GFI Stainless

CHEMICAL ANALYSES

STAINLESS STEEL WROUGHT ALLOYS

°Felker supplies ELC grades 304L and 316L standard.

°Other alloys including 317L available on request.

TYPE	UNS Designation	ASTM Mat'l Spec	Carbon % Max.	Manganese % Max.	Phosphorus % Max.	Sulfur % Max.	Silicon % Max.	MolybDenum %	Chronium %	Nickel %	other elements
304	S30400	A240	.08	2.00	.045	.030	1.00	–	18.00-20.00	8.0-10.50	N.10 max
304L	S30403	A240	.030	2.00	.045	.030	1.00	–	18.00-20.00	8.0-12.0	N.10 max
304H	S30409	A240	.04-.10	2.00	.045	.030	1.00	–	18.00-20.00	8.0-10.50	–
309S	S30908	A240	.08	2.00	.045	.030	1.00	–	22.00-24.00	12.0-15.0	–
310S	S31008	A240	.08	2.00	.045	.030	1.00	–	24.00-26.00	19.0-22.0	–
316	S31600	A240	.08	2.00	.045	.030	1.00	2.00-3.00	16.00-18.00	10.0-14.0	N.10 max
316L	S31603	A240	.030	2.00	.045	.030	1.00	2.00-3.00	16.00-18.00	10.0-14.0	N.10 max
316H	S31609	A240	.04-.10	2.00	.045	.030	1.00	2.00-3.00	16.00-18.00	10.0-14.0	–
317	S31700	A240	.08	2.00	.045	.030	1.00	3.00-4.00	18.00-20.00	11.0-15.0	N.10 max
317L	S31703	A240	.030	2.00	.045	.030	1.00	3.00-4.00	18.00-20.00	11.0-15.0	N.10 max
321	S32100	A240	.08	2.00	.045	.030	1.00	–	17.00-19.00	9.0-12.0	Ti=5xC to .70
321H	S32109	A240	.04-.10	2.00	.045	.030	1.00	–	17.00-19.00	9.0-12.0	Ti=5xC to .70
347	S34700	A240	.08	2.00	.045	.030	1.00	–	17.00-19.00	9.0-12.0	Cb+ta=10xc to 1.10
347H	S34709	A240	.04-.10	2.00	.045	.030	1.00	–	17.00-19.00	9.0-12.0	Cb+ta=10xc to 1.10

STAINLESS STEEL CAST ALLOYS

ACI Type	Wrought equivalent	carbon % max.	Maganese % max.	Phosphorus % max.	Sulfer % max.	Silicon % max.	Chronium %	Nickel %	Other Elements %
CF8	304	.08	1.50	.040	.040	2.00	18.0-21.0	8.0-11.0	Mo .50 max
CF3	304L	.03	1.50	.040	.040	2.00	17.0-21.0	8.0-12.0	Mo .50 max
CH20	309	.20	1.50	.040	.040	2.00	22.0-26.0	12.0-15.0	Mo .50 max
CK20	310	.20	1.50	.040	.040	1.75	23.0-27.0	19.0-22.0	Mo .50 max
CF8M	316	.08	1.50	.040	.040	1.50	18.0-21.0	9.0-12.0	Mo 2.0-3.0
CF3M	316L	.03	1.50	.040	.040	1.50	17.0-21.0	9.0-13.0	Mo 2.0-3.0
CG8M	317	.08	1.50	.040	.040	1.50	18.0-21.0	9.0-13.0	Mo 2.0-3.0
CG3M	317L	.03	1.50	.040	.040	1.50	18.0-21.0	9.0-13.0	Mo 2.0-3.0
CF8C	347	0.08	1.50	.040	.040	2.00	18.0-21.0	9.0-12.0	–

TYPICAL PROPERTIES OF TYPE 304L AND 316L STAINLESS STEEL

Mechanical Properties:

Ref: ASME Section II, Part A

Design Guidelines for the selection and use of Stainless Steel, A.I.S.I

YIELD STRENGTH		TENSILE STRENGTH		ELONGATION		MODULAS OF ELASTICITY		ROCKWELL B HARDNES (MAX)	IMPACT VALUE MINIMUM	POISSION'S RATIO
NOMINAL	MINIMUM	NOMINAL	MINIMUM	NOMINAL	MINIMUM	TENSION	TORSION			
39.0-42.0 PSI	25.0 PSI	81.0 PSI	7.0 PSI	50.0/55.0 (% IN 2")	40.0	28,000 PSI	12,500PSI	88-95	80 ft. - lb.	0.29