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PURE IRON

= class, where 1 = CRM and 2 = RM

T = total

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Al	Co	N	O
1	SRM 1265a	0.0067	0.0057	0.0011	0.0055	0.008	0.0058	0.041	0.007	0.0050	(0.0007)	0.007	.	.
1	BS 50F	0.0064	0.082	0.0066	0.0031	0.016	0.0088	0.016	0.022	0.0017	0.003	0.0023	0.0042	(0.0026)
2	CZ LA-0A	(0.006)	0.045	0.005	0.005	0.0015	0.012	0.028	0.022	(0.0044)	0.0015	0.002	0.0023	.
1	VS RG31	0.0035	0.0010	0.0015	.	0.009	0.010	0.0046	0.0016	0.0003	.	0.0007	.	.
2	TL 1669 *	0.00226	0.0955	0.0137	0.0100	0.0093	0.0217	0.0160	0.0246	0.0011	0.03553T	0.0019	0.0024	.
2	TH 1045D	0.0023	.	0.0043	.	.	.	.	.	.	.	.	0.0046	.
1	VS RG24/1	0.0022	0.015	0.0027	0.0069	0.017	0.011	0.037	0.037	0.0013	.	0.012	.	.
1	BS LC-6	0.0020	0.469	0.0007	0.0009	0.050	0.0003	0.0057	0.0023	(0.0006)	0.034	0.0021	0.0003	0.0007
1	SRM 1768	0.0010	0.0014	0.0013	0.0003	.	0.0006	0.0014	.	.	0.0024	0.0025	0.002	0.036
1	ECRM 098-1D	0.00051	0.00008	(0.00006)	0.00031	0.00048	.	.	0.00571	0.00085	.	.	0.00024	.
1	ECRM 097-1D	(<0.002)	0.0064	0.0016	0.0022	(<0.01)	0.0020	0.0025	0.0016	(<0.001)	.	0.0037	0.0007	.
1	ECRM 097-2D	.	0.012	0.00538	0.00181	0.00285	0.00793	0.0241	0.0213	0.00370	.	0.0139	0.00294	.

Number	As	B	Mg	Nb	Pb	Sn	Ti	V	W	Units
SRM 1265a	(0.0002)	0.00013	.	.	0.00001	.	(0.0001)	0.0006	.	disc 32 mm Ø x 19 mm
BS 50F	0.0013	(<0.0002)	(<0.0001)	(<0.0002)	(<0.0003)	0.0010	0.0004	(0.0003)	(<0.0050)	disc 35 mm Ø x ~7 mm 17025
CZ LA-0A	(0.0015)	.	.	Sb:(0.0007)	(0.001)	(0.001)	0.001	.	.	disc -37 mm Ø x 25 mm
VS RG31	.	.	.	.	.	.	.	.	.	disc -45 mm Ø x ~28mm
TL 1669 *	0.0017	0.00038	.	0.00046	0.00013	0.0071	0.0504	(0.0006)	.	disc 38 mm Ø x 25 mm
TH 1045D	.	.	.	.	.	.	.	.	.	disc 40 mm Ø x 40 mm
VS RG24/1	.	.	.	.	.	.	0.0010	.	.	disc -45 mm Ø x ~28mm
BS LC-6	(<0.0020)	(0.0004)	(0.00003)	(<0.0010)	(<0.0020)	(<0.0020)	0.0006	(<0.0010)	(<0.0050)	disc 39 mm Ø x ~7 or 19+ mm 17025
SRM 1768	.	.	.	.	.	.	.	.	.	disc 31 mm Ø x 19 mm
ECRM 098-1D	.	.	.	.	.	.	.	.	.	octagon 35 mm Ø x 25 mm
ECRM 097-1D	0.0051	0.0003	.	.	.	(<0.0025)	.	(<0.001)	.	disc 38 mm Ø x 3, 25, or 30 mm
ECRM 097-2D	0.00281	0.00012	Sb:0.00012	Ta:0.00015	Zn:0.00014	0.00043	.	0.00011	0.00386	disc 38 mm Ø x 25 or 30 mm

* 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** ~7 mm discs

Grade	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Al	As	Co	N	Sn	V
Pure Iron	BS 50F	0.0064	0.082	0.0066	0.0031	0.016	0.0088	0.016	0.022	0.0017	0.003	0.0013	0.0023	0.0042	0.0010	(0.0003)
1008	BS XAAS	0.041	0.430	0.007	0.010	0.045	0.015	0.023	0.020	0.007	0.006	0.005	0.004	0.0037	<0.002	<0.005
1018	BS 2931	0.202	0.75	0.012	0.025	0.23	0.23	0.106	0.154	0.019	0.002	0.007	0.009	0.0119	0.010	0.002
1020	BS 57F	0.196	0.554	0.009	0.027	0.202	0.197	0.070	0.120	0.018	(0.002)	(0.006)	0.007	0.0077	0.008	0.063
1026	BS 4932	0.234	0.76	0.010	0.015	0.25	0.15	0.080	0.144	0.033	(0.001)	(0.005)	0.005	0.0080	0.008	0.060
1035	BS 4931	0.352	0.80	0.011	0.016	0.27	0.217	0.070	0.093	0.024	(0.001)	0.005	0.006	0.0080	0.009	0.058
1040	BS 3941	0.407	0.802	0.016	0.023	0.257	0.053	0.018	0.069	0.0061	0.0019	0.0036	0.0042	0.0069	0.0019	0.0025
1045	BS 56E	0.483	0.72	0.010	0.025	0.24	0.015	0.015	0.021	0.005	0.062	0.0035	0.005	0.0056	(0.0006)	(<0.002)
1095	BS 64C	0.920	0.22	0.015	0.0024	0.22	0.016	0.038	0.261	0.008	(0.005)	.	0.004	0.0084	(0.001)	0.005
1522 (LF2)	BS 2932	0.208	1.20	0.008	0.020	0.186	0.060	0.034	0.077	0.026	0.022	(0.003)	0.004	0.0080	0.005	0.001

CRM CARBON STEEL SET

AVAILABLE IN SET/6 ONLY

38 mm Ø x 30 mm

Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Al.Sol	Ti	Ti.Sol	V
NCS HS11719-5	1.19	2.20	0.011	0.013	0.751	0.046	0.164	0.439	0.036	0.034	0.029	0.028	0.0082
NCS HS11719-1	0.963	0.586	0.022	0.010	0.241	0.111	0.206	0.131	0.019	0.017	0.016	0.015	0.035
NCS HS11719-3	0.435	1.14	0.045	0.020	0.163	0.160	0.114	0.086	0.019	0.016	0.024	0.023	0.099
NCS HS11719-4	0.140	1.30	0.084	0.020	0.526	0.276	0.344	0.198	0.160	0.155	0.132	0.128	0.153
NCS HS11719-2	0.042	0.048	0.105	0.0053	0.154	0.411	0.432	0.247	0.296	0.292	0.161	0.154	0.207
NCS HS11719-6	0.0060	0.163	0.0053	0.035	0.014	0.0032	0.013	0.021	0.0021	0.0016	0.0010	(0.0008)	0.363

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

Number	Al.T	Al.S	B.T	B.S	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo
NCS HS93703-1	0.387	0.381	0.025	0.023	1.08	2.35	0.0057	(0.008)	0.681	0.048	0.028	3.98	0.0047	0.0077
NCS HS93703-2	0.92	0.91	0.0083	0.0080	0.055	0.021	0.027	0.0033	0.827	0.422	1.09	3.09	0.262	1.56
NCS HS93703-3	0.107	0.103	0.0041	0.0037	0.792	1.34	0.013	0.038	1.09	0.532	0.533	2.11	0.488	0.397
NCS HS93703-4	0.083	0.078	0.0050	0.0048	0.475	0.612	0.015	0.015	2.57	0.687	2.01	1.31	0.403	0.977
NCS HS93703-5	(1.29)	(1.27)	0.0017	0.0015	0.651	1.53	0.036	0.0052	0.024	0.236	2.98	0.021	0.094	0.631
NCS HS93703-6	0.64	0.63	0.0033	0.0030	0.246	0.211	0.045	0.0058	0.274	0.092	3.83	0.505	0.145	0.203

Number	As	Bi	Ca	Nb	Pb	Sb	Sn	Ti	V	W	Zr
NCS HS93703-1	0.032	0.0011	0.0009	0.351	0.0016	(0.0001)	0.014	0.473	0.0090	0.293	0.0031
NCS HS93703-2	0.0034	0.0006	0.0010	0.254	0.0008	0.0020	0.0069	0.346	0.376	1.97	0.087
NCS HS93703-3	0.0019	0.0004	0.0010	0.506	0.0007	0.0040	0.054	0.016	0.071	0.755	0.014
NCS HS93703-4	0.056	(0.0002)	(0.0001)	0.167	0.0006	0.0095	0.012	0.035	0.709	1.48	0.069
NCS HS93703-5	0.0064	0.0015	0.0007	0.0057	0.0007	0.010	0.015	0.111	0.231	0.050	0.41
NCS HS93703-6	0.011	(0.0002)	(0.0001)	0.070	0.0011	0.0006	0.017	0.246	0.526	1.04	0.22

