

### Materiais X Temperatura de utilização

Design Temperature, °F		Material	Plate	Pipe	Forgings	Fittings	Bolting
Cryogenic	-425 to -321	Stainless steel	SA-240-304, 304L, 347, 316, 316L	SA-312-304, 304L, 347, 316, 316L	SA-182-304, 304L, 347, 316, 316L	SA-403-304, 304L, 347, 316, 316L	SA-320-B8 with SA-194-8
	-320 to -151	9 nickel	SA-353	SA-333-8	SA-522-1	SA-420-WPL8	
Low temperature	-150 to -76	3½ nickel	SA-203-D	SA-333-3	SA-350-LF63	SA-420-WPL3	SA-320-L7 with SA-194-4
	-75 to -51		SA-203-A				
	-50 to -21	Carbon steel	SA-516-55, 60 to SA-20	SA-333-6	SA-350-LF2	SA-420-WPL6	
	-20 to 4		SA-516-All	SA-333-1 or 6			
	5 to 32		SA-285-C				
Intermediate	33 to 60 61 to 775		SA-516-All SA-515-All SA-455-II	SA-53-B SA-106-B	SA-105 SA-181-60,70	SA-234-WPB	SA-193-B7 with SA-194-2H
	Elevated Temperature	776 to 875	C-½Mo	SA-204-B	SA-335-P1	SA-182-F1	
876 to 1000		1Cr-½Mo	SA-387-12-1	SA-335-P12	SA-182-F12	SA-234-WP12	
		1Cr-½Mo	SA-387-11-2	SA-335-P11	SA-182-F11	SA-234-WP11	
1001 to 1100		2¼Cr-1Mo	SA-387-22-1	SA-335-P22	SA-182-F22	SA-234-WP22	with SA-193-B5 SA-194-3
1101 to 1500		Stainless steel	SA-240-347H	SA-312-347H	SA-182-347H	SA-403-347H	SA-193-BB with SA-194-B
	Incoloy	SB-424	SB-423	SB-425	SB-366		
Above 1500	Inconel	SB-443	SB-444	SB-446	SB-366		

Material Selection Guide [Moss, cited in Bednar 1991]