

Spec BS3146 PT2 1975	Grade	Type of Steel	Composition % MAX							UTS MIN N/mm2	0.2% PS MIN N/mm2	Hardness MIN HB	Comparable Specifications				Typical Applications
			C	Si	Mn	Ni	Cr	Mo	Co				EN	AISI	Werk stoff	BS 970	
ANC 1	A	13% Cr 2% Ni Martensitic Steel	0.15	1.2	1	1	13.5			540	340*	152	56A	403	1.401	410 S21	Gas, chemical and petroleum industries; high ductility engineering fittings, golf club heads.
	B		0.2	1.2	1	1	13.5			620	415*	183	56B	420	1.403	420 S29	Heat resistant parts not subject to high stresses
	C		0.3	1.2	1	1	13.5			695	435*	201	56C	420		420 S37	Cutting blades, pump and steam turbine parts.
ANC 2		18% Cr 2% Ni Martensitic steel	0.3	1	1	3	20			850	630*	248	57	431	1.406	431 S29	Pump and valve par; highly stressed aircraft and general fittings.
ANC 3	A	18% Cr 10% Ni Austenitic steels	0.12	2	2	12	20			460	200		58A	304	1.431	302 S25	Chemical, pharmaceutical textile, diary and oil industries e.g. pump and valve parts.
	B		0.12	2	2	12	20			460	200		58F	347	1.455	347 S17	Exhaust systems and marine fittings to a certain extent. Corrosion/acid resistant parts not heat-treated after welding
ANC 4	A	18% Cr 11% i 3% Mo Austenitic steels	0.08	1.5	2	14	20	4		500	210*		58J	317	1.441	317 S16	In the chemical and processing industries e.g. valves and pumps handling acids at high temperatures and also chlorides and salts
	B		0.08	1.5	2	10 min	20	3		500	210*		58H	316	1.441	316 S16	
	C		0.12	1.5	2	10 min	20	3		500	210*		58H	318	1.458	320 S17	
ANC 5	A	Ni - Cr steels	0.5	3	2	22	27							310	1.484	310 S24	Furnace parts, salt and lead baths.
	B		0.5	3	2	46	25							330	1.487		
	C		0.8	3	2	65	20								2.487		

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ANC 6	A	Cr – Ni Steels	0.3	2	1	15	25			460				309	1.484		Heat treatment parts and superheaters, welding fixtures. High temperature castings. Nozzle guide vanes for gas turbines.
	B		0.3	2	1	15	25			460			55				
	C		0.15	2	1	18	25			460							
ANC 8		Ni-base, 20% Cr, 0.4% Ti alloy	0.15	1	1	rm	22							2.463	~	Furnace parts	
ANC 9		Ni – base, 20% Cr, 2.5% Ti, 1.2% Al alloy	0.1	1	1	rm	22		2					2.463	~	Diesel engine pre-combustion chambers, gas turbine parts.	
ANC 10		Ni-base, 20% Cr, 16.5% Co, 2.4, Ti 1.3% Al alloy	0.13	1	1	rm	21		18					2.463	~	Turbine and turbocharger rotors	
ANC 11		Ni-base, 21% Cr; 10% Co, 10% Mo alloy	0.4	0.45	0.5	rm	23	11	11							Gas Turbine stator blades	
ANC 13		Co-base, 26% Cr, 10% Ni, 7% W alloy	0.55	1	1	11.5	26.5		rm					2.497		Impellers, hot metal dies and valve components.	
ANC 14		Co-base, 27% Cr, 5.5% Mo, 2.7% Ni alloy	0.3	1	1	3.75	29	6	rm	650	450			2.498		Impellers, gas turbine components and valve components for high temperature service.	
ANC 15		Ni-base, 28% Mo alloy	0.12	1.2	1.2	rm		30						2.448		Chemical and petroleum plant components and pickling equipment	
ANC 16		Ni-base, 17% Mo, 16% Cr, 4.5% W alloy	0.15	1.2	1.2	rm	17.5	18						2.454		Chemical and petroleum plant components	
ANC 17		Ni-base, 9% Si, 3% Cu alloy	0.12	10	1.2	rm								2.457		Chemical and petroleum plant components	

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ANC 18	A	Ni-base, 31% Cu, Si alloys	0.3	1.5	1.5	rm									2.4360*		Power plant, marine equipment, chemical and process industry components
	B		0.15	3	1.5	rm											
	C		0.15	4.5	1.5	rm											
ANC 19		Ni-base, 20% Cr, 7% Nb, 6% Mo, 3% Fe, 3% W alloy	0.06	0.4	0.5	rm	21	6.5	2								Diesel engine combustion chamber inserts
ANC 20	A	14% Cr, 5% Ni, 2% Cu, 1% Mo steels	0.07	2	1	6	15.5	2.5	950	800							Marine applications where high strength and good corrosion resistance are required.
	B		0.07	2	1	6	15.5	2.5	1200	950							
ANC 21		26% Cr, 5% Ni, 2% Cu, 2% Mo steel	0.1	0.8	0.75	6	27	2.25		700	500						Marine applications
ANC 22	A	16% Cr, 4% Ni, 3% Cu	0.1	1	0.7	4.6	17		3.5	1230	1030	40		17/4PH		1.4549	Precipitation hardening steel with good mechanical strength, such as valve seats
	B									1030	895	34					
	C									900	830	32					

For reference purposes only.
Please note, Dean Group International do not guarantee the above information.

Where indicated thus, 0.2% Proof Stress values are for information only
~ Registered trademark and/or proprietary alloy. Similar material.
* Residuals