

www.corusgroup.com

Care has been taken to ensure that the contents of this publication are accurate, but Corus UK Limited and its subsidiary companies do not accept responsibility for errors or for information which is found to be misleading. Suggestions for or descriptions of the end use or application of products or methods of working are for information only and Corus UK Limited and its subsidiaries accept no liability in respect thereof. Before using products supplied or manufactured by Corus UK Limited and its subsidiaries the customer should satisfy himself of their suitability.

Copyright 2001
Corus

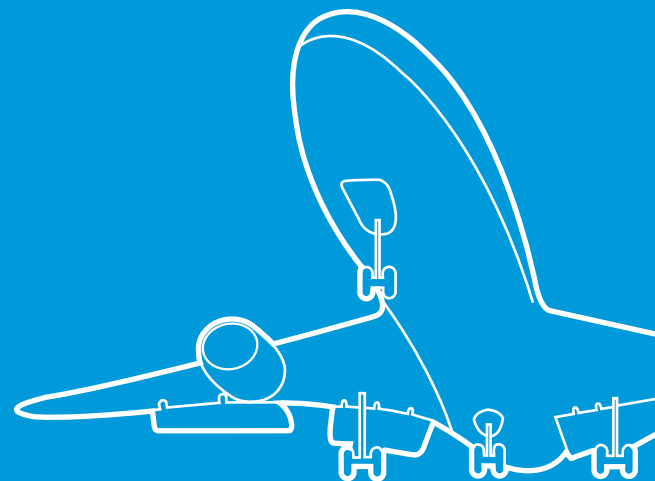
Corus Engineering Steels
Stocksbridge
Sheffield
S36 2JA
United Kingdom
T +44 (0) 114 288 2361
F +44 (0) 114 288 5033
www.corusengineeringsteels.com

English language version

CES05:2000:UK:05/2001

Pure specialisation

Steels for the Aerospace Industry



Introduction

Contents

1	Introduction
2	Quality Approvals
3	Products and Services
4	British Specifications
12	USA Specifications
16	French Specifications
18	German Specifications
20	Sales Contacts

Corus Engineering Steels Aerospace

The high integrity specialist steels produced in our mill, and held at our service centre, are used in major commercial and military aerospace projects around the world. A sincere commitment to quality and product excellence is underpinned by our continued investment in new technology and Total Quality Systems.

Working together, from project inception through to completion, we can advise and support our customers, helping keep their costs to a minimum and output maximised.

Efficient, reliable supply is just as important as the quality of the materials. In addition, to the first class products we manufacture, we deliver flexible supply solutions that can be adapted to meet the needs of our customers.

We have been in the steel business for more than 100 years and have been actively producing specialist aerospace steels for nearly half a century. In supporting aerospace manufacturers no one is better equipped or more experienced than Corus.

Quality approvals

The quality assurance procedures of Corus Engineering Steels have been assessed and approved by over 100 component and equipment manufacturers, end users and national bodies.

The relevant aerospace approvals include:

Alenia
Alliant Techsystems
Allied Signal
AP Precision Hydraulics
Atlantic Research
Bell Helicopters Textron
BF Goodrich
Boeing Commercial Airplane
Bombardier Shorts Brothers
British Aerospace
Civil Aviation Authority
Dowty Aerospace
Fafnir Bearings
FAG Aircraft
Fiat Avio
Finmeccanica / Agusta
General Dynamics
GKN Westland
Hispano Suiza
Liebherr Aerospace Friedrichshafen
Liebherr Aerospace Lindenberg
Lockheed Martin
Lucas Aerospace
Magnaghi
Menasco Aerospace
Messier-Dowty
Microturbo
MOD
NSK - RHP
Pratt & Whitney Canada
Pratt & Whitney USA
Ratier Figeac
Rolls Royce
Smiths Industries
SNECMA
Turbomeca
US Military

Products and services

Corus Engineering Steels offers customers a

Total Material Provisioning Service.

A specialist manufacturing capability for single melted, VAR and ESR remelted steels.

A comprehensive inventory of materials to International Aerospace specifications in addition to those produced in-house.

JIT, Customised and Purchasing Service Provider programmes.

Deep hole boring and machining capabilities giving a highly competitive materials and processing source for first stage machined products.

Integrated supply, with a single point of contact, for multi product/volume enquiries OR direct access to either mill or service centre personnel.

Service Centre

Provides stockholding, cutting to close tolerance, short or deep hole boring and first stage machining services in

Alloy Steels - Stainless Steels - Maraging Steels - Precipitation Hardening Steels
Nickel Alloys - Aluminium Alloys - Titanium Alloys

Rounds - Squares - Rectangles - Plate - Sheet - Tube - Bored Bar
(sizes on application)

Mill product range

			mm
Rolled Squares			50 - 255
Rolled Rounds			20 - 255
Rolled Rectangular Sections			by request
Forged Products			by request
Remelted Ingots	VAR	(dia.)	660, 760
	ESR	(sq.)	560
		(dia.)	635

Specifications

The following specifications are only an indication of the comprehensive range we can supply or manufacture. In addition, we produce and stock steels to customer specifications.