CARBON STEEL

CONTINUED ON THE NEXT PAGE

= Class, where 1 = CRM and 2 = RM

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Als	As	B	Ca	Co	Mo
1	IRSID 1660	1.20	0.280	0.014	0.010	0.173	0.059	0.072	(0.026)	(0.009)	.	.	.	.	.	.
1	ECRM 090-1D	1.05	0.226	0.013	0.0095	0.281	0.059	0.053	0.121	.	.	.	.	.	.	0.009
1	SRM 1227	0.97	0.402	0.014	0.026	0.215	0.006	0.007	0.019	.	.	.	.	.	0.003	0.003
1	SS 602/2	0.94	0.66	0.023	0.031	0.057	(0.06)	(0.02)	(0.03)	0.096	.	.	.	.	(0.007)	(0.004)
2	BS 64C	0.920	0.22	0.015	0.0024	0.22	0.016	0.038	0.261	(0.005)	.	.	.	.	0.004	0.008
2	HRT FE2014-N	0.91	1.97	0.012	(0.004)	0.24	0.01	0.02	0.35	0.016	.	.	.	.	.	0.01
1	ECRM 056-2D	0.8181	0.5073	0.0103	0.0093	0.2006	0.0129	0.0218	0.0146	.	0.00024	.	.	.	.	.
1	SRM 1224	0.75	0.41	0.009	0.039	0.173	0.072	0.054	0.071	0.060	.	.	.	.	.	0.013
1	VS RG28	0.70	0.84	0.031	.	1.161	0.050	0.154	0.135	0.066	.	.	.	.	.	0.090
1	VS RG28/1	0.68	0.91	0.031	0.0071	2.36	0.040	0.168	0.194	0.068	.	.	.	.	0.072	0.104
1	IARM 373A	0.63	0.70	0.0123	0.031	0.22	0.107	0.048	0.096	0.002	.	0.0046	0.0003	0.0005	0.005	0.0176
1	VS UG20/6	0.58	0.473	(0.008)	(0.02)	0.229	0.249	0.360	0.396	.	.	.	.	.	.	.
1	NM 3405.01	0.57	0.80	0.037	0.048	0.19	.	0.031	0.081	.	.	.	.	.	.	.
1	SS 435/1	0.52	0.41	0.033	0.031	0.54	.	0.060	0.14	.	.	.	.	.	.	.
1	SS 435/2	0.49	0.39	0.04	0.042	0.32	.	0.13	0.18	.	.	.	.	.	0.011	.
2	BS 56E	0.483	0.72	0.010	0.025	0.24	0.015	0.015	0.021	0.062	.	0.0035	.	<0.0005	0.005	0.005
1	IRSID 1636	0.47	0.78	0.029	0.037	0.40	0.135	0.092	(0.060)	(0.007)	.	.	.	.	.	.
1	SS 459/2	0.467	0.909	0.0482	0.0481	0.640	.	.	0.015	(0.013)	.	0.0110	.	0.0890	.	.
1	BS 56H	0.457	0.772	0.0096	0.0234	0.210	0.299	0.154	0.098	0.0009	.	0.0056	0.0002	0.0012	0.0078	0.0419
1	VS UG123	0.45	0.552	0.016	0.026	0.216	0.196	0.084	0.111	0.024	.	.	.	.	.	.
1	IRSID 1657	0.445	0.724	0.028	(0.013)	0.274	.	0.048	(0.022)	0.004	.	0.0051	.	.	.	(0.008)
1	IRSID 1648	0.432	1.41	0.031	(0.070)	0.242	0.408	0.165	0.170	(0.004)	.	(0.038)	.	.	.	(0.028)
1	12X 10400A	0.420	0.754	0.0137	0.0305	0.220	0.140	0.0631	0.139	0.0323	.	0.0068	.	.	.	0.0169
1	NM EN-8	0.42	0.82	0.02	0.21	0.21	.	.	.	.	.	.	.	.	.	.
1	IRSID 1642	0.418	0.929	0.031	(0.031)	0.388	0.097	0.068	(0.035)	(0.020)	.	(0.042)	.	.	.	(0.009)
1	IRSID 1647	0.418	0.701	0.019	(0.027)	0.299	(0.104)	0.093	0.490	(0.060)	(0.0555)	.	.	.	.	.
1	IRSID 1646	0.414	0.701	0.020	0.027	0.293	0.104	0.093	0.493	0.056	.	.	.	.	.	.
1	IARM 210D	0.412	0.73	0.0052	0.030	0.230	0.273	0.122	0.096	(0.002)	.	0.0059	0.0004	0.0009	0.007	0.034
1	SS 434/1	0.41	1.49	0.050	0.027	0.31	.	0.044	0.055	.	.	.	.	.	.	.
1	IARM 349A	0.41	1.49	0.011	0.025	0.192	0.300	0.178	0.189	0.0020	.	0.005	0.0003	0.0015	0.0085	0.059
1	BS 3941	0.407	0.802	0.016	0.023	0.257	0.053	0.018	0.069	0.0019	.	0.0036	(0.0001)	0.0011	0.0042	0.0061
1	IRSID 1652	0.406	0.931	(0.017)	0.040	0.386	0.345	0.190	0.184	.	(0.0013)	0.038	.	.	.	(0.042)
1	IRSID 1637	0.401	0.940	0.030	0.030	0.378	0.097	0.068	(0.033)	0.022	.	0.042	.	.	.	(0.006)
1	SS 605/2	0.400	0.345	0.054	0.015	0.54	(0.06)	(0.05)	(0.06)	0.027	.	.	.	.	(0.008)	(0.01)
1	IRSID 1644	0.394	0.594	0.021	0.031	0.287	0.265	0.158	0.138	(0.017)	.	.	.	.	.	.
1	ECRM 084-1D	0.391	0.860	.	0.029	0.265	0.267	0.154	.	.	.	.	.	.	.	0.033
1	IRSID 1645	0.388	0.610	0.021	0.030	0.286	0.261	0.157	0.140	0.015	(0.0124)	.	.	.	.	.
1	IRSID 1649	0.384	0.930	0.045	(0.047)	0.250	0.418	0.226	0.321	0.004	.	0.037	.	.	.	0.043
1	SS 460/2	0.383	0.616	0.0374	0.0099	0.126	.	.	.	0.024	(0.019)	.	0.0027	.	0.0106	.
1	VS RG30	0.38	0.357	.	0.013	0.45	0.161	0.62	3.06	.	.	.	.	.	0.50	0.62
#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Als	As	B	Ca	Co	Mo
1	IRSID 1655	0.355	1.018	(0.018)	(0.060)	0.443	0.415	0.188	0.157	(0.004)	.	(0.036)	.	.	.	(0.043)
1	IRSID 1663	0.353	0.967	0.0090	0.034	0.235	0.180	0.148	0.206	0.037	.	0.028	.	.	.	0.042
1	VS UG90	0.34	0.286	0.0079	0.012	0.221	0.200	0.265	0.261	0.037	0.032	0.0044	.	.	.	0.046
1	VS UG19/6	0.34	0.274	(0.03)	(0.03)	0.136	0.148	0.262	0.227	.	.	.	.	.	.	.
1	IARM 360A	0.331	0.733	0.008	0.023	0.260	0.235	0.078	0.113	0.0016	.	0.0060	0.0004	0.0017	0.0067	0.024
1	BS 1030	0.331	0.682	0.0101	0.0299	0.261	0.269	0.078	0.124	0.0014	.	0.0055	0.0003	0.0012	0.0069	0.0182
1	IARM 209D	0.322	0.68	0.0084	0.021	0.268	0.243	0.079	0.137	(0.003)	.	0.0060	0.0002	0.002	0.007	0.037
1	IRSID 1653	0.312	0.962	0.034	(0.039)	0.400	0.453	0.218	0.358	<0.004	.	(0.039)	.	.	.	(0.038)
1	VS RG27	0.30	0.97	0.054	0.0032	0.42	0.188	0.135	1.53	0.88	.	.	.	.	0.071	0.222
1	IRSID 1654	0.270	0.979	0.036	(0.047)	0.354	0.441	0.241	0.328	.	.	0.040	.	.	.	(0.043)
1	SS 434/2	0.27	1.54	0.06	0.014	0.51	.	0.038	0.24	.	.	.	.	.	.	.
1	IARM 359A	0.267	0.686	0.0094	0.020	0.233	0.186	0.068	0.121	0.002	.	0.0073	0.0003	0.0013	0.0069	0.023
1	BS 1026	0.260	0.715	0.0171	0.0191	0.268	0.247	0.096	0.163	0.0330	.	0.0100	(0.0002)	0.0017	0.0072	0.0289
1	VS UG94	0.26	0.186	0.0037	0.0026	0.101	0.088	0.178	0.206	0.017	.	.	.	.	.	0.0005
1	VS UG18/6	0.242	0.213	(0.003)	(0.003)	0.20	0.063	0.273	0.237	.	.	.	.	.	.	.
2	HRT FE2016-N	0.23	0.85	0.015	0.011	0.32	0.02	0.15	0.21	0.033	.	.	.	.	.	.
1	BS 1020	0.210	0.568	0.0058	0.0249	0.250	0.184	0.059	0.109	0.0006	.	0.0074	(0.0001)	0.0022	0.0070	0.018
1	IARM 213C	0.201	0.922	0.007	0.025	0.25	0.149	0.068	0.099	0.0019	.	0.0058	0.0003	0.0014	0.0074	0.022
1	IRSID 1664	0.2008	0.472	0.0106	0.0259	0.0616	0.0820	0.0547	0.0707	.	0.0193	0.0115	(0.0002)	(0.0005)	(0.0084)	0.0157
1	VS RG25/1	0.196	0.29	0.019	0.0088	0.100	0.065	0.037	0.060	0.067	.	.	.	.	0.012	0.010
1	BS 1018 *	0.19	0.80	0.013	0.026	0.23	0.13	0.11	0.18	0.03	.	<0.005	<0.005	<0.005	<0.05	0.05
1	BS LF2B	0.176	1.05	0.007	0.0067	0.209	0.318	0.115	0.138	0.0287	.	0.0052	(0.0002)	0.0010	0.0071	0.0382
1	12X 10180C	0.171	0.803	0.0150	0.0200	0.147	0.0500	0.0284	0.0793	0.0198	.	0.0029	.	.	.	0.0047
1	BS 1016 *	0.17	0.77	0.01	0.03	0.19	0.15	0.11	0.09	0.02	.	0.006	<0.005	<0.005	0.02	0.04
1	NM 3404.01	0.17	0.66	0.025	0.021	0.19	.	0.007	0.010	.	.	.	.	.	.	.
1	12X 10180B	0.169	0.722	0.0101	0.0056	0.114	0.0544	0.0333	0.0451	0.043	.	0.0059	0.00018	0.00039	0.0042	0.0062
2	TL 1000	0.1692	1.4281	0.0142	0.0164	0.2258	0.0120	0.0312	0.0635	0.0226	.	(0.0016)	0.00018	0.00039	0.0042	0.0076
1	VS RG25	0.167	0.131	0.014	.	0.084	.	0.046	0.057	0.015	.	.	.	.	.	0.0028
1	VS UG124	0.165	1.41	0.019	0.032	0.384	0.020	0.015	0.035	0.039	.	.	.	.	.	.
1	VS UG109	0.161	0.353	0.020	0.0037	0.151	0.082	0.0053	0.048	0.0093	.	.	.	.	.	.
1	BS 2931B	0.159	0.788	0.0108	0.0292	0.207	0.098	0.083	0.080	0.0191	.	0.0033	0.0002	0.0002	0.0056	0.0329
1	SS 456/2	0.112	0.220	0.0212	0.0221											

