

BECKWITH

METAL GRADES



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Beckwith Iron & Steel has extensive knowledge and experience in the production of castings in a wide range of ferrous and nickel alloys for all applications.

BIS Casting Alloys to Australian and American Casting Specifications with Wrought Equivalent

CAST IRONS

Production of cast irons includes Grey Cast to AS1830, Ductile Cast Irons to AS1831, Austenitic Cast Irons to AS1833 and Abrasion Resistant Cast Irons to AS2027.

These specifications cover general engineering and severe service applications.

CARBON STEELS

General and special purpose carbon steels are produced to AS2074 and international specifications suitable for low temperature applications or surface hardening for greater wear resistance.

LOW ALLOY STEELS

Steels primarily alloyed with manganese, nickel, chromium and molybdenum.

Heat treated to meet client requirements, be that high strength, wear and abrasion resistance, low temperature impact properties or high temperature creep resistance.

HIGH ALLOY STEELS including:

Austenitic Manganese Steels for their superior work for hardening properties.

Austenitic Stainless Steels corrosion resistant, reduced magnetic properties, suitable for aggressive environments and severe service applications.

Duplex Stainless Steels provide higher strength than the austenitic grades and improved corrosion resistance especially in chloride environments.

Martensitic Stainless Steels are the highest strength range of stainless steels providing improved wear resistance.

Heat Resistant Steels the high nickel and chromium alloys are adapted for various high temperature environments up to 1150°C.

NICKEL BASED ALLOYS

Resist the most severe caustic and corrosive environments.