Specifications are related by nominal analysis only. The reference group may include both single and remelted grades to various mechanical property specifications achieved through differing heat treatments.

British Specifications

Nominal chemical analysis %

'S' Specs	VAR	ESR	Single Melted	Related Specifications	C	Mn	Cr	Mo	Ni	V	Nb	Other Elements
S1	-	-	✓	S21	0.20	0.70						
S14	-	-	✓	W1.1144	0.13	0.50						
S15	-	-	✓	MSRR 6004	0.12	0.55			3.00			
S21	-	-	✓	S1	0.20	0.70						
S28	-	-	✓		0.30	0.50	1.20	0.30	4.00			
S62	-	-	✓	W1.4014	0.20		13.00					
S80	-	✓	✓	Z15CN17.03, W1.4044	0.16		16.50		2.40			
S82	✓	✓	✓	S156, MSRR 6009/10/55, 16NCD17, W1.6722/3, ZFNL 9206	0.16	0.40	1.20	0.22	4.10			
S92	-	-	✓	W1.1169	0.22	1.50						
S93	-	-	✓	W1.1157	0.40	0.85						
S95	-	-	✓	S119, S139, MSRR 6017/36	0.40	0.60	1.25	0.30	1.40			
S97	-	✓	✓	S140, S153, S154, MSRR 6043	0.32	0.55	0.70	0.50	2.50			
S98 & S99	✓	-	✓	W1.6745	0.40	0.60	0.70	0.50	2.50			
S106	-	-	✓	MSRR 6001/2/34, MSRR 6907	0.25	0.50	3.25	0.60				
S114	-	-	✓		0.36	1.50		0.27				
S119	-	-	✓	S95, S139, MSRR 6017/36	0.40	0.60	1.25	0.30	1.40			
S129	-	-	✓	AMS 5645	0.05		18.00		9.50			0.45% Ti
S130	-	-	✓	MSRR 6522/3/4/5, AMS 5646, W1.4546	0.05		17.50		9.60		0.35	
S132 & S134	-	-	✓	MSRR 6011/2, 6097, 6100/4, 6910/1/2, MAT 122, 40CDV12, W1.8523	0.40	0.55	3.25	1.00		0.20		
S135	-	-	✓	MSRR 6013/25, AMS 6440/4, 100C6, W1.3505/14	1.00	0.30	1.50					
S139	-	-	✓	S95, S119, MSRR 6017/36	0.40	0.60	1.25	0.30	1.40			
S140	-	-	✓	S97, S153, S154, MSRR 6043	0.32	0.55	0.70	0.50	2.50			
S143 to S145	-	✓	✓	MSRR 6647, BACM 85E, SF 520B	0.05		14.00	1.50	5.50		0.30	1.5% Cu
S147	-	-	✓	SAE 8740	0.40	0.90	0.50	0.25	0.60			
S149	-	-	✓	AMS 6409/14/15/84, SAE 4340, MIL-S-5000, BMS 7-28, NCT 10-123-21/2MD	0.40	0.75	0.85	0.25	1.80			
S150	-	-	✓	MSRR 6591/2/5/6/7, 6603/31, 6902/19, W1.4914, Jethete M160, SF 448	0.13		10.50	0.60	1.00	0.20	0.35	0.06% N
S151	-	-	✓	MSRR 6502/3/4/5/6/8/9/10/44/58, 6665, MSRR 6906/16/18, DTD 5066, Jethete M152, AMS 5719, Z12CNDV12, W1.4939	0.11		11.50	1.60	2.60	0.30		0.03% N
S153 & S154	-	-	✓	S97, S140, MSRR 6043	0.32	0.55	0.70	0.50	2.50			
S155	✓	-	-	MAT 137, AMS 6257, 6417/9, SAE 4340M, BMS 7-26, DMS 1935, MIL-S-8844, 300M, IGO 41-11, LAT 1.9042, ZFNL 9207	0.42	0.80	0.85	0.40	1.90	0.08		1.7% Si
S156	✓	-	-	S82, MSRR 6009/10/55, 16NCD17, W1.6722/3	0.16	0.40	1.20	0.22	4.10			
S157	-	✓	✓	16NCD13, W1.6657, ZFNL 9203	0.17	0.45	1.00	0.25	3.25			
S162	✓	-	-	MSRR 6551, DTD 5212, MAT 102, AMS 6512, W1.6359, EZ2NKD18	0.01	0.05		5.00	18.00			8.0% Co +Al/Ti

