

Recommendable Materials According Service Conditions

Service	Service conditions						Recommendable material	
	Temperature						Studbolt	Nut
	°F			°C			ASTM	ASTM
High pressure & high temperature	32°F	~	1148°F	0°C	~	620°C	A193 B5	A194 Gr.3
	32°F	~	896°F	0°C	~	480°C	A193 B6	A194 Gr.6
	-58°F	~	842°F	-50°C	~	450°C	A193 B7	A194 Gr.2H
	-58°F	~	1022°F	-50°C	~	550°C	A193 B16	A194 Gr.4 or Gr.7
		~	1292°F		~	700°C	A453 660	A194 Gr.8T or Gr.8C
High corrosive & high temperature	1104°F	~	1472°F	540°C	~	800°C	A193 B8	A194 Gr.8
	1104°F	~	1472°F	540°C	~	800°C	A193 B8M	A194 Gr.8M
	1104°F	~	1472°F	540°C	~	800°C	A193 B8T	A194 Gr.8T
High pressure & low temperature	-148°F	~	-58°F	-100°C	~	-50°C	A320 L7	A194 Gr.4 or Gr.7
	-148°F	~	-58°F	-100°C	~	-50°C	A320 L43	A194 Gr.7
Low temperature	-418°F	~	-148°F	-250°C	~	-100°C	A320 B8	A194 Gr.8
	-328°F	~	-148°F	-200°C	~	-100°C	A320 B8M	A194 Gr.8M
	-328°F	~	-148°F	-200°C	~	-100°C	A320 B8T	A194 Gr.8T