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PURE IRON

Table with columns: #, Number, C, Mn, P, S, Si, Cu, Ni, Cr, Mo, Al, Co, N, O. Includes data for SRM 1265a, BS 50F, CZ LA-0A, CZ LA-0B, IARM 27G, BS LC-7B, BS LC-7A, BS 50G, VS RG24/1, TL 1669, BS 50D, ECRM 098-1D, ECRM 097-2D.

Table with columns: Number, As, B, Mg, Nb, Pb, Sn, Ti, V, W, Units. Includes data for SRM 1265a, BS 50F, CZ LA-0A, CZ LA-0B, IARM 27G, BS LC-7B, BS LC-7A, BS 50G, VS RG24/1, TL 1669, BS 50D, ECRM 098-1D, ECRM 097-2D.

** TL-1669 also contains in ppm Ca: 1.7, Sb: 4.9, Zn: 2.7

RM CARBON STEEL XRF SET

Part Number: BS CS-10 AVAILABLE INDIVIDUALLY 17025 * Provisional Analysis ~7 mm discs

Table with columns: Grade, Number, C, Mn, P, S, Si, Cu, Ni, Cr, Mo, Al, As, Co, N, Sn, V. Includes data for Pure Iron 1018, 1020, 1026, 1035, 1040, 1045, 1095, 1522 (LF2), 1345.

CRM CARBON STEEL SET

AVAILABLE IN SET/6 ONLY 38 mm Ø x 30 mm

Table with columns: Number, C, Mn, P, S, Si, Cu, Ni, Cr, Al, Al.Sol, Ti, Ti.Sol, V. Includes data for NCS HS11719-5, NCS HS11719-1, NCS HS11719-3, NCS HS11719-4, NCS HS11719-2, NCS HS11719-6.

CRM SOLUBLE ALUMINUM AND SOLUBLE BORON STEEL SET

available in set/6 only as grouped .T = total .S = soluble 37 mm Ø x 30 mm

Table with columns: Number, Al.T, Al.S, B.T, B.S, C, Mn, P, S, Si, Cu, Ni, Cr, Co, Mo. Includes data for NCS HS93703-1a, NCS HS93703-2, NCS HS93703-3, NCS HS93703-4, NCS HS93703-5, NCS HS93703-6.

Table with columns: Number, As, Bi, Ca, Nb, Pb, Sb, Sn, Ti, V, W, Zr. Includes data for NCS HS93703-1a, NCS HS93703-2, NCS HS93703-3, NCS HS93703-4, NCS HS93703-5, NCS HS93703-6.

ARSENIC AND ANTIMONY IN STEEL

= Class, where 1 = CRM and 2 = RM analysis listed in mass % except * which is mg/kg

#	Number	As	Sb	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Als	Co	Mo	Sn	Ti
2	CZ CM-2B	0.12	0.020	0.247	0.894	0.082	0.0114	1.95	0.99	1.20	1.53	0.046	.	0.45	0.33	0.091	0.342
1	12X 12749X	0.081	.	0.176	1.41	0.023	0.066	0.48	0.253	0.47	0.453	0.202	.	0.426	0.195	0.018	0.0178
1	IMZ 120	0.065	0.031	0.60	0.40	(0.049)	0.026	0.34	0.10	0.085	0.20	0.033	.	.	.	0.008	.
1	12X 15266V	0.0640	.	0.455	1.240	0.0344	0.0258	0.674	0.226	1.317	3.49	0.526	.	0.286	0.298	0.0082	.
1	12X 350C	0.057	.	0.159	0.758	0.0296	0.040	0.467	0.196	0.160	0.335	0.290	.	0.030	0.147	0.0382	0.076
1	IRSID 1656	0.055	.	0.477	0.730	0.027	0.013	0.277	.	(0.048)	(0.017)	(0.002)	.	.	(0.007)	.	.
1	12X 354B	0.023	.	0.252	5.03	0.0478	0.0105	0.200	0.0679	0.082	0.0487	0.0150	.	0.0237	0.0328	0.0154	0.0248
1	BS 1762	0.025	(0.02)	0.363	2.04	0.032	0.037	0.38	0.133	1.16	0.929	0.049	.	0.064	0.347	0.079	0.096
1	ECRM 055-2D	0.0187	0.00376	0.5199	0.687	0.0102	0.0205	0.3094	0.2089	0.3121	0.3217	.	.	0.0257	0.0960	0.0162	0.00104
1	SS 55	0.013	0.002	.	.	.	.	.	.	0.23	0.22	0.028	.	.	0.16	0.046	0.013
1	12X 357D	0.0127	0.018	0.312	0.219	0.0101	0.066	0.211	0.203	0.188	0.21	0.138	.	0.198	0.025	0.0145	0.074
1	IMZ 68	0.0057	0.0020	0.102	0.346	0.028	0.015	0.13	0.166	0.049	0.33	.	.	0.008	.	0.0066	0.0033
1	BS 1030	0.0055	0.0024	0.331	0.682	0.0101	0.0299	0.261	0.269	0.078	0.124	0.0014	.	0.0069	0.0182	0.0114	0.0005
1	VS UG90	0.0044	0.0011	0.34	0.286	0.0079	0.012	0.221	0.200	0.265	0.261	0.037	0.032	.	0.046	.	0.039
1	VS UG89	0.0043	0.0011	0.92	0.76	0.0085	0.01	0.385	0.373	0.51	0.420	0.01	0.007	.	0.044	.	0.012
1	VS UG92	0.0027	0.0005	0.69	0.79	0.05	0.0029	1.98	0.111	0.155	0.200	0.091	0.08	.	0.119	.	0.022
1	IRSID 1670	0.0018	.	0.0011	0.3981	0.0128	0.0075	0.0046	0.0134	0.0142	0.0174	0.0479	.	0.0018	0.0009	0.0017	0.0078
1	VS UG88	0.0007	0.0003	0.62	1.26	0.0026	0.0043	1.22	0.171	0.52	0.474	0.01	0.009	.	0.104	.	0.107
1	VS UG91	0.0004	0.00009	0.49	.	0.0038	0.0021	2.23	0.057	0.039	0.064	0.048	0.048	.	0.058	.	0.038
1	SS 458/2	.	0.089	0.198	0.479	0.0281	0.0314	0.504	.	.	.	0.055	0.053	0.198	.	.	.
1	SS 457/2	.	0.050	0.307	0.327	0.0098	0.0448	0.105	.	.	.	0.088	0.084	0.0217	.	.	.
1	SS 56	.	0.005	.	0.32	.	.	.	0.36	.	.	0.005	.	0.023	.	.	.

Number	B	Bi	Ca*	Ce*	Mg*	N	Nb	O*	Pb	Se	Ta	V	W	Zn	Zr	Units	
CZ CM-2B	0.0010	.	.	.	.	0.0062	(0.58)	.	0.087	.	.	0.109	0.22	.	0.013	~39 mm Ø x ~25 mm
12X 12749X	.	.	.	.	.	.	.	.	0.016	.	.	0.068	0.036	.	.	~40 mm Ø x ~15 mm
IMZ 120	.	.	.	.	.	0.0115	.	.	0.077	.	.	.	.	.	.	40 mm Ø x 40 mm
12X 15266V	.	.	.	.	.	.	1.438	.	.	.	0.116	0.106	.	.	.	~40 mm Ø x ~15 mm
12X 350C	.	.	.	.	.	.	.	.	.	.	.	0.0115	0.260	.	.	~40 mm Ø x ~15 mm
IRSID 1656	.	.	.	.	.	.	.	.	.	.	.	(0.002)	.	.	.	40 mm Ø x 35 mm
12X 354B	.	.	.	.	.	0.0027	0.0802	.	.	.	.	0.0204	0.0248	.	.	~40 mm Ø x ~15 mm
BS 1762	0.0048	.	(20)	.	(3)	0.017	0.074	64	(0.011)	Fe:93.9	(0.03)	0.193	0.029	(0.01)	(0.01)	37 mm Ø x 25 mm 17025	
ECRM 055-2D	.	.	.	.	.	0.01069	.	.	.	.	.	0.00245	0.0166	.	.	38 mm Ø x 25 or 30 mm
SS 55	.	.	.	.	.	.	.	.	.	.	.	.	0.12	.	.	38 mm Ø x 19 mm
12X 357D	0.0036	0.0024	.	.	.	0.011	.	0.040	0.0057	.	.	0.127	0.0213	.	0.0049	~40 mm Ø x ~15 mm	
IMZ 68	.	.	.	.	.	0.0086	.	.	.	.	.	0.046	.	.	.	38 mm Ø x 20 mm
BS 1030	0.0003	.	12	.	(2)	0.0107	(0.0004)	50	0.0005	.	(0.001)	0.031	0.0012	last	(0.0002)	38 mm Ø x ~7 mm 17025	
VS UG90	0.015	~47 mm Ø x ~30 mm
VS UG89	.	.	.	.	.	0.017	0.0043	.	0.0003	.	.	0.021	.	.	.	~47 mm Ø x ~30 mm
VS UG92	.	.	.	.	.	0.016	0.034	.	0.00017	.	.	0.024	.	.	.	~47 mm Ø x ~30 mm
IRSID 1670	0.0007	.	.	(2)	.	0.0016	(0.0003)	.	.	.	.	(0.0005)	.	.	.	37 mm Ø x 30 mm
VS UG88	.	.	.	.	.	0.020	0.059	.	0.00015	.	.	0.117	.	.	.	~47 mm Ø x ~30 mm
VS UG91	.	.	.	.	.	0.010	0.097	.	0.00006	.	.	0.049	.	.	.	~47 mm Ø x ~30 mm
SS 458/2	0.0069	.	.	.	.	.	0.0510	.	0.0140	.	.	0.105	.	.	(0.064)	38 mm Ø x 19 mm
SS 457/2	0.0046	.	.	.	.	.	0.0174	.	0.0098	.	.	0.153	.	.	0.025	38 mm Ø x 19 mm
SS 56	0.001	.	.	.	.	.	.	.	0.014	.	.	0.057	.	.	.	38 mm Ø x 19 mm last

RM

BISMUTH STEEL

Number	Bi	C	Mn	P	S	Si	Cu	Ni	Cr	Al	As	Co	Mo	N
BS 4140A	0.105	0.40	0.84	0.021	0.076	0.21	0.15	0.15	0.97	0.016	0.005	0.010	0.16	0.0098
BS 53MOD	0.102	1.01	0.36	0.011	0.012	0.26	0.070	0.072	1.37	0.019	0.004	0.007	0.024	0.0086
BS 4150MOD	0.070	0.47	0.90	0.024	0.079	0.21	0.19	0.15	1.01	0.012	0.005	0.012	0.21	0.0087

Number	Ca	O	Pb	Sn	Ti	V	Units
BS 4140A	(0.0003)	(0.0025)	(0.001)	0.011	(0.003)	0.004	38 mm Ø x ~7 tp 19+ mm
BS 53MOD	(0.001)	(0.002)	0.0005	0.008	.	0.005	38 mm Ø x ~7 or 19+ mm
BS 4150MOD	0.0010	(0.003)	0.0010	0.013	(0.002)	0.008	38 mm Ø x ~7 mm last

CALCIUM IN STEEL

= Class, where 1 = CRM and 2 = RM analysis listed in mass % except * which is mg/kg

#	Number	Ca	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Als	Co	Mo	N	V
1	BS HiCal-1	0.0140	0.271	1.00	(0.007)	0.0007	1.29	0.152	3.28	1.55	0.070	.	0.0024	0.379	.	0.0027
1	SS 115	0.0058	0.6224	0.682	0.0123	0.00093	0.2078	.	0.0196	0.0198	0.0527	.	.	.	0.0067	.
1	SS 116	0.0036	0.617	0.6756	0.0092	0.00176	0.201	.	0.0155	0.0141	0.0587	.	.	.	0.0069	.
1	BS 1020	0.0022	0.210	0.568	0.0058	0.0249	0.250	0.184	0.059	0.109	0.0006	.	0.0070	0.018	0.0109	0.0363
2	HRT FE2009-N	0.0020	0.12	0.55	0.010	0.003	0.32	0.08	0.25	2.56	0.030	.	.	1.02	.	0.015
2	BS 4150MOD	0.0010	0.47	0.90	0.024	0.079	0.21	0.19	0.15	1.01	0.012	.	0.012	0.21	0.0087	0.008
1	BS 4130	0.0007	0.303	0.541	0.0105	0.0113	0.245	0.221	0.088	0.924	0.0242	.	0.0065	0.168	0.0072	0.0037
2	BS 4942	0.0006	0.414	0.56	0.015	0.021	0.22	0.165	0.16	0.97	(0.004)	.	0.010	0.54	0.0080	0.28
1	BS PP20	0.0003	0.382	1.41	0.018	0.0070	0.262	0.119	1.00	1.94	0.0132	.	0.0145	0.212	0.0080	0.066
1	IMZ 111	0.0003	0.106	0.31	0.010	0.039	0.55	0.036	0.23	0.072	0.017	0.007	.	0.084	0.0133	0.022
2	TL 1669	0.00017	0.00226	0.0955	0.0137	0.0100	0.0093	0.0217	0.0160	0.0246	0.03553 (tot)	.	0.0019	0.0011	0.0024	(0.0006)

Number	As	B	Bi	Nb	O	Pb	Sb	Sn	Ti	W	Zr	Other
BS HiCal-1	0.0022	(0.0001)	.	(0.002)	.	(0.0005)	.	(0.0002)	0.0037	(0.0009)	(0.0008)	~38 mm Ø x ~30 mm 17025
SS 115	.	.	.	.	.	.	.	.	0.0027	.	.	38 mm Ø x 19 mm
SS 116	.	.	.	.	.	0.00012	.	.	0.00171	.	.	44 mm Ø x 19 mm
BS 1020	0.0074	(0.0001)	.	(0.0003)	0.0046	(0.0002)	(0.0018)	0.0090	(0.0005)	(0.0004)	(0.0005)	44 mm Ø x ~7 or 19+ mm 17025
HRT FE2009-N	.	.	.	.	.	.	.	.	.	.	Zn: 0.004	40 mm Ø x 40 mm
BS 4150MOD	0.005	.	0.070	.	(0.003)	0.0010	.	0.013	(0.002)	.	.	38 mm Ø x ~7 or 19 mm last
BS 4130	0.0048	(0.0002)	.	0.0015	0.0015	(0.00003)	(0.0021)	0.0099	0.0009	0.0011	(0.0002)	38 mm Ø x ~17 or 19 mm last
BS 4942	0.005	.	.	.	(0.0021)	.	.	0.014	.	.	.	38 mm Ø x ~7 mm last
BS PP20	0.0049	0.00011	.	0.0048	(0.0010)	.	0.0013	0.0069	0.0007	0.0058	.	38 mm Ø x ~7 or 19+ mm 17025
IMZ 111	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 40 mm
TL 1669	0.0017	0.00038	.	0.00046	.	0.00013	0.00049	0.0071	0.0504	.	(0.00021)	38 mm Ø x 25 mm Zn: 2.7*

CRM AL, Ca, AND N IN LOW ALLOY STEEL

Number	Al	Ca	N	Units
IMZ 133	.	.	0.0360	40 mm Ø x 40 mm
IMZ 131	0.0043	.	0.0333	40 mm Ø x 40 mm
IMZ 135	0.0274	0.0008	0.0238	40 mm Ø x 40 mm
IMZ 169	0.075	.	0.0193	40 mm Ø x 40 mm
IMZ 141	0.0071	.	0.0154	40 mm Ø x 40 mm
IMZ 130	0.0046	0.0024	0.0153	40 mm Ø x 40 mm
IMZ 139	(0.029)	0.0031	0.0113	40 mm Ø x 40 mm
IMZ 132	0.0021	0.0002	0.0097	40 mm Ø x 40 mm
IMZ 137	0.0017	0.00025	0.0083	40 mm Ø x 40 mm
IMZ 140	0.0307	0.0015	0.0083	40 mm Ø x 40 mm
IMZ 138	0.0022	.	0.0063	40 mm Ø x 40 mm
IMZ 134	0.0124	0.0005	.	40 mm Ø x 40 mm
IMZ 136	0.0034	0.00031	.	40 mm Ø x 40 mm

C-Mo and Cr-Mo STEEL XRF SET

= class, where 1 = CRM ISO **17025** and 2 = RM, Set Part Number: BS MOLY-5 AVAILABLE INDIVIDUALLY ~7 mm discs

#	Grade	Alloy	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Al	Co	N	Sn	V
2	C-.5Mo	4419	BS 3952	0.208	0.546	0.011	0.021	0.264	0.202	0.112	0.105	0.519	0.048	.	(0.0005)	.	.
1	1.25Cr-.5Mo	F-11	BS 45B	0.140	0.502	0.0068	0.017	0.583	0.101	0.136	1.14	0.60	0.030	0.0090	0.0066	0.0069	0.0083
1	2.25Cr-1Mo	F-22	BS 46B	0.126	0.472	0.0087	0.0187	0.219	0.128	0.081	2.28	1.00	0.020	0.0074	0.0100	0.0073	0.0073
2	5Cr-.5Mo	F-5	BS 47A	0.130	0.44	0.017	0.015	0.27	0.11	0.12	4.22	0.47	0.015	0.011	0.018	0.008	0.016
1	9Cr-1Mo	F-9	BS 48B	0.110	0.365	0.0228	0.0068	0.75	0.070	0.165	8.78	0.949	0.0157	0.0165	0.0088	0.0049	0.033

CRM EPMA SETS

available in sets only, as grouped 4x10x15mm

Number	Cr	Number	Ni
NMIJ 1001-a	5.00	NMIJ 1006-a	5.04
NMIJ 1002-a	14.96	NMIJ 1007-a	10.05
NMIJ 1003-a	19.87	NMIJ 1008-a	20.02
NMIJ 1004-a	29.84	NMIJ 1009-a	39.92
NMIJ 1005-a	39.69	NMIJ 1010-a	60.07

LEADED STEEL

= Class, where 1 = CRM and 2 = RM OES regularly requires extension of preburn time

Table with columns: #, Number, Pb, C, Mn, P, S, Si, Cu, Ni, Cr, Al, As, Co, Mo, N, Sn, V. Contains chemical composition data for various steel grades like BS 74B, BS 74C, etc.

Table with columns: Number, B, Ca, Nb, O, Sb, Ti, W, Zn, Grade, Units. Contains mechanical and material property data for grades like BS 74B, BS 74C, etc.

RM LEADED AND BISMUTH STEEL XRF SET

Part Number: BS PB-BI-7 AVAILABLE INDIVIDUALLY ~7 mm discs 17025

Table with columns: Grade, Number, C, Mn, P, S, Si, Cu, Ni, Cr, Mo, Al, Bi, Pb, Sn, V, N. Contains XRF analysis data for grades like 11L17, 12L14, etc.

MANGANESE STEEL

14X:~40x-15-17mm BS:320x-15-17mm CZ:~390x25mm DSZU:390x20mm ECRM:350x25mm IMN:50-560x15mm NCS:360x36mm SS:48x42x12mm VS:~380x-18mm

Table with columns: #, Number, Mn, C, P, S, Si, Cu, Ni, Cr, Al, Mo, N, Nb, Sn, V, Other. Contains chemical composition and other data for manganese steel grades like DSZU C013, VS LG68, etc.

** IRSID 1833 also contains As: 0.0034, Co: 0.0089, Pb: 0.00007, and Ti: 0.0011. Sample size 35 mm Ø x 25 mm.

CRM MANGANESE STEEL SET

AVAILABLE IN SET/6 ONLY 30 mm Ø x 24 mm

Table with columns: Number, C, Mn, P, S, Si, Cu, Ni, Cr, B, Co, Mo, N, Ti, V. Contains chemical composition data for CRM manganese steel grades like NCS H511720-6, etc.

LOW ALLOY STEEL WITH C > 0.3%

CONTINUED ON THE NEXT PAGE

= Class, where 1=CRM, 2=RM, 3=RM no uncertainties

Table with columns: #, Number, C, Mn, P, S, Si, Cu, Ni, Cr, Al, Als, Co, Mo, N, Nb, Ti. Contains multiple rows of material specifications and chemical compositions.

TOOL STEEL CONTINUED ON THE NEXT PAGE

= Class, where 1 = CRM, 2 = RM, and 3 = RM with no uncertainties

Table with columns: #, Number, C, Mn, P, S, Si, Cu, Ni, Cr, Co, Mo, N, Ti, V, W, Al. Multiple rows listing various tool steel grades and their chemical compositions.

TOOL STEEL CONTINUED FROM THE PREVIOUS PAGE

Table with columns: Number, Als, As, B, Ca, Nb, O, Pb, Sb, Sn, Ta, Zr, Units. Rows include various tool steel grades like BS PM15, BS A-11, BS 37G, etc., with their respective chemical compositions and mechanical properties.