British Specifications

Nominal chemical analysis %

'Rolls Royce' Specs	VAR	ESR	Single Melted	Related Specifications	C	Mn	Cr	Mo	Ni	V	Nb	Other Elements
MSRR 6001 & 6002	-	-	✓	S106, MSRR 6034, MSRR 6907	0.25	0.50	3.25	0.60				
MSRR 6004	-	-	✓	S15	0.12	0.55			3.00			
MSRR 6005	-	-	✓		0.12	0.50						
MSRR 6009 & 6010	-	✓	✓	S82, S156, MSRR 6055, 16NCD17, W1.6722/3, ZFNL 9206	0.16	0.40	1.20	0.22	4.10			
MSRR 6011 & 6012	-	✓	✓	S132/4, MSRR 6097, 6100/4, 6910/1/2, MAT 122, 40CDV12, W1.8523	0.40	0.55	3.25	1.00		0.20		
MSRR 6013	-	-	✓	S135, MSRR 6025, AMS 6440/4, 100C6, W1.3505/14	1.00	0.30	1.50					
MSRR 6017	-	-	✓	S95, S119, S139, MSRR 6036	0.40	0.60	1.25	0.30	1.40			
MSRR 6025	✓	-	-	S135, MSRR 6013, AMS 6440/4, 100C6, W1.3505/14	1.00	0.30	1.50					
MSRR 6034	-	-	✓	S106, MSRR 6001/2, MSRR 6907	0.25	0.50	3.25	0.60				
MSRR 6036	-	-	✓	S95, S119, S139, MSRR 6017	0.40	0.60	1.25	0.30	1.40			
MSRR 6043	-	-	✓	S97, S140, S153, S154	0.32	0.55	0.70	0.50	2.50			
MSRR 6046 & 6047	-	-	✓		0.12	0.60		0.50				0.003% B
MSRR 6050	-	-	✓		0.30	0.75						
MSRR 6055	-	-	✓	S82, S156, MSRR 6009/10, 16NCD17, W1.6722/3, ZFNL 9206	0.16	0.40	1.20	0.22	4.10			
MSRR 6097, 6100 & 6104	-	✓	-	S132/4, MSRR 6011/2, 6910/1/2, MAT 122, 40CDV12, W1.8523	0.40	0.55	3.25	1.00		0.20		
MSRR 6119	✓	+	✓	S132/4, MSRR 6011/2, 6910/1/2, MAT 122, 40CDV12, W1.8523	0.40	0.55	3.25	1.00		0.20		
MSRR 6502 to 6506 & 6508 to 6510	✓	-	✓	MSRR 6544/58, 6665, 6906/16/18, S151, DTD 5066, Jethete M152, AMS 5719, Z12CNDV12, W1.4939	0.11		11.50	1.60	2.60	0.30		0.03% N
MSRR 6519 to 6521	✓	-	-	MSRR 6542, 6903, SF 535	0.09		10.50	0.70	0.35	0.15	0.32	5.7% Co +N/B
MSRR 6522 to 6525	-	-	✓	S130, AMS 5646, W1.4546	0.05		17.50		9.60	0.55		
MSRR 6542	✓	-	-	MSRR 6519/20/21, 6903, SF 535	0.09		10.50	0.70	0.35	0.15	0.32	5.7% Co +N/B
MSRR 6544	-	✓	-	MSRR 6502/3/4/5/6/8/9/10/58, 6665, MSRR 6906/16/18, S151, DTD 5066, Jethete M152, AMS 5719, Z12CNDV12, W1.4939	0.11		11.50	1.60	2.60	0.30		0.03% N
MSRR 6551	✓	-	-	S162, DTD 5212, MAT 102, AMS 6512, W1.6359, EZ2NKD18	0.01	0.05		5.00	18.00			8.0% Co +Al/Ti
MSRR 6558	✓	-	-	MSRR 6502/3/4/5/6/8/9/10/44, 6665, MSRR 6906/16/18, S151, DTD 5066, Jethete M152, AMS 5719, Z12CNDV12, W1.4939	0.11		11.50	1.60	2.60	0.30		0.03% N
MSRR 6571	-	-	✓	MSRR 6502/3/4/5/6/8/9/10/44/58, 6665, MSRR 6906/16/18, S151, DTD 5066, Jethete M152, AMS 5719, Z12CNDV12, W1.4939	0.11		11.50	1.60	2.60	0.30		0.03% N