CARBON STEEL CONTINUED FROM THE PREVIOUS PAGE

Number	N	Nb	O	Pb	Sb	Sn	Ti	V	W	Zn	Zr	Units
IRSID 1660	.	.	.	.	.	.	.	.	.	.	.	37 mm Ø x 30 mm
ECRM 090-1D	0.0146	0.00043	.	0.00239	0.00090	.	.	0.204	.	0.00209	.	38 mm Ø x 25 or 30 mm
SRM 1227	.	.	.	.	.	.	.	0.002	.	.	.	32 mm Ø x 19 mm
SS 602/2	.	.	.	.	.	.	.	(0.001)	.	.	(<0.005)	44 mm Ø x 19 mm
BS 64C	0.0084	(<0.003)	.	.	.	(0.001)	(0.002)	0.005	.	.	.	44 mm Ø x ~7 or 19+ mm
HRT FE2014-N	0.0052	.	.	.	.	.	.	0.066	.	.	.	~35mm Ø x 20 mm
ECRM 056-2D	.	.	.	.	.	.	.	0.002	.	.	.	44 mm Ø x 25 or 30 mm
SRM 1224	.	.	.	.	.	.	.	0.002	.	.	.	32 mm Ø x 19 mm
VS RG28	.	0.029	.	.	.	.	0.0041	0.022	0.006	.	.	~45 mm Ø x ~28mm
VS RG28/1	.	0.041	.	.	.	.	0.022	0.035	0.0041	.	.	~45 mm Ø x ~28mm
IARM 373A	0.0088	0.001	0.002	(0.001)	(0.002)	0.0069	0.0017	0.023	(0.002)	(0.003)	(0.003)	31 mm Ø x 2 or 18 mm
VS UG20/6	.	.	.	.	.	.	.	.	.	.	.	~45 mm Ø x ~28 mm
NM 3405.01	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 20 mm
SS 435/1	.	0.039	.	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm
SS 435/2	.	0.13	.	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm
BS 56E	0.0056	(<0.002)	.	(0.0001)	0.0004	(0.0006)	(0.001)	(<0.002)	.	.	.	44 mm Ø x ~7 or 19+ mm
IRSID 1636	.	.	.	.	.	.	.	.	.	.	.	48 mm Ø x 30 mm
SS 459/2	.	0.0102	.	0.0044	0.0121	.	.	0.0585	.	.	(0.074)	38 mm Ø x 19 mm
BS 56H	0.0106	0.0009	0.0025	0.0004	0.0025	0.0124	0.0009	0.0295	0.0007	Ta:0.0011	0.0007	38 mm Ø x ~7 or 19+mm
VS UG123	0.0078	.	.	.	.	.	.	0.0019	.	.	.	~45 mm Ø x ~28mm
IRSID 1657	.	.	.	.	.	.	.	(0.001)	.	.	.	42 mm Ø x 30 mm
IRSID 1648	.	.	.	.	.	0.033	.	.	.	.	.	40 mm Ø x 28 mm
12X 10400A	0.0133	.	.	.	.	0.0127	.	.	.	0.0033	.	~40 mm Ø x ~15 mm
NM EN-8	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 20 mm
IRSID 1642	.	.	.	.	.	.	.	(0.002)	.	.	.	45 mm Ø x 30 mm
IRSID 1647	.	.	.	.	.	.	.	.	.	.	.	41 mm Ø x 30 mm
IRSID 1646	.	.	.	.	.	.	.	.	.	.	.	42 mm Ø x 30 mm
IARM 210D	0.011	0.001	0.0034	0.001	0.002	0.010	0.0104	0.024	(0.002)	.	(0.001)	31 mm Ø x 2 or 18 mm
SS 434/1	.	0.078	.	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm
IARM 349A	0.0100	0.0012	0.003	(0.001)	(0.003)	0.015	0.0013	0.027	0.004	(0.003)	(0.002)	31 mm Ø x 2 or 18 mm
BS 3941	0.0069	0.033	0.0055	0.0010	0.0005	0.0019	0.0017	0.0025	(0.0004)	.	(0.0003)	41 mm Ø x ~7 or 19+ mm
IRSID 1652	.	.	.	.	.	0.030	.	.	.	.	.	45 mm Ø x 30 mm
IRSID 1637	.	.	.	.	.	.	.	(0.002)	.	.	.	45 mm Ø x 30 mm
SS 605/2	.	.	.	.	.	.	.	(0.001)	.	.	(0.12)	44 mm Ø x 19 mm
IRSID 1644	.	.	.	.	.	.	.	.	.	.	.	45 mm Ø x 30 mm
ECRM 084-1D	.	.	.	.	.	0.023	.	.	.	.	.	38 mm Ø x 25 or 30 mm
IRSID 1645	.	.	.	.	.	.	.	.	.	.	.	45 mm Ø x 30 mm
IRSID 1649	.	.	.	.	.	0.028	.	.	.	.	.	40 mm Ø x 28 mm
SS 460/2	.	0.068	.	0.0005	(0.0006)	.	.	0.0322	.	.	(<0.0005)	38 mm Ø x 19 mm
VS RG30	.	0.139	.	.	.	.	.	0.63	0.91	.	.	~45 mm Ø x ~28mm
Number	N	Nb	O	Pb	Sb	Sn	Ti	V	W	Zn	Zr	Units
IRSID 1655	.	.	.	.	.	0.046	.	.	.	.	.	40 mm Ø x 34 mm
IRSID 1663	.	.	.	.	.	0.0143	0.051	.	.	.	.	44 mm Ø x 30 mm
VS UG90	0.015	.	.	.	0.0011	.	0.039	.	.	.	.	~47 mm Ø x ~30 mm
VS UG19/6	.	.	.	.	.	.	.	.	.	.	.	~45 mm Ø x ~28 mm
IARM 360A	0.0102	0.0015	0.004	(0.001)	0.0023	0.010	0.0010	0.039	(0.001)	(0.003)	(0.001)	31 mm Ø x 2 or 18 mm
BS 1030	0.0107	(0.0004)	0.005	0.0005	0.0024	0.0114	0.0005	0.031	0.0012	.	(0.0002)	38 mm Ø x ~7 or 19+ mm
IARM 209D	0.0107	0.0014	0.005	0.001	0.004	0.012	0.0011	0.042	(0.002)	(0.003)	.	31 mm Ø x 2 or 18 mm
IRSID 1653	.	.	.	.	.	0.066	.	.	.	.	.	40 mm Ø x 34 mm
VS RG27	.	.	.	.	.	.	.	0.064	0.170	.	.	~45 mm Ø x ~28mm
IRSID 1654	.	.	.	.	.	0.030	.	.	.	.	.	40 mm Ø x 34 mm
SS 434/2	0.010	0.038	.	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm
IARM 359A	0.0094	0.002	0.0044	(0.001)	(0.002)	0.0100	0.0009	0.027	(0.001)	.	(0.001)	31 mm Ø x 2 or 18 mm
BS 1026	0.0083	(0.0004)	0.0031	(0.0002)	0.0019	0.0112	(0.0004)	0.0016	0.0021	.	(0.0002)	38 mm Ø x ~7 or 19+ mm
