



## Austenitic Stainless Steels 18-8 / type 304

### Cold working characteristics

The standard austenitic stainless steels 18%Cr - 8% Ni (type 304) are not ferromagnetic in the annealed state: thus they do not have a “magnetic response” to a magnet.

During cold working, these steels exhibit a strong “strain hardening” of their structure which results in high tensile strengths with still significant residual elongation potential. During cold deformation, the strain hardening is generally accompanied by the appearance of a small proportion of “strain induced martensite“, which is a ferromagnetic component: hence the steel then shows a slight “magnetic response”. Due to that same mechanism, a weak magnetism can also result from the “skin pass” in certain instances.

This microstructural phenomenon has no bearing nor influence on the basic properties of austenitic stainless steels, particularly their corrosion resistance.

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