British Specifications

Nominal chemical analysis %

'Rolls Royce' Specs	VAR	ESR	Single Melted	Related Specifications	C	Mn	Cr	Mo	Ni	V	Nb	Other Elements
MSRR 6591 & 6592 & 6595 to 6597	-	-	✓	S150, MSRR 6603/31, 6902/19, W1.4914, Jethete M160, SF 448	0.13		10.50	0.60	1.00	0.20	0.35	0.06% N
MSRR 6601	-	-	✓	SF 17/4, AMS 5622/43, Z7CNU17.04, W1.4548	0.05		17.00		4.00		0.30	4.0% Cu
MSRR 6603	-	-	✓	S150, MSRR 6591/2/5/6/7, 6631, 6902/19, W1.4914, Jethete M160, SF 448	0.13		10.50	0.60	1.00	0.20	0.35	0.06% N
MSRR 6621	-	✓	-	MSRR 6674	0.05	13.00	18.00		3.00			0.35% N
MSRR 6631	-	-	✓	S150, MSRR 6591/2/5/6/7, 6603, 6902/19, W1.4914, Jethete M160, SF 448	0.13		10.50	0.60	1.00	0.20	0.35	0.06% N
MSRR 6647	-	-	✓	S143/4/5, BACM 85E, SF 520B	0.05		14.00	1.50	5.50		0.30	1.5% Cu
MSRR 6665	✓	-	-	MSRR 6502/3/4/5/6/8/9/10/44/58, MSRR 6906/16/18, S151, DTD 5066, Jethete M152, AMS 5719, Z12CNDV12, W1.4939	0.11		11.50	1.60	2.60	0.30		0.03% N
MSRR 6674	-	✓	-	MSRR 6621	0.05	13.00	18.00		3.00			0.35% N
MSRR 6902	-	-	✓	S150, MSRR 6591/2/5/6/7, 6603/31, 6919, W1.4914, Jethete M160, SF 448	0.13		10.50	0.60	1.00	0.20	0.35	0.06% N
MSRR 6903	✓	-	-	MSRR 6519/20/21, 6542, SF 535	0.09		10.50	0.70	0.35	0.15	0.32	5.7% Co +N/B
MSRR 6906	✓	-	-	MSRR 6502/3/4/5/6/8/9/10/44/58, 6665, MSRR 6916/18, S151, DTD 5066, Jethete M152, AMS 5719, Z12CNDV12, W1.4939	0.11		11.50	1.60	2.60	0.30		0.03% N
MSRR 6907	-	-	✓	S106, MSRR 6001/2/34	0.25	0.50	3.25	0.60				
MSRR 6910 to 6912	-	✓	✓	S132/4, MSRR 6011/2, 6097, 6100/4, MAT 122, 40CDV12, W1.8523	0.40	0.55	3.25	1.00		0.20		
MSRR 6916 & 6918	✓	-	✓	MSRR 6502/3/4/5/6/8/9/10/44/58, 6665, MSRR 6906, S151, DTD 5066, Jethete M152, AMS 5719, Z12CNDV12, W1.4939	0.11		11.50	1.60	2.60	0.30		0.03% N
MSRR 6919	-	-	✓	S150, MSRR 6591/2/5/6/7, 6603/31, 6902, W1.4914, Jethete M160, SF 448	0.13		10.50	0.60	1.00	0.20	0.35	0.06% N

British Specifications

Nominal chemical analysis %

'Other' Specs	VAR	ESR	Single Melted	Related Specifications	C	Mn	Cr	Mo	Ni	V	Nb	Other Elements
BACM 85E	-	✓	-	S143/4/5, MSRR 6647, SF 520B	0.05		14.00	1.50	5.50		0.30	1.5% Cu
DMS 127	-	-	✓	AMS 6302	0.30	0.55	1.25	0.50		0.25		0.65% Si
Jethete M152	✓	✓	✓	MSRR 6502/3/4/5/6/8/9/10/44/58, 6665, MSRR 6906/16/18, S151, DTD 5066, AMS 5719, Z12CNDV12, W1.4939	0.11		11.50	1.60	2.60	0.30		0.03% N
Jethete M160	-	-	✓	MSRR 6591/2/5/6/7, 6603/31, 6902/19, S150, W1.4914, SF 448	0.13		10.50	0.60	1.00	0.20	0.35	0.06% N
DTD 5066	-	-	✓	MSRR 6502/3/4/5/6/8/9/10/44/58, 6665, MSRR 6906/16/18, S151, Jethete M152, AMS 5719, Z12CNDV12, W1.4939	0.11		11.50	1.60	2.60	0.30		0.03% N
DTD 5122	-	-	✓	RS 131/2/8	0.33	0.50	1.00	0.20				
DTD 5212	✓	-	-	S162, MSRR 6551, MAT 102, AMS 6512, W1.6359, EZ2NKD18	0.01	0.05		5.00	18.00			8.0% Co +Al/Ti
MAT 102	✓	-	-	S162, MSRR 6551, DTD 5212, AMS 6512, W1.6359, EZ2NKD18	0.01	0.05		5.00	18.00			8.0% Co +Al/Ti
MAT 122	-	✓	-	MSRR 6011/2, 6097, 6100/4, 6910/1/2, S132/4, 40CDV12, W1.8523	0.40	0.55	3.25	1.00		0.20		
MAT 135	✓	-	-	35NCD16, NCT10-123-11/19MD, IGO 41-06	0.37	0.45	1.80	0.45	4.00			
MAT 137	✓	-	-	S155, AMS 6257, 6417/9, SAE 4340M, BMS 7-26, DMS 1935, MIL-S-8844, 300M, IGO 41-11, LAT 1.9042, ZFNL 9207	0.42	0.80	0.85	0.40	1.90	0.08		1.7% Si
RS 131 & 132 & 138	-	-	✓	DTD 5122	0.33	0.50	1.00	0.20				
RS 241	-	-	✓	W1.7734/6, 15CDV6	0.15	1.00	1.35	0.90		0.25		
SF 15/5	✓	-	-	AMS 5659, Z7CNU15.05, W1.4545, LAT 1.9037	0.05		15.00		5.00		0.30	3.5% Cu
SF 17/4	✓	-	✓	MSRR 6601, AMS 5622/43, Z7CNU17.04, W1.4548	0.05		17.00		4.00		0.30	4.0% Cu
SF 448	-	-	✓	MSRR 6591/2/5/6/7, 6603/31, 6902/19, W1.4914, Jethete M160, S150	0.13		10.50	0.60	1.00	0.20	0.35	0.06% N
SF 520B	-	✓	✓	S143/4/5, MSRR 6647, BACM 85E	0.05		14.00	1.50	5.50		0.30	1.5% Cu
SF 535	✓	-	-	MSRR 6519/20/21/42, 6903	0.09		10.50	0.70	0.35	0.15	0.32	5.7% Co +N/B