Alloy Type	BIS Grade	UNS Numbers	Australian Standard	ASTM Standard	Wrought Equivalent
GREY CAST IRON	G14	-	AS 1830 ALL GRADES	ASTM A48 ALL GRADES	-
DUCTILE CAST IRON	I10	-	AS 1831 ALL GRADES	ASTM A536 ALL GRADES	-
AUSTENITIC CAST IRON	NIR 15-6-3	-	AS 1833 15-6-3	ASTM A436 Type 1	-
AUSTENITIC DUCTILE CAST IRON	NiR D2	-	AS 1833 S - Ni Cr 20 2	ASTM A439 Type D2	-
ABRASION RESISTANT CAST IRON	W1A	-	AS 2027 NiCr1-550	ASTM A532 Class I Type A	-
	W1D	-	AS 2027 Ni Cr4-600	ASTM A532 Class I Type D	-
	W2B	-	AS 2027-CrMo 15 3	ASTM A532 Class II Type B	-
	W2D	-	AS 2027-Cr Mo 20 2 1	ASTM A532 Class II Type D	-
	W2E	-	AS 2027-Cr Mo 20 1	ASTM A532 Class II Type E	-
	W3A	-	AS 2027-Cr27	ASTM A532 Class III Type A	-
	W3A-LC	-	AS 2027-Cr27-LC	ASTM A532 Class III Type A	-
CARBON STEEL WITH HIGH MAGNETIC PERMEABILITY	M15	-	AS 2074-C2	-	1015
CARBON STEELS FOR GENERAL, PRESSURE & SUITABLE FOR SURFACE HARDENING PURPOSES	M20	J02502 J03002 J02503	AS 2074-C3, C7A-1 AS 2074-C4-1, C7A-2 AS 2074-C4-2	ASTM A216 WCA, A352-LCA ASTM A216 WCB, A352-LCB ASTM A216 WCC, A352-LCC	1020
	M30	D50400	AS 2074-C7A-3	-	1030
	M40	-	AS 2074-C5	ASTM A148 80-40	1040
	M45	D50600	AS 2074-C6	ASTM A148 90-60	1045
	LOW ALLOY STEEL (1.5% MANGANESE)	P22 P30	- -	AS 2074-L1A AS 2074-L1B	- -
ABRASION RESISTANT CHROMIUM STEELS	AR50	-	AS 2074-L2A	-	-
	AR60	-	AS 2074-L2B	-	-
	AR85	-	AS 2074-L2C	-	-
FERRITIC STEEL FOR USE AT LOW TEMPERATURE	N3	J31550	AS 2074-L3A	ASTM A352-LC3	LF3
LOW ALLOY STEEL FOR PRESSURE-CONTAINING PARTS SUITABLE FOR HIGH-TEMPERATURE SERVICE	CM5E	J42045	AS 2074-L5E	ASTM A217-C5	-
	CM6	J12072	-	ASTM A217-WC6	-
	CM9	J21890	AS 2074-L5C	ASTM A217-WC9	-
	NCM16	J12082	ASTM A217-WC4	ASTM A217-WC4	-
	CM5B	-	AS 2074-L5B	-	-
	CM5D	-	AS 2074-L5D	-	-
	CM5H	-	AS 2074-L5H	-	-
LOW ALLOY STEEL FOR HIGHER TENSILE STRENGTH	CM3520	D51350 D50850 D50950 D50600	AS 2074-L6C AS 2074-L6A AS 2074-L6B AS 2074-L6	ASTM A148 150-135 ASTM A148 105-85 ASTM A148 115-95 ASTM A148 90-60	- - - -
	CM30	J13502	-	ASTM A958-SC 4130	4130
	CM40	J14045	-	ASTM A958-SC 4140	4140
	NCM20L	J12095	-	ASTM A958-SC 8620	8620
LOW ALLOY STEEL CASTINGS, CHEMICAL REQUIREMENTS SIMILAR TO STANDARD WROUGHT GRADE	NCM28	J23259	-	ASTM A958-SC 4330	4330
	NCM30	J13095	-	ASTM A958-SC 8630	8630
	NCM40	J24053	-	ASTM A958-SC 4340	4340
	AUSTENITIC MANGANESE STEELS	E10 E20 E30	- - -	AS 2074-H1A AS 2074-H1B AS 2074-H1C	ASTM A128 A ASTM A128 C ASTM A128 E-1
AUSTENITIC STAINLESS STEELS	HR8E1	J94202	AS 2074-H8E-1	ASTM A351-CK20	310H
	SA5A	J92600	AS 2074-H5A	ASTM A351-CF8	304
	SA5B	J92701	AS 2074-H5B	ASTM A743-CF16F	304H
	SA5C	J92710	AS 2074-H5C	ASTM A351-CF8C	347
	SA5D	J92700	AS 2074-H5D	ASTM A351-CF3	304L
	SA10	J92972	AS 2074-H6A	ASTM A351-CF10SMnN	-
	SA6A	J93000	AS 2074-H6A	ASTM A351-CG6M	317
	SA6B	J92900	AS 2074-H6B	ASTM A351-CF8M	316
	SA6C	J92800	AS 2074-H6C	ASTM A351-CF8C	-
	SA6D	J92800	AS 2074-H6D	ASTM A351-CF3M	316L
	SA9A	N08007	AS 2074-H9A	ASTM A351-CN7M	Alloy 20
	SA6Mn	J93790	-	ASTM A351-CG6MMn	FXM-19
DUPLEX STAINLESS STEEL	SD1B	J93372	-	ASTM A890-1B	-
	SD1C	J93373	-	ASTM A890-1C	-
	SD2A	J93345	-	ASTM A890-2A	-
	SD3A	J93371	-	ASTM A890-3A	F61
	SD4A	J92205	AS 2074-H10C	ASTM A890-4A	F51
	SD5A	J93404	AS2074-H10D	ASTM A890-5A	F53
	SD6A	J93380	-	ASTM A890-6A	F54
MARTENSITIC STAINLESS STEELS	SM3A	J91150	AS 2074-H3A, H3B	ASTM A743-CA15	410
	SM3C	-	AS 2074-H3C	ASTM A743-CA6NM	F6NM
	SM40	J91153	-	ASTM A743-CA40	-
	SMCB6	J91804	-	ASTM A743-CB6	-
	SM7A	J92180	AS 2074-H7A	ASTM A747-CB7Cu 1	630
HIGH ALLOY STEEL FOR USE AT HIGH TEMPERATURE	HR8B	-	AS 2074-H8B	ASTM A297-HH	309
	HR8E1	-	AS 2074-H8E-1	ASTM A351-CK20	310H
	HR8E2	-	AS 2074-H8E-2	ASTM A297-HK	310
	HR8G	-	AS 2074-H8G	ASTM A297-HT	330
	HRHX	-	-	ASTM A297-HX	-
NICKEL BASED ALLOYS	CX2MW	N26022	-	ASTM A494-CX2MW	Hastelloy C22
	CZ100	N02100	-	ASTM A494-CZ100	Ni200
	HAST C	N30107	-	ASTM A494-CW6M	INCOLOY C-276
	C-276	N30002	-	ASTM A494-CW12MW	Hastelloy C276
	INC601	N06601	-	INCOLOY 601	INCOLOY 601
	INC625	N26625	-	ASTM A494-CW6MC	INCOLOY 625
	INC825	N08825	-	ASTM A494-CU5MCuC	INCOLOY 825
	Monel 400	N24135 N24020	- -	ASTM A494-M35-1 ASTM A494-M35-2	Monel 400