

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