USA Specifications

Nominal chemical analysis %

'AMS' Specs	VAR	ESR	Single Melted	Related Specifications	C	Mn	Cr	Mo	Ni	V	Nb	Other Elements
AMS 5612	-	-	✓		0.14		12.00					
AMS 5613	-	✓	✓		0.12		12.00					
AMS 5616	-	✓	✓		0.18		13.00		2.00			3.0% W
AMS 5622	✓	✓	-	MSRR 6601, AMS 5643, Z7CNU17.04, W1.4548, SF 17/4	0.05		17.00		4.00		0.30	4.0% Cu
AMS 5629	✓	-	-	W1.4534, 13/8 Mo	0.04		12.50	2.00	8.45			1.2% Al
AMS 5643	-	-	✓	MSRR 6601, AMS 5622, Z7CNU17.04, W1.4548, SF 17/4	0.05		17.00		4.00		0.30	4.0% Cu
AMS 5645	-	-	✓	S129	0.05		18.00		9.50			0.45% Ti
AMS 5646	-	-	✓	S130, MSRR 6522/3/4/5, W1.4546	0.05		17.50		9.60		0.55	
AMS 5659	✓	✓	-	SF 15/5, Z7CNU15.05, W1.4545, LAT 1.9037	0.05		15.00		5.00		0.30	3.5% Cu
AMS 5719	✓	-	-	MSRR 6502/3/4/5/6/8/9/10/44/58, 6665, MSRR 6906/16/18, S151, DTD 5066, Jethete M152, Z12CNDV12, W1.4939	0.11		11.50	1.60	2.60	0.30		0.03% N
AMS 6257	✓	-	-	S155, MAT 137, AMS 6417/9, SAE 4340M, BMS 7-26, DMS 1935, MIL-S-8844, 300M, IGO 41-11, LAT 1.9042, ZFNL 9207	0.42	0.80	0.85	0.40	1.90	0.08		1.7% Si
AMS 6260	-	-	✓	AMS 6265/7, SAE 9310	0.11	0.55	1.20	0.10	3.25			
AMS 6263	-	-	✓		0.14	0.55	1.20	0.10	3.25			
AMS 6265 & 6267	✓	-	-	AMS 6260, SAE 9310	0.11	0.55	1.20	0.10	3.25			
AMS 6302	-	-	✓	DMS 127	0.30	0.55	1.25	0.50		0.25		0.65% Si
AMS 6348 & 6370	-	-	✓	SAE 4130	0.30	0.50	1.00	0.20				
AMS 6382	-	-	✓	SAE 4140, 40CD4	0.40	0.80	1.00	0.20				
AMS 6409	-	-	✓	AMS 6414/15/84, SAE 4340, BMS 7-28, S149, MIL-S-5000, NCT 10-123-21/2MD	0.40	0.75	0.85	0.25	1.80			
AMS 6411	✓	-	-	SAE 4330M, BMS 7-122	0.32	0.90	0.90	0.45	1.90	0.08		
AMS 6414 & 6415	✓	-	✓	AMS 6409/84, SAE 4340, BMS 7-28, S149, MIL-S-5000, NCT 10-123-21/2MD	0.40	0.75	0.85	0.25	1.80			
AMS 6417	✓	-	-	S155, MAT 137, AMS 6257, 6419, SAE 4340M, BMS 7-26, DMS 1935, MIL-S-8844, 300M, IGO 41-11, LAT 1.9042, ZFNL 9207	0.42	0.80	0.85	0.40	1.90	0.08		1.7% Si
AMS 6418	✓	-	-	DMS 1841, HYTUUF	0.26	1.30	0.30	0.40	1.85			1.5% Si
AMS 6419	✓	-	-	S155, MAT 137, AMS 6257, 6417, SAE 4340M, BMS 7-26, DMS 1935, MIL-S-8844, 300M, IGO 41-11, LAT 1.9042, ZFNL 9207	0.42	0.80	0.85	0.40	1.90	0.08		1.7% Si
AMS 6431	✓	-	-	D6AC	0.47	0.75	1.10	1.00	0.50	0.10		
AMS 6440 & 6444	✓	-	✓	S135, MSRR 6013/25, W1.3505/14, 100C6	1.00	0.30	1.50					
AMS 6484	✓	-	✓	AMS 6409/14/15, SAE 4340, BMS 7-28, S149, MIL-S-5000, NCT 10-123-21/2MD	0.40	0.75	0.85	0.25	1.80			
AMS 6512	✓	-	-	S162, DTD 5212, MAT 102, W1.6359, EZ2NKD18	0.01	0.05		5.00	18.00			8.0% Co +Al/Ti
AMS 6526	✓	-	-	W1.6974, 9-4-30, BMS 7-182	0.30		1.00	1.00	7.70	0.10		4.5% Co

