

## ASTM A 194M 8R

# STAINLESS STEEL

NUT MATERIAL FOR HIGH TEMPERATURE SERVICE

ASTM A 194M 8R is a very good corrosion resistant austenitic steel and strength properties. It maintains strength at high temperatures, even sub-zero and when welded. Very low magnetic permeability. Non-magnetic even after cold work hardening. ASTM A 194M 8R have Excellent resistance to atmosphere and to wide variety of salts, organic acids and foodstuffs. Moderate resistance to weak solutions of reducing acids. Superior to Cr-Mo grades in halides and seawater. It is impervious to intergranular corrosion.

### Chemical Properties

C	Si	Mn	P	S	Cr	Mo	Ni	V	N	Cb+Ta
0.06 Max	1.00 Max	4.0-6.0	0.045 Max	0.030 Max	20.5-23.5	1.50-3.00	11.5-13.5	0.10-0.30	0.20-0.40	0.10-0.30

### Mechanical Properties

#### Proof Load Using Threaded Mandrel- METRIC (kN)

#### Hardness

TYPE	M6	M8	M10	M12	M14	M16	BHN	HRB	HRC
HEAVY HEX	11.1	20.1	31.9	46.4	63.3	86.4		Min	Max
HEX	10.4	18.8	29.9	43.4	59.2	80.9	183-271	88	25

TYPE	M20	M22	M24	M27	M30	M36
HEAVY HEX	134.8	166.7	194.2	252.5	308.6	449.4
HEX	126.2	156	181.8	236.4	288.9	420.8

### Heat Treatment

Carbide Solution Treated.

### Equivalent Designation

UNS S20910

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