VS UG94	.	.	.	.	.	.	0.053	(0.001)	.	.	.	~40 mm Ø x ~28 mm
VS UG18/6	.	.	.	.	.	.	.	.	.	.	.	~45 mm Ø x ~28 mm
HRT FE2016-N	0.0055	.	.	.	.	.	.	.	.	.	.	35 mm Ø x 20 mm
BS 1020	0.0109	(0.0003)	0.0046	(0.0002)	(0.0018)	0.0090	(0.0005)	0.0363	(0.0004)	.	(0.0005)	44 mm Ø x ~7 or 19+ mm
IARM 213C	0.0116	0.0011	0.0042	0.0011	0.002	0.0081	0.0010	0.035	(0.002)	(0.006)	(0.0004)	31 mm Ø x 2 mm
IRSID 1664	0.0072	(0.0002)	.	0.0002	0.0012	0.0108	0.0013	(0.0005)	<0.002	(0.0007)	(0.0001)	37 mm Ø x 30 mm
VS RG25/1	.	0.016	.	.	.	.	0.055	0.0110	.	.	.	~45 mm Ø x ~28mm
BS 1018 *	0.010	<0.005	0.002	<0.005	* Provisional Analysis	0.0092	0.0009	0.001	<0.005	.	<0.05	38 mm Ø x ~7 or 19+ mm
BS LF2B	0.0078	(0.0003)	0.0024	(0.0001)	0.0018	0.0024	0.0009	0.0300	0.0027	17025	Fe:97.9	38 mm Ø x ~7 or 19+ mm
12X 10180C	0.0052	.	.	.	.	0.0024	.	.	0.0005	.	.	~40 mm Ø x ~15 mm
BS 1016 *	<0.05	0.001	<0.05	<0.05	.	0.01	0.001	0.001	* Provisional Analysis	.	.	Hexagon ~60 mm Ø x 19+ mm
NM 3404.01	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 20 mm last
12X 10180B	0.0071	.	.	.	.	0.0065	.	.	.	0.0079	.	~40 mm Ø x ~15 mm
TL 1000	(0.0093)	0.0293	.	Mg: (0.00005)	.	(0.00106)	0.0011	(0.0033)	(0.0002)	.	.	36 mm Ø x 20 mm
VS RG25	.	.	.	.	.	.	0.039	.	.	.	.	~45 mm Ø x ~28mm
VS UG124	0.0072	.	.	.	.	.	.	0.0043	.	.	.	~45 mm Ø x ~28mm
VS UG109	.	.	.	.	.	.	0.071	.	.	.	.	~45 mm Ø x ~25 mm
BS 2931B	0.0076	0.0011	0.0021	(0.00004)	0.0012	0.0062	0.0008	0.0014	0.0007	Mg:0.0001	0.0005	38 mm Ø x ~2mm
SS 456/2	.	0.0057	.	0.0189	0.0172	.	.	0.0221	.	.	(0.014)	38 mm Ø x 19 mm
DSZU C041	0.0046	0.0017	.	.	.	0.0038	0.0019	0.003	(0.003)	.	.	40 mm Ø x 25 mm
SS 432/1	.	<0.002	.	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm
SS 601/2	.	.	.	.	.	.	.	(0.002)	.	.	(<0.005)	44 mm Ø x 19 mm
VS UG93	.	.	.	.	.	.	0.075	0.0008	.	.	.	~40 mm Ø x ~28 mm
VS UG17/6	.	.	.	.	.	.	.	.	.	.	.	~45 mm Ø x ~28 mm
SS 433/2	.	0.06	.	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm
IRSID 1661	.	.	.	.	(0.0005)	(0.0085)	.	.	.	.	.	40 mm x 42 mm x 30 mm
VS UG125	0.0112	.	.	.	.	.	.	0.035	.	.	.	~45 mm Ø x ~28mm
VS UG108	.	.	.	.	.	.	0.071	.	0.074	.	.	~45 mm Ø x ~25 mm
SRM 1228	.	.	.	.	.	.	.	<0.001	.	.	.	32 mm Ø x 19 mm
ECRM 057-2D	0.0023	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 25 or 30 mm
BS XCCS-1	0.0052	(0.001)	.	(0.0006)	(0.0005)	0.0002	0.0015	0.0012	(0.003)	.	0.0006	~40 mm Ø x ~30 mm
BS XCCS	0.0047	(<0.002)	(0.0027)	(<0.001)	(0.0006)	0.006	(0.0005)	(<0.002)	.	.	(<0.002)	~36 mm Ø x 13-31 mm last
VS RG26/1	.	0.0056	.	.	.	.	0.100	0.0113	.	.	.	~45 mm Ø x ~28mm
NM PC-1	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 20 mm
DSZU C03	.	(0.002)	.	(0.009)	(0.003)	0.011	0.002	0.004	(0.009)	(0.0037)	(0.0006)	40 mm Ø x 30 mm
VS RG26	.	.	.	.	.	.	0.121	.	0.0058	.	.	~45 mm Ø x ~28mm
SS 431/2	0.005	0.004	.	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm
SS 111	0.0034	(0.0005)	.	.	.	0.0015	0.0004	0.0009	.	.	.	44 mm Ø x 19 mm
DSZU C040	0.0071	(0.0004)	.	.	.	(0.0001)	0.0010	(0.001)	(0.002)	.	.	40 mm Ø x 25 mm
RM Fe 1/5	0.002	<0.005	.	<0.002	.	0.0008	<0.0005	<0.0005	0.002	.	<0.005	40 mm Ø x 40 mm
VS UG2/5	.	(0.002)	.	.	.	.	(0.01)	0.005	(0.02)	.	.	~45 mm Ø x ~28 mm
SS 432/2	0.007	0.018	.	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm
VS 005	.	.	.	.	.	0.0021	0.0047	.	.	.	.	~45 mm Ø x ~25 mm
VS UG2/10	(0.006)	.	.	.	.	0.0017	0.0070	.	.	.	.	~45 mm Ø x ~28 mm
VS 003	.	.	.	.	.	0.0020	0.0063	.	.	.	.	~45 mm Ø x ~25 mm
CZ LA-1B	0.003	(0.001)	.	(0.0007)	(0.002)	(0.001)	(0.001)	0.004	0.010	.	(0.002)	~37 mm Ø x 25 mm
IMZ 110A	0.0037	.	.	.	.	.	(0.0006)	(0.0014)	.	.	.	43 mm Ø x 20 mm
VS 004	.	.	.	.	.	.	0.0013	.	.	.	.	~45 mm Ø x ~25 mm
VS 002	.	.	.	.	.	0.00040	0.0005	.	.	.	.	~45 mm Ø x ~25 mm
BS LC-6	0.0003	(<0.0010)	0.0007	(<0.0020)	(<0.0001)	(<0.0020)	0.0006	(<0.0010)				

