

# FUTURE ALLOYS

# ALLOY 310S

SPECIFICATIONS	UNS S31008	ASTM A-240	ASME SA-240																															
CHEMICAL COMPOSITION %	MIN	<table border="1"> <thead> <tr> <th>NI</th> <th>CR</th> <th>MO</th> <th>MN</th> <th>SI</th> <th>C</th> <th>N</th> <th>S</th> <th>P</th> <th>FE</th> </tr> </thead> <tbody> <tr> <td>19.0</td> <td>24.0</td> <td>---</td> <td>---</td> <td>---</td> <td>---</td> <td>---</td> <td>---</td> <td>---</td> <td>---</td> </tr> <tr> <td>MAX</td> <td>22.0</td> <td>26.0</td> <td>---</td> <td>2.0</td> <td>1.5</td> <td>0.08</td> <td>---</td> <td>0.03</td> <td>0.045</td> <td>balance</td> </tr> </tbody> </table>	NI	CR	MO	MN	SI	C	N	S	P	FE	19.0	24.0	---	---	---	---	---	---	---	---	MAX	22.0	26.0	---	2.0	1.5	0.08	---	0.03	0.045	balance	
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PHYSICAL PROPERTIES	POISSON'S RATIO	MELTING RANGE		DENSITY 0.29 lb/in <sup>3</sup>	ELECTRICAL RESISTIVITY 78.0 microhm-cm. at 68° F																													
	TEMPATURE, °F																																	
	COEFFICIENT OF THERMAL EXPANSION IN/IN °F x 10 <sup>-6</sup>																																	
	THERMAL CONDUCTIVITY Bru · FT/FT <sup>2</sup> · hr · °F																																	
	MODULAS OF ELASTICITY DYNAMIC, psi x 10 <sup>6</sup>		29		---		---		---																									
MECHANICAL PROPERTIES	TENSILE STRENGTH 90.5 ksi			ELONGATION % 42.6																														
	0.2% YEILD STRENGTH 45.6 ksi			HARDNESS MAX, Bhn																														
APPLICATIONS	Heat treating, Chemical processing, Food processing industry																																	