USA Specifications

Nominal chemical analysis %

'SAE' Specs	VAR	ESR	Single Melted	Related Specifications	C	Mn	Cr	Mo	Ni	V	Nb	Other Elements
SAE 4130	-	-	✓	AMS 6348/70	0.30	0.50	1.00	0.20				
SAE 4140	✓	-	✓	AMS 6382, 40CD4	0.40	0.80	1.00	0.20				
SAE 4340	✓	-	✓	S149, AMS 6409/14/15/84, MIL-S-5000, BMS 7-28, NCT 10-123-21/2MD	0.40	0.75	0.85	0.25	1.80			
SAE 4330M	✓	-	-	AMS 6411, BMS 7-122	0.32	0.90	0.90	0.45	1.90	0.08		
SAE 4340M	✓	-	-	S155, MAT 137, AMS 6257, 6417/9, BMS 7-26, DMS 1935, 300M, MIL-S-8844, IGO 41-11, LAT 1.9042, ZFNL 9207	0.42	0.80	0.85	0.40	1.90	0.08		1.7% Si
SAE 8740	-	-	✓	S147	0.40	0.90	0.50	0.25	0.60			
SAE 9310	✓	-	✓	AMS 6260/5/7	0.11	0.55	1.20	0.10	3.25			
'Other' Specs												
BMS 7-26	✓	-	-	S155, MAT 137, AMS 6257, 6417/9, SAE 4340M, DMS 1935, MIL-S-8844, 300M, IGO 41-11, LAT 1.9042, ZFNL 9207	0.42	0.80	0.85	0.40	1.90	0.08		1.7% Si
BMS 7-28	-	-	✓	S149, AMS 6409/14/15/84, SAE 4340, MIL-S-5000, NCT 10-123-21/2MD	0.40	0.75	0.85	0.25	1.80			
BMS 7-122	✓	-	-	AMS 6411, SAE 4330M	0.32	0.90	0.90	0.45	1.90	0.08		
BMS 7-182	✓	-	-	AMS 6526, 9-4-30, W1.6974	0.30		1.00	1.00	7.70	0.10		4.5% Co
DMS 1841	✓	-	-	AMS 6418, HYTUUFF	0.26	1.30	0.30	0.40	1.85			1.5% Si
DMS 1935	✓	-	-	S155, MAT 137, AMS 6257, 6417/9, BMS 7-26, SAE 4340M, MIL-S-8844, 300M, IGO 41-11, LAT 1.9042, ZFNL 9207	0.42	0.80	0.85	0.40	1.90	0.08		1.7% Si
MIL-S-5000	-	-	✓	S149, AMS 6409/14/15/84, SAE 4340, BMS 7-28, NCT 10-123-21/2MD	0.40	0.75	0.85	0.25	1.80			
MIL-S-8844	✓	-	-	S155, MAT 137, AMS 6257, 6417/9, SAE 4340M, BMS 7-26, DMS 1935, 300M, IGO 41-11, LAT 1.9042, ZFNL 9207	0.42	0.80	0.85	0.40	1.90	0.08		1.7% Si
13/8Mo	✓	-	-	AMS 5629, W1.4534	0.04		12.50	2.00	8.45			1.2% Al
300M	✓	-	-	S155, MAT 137, AMS 6257, 6417/9, BMS 7-26, SAE 4340M, DMS 1935, MIL-S-8844, IGO 41-11, LAT 1.9042, ZFNL 9207	0.42	0.80	0.85	0.40	1.90	0.08		1.7% Si
9-4-30	✓	-	-	AMS 6526, BMS 7-182, W1.6974	0.30		1.00	1.00	7.70	0.10		4.5% Co
D6AC	✓	-	-	AMS 6431	0.47	0.75	1.10	1.00	0.50	0.10		
HYTUUFF	✓	-	-	AMS 6418, DMS 1841	0.26	1.30	0.30	0.40	1.85			1.5% Si