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
1	VS UG87	0.116	0.0012	0.59	1.18	0.026	0.022	1.25	0.030	0.50	0.260	0.024	0.02	.	0.044	.	0.103
1	12X 12749W	0.071	.	0.132	1.250	0.0257	0.101	0.298	0.311	0.485	0.554	0.004	.	0.436	0.224	0.040	0.031
1	SS 454/1	0.070	.	0.376	0.80	0.061	0.047	0.31	0.051	0.069	0.062	.	.	.	0.20	0.054	0.010
1	12X 15266V *	0.07	.	0.45	1.26	0.034	0.026	0.66	0.23	1.31	3.4	0.52	.	0.3	0.3	0.01	.
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	IRSID 1656	0.055	.	0.477	0.730	0.027	0.013	0.277	.	(0.048)	(0.017)	(0.002)	.	.	(0.007)	.	.
1	12X 15260W	0.055	.	0.352	2.08	0.0275	0.074	0.485	0.152	0.453	2.98	0.191	.	0.0884	0.098	0.0094	.
1	12X 350B	0.053	.	0.138	0.706	0.029	0.0363	0.672	0.150	0.162	0.392	0.341	.	0.0206	0.149	0.0298	0.099
1	12X 353G *	0.05	0.14	0.11	0.71	0.008	0.015	0.21	0.23	0.21	0.71	0.05	.	0.025	0.11	0.12	0.04
1	12X 12746U	0.049	.	0.0132	1.70	0.0247	0.064	0.183	0.368	0.161	0.182	0.021	.	0.115	0.654	0.202	0.0283
1	12X 358A *	0.04	0.13	0.13	0.7	0.01	0.015	0.2	0.2	0.2	0.63	0.06	.	0.04	0.1	0.12	0.05
1	12X 355C	0.0331	0.0796	0.159	0.508	0.0214	0.0241	0.494	0.657	0.0710	0.113	0.1104	.	0.0495	0.1010	0.0564	0.153
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	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	12X 357C	0.0147	0.0140	0.270	0.220	0.0101	0.0590	0.153	0.265	0.0954	0.094	0.208	.	0.199	0.0105	0.0188	0.0569
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	BS 2931B	0.0033	0.0012	0.159	0.788	0.0108	0.0292	0.207	0.098	0.083	0.080	0.0191	.	0.0056	0.0329	0.0062	0.0008
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	.	.	.

Number	B	Bi	Ca*	Ce*	Mg*	N	Nb	O*	Pb	Se	Ta	V	W	Zn	Zr	Units
VS UG87	.	.	.	.	.	0.010	.	.	0.00008	.	.	0.0038	.	.	.	~47 mm Ø x ~30 mm
12X 12749W	.	.	.	.	.	.	.	.	.	.	.	0.069	0.034	.	.	~40 mm Ø x ~15 mm
SS 454/1	.	.	.	.	.	.	.	.	(0.0001)	.	.	.	0.15	.	.	38 mm Ø x 19 mm
12X 15266V *	.	Provisional Analysis	.	.	.	.	1.45	.	.	0.12	0.11	.	.	.	.	~40 mm Ø x ~15 mm
IMZ 120	.	.	.	.	.	0.0115	.	.	0.077	.	.	.	.	.	.	40 mm Ø x 40 mm
IRSID 1656	.	.	.	.	.	.	.	.	.	.	.	(0.002)	.	.	.	40 mm Ø x 35 mm
12X 15260W	.	.	.	.	.	.	0.254	.	.	.	(0.016)	0.442	.	.	.	~40 mm Ø x ~15 mm
12X 350B	.	.	.	.	.	.	.	.	.	.	0.0286	0.275	.	.	.	40 mm Ø x 15 mm
12X 353G *	.	Provisional Analysis	.	.	.	.	0.06	.	0.012	0.02	0.02	0.14	.	0.035	.	~40 mm Ø x ~15 mm
12X 12746U	.	.	.	.	.	0.0218	.	.	.	.	.	0.0160	0.101	.	.	40 mm Ø x 15 mm
12X 358A *	.	Provisional Analysis	.	.	.	.	0.11	.	.	0.1	.	0.03	0.12	.	0.01	~40 mm Ø x ~15 mm
12X 355C	(0.0012)	.	.	.	.	0.0023	0.023	.	.	0.0395	.	0.1265	0.037	.	0.0192	~40 mm Ø x ~15 mm
12X 354B	.	.	.	.	.	0.0027	0.0802	.	.	.	.	0.0204	0.0248	.	.	~40 mm Ø x ~15 mm
ECRM 055-2D	.	.	.	.	.	0.01069	.	.	.	.	.	0.00245	0.0166	.	.	38 mm Ø x 25 or 30 mm
12X 357C	0.0102	0.0058	.	.	.	0.0079	0.0051	.	0.0315	(0.004)	.	0.166	0.0194	0.0094	.	~40 mm Ø x ~15 mm
BS 1030	0.0003	.	12	.	(2)	0.0107	(0.0004)	50	0.0005	.	(0.001)	0.031	0.0012	.	(0.0002)	38 mm Ø x ~7 or 19+ 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
BS 2931B	0.0002	.	2	.	1	0.0076	0.0011	21	(0.00004)	.	(0.0004)	0.0014	0.0007	last	0.0005	38 mm Ø x ~2 mm 17025
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

BISMUTH AND SELENIUM STEEL

= Class, where 1 = CRM and 2 = RM

12X: ~31-40 mm Ø x ~13-15 mm CKD: 44 mm Ø x 13 mm
BS 4142SE: 38 mm Ø x 12 mm other BS: 38 mm Ø x ~7 or 19+ mm

#	Number	Bi	Se	C	Mn	P	S	Si	Cu	Ni	Cr	Al	As	Co	Mo	N
2	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
2	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
2	BS 4140B	0.087	.	0.43	0.76	0.027	0.037	0.20	0.006	0.012	0.84	0.036	(0.002)	0.005	0.16	0.0064
2	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
2	CZ CM-16A	0.039	.	0.355	0.92	0.043	0.033	0.77	0.293	0.72	0.70	0.125	0.058	0.056	0.405	0.015
1	12X 356C	0.0072	0.0059	0.211	0.199	0.0526	0.0341	0.0662	0.449	0.0349	0.253	0.0338	0.0253	0.1499	0.0294	0.0061

Number	B	Ca	Nb	O	Pb	Sb	Sn	Ti	V	W	Zn	Zr
BS 4140A	.	(0.0003)	.	(0.0025)	(0.001)	.	0.011	(0.003)	0.004	.	.	.
BS 53MOD	.	(0.001)	.	(0.002)	0.0005	.	0.008	.	0.005	.	.	.
BS 4140B	.	(0.0002)	.	(0.002)	0.004	.	(0.002)	0.003	0.005	.	.	.
BS 4150MOD	.	0.0010	.	(0.003)	0.0010	.	0.013	(0.002)	0.008	.	.	.
CZ CM-16A	0.012	0.0006	0.066	.	0.053	0.027	0.025	0.099	0.319	0.141	0.021	0.062
12X 356C	0.0010	.	0.0030	.	0.0238	0.0291	0.0365	0.0252	0.0588	0.107	0.0099	.