ALUMINUM IN STAINLESS AND HIGH ALLOY STEEL

= Class, where 1 = CRM and 2 = RM

#	Number	Al	Ni	Cr	C	Mn	P	S	Si	Cu	Co	Mo	N	Nb	Ti	V
1	IMZ 158	1.56	0.24	25.51	0.091	1.34	0.015	0.007	2.23	0.097	.	0.025	.	.	0.12	0.078
1	13X PH17700A	1.172	6.98	16.88	0.0732	0.496	0.0181	0.0008	0.551	0.146	0.0464	0.340	0.0192	0.0201	0.051	0.0390
1	BS 192	1.17	7.11	16.44	0.074	0.835	0.025	0.0005	0.387	0.412	0.104	0.430	0.0290	0.168	0.076	0.124
2	CT X92834	1.14	8.32	12.57	0.035	0.044	0.003	0.003	0.019	0.030	0.030	2.20	.	0.001	0.019	<0.004
1	IARMPe177PH-18	1.09	7.11	17.08	0.080	0.730	0.020	(0.0005)	0.51	0.36	0.048	0.350	0.0153	0.009	0.083	0.062
1	13X PH13800A	1.075	8.04	12.53	0.0386	0.0332	0.0064	0.0030	0.081	0.0449	0.0220	2.10	0.0041	.	0.0122	0.0188
1	IARM 21D	1.03	8.29	12.69	0.032	0.052	0.008	(0.0014)	0.039	0.017	0.078	2.23	0.0037	(0.0005)	0.016	0.017
2	BS 184A	1.00	8.34	12.66	0.035	0.06	0.007	0.001	0.080	0.041	0.036	2.20	0.0045	(0.0006)	0.051	0.014
1	BS 192A	0.98	7.01	16.44	0.066	0.768	0.021	<0.002	0.300	0.334	0.114	0.28	0.029	0.208	0.083	0.077
1	IARM 152C	0.94	7.30	16.99	0.072	0.74	0.024	0.0006	0.263	0.316	0.113	0.36	0.0172	0.012	0.098	0.072

Number	As	B	Ca	O	Sn	Ta	W	Zr	Units
IMZ 158	.	.	.	.	.	.	.	.	40 mm Ø x 40 mm
13X PH17700A	.	0.0033	.	.	0.0055	.	0.009	.	-38 mm Ø x -15 mm
BS 192	(0.005)	(0.0003)	0.0007	0.0014	0.008	(0.001)	0.05	.	38 mm Ø x ~7 or 19+ mm
CT X92834	.	0.0009	.	.	0.002	.	.	<0.001	30-35 mm Ø x x ~19 mm
IARM Fe177PH-18	.	(0.0017)	.	.	(0.006)	.	(0.011)	.	31 mm Ø x 2 or 18 mm
13X PH13800A	.	.	.	.	0.0051	.	.	.	-38 mm Ø x -15 mm
IARM 21D	.	.	.	.	.	.	(0.012)	.	31 mm Ø x 2 or 18 mm
BS 184A	.	(0.0004)	(0.0003)	(0.0003)	(0.002)	.	0.032	.	38 mm Ø x ~7 or 19+ mm
BS 192A	(0.0035)	(0.0003)	(0.0006)	(0.0006)	0.008	.	0.048	.	38 mm Ø x ~7 or 19+ mm
IARM 152C	(0.004)	0.0029	(0.0005)	(0.001)	0.007	(0.005)	0.026	.	31 mm Ø x 2 mm

CALCIUM IN STAINLESS AND HIGH ALLOY STEEL

= Class, where 1 = CRM and 2 = RM

#	Number	Ca	Ni	Cr	C	Mn	P	S	Si	Cu	Co	Mo	N	Nb	V	W
1	BS Ca304-4	0.0075	8.77	18.26	0.096	0.783	0.0205	0.0070	0.887	0.143	(0.007)	0.0041	0.061	0.063	0.0686	0.0056
1	13X 14923A	0.0044	0.452	11.26	0.205	0.501	0.0197	0.0031	0.330	0.0563	0.0207	0.819	0.0321	0.005	0.295	.
1	ECRM 379-1D	0.0033	30.83	26.79	0.0121	1.804	0.0166	0.0006	0.393	0.984	0.0390	3.290	0.0550	(0.0028)	0.0663	(0.0091)
2	BS 193	0.0020	1.82	18.48	0.104	12.11	0.018	0.002	0.66	0.088	0.028	0.21	0.37	0.014	0.107	(0.007)
2	BS SS4952	0.0019	0.23	13.15	0.347	0.41	0.016	0.003	0.66	0.045	0.030	0.049	0.027	0.004	0.089	(0.007)
2	BS 82E	0.0014	12.49	22.38	0.062	1.61	0.027	0.001	0.58	0.26	0.12	0.31	0.072	0.062	0.064	0.041
1	BS 9942	0.0014	13.55	18.21	0.021	1.84	0.025	0.006	0.49	0.305	0.086	3.30	0.071	0.005	0.072	0.032
1	BS 9842	0.0010	20.02	24.19	0.059	1.50	0.025	0.0016	0.99	0.147	0.237	0.111	0.037	0.026	0.075	0.011
1	ECRM 272-1D	0.00090	0.2445	11.927	0.2815	0.600	0.0156	0.0196	0.420	0.0192	0.0145	0.0030	0.0508	0.0028	0.0167	.
2	BS 94C	0.0008	0.43	25.90	0.057	0.45	0.024	0.002	0.62	0.056	0.042	0.20	0.065	0.032	0.12	(0.03)
2	BS 87F	0.0007	10.12	17.30	0.055	1.64	0.024	0.025	0.67	0.28	0.17	0.29	0.037	0.57	0.13	0.050

Number	Al	As	B	O	Pb	Sb	Sn	Ti	Zn	Units
BS Ca304-4	0.017	0.0063	0.0031	0.013	0.0008	(0.0002)	0.0024	0.0046	Zr:0.0036	~38 mm Ø x ~38mm Fe: 70.7
13X 14923A	0.003	.	.	.	.	.	0.004	.	.	~40 mm Ø x -15 mm
ECRM 379-1D	(0.00246)	(0.0018)	0.00190	(0.0027)	(0.000038)	0.00057	0.0021	(0.0014)	.	38 or 45 mm Ø x 25 mm
BS 193	(0.003)	.	0.0007	(0.004)	.	.	0.004	0.003	.	32 mm Ø x ~7 or 19+ mm
BS SS4952	0.003	0.002	(0.0004)	0.005	.	.	0.004	0.002	.	38 mm Ø x ~7 or 19+ mm
BS 82E	0.006	.	0.0024	.	.	.	0.006	0.003	.	38 mm Ø x ~7 to 19 mm
BS 9942	0.004	(0.004)	0.0014	(0.0023)	.	.	0.006	(0.002)	.	44 mm Ø x ~7 or 19+ mm
BS 9842	0.014	(0.002)	0.0025	(0.0044)	.	.	0.005	0.003	.	38 mm Ø x ~7 or 19+ mm
ECRM 272-1D	0.0046	0.0116	0.0018	.	.	0.0007	.	0.00096	0.0031	38 mm Ø x 25 or 30 mm
BS 94C	0.004	.	(0.0005)	0.0061	.	.	0.006	.	.	44 mm Ø x ~7 or 19+ mm
BS 87F	0.004	0.005	(0.0006)	0.005	.	.	0.004	0.004	.	41 mm Ø x ~7 or 19+ mm

MARAGING STEEL AND COBALT IN STAINLESS AND HIGH ALLOY STEEL

= Class, where 1 = CRM, 2 = RM

#	Number	Co	Mo	Ni	Cr	C	Mn	P	S	Si	Cu	Al	B	N	Nb	Ti
1	IMZ 521	20.25	4.84	8.63	0.040	0.015	0.039	0.0031	0.0058	0.072	0.027	.	.	0.0113	.	.
1	IMZ 522	18.72	6.45	11.47	0.022	0.0088	0.032	(0.003)	0.0043	0.048	0.019	.	.	0.0045	(0.008)	0.54
1	IMZ 520	17.66	4.92	10.10	0.242	0.011	0.070	0.0043	0.019	0.094	0.080	.	(0.001)	0.0105	(0.008)	(0.007)
1	IARM 98B	17.0	0.010	29.4	0.012	0.007	0.18	0.002	0.0007	0.17	0.028	0.07	0.001	0.0024	0.002	0.03
1	IMZ 523	14.44	6.67	15.94	0.048	0.0098	0.051	(0.004)	0.0039	0.043	0.059	.	.	0.0037	(0.008)	0.70
1	IARM 242A	13.5	1.21	11.1	3.00	0.24	0.018	0.002	0.0004	0.02	0.007	0.004	(0.0005)	0.0003	0.004	0.009
2	CT ISO045A	13.39	1.18	11.38	3.12	0.228	0.002	0.001	0.0004	<0.010	0.006	0.004	.	.	.	0.005
1	IARM 309A	12.3	4.71	18.4	0.053	0.0059	0.018	0.004	0.0006	0.020	0.023	0.11	0.0032	0.0010	0.004	1.47
1	IMZ 524	12.25	4.95	13.75	0.085	0.012	0.68	(0.004)	0.004	0.13	0.024	.	.	0.0038	(0.007)	0.85
1	DSZU C093	12.08	3.79	15.80	0.42	0.013	0.32	(0.006)	(0.007)	(0.10)	(0.12)	0.17	.	.	.	1.56
1	BS 161A	9.22	4.82	18.40	0.12	0.004	0.031	0.004	0.0007	0.032	0.22	0.14	0.0023	(0.002)	(0.004)	0.65
2	CT 300	9.07	4.97	18.51	0.034	0.005	0.032	0.005	0.004	0.030	0.047	0.12	0.0020	.	.	0.69
1	DSZU C091	8.07	4.98	18.20	0.12	0.035	0.092	(0.006)	(0.011)	(0.09)	(0.12)	0.05	.	.	.	0.81
1	IARM 308A	7.80	4.78	18.53	0.023	0.003	0.019	0.004	0.0005	0.014	0.018	0.097	0.0029	0.0013	0.003	0.46
1	ECRM 285-2D	7.76	4.99	18.07	0.0236	0.0018	0.0168	0.0053	0.0025	0.0117	0.0094	0.1067	0.0009	0.0007	.	0.520
2	CT 250	7.54	4.88	18.44	0.008	0.002	0.006	0.003	0.002	0.008	0.008	0.058	0.0024	.	.	0.41
2	DSZU C55	5.75	1.32	2.24	14.9	(0.19)	0.73	(0.042)	.	0.68	0.008	0.058	.	(0.11)	0.27	.
1	DSZU C092	5.21	5.50	20.12	0.23	0.015	0.27	(0.006)	(0.011)	(0.10)	(0.16)	(0.006)	.	.	.	(0.008)
2	DSZU C53	5.20	1.71	1.47	14.8	(0.26)	0.82	(0.036)	.	0.29	.	.	.	.	0.13	.
2	DSZU C54	5.19	1.47	1.88	18.5	(0.06)	0.60	(0.036)	.	0.56	.	.	.	(0.13)	0.40	.
2	DSZU C51	4.07	0.68	1.67	10.8	(0.16)	0.40	(0.019)	.	0.25	.	.	.	(0.09)	0.10	.
2	DSZU C52	3.35	1.08	1.68	11.0	(0.17)	0.24	(0.018)	.	0.12	.	.	.	.	0.15	.
1	BS 85D	0.97	0.59	9.98	17.09	0.048	1.69	0.024	0.024	0.54	0.45	0.13	(0.001)	(0.02)	0.062	0.48

Number	As	Ca	Fe	Mg	O	Sb	Sn	Ta	V	W	Zr	Units
IMZ 521	(0.002)	.	3.97	5.23	.	38 mm Ø x 20 mm
IMZ 522	(0.001)	.	2.21	2.25	.	38 mm Ø x 20 mm
IMZ 520	(0.002)	.	4.03	4.90	.	38 mm Ø x 20 mm
IARM 98B	<0.002	<0.0005	52.9	0.0040	0.0021	.	0.002	<0.05	(0.003)	(0.02)	<0.01	31 mm Ø x 2 mm
IMZ 523	(0.001)	.	2.01	1.87	.	38 mm Ø x 20 mm
IARM 242A	0.0006	.	(0.001)	0.008	0.01	<0.01	.	31 mm Ø x 2 mm
CT ISO045A	.	.	70.70	.	.	.	(0.001)	(0.006)	0.01	0.01	0.008	30-35 mm Ø x -19 mm
IARM 309A	0.0005	.	(0.001)	(0.006)	0.01	0.01	0.008	31 mm Ø x 2 or 18 mm
IMZ 524	(0.003)	.	.	.	.	.	.	.	3.02	1.84	.	38 mm Ø x 20 mm
DSZU C093	-40 mm Ø x 17 mm
BS 161A	(0.002)	(0.0008)	25(pre-17025)	.	(0.0004)	.	(0.0015)	(0.03)	0.031	(0.008)	(0.002)	38 mm Ø x -12 or 19 mm last
CT 300	30-35 mm Ø x -16 mm
DSZU C091	-40 mm Ø x 17 mm
IARM 308A	0.0005	.	0.001	<0.01	0.01	0.01	0.01	31 mm Ø x 2 or 18 (last) mm
ECRM 285-2D	0.0050	38 mm Ø x 25 or 30 mm
CT 250	30-35 mm Ø x -19 mm
DSZU C55	0.29	(1.17)	.	42 mm Ø x 25 mm
DSZU C092	-40 mm Ø x 17 mm
DSZU C53	0.33	(0.59)	.	42 mm Ø x 25 mm
DSZU C54	0.47	(0.71)	.	42 mm Ø x 25 mm
DSZU C51	0.15	(0.32)	.	42 mm Ø x 25 mm
DSZU C52	0.10	(0.91)	.	42 mm Ø x 25 mm
BS 85D	(0.01)	0.0004	[67.8]	.	(0.002)	(0.001)	0.0062	(0.001)	0.132	(0.07)	(0.004)	38 mm Ø x -7 or 19+ mm 17025

TUNGSTEN IN STAINLESS AND HIGH ALLOY STEEL

= Class, where 1 = CRM and 2 = RM

#	Number	W	Ni	Cr	C	Mn	P	S	Si	Cu	Co	Mo	N	Nb	Ti	V
1	VS LG57	4.24	25.2	13.70	0.016	0.52	0.011	0.0023	0.56	0.080	.	0.401	.	.	1.81	0.65
1	13X 14219K	4.17	12.66	21.46	0.0997	0.482	0.0401	0.0456	1.504	0.138	0.0475	0.169	.	0.140	.	0.0188
1	13X 14212S	3.68	8.81	21.64	0.119	0.166	0.032	0.0386	2.47	0.611	0.1090	0.520	0.0055	0.550	.	0.1175
1	VS LG59	3.08	35.1	15.81	0.073	1.15	0.011	0.0083	0.63	0.083	.	0.094	.	0.106	1.12	0.273
1	113X 14215L	3.02	15.86	22.89	0.136	1.110	0.0050	0.0068	0.596	0.0110	0.0057	0.0048	.	0.0196	.	0.0480
2	BS 183A	2.60	1.85	12.14	0.172	0.35	0.016	0.0040	0.37	0.093	0.036	0.12	0.0256	0.006	0.002	0.090
1	IARM 20C	2.59	1.93	12.15	0.18	0.30	0.018	0.0040	0.35	0.060	0.031	0.12	0.0222	0.010	(0.003)	0.086
1	IMZ 161	1.05	0.55	12.90	0.074	0.29	0.023	0.023	0.65	0.56	.	1.10	.	.	.	0.33

Number	Al	As	B	Ca	O	Sb	Sn	Units
VS LG57	0.151	.	.	.	.	.	.	-47 mm Ø x -30 mm
13X 14219K	.	.	.	.	.	.	.	-40 mm Ø x -15 mm
13X 14212S	.	.	.	.	.	.	.	-40 mm Ø x -15 mm
VS LG59	0.079	.	.	.	.	.	.	-47 mm Ø x -30 mm
13X 14215L	.	.	.	.	.	.	.	-40 mm Ø x -15 mm
BS 183A	0.002	(0.002)	(<0.0005)	0.0020	0.0065	(0.001)	0.003	38 mm Ø x -7 or 19+ mm
IARM 20C	(0.004)	.	.	.	0.0068	.	0.004	31 mm Ø x 2 mm
IMZ 161	.	.	.	.	.	.	.	40 mm Ø x 40 mm

SULFUR AND PHOSPHORUS IN STAINLESS AND HIGH ALLOY STEEL

= Class, where 1 = CRM, 2 = RM, and 3 = RM with no uncertainties

#	Number	S	P	Ni	Cr	C	Mn	Si	Cu	Al	Co	Mo	N	Nb	Ti	V
2	CT 416	0.36	0.018	0.24	13.15	0.088	0.52	0.63	0.004	.	0.019	0.065	0.020	.	.	0.025
2	BS 150	0.33	0.020	0.19	18.61	0.048	1.71	0.43	0.042	0.002	0.024	1.97	0.029	0.003	.	0.054
1	SRM 1223	0.329	0.018	0.232	12.64	0.127	1.08	0.327	0.081	.	.	0.053	.	.	.	0.068
2	BS 90F	0.328	0.023	0.30	13.01	0.085	0.53	0.58	0.12	(0.006)	0.021	0.14	0.037	0.011	.	0.076
1	BS 303	0.326	0.028	8.17	17.23	0.044	1.80	0.415	0.627	0.0019	0.071	0.410	0.023	0.008	0.017	0.056
1	13X 30300A	0.312	0.0205	8.60	17.62	0.041	1.83	0.422	0.025	.	0.0255	0.334	0.034	.	.	0.091
2	CT 303	0.31	0.029	9.08	17.78	0.070	1.64	0.58	0.49	.	0.16	0.41	.	.	.	0.044
1	IARM 355A	0.31	0.0186	0.427	17.81	0.0274	0.47	0.435	0.083	0.0016	0.047	0.337	0.0439	0.0095	0.0020	0.038
2	BS 154	0.302	0.027	0.25	17.58	0.030	0.40	1.26	0.063	(0.002)	0.019	0.31	0.039	0.005	.	0.046
2	13X 12549K	0.29	0.092	1.26	11.70	0.16	0.34	0.43	0.10	.	0.52	1.49	.	0.23	.	.
2	BS 153	0.280	0.018	0.140	17.38	0.026	0.41	0.53	0.052	0.002	0.017	0.30	0.021	0.002	(0.004)	0.045
2	BS 152	0.275	0.022	0.14	13.41	0.320	0.36	0.44	0.050	(0.002)	0.015	0.061	0.020	0.006	.	0.051
3	CZ SP-1A	0.26	0.024	8.6	17.7	0.047	1.87	0.33	0.52	0.004	0.095	0.42	.	0.012	0.02	0.058
1	IARM 352A	0.21	0.0182	0.269	13.11	0.341	1.13	0.357	0.148	(0.0025)	(0.016)	0.38	0.029	(0.012)	0.0015	0.028
1	13X 43020A	0.189	0.0246	0.517	16.07	0.147	1.439	0.415	0.0687	0.0047	0.0191	0.226	0.0212	0.0102	.	0.0542
1	IMZ 154	0.16	0.040	9.86	17.71	0.076	2.18	0.89	0.33	(0.16)	0.105	2.58	.	.	1.00	0.073
1	NCS HS41751A	0.16	0.035	8.07	17.41	0.075	1.70	0.71	0.26	.	0.13	0.33	0.077	.	.	0.068
2	BS 155	0.145	0.014	0.13	16.64	1.00	0.35	0.40	0.035	(0.001)	0.019	0.46	0.032	0.002	.	0.10
1	13X 12536T	0.090	0.0449	12.12	16.09	0.146	0.374	0.546	0.0793	0.108	0.280	2.48	0.0084	0.060	0.444	0.0513
1	13X 12535BE	0.0591	0.0400	14.79	16.95	0.229	0.342	1.407	0.130	0.194	0.146	4.09	0.029	.	0.625	0.252
1	SRM C1154a	0.051	0.06	13.08	19.31	0.100	1.44	0.53	0.44	.	0.38	0.068	.	.	.	0.135
1	VS LG58	0.0280	0.0135	4.26	23.4	0.48	0.99	0.292	0.388	.	.	2.41	.	0.214	0.039	0.264
1	13X 19004C	0.0135	0.074	17.90	22.77	0.075	2.01	0.35	0.0112	0.030	0.0501	3.43	.	0.152	.	0.041

Number	Ag	As	B	O	Pb	Sn	Ta	W	Units
CT 416	0.0002	.	.	.	<0.001	0.005	.	.	30-35 mm Ø x ~16 mm
BS 150	.	.	.	0.012	.	(0.003)	.	0.01	35 mm Ø x ~7 or 19+ mm
SRM 1223	32 mm Ø x 19 mm
BS 90F	.	.	.	0.011	.	0.005	.	0.032	38 mm Ø x ~7 to 19 mm last
BS 303	.	.	0.0013	0.0058	.	0.0091	.	0.023	44 mm Ø x ~7 or 19+ mm 17025
13X 30300A	.	.	0.0035	.	.	.	.	.	~40 mm Ø x ~15 mm
CT 303	0.0003	.	.	.	0.001	0.007	.	.	30-35 mm Ø x ~16 mm
IARM 355A	.	(0.004)	(0.0011)	(0.010)	(0.0002)	(0.005)	.	(0.018)	31 mm Ø x 2 or 18 mm
BS 154	.	.	.	0.008	.	(0.005)	.	(0.01)	38 mm Ø x ~7 or 19+ mm
13X 12549K	40 mm Ø x 15 mm
BS 153	.	(0.004)	.	.	(0.001)	0.002	.	(0.002)	35 mm Ø x ~7 or 19+ mm
BS 152	0.003	.	<0.01	41 mm Ø x ~7 or 19+ mm
CZ SP-1A	.	0.006	0.0007	.	.	0.01	.	0.03	~39 mm Ø x 25 mm
IARM 352A	.	(0.005)	(0.0007)	(0.005)	.	0.0046	.	(0.005)	31 mm Ø x 2 or 18 mm
13X 43020A	.	.	(0.0032)	.	.	.	.	0.0108	~40 mm Ø x ~15 mm
IMZ 154	40 mm Ø x 40 mm
NCS HS41751A	38 mm Ø x 38 mm
BS 155	.	.	.	0.0048	.	(0.003)	.	.	36 mm Ø x ~7 or 19+ mm
13X 12536T	.	.	0.0214	.	.	0.0068	0.104	.	~40 mm Ø x ~15 mm
13X 12535BE	.	.	0.0051	.	.	0.0194	(0.020)	.	~40 mm Ø x ~15 mm
SRM C1154a	0.017	.	.	.	32 mm Ø x 19 mm
VS LG58	0.21	~47 mm Ø x ~30 mm
13X 19004C	.	.	(0.001)	.	.	(0.001)	0.011	.	~40 mm Ø x ~15 mm

SELENIUM IN STAINLESS AND HIGH ALLOY STEEL

= Class, where 1 = CRM and 2 = RM

#	Number	Se	Ni	Cr	C	Mn	P	S	Si	Cu	Al	Co	Mo	N	Nb	Ti
2	BS 151	0.328	0.24	13.19	0.090	0.41	0.021	0.018	0.65	0.11	(0.002)	0.018	0.088	0.022	0.005	(<0.003)
2	BS 186A	0.229	35.86	0.16	0.040	0.72	0.008	0.0053	0.19	0.016	(0.001)	0.028	0.0032	0.0026	(<0.002)	(<0.003)
1	IARM 253A	0.21	9.17	17.90	0.041	1.50	0.140	0.0089	0.50	0.223	0.003	0.088	0.348	0.0373	0.016	0.002
1	IARM 24B	0.19	35.86	0.121	0.053	0.82	0.009	0.0010	0.28	0.052	0.002	0.036	0.011	0.0017	<0.01	0.002
1	IARM 353A	0.17	0.265	17.01	0.98	0.95	0.019	0.025	0.49	0.13	0.0018	0.032	0.50	0.027	(0.011)	0.0015
2	CT ISO124A	0.167	48.07	0.079	0.011	0.73	0.007	0.006	0.40	0.015	.	0.012	0.009	.	.	.
2	BS 156	0.142	0.35	16.87	1.06	1.15	0.022	0.007	0.47	0.09	(<0.002)	0.047	0.50	0.041	0.005	0.001
1	IARM 253B	0.13	9.11	17.64	0.051	1.61	0.13	0.011	0.46	0.44	(0.004)	0.145	0.59	0.031	0.021	0.0027

Number	B	Fe	O	Sn	Ta	V	W	Zr	Units
BS 151	.	.	0.009	0.005	.	0.046	0.010	.	50 mm Ø x ~7 or 19+ mm
BS 186A	.	.	.	(0.002)	.	0.0012	(0.01)	.	38 mm Ø x ~7, ~12 or 19 mm
IARM 253A	0.0003	.	0.009	0.01	.	0.106	0.10	.	31 mm Ø x 2 or 18 mm
IARM 24B	(0.001)	62.6	0.003	0.0018	<0.005	<0.005	<0.04	<0.005	31 mm Ø x 2 or 18 mm
IARM 353A	(0.0006)	.	(0.005)	0.0056	(0.004)	0.116	0.041	(0.002)	31 mm Ø x 2 mm
CT ISO124A	.	50.65	.	.	.	.	.	.	44-47 mm Ø x ~11 or ~19 mm
BS 156	.	.	0.0045	(0.004)	.	0.13	0.11	.	41 mm Ø x ~7 or 19+ mm
IARM 253B	0.0007	.	0.007	(0.012)	(0.003)	0.092	(0.05)	.	31 mm Ø x 2 or 18 mm

STAINLESS STEEL WITH NI < 5.0 %

CONTINUED ON THE NEXT PAGE

= Class, 1=CRM, 2=RM, and 3=RM with no uncertainties

** Provisional Analysis

Table with 17 columns: #, Number, C, Mn, P, S, Si, Cu, Ni, Cr, Co, Mo, N, Nb, Ti, V, W. Contains multiple rows of material specifications and chemical compositions for various stainless steel grades.

