = 36,000 +/-

AND

**C1018 Cold Finish Round**, is a rolled steel product with close dimensional accuracy, smooth surface finish, and increased mechanical properties and machinability. C1018 Cold Finish Round is a general purpose low carbon steel with good case hardening qualities and is especially suited for cold forming and bending.

* Specifications: ASTM A108                          <http://en.wikipedia.org/wiki/ASTM_A500>            (not sure what grade it is yet, however)
* AKA: Cold Roll Round, CRS Round, CF Round
* Applications: shafts, pins, axels, dowels, slides, fixtures, etc.
* Workability: Easy to Weld, Cut, Form and Machine.
* Mechanical Properties: Brinell = 126, Tensile = 64K +/-,  Yield = 54K +/-

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