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	BS 9325A	0.0039	0.203	0.969	0.0079	0.0045	0.612	0.163	3.29	1.50	0.0056	.	0.0093	0.358	0.0076	(0.0024)
1	ECRM 194-1D	0.0026	0.1532	1.188	0.0097	0.0006	0.431	0.0751	0.3417	0.733	0.0837	.	.	0.2857	0.0115	0.0243
1	BS XCCS-1	0.0024	0.0441	0.356	0.0068	0.0022	0.292	0.0143	0.0132	0.0288	0.061	.	0.0017	0.0060	0.0052	0.0012
2	HRT FE2006-N	0.0022	0.090	1.13	0.013	0.003	0.28	0.03	0.04	0.54	0.025	.	.	(0.01)	.	0.059
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
1	IRSID 1665	0.0017	0.1209	0.446	0.0104	0.0135	0.187	0.0469	0.0308	0.0363	.	0.0379	0.0046	0.0047	0.0049	(0.0006)
1	BS 3941	0.0011	0.407	0.802	0.016	0.023	0.257	0.053	0.018	0.069	0.0019	.	0.0042	0.0061	0.0069	0.0025
1	IARM 254A	0.001	0.500	0.78	0.010	0.024	0.211	0.091	0.044	0.050	0.025	.	0.006	0.013	0.0096	0.002
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
2	BS 4330V	0.0010	0.318	0.91	0.008	0.0009	0.240	0.181	1.91	0.91	0.021	.	0.011	0.475	0.0076	0.094
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
2	BS 2952	0.0003	1.03	0.33	0.013	0.014	0.32	0.106	0.135	1.36	0.024	.	0.007	0.044	0.0084	0.005
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
SS 115	.	.	.	.	.	.	.	.	0.0027	.	.	38 mm Ø x 19 mm
BS 9325A	0.0024	(0.0001)	.	0.0017	.	(0.0003)	Fe: 92.8	(0.0003)	0.0030	0.024	(0.001)	~40 mm Ø x ~30 mm
ECRM 194-1D	0.0042	0.0020	.	.	.	.	.	.	.	.	.	Disc 33 mm Ø x 33 mm or Block ~38x34x32 mm
BS XCCS-1	0.0024	(0.0004)	.	(0.001)	Fe: 99.2	(0.0006)	(0.0005)	0.0002	0.0015	(0.003)	0.0006	~40 mm Ø x ~30 mm
HRT FE2006-N	.	.	.	.	.	.	.	.	0.005	0.54	.	29 mm Ø x 20 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
HRT FE2009-N	.	.	.	.	.	.	.	.	.	.	Zn: 0.004	40 mm Ø x 40 mm
IRSID 1665	0.0067	(0.00032)	.	.	.	(0.0014)	(0.0008)	0.0031	(0.0008)	.	.	37 mm Ø x 30 mm
BS 3941	0.0036	(0.0001)	.	0.033	0.0055	0.0010	0.0005	0.0019	0.0017	(0.0004)	(0.0003)	41 mm Ø x ~7 or 19+ mm
IARM 254A	0.005	0.0002	.	0.001	(0.003)	(0.0003)	.	0.005	0.001	(0.001)	(0.001)	31 mm Ø x 2 mm
BS 4150MOD	0.005	.	0.070	.	(0.003)	0.0010	.	0.013	(0.002)	.	.	38 mm Ø x ~7 or 19+ mm
BS 4330V	.	.	.	.	0.0018	.	.	0.010	.	.	.	37 mm Ø x ~7 or 19+ mm
BS 4130	0.0048	(0.0002)	.	0.0015	0.0015	(0.00003)	(0.0021)	0.0099	0.0009	0.0011	Mg: 0.0002	38 mm Ø x ~7 or 19+ mm
BS 4942	0.005	.	.	.	(0.0021)	.	.	0.014	.	.	.	38 mm Ø x ~7 or 19+ mm
BS 2952	0.004	.	.	.	(0.002)	.	0.003	0.006	0.003	.	.	44 mm Ø x ~7 or 19+ mm
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
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
BS 9905	0.017	(0.0001)	0.055	38 mm Ø x ~7 mm
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
2	2.25Cr-1Mo	F-22	BS 1982	0.128	0.441	0.012	0.026	0.255	0.177	0.197	2.09	0.89	0.021	0.010	0.0097	0.013	0.003
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

Cr-Mo STEEL (Cr > 1, Mo > 0.1)

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

#	Number	Cr	Mo	C	Mn	P	S	Si	Cu	Ni	Al	As	Co	N	Sn	V
1	BS 48B	8.78	0.949	0.110	0.36	0.0228	0.0068	0.75	0.070	0.165	0.0157	0.0048	0.0165	0.0088	0.0049	0.033
1	BS 9905A	8.75	0.95	0.113	0.465	0.0133	0.0040	0.34	0.091	0.152	0.0186	0.0065	0.0136	0.034	0.0060	0.216
1	BS 9905	8.22	0.90	0.107	0.333	0.008	0.008	0.327	0.115	0.123	0.017	0.007	0.016	0.055	0.009	0.236
1	BS H-13	5.14	1.24	0.402	0.386	0.0103	0.0202	0.99	0.197	0.109	0.0152	0.0066	0.0092	0.0108	0.0093	0.98
2	HRT FE2012-H	5.13	2.78	0.37	0.41	0.019	0.002	0.42	0.07	0.20	.	.	.	.	.	0.42
2	BS 47B	4.78	0.45	0.122	0.39	0.014	0.022	0.22	0.12	0.105	0.018	0.004	.	0.023	0.006	0.004
2	BS 47A	4.22	0.47	0.130	0.44	0.017	0.015	0.27	0.11	0.12	0.015	.	0.011	0.018	0.008	0.016
1	12X 40CDV12A	3.29	0.946	0.401	0.604	0.0060	0.0013	0.250	0.0978	0.1062	0.0208	0.0040	0.0197	0.0155	0.0049	0.198
1	SRM 1772	3.10	1.39	0.477	0.61	0.008	0.0031	0.264	0.083	0.105	.	.	0.0068	(0.011)	.	0.236
1	SS 407/2	3.03	0.83	0.490	0.195	0.038	0.0105	0.66	0.397	0.527	0.040	.	.	.	.	0.19
2	RM Fe D/7	2.97	1.21	0.85	0.21	0.019	0.013	1.03	0.06	0.12	0.15	0.004	0.32	.	(0.0030)	0.05
2	RM Fe D/5	2.72	1.41	0.85	0.31	0.022	0.023	1.18	0.11	0.12	0.22	0.005	0.32	.	0.013	0.031
1	IMZ 160	2.64	0.98	0.077	0.38	0.023	0.004	0.34	0.42	0.30	0.031	.	.	.	.	0.10
1	IMZ 159	2.64	0.98	0.075	0.39	0.022	0.005	0.33	0.41	0.31	0.024	.	.	.	.	0.10
2	HRT FE2009-N	2.56	1.02	0.12	0.55	0.010	0.003	0.32	0.08	0.25	0.030	.	.	.	.	0.015
1	IARM 196A	2.35	0.129	1.08	2.40	0.040	0.014	0.35	0.25	0.61	0.015	0.025	0.013	0.0084	0.033	0.157
1	SRM 1270	2.34	0.956	0.077	0.626	0.0065	0.0065	0.247	0.114	0.174	.	.	0.038	.	.	0.013
1	BS 46B	2.28	1.00	0.126	0.472	0.0087	0.0187	0.219	0.128	0.081	0.020	0.0041	0.0074	0.0100	0.0073	0.0073
1	IMZ 169	2.20	1.03	0.099	0.54	0.015	0.0155	0.35	0.128	0.073	0.075	.	0.012	0.0193	0.062	(0.016)
1	ECRM 190-1D	2.18	0.410	0.395	1.28	0.0112	0.0044	0.278	.	0.934	.	.	0.034	.	.	.
1	SRM 1139a	2.1	0.51	0.79	0.92	0.012	0.013	0.80	0.47	0.98	.	.	.	.	.	0.26
1	BS 1982	2.09	0.89	0.128	0.441	0.012	0.026	0.255	0.177	0.197	0.021	0.007	0.010	0.0097	0.013	0.003
1	BS PP20	1.94	0.212	0.382	1.41	0.018	0.0070	0.262	0.119	1.00	0.0132	0.0049	0.0145	0.0080	0.0069	0.066
1	BS 55G*	1.8	0.42	0.38	0.85	0.011	0.003	0.57	0.11	0.13	0.012	0.006	0.009	0.008	0.008	0.006
1	IRSID 1749	1.734	0.257	0.411	0.733	0.0104	0.0157	0.193	0.188	0.190	1.034	0.0134	0.0141	0.0066	0.0148	(0.0036)
1	ECRM 129-3D	1.702	0.206	0.3684	0.371	0.0110	0.0165	0.2087	0.0804	1.022	1.016	0.0049	0.0148	0.0046	0.0067	.
1	ECRM 195-1D	1.56	0.77	0.757	0.571	0.017	0.012	0.467	0.036	0.33	1.016	.	0.010	0.010	.	0.31
1	SRM 1286	1.53	0.344	0.196	0.152	0.008	0.017	0.130	0.043	2.81	0.109	0.019	0.116	0.012	0.012	0.0057
2	BS 68B	1.51	0.309	0.39	0.52	0.010	0.020	0.26	0.163	0.165	1.08	.	0.010	0.0073	0.010	0.007
1	BS 68E	1.49	0.322	0.406	0.560	0.005	0.0004	0.296	0.134	0.147	1.09	(0.003)	0.007	0.0030	0.0097	0.0010
1	12X 24065A	1.412	0.1716	0.370	0.502	0.0129	0.0044	0.218	0.216	0.271	1.035	0.0074	.	0.0076	0.0120	0.0040
2	BS 58E	1.40	0.110	0.100	0.63	0.009	0.002	0.29	0.154	3.22	0.029	0.003	0.013	0.0033	0.003	0.006
1	12X 15CDV6A	1.397	0.875	0.171	0.839	0.0056	0.0086	0.152	0.0231	0.044	0.019	0.0041	.	0.0069	0.0011	0.242
1	SS 112	1.236	0.190	0.394	0.436	0.0043	0.0026	0.289	0.149	1.461	0.0148	0.0021	0.0175	0.0024	0.0086	.
1	12X 43400A	1.181	0.223	0.422	0.592	0.0164	0.0284	0.259	0.177	1.378	0.013	0.0084	.	0.0089	0.007	.
1	BS 45B	1.14	0.60	0.140	0.502	0.0068	0.017	0.583	0.101	0.136	0.030	0.0066	0.0090	0.0066	0.0069	0.0083
1	IRSID 1745	1.130	0.222	0.295	0.850	0.0077	0.081	0.220	0.202	0.188	0.0202	0.0262	.	0.0134	(0.004)	.
1	12X 11572A	1.107	0.499	0.111	0.498	0.0069	0.0025	0.649	0.0576	0.0977	0.0290	0.0030	.	0.0058	0.0049	.
1	12X 14072A	1.061	0.573	0.430	0.680	0.0151	0.0061	0.322	0.203	0.136	0.0039	.	0.0098	0.0103	(0.011)	0.301
2	BS 1962	1.05	0.229	0.41	0.94	0.007	0.011	0.242	0.224	0.16	0.018	0.007	0.008	0.0095	0.010	0.004
1	IPT 501	1.05	0.210	0.277	0.723	0.016	0.030	0.208	0.083	0.063	0.034	.	0.008	0.0076	0.008	.
1	IARM 299A	1.03	0.99	0.469	0.70	0.008	0.002	0.22	0.100	0.57	0.092	0.003	0.0054	0.0028	0.0055	0.120
2	BS 4150MOD	1.01	0.21	0.47	0.90	0.024	0.079	0.21	0.19	0.15	0.012	0.005	0.012	0.0087	0.013	0.008
1	12X 41400A	1.003	0.211	0.418	0.795	0.0138	0.0210	0.221	0.238	0.127	0.0195	0.0088	.	0.0101	0.0181	.
1	IARM 30i	0.98	0.219	0.408	0.904	0.0206	0.0171	0.209	0.138	0.131	0.026	0.0054	0.0093	0.0086	0.0089	0.0051