HIGH ALLOY STEEL XRF SET

Part Number:	BS HAS-12	RM except CRM as noted, available as set or individually											* Provisional Analysis					~7 mm Ø discs		
Number Grade	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Al	B	Co	N	Nb	Sn	Ti	V	W	O	
BS 189A AL6XN CRM	0.0147	0.639	0.019	(0.001)	0.30	0.184	23.8	20.4	6.04	0.0129	(0.0002)	0.100	0.198	(0.13)	0.0035	0.0065	0.054	0.037	0.0024	
		CRM 17025																		
BS 179A Alloy 255	0.017	1.04	0.021	0.001	0.44	1.94	5.84	25.45	3.24	(0.009)	(0.001)	0.58	0.184	0.030	0.005	0.006	0.070	(0.2)	.	
BS 183B Greek Ascology CRM	0.181	0.344	0.018	0.0042	0.41	0.074	1.96	12.45	0.33	0.0009	(0.0007)	0.032	0.044	(0.0075)	0.0046	(0.0016)	0.165	3.5	(0.0054)	
BS 186A Invar 36	0.040	0.72	0.008	0.0053	0.19	0.016	35.86	0.16	0.0032	(0.001)	.	0.028	0.0026	(<0.002)	(0.002)	(<0.003)	0.0012	(0.01)	.	
BS 187A Carp. 20Cb3	0.022	0.52	0.017	0.0025	0.26	3.10	33.06	19.75	2.06	(0.009)	0.0022	0.32	0.0157	0.57	0.003	(0.002)	0.10	(0.02)	.	
BS 188B A-286 CRM	0.046	0.247	0.016	(0.0007)	0.266	0.120	24.81	14.32	1.30	0.168	0.0047	0.274	0.0021	0.099	0.0051	2.20	0.264	0.043	0.0006	
BS 190 Nitronic® 40	0.022	9.72	0.015	0.001	0.46	0.072	6.74	19.57	0.15	(0.004)	0.0005	0.044	0.255	(0.004)	0.003	0.002	0.11	0.015	0.0045	
BS 180A Nitronic® 50	0.018	5.05	0.012	0.001	0.32	0.067	13.19	21.09	2.04	0.012	(0.0024)	0.039	0.334	0.20	(0.002)	(0.002)	0.20	0.02	0.003	
BS 181A Nitronic® 60	0.071	8.16	0.019	0.001	4.03	0.18	8.15	16.52	0.21	0.022	0.0009	0.072	0.148	0.017	0.005	0.007	0.094	0.04	0.0010	
BS 193 18Cr-12Mn	0.104	12.11	0.018	0.002	0.66	0.088	1.82	18.48	0.21	(0.003)	0.0007	0.028	0.37	0.014	0.004	0.003	0.107	(0.007)	.	
BS 182 17Cr-15Mn	0.037	15.09	0.022	(0.003)	0.46	0.56	1.11	16.67	0.99	.	.	0.032	(0.40)	(0.005)	(0.003)	(0.003)	0.059	(0.01)	.	
BS 191 16Cr-6Mn-4Si	0.098	5.71	0.024	0.023	3.66	0.33	5.34	16.33	0.36	(0.002)	(0.0006)	0.11	0.117	0.024	(0.006)	0.012	0.083	0.033	.	

CRM

CAST IRON SETS

AVAILABLE IN SETS ONLY, as grouped

Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Mo	Sn	Ti	V	Ce	La	Mg	N
30 mm Ø x 28 mm																	
NCS HS11712a-6	4.02	1.41	0.021	0.026	0.163	1.83	1.89	0.112	0.019	0.726	0.057	0.238	0.509	<0.0001	<0.0001	0.104	0.013
NCS HS11712a-7	3.94	1.38	0.085	0.0048	0.918	1.10	1.37	1.05	0.214	0.168	0.134	0.114	0.390	<0.0001	<0.0001	0.056	0.0063
NCS HS11712a-5	3.52	0.311	0.420	0.019	1.17	0.389	1.03	0.766	.	0.629	0.013	0.161	0.324	<0.0001	<0.0001	0.021	0.0047
NCS HS11712a-4	3.16	0.462	0.396	0.017	1.96	0.921	0.778	1.40	0.0073	0.428	0.024	0.065	0.166	<0.0001	<0.0001	0.025	0.0073
NCS HS11712a-2	2.22	0.301	0.043	0.058	2.44	0.458	0.341	2.13	0.060	0.087	0.044	0.065	0.055	0.0010	0.010	0.0085	0.024
NCS HS11712a-3	2.55	0.878	0.071	0.045	1.50	0.641	0.519	0.417	0.034	0.354	0.021	0.027	0.085	0.027	0.0061	0.024	0.024
NCS HS11712a-1	1.75	0.080	0.580	0.119	3.40	0.025	0.030	2.48	0.248	0.031	0.0031	0.038	0.021	<0.0001	<0.0001	0.0006	0.015
30 mm Ø x 30 mm																	
NCS HS19701-7	4.13	2.06	0.306	0.111	1.85	.	0.026	0.157	.	.	0.043	0.399	0.821	.	.	.	.
NCS HS19701-6	3.93	1.46	0.168	0.124	0.99	.	0.094	0.387	.	(0.112)	0.0018	0.105	0.506	.	.	.	.
NCS HS19701-5	3.67	0.596	0.072	0.117	0.183	.	0.502	0.171	.	(0.68)	0.0022	0.066	0.335	.	.	.	.
NCS HS19701-4	3.70	0.857	0.087	0.076	0.451	.	0.032	0.117	.	(0.031)	0.0017	0.030	0.158	.	.	.	.
NCS HS19701-3	3.29	1.22	0.045	0.056	0.689	.	0.046	0.030	.	.	0.009	0.043	0.071	.	.	.	.
NCS HS19701-2	2.99	0.329	0.033	0.038	0.937	.	0.194	0.080	.	.	0.024	0.216	0.044	.	.	.	.
NCS HS19701-1	2.46	0.072	0.011	0.019	0.099	.	0.183	0.511	.	.	0.005	0.0059	0.0090	.	.	.	.

CAST IRON WITH MAGNESIUM - continued on the next page

= Class, where 1 = CRM and 2 = RM

* Provisional Analysis

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Mg	Te	Al	Ce	Co	Mo	Ti	V
1	CZ 20034 17b	4.38	0.501	0.089	0.0040	0.178	0.111	2.34	0.200	0.009	.	(0.002)	(0.003)	0.043	0.030	0.016	0.086
1	CZ 20034 17a	4.30	0.494	0.115	0.0034	0.170	0.082	2.38	0.200	0.007	.	(0.002)	(0.003)	0.043	0.030	0.016	0.086
1	CZ 20034 17c	4.08	0.503	0.104	0.0033	0.150	0.037	2.32	0.178	0.007	.	(0.002)	(0.003)	0.043	0.030	0.015	0.076
1	Y 2863-11	4.03	0.61	0.613	0.026	0.79	0.96	0.46	1.65	0.0075	.	.	.	.	0.94	0.29	0.079
2	CZ SPL17 43A	3.98	1.322	0.190	0.008	1.63	0.385	0.411	0.032	(0.04)	.	0.024	0.017	0.045	0.152	0.065	0.152
2	CZ SPL17 42A	3.94	0.764	0.294	0.0040	1.94	0.199	0.492	0.145	(0.06)	.	0.087	0.039	0.010	0.021	0.126	0.093
1	Y 451045	3.90	0.12	0.023	0.0027	2.29	0.022	0.45	0.028	0.033	.	.	.	.	0.0030	0.016	0.0014
1	SCRM 668/14	3.77	0.702	0.045	0.0220	1.72	0.65	0.096	0.99	0.009	.	.	0.023	.	0.0179	0.086	0.195
1	Y 2863-12	3.77	0.158	0.053	0.057	0.150	0.55	0.192	2.31	0.0024	.	.	.	.	0.44	0.030	0.229
1	CZ 02033 2f	3.77	0.091	0.159	0.009	1.23	0.89	0.658	0.022	0.053	.	0.024	0.018	(0.003)	(0.002)	0.021	0.010
1	CZ 02033 3c	3.68	0.333	0.026	0.007	2.15	0.421	0.040	0.100	0.006	(0.005)	0.024	0.013	0.026	0.490	0.021	0.016
1	SCRM 666/12	3.599	0.106	.	.	1.763	0.0581	1.709	0.102	0.0838	.	.	.	.	0.0979	0.1069	0.0486
2	Y 4510058B-18	3.59	0.435	0.047	0.020	1.68	0.268	0.595	0.526	0.042	.	.	0.022	.	0.180	0.044	0.174
2	Y 4510058C-18	3.59	0.435	0.047	0.020	1.68	0.268	0.595	0.526	0.039	.	.	0.022	.	0.180	0.044	0.174
2	Y 4510058D-18	3.59	0.435	0.047	0.020	1.68	0.268	0.595	0.526	0.036	.	.	0.022	.	0.180	0.044	0.174
2	Y 4510058E-18	3.59	0.435	0.047	0.020	1.68	0.268	0.595	0.526	0.032	.	.	0.022	.	0.180	0.044	0.174
2	CZ SPL17 31A	3.54	0.041	0.025	0.006	2.10	0.005	0.538	0.019	0.070	.	0.005	(0.004)	0.022	0.004	0.007	0.008
1	CZ 20034 15b	3.52	0.048	0.054	0.0031	1.66	1.322	0.681	0.067	0.037	.	0.029	0.021	0.027	0.004	0.025	0.013
2	CZ SPL17 34A	3.48	0.980	0.105	0.008	2.29	0.230	0.493	0.102	0.026	.	0.010	0.008	0.025	0.072	0.044	0.073
1	CZ 20034 15c	3.47	0.060	0.054	0.0028	1.68	1.123	0.728	0.078	0.040	.	0.010	0.030	0.026	(0.002)	0.036	0.019
2	CZ SPL17 32A	3.39	0.288	0.037	0.007	2.74	0.306	0.015	0.060	0.024	.	0.029	(0.004)	(0.002)	0.116	0.044	0.005
1	CZ 02033 3b	3.38	0.260	0.012	0.012	1.74	0.400	0.049	0.235	0.012	.	0.026	0.006	0.012	0.456	0.023	0.009
2	CZ SPL17 40A	3.38	0.042	0.021	0.0035	1.98	0.010	0.045	0.031	0.007	.	0.096	0.012	0.027	0.005	0.015	0.014
1	VS ChG 28	3.29	0.414	0.025	0.015	2.22	1.29	0.166	0.127	0.010	.	0.015	.	.	0.0024	0.0041	0.0020
1	CZ 02033 3d	3.24	0.317	0.008	0.006	2.12	0.396	0.025	0.236	0.016	.	0.055	0.006	0.014	0.453	0.016	0.072

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Mg	Te	Al	Ce	Co	Mo	Ti	V
1	CZ 02033 1f	3.23	0.693	0.043	0.005	2.68	0.018	0.373	0.035	0.070	(0.007)	0.073	0.036	0.024	0.182	0.041	0.014
1	CZ 20034 13c	3.15	0.704	0.0261	0.0044	2.23	0.089	1.299	0.124	0.064	.	0.022	0.011	0.024	0.360	0.015	0.043
1	CZ 20034 14c	3.14	0.275	0.0162	0.0081	2.49	0.585	0.030	0.045	0.017	.	0.007	0.019	0.009	0.646	0.018	0.013
1	CZ 20034 13a	3.13	0.691	0.0244	0.0046	2.19	0.021	1.266	0.122	0.053	.	0.017	0.011	0.024	0.364	0.014	0.048
1	CZ 20034 13b	3.12	0.692	0.0243	0.0041	2.12	0.021	1.313	0.125	0.054	.	0.019	0.011	0.024	0.364	0.012	0.048
1	VS ChG 24	3.05	0.245	0.260	0.0048	2.50	0.100	0.87	0.031	0.015	.	0.007	.	.	0.031	0.060	0.0067
1	VS ChM5/1	3.04	0.311	0.056	0.016	1.37	.	.	.	0.045	.	0.013	.	.	.	.	.
1	SCRM 667/13	3.04	0.222	.	.	2.866	0.497	1.303	0.294	0.070	.	.	0.110	.	.	.	0.103
1	BS CC-11A	3.07	1.23	0.020	0.011	1.90	0.007	0.046	0.048	0.014	0.026	0.0055	0.018	(0.007)	0.0063	0.0091	0.0066
1	BS CC-11B	2.97	1.17	0.020	0.008	1.94	0.0210	0.173	0.189	0.025	0.019	0.028	0.045	(0.022)	0.018	0.031	0.0179
1	VS ChM6/1	3.03	0.54	0.055	0.0074	2.75	.	.	.	0.072	.	0.022	.	.	.	.	.
1	VS ChM8/1	3.02	0.83	0.055	0.0034	3.39	.	.	.	0.105	.	0.041	.	.	.	.	.
2	CZ SPL17 36A	3.02	0.057	0.026	0.010	2.13	0.007	0.011	0.014	0.012	.	(0.003)	0.0007	(0.004)	0.004	0.021	0.021
1	VS ChM13	2.96	1.05	0.043	0.009	2.98	0.062	1.65	0.273	0.09	.	0.065	.	.	.	0.018	0.0096
1	SCRM 669/14	2.955	0.526	.	.	2.201	0.194	0.473	0.214	0.0224	.	.	0.0415	.	0.0550	0.0499	0.532
1	VS ChG 26	(2.9)	0.126	0.123	0.0041	2.98	0.014	1.52	0.050	0.044	.	0.038	.	.	0.075	0.0026	0.040
1	VS ChM10	2.89	0.43	0.067	0.017	1.13	0.082	0.85	0.067	0.024	.	0.005	.	.	.	0.028	0.079
1	SRM C1137a	2.86	0.52	0.087	0.017	1.15	0.192	2.17	0.643	0.032	.	(0.007)	0.016	.	0.86	(0.04)	0.019
2	CZ SPL17 33A	2.75	0.710	0.060	0.007	3.10	0.730	0.389	0.239	0.021	.	0.054	0.026	0.015	0.220	0.130	0.356
1	SRM C2424	2.68	0.268	0.041	0.024	3.37	0.125	0.061	0.13	0.006	.	(<0.01)	0.0046	(0.05)	0.019	0.050	0.083
1	VS ChM9	2.61	1.28	0.075	0.021	1.59	0.095	0.38	0.083	0.011	.	0.016	.	.	.	0.027	0.068
1	VS ChM11	2.26	0.77	0.032	0.011	2.32	0.067	1.75	0.122	0.066	.	0.035	.	.	.	0.014	0.0044
1	Y 2863-7	1.98	3.42	0.067	0.0061	3.10	0.089	4.47	0.150	0.050	.	.	0.019	.	0.052	0.060	0.87

BS: 28-34 mm Ø x 17-35 mm

CKD 24x: 37 mm x 37 mm x ~15-20 mm
CZ: 40 mm Ø x 18 mmSCRM: 48 mm x 42 mm x 12 mm
SRM: 32 mm Ø x 19 mmVS: ~40 mm Ø x ~40 mm
Y: 30 mm Ø x 30 mm

CAST IRON WITH MAGNESIUM - continued from the previous page

sizes shown below

Number	As	B	Bi	Ca	Fe	La	Nb	Pb	Sb	Se	Sn	W	Zr	Other
CZ 20034 17b	0.008	(0.0002)	(0.001)	.	.	.	.	(0.002)	.	.	(0.002)	0.004	.	.
CZ 20034 17a	0.007	(0.0002)	(0.001)	.	.	.	.	(0.002)	.	.	(0.002)	0.004	.	.
CZ 20034 17c	0.0005	(0.0006)	(0.002)	.	.	.	.	(0.002)	.	.	(0.002)	0.004	.	.
Y 2863-11	(0.022)	0.053	.	.	.	.	0.33	(0.0057)	(0.174)	.	.	(0.108)	0.010	.
CZ SPL17 43A	.	0.0014	(0.002)	.	.	.	0.008	0.014	(0.004)	.	0.067	0.038	Zn:0.013	.
CZ SPL17 42A	.	0.0036	(0.002)	.	.	.	0.045	0.020	0.015	.	0.027	0.020	Zn:0.013	.
Y 451045	.	.	.	.	.	.	.	.	.	.	.	.	.	last
SCRM 668/14	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Y 2863-12	(0.0097)	0.0078	.	.	.	.	0.21	(0.056)	(0.471)	.	(0.307)	0.13	.	.
CZ 02033 2f	.	0.0020	(0.002)	.	.	.	.	0.005	0.028	.	0.014	(0.003)	(0.005)	Zn: 0.018
CZ 02033 3c	(0.007)	0.0044	(0.002)	.	.	.	.	0.005	.	.	0.009	(0.003)	.	.
SCRM 666/12	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Y 4510058B-18	0.0021	0.024	.	.	.	.	.	.	.	.	.	.	.	.
Y 4510058C-18	0.0021	0.024	.	.	.	.	.	.	.	.	.	.	.	.
Y 4510058D-18	0.0021	0.024	.	.	.	.	.	.	.	.	.	.	.	.
Y 4510058E-18	0.0021	0.024	.	.	.	.	.	.	.	.	.	.	.	last
CZ SPL17 31A	.	(0.0004)	.	.	.	.	.	.	.	.	(0.003)	(0.005)	.	.
CZ 20034 15b	(0.003)	0.0033	0.010	.	.	.	.	.	0.058	.	0.005	0.007	.	.
CZ SPL17 34A	.	0.0076	(0.005)	.	.	.	0.014	(0.006)	0.007	.	0.051	0.016	Zn:0.007	.
CZ 20034 15c	(0.003)	0.0057	0.008	.	.	.	.	.	0.056	.	0.006	0.004	.	.
CZ SPL17 32A	.	(0.0005)	(0.007)	.	.	.	.	0.022	0.023	.	(0.012)	(0.008)	Zn:0.011	.
CZ 02033 3b	.	0.0042	0.001	.	.	.	.	0.009	.	.	0.019	.	.	.
CZ SPL17 40A	.	0.0008	.	.	.	.	.	.	.	.	(0.004)	.	Zn:(0.002)	.
VS ChG 28	.	.	.	.	.	.	.	.	0.015	.	0.0017	.	.	.
CZ 02033 3d	(0.018)	0.0071	(0.002)	.	.	.	.	0.005	0.007	.	0.009	.	.	.

Number	As	B	Bi	Ca	Fe	La	Nb	Pb	Sb	Se	Sn	W	Zr	Other
CZ 02033 1f	.	0.0043	(0.001)	.	.	.	.	0.009	.	.	0.030	0.022	(0.008)	.
CZ 20034 13c	(0.002)	.	.	.	.	.	.	.	(0.002)	.	0.014	(0.003)	(0.02)	.
CZ 20034 14c	0.035	0.0123	.	.	.	.	.	.	0.020	.	0.025	(0.003)	0.013	Zn: 0.010
CZ 20034 13a	(0.002)	.	.	.	.	.	.	.	(0.002)	.	0.014	(0.003)	0.029	.
CZ 20034 13b	(0.002)	.	.	.	.	.	.	.	(0.002)	.	0.014	(0.003)	0.023	.
VS ChG 24	.	.	.	.	.	.	.	.	0.009	.	0.077	.	.	.
VS ChM5/1	.	.	.	.	.	.	.	.	.	.	.	.	.	.
SCRM 667/13	.	.	.	.	.	.	.	.	.	.	.	.	.	.
BS CC-11A	0.0018	0.0008	(0.005)	(0.0009)	93.6	(0.004)	(0.007)	(0.002)	(0.01)	Zn:0.0032	(0.004)	(0.017)	(0.0025)	17025
BS CC-11B	0.0074	0.0033	(0.016)	(0.002)	93.2	(0.008)	0.043	0.014	0.026	Zn:0.008	0.021	0.028	0.0165	17025
VS ChM6/1	.	.	.	.	.	.	.	.	.	.	.	.	.	.
VS ChM8/1	.	.	.	.	.	.	.	.	.	.	.	.	.	.
CZ SPL17 36A	.	0.022	(0.007)	.	.	.	.	0.016	.	.	(0.002)	.	Zn:(0.002)	.
VS ChM13	.	.	.	.	.	.	.	.	.	.	.	.	.	.
SCRM 669/14	.	.	.	.	.	.	.	.	.	.	.	.	.	.
VS ChG 26	.	.	.	.	.	.	.	.	.	.	0.031	.	.	.
VS ChM10	.	.	.	.	.	.	.	.	.	.	.	.	.	.
SRM C1137a	.	.	.	.	.	.	.	.	.	.	.	.	.	.
CZ SPL17 33A	.	0.0064	(0.002)	.	.	.	0.032	0.010	0.019	.	0.039	0.079	Zn:0.009	.
SRM C2424	.	(0.002)	.	.	.	0.0011	.	.	.	.	.	.	.	.
VS ChM9	.	.	.	.	.	.	.	.	.	.	.	.	.	.
VS ChM11	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Y 2863-7	(0.021)	0.100	0.041	(0.0025)	(0.010)	.	(0.0073)	.	.	.

