

Stainless Steel Designations

Austenitic Cr-Ni Stainless Steels	Characteristics
301	Cr and Ni lower for more work hardening
302	Basic type, 18% Cr + 8% Ni
302B	Si higher for more scaling resistance
303	P and S added for easier machining
303Se	Se added to improve machinability
304	C lower to avoid carbide precipitation
304L	C lower for welding
305	Ni higher for less work hardening
308	Cr & Ni higher, C low for more corrosion/scaling resistance
309	Cr & Ni higher for more corrosion/scaling resistance than 308
309CT	Cb and Ta added to avoid carbide precipitation
309S	C lower to avoid carbide precipitation
310	Cr and Ni highest to increase scaling resistance
314	Si higher to increase scaling resistance
316	Mo added for more corrosion resistance
316L	C lower for welding
317	Mo higher for more corrosion resistance & greater strength at higher temperatures
318	Cb and Ta added to avoid carbide precipitation
321	Ti added to avoid carbide precipitation
347	Cb and Ta added to avoid carbide precipitation
347Se	Se added to improve machinability
348	Similar to 347, but low tantalum content (0.1%)
384	Ni higher than 305 for severe cold heading
385	Similar to 384, but lower Cr and Ni

Austenitic Cr-Ni-Mn Stainless Steels	Characteristics
201	Cr and Ni lower for more work hardening
202	Basic type, 18% Cr + 5% Ni + 8% Mn
204	C lower to avoid carbide precipitation
204L	C lower for welding application

Martensitic (Cr) Stainless Steels	Characteristics
403	12% Cr adjusted for special mechanical properties
410	Basic type, 12% Cr
414	Ni added to increase corrosion resistance and mechanical properties
416	P and S added for easier machining
416Se	Se added to improve machinability
418Spec	W added to improve high-temperature properties
420	C higher for cutting purposes
420F	P and S added for easier machining
431	Cr higher and Ni added for better corrosion resistance and mechanical properties
440A	C higher for cutting applications
440B	C higher than "A" for cutting applications
440C	C higher than "B" for cutting applications
440Se	Se added for easier machining

Ferritic (Cr) Stainless Steel	Characteristics
405	Al added to 12% Cr to prevent hardening
430	Basic type, 17% Cr
430F	P and S added for easier machining
430Ti	Titanium stabilized
442	Cr higher to increase scaling resistance
446	Cr much higher for improved scaling resistance