Number	B	Ca	Nb	O	Pb	Sb	Ta	Ti	W	Zr	Units
BS 48B	(0.0002)	(0.003)	(0.001)	0.0022	(0.0002)	(0.001)	.	0.0031	0.026	(0.002)	38 mm Ø x ~7 or 19+ mm 17025 Fe: 88.7
BS 9905A	(0.0005)	(0.0002)	0.074	0.0024	(0.0002)	(0.003)	(0.01)	0.0023	0.0024	(0.002)	38 mm Ø x ~7 or 19+ mm 17025 Fe: 88.9
BS 9905	(0.0004)	(0.0001)	0.076	0.0021	(0.0002)	(0.002)	last	(0.002)	0.003	(0.001)	38 mm Ø x ~7 mm 25(pre-17025)
BS H-13	(0.0002)	(0.0003)	(0.0004)	0.0018	(0.0003)	0.0020	(0.0003)	(0.0019)	0.0022	(0.0014)	38 mm Ø x ~7 or 19+ mm 17025 Fe: [90.4]
HRT FE2012-H	.	.	(0.007)	.	.	.	.	.	.	.	40 mm Ø x 20 mm
BS 47B	.	.	.	(0.004)	.	.	.	.	.	.	38 mm Ø x ~7 or 19+ mm
BS 47A	.	.	0.002	(0.003)	.	.	.	0.003	.	.	38 mm Ø x ~7 or 19+ mm
12X 40CDV12A	.	.	.	.	.	.	.	.	.	.	38 mm Ø x ~15 mm
SRM 1772	.	.	.	.	.	.	.	.	.	.	34 mm Ø x 19 mm
SS 407/2	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm
RM Fe D/7	.	.	0.28	.	(0.0106)	.	.	0.10	0.07	0.14	40 mm Ø x 40 mm
RM Fe D/5	.	.	0.31	.	.	.	.	0.18	0.082	0.071	40 mm Ø x 40 mm last
IMZ 160	.	.	.	.	.	.	.	.	0.26	.	40 mm Ø x 40 mm
IMZ 159	.	.	.	.	.	.	.	.	0.26	.	40 mm Ø x 40 mm
HRT FE2009-N	.	0.0020	.	.	.	.	.	.	.	Zn: 0.004	40 mm Ø x 40 mm
IARM 196A	0.0017	0.0002	0.087	0.0021	0.001	0.006	.	0.014	0.189	0.006	31 mm Ø x 2 or 18 mm
SRM 1270	.	.	.	.	.	.	.	.	.	.	32 mm Ø x 19 mm
BS 46B	(0.0006)	0.0009	(0.003)	0.0026	(0.001)	(0.002)	.	(0.001)	0.0008	(0.002)	38 mm Ø x ~7 or 19+ mm 17025 Fe: 95.7
IMZ 169	.	.	(0.0045)	.	(0.001)	.	.	0.001	.	.	40 mm Ø x 40 mm
ECRM 190-1D	.	.	.	.	.	.	.	.	.	.	35 mm x 35 mm x 30 mm
SRM 1139a	.	.	.	.	.	.	.	.	.	.	32 mm Ø x 13 mm
BS 1982	.	.	(<0.003)	0.0017	(0.0003)	0.002	.	(0.001)	.	.	39 mm Ø x ~7 or 19+ mm 25(pre-17025)
BS PP20	0.00011	0.0003	0.0048	(0.0010)	.	0.0013	.	0.0007	0.0058	.	38 mm Ø x ~7 or 19+ mm 17025
BS 55G*	0.0002	0.0014	0.003	0.002	<0.005	<0.005	.	0.005	0.03	0.002	38 mm Ø x ~7 or 19+ mm Fe: [95.6]
IRSID 1749	.	(0.0002)	(<0.0005)	0.0002	(<0.0002)	0.0018	.	0.0031	(<0.0030)	(<0.0003)	41 mm Ø x 25 mm Mg: 9 ppm
ECRM 129-3D	.	.	.	.	.	0.00059	.	0.0030	.	.	39 mm Ø x 25 mm
ECRM 195-1D	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 28 to 35 mm
SRM 1286	(0.006)	.	(0.012)	.	(0.0002)	.	.	0.040	(0.013)	(0.021)	32 mm Ø x 19 mm
BS 68B	.	.	.	.	.	.	.	0.005	.	.	41 mm Ø x 15-19 mm last
BS 68E	0.0002	(0.0003)	(0.002)	0.0011	(0.0002)	0.0024	.	0.0012	(0.002)	.	38 mm Ø x ~7 or 19+ mm Mg:0.0004 17025
12X 24065A	.	.	.	.	.	.	.	0.0028	.	Zn:0.0034	~40 mm Ø x ~15 mm
BS 58E	(0.0002)	(0.0002)	.	0.0008	.	.	.	(0.002)	.	.	38 mm Ø x ~7 or 19+ mm
12X 15CDV6A	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
SS 112	0.0007	.	0.0065	.	.	.	.	0.0100	.	.	44 mm Ø x 19 mm
12X 43400A	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm Zn: 0.0027
BS 45B	(0.0003)	0.0008	(0.002)	0.0015	(0.15)	(0.003)	.	0.0024	(0.0038)	(0.0009)	38 mm Ø x ~7 or 19+ mm 17025 Fe: 96.7
IRSID 1745	.	.	.	.	.	.	.	(0.003)	.	.	48 mm Ø x 30 mm
12X 11572A	.	.	.	.	.	.	.	.	.	Zn:0.0009	38 mm Ø x ~15 mm
12X 14072A	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~15 mm
BS 1962	.	.	.	.	(0.001)	.	.	0.004	.	last	41 mm Ø x ~7, ~13, or ~16 mm 25(pre-17025)
IPT 501	.	.	.	.	.	.	.	0.0015	.	.	34 mm Ø x 18 mm
IARM 299A	0.0003	(0.001)	0.006	(0.002)	(0.001)	(0.002)	.	0.0038	0.010	(0.001)	31 mm Ø x 2 or 18 mm
BS 4150MOD	.	0.0010	.	(0.003)	0.0010	.	.	(0.002)	.	.	38 mm Ø x 19+ mm Bi: 0.070
12X 41400A	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~20 mm Zn: 0.0041
IARM 30i	0.0002	(0.0002)	0.0016	0.0007	(0.001)	0.0017	(0.001)	0.0013	(0.003)	(0.001)	