Number	As	B	Bi	Ca	Fe	La	Nb	Pb	Sb	Se	Sn	W	Zr	Other
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BS: 28-35 mm Ø x 17-35 mm

CZ: 40 mm Ø x 18 mm
SCRM: 48 mm x 42 mm x 12 mmSRM: 32 mm Ø x 19 mm
Y: 30-35 mm Ø x 18-30 mmVS ChM: ~39 mm Ø x ~39 mm
VS ChG: ~34 mm x ~35 mm X ~22 mm

RM CAST IRON WITH YOUR CHOICE OF MAGNESIUM LEVELS each unit: 2 pcs mushroom 43 mm Ø x 5 mm

Number	C	Mn	P	S	Si	Cu	Ni	Cr	Mg	Al	Ce	Co	Sn	Ti	V	Zn	Other
CTIF 6134	3.70	0.25	0.030	<0.01	1.60	0.020	2.00	0.040	*	.	<0.03	.	.	.	.	.	.
CTIF 8532	3.7	0.288	0.05	.	2.6	0.0443	0.888	0.04	*	.	<0.025	.	0.0303	0.02	0.07	.	.
CTIF 6135	3.6	0.38	0.0130	(0.003)	0.9	0.0219	1.98	0.04	*	(0.006)	.	0.037	.	0.007	0.0155	.	.
CTIF 4500	3.38	0.60	0.059	(0.002)	1.97	.	1.45	0.014	*	0.033	0.023	0.065	.	.	.	.	.
CTIF 5781	3.35	0.26	0.030	(0.0025)	2.50	0.0061	0.83	0.040	*	.	.	(0.004)	.	0.0208	0.0150	.	.
CTIF 4497	3.12	0.605	0.043	(<0.002)	2.66	0.048	1.90	0.040	*	.	.	.	0.094	0.031	0.44	.	.
CTIF 7160	3.1	0.57	0.05	(0.001)	2.4	0.08	1.0	(0.1)	*	(0.02)	0.02	0.09	.	0.013	0.018	.	As: 0.009
CTIF 5037	3.04	0.76	0.043	(0.0025)	3.40	.	0.64	0.014	*	.	.	.	.	0.029	.	.	.
CTIF 3601B	3.0	0.35	0.037	(0.005)	2.1	0.019	1.08	0.029	*	.	<0.01	.	.	0.016	(0.005)	<0.05	Pb:(<0.002)
CTIF 8018	3.0	0.7	0.07	(0.0015)	3.0	0.08	0.127	0.09	*	0.02	(<0.02)	.	0.07	0.06	0.39	.	Sb:(0.01)
CTIF 6736	2.8	0.65	0.012	(0.002)	1.6	0.0258	1.7	0.03	*	.	.	.	.	0.008	(0.03)	.	.
CTIF 5783	2.55	0.2	0.0266	(0.003)	2.3	0.110	1.23	0.05	*	.	.	0.0074	.	0.015	0.0127	.	As: 0.0016

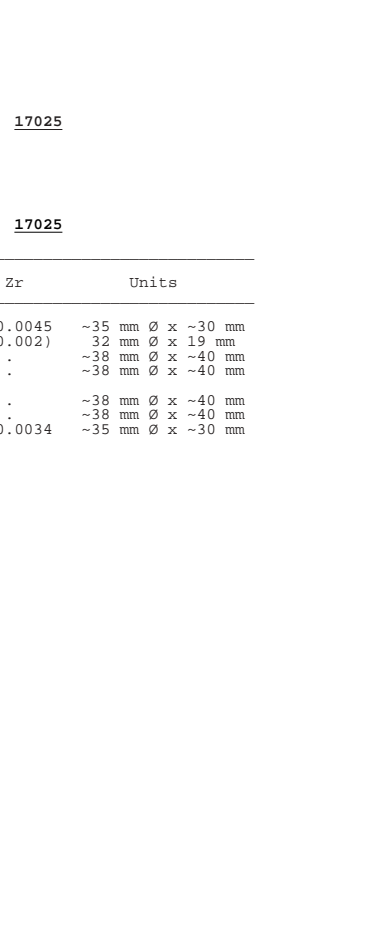
Magnesium level available in the below samples. X = available

For Mg Range	Order Suffix	3601B	4497	4500	5037	5781	5783	6134	6135	6736	7160	8018	8532
<0.005	<0.005	X	.	.	.	X	X	.	.	.	.	X	X
0.005 - 0.009	0.005	X	.	.	X	X	X	.	.	X	.	X	X
0.010 - 0.014	0.01	.	.	.	X	X	X	.	.	X	X	X	X
0.015 - 0.024	0.02	X	.	.	X	X	X	.	X	X	X	X	X
0.025 - 0.034	0.03	.	.	.	X	.	X	.	X	X	X	X	X
0.035 - 0.044	0.04	.	.	.	X	.	X	.	X	X	X	X	X
0.045 - 0.054	0.05	.	.	.	X	.	X	.	X	X	X	X	X
0.055 - 0.064	0.06	.	X	.	.	.	X	.	X	X	X	X	X
0.065 - 0.074	0.07	.	X	X	.	.	X	.	X	X	X	X	X
0.075 - 0.084	0.08	.	X	X	.	.	X	X	X	X	X	X	X
0.085 - 0.094	0.09	.	X	X	.	.	X	X	X	X	X	X	X
0.095 - 0.104	0.10	.	.	.	.	.	X	X	X	X	X	X	X
0.105 - 0.114	0.11	.	.	.	.	.	.	X	X	X	X	X	X
0.115 - 0.124	0.12	.	.	.	.	.	.	X	X	X	X	X	X
0.125 - 0.134	0.13	.	.	.	.	.	.	X	X	X	X	X	X
0.135 - 0.144	0.14	.	.	.	.	.	.	X	X	X	X	X	X
0.145 - 0.154	0.15	.	.	.	.	.	.	.	.	.	X	.	.
0.155 - 0.164	0.16	.	.	.	.	.	.	.	.	.	X	.	.
0.165 - 0.174	0.17	.	.	.	.	.	.	.	.	.	X	.	.
0.175 - 0.184	0.18	.	.	.	.	.	.	.	.	.	X	.	.

The above cast iron samples can be ordered with your choice of Magnesium. Examples:
 to order CTIF 6736 with Mg 0.035 - 0.044 then order as part number CTIF 6736 0.04
 to order CTIF 8018 with 0.08 % Mg, order as part number CTIF 8018 0.08

CRM WHITE IRON analysis listed in mass %

Number	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo	Nb	Ti	V
BS WI-2	3.61	0.80	0.22	0.056	0.52	0.0124	0.254	0.229	0.0118	0.219	0.128	0.089	0.215
SRM CII45	2.92	0.187	0.215	0.191	0.271	0.46	0.62	0.63	0.058	0.48	.	0.012	0.112
VS ChG 8/6	(2.7)	1.51	0.040	0.013	3.93	.	.	(0.2)	.	.	.	.	(0.3)
VS ChG 10/6	(2.7)	0.86	0.103	0.0072	2.86	.	.	(0.2)	.	.	.	.	(0.3)
VS ChG 11/6	(2.7)	0.312	0.23	0.039	1.79	.	.	(0.2)	.	.	.	.	(0.3)
VS ChG 9/6	(2.7)	0.155	0.38	0.071	0.80	.	.	(0.2)	.	.	.	.	(0.3)
BS WI-1	1.75	0.24	0.051	0.114	1.90	0.027	0.053	0.048	0.0074	0.0103	0.027	0.020	0.008



Number	Al	As	B	Bi	Ca	Fe	Mg	Pb	Sb	Sn	W	Zr	Units
BS WI-2	0.0192	0.0016	0.0008	.	(0.00013)	[93.6]	(0.0002)	0.013	0.023	0.0042	0.023	0.0045	~35 mm Ø x ~30 mm
SRM CII45	(0.04)	(0.03)	(0.02)	(<0.01)	.	.	.	0.0012	(0.04)	(0.10)	.	(0.002)	32 mm Ø x 19 mm
VS ChG 8/6	.	(0.003-0.006)	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~40 mm
VS ChG 10/6	.	(0.003-0.006)	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~40 mm
VS ChG 11/6	.	(0.003-0.006)	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~40 mm
VS ChG 9/6	.	(0.003-0.006)	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~40 mm
BS WI-1	0.075	0.0067	0.0032	.	0.0005	[95.5]	0.0009	0.115	.	0.0081	0.185	0.0034	~35 mm Ø x ~30 mm

CAST IRON WITH C < 2.75%

= Class, 1 = CRM and 2 = RM

analysis in mass % except * = mg/kg

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Co	Mo	Nb	Sn	Ti	V	Zn
1	VS ChL4/1	2.69	1.37	0.054	0.027	1.99	0.161	0.725	0.92	.	0.017	0.116	.	.	0.11	0.258	.
1	SRM C1291	2.67	1.14	0.028	0.032	1.34	0.26	4.34	2.78	.	.	0.32	.	.	.	0.031	.
1	VS ChG 6/9	2.65	0.83	0.54	0.027	0.53	0.34	.	0.241	.	.	.	.	.	0.028	0.130	.
1	DSZU CH01	2.61	0.258	0.012	0.0045	1.95	0.097	0.072	0.88	0.079	(0.06)	0.070	(0.010)	(0.05)	0.132	0.134	.
1	VS ChG 40	2.59	1.56	0.059	0.019	1.60	0.98	1.61	1.47	.	.	0.229	.	.	0.18	0.325	.
1	11X C8V	2.60	0.394	1.00	0.204	1.643	0.310	0.275	0.148	0.086	0.126	0.148	0.0217	0.1063	0.235	0.064	0.0068
1	SCRM 661/4	2.56	0.30	0.84	0.068	2.96	.	.	(1)	.	.	.	.	.	.	.	.
1	SCRM 656/9	2.537	0.820	0.060	0.108	2.504	.	.	.	.	.	.	.	.	.	.	.
1	Y 2863-2	2.50	1.83	0.069	0.026	3.14	0.020	3.73	0.136	.	.	0.096	.	.	0.066	0.61	.
1	VS ChG 37	2.49	0.92	0.038	0.046	2.03	0.512	0.90	0.82	.	.	0.55	.	.	0.092	0.227	.
1	SCRM 673/1	2.455	0.123	0.317	0.0112	1.702	.	0.103	0.0423	0.0287	0.053	0.0092	.	0.0206	0.0718	0.052	.
1	CZ 20034 11b	2.44	0.382	0.271	0.140	3.67	0.130	0.082	1.178	0.067	0.005	1.144	.	0.074	0.041	0.182	.
1	VS ChG 38	2.43	0.302	0.386	0.084	2.30	1.20	0.162	1.98	.	.	0.046	.	.	0.105	0.119	.
1	CZ 02033 5b	2.42	0.812	0.033	0.073	1.32	0.031	0.188	0.061	0.062	.	0.089	.	.	0.007	0.005	.
1	VS ChL2/1	2.38	1.03	0.054	0.023	0.55	0.97	0.114	0.077	.	0.013	0.012	.	.	0.009	0.050	.
1	CZ 20034 11a	2.37	0.343	0.271	0.163	3.31	0.086	0.084	1.219	0.046	0.005	1.130	.	0.070	0.028	0.184	.
1	SCRM 652/4	2.34	1.19	0.071	0.129	0.878	.	.	(1)	.	.	.	.	.	.	.	.
1	DSZU CH07	2.33	1.36	0.090	0.064	3.01	0.35	0.403	0.34	0.036	.	0.66	(0.08)	(0.07)	0.150	0.52	.
1	CZ 02033 5c	2.30	0.704	0.027	0.091	1.40	0.013	0.188	0.085	0.103	0.013	0.104	.	(0.002)	0.008	0.054	.
1	11X C4S	1.954	0.565	0.1014	0.096	2.98	0.095	3.21	1.382	0.006	0.0210	0.177	0.0233	0.0140	0.080	0.0165	0.0037
1	SCRM 675	1.92	1.81	0.045	0.072	1.29	0.012	0.210	0.080	0.007	0.023	0.034	.	0.0062	0.007	0.178	0.0006
1	SCRM 655/4	1.90	0.44	0.180	0.076	2.110	.	.	(1)	.	.	.	.	.	.	.	.
1	Y 2863-1	1.78	2.41	0.021	0.009	3.62	0.022	4.77	0.031	.	.	0.038	0.0052	.	0.068	1.13	.

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Co	Mo	Nb	Sn	Ti	V	Zn
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Number	As	B	Bi	Ca*	Ce	Mg	N	Pb	Sb	Se	Te	W	Zr	Units
VS ChL4/1	~38 mm Ø x ~38 mm
SRM C1291	32 mm Ø x 19 mm
VS ChG 6/9	(0.003)	.	.	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~40 mm
DSZU CH01	.	(0.03)	.	(10)	.	(0.0005)	.	.	.	.	.	(0.02)	.	~30 mm x ~35 mm
VS ChG 40	.	.	.	.	.	.	.	.	.	.	.	.	.	~34 mm Ø x ~37 mm
11X C8V	0.0812	0.0366	0.014	.	.	.	0.0065	0.0052	0.069	0.0210	0.0049	0.0258	0.0064	~40 mm Ø x ~15 mm
SCRM 661/4	.	.	.	.	.	.	.	.	.	.	.	.	.	48 mm x 42 mm x 12 mm
SCRM 656/9	.	.	.	.	.	.	.	.	.	.	.	.	.	48 mm x 42 mm x 12 mm
Y 2863-2	.	0.0025	.	.	.	.	.	.	.	.	.	.	.	30 mm Ø x 18-30 mm
VS ChG 37	.	.	.	.	.	.	.	.	.	.	.	.	.	~34 mm Ø x ~37 mm
SCRM 673/1	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm x 37 mm x 10 mm
CZ 20034 11b	0.005	0.0032	0.007	.	.	.	.	0.007	0.011	.	.	(0.005)	0.007	40 mm Ø x 18 mm
VS ChG 38	.	.	.	.	.	.	.	.	.	.	.	.	.	~34 mm Ø x ~37 mm
CZ 02033 5b	.	0.014	0.020	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 18 mm
VS ChL2/1	.	.	.	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~38 mm
CZ 20034 11a	0.005	0.0018	0.011	.	.	.	.	0.017	0.013	.	.	(0.005)	0.007	40 mm Ø x 18 mm
SCRM 652/4	.	.	.	.	.	.	.	.	.	.	.	.	.	48 mm x 42 mm x 12 mm
DSZU CH07	.	(0.13)	.	(10)	.	(0.01)	.	.	.	.	.	.	.	~35 mm x ~35 mm x ~19mm
CZ 02033 5c	.	0.0078	0.007	.	.	.	.	.	.	(0.002)	(0.010)	.	(0.009)	40 mm Ø x 18 mm
11X C4S	0.0235	0.0351	0.0070	.	.	.	0.0126	0.034	0.0055	0.009	.	.	0.099	~40 mm Ø x ~15 mm
SCRM 675	0.035	.	.	.	.	.	.	.	.	.	.	.	.	40 mm x 37 mm x 10 mm
SCRM 655/4	48 mm x 42 mm x 12 mm
Y 2863-1	.	0.0024	30 mm Ø x 18-30 mm

Number	As	B	Bi	Ca*	Ce	Mg	N	Pb	Sb	Se	Te	W	Zr	Units
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ALLOYED CAST IRON, CHART 2 of 2

= Class, where 1 = CRM and 2 = RM

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Mo	Pb	Sn	Ti	V	Mg	N
1	Y 451052-3	2.40	1.06	0.115	0.015	0.821	0.953	1.55	13.30	.	0.869	.	.	0.171	0.482	.	.
2	BAS CRRM3/2	2.37	0.92	0.073	0.087	1.21	1.09	1.35	18.78	0.102	1.58	.	.	0.015	0.042	.	.
2	DSZU CH023	2.33	0.43	0.023	0.073	0.98	0.054	0.715	23.45	0.255	1.46	.	.	0.38	0.288	.	.
1	Y 451054-4	2.31	0.725	0.071	0.046	1.40	0.739	0.914	17.60	.	1.44	.	.	0.084	0.46	.	.
1	Y TSK200	2.11	0.82	0.319	0.022	0.17	1.86	3.22	4.97	.	3.50	.	.	.	0.60	.	0.021
2	BAS NIRM1	2.05	6.72	0.055	0.005	3.15	0.20	11.80	0.246	.	.	.	.	.	.	0.021	.
2	DSZU CH024	2.01	1.22	0.102	0.037	2.18	0.88	0.222	27.84	0.096	3.86	.	.	0.099	0.164	.	.
1	Y 451052-4	2.00	0.803	0.090	0.025	1.16	0.738	1.07	18.28	.	0.598	.	.	0.087	0.380	.	.
2	BAS NIRM4	1.97	2.37	0.051	0.008	3.03	0.52	20.2	3.56	.	.	.	.	.	.	0.014	.
1	NCS HS11789	1.97	1.08	0.048	0.076	2.58	6.39	17.80	2.51	0.061	0.062	0.015	0.014	0.011	0.0093	.	.
2	BAS CRRM2/1	1.92	1.11	0.097	0.079	1.18	1.59	1.61	14.13	0.054	2.44	.	.	0.070	0.063	.	.
1	VS ChG 46	1.87	0.067	0.0106	0.108	3.24	0.0109	5.44	8.58	.	0.63	.	.	.	0.109	.	.
2	BAS CRRM1/1	1.83	1.45	0.132	0.099	1.53	2.01	2.03	11.18	0.117	3.05	.	.	0.096	0.040	.	.
1	Y 451054-5	1.83	0.466	0.043	0.091	1.80	0.904	0.517	23.40	.	0.739	.	.	0.068	0.26	.	.
1	Y TSK202	1.81	1.16	0.201	0.057	2.00	1.10	1.91	15.42	.	2.20	.	.	.	0.33	.	0.075
2	DSZU CH025	1.80	0.387	0.030	0.026	2.70	1.23	1.77	35.14	0.351	0.302	.	.	0.117	0.044	.	.
2	BAS CRRM1/2	1.70	1.43	0.16	0.099	1.84	1.97	2.03	11.28	0.140	3.06	.	.	0.054	0.063	.	.
2	DSZU CH026	1.62	0.305	0.050	0.032	1.14	0.288	3.63	35.87	0.059	0.96	.	.	0.013	0.067	.	.
1	Y 451052-5	1.48	0.579	0.041	0.058	1.37	0.583	0.708	22.55	.	0.359	.	.	0.056	0.314	.	.
2	BAS NIRM8/2	1.45	1.58	0.105	0.014	5.61	0.23	35.3	2.47	.	0.77	.	.	.	.	0.033	.
1	Y 451054-6	1.45	0.254	0.024	0.123	2.38	1.15	0.216	28.96	.	0.213	.	.	0.084	0.13	.	.
1	VS ChG44	1.24	0.87	(1.2)	0.076	1.50	2.27	0.175	25.44	.	0.035	.	.	0.104	0.079	.	.
1	Y TSK203	1.23	0.68	0.117	0.044	0.46	0.75	1.55	19.93	.	1.58	.	.	.	0.22	.	0.094
1	Y 451052-6	1.16	0.302	0.033	0.086	1.44	0.845	0.289	25.76	.	0.150	.	.	0.019	0.146	.	.
1	Y TSK204	0.91	0.34	0.078	0.063	1.00	0.53	0.97	25.37	.	0.95	.	.	.	0.14	.	0.114

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Mo	Pb	Sn	Ti	V	Mg	N
	Number	B	Ce	Co	Nb	W	Units		Other								
	Y 451052-3	0.102	.	.	0.149	1.57	30 mm Ø x 18-30 mm										
	BAS CRRM3/2	.	.	.	.	.	40 mm x 37 mm x 10 mm										
	DSZU CH023	.	.	.	.	.	35 mm x 35 mm x 16 mm										
	Y 451054-4	.	.	.	.	.	30 mm Ø x 18-30 mm										
	Y TSK200	.	.	.	.	.	35 mm Ø x 18-30 mm										
	BAS NIRM1	.	0.018	.	.	.	40 mm x 37 mm x 10 mm										
	DSZU CH024	.	.	.	.	.	35 mm x 35 mm x 16 mm										
	Y 451052-4	0.086	.	.	0.071	1.05	30 mm Ø x 18-30 mm										
	BAS NIRM4	.	0.011	.	0.37	.	40 mm x 37 mm x 10 mm										
	NCS HS11789	0.0008	.	(0.0075)	.	(0.0002)	31 mm Ø x 28 mm		As: 0.0076		Bi: 0.067						
	BAS CRRM2/1	.	.	.	.	.	40 mm x 37 mm x 10 mm										
	VS ChG 46	.	.	.	.	Sb:0.140	~35 mm Ø x ~17 mm										
	BAS CRRM1/1	.	.	.	.	.	40 mm x 37 mm x 10 mm		last								
	Y 451054-5	.	.	.	.	.	30 mm Ø x 18-30 mm										
	Y TSK202	.	.	.	.	.	35 mm Ø x 18-30 mm										
	DSZU CH025	.	.	.	.	.	35 mm x 35 mm x 16 mm										
	BAS CRRM1/2	.	.	.	.	.	40 mm x 37 mm x 10 mm										
	DSZU CH026	.	.	.	.	.	35 mm x 35 mm x 16 mm										
	Y 451052-5	0.076	.	.	0.022	0.694	30 mm Ø x 18-30 mm										
	BAS NIRM8/2	.	0.013	.	.	.	48 mm x 42 mm x 12 mm										
	Y 451054-6	.	.	.	.	.	30 mm Ø x 18-30 mm										
	VS ChG44	.	.	.	.	.	~36 mm x ~36 mm Ø x ~18 mm		last								
	Y TSK203	.	.	.	.	.	35 mm Ø x 18-30 mm										
	Y 451052-6	0.055	.	.	0.014	0.370	30 mm Ø x 18-30 mm										
	Y TSK204	.	.	.	.	.	35 mm Ø x 18-30 mm										
	Number	B	Ce	Co	Nb	W	Units		Other								

RM CAST IRON MUSHROOMS CONTINUED ON THE NEXT PAGE

typical analysis

each unit is one pair of 43 mm Ø x 5 mm mushroom discs

Number	C	Si	Mn	P	S	Cu	Ni	Cr	Al	Co	Mo	Sn	Ti	V	W
CTIF F019	4.04	1.05	1.05	0.032	0.057	.	.	.	.	.	.	.	.	.	.
CTIF F012	3.71	1.86	0.44	0.038	0.004	0.77	.	.	0.008	.	.	0.011	.	.	.
CTIF F08	3.6	1.04	0.37	0.107	0.021	0.215	0.30	0.30	.	.	0.005	0.05	0.055	0.014	.
CTIF FCR7	3.59	1.07	0.365	0.099	0.0427	0.704	0.947	33.65	.	.	2.62	.	.	.	.
CTIF F06	3.49	0.55	0.715	0.87	0.106	0.120	0.128	0.45	.	.	0.202	0.039	0.080	0.110	.
CTIF F010	3.5	0.67	1.05	0.20	0.101	0.114	0.118	0.38	.	.	0.20	.	0.1	0.08	.
CTIF NH3	3.47	0.85	0.175	0.36	0.024	0.031	2.53	1.76	.	.	0.73	.	.	.	.
CTIF F011	3.45	1.57	0.685	0.052	0.103	0.211	0.235	0.34	.	(0.013)	0.225	0.066	0.078	0.113	.
CTIF F018	3.43	1.24	0.590	1.34	0.136	0.049	0.140	0.170	.	.	0.179	0.046	0.057	0.102	.
CTIF NH7-1	3.43	0.95	0.63	0.035	0.022	0.105	5.53	9.02	.	.	.	.	.	.	.
CTIF FCR5	3.43	0.35	0.62	0.052	0.0175	1.02	2.69	28.5	.	.	3.27	.	.	.	.
CTIF FT2-1	3.39	1.415	0.78	0.045	0.095	0.01	0.070	0.030	.	.	.	.	0.100	0.405	.
CTIF NiMo1	3.22	2.585	0.200	0.0590	(0.0030)	0.376	2.165	0.0353	.	0.0205	0.457	0.0020	0.0190	0.0169	.
CTIF FL7	3.22	2.550	0.100	1.34	0.048	0.351	0.232	0.043	.	.	0.335	0.0291	0.0525	0.0796	.
CTIF FT3	3.2	1.55	0.345	0.063	0.051	0.015	0.092	0.685	.	.	.	.	0.2	0.016	.
CTIF NH7-2	3.2	1.20	0.91	0.034	0.0120	0.108	5.53	8.87	.	.	.	.	.	.	.
CTIF F05	3.2	0.7	0.2	1.30	0.027	0.12	0.172	0.3	.	.	0.41	0.109	0.04	0.14	.
CTIF NH9	3.13	1.24	0.65	0.087	0.029	0.203	4.11	11.70	.	.	0.059	.	.	.	.
CTIF NR Cu1	3.12	1.465	0.172	0.090	0.99	4.95	18.02	0.994	(0.095)	.	.	.	.	.	.
CTIF FL6	3.1	1.4	0.6	0.012	0.18	0.079	1.03	0.167	.	0.028	0.50	0.005	0.15	0.033	.
CTIF FL10	3.1	1.3	0.85	0.323	0.066	0.104	0.10	(0.07)	(0.03)	.	0.0335	0.028	0.045	0.048	(0.02)
CTIF FFA 1	3.090	0.0300	0.100	0.0022	0.0009	0.0622	0.0450	0.0710	.	0.0097	0.0109	.	0.0010	0.0010	.
CTIF NR 8S	3.05	1.41	4.39	0.124	.	0.071	14.20	0.191	.	.	.	.	.	.	.
CTIF F017	3.01	2.48	0.475	0.470	0.168	(0.006)	0.021	(0.016)	.	0.032	.	0.024	0.032	0.018	.
CTIF FAL 1	3.0	1.0	0.2	0.04	<0.001	0.2	0.06	0.04	2.1	.	0.015	.	0.01	.	.
CTIF NR 3L	2.99	3.05	0.72	0.088	0.052	0.26	21.58	2.97	.	.	.	.	.	.	.
CTIF NH1	2.98	1.35	0.90	0.060	0.105	1.99	1.38	0.83	.	.	1.45	.	.	.	.
CTIF NH8	2.98	0.80	0.57	0.052	0.076	0.065	8.16	5.03	.	.	0.125	.	.	.	.
CTIF NR 3S	2.92	2.91	0.77	0.024	.	0.33	24.63	3.05	.	.	.	.	.	.	.
CTIF FT1	2.9	2.12	0.71	0.12	0.025	0.012	0.11	0.057	.	.	.	0.067	0.19	0.525	.