French Specifications

Nominal chemical analysis %

'AIR 9160' Specs	VAR	ESR	Single Melted	Related Specifications	C	Mn	Cr	Mo	Ni	V	Nb	Other Elements
15CDV6	-	✓	✓	W1.7734/6, RS 241	0.15	1.00	1.35	0.90		0.25		
16NCD13	✓	✓	✓	S157, W1.6657, ZFNL 9203	0.17	0.45	1.00	0.25	3.25			
16NCD17	✓	-	✓	S82, S156, MSRR 6009/10/55, W1.6722/3, ZFNL 9206	0.16	0.40	1.20	0.22	4.10			
30NCD16	✓	-	✓	W1.6747	0.30	0.50	1.40	0.45	4.00			
35NCD16	✓	-	✓	MAT 135, NCT10-123-11/19MD, IGQ 41-06	0.37	0.45	1.80	0.45	4.00			
25CD4S	-	-	✓	W1.7214	0.25	0.70	1.00	0.20				
30CD12	-	-	✓	W1.8564	0.30	0.50	3.00	0.40				
35CD4	-	-	✓	W1.7220, NCT 10-122-09/12/14MD	0.34	0.70	1.00	0.20				
40CDV12	-	✓	-	MSRR 6011/2, 6097, 6100/4, 6910/1/2, S132/4, MAT 122, W1.8523	0.40	0.55	3.25	1.00		0.20		
100C6	✓	-	✓	MSRR 6013/25, AMS 6440/4, S135, W1.3505/14	1.00	0.30	1.50					
Z12CNDV12	✓	-	✓	MSRR 6502/3/4/5/6/8/9/10/44/58, 6665, MSRR 6906/16/18, S151, DTD 5066, Jethete M152, AMS 5719, W1.4939	0.11		11.50	1.60	2.60	0.30		0.03% N
Z15CN17.03	-	-	✓	S80, W1.4044	0.16		16.50		2.40			
EZ2NKD18	✓	-	-	S162, MSRR 6551, DTD 5212, MAT 102, AMS 6512, W1.6359	0.01	0.05		5.00	18.00			8.0% Co +Al/Ti
'Other' Specs												
40CD4	-	-	✓	AMS 6382, SAE 4140	0.40	0.80	1.00	0.20				
Z7CNU15.05	✓	-	-	SF 15/5, AMS 5659, W1.4545, LAT 1.9037	0.05		15.00		5.00		0.30	3.5% Cu
Z7CNU17.04	-	✓	✓	SF 17/4, MSRR 6601, AMS 5622/43, W1.4548	0.05		17.00		4.00		0.30	4.0% Cu
IGQ 41-06	✓	-	-	MAT 135, 35NCD16, NCT10-123-11/19MD	0.37	0.45	1.80	0.45	4.00			
IGQ 41-11	✓	-	-	S155, MAT 137, AMS 6257, 6417/9, SAE 4340M, BMS 7-26, DMS 1935, MIL-S-8844, 300M, LAT 1.9042, ZFNL 9207	0.42	0.80	0.85	0.40	1.90	0.08		1.7% Si
NCT 10-122-09MD & 10-122-12MD & 10-122-14MD	-	-	✓	W1.7220, 35CD4	0.34	0.70	1.00	0.20				
NCT 10-123-11MD & 10-123-19MD	-	-	✓	MAT 135, 35NCD16, RGQ 41-06	0.37	0.45	1.80	0.45	4.00			
NCT 10-123-21MD & 10-123-22MD	-	-	✓	S149, AMS 6409/14/15, 6484, SAE 4340, MIL-S-5000, BMS 7-28	0.40	0.75	0.85	0.25	1.80			