Number	C	Si	Mn	P	S	Cu	Ni	Cr	Al	Co	Mo	Sn	Ti	V	W
CTIF NR 8L	2.89	1.70	5.19	0.054	0.030	0.075	13.33	0.165	.	.	.	.	.	.	.
CTIF NH4	2.84	0.49	0.28	0.12	0.022	0.09	3.60	2.46	.	.	0.30	.	.	.	.
CTIF F04	2.81	1.51	0.64	0.58	0.009	0.31	0.32	0.17	.	.	0.095	0.013	0.075	0.049	.
CTIF FCR2	2.86	1.07	0.740	0.137	0.055	0.135	1.87	11.8	.	.	3.88	.	.	.	.
CTIF FL5	2.8	2.3	0.4	0.02	(0.005)	0.5	0.05	0.35	.	0.010	0.01	0.07	0.01	0.01	.
CTIF FCR Ni3	2.74	0.69	0.47	0.036	0.011	.	11.05	31.65	.	.	.	.	.	.	.
CTIF NH6	2.70	2.28	0.355	0.066	0.036	0.115	7.06	6.60	.	.	0.11	.	.	.	.
CTIF F09	2.7	1.5	0.7	0.02	0.015	0.31	0.355	0.18	.	.	0.13	0.144	0.017	0.022	.
CTIF FL4	2.6	2.91	0.5	0.288	0.137	0.0168	0.061	0.45	.	.	0.090	0.011	0.0296	0.116	.
CTIF NR 1S	2.58	3.02	1.54	0.19	0.0015	0.11	20.60	2.00	.	.	.	.	.	.	.
CTIF NR 1L	2.50	3.00	1.34	0.125	0.10	0.49	25.87	1.74	.	.	.	.	.	.	.
CTIF NH2	2.50	1.81	1.04	0.047	0.058	1.02	1.78	1.26	.	.	1.01	.	.	.	.
CTIF NR Cu2	2.48	2.07	1.078	0.113	0.049	6.50	15.85	2.05	.	.	.	.	.	.	.
CTIF NR 4S	2.47	4.87	1.71	0.145	.	0.63	18.30	1.50	.	.	.	.	.	.	.
CTIF FCR4	2.47	1.40	2.05	0.097	0.066	1.32	0.571	24.2	.	.	2.16	.	.	.	.
CTIF FCR1	2.46	0.48	0.63	0.019	0.007	0.031	1.30	18.71	.	.	1.41	.	.	.	.
CTIF F07	2.45	0.675	0.70	0.84	0.085	0.125	0.15	0.455	.	.	0.26	.	0.065	0.13	.
CTIF NR 4L	2.41	5.89	1.495	0.155	0.010	0.758	15.90	1.403	.	.	.	.	.	.	.
CTIF NR 2S	2.32	1.43	0.530	0.062	.	0.210	36.3	0.51	.	.	.	.	.	.	.
CTIF NH5	2.31	0.31	0.24	0.115	0.04	0.035	4.90	2.85	.	.	0.017	.	.	.	.
CTIF FL3	2.3	2.1	0.27	0.729	(0.013)	0.102	0.553	0.107	.	.	0.106	0.111	0.05	0.049	.
CTIF NR 4G	2.24	5.60	1.72	0.11	(0.002)	0.64	21.30	1.40	.	.	.	.	.	.	.
CTIF NR 2G	2.25	1.47	0.380	0.0476	(0.003)	0.232	36.34	0.395	.	.	.	.	.	.	.
CTIF FL2	2.18	3.61	0.0400	0.049	0.082	0.0497	0.0238	0.440	(0.006)	0.0263	(0.004)	0.140	0.0750	0.201	.
CTIF FL1	2.1	3.2	0.80	0.118	0.0765	0.0195	0.245	0.06	.	(0.022)	0.038	0.305	0.020	0.015	.
CTIF FCR Ni2	2.02	1.50	0.61	0.185	0.024	.	13.05	29.00	.	.	.	.	.	.	.
CTIF NR Cu3	1.94	3.12	0.60	0.046	0.016	8.05	13.3	3.50	.	.	.	.	.	.	.
CTIF NR 6S	1.82	2.44	0.99	0.019	.	0.03	30.75	1.06	.	.	.	.	.	.	.
CTIF NR 5L	1.77	2.99	1.207	0.037	0.083	0.48	33.89	0.27	.	.	.	.	.	.	.
CTIF NR 6L	1.76	2.07	0.70	0.031	0.063	0.020	30.37	3.49	.	.	.	.	.	.	.
CTIF NR 5S	1.67	1.97	1.23	0.035	.	0.50	27.05	0.24	.	.	.	.	.	.	.
CTIF FCR6	1.44	0.76	1.47	0.201	0.086	0.480	0.188	30.84	.	.	0.455	.	.	.	.
CTIF FCR Ni1	1.27	1.63	0.71	0.41	0.06	0.02	16.50	26.20

Number	C	Si	Mn	P	S	Cu	Ni	Cr	Al	Co	Mo	Sn	Ti	V	W
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CAST IRON MUSHROOMS

CONTINUED FROM THE PREVIOUS PAGE

Number	As	B	Bs	Bi	Ce	N	Nb	Pb	Sb	Te	Zn
CTIF F019	0.0005	.
CTIF F012
CTIF F08
CTIF FCR7
CTIF F06
CTIF F010
CTIF NH3
CTIF F011
CTIF F018	0.0040	.	.	.	.	.
CTIF NH7-1
CTIF FCR5
CTIF FT2-1
CTIF NiMo1
CTIF FL7	(0.0266)	(0.010)	.	(0.010)	.	0.0035	.	.	.	.	.
CTIF FT3
CTIF NH7-2
CTIF F05
CTIF NH9
CTIF NR Cu1
CTIF FL6	.	0.008	.	.	.	.	.	.	.	.	.
CTIF FL10	(0.022)	.	(0.012)	(0.004)	.	.	(0.018)	(0.002)	(0.032)	(0.001)	(0.029)
CTIF FFA 1	0.0109	.	.	.	.	0.0125	.	.	.	.	.
CTIF NR 8S
CTIF F017
CTIF FAL 1
CTIF NR 3L
CTIF NH1
CTIF NH8
CTIF NR 3S
CTIF FT1

Number	As	B	Bs	Bi	Ce	N	Nb	Pb	Sb	Te	Zn
CTIF NR 8L
CTIF NH4
CTIF F04	last of stock
CTIF FCR2
CTIF FL5	.	(0.002)	.	(0.0005)	.	.	.	.	.	.	.
CTIF FCR Ni3
CTIF NH6
CTIF F09
CTIF FL4	(0.05)	.	.	(0.003)	.	0.007	.	.	.	.	.
CTIF NR 1S
CTIF NR 1L
CTIF NH2
CTIF NR Cu2	(0.0079)	.	.	.	.	.
CTIF NR 4S
CTIF FCR4
CTIF FCR1
CTIF F07
CTIF NR 4L
CTIF NR 2S
CTIF NH5
CTIF FL3	0.008	.	.	.	.	.
CTIF NR 4G
CTIF NR 2G	0.27	.	.	.	.
CTIF FL2	.	.	.	(0.0135)	.	.	.	.	.	.	.
CTIF FL1
CTIF FCR Ni2
CTIF NR Cu3
CTIF NR 6S
CTIF NR 5L
CTIF NR 6L
CTIF NR 5S
CTIF FCR6
CTIF FCR Nil

Number	As	B	Bs	Bi	Ce	N	Nb	Pb	Sb	Te	Zn
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CARBON STEEL

= Class, where 1 = CRM and 2 = RM

* Provisional Analysis

Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Co	Mo	N	V	W
1 VS UG128	0.816	0.405	0.014	0.0139	0.324	0.0235	0.032	0.038	0.0078	.	.	0.0088	0.0046	.
1 BS 54J	0.78	0.77	0.0090	0.0108	0.552	0.080	0.037	0.177	0.0021	0.0042	0.0138	0.0060	0.0014	0.0024
1 VS UG129	0.728	.	.	0.013	.	.	.	.	0.0014	.	.	.	.	.
1 NM 309	0.57	0.80	0.037	0.046	0.20	.	0.034	0.081	.	.	.	.	.	.
1 IARM Fe1050-18	0.499	0.79	0.0045	0.027	0.223	0.179	0.068	0.100	(0.003)	0.0056	0.018	0.0097	0.0270	.
1 NM 306A	0.46	0.71	0.085	0.043	0.28	.	0.023	0.13	.	.	.	.	.	.
1 BS 1040 *	0.40	0.79	0.01	0.033	0.23	0.24	0.07	0.12	0.002	0.007	0.02	0.01	0.03	<0.005
1 VS UG131	0.39	0.56	0.0100	0.0031	0.207	0.030	0.026	0.853	.	.	.	0.0070	.	.
1 BS 1030A	0.34	0.763	0.0059	0.016	0.28	0.189	0.141	0.112	0.0021	0.0061	0.029	0.0082	0.0261	(0.0011)
1 SS 452/1	0.323	1.30	0.035	0.017	0.055	0.22	0.19	0.067	.	.	0.054	.	.	0.054
1 VS UG121	(0.3)	0.55	0.014	0.027	0.244	0.180	0.078	0.126	0.023	.	.	0.0068	0.0018	.
1 BS 1026A	0.270	0.76	0.0064	0.021	0.180	0.094	0.081	0.123	0.0091	(0.005)	0.053	0.0100	0.0257	0.0009
1 IARM Fe1020-18	0.226	0.547	0.006	0.024	0.235	0.198	0.078	0.125	(0.003)	0.0065	0.0252	0.0098	0.036	.
1 IMZ 112A	0.212	0.471	0.0055	0.0188	0.257	0.068	0.055	0.099	0.017	0.080	0.054	0.0058	0.043	0.072
2 BS 57F	0.196	0.554	0.009	0.027	0.202	0.197	0.070	0.120	(0.002)	0.007	0.018	0.0077	0.063	.
2 BS 2971	0.187	1.01	0.015	0.024	0.237	0.065	0.111	0.152	0.022	.	0.040	0.0084	(0.002)	.
1 VS UG132	0.180	0.466	0.0075	0.0030	0.201	0.039	0.024	0.035	.	.	.	0.0054	.	.
1 12X 10180D	0.179	0.807	0.014	0.025	0.286	0.066	0.053	0.0251	(0.003)	0.007	0.0026	0.007	.	.
1 IMZ 71A	0.126	0.493	0.0126	0.0075	0.494	0.90	0.036	0.505	0.019	0.025	0.018	0.0065	0.055	0.023
1 NM 308	0.11	0.47	0.013	0.008	0.067	.	0.009	0.032	.	.	.	.	.	.
1 VS UG122	(0.1)	0.433	(0.02)	(0.02)	0.396	0.288	0.378	0.72	.	.	.	0.0038	0.0040	.
1 VS UG120	0.096	0.685	0.027	(0.02)	0.96	0.447	0.634	0.75	0.011	.	.	(0.008)	0.0078	.
1 DSZU C041a	0.085	1.35	0.021	0.0092	0.59	0.046	0.032	0.035	0.029	0.010	0.0038	(0.008)	0.0033	(0.003)
1 IARM Fe1215-18	0.043	0.96	0.059	0.29	(0.006)	0.164	0.055	0.051	.	0.0055	0.016	0.0109	0.0020	.
1 BS XCAS	0.024	0.471	0.008	0.0064	0.339	0.020	0.031	0.035	(0.027)	0.0086	0.0069	0.0055	0.020	(0.006)
1 BS XCAS-2	0.021	0.58	0.0055	0.0059	0.40	0.047	0.099	0.039	0.073	0.016	0.013	0.0139	0.018	0.020
1 DSZU C040A	0.013	0.012	0.0023	0.0029	0.060	0.007	0.005	0.007	0.039	(0.002)	(0.001)	0.0068	(0.001)	(0.002)

Number	As	B	Fe	Nb	O	Sb	Sn	Ti	Alloy	Units	Others
VS UG128	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~20 mm	.
BS 54J	0.0025	<0.0005	97.6	(0.002)	(0.0011)	(0.0006)	(0.005)	0.0020	1080	38 mm Ø x ~7 or 19+ mm	17025
VS UG129	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~20 mm	.
NM 309	.	.	.	.	.	.	.	.	1060 + P	40 mm Ø x 20 mm	.
IARM Fe1050-18	(0.0030)	(0.0005)	98.0	(0.0013)	0.0026	0.0015	0.0103	0.0008	1050	31 mm Ø x 2 or 18 mm	.
NM 306A	.	.	.	.	.	.	.	.	1045 + P	40 mm Ø x 20 mm	.
BS 1040 *	0.005	0.0003	[98.0]	<0.005	<0.05	0.002	0.009	<0.005	1040	28 mm Ø x ~7 or 19+ mm	.
VS UG131	.	.	.	.	.	.	.	.	.	~39 mm Ø x ~25 mm	.
BS 1030A	(0.005)	(0.0003)	98.0	(0.0007)	0.0047	0.0014	(0.015)	0.0014	1030	38 mm Ø x ~7 or 19+ mm	17025
SS 452/1	0.015	.	.	.	.	.	0.094	0.031	.	38 mm Ø x 19 mm	Zn:0.0033
VS UG121	.	.	.	.	.	.	.	.	.	~45 mm Ø x ~25 mm	.
BS 1026A	(0.005)	(0.0003)	98.3	0.0008	0.0042	0.0013	0.0068	(0.0006)	1026	38 mm Ø x ~7 or 19+ mm	17025
IARM Fe1020-18	0.0044	.	98.5	(0.0012)	(0.007)	0.0018	0.0080	.	1020	31 mm Ø x 2 or 18 mm	Ca:0.0025
IMZ 112A	0.023	0.0010	.	0.0123	Pb:0.008	0.021	0.162	0.0138	1023	38 mm Ø x 20 mm	Zn: 0.0020
BS 57F	(0.006)	.	Ca:(0.0003)	.	(0.006)	.	0.008	.	1020	44 mm Ø x 17 or 19+ mm	.
BS 2971	0.003	.	.	.	.	.	(0.005)	.	LF-2	44 mm Ø x ~7 or 19+ mm	.
VS UG132	.	.	.	.	.	.	.	.	.	~39 mm Ø x ~25 mm	.
12X 10180D	0.0068	.	.	.	.	.	0.0033	.	1018	~40 mm Ø x ~15 mm	.
IMZ 71A	0.016	0.0009	.	0.0100	.	0.013	0.015	0.0041	1010 - 1013	35 mm Ø x 20 mm	Zr: 0.0065
NM 308	.	.	.	.	.	.	.	.	1010	40 mm Ø x 20 mm	.
VS UG122	.	.	.	.	.	.	.	.	.	~45 mm Ø x ~25 mm	.
VS UG120	.	.	.	.	.	.	.	.	.	~45 mm Ø x ~25 mm	.
DSZU C041a	(0.004)	(0.0005)	.	(0.002)	.	.	(0.004)	0.0049	.	40 mm Ø x 25 mm	.
IARM Fe1215-18	0.0043	.	.	0.0012	.	0.0018	0.0083	0.0007	1215	~38 mm Ø x ~3 or ~19 mm	.
BS XCAS	0.0016	(0.0002)	99.0	(0.0015)	0.008	0.0006	0.0017	0.0010	1008	38 mm Ø x 30 mm	17025
BS XCAS-2	(0.004)	0.021	98.6	(0.003)	0.0066	(0.0016)	(0.0015)	0.011	1009 + Al	~37 mm D x ~30 mm	17025
DSZU C040A	(0.0002)	0.00032	.	(0.0003)	Ca:0.0021	(0.0002)	0.0010	.	1005	40 mm Ø x 25 mm	Ca: 0.0032

RESULFURIZED STEEL

= Class, where 1 = CRM and 2 = RM

Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Co	Mo	N	V	W
1 IARM 307B	0.162	1.45	(0.012)	0.094	(0.30)	0.191	0.195	0.105	0.034	0.0101	0.045	(0.011)	(0.003)	.
2 CZ CM-22A	0.154	1.443	0.086	0.084	0.248	0.419	3.10	0.167	(0.004)	0.130	0.132	0.0065	0.653	0.59

Number	As	Nb	Sn	Ti	Alloy	Units
IARM 307B	.	(0.0013)	0.010	(0.003)	1118	31 mm Ø X 2 or 18 mm
CZ CM-22A	0.057	0.019	0.069	0.0038	.	~39 mm Ø x ~25 mm

LOW ALLOY AND TOOL STEEL, CHART 1 of 2

= Class, 1 = CRM and 2 = RM * Provisional Analysis

Table with columns: Number, C, Mn, P, S, Si, Cu, Ni, Cr, Al, Co, Mo, N, V, W. Rows include various steel grades like IARM Fe15V-18, BS 37D, BS 4140C, etc.

Table with columns: Number, As, B, Fe, Nb, O, Sb, Sn, Ti, Alloy, Units, Others. Rows include detailed specifications for various steel grades like IARM Fe15V-18, BS 37D, BS 4140C, etc.

** BS 300A also contains Ca: 0.0008 Pb: <0.0005 Ta: 0.0022 Zr: (0.002)

LOW ALLOY AND TOOL STEEL, CHART 2 of 2

= Class, where 1 = CRM and 2 = RM

* Provisional Analysis

Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Co	Mo	N	V	W
2 HRT FE2019-H	1.54	0.39	0.025	(0.003)	0.51	0.08	0.14	11.89	0.015	.	0.86	.	0.80	.
2 CZ LA-4D	1.143	1.266	0.028	0.0091	0.181	0.066	0.367	1.83	0.067	0.037	0.136	0.0064	0.103	0.025
1 ECRM 268-1D	1.134	0.293	0.0209	0.0154	0.373	0.123	0.143	4.57	.	0.0290	3.20	2.03	8.47	3.70
1 VS UG127	0.962	0.93	0.020	0.029	0.427	0.145	0.151	0.188	0.0051	.	.	0.0155	0.141	.
1 VS UG126	0.856	0.78	0.0128	0.0077	0.348	0.030	0.029	0.591	0.0015	.	.	0.0123	0.075	.
1 VS UG130	0.80	0.228	0.0078	0.0071	0.226	0.252	0.104	0.258	.	.	.	.	.	.
2 CZ CM-1D	0.735	1.80	0.0218	0.026	0.341	0.186	0.547	0.456	0.024	0.029	0.100	0.0124	0.089	0.063
1 12X LA5D	0.681	0.855	0.040	0.016	0.53	0.107	0.409	0.291	0.177	0.151	0.206	.	0.603	(0.004)
1 12X LA4C	0.657	0.374	0.050	0.0258	0.482	0.265	0.485	0.526	0.183	0.099	0.405	0.0116	0.372	0.091
1 NCS HS13752	0.51	0.99	0.027	0.011	0.21	.	.	0.67	.	.	0.27	.	0.09	.
1 DSZU C051	0.443	0.795	0.0162	0.029	0.293	0.140	0.041	0.048	(0.010)	(0.003)	.	.	(0.002)	.
1 IMZ 54/1	0.43	0.14	(0.009)	0.010	0.17	(0.034)	4.01	0.12	.	.	(0.007)	.	0.19	.
2 CZ LA-5C	0.439	1.87	0.017	0.0088	0.394	0.138	2.59	3.815	0.081	0.088	0.86	0.024	0.536	0.631
1 12X 15260X	0.404	1.67	0.034	0.086	0.390	0.119	0.499	2.48	0.57	0.085	0.093	.	0.417	.
1 SS 214/2	0.39	1.61	0.032	0.043	0.18	0.21	0.15	0.09	.	.	0.26	.	.	.
2 HRT FE2021-N	0.33	0.31	0.0178	0.0014	0.28	0.070	0.193	2.81	0.014	0.011	2.7	0.007	0.52	0.027
1 SS 408/1	0.285	0.51	0.037	0.028	0.23	0.66	4.45	0.102	.	.	0.09	.	0.031	.
1 BS 1763 *	0.27	1.50	0.017	0.0025	0.68	0.18	0.53	0.56	0.052	0.12	0.55	<0.05	0.29	0.023
1 BS 9325B *	0.25	0.50	0.031	0.007	0.38	0.16	3.1	1.2	0.028	0.007	0.20	<0.05	0.008	0.003
2 CZ CM-8B	0.185	1.95	0.015	0.014	0.112	0.081	0.032	1.22	0.0028	0.007	0.011	0.0075	0.0078	(0.009)
1 IRSID 1658	0.180	0.618	0.014	0.032	0.160	0.345	0.241	0.147	0.029	.	0.046	.	(0.002)	.
2 HRT FE2019-N	0.17	1.27	0.015	(0.001)	0.30	0.03	0.33	0.75	0.068	(0.003)	0.40	0.0040	(0.003)	.
1 VS RG31	0.169	0.291	0.0048	0.006	0.39	0.46	2.08	1.31	.	.	0.28	0.306	0.207	0.39
1 DSZU C042a	0.132	0.488	0.0091	0.0062	0.286	0.137	0.195	0.995	0.018	0.009	0.31	(0.01)	0.189	(0.006)
1 12X 12746V	0.048	1.19	0.034	0.064	0.156	0.646	0.226	0.374	0.459	0.142	0.658	0.0208	0.105	.
1 VS UG102	0.045	1.78	0.0082	.	0.222	0.172	0.277	0.0143	0.036	.	0.209	.	.	.

Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Co	Mo	N	V	W
Number	As	B	Fe	Nb	O	Sb	Sn	Ti	Units	Others				
HRT FE2019-H	.	.	.	0.071	.	.	.	0.012	40 mm Ø x 20 mm					
CZ LA-4D	0.010	.	.	0.0046	.	.	0.014	0.0154	-39 mm Ø x -25 mm	Pb:0.040				
ECRM 268-1D	0.0062	0.0009	.	.	.	0.0017	0.0078	.	38 mm Ø x 25 mm					
VS UG127	.	.	.	.	.	.	.	0.0094	-38 mm Ø x -20 mm	Bi:0.011	Pb:0.0049		
VS UG126	.	.	.	.	.	.	.	.	-38 mm Ø x -20 mm	Bi:0.0055	Pb:0.009		
VS UG130	0.0093	.	.	.	.	.	.	.	-39 mm Ø x -25 mm				
CZ CM-1D	.	0.0017	.	0.050	.	0.0112	0.0144	0.054	-39 mm Ø x -25 mm					
12X LA5D	0.0101	.	.	0.0039	.	.	0.0142	0.080	-40 mm Ø x -15 mm	Zr:0.0013				
12X LA4C	0.018	.	.	.	.	.	.	.	-40 mm Ø x -15 mm	Zn:0.006			
NCS HS13752	.	.	.	.	.	.	.	0.006	38 mm Ø x 38 mm				
DSZU C051	(0.002)	.	.	(0.001)	.	.	(0.004)	(0.001)	40 mm Ø x 25 mm					
IMZ 54/1	.	.	.	.	.	.	.	.	40 mm Ø x 40 mm				
CZ LA-5C	0.026	.	.	0.057	Pb:0.015	0.018	0.031	0.048	-37 mm Ø x 25 mm					
12X 15260X	0.044	.	.	0.183	.	Pb:0.0012	0.0021	0.0064	-40 mm Ø x -15 mm	Zr:0.0054				
SS 214/2	.	.	.	.	.	.	.	.	42 mm Ø x 19 mm				
HRT FE2021-N	0.004	0.0006	Ce:0.0011	0.007	.	0.001	0.004	0.001	36 mm Ø x 20 mm	Zn:0.002	Zr:0.0012			
SS 408/1	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm				
BS 1763 *	0.072	0.003	[94.6]	0.14	<0.05	<0.05	0.015	0.31	37 mm Ø x 19 or 20 mm	Zr:0.027				
BS 9325B *	0.004	Ca:0.003	[94.0]	0.002	Pb:0.002	0.003	0.004	0.002	38 mm Ø x 30 mm	Ta:0.004	Zr:0.001			
CZ CM-8B	0.0035	0.0023	.	(0.002)	.	(0.004)	0.0126	0.0008	-39 mm Ø x 25 mm					
IRSID 1658	0.034	.	.	.	.	.	0.022	(0.002)	40 mm Ø x 30 mm				
HRT FE2019-N	.	0.0016	.	0.029	.	.	.	0.004	40 mm x 40 mm x 20 mm		Ca:0.0014			
VS RG31	.	.	.	.	.	.	.	0.21	-45 mm Ø x -28 mm				
DSZU C042a	0.0069	(0.0005)	.	0.0025	.	.	0.0079	0.0029	40 mm Ø x 25 mm					
12X 12746V	0.051	.	.	.	.	.	0.264	0.088	-40 mm Ø x -15mm				
VS UG102	.	.	.	0.071	.	.	.	.	-45 mm Ø x -25 mm	Ca:0.0018			

SILICON STEEL

= Class, where 1 = CRM and 2 = RM

Number	Si	C	Mn	P	S	Cu	Ni	Cr	Al	Co	Mo	N	V	W
2 CZ CM-12C	3.7	0.038	0.275	0.0103	0.0110	0.175	0.046	0.081	0.145	0.0044	0.012	0.0056	0.027	(0.004)
1 ECRM 191-3C	3.226	0.0027	0.153	0.0097	0.0005	0.0097	0.0124	0.0242	0.81	.	0.00127	0.00105	0.00043	.
1 DSZU C047A	1.94	0.789	0.411	0.022	0.0107	0.150	0.311	4.76	0.054	0.105	0.76	0.022	1.21	2.37
2 CZ CM-20A	1.74	0.63	0.594	0.0383	0.020	0.237	1.007	0.97	0.076	0.124	0.365	0.0086	0.225	0.104
1 SS 405/1	1.71	0.032	1.28	0.018	0.069	0.013	0.22	0.15	.	.	(0.002)	.	0.28	.
1 SS 409/1	1.46	0.082	0.44	0.025	0.021	0.048	3.06	0.94	.	0.014	0.65	.	0.09	.
1 IMZ 52/1	1.38	0.41	0.25	0.012	(0.009)	0.094	2.35	0.12	.	.	(0.041)	.	.	.
2 CZ LA-3G	1.29	0.626	0.68	0.047	0.035	0.236	1.01	1.377	0.047	0.127	0.326	0.011	0.232	0.105

Number	As	B	Nb	Pb	Sb	Sn	Ti	Zr	Units	Others
CZ CM-12C	0.0030	0.0033	0.0066	.	.	(0.005)	0.0128	.	-39 mm Ø x -25 mm	Ca:0.0010
ECRM 191-3C	0.0014	0.00024	.	.	.	0.0013	0.0020	.	-30 mm Ø x -39 mm	Mg:0.0036
DSZU C047A	(0.0095)	0.0006	0.020	.	.	0.0104	0.0096	.	40 mm Ø x 25 mm	Ca:0.0022
CZ CM-20A	0.073	0.0071	0.074	0.015	0.025	0.033	0.175	0.083	-37 mm Ø x -25 mm	Zn:0.007
SS 405/1	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm	
SS 409/1	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm	
IMZ 52/1	.	.	.	.	.	.	.	.	40 mm Ø x 40 mm	
CZ LA-3G	0.051	0.0039	0.071	0.0098	0.024	0.031	0.143	0.068	-39 mm Ø x -25 mm	Ca:0.0016

LOW NICKEL STAINLESS STEEL

= Class, where 1 = CRM and 2 = RM

Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Co	Mo	N	V	W
2 BS 93E	1.02	0.52	0.022	0.0010	0.90	0.12	0.35	17.33	0.009	0.048	0.50	0.0359	0.24	0.11
2 BS 98	0.309	0.48	0.019	0.0014	0.72	0.098	0.21	13.35	0.003	0.020	0.034	0.0181	0.075	0.009
2 DSZU C116	0.296	0.464	0.0214	0.0118	0.295	0.082	0.209	12.71	(0.006)	0.021	0.029	0.022	0.029	(0.01)
2 BS 97	0.216	0.71	0.021	0.0004	0.39	0.066	0.76	11.82	0.018	0.041	1.05	0.030	0.21	0.95
1 BS 183B	0.181	0.344	0.018	0.0042	0.41	0.074	1.96	12.45	0.0009	0.032	0.33	0.044	0.165	3.5
1 13X 12548N	0.175	0.510	0.023	0.189	0.193	0.264	1.10	12.70	(0.02)	0.388	1.42	0.102	0.025	0.038
1 BS 183C	0.173	0.368	0.015	0.0040	0.427	0.060	1.87	12.72	0.0020	0.027	0.189	0.039	0.109	2.83
1 BS 431A	0.159	0.53	0.019	0.0036	0.31	0.111	2.21	15.78	(0.0012)	0.041	0.172	0.058	0.079	0.021
2 DSZU C115	0.145	0.341	0.0278	0.0026	0.389	0.122	1.66	11.73	0.011	0.028	0.368	0.039	0.250	1.98
2 DSZU C119	0.128	0.229	0.027	0.0068	0.51	0.069	0.244	25.38	0.017	(0.01)	0.084	0.010	0.052	0.046
2 DSZU C117	0.071	0.200	0.0240	0.0122	0.393	0.091	0.52	16.89	0.012	0.019	0.044	0.008	0.027	(0.04)
2 BS 91E	0.066	0.42	0.017	0.002	0.52	0.05	0.17	16.58	(0.002)	0.02	0.035	0.032	0.09	0.01
1 IARM Fe174PH-18	0.041	0.47	0.024	(<0.0040)	0.52	3.33	4.73	15.10	0.007	0.047	0.315	0.0436	0.051	0.015
1 13X 41500A	0.038	0.596	0.021	0.0101	0.402	0.129	3.52	13.00		0.099	0.504	0.0504	0.091	.
1 13X 41008B	0.034	0.684	0.013	0.0070	0.761	0.267	0.338	12.36	0.028	0.053	0.042	0.0088	0.061	.
1 13X 40800A	0.032	0.804	0.034	0.030	0.80	0.299	0.58	12.32	0.042	0.033	0.268	0.0054	0.034	0.005
2 DSZU C118	0.018	1.23	0.0057	0.0098	0.142	0.344	3.45	19.69	(0.004)	0.093	0.337	0.028	0.109	0.32
1 IARM Fe155PH-18	0.015	0.616	0.021	(0.0004)	0.430	3.35	4.79	15.13	0.014	0.024	0.129	0.0494	0.055	0.019
1 IARM Fe409-20	0.010	0.387	0.021	(0.0007)	0.52	0.0655	0.110	11.28	0.017	0.019	0.011	0.010	0.075	0.0036

Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Co	Mo	N	V	W
Number	As	B	Fe	Nb	O	Sb	Sn	Ti	Alloy	Units				
BS 93E	.	.	.	0.005	0.0040	.	0.003	0.007	440C	41 mm Ø x	-7 or -17 mm	last of stock		
BS 98	(0.003)	(0.0002)	.	0.003	0.0038	.	0.006	0.002	420	38 mm Ø x	-7 mm	last of stock		
DSZU C116	.	.	.	(0.01)	.	.	(0.005)	(0.002)		40 mm Ø x	20 mm			
BS 97	.	.	.	0.007	.	.	(0.003)	(0.002)	422	35 mm Ø x	-7 or 19+ mm			
BS 183B	(0.005)	(0.0007)	80.4	(0.0075)	(0.0054)	0.0009	0.0046	(0.0016)	Greek Ascoloy	38 mm Ø x	-7 or 19+ mm	17025		
13X 12548N	(0.003)	.	.	0.49	.	0.019	0.0064	0.0027	Resulfurized	-40 mm Ø x	-15 mm			
BS 183C	0.0041	(0.0008)	81.1	0.0054	(0.005)	0.0007	0.0039	(0.002)	Greek Ascoloy	38 mm Ø x	-7 or 19+ mm	17025	Ca: 0.0006	
BS 431A	0.0033	0.0002	80.5	0.0062	0.0067	0.0012	0.0047	0.0010	431	38 mm Ø x	-7 or 19+ mm	17025	Zr: 0.0012	
DSZU C115	.	.	.	0.015	.	.	0.006	(0.0020)		40 mm Ø x	20 mm			
DSZU C119	.	.	.	(0.02)	.	.	(0.006)	1.02		40 mm Ø x	20 mm			
DSZU C117	.	.	.	(0.02)	.	.	(0.005)	0.59		40 mm Ø x	20 mm			
BS 91E	.	.	.	(0.004)	.	.	0.004	(0.002)	430	41 mm Ø x	-7 or 19+ mm			
IARM Fe174PH-18	.	.	.	(0.0015)	0.0035	.	0.0069	.	17-4 PH	31 mm Ø x	2 or 18 mm			
13X 41500A	.	.	.	0.040	.	.	.	0.0012	415	-40 mm Ø x	-15 mm			
13X 41008B	.	.	.	0.019	.	.	0.0081	.	410	-40 mm Ø x	-15 mm	Zr:0.047		
13X 40800A	0.004	.	.	0.020	.	(0.002)	0.0028	0.84	408	-40 mm Ø x	-15 mm			
DSZU C118	.	.	.	0.116	.	.	0.026	0.117		40 mm Ø x	20 mm			
IARM Fe155PH-18	(0.0026)	(0.0005)	75.03	0.273	0.0028	.	0.0021	.	15-5PH	31 mm Ø x	2 or 18 mm			
IARM Fe409-20	0.0026	.	.	0.0041	.	0.0011	0.0053	0.141	409	38 mm Ø x	2 or 19 mm			

Number	As	B	Fe	Nb	O	Sb	Sn	Ti	Alloy	Units				
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STAINLESS AND HIGH ALLOY STEEL

= Class, where 1 = CRM and 2 = RM

Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Co	Mo	N	V	W
1 IARM FeAl00-18	0.222	(0.013)	(0.004)	(<0.0010)	(0.039)	(0.010)	11.2	2.98	(0.007)	13.4	1.19	(0.0010)	(0.007)	(0.006)
1 IMZ 303	0.105	1.23	0.038	0.011	0.74	0.018	8.26	19.56	0.100	0.017	.	0.0113	0.037	.
2 DSZU C120	0.078	0.158	0.0138	0.0030	0.35	0.122	8.46	30.8	(0.02)	(0.03)	(0.03)	0.042	0.041	(0.01)
1 IARM Fe309-18	0.066	1.61	0.029	(0.002)	0.30	0.430	12.2	22.42	.	0.248	0.357	.	0.073	0.063
1 BS 309	0.062	1.61	0.028	0.0011	0.24	0.349	12.16	22.40	(0.0025)	0.200	0.193	0.073	0.075	(0.031)
1 BS 347C	0.051	1.67	0.022	0.022	0.677	0.110	10.08	17.27	(0.003)	0.072	0.27	0.039	0.097	0.013
2 CZ SP-1B	0.050	1.67	0.039	0.30	0.505	0.47	8.32	17.42	(0.003)	0.161	0.40	0.063	0.060	0.032
2 PV 112/1	0.047	1.577	0.018	0.023	0.515	0.102	11.14	17.56	.	.	2.03	.	.	.
2 HRT FE2021-H	0.041	1.19	0.021	0.002	0.34	0.17	12.7	15.6	0.007	0.044	1.11	0.088	0.59	(0.025)
1 13X 33425A	0.039	0.997	0.028	0.0052	0.85	0.204	20.90	22.3	0.017	0.092	2.52	0.0106	(0.014)	(0.006)
2 BS 95A	0.035	0.58	0.026	0.004	0.46	1.50	6.42	14.72	0.002	0.081	0.73	0.0255	0.052	0.02
1 13X 32180A	0.031	2.11	0.007	0.0093	0.485	0.49	10.16	18.92	0.043	0.040	0.245	0.0067	0.026	0.039
1 BS 2507	0.026	0.79	0.023	(0.0005)	0.32	0.222	6.94	25.3	(0.004)	0.040	3.75	0.0273	0.064	0.074
2 TL 200ID	0.0244	0.679	0.022	0.0006	0.27	0.612	7.5	25.58	.	0.046	3.49	0.279	0.079	0.57
1 IARM FeKovar-18	0.024	0.26	(0.004)	(0.0055)	(0.09)	0.077	29.0	0.068	.	17.3	0.062	.	.	(0.020)
2 PV 111/1	0.0226	1.538	0.019	0.026	0.485	0.105	8.57	18.49	.	.	0.173	.	.	.
1 BS 186B	0.022	0.288	(0.0027)	0.0016	0.254	0.057	36.1	0.11	0.0080	0.041	0.025	0.0033	(0.002)	(0.007)
1 BS 160B	0.022	0.27	0.0033	0.0032	0.112	0.059	29.13	0.06	(0.005)	17.24	0.047	0.0006	0.0039	(0.011)
2 TL 2003D	0.0193	1.068	0.0274	0.0169	0.5020	0.2773	9.231	18.25	.	0.1270	0.2871	0.0556	0.0711	0.0150
1 IARM FeN40-18	0.019	9.13	0.025	0.0012	0.31	0.421	6.42	19.45	.	0.122	0.343	0.348	0.086	0.030
1 BS 254	0.019	0.95	0.026	0.0009	0.312	0.612	18.47	20.2	<0.01	0.08	6.07	0.210	0.062	(0.02)
1 BS 179A	0.017	1.04	0.021	0.001	0.44	1.94	5.84	25.45	(0.009)	0.58	3.24	0.184	0.070	(0.2)
2 TL 2002D	0.0149	1.30	0.022	0.0206	0.53	0.438	11.0	16.7	.	0.087	2.05	0.0341	0.068	.
1 ECRM 298-2D	0.0140	0.788	0.0210	0.0006	0.331	0.105	6.87	24.91	0.0148	0.0482	3.78	0.277	0.070	0.0094
1 SS 477	0.0102	1.623	0.0209	0.00039	0.473	1.340	25.07	20.38	0.0303	0.0875	4.23	0.0562	0.0527	.
2 BS 96A	0.009	0.04	0.007	0.004	0.06	2.07	8.38	11.62	0.08	0.03	0.021	.	0.07	.
1 IARM 99D	(0.006)	(0.013)	(0.004)	0.0011	(0.03)	(0.045)	18.4	(0.12)	0.117	9.24	4.8	0.0014	(0.037)	(0.010)
1 BS 161B	0.0031	0.010	(0.004)	0.0007	0.0107	0.010	18.56	0.034	0.073	9.28	4.87	0.0011	0.0011	0.010
1 BS M250 *	0.002	0.025	0.003	<0.005	<0.05	0.004	18.7	0.005	0.093	7.93	4.92	<0.005	<0.005	0.008

Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Co	Mo	N	V	W
Number	As	B	Fe	Nb	O	Sb	Sn	Ti	Alloy	Units				
IARM FeAl00-18	.	.	.	0.070	(0.0009)	.	(0.004)	(0.008)	Aermet 100	31 mm Ø x 2 or 18 mm				
IMZ 303	.	.	.	.	.	.	.	0.60	.	40 mm Ø x 37 mm				
DSZU C120	.	.	.	0.015	.	.	0.004	0.005	.	40 mm Ø x 20 mm				
IARM Fe309-18	0.0065	.	.	0.021	.	0.0018	0.012	.	309	-38 mm Ø x -3 or -19 mm				
BS 309	0.0048	(0.0004)	62.6	0.0090	0.0027	(0.0017)	0.0089	0.0020	309, 309H	38 mm Ø x -7 or 19+ mm 17025 Ca: 0.0010				
BS 347C	(0.003)	0.0018	69.1	0.58	0.0053	(0.002)	0.0034	(0.004)	347	44 mm Ø x -7 or 19+ mm 17025				
CZ SP-1B	(0.003)	0.0007	.	(0.012)	.	.	0.013	(0.002)	.	-37 mm Ø x -25 mm				
PV 112/1	.	.	.	.	.	.	.	0.394	316 Ti	40 mm Ø x 25 mm				
HRT FE2021-H	0.004	0.0021	.	0.57	.	0.003	0.005	0.004	X8CrNiMoVNb16-13	50 mm Ø x 20 mm				
13X 33425A	(0.0021)	.	.	0.047	.	(0.002)	0.0106	0.178	.	-40 mm Ø x -15 mm				
BS 95A	.	0.0010	.	0.55	.	.	0.008	(0.003)	450	38 mm Ø x -7 or 19+ mm				
13X 32180A	(0.003)	(0.0011)	.	(0.0021)	.	(0.0011)	0.0116	0.81	ER321	-40 mm Ø x -15 mm				
BS 2507	0.0046	0.0021	62.3	(0.011)	0.0038	0.0008	0.0050	0.0028	2507	38 mm Ø x -7 or 19+ mm 17025				
TL 200ID	.	.	.	0.024	.	.	.	.	Super Duplex	40 mm Ø x 20 mm				
IARM FeKovar-18	.	.	53.3	.	.	.	0.0021	.	Kovar	31 mm Ø x 2 or 18 mm				
PV 111/1	.	.	.	.	.	.	.	.	304 L	40 mm Ø x 25 mm				
BS 186B	0.0022	(0.0006)	63.0	(0.002)	0.0011	(0.0007)	0.0025	0.0028	Invar 36	43 mm Ø x -7 or 19+ mm 17025 Zr: 0.0020				
BS 160B	<0.005	0.0003	53.0	0.0015	0.0010	(0.0009)	0.0020	(0.003)	Kovar	38 mm Ø x -7 or 19+ mm 17025 Ca: 0.0004				
TL 2003D	.	.	.	0.0150	.	.	.	.	304 L	40 mm Ø x 20 mm				
IARM FeN40-18	.	.	.	0.032	.	.	0.0081	.	Nitronic 40	-38 mm Ø x -3 or -19 mm				
BS 254	(0.006)	0.0018	52.9	(0.03)	0.0038	0.0014	0.0063	0.0019	254 SMO	38 mm Ø x -7 or 19+ mm 17025 Zr: 0.0026				
BS 179A	(0.003)	(0.001)	.	0.030	.	.	0.005	0.006	Ferrallium 255	31 mm Ø x -7 or 19+ mm				
TL 2002D	.	.	.	.	.	.	.	0.0098	316 MOD	40 mm Ø x 20 mm				
ECRM 298-2D	0.0028	0.0024	.	0.0011	.	0.0006	0.0029	0.0023	1.4410	38 mm Ø x 25 mm				
SS 477	0.00399	0.00198	.	Mg:0.00053	.	0.00078	0.00453	.	.	38 mm Ø x 19 mm				
BS 96A	.	(0.0017)	.	0.26	.	.	.	1.18	455	38 mm Ø x -7 or 19+ mm				
IARM 99D	.	0.0026	.	(0.011)	.	.	.	0.67	Maraging 300	31 mm Ø x 2 or 18 mm				
BS 161B	.	0.0027	66.6	(0.0034)	0.0005	.	(0.0011)	0.67	Maraging 300	41 mm Ø x -7 or 19+ mm 17025				
BS M250 *	.	0.003	[67.9]	.	<0.005	.	.	0.42	Maraging 250	38 mm Ø x -7 or 19+ mm				

Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Co	Mo	N	V	W
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CRM CAST IRON

Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Co	Ce	La	Mg	Se	Te
NCS AH11112	3.95	0.511	0.055	0.014	2.30	0.487	0.141	0.251	0.014	.	.	.	0.032	.	.
NCS HS11799	3.95	0.511	0.055	0.014	2.30	0.487	0.141	0.251	0.014	.	0.012	0.0064	0.032	.	.
VS ChG 56	(3.8)	(0.2)	(0.8)	(0.01)	(0.5)	(0.4)	(0.1)	(0.1)	(0.01)	(0.005)	.	.	.	.	.
VS ChG 57	(3.8)	(0.2)	1.17	(0.03)	(0.6)	(0.3)	(0.3)	(0.4)	(0.06)	(0.01)	.	.	.	.	.
NCS HS11798	3.78	0.606	0.053	0.020	2.73	0.526	0.856	0.700	0.042	.	0.0097	0.0042	(0.034)	.	.
SCRM 660/11	3.62	0.444	0.137	0.115	1.74	.	.	.	.	.	.	.	.	.	.
NCS HS92744c	3.59	0.435	0.047	0.020	1.68	0.268	0.595	0.526	.	.	0.022	.	0.042	.	.
NCS HS92746a	3.59	0.226	0.046	0.012	2.25	0.263	0.501	0.097	0.014	.	.	.	0.029	.	.
SCRM 658/12	3.33	0.55	0.243	0.076	2.03	.	.	.	.	.	.	.	.	.	.
11X C7P	3.24	2.21	0.058	0.0081	0.604	0.072	0.0273	0.61	0.029	0.006	.	.	.	.	.
NCS AH11353	3.15	0.47	0.020	0.0006	2.30	0.029	0.59	0.025	0.023	0.015	.	.	0.029	.	.
Y 2863-9A	3.04	1.43	0.049	0.015	1.53	0.269	1.59	0.72	.	0.042	.	.	.	.	.
BS CC-23	2.96	0.73	0.53	0.082	0.43	0.307	0.56	0.467	0.060	0.090	(0.0006)	(0.0008)	(0.0006)	.	(0.03)
CKD 242A	1.84	0.060	0.039	0.036	3.06	0.055	0.039	0.029	0.036	0.002	(0.00)	(0.00)	0.000	(0.000)	(0.08)

Number	As	B	Bi	Fe	Mo	Nb	Pb	Sb	Sn	Ti	V	W	Zn	Zr	Units in mm
NCS AH11112	.	.	.	.	0.474	.	.	.	0.055	0.117	0.312	.	.	.	31 Ø x 30
NCS HS11799	.	.	.	.	0.474	.	.	.	0.055	0.117	0.312	.	.	.	31 Ø x 30
VS ChG 56	0.18	(0.001)	.	.	(0.01)	(0.002)	.	0.014	.	(0.06)	(0.02)	(0.004)	.	.	-37 Ø x -17
VS ChG 57	0.095	(0.002)	.	.	(0.01)	(0.004)	.	(0.001)	(0.01)	(0.08)	(0.04)	(0.01)	.	.	-37 Ø x -17
NCS HS11798	.	.	.	.	0.359	.	.	0.025	0.032	0.117	0.018	.	.	.	31 Ø x 30
SCRM 660/11	.	.	.	.	.	.	.	.	.	.	.	.	.	.	48 x 42 x 12
NCS HS92744c	0.0021	0.024	.	.	0.180	.	.	.	.	0.044	0.174	.	.	.	35 Ø x 30
NCS HS92746a	(0.003)	0.0086	.	.	0.214	.	.	.	.	0.040	0.033	.	.	.	35 Ø x 30
SCRM 658/12	.	.	.	.	.	.	.	.	.	.	.	.	.	.	48 x 42 x 12
11X C7P	0.0110	0.0099	N:0.0153	.	0.040	0.0195	0.0106	0.009	0.0110	0.064	0.0079	0.053	0.0152	.	-40 Ø x -15
NCS AH11353	0.008	0.004	.	.	0.002	N:0.003	.	0.0005	0.003	0.027	0.032	0.003	.	.	30 Ø x 25
Y 2863-9A	(0.041)	0.153	.	.	1.38	0.11	(0.093)	(0.116)	(0.124)	0.212	0.41	.	.	.	30 Ø x 18-30
BS CC-23	0.016	0.067	.	(92.8)	0.267	(0.002)	0.008	0.17	0.052	0.091	0.195	(0.002)	17025	0.057	-32 Ø x -17 17025
CKD 242A	0.015	0.008	(0.015)	(92.9)	1.13	0.013	(0.012)	0.007	0.010	0.19	0.37	(0.007)	(0.00)	(0.000)	37x37x -18-20 last

ALLOY	ISO?	NUMBER	ALLOY	ISO?	NUMBER	ALLOY	ISO?	NUMBER
1.0812		ECRM 191-2D	15-5PH		BS 9621	314		IMZ 166A
1.2344		ECRM 271-1D	15-5PH		BS 9622	316 H		13X NSA2
1.4410		ECRM 298-2D	15-5PH		IARM Fe155PH-18	316 H		CT 316
1.4435, 1.4436		JK 27B	15-5PH		ECRM 273-1D	316 H		IARM 339A
1.4765		ECRM 299-1D	16MnCr5		PV 102/1	316 H		NILAB 500HAD
1.5415		HRT FE2012-N	17-4PH		13X PH2	316 L	17025	BS 316F
1.6587		HRT FE2013-N	17-4PH		BS 17-4PHA	316 L		CZ SL-2A
1.7149	20MnCrS5	ECRM 187-2D	17-4PH	17025	BS 17-4PHB	316 L		IARM Fe316L-18
1.7160		ECRM 194-1D	17-4PH	17025	BS 17-4PHC	316 L		IARM 163E
1.8550		ECRM 129-3D	17-4PH		IARM Fe174PH-18	316 L		SRM 1155A
1.8519		HRT FE2010-N	17-4PH		SRM C2400	316 L		SS 466/2
1.8928		ECRM 194-2D	17-7PH		13X PH17700	316 MOD		TL 2002
1005	17025	BS 1005	17-7PH 25(preceded 17025)		BS 192	316 Ti		IRSID 1821
1005		DSZU C040a	17-7PH 25(preceded 17025)		BS 192A	316 Ti		PV 112/1
1005		ECRM 064-2D	17-7PH		IARM 152C	316 Ti		VS LG72
1005		RM Fe 1/5	17-7PH		IARM Fe177PH-18	317 L	17025	BS 317L
1005		SRM 1765	182FM		BS 150	317 L	25(pre-17025)	BS 9941
1005		SRM 1766	18Cr2Ni12Mn		CT ISO035A	317 L	25(pre-17025)	BS 9942
1005		SS 111/1	201		BS 191	317 L		IARM 153C
1008	17025	BS XCAS	201		SRM 1297	318	17025	BS 2205
1008		ECRM 057-2D	20Cb3		BS 187A	318		BS 2205A
1009	17025	BS 1009	20Cb3		CT 20 Cb-3	321		13X 32100
1009 + Al	17025	BS XCCS-2	20MoCr4		ECRM 197-1D	321	17025	BS 85D
100C6		IRSID 1747	2101		IARM 292A	321	17025	BS 321D
1010		IMZ 111	21Cr6Ni9Mn		CT ISO129A	321		IARM 61
1010		NM 308	2205		13x NSA9	321		IARM 6J
1011		IMZ 73	2205	17025	BS 2205	321		SRM 1171
1012, 1013		IMZ 71A	2205	17025	BS 2205A	321		SS 465/1
1016	17025	BS 1016	2205		IARM 212D	321 - Ti		IMZ 152
1017		IMZ 112B	2205		HRT FE2000-H	32750		13X NSA13
1017		IRSID 1664	2205		IARM Fe2205-18	3310		BS 3310
1018		12X 10180B	2304		IARM 317A	347		13X 34700
1018		12X 10180C	2507	17025	BS 2507	347		BS 347A
1018	17025	BS 1018	2507		IARM 301B	347		BS 347B
1018		ECRM 087-1D	253 MA	25(pre-17025)	BS 253	347		BS 347C
1018		IARM 28K	253 MA		IARM 316A	347		IARM 8G
1020	17025	BS 1020	254 SMO	17025	BS 254	347		IARM 8H
1020		BS 57F	254 SMO		NILAB 501HAD	347		IARM 8i
1020		IARM Fe1020-18	255, Duplex		IARM 239B	347 H		BS 87F
1023		IMZ 112A	255, Duplex		IARM 239C	348		SRM 1172
1026	17025	BS 1026	300M		12X 44220	355	17025	BS 355
1026	17025	BS 1026A	300M	17025	BS 300A	355		IARM 335A
1026		IARM 359A	300M		IARM 340A	35MV7		IRSID 1750
1030	17025	BS 1030	301		IARM 289A	405		SRM 1295
1030	17025	BS 1030A	301		IARM 289B	408		13X 40800A
1030		IARM 209D	301		IRSID 1819	409		13X 40900
1033		IRSID 1663	302		IARM 241D	409		13X 40930
1035	17025	BS 1035	302 HQ		IARM 234C	409		IARM Fe409-20
1035		IARM 360A	303		13X 30300	409 + Cr		NCS HS20743
1039		IRSID 1637	303	17025	BS 303	410		13X 41008
1040		IARM 210D	303		CT 303	410	25(pre-17025)	BS 0021
1040		IRSID 1657	303		CZ SP-1A	410, F6NM	25(pre-17025)	BS 0022
1042		IRSID 1656	303		IARM Fe303-18	410	17025	BS 410C
1042		NM EN-8	303 Se		IARM 253A	410		CT 410
1043		IRSID 1652	303 Se		IARM 253B	410		IARM Fe410-18
1045	17025	BS 1045	304 H		13X NSB1	410 + Mo		ECRM 296-1D
1045		BS 56E	304 H + Ca	17025	BS CA304-4	410 + Mo		IMZ 161
1045		IARM 200D	304 H		CT 304	410 H		13X 41001
1045		IPT 503	304 H		IARM Fe304H-18	4130	17025	BS 4130
1045 + P		NM 306A	304 H		SS 468/1	4130		IARM 143F
1050		IARM Fe1050-18	304 L		13X 30403	4130		SRM 1225
1060		IARM 373A	304 L	17025	BS 304B	4130 H		IPT 501
1060 + P		NM 309	304 L		IARM 162D	4140		12X 41400
1069		ECRM 059-2D	304 L		IARM Fe304L-18	4140	25(pre-17025)	BS 1962
1070	17025	BS 54H	304 L		ECRM 287-1D	4140	17025	BS 4140C
1078		ECRM 056-2D	304 L		ECRM 292-1D	4140		IARM 30H
1078		SRM 1224	304 L		IARM 162C	4140		IARM 30J
1080		BS 54T	304 L		PV 111/1	4140		IARM Fe4140-19
1090		SS 602/2	304 L		TL 2003D	4140 Bi		BS 4140A
1095		BS 64C	304 L		SS 463/1	4140 Bi		BS 4140B
1095		SRM 1227	305		ECRM 297-1D	41L40MOD	17025	BS 70B
1117	25(preceded 17025)	BS 3993	306		13X 30600A	41L40MOD	17025	BS 70C
1117		BS 65C	308		DSZU C017	4150 Bi & S		BS 4150MOD
1117		IARM 29E	309		BS 82E	4150 S	17025	BS 4150MOD-A
1118		IARM 307A	309	17025	BS 309	4150 S	17025	BS 42
1118		IARM 307B	309		IARM Fe309-18	4150 S		BS 42A
1141		BS 66B	310		13X 31008	415		13X 41500A
1141		IARM 348A	310		BS 83G	416		BS 90F
1144	17025	BS 1144	310	25(pre-17025)	BS 9841	416	17025	BS 416
1144	17025	BS 1144A	310	25(pre-17025)	BS 9842	416		CT 416
1144		IARM 199C	310		CZ SL-3A	416		SRM 1223
11L17	17025	BS 75F	310		IARM 4E	416 H		13X 41600
11L17	17025	BS 75G	310		IARM 4F	416 Se		BS 151
1215		BS 66K	310		IARM 4G	418		IARM Fe418-18
1215	17025	BS 66L	310		SS 464/1	41CAD7		IRSID 1749
1215		IARM Fe1215-18	3115		BS XCCT	41L40	17025	BS 70B
12L14		BS 74B	314		IMZ 165	41L50	17025	BS 72B
12L14	17025	BS 74C				42		CT ISO138A
12L14	17025	BS 74D				42		CT ISO139A
12L14		IARM 183C				42CrMo4		PV 101/1
12Mn18Cr		BS 193				420		BS 98
1345		BS XCCV				420		BS SS4951
13-8PH		13X PH13800				420		BS SS4952
13-8PH		BS 184A				420		ECRM 272-1D
13-8PH		CT X92834				420		IARM 154C
13-8PH		IARM 21D				420		SS 469
1429		ECRM 058-2D				420 F		BS 152
1513		IMZ 76				420 F S		IARM 352A
1526 MOD		SRM 1269				422		13X 42200
1541		IARM 349A				422		BS 97
1541		IPT 504				422	17025	BS 422
1541		IRSID 1648				422		IARM 205D
1544		IRSID 1644				430		BS 91E
15-5PH		BS 185A				430	17025	BS 430
						430		IARM 11D

Please use the Adobe Acrobat "search" function to find the complete chemistry of these samples listed within this catalog.

ALLOY	ISO?	NUMBER	ALLOY	ISO?	NUMBER	ALLOY	ISO?	NUMBER
430		NCS HS20742	A-6		BS 40B	Invar-36 + Se		IARM 24B
430 F		BS 153	A-6		IARM 40B	Invar 42		14X 94100
430 F S		BS 154	A-6		IARM 40C	ISO 898-1		SS 457/2
430 F S	17025	IARM 355A	A615-75		IARM 378A	Kovar	17025	BS 160A
431		BS 431	A706-60		IARM 380A	Kovar	17025	BS 160B
431		BS 92B	A706-60		IARM 380B	Kovar		IARM 98B
431		IARM 12C	A706-80		IARM 381A	Kovar		IARM FeKovar-18
431		HRT FE2010-H	Aermet 100		CT ISO045A	L-2	17025	BS 43A
431		SRM 1219	Aermet 100		IARM 242A	L-6	17025	BS 39B
4320		BS 3961	Aermet 100		IARM FeA100-18	L-6		IARM FeL6-18
4330 MOD		BS 4330MOD	AL6XN	17025	BS 189A	LDX2101		13X 32101
4330 MOD		IARM 330B	AL6XN		IARM 157D	LF-2		BS 2971
4340	17025	BS 4340	C-.5Mo		BS 3952	LF-2	17025	BS LF2B
4340	17025	BS 4340A	C-.5Mo		IARM 229B	LF-2		SS 601/2
4340		IARM 31G	C-250		IARM 308A	LF-3		BS LF3
439 MOD		NCS HS11721-4	C-350		IARM 309A	M-1		BS TM1
440 C		13X 44004	CA6NM		HRT FE2009-H	M-1		CT M1
440 C		BS 93E	CA6NM		IARM 327A	M-1		IARM 304A
440 C	17025	BS 93F	CD3MN		ECRM 298-2D	M-1		IARM FeM1-18
440 C		IARM 13D	CD4MCU	17025	BS CD4MCU	M-10		CT M10
440 F		BS 155	CD4MCU	17025	BS CD4MCU-A	M-10		IARM 324A
440 F Se		BS 156	CD6MN		VS LG58	M-152		13X 64152
440 F Se		IARM 353A	CF-3		IRSID 1820	M-152		IARM 291A
441		NCS HS11721-4	CLA6		IARM 169B	M-2		BS 32D
446		BS 94C	CLA7		IARM 170B	M-2		CT M2
450		BS 95A	CLA11		IARM 180A	M-2		IARM 44C
450	17025	BS 450	CLA5		IARM 168A	M-2		IARM FeM2-18
450	25(pre-17025)	BS 9811	CLA9		IARM 172A	M-2		SRM 1157
450	25(pre-17025)	BS 9812	CPM15V	17025	BS PML5	M-35		IARM 320A
450		IARM 15C	CPM15V		IARM Fe15V-18	M-4		IARM 251A
450		CT 450	D-2		BS 37G	M-4		IARM FeM4-18
455		13X 45500	D-2		CT D2	M-42		SS 487/1
455		BS 96A	D-2		IARM 41D	M-47	17025	BS M-47
455		BS SS1962	D-3, D-4		ECRM 288-1D	M-50	17025	BS M-50
455		CT 455	D-6	17025	BS D-6	M-50		IARM 306B
455		IARM 16C	D-6	17025	BS D-6A	M-65		IARM FeM62-18
446		IARM 14C	D6-AC		IARM 299A	M-7		CT M7
4615		BS 3962	DP1080		IARM FeDP1080-18	Maraging 250		CT 250
4620		BS 4620	Duplex		13X NSA9	Maraging 250		ECRM 285-2
4620	17025	BS 51F	Duplex	17025	BS 2205	Maraging 300	25(pre17025)	BS 161A
4620		IARM 33D	Duplex		IMZ 163A	Maraging 300	17025	BS 161B
465		13X 46500	Duplex		IMZ 164	Maraging 300		CT 300
465		IARM 354A	Duplex		TL 2001	Maraging 300		IARM 99D
465		CT ISO123A	E52100		BS 53G	Mold Steel	17025	BS PP20
4820		BS 4820A	E52100	17025	BS E52100	NIT 135M		IARM 305B
4820		BS 4820B	E52100		IARM 49E	Nitriding 135G		BS 68B
4820		IARM 155F	E52100 Bi		BS 53MOD	Nitriding 135G	17025	BS 68E
4820		IARM Fe4820-18	Elect./ Magnetic		SRM 1159	Nitronic 40		13X NSC6
5140H		IARM Fe5140H-18	Electrolytic		SRM 1265a	Nitronic 40		BS 190
5160		IMZ 116	ER321		13X 32180A	Nitronic 40		IARM FeN40-18
6150	17025	BS 43A	F-1		RM Fe 2	Nitronic 50		BS 180A
6150		BS 4941	F-11		BS 45A	Nitronic 50	17025	BS 180B
6150		IARM 34C	F-11	17025	BS 45B	Nitronic 50		IARM 17D
630		CT 630	F-11		IARM 35L	Nitronic 50		IARM FeN50-18
6418		BS 6418	F-11		IARM FeF11-21	Nitronic 60		13X 21800
6418		BS 69B	F-2		CT X27081	Nitronic 60		BS 181A
6526		BS 9-4-30	F-22	17025	BS 46B	Nitronic 60	17025	BS 181B
709		CT X67975	F-22	25(preceded 17025)	BS 1982	Nitronic 60		IARM 18D
8620		12X 86200-21	F-22		IARM 36C	NMS 100		IARM 214A
8620		BS 1931	F-22		SRM 1270	NMS 140		IARM 295A
8620 + Bi		BS 8620A	F-22 + Cr		HRT FE2009-N	NMS J38		IARM 294A
8620	17025	BS 8620F	F-5		BS 47A	O-1	17025	BS 35D
8620		IARM Fe8620-18	F-5		BS 47B	O-1		CT O1
8620		IPT 502	F-5		IARM 37C	O-2		CZ LA-4C
86L20	25(preceded 17025)	BS 73B	F-51	17025	BS 2205	O-6	17025	BS 41
86L20		BS 73C	F-51		BS 2205A	O-6	25(preceded 17025)	BS 41A
8630	17025	BS 8630	F-9	17025	BS 48B	O-6		IARM 45A
8740		BS 67B	F-9		IARM FeF9-18	O-6		IARM 45B
8740	17025	BS 8740	F-91		13X 90901	P-20	17025	BS 55G
8740		IARM 252C	F-91	17025	BS 9905A	P-20 + Al		BS 68C
8740		IARM 252D	F-91		HRT FE2003-H	PP-20	17025	BS PP20
8740		IARM 252E	F-91		IARM Fe91-18	RA330		BS 86F
8740		IARM 252F	Ferrallium 255		BS 179A	Railroad Steel	17025	BS 54H
8822		BS 8822	Ferallium 255	17025	BS 179B	S-1		BS 33D
8822	17025	BS 8822A	Ferallium 255	17025	BS 179C	S-1		BS 33E
904L		13X NSA12	F6NM	25(preceded 17025)	BS 0022	S-1		IARM 46B
904L		ECRM 295-1D	Greek Ascoloy		BS 183A	S-1 MOD	17025	BS 33F
9310		BS 58C	Greek Ascoloy	17025	BS 183B	S-5		BS 38C
9310		BS 58D	Greek Ascoloy	17025	BS 183C	S-5		IARM 47B
9310		BS 58E	Greek Ascoloy		IARM 20C	S-7		BS TS7
9310		IARM FeE9310-18	H-10		BS 49	S-7	17025	BS TS-7A
9325	17025	BS 9325A	H-11		BS TH11	S-7		IARM 259A
9325		BS 9325B	H-11		ECRM 276-2D	S-7		IARM FeS7-18
9-4-30		IARM 341A	H-11		IARM 255A	S-7		SRM 1772
A-10		BS A-10	H-11		IARM 255B	S42027		13X 42027A
A-11		BS 10V	H-11		IMZ 173	SA213-T22		IMZ 159
A-11	17025	BS A-11	H-12		BS TH12	SA213-T22		IMZ 160
A-106 Gr B		SRM 1228	H-13		BS 34D	SA213-T22		IMZ 169
A-193 B16		BS 4942	H-13	17025	BS H-13A	SAE G2500		BS 20E
A-193 B16	17025	BS 4942A	H-13		CT H13	STA 361		IARM 268B
A-2		BS 36C	H-13		IARM 42C	T-1	17025	BS 30D
A-2		BS 36D	H-13		IMZ 174	T-1		IARM FeT1-18
A-2		CT A2	H-19	17025	BS H-19	T-4		IARM 281A
A-2		IARM 39B	HC 250+V		SRM C1290	T-15	17025	BS TS15
A-2		IARM 39C	High Perm		CT ISO124A	T23		IARM FeT23-18
A-242		IPT 500	High Perm		CT ISO136A	VM12		IMZ 196
A-242 Mod		SRM C1285	High Perm 49		CT ISO141A	W-5		14X 72305
A-286	17025	BS 188B	HSLA 100		SRM 1271	Z30C13		IRSID 1825
A-286		IARM 26D	HY 130		SRM 1226	Zeron 100, Duplex		13X NSA8
A-286		SRM 1230	HY 80		SRM 1286	Zeron 100, Duplex		IARM 319A
A-36		IARM 213C	Hy-Tuff		IARM 342A	Zeron 100, Duplex		IARM FeZ100-18
A-36		IARM 213D	Invar		14X 93603			
A-36		SRM 1767	Invar-36	17025	BS 186B			
A-485-1		BS A485-1	Invar-36 + Se		BS 186A			

CARBON STEEL SPECIFICATIONS

Number	C	Mn	P	S
1005	<0.06	<0.35	<0.03	<0.05
1006	<0.08	0.25-0.40	<0.03	<0.05
1008	<0.10	0.30-0.50	<0.03	<0.05
1009	<0.15	<0.60	<0.03	<0.05
1010	0.08-0.13	0.30-0.60	<0.03	<0.05
1011	0.09-0.14	0.60-0.90	<0.03	<0.05
1012	0.10-0.15	0.30-0.60	<0.03	<0.05
1013	0.11-0.16	0.50-0.80	<0.03	<0.05
1015	0.13-0.18	0.30-0.60	<0.03	<0.05
1016	0.13-0.18	0.60-0.90	<0.03	<0.05
1017	0.15-0.20	0.30-0.60	<0.03	<0.05
1018	0.15-0.20	0.60-0.90	<0.03	<0.05
1019	0.15-0.20	0.70-1.00	<0.03	<0.05
1020	0.18-0.23	0.30-0.60	<0.03	<0.05
1021	0.18-0.23	0.60-0.90	<0.03	<0.05
1022	0.18-0.23	0.70-1.00	<0.03	<0.05
1023	0.20-0.25	0.30-0.60	<0.03	<0.05
1025	0.22-0.28	0.30-0.60	<0.03	<0.05
1026	0.22-0.28	0.60-0.90	<0.03	<0.05
1029	0.25-0.31	0.60-0.90	<0.03	<0.05
1030	0.28-0.34	0.60-0.90	<0.03	<0.05
1033	0.29-0.36	0.70-1.00	<0.03	<0.05
1034	0.32-0.38	0.50-0.80	<0.03	<0.05
1035	0.32-0.38	0.60-0.90	<0.03	<0.05
1037	0.32-0.38	0.70-1.00	<0.03	<0.05
1038	0.35-0.42	0.60-0.90	<0.03	<0.05
1039	0.37-0.44	0.70-1.00	<0.03	<0.05
1040	0.37-0.44	0.60-0.90	<0.03	<0.05
1042	0.40-0.47	0.60-0.90	<0.03	<0.05
1043	0.40-0.47	0.70-1.00	<0.03	<0.05
1044	0.43-0.50	0.30-0.60	<0.03	<0.05
1045	0.43-0.50	0.60-0.90	<0.03	<0.05
1046	0.43-0.50	0.70-1.00	<0.03	<0.05
1049	0.46-0.53	0.60-0.90	<0.03	<0.05
1050	0.48-0.55	0.60-0.90	<0.03	<0.05
1053	0.48-0.55	0.70-1.00	<0.03	<0.05
1055	0.50-0.60	0.60-0.90	<0.03	<0.05
1059	0.55-0.65	0.50-0.80	<0.03	<0.05
1060	0.55-0.65	0.60-0.90	<0.03	<0.05
1064	0.60-0.70	0.50-0.80	<0.03	<0.05
1065	0.60-0.70	0.60-0.90	<0.03	<0.05
1069	0.65-0.75	0.40-0.70	<0.03	<0.05
1070	0.65-0.75	0.60-0.90	<0.03	<0.05
1074	0.70-0.80	0.50-0.80	<0.03	<0.05
1078	0.72-0.85	0.30-0.60	<0.03	<0.05
1080	0.75-0.88	0.60-0.90	<0.03	<0.05
1084	0.83-0.93	0.60-0.90	<0.03	<0.05
1085	0.80-0.94	0.70-1.00	<0.03	<0.05
1086	0.80-0.93	0.30-0.50	<0.03	<0.05
1090	0.85-0.98	0.60-0.90	<0.03	<0.05
1095	0.90-1.03	0.30-0.50	<0.03	<0.05
Number	C	Mn	P	S

CARBON STEEL SPECIFICATIONS

Number	C	Mn	P	S	Si
1513	0.10-0.16	1.10-1.40	<0.03	<0.05	.
1522	0.18-0.24	1.10-1.40	<0.04	<0.05	.
1524	0.19-0.25	1.35-1.65	<0.04	<0.05	.
1526	0.22-0.29	1.10-1.40	<0.04	<0.05	.
1527	0.22-0.29	1.20-1.50	<0.04	<0.05	.
1533	0.30-0.37	1.10-1.40	<0.04	<0.05	.
1534	0.30-0.37	1.20-1.50	<0.04	<0.05	.
1541	0.36-0.44	1.35-1.65	<0.04	<0.05	.
1544	0.40-0.47	0.80-1.10	<0.04	<0.05	.
1545	0.43-0.50	0.80-1.10	<0.04	<0.05	.
1546	0.44-0.52	1.00-1.30	<0.04	<0.05	.
1548	0.44-0.52	1.10-1.40	<0.04	<0.05	.
1552	0.47-0.55	1.20-1.50	<0.04	<0.05	.
1553	0.48-0.55	0.80-1.10	<0.04	<0.05	.
1566	0.60-0.70	0.85-1.15	<0.04	<0.05	.
1570	0.65-0.75	0.80-1.10	<0.04	<0.05	.
1580	0.75-0.88	0.80-1.10	<0.04	<0.05	.
1590	0.85-0.98	0.80-1.10	<0.04	<0.05	.
LF2	<0.30	0.60-1.35	<0.035	<0.04	0.15-0.30
Number	C	Mn	P	S	Si

RESULFURIZED STEEL SPECIFICATIONS

Number	C	Mn	P	S
1108	0.08-0.13	0.50-0.80	<0.04	0.08-0.13
1109	0.08-0.13	0.60-0.90	<0.04	0.08-0.13
1110	0.08-0.13	0.30-0.60	<0.04	0.08-0.13
1116	0.14-0.20	1.10-1.40	<0.04	0.16-0.23
1117	0.14-0.20	1.00-1.30	<0.04	0.08-0.13
1118	0.14-0.20	1.30-1.60	<0.04	0.08-0.13
1119	0.14-0.20	1.00-1.30	<0.04	0.24-0.33
1123	0.20-0.27	1.20-1.50	<0.04	0.06-0.09
1132	0.27-0.34	1.35-1.65	<0.04	0.09-0.13
1137	0.32-0.39	1.35-1.65	<0.03	0.08-0.13
1139	0.35-0.43	1.35-1.65	<0.04	0.13-0.20
1140	0.37-0.44	0.70-1.00	<0.03	0.08-0.13
1141	0.37-0.45	1.35-1.65	<0.03	0.08-0.13
1144	0.40-0.48	1.35-1.65	<0.03	0.24-0.33
1145	0.41-0.49	0.70-1.00	<0.04	0.08-0.13
1146	0.42-0.49	0.70-1.00	<0.04	0.08-0.13
1151	0.48-0.55	0.70-1.00	<0.04	0.08-0.13
1152	0.48-0.55	0.70-1.00	<0.04	0.06-0.09
1211	<0.13	0.60-0.90	0.07-0.12	0.10-0.15
1212	<0.13	0.70-1.00	0.07-0.12	0.16-0.23
1213	<0.13	0.70-1.00	0.07-0.12	0.24-0.33
1215	<0.09	0.75-1.05	0.04-0.09	0.26-0.35
Number	C	Mn	P	S

These are specifications,
not samples for sale.

LOW ALLOY STEEL SPECIFICATIONS

Number	C	Mn	P	S	Si	Ni	Cr	Mo	Pb	Other
1330	0.28-0.33	1.60-1.90	<0.035	<0.04	0.15-0.35	.	.	.	.	.
1335	0.33-0.38	1.60-1.90	<0.035	<0.04	0.15-0.35	.	.	.	.	.
1340	0.38-0.43	1.60-1.90	<0.035	<0.04	0.15-0.35	.	.	.	.	.
1345	0.43-0.48	1.60-1.90	<0.035	<0.04	0.15-0.35	.	.	.	.	.
3140	0.38-0.43	0.70-0.90	<0.04	<0.04	0.15-0.35	1.10-1.40	0.55-0.75	.	.	.
4023	0.20-0.25	0.70-0.90	<0.035	<0.04	0.15-0.35	.	.	0.20-0.30	.	.
4027	0.25-0.30	0.70-0.90	<0.035	<0.04	0.15-0.35	.	.	0.20-0.30	.	.
4028	0.25-0.30	0.70-0.90	<0.035	0.035-0.050	0.15-0.35	.	.	0.20-0.30	.	.
4037	0.35-0.40	0.70-0.90	<0.035	<0.04	0.15-0.35	.	.	0.20-0.30	.	.
4047	0.45-0.50	0.70-0.90	<0.035	<0.04	0.15-0.35	.	.	0.20-0.30	.	.
4118	0.18-0.23	0.70-0.90	<0.035	<0.04	0.15-0.35	.	0.40-0.60	0.08-0.15	.	.
4120	0.18-0.23	0.80-1.20	<0.035	<0.04	0.15-0.35	.	0.40-0.60	0.15-0.25	.	.
4121	0.18-0.23	0.75-1.00	<0.035	<0.04	0.15-0.35	.	0.45-0.65	0.15-0.25	.	.
4130	0.28-0.33	0.40-0.60	<0.035	<0.04	0.15-0.35	.	0.80-1.10	0.15-0.25	.	.
4135	0.33-0.38	0.70-0.90	<0.035	<0.04	0.15-0.35	.	0.80-1.10	0.15-0.25	.	.
4137	0.35-0.40	0.70-0.90	<0.035	<0.04	0.15-0.35	.	0.80-1.10	0.15-0.25	.	.
4140	0.38-0.43	0.75-1.00	<0.035	<0.04	0.15-0.35	.	0.80-1.10	0.15-0.25	.	.
41L40	0.38-0.43	0.75-1.00	<0.035	0.02-0.04	0.15-0.35	.	0.80-1.10	0.15-0.25	0.15-0.35	.
4142	0.40-0.45	0.75-1.00	<0.035	<0.04	0.15-0.35	.	0.80-1.10	0.15-0.25	.	.
4145	0.43-0.48	0.75-1.00	<0.035	<0.04	0.15-0.35	.	0.80-1.10	0.15-0.25	.	.
4147	0.45-0.50	0.75-1.00	<0.035	<0.04	0.15-0.35	.	0.80-1.10	0.15-0.25	.	.
4150	0.48-0.53	0.75-1.00	<0.035	<0.04	0.15-0.35	.	0.80-1.10	0.15-0.25	.	.
41L50	0.48-0.53	0.75-1.00	<0.035	0.02-0.04	0.15-0.35	.	0.80-1.10	0.15-0.25	0.15-0.35	.
4320	0.17-0.22	0.45-0.65	<0.035	<0.04	0.15-0.35	1.65-2.00	0.40-0.60	0.20-0.30	.	.
4340	0.38-0.43	0.60-0.80	<0.035	<0.04	0.15-0.35	1.65-2.00	0.70-0.90	0.20-0.30	.	.
4615	0.13-0.18	0.45-0.65	<0.035	<0.04	0.15-0.35	1.65-2.00	.	0.20-0.30	.	.
4617	0.15-0.20	0.45-0.65	<0.035	<0.04	0.15-0.35	1.65-2.00	.	0.20-0.30	.	.
4620	0.17-0.22	0.45-0.65	<0.035	<0.04	0.15-0.35	1.65-2.00	.	0.20-0.30	.	.
4715	0.13-0.18	0.70-0.90	<0.035	<0.04	0.15-0.35	0.70-1.00	0.45-0.65	0.45-0.65	.	.
4720	0.17-0.22	0.50-0.70	<0.035	<0.04	0.15-0.35	0.90-1.20	0.35-0.55	0.15-0.25	.	.
4815	0.13-0.18	0.40-0.60	<0.035	<0.04	0.15-0.35	3.25-3.75	.	0.20-0.30	.	.
4820	0.18-0.23	0.50-0.70	<0.035	<0.04	0.15-0.35	3.25-3.75	.	0.20-0.30	.	.
50B46	0.44-0.49	0.75-1.00	<0.035	<0.04	0.15-0.35	.	0.20-0.35	.	.	B: 0.0005-0.003
5120	0.17-0.22	0.70-0.90	<0.035	<0.04	0.15-0.35	.	0.70-0.90	.	.	.
51L20	0.17-0.22	0.70-0.90	<0.035	<0.04	0.15-0.35	.	0.70-0.90	.	0.15-0.35	.
5130	0.28-0.33	0.70-0.90	<0.035	<0.04	0.15-0.35	.	0.80-1.10	.	.	.
5132	0.30-0.35	0.60-0.80	<0.035	<0.04	0.15-0.35	.	0.75-1.00	.	.	.
5140	0.38-0.43	0.70-0.90	<0.035	<0.04	0.15-0.35	.	0.70-0.90	.	.	.
5150	0.48-0.53	0.70-0.90	<0.035	<0.04	0.15-0.35	.	0.70-0.90	.	.	.
5160	0.56-0.64	0.75-1.00	<0.035	<0.04	0.15-0.35	.	0.70-0.90	.	.	.
51B60	0.56-0.64	0.75-1.00	<0.035	<0.04	0.15-0.35	.	0.70-0.90	.	.	B: >0.0005
6150	0.48-0.53	0.70-0.90	<0.035	<0.04	0.15-0.35	.	0.80-1.10	.	.	V: >0.15
8615	0.13-0.18	0.70-0.90	<0.035	<0.04	0.15-0.35	0.40-0.70	0.40-0.60	0.15-0.25	.	.
8617	0.15-0.20	0.70-0.90	<0.035	<0.04	0.15-0.35	0.40-0.70	0.40-0.60	0.15-0.25	.	.
8620	0.18-0.23	0.70-0.90	<0.035	<0.04	0.15-0.35	0.40-0.70	0.40-0.60	0.15-0.25	.	.
86L20	0.18-0.21	0.70-0.90	<0.035	0.02-0.04	0.15-0.35	0.40-0.70	0.40-0.60	0.15-0.25	0.15-0.35	.
8622	0.20-0.25	0.70-0.90	<0.035	<0.04	0.15-0.35	0.40-0.70	0.40-0.60	0.15-0.25	.	.
8630	0.28-0.33	0.70-0.90	<0.035	<0.04	0.15-0.35	0.40-0.70	0.40-0.60	0.15-0.25	.	.
8637	0.35-0.40	0.75-1.00	<0.035	<0.04	0.15-0.35	0.40-0.70	0.40-0.60	0.15-0.25	.	.
8640	0.38-0.43	0.75-1.00	<0.035	<0.04	0.15-0.35	0.40-0.70	0.40-0.60	0.15-0.25	.	.
8645	0.43-0.48	0.75-1.00	<0.035	<0.04	0.15-0.35	0.40-0.70	0.40-0.60	0.15-0.25	.	.
8720	0.18-0.23	0.70-0.90	<0.035	<0.04	0.15-0.35	0.40-0.70	0.40-0.60	0.20-0.30	.	.
8740	0.38-0.43	0.75-1.00	<0.035	<0.04	0.15-0.35	0.40-0.70	0.40-0.60	0.20-0.30	.	.
8822	0.20-0.25	0.75-1.00	<0.035	<0.04	0.15-0.35	0.40-0.70	0.40-0.60	0.30-0.40	.	.
9259	0.56-0.64	0.75-1.00	<0.035	<0.04	0.70-1.10	.	0.45-0.65	.	.	.
9260	0.56-0.64	0.75-1.00	<0.035	<0.04	1.80-2.20	.	.	.	.	.
E4340	0.38-0.43	0.65-0.85	<0.025	<0.025	0.15-0.35	1.65-2.00	0.70-0.90	0.20-0.30	.	.
E51100	0.98-1.10	0.25-0.45	<0.025	<0.025	0.15-0.35	.	0.90-1.15	.	.	.
E52100	0.98-1.10	0.25-0.45	<0.025	<0.025	0.15-0.35	.	1.30-1.60	.	.	.
E9310	0.08-0.13	0.45-0.65	<0.025	<0.025	0.15-0.35	3.00-3.50	1.00-1.40	0.08-0.15	.	.
F-11	0.10-0.20	0.30-0.80	<0.04	<0.04	0.50-1.00	.	1.00-1.50	0.44-0.65	.	.
F-22	<0.15	0.30-0.60	<0.03	<0.03	<0.50	.	2.00-2.50	0.90-1.10	.	.
F-5	<0.15	0.30-0.60	<0.03	<0.03	<0.50	.	4.00-6.00	0.45-0.65	.	.
F-9	<0.15	0.30-0.60	<0.03	<0.03	0.50-1.0	.	8.00-10.00	0.90-1.10	.	.
F-91	0.08-0.12	0.30-0.60	<0.02	<0.01	0.20-0.50	<0.40	8.00-9.50	0.85-1.05	.	Al: <0.04 N: 0.03-0.07
F-91	continued									Nb: 0.06-0.10 V: 0.18-0.25
LF2	<0.30	0.60-1.35	<0.035	<0.04	0.15-0.30
LF3	<0.20	<0.90	<0.035	<0.04	0.20-0.35	3.25-3.75

Number	C	Mn	P	S	Si	Ni	Cr	Mo	Pb	Other
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These are specifications,
not samples for sale.

STAINLESS AND HIGH ALLOY STEEL SPECIFICATIONS

* notes optional chemistry

Number	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	N	Nb	Other
13-8PH	<0.05	<0.20	<0.01	<0.008	<0.10	.	7.50-8.50	12.25-13.25	2.00-2.50	<0.01	.	Al: 0.90-1.35
15-5PH	<0.07	<1.00	<0.04	<0.03	<1.00	2.50-4.50	3.50-5.50	14.00-15.50	.	.	0.15-0.45	
17-4PH	<0.07	<1.00	<0.04	<0.03	<1.00	3.00-5.00	3.00-5.00	15.00-17.50	.	.	0.15-0.45	
201	<0.15	5.5-7.5	<0.060	<0.03	<1.00	.	3.50-5.50	16.00-18.00	.	<0.25	.	
202	<0.15	7.5-10.0	<0.060	<0.03	<1.00	.	4.00-6.00	17.00-19.00	.	<0.25	.	
301	<0.15	<2.00	<0.045	<0.03	<1.00	.	6.00-8.00	16.00-18.00	.	.	.	
302	<0.15	<2.00	<0.045	<0.03	<1.00	.	8.00-10.00	17.00-19.00	.	.	.	
302B	<0.15	<2.00	<0.045	<0.03	2.00-3.00	.	8.00-10.00	17.00-19.00	.	.	.	
303	<0.15	<2.00	<0.20	>0.15	<1.00	.	8.00-10.00	17.00-19.00	<0.60*	.	.	Zr: <0.60*
304	<0.08	<2.00	<0.045	<0.03	<1.00	.	8.00-10.50	18.00-20.00	.	.	.	
304L	<0.03	<2.00	<0.045	<0.03	<1.00	.	8.00-12.00	18.00-20.00	.	.	.	
305	<0.12	<2.00	<0.045	<0.03	<1.00	.	10.00-13.00	17.00-19.00	.	.	.	
308	<0.08	<2.00	<0.045	<0.03	<1.00	.	10.00-12.00	19.00-21.00	.	.	.	
309	<0.20	<2.00	<0.045	<0.03	<1.00	.	12.00-15.00	22.00-24.00	.	.	.	
310	<0.25	<2.00	<0.045	<0.03	<1.50	.	19.00-22.00	24.00-26.00	.	.	.	
314	<0.25	<2.00	<0.045	<0.03	1.50-3.00	.	19.00-22.00	23.00-26.00	.	.	.	
316	<0.08	<2.00	<0.045	<0.03	<1.00	.	10.00-14.00	16.00-18.00	2.00-3.00	.	.	
316	<0.08	<2.00	<0.045	<0.03	<1.00	.	10.00-14.00	16.00-18.00	2.00-3.00	.	.	
316L	<0.03	<2.00	<0.045	<0.03	<1.00	.	10.00-14.00	16.00-18.00	2.00-3.00	.	.	
321	<0.08	<2.00	<0.045	<0.03	<1.00	.	9.00-12.00	17.00-19.00	.	.	.	Ti: >5xC
347	<0.08	<2.00	<0.045	<0.03	<1.00	.	9.00-13.00	17.00-19.00	.	.	>10xC	
348	<0.08	<2.00	<0.045	<0.03	<1.00	.	9.00-13.00	17.00-19.00	.	.	>10xC	
384	<0.08	<2.00	<0.045	<0.03	<1.00	.	17.00-19.00	15.00-17.00	.	.	.	Ta: <0.10
385	<0.08	<2.00	<0.045	<0.03	<1.00	.	14.00-16.00	11.50-13.50	.	.	.	
403	<0.15	<1.00	<0.04	<0.03	<0.50	.	.	11.50-13.00	.	.	.	
405	<0.08	<1.00	<0.04	<0.03	<1.00	.	.	11.50-14.50	.	.	.	Al: 0.10-0.30
409	<0.08	<1.00	<0.04	<0.01	<1.00	.	<0.50	10.50-11.75	.	.	.	Ti: 6\mtC-0.75
410	<0.15	<1.00	<0.04	<0.03	<1.00	.	.	11.50-13.50	.	.	.	
414	<0.15	<1.00	<0.04	>0.03	<1.00	.	1.25-2.50	11.50-13.50	.	.	.	
416	<0.15	<1.25	<0.06	>0.15	<1.00	.	.	12.00-14.00	<0.60*	.	.	Zr: <0.60*
420	>0.15	<1.00	<0.04	<0.03	<1.00	.	.	12.00-14.00	.	.	.	
422	0.20-0.25	<1.00	<0.04	<0.03	<0.75	<0.50	0.50-1.00	11.00-12.50	0.75-1.25	.	.	V: 0.15-0.30
422	continued											W: 0.75-1.25
430	<0.12	<1.00	<0.04	<0.03	<1.00	.	.	16.00-18.00	.	.	.	
430F	<0.12	<1.25	<0.06	>0.15	<1.00	.	.	16.00-18.00	<0.60*	.	.	Zr: <0.60*
431	<0.20	<1.00	<0.04	<0.03	<1.00	.	1.25-2.50	15.00-17.00	.	.	.	
440A	0.60-0.75	<1.00	<0.04	<0.03	<1.00	.	.	16.00-18.00	<0.75	.	.	
440B	0.75-0.95	<1.00	<0.04	<0.03	<1.00	.	.	16.00-18.00	<0.75	.	.	
440C	0.95-1.20	<1.00	<0.04	<0.03	<1.00	.	.	16.00-18.00	<0.75	.	.	
450	<0.05	<1.00	<0.03	<0.03	<1.00	1.25-1.75	5.00-7.00	14.00-16.00	0.50-1.00	.	.	8\mtC
455	<0.05	<0.50	<0.04	<0.03	<0.50	1.50-2.50	7.50-9.50	11.00-12.50	<0.50	.	0.10-0.50	Ti: 0.80-1.40
501	>0.10	<1.00	<0.04	<0.03	<1.00	.	.	4.00-6.00	0.40-0.65	.	.	
502	<0.10	<1.00	<0.04	<0.03	<1.00	.	.	4.00-6.00	0.40-0.65	.	.	
Duplex	<0.05	<3.00	<0.035	<0.03	<1.50	<2.50*	4.00-7.00	18.00-25.00	0.20-5.50	<0.40	.	

These are specifications,
not samples for sale.