German Specifications

Nominal chemical analysis %

'Werkstoff' Specs	VAR	ESR	Single Melted	Related Specifications	C	Mn	Cr	Mo	Ni	V	Nb	Other Elements
1.1144	-	-	✓	S14	0.13	0.50						
1.1157	-	-	✓	S93	0.40	0.85						
1.1169	-	-	✓	S92	0.22	1.50						
1.3505 & 1.3514	✓	-	✓	S135, MSRR 6013/25, AMS 6440/4, 100C6	1.00	0.30	1.50					
1.4014	-	-	✓	S62	0.20		13.00					
1.4044	-	✓	✓	S80, Z15CN17.03	0.16		16.50		2.40			
1.4534	✓	-	-	AMS 5629, 13/8 Mo	0.04		12.50	2.00	8.45			1.2% Al
1.4545	✓	✓	-	SF 15/5, AMS 5659, Z7CNU15.05, LAT 1.9037	0.05		15.00		5.00		0.30	3.5% Cu
1.4546	-	✓	✓	S130, MSRR 6522/3/4/5, AMS 5646	0.05		17.50		9.60		0.55	
1.4548	✓	✓	✓	MSRR 6601, AMS 5622/43, Z7CNU17.04, SF 17/4	0.05		17.00		4.00		0.30	4.0% Cu
1.4914	-	-	✓	MSRR 6591/2/5/6/7, 6603/31, 6902/19, S150, Jethete M160, SF 448	0.13		10.50	0.60	1.00	0.20	0.35	0.06% N
1.4939	✓	✓	✓	MSRR 6502/3/4/5/6/8/9/10/44/58, 6665, MSRR 6906/16/18, S151, DTD 5066, Jethete M152, AMS 5719, Z12CNDV12	0.11		11.50	1.60	2.60	0.30		0.03% N
1.6359	✓	-	-	S162, MSRR 6551, DTD 5212, MAT 102, AMS 6512, EZ2NKD18	0.01	0.05		5.00	18.00			8.0% Co +Al/Ti
1.6604	-	✓	✓		0.30	0.50	2.00	0.35	2.00			
1.6657	✓	✓	✓	S157, 16NCD13, ZFNL 9203	0.17	0.45	1.00	0.25	3.25			
1.6722 & 1.6723	✓	-	✓	S82, S156, MSRR 6009/10/55, 16NCD17, ZFNL 9206	0.16	0.40	1.20	0.22	4.10			
1.6745	✓	-	✓	S98, S99	0.40	0.60	0.70	0.50	2.50			
1.6747	✓	-	✓	30NCD16	0.30	0.50	1.40	0.45	4.00			
1.6974	✓	-	-	AMS 6526, 9-4-30, BMS 7-182	0.30		1.00	1.00	7.70	0.10		4.5% Co
1.7214	-	-	✓	25CD4S	0.25	0.70	1.00	0.20				
1.7220	-	-	✓	35CD4, NCT 10-122-09/12/14MD	0.34	0.70	1.00	0.20				
1.7734 & 1.7736	-	✓	✓	15CDV6, RS 241	0.15	1.00	1.35	0.90		0.25		
1.8523	-	✓	✓	MSRR 6011/2, 6097, 6100/4, 6910/1/2, S132/4, MAT 122, 40CDV12	0.40	0.55	3.25	1.00		0.20		
1.8564	-	-	✓	30CD12	0.30	0.50	3.00	0.40				
'Other' Specs												
LAT 1.9042	✓	-	-	S155, MAT 137, AMS 6257, 6417/9, BMS 7-26, SAE 4340M, DMS 1935, MIL-S-8844, 300M, IGO 41-11, ZFNL 9207	0.42	0.80	0.85	0.40	1.90	0.08		1.7% Si
LAT 1.9037	✓	-	-	AMS 5659, Z7CNU15.05, W1.4545	0.05		15.00		5.00		0.30	3.5% Cu
ZFNL 9201	-	✓	-		0.17	0.50	1.50		1.50			
ZFNL 9203	✓	-	-	S157, 16NCD13, W1.6657	0.17	0.45	1.00	0.25	3.25			
ZFNL 9206	✓	-	-	S82, S156, MSRR 6009/10/55, 16NCD17, W1.6722/3	0.16	0.40	1.20	0.22	4.10			
ZFNL 9207	✓	-	-	S155, MAT 137, AMS 6257, 6417/9, BMS 7-26, SAE 4340M, DMS 1935, MIL-S-8844, 300M, IGO 41-11, LAT 1.9042	0.42	0.80	0.85	0.40	1.90	0.08		1.7% Si

Sales contacts

Stocksbridge (Mill)

Stocksbridge Works
Stocksbridge
Sheffield S36 2JA
T +44 (0)114 288 2361
F +44 (0)114 288 7270

Bolton (Service Centre)

Union Road
Bolton
Lancashire BL2 2HS
T +44 (0)1204 394474
F +44 (0)1204 531762

Corus Field Commercial Teams
operate on behalf of Corus Engineering
Steels through wholly owned offices in
the countries shown below.

France

Parc Saint-Exupéry
9 Rue Maryse Bastié, 69500 Bron
T +33 (0)4 72 14 86 20
F +44 (0)4 78 41 19 94

Germany

Kennedydamm 17,
D-40476 Düsseldorf
T +49 (0)211 49260
F +49 (0)211 4926282

North America

475 North Martingale Road
Suite 400
Schaumburg, Illinois 60173-2222
T +1 (0)847 619 0400
F +1 (0)847 619 0468

In Italy our agent is

Aerospace Engineering
Via Rimassa 41/6
16129 Genova, Italy
T +39 (0)10 553 5253
F +39 (0)10 576 1710

We also have offices and agents in the
countries listed below.

Australia
Austria
Czech Republic
Denmark
Eire
Finland
Greece
Hong Kong
India
Netherlands/Benelux
Norway
Poland
Portugal
Singapore
Spain
Sweden
Switzerland
Turkey

For more detailed information please
contact our main sales office at
Stocksbridge.