LEADED STEEL

= Class, where 1 = CRM and 2 = RM

OES regularly requires extension of preburn time

#	Number	Pb	C	Mn	P	S	Si	Cu	Ni	Cr	Al	As	Co	Mo	N	Sn	V
1	BS 74C	0.328	0.077	0.94	0.082	0.294	(0.002)	0.005	0.011	0.019	(<0.002)	0.004	.	0.008	0.0040	(<0.002)	0.0016
1	14X 12144A	0.328	0.0800	1.227	0.0630	0.325	0.0093	0.0106	0.0162	0.0807	0.0034	0.0022	.	0.0089	0.0066	.	.
2	CZ CM-15C	0.29	0.075	1.13	0.063	0.32	0.006	0.141	0.072	0.052	.	.	(0.01)	0.021	.	.	.
1	BS 75G	0.247	0.161	1.08	0.0085	0.114	0.011	0.0300	0.045	0.079	0.0016	0.0028	0.0031	0.0174	0.0030	0.0014	0.0005
2	BS 75F	0.202	0.165	1.05	0.009	0.116	0.004	0.030	0.044	0.080	0.002	.	.	0.018	.	.	.
1	BS 73C *	0.21	0.21	0.84	0.012	0.03	0.28	0.026	0.59	0.58	0.03	0.004	0.003	0.18	0.004	0.004	0.003
1	IARM 182B	0.19	0.21	0.81	0.016	0.037	0.27	0.017	0.47	0.49	0.038	(0.003)	0.006	0.172	0.0040	0.0019	0.004
1	IARM 183C	0.18	0.079	1.06	0.078	0.31	0.004	0.016	0.019	0.055	0.0021	0.003	(0.002)	0.010	0.0049	0.003	0.002
2	BS 72B	0.174	0.497	0.87	0.029	0.029	0.26	0.21	0.169	0.985	0.020	(0.006)	0.012	0.187	0.0081	0.014	0.004
2	BS 73B	0.139	0.200	0.83	0.009	0.030	0.250	0.141	0.416	0.512	0.022	0.004	0.008	0.170	0.0113	0.008	(<0.002)
2	BS 70B	0.135	0.40	0.90	0.009	0.022	0.27	0.13	0.25	1.00	0.024	.	.	0.205	.	.	.
1	BS 70C *	0.13	0.39	0.90	0.01	0.02	0.27	0.12	0.25	0.97	0.02	<0.05	0.009	0.20	<0.05	0.01	0.002

Number	B	Ca	Nb	O	Sb	Ti	W	Zn	Grade	Units
BS 74C	.	.	(<0.005)	.	.	.	.	.	12L14	41 mm Ø x ~7 or 19+ mm
14X 12144A	.	.	.	.	.	.	.	.		~40 mm Ø x ~15 mm
CZ CM-15C	.	.	.	.	.	.	.	.		~39 mm Ø x 25 mm
BS 75G	(0.0002)	(0.0002)	(0.0003)	0.0155	.	(0.0004)	0.0004	.	11L17	41 mm Ø x ~7 or 19+ mm
BS 75F	.	.	.	.	.	.	.	.	11L17	40 mm Ø x 12 mm
BS 73C *	<0.005	<0.005	0.005	0.001	0.003	0.002	0.007	.	86L20	38 mm Ø x ~7 or 19+ mm
IARM 182B	(0.0003)	(0.0005)	(0.003)	(0.003)	(0.003)	(0.003)	(0.01)	(0.001)	86L20	31 mm Ø x 2 mm
IARM 183C	0.0011	.	0.0010	0.016	(0.001)	0.0009	(0.002)	0.001	12L14	31 mm Ø x 2 or 18 mm
BS 72B	.	.	(0.001)	.	.	(0.002)	.	.	41L50	37 mm Ø x ~7 or 19+ mm
BS 73B	.	.	.	.	.	.	.	.	86L20	41 mm Ø x ~7 or 19+ mm
BS 70B	.	.	.	.	.	.	.	.	41L40MOD	41 mm Ø x ~7 or 19+ mm
BS 70C *	<0.005	.	<0.05	<0.05	.	0.002	.	Zr:<0.05	41L40MOD	41 mm Ø x ~7 or 19+ mm

RM LEADED AND BISMUTH STEEL XRF SET

Part Number: BS PB-BI-7

AVAILABLE INDIVIDUALLY

~7 mm discs

17025

Grade	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Al	Bi	Pb	Sn	V	N
11L17	BS 75F	0.165	1.05	0.009	0.116	0.004	0.030	0.044	0.080	0.018	0.002	.	0.202	.	.	.
12L14	BS 74B	0.08	0.91	0.087	0.316	0.002	0.006	0.012	0.019	0.008	(0.002)	.	0.34	.	.	.
41L40	BS 70B	0.40	0.90	0.009	0.022	0.27	0.13	0.25	1.00	0.205	0.024	.	0.135	.	.	.
41L50	BS 72B	0.497	0.87	0.029	0.029	0.26	0.21	0.169	0.985	0.187	0.020	.	0.174	0.014	0.004	0.0081
4140 + Bi & S	BS 4140A	0.40	0.84	0.021	0.076	0.21	0.15	0.15	0.97	0.16	0.016	0.105	(0.001)	0.011	0.004	0.0098
4150 + Bi & S	BS 4150 MOD	0.47	0.90	0.024	0.079	0.21	0.19	0.15	1.01	0.21	0.012	0.070	0.0010	0.013	0.008	0.0087
8620 + Bi & S	BS 8620A	0.184	0.80	0.008	0.079	0.21	0.15	0.44	0.48	0.16	0.016	0.073	(0.001)	0.009	0.004	0.0107

MANGANESE STEEL

14X:~40Øx-15-17mm BS:32Øx-15-17mm CZ:~39Øx25mm DSZU:39Øx20mm ECRM:35Øx25mm IMN:50-56Øx15mm SS 491:50Øx10mm other SS:48x42x12mm VS:~38Øx-18mm

#	Number	Mn	C	P	S	Si	Cu	Ni	Cr	Al	Mo	N	Nb	Sn	V	Other
1	DSZU C013	28.8	0.89	0.025	(0.002)	0.29	0.108	(0.20)	(0.14)	(8.6)	(0.44)	(0.002)	(0.46)	.	(0.1)	.
1	VS LG68	28.8	0.39	(0.02)	0.003	.	0.11	0.20	0.13	8.6	0.46	.	0.46	.	.	.
1	IMZ 199	28.74	0.90	0.022	(0.0006)	0.294	0.110	0.20	0.164	8.65	0.43	.	0.43	.	0.026	B:(0.001) Ti:(0.004)
2	CZ SP-2B	26.1	1.42	0.10	0.009	0.51	0.096	0.32	1.36	0.008	0.38	.	W:0.084	0.32	0.155	Co:0.040 Ti:0.025
1	IRSID 1833	22.57	0.605	0.0345	(0.0005)	0.193	0.030	0.0494	0.268	0.0025	0.0133	0.012	0.0026	0.0043	0.203	As, Co, Pb, and Ti **
1	14X MN1AL	22.08	0.597	0.053	0.0054	0.944	0.178	0.692	1.321	(0.23)	0.499	0.0585	0.096	0.0393	0.0226	Ta:(0.011) Ti:0.0346
1	DSZU C02	20.9	0.39	0.021	0.0072	0.31	0.087	0.103	0.17	(2.9)	0.033	(0.013)	.	.	(1.14)	.
1	VS LG67	20.9	0.39	0.020	0.007	0.31	0.090	0.11	0.19	2.88	.	.	.	.	1.09	.
2	BS 17	19.59	0.63	0.047	0.007	0.21	0.075	0.03	1.46	(0.02)	0.46	.	.	(0.012)	(0.02)	~15mm height
2	BS 17A	19.38	0.588	0.043	0.005	0.22	0.135	0.060	1.37	0.052	0.52	0.038	0.06	0.012	0.016	Co:0.013
1	DSZU C011a	17.4	0.45	0.042	0.008	0.43	0.089	0.11	0.36	(2.8)	0.033	(0.014)	.	.	.	.
1	DSZU C024	16.95	0.88	0.068	0.0100	0.531	0.72	0.66	1.62	(0.004)	0.29	(0.021)	(0.10)	.	0.29	B:(0.003) Ti:(0.006)
1	IMZ 198	16.10	0.44	0.031	0.0090	0.423	0.104	0.058	0.30	2.80	(0.008)	.	.	.	.	Ti:(0.005)
1	VS LG66	16.1	0.44	0.031	0.010	0.41	0.104	0.059	0.30	2.6	.	.	.	.	.	.
1	DSZU C011	16.09	0.44	0.031	0.0093	0.41	0.105	0.058	0.30	(2.6)	(0.01)	(0.010)	.	.	.	.
1	14X MN4AC	13.62	0.938	0.073	0.0194	0.900	0.270	1.052	1.983	0.20	0.796	0.0450	0.153	0.0634	0.0332	Ti:0.075
1	SS 495/4	13.11	0.796	0.093	0.0128	0.674	0.0222	1.620	2.223	0.0082	0.266	0.0416	.	.	0.0525	Co:0.0120
1	DSZU C023	13.09	0.79	0.052	0.0062	0.291	0.111	3.15	0.313	(0.006)	(0.02)	(0.018)	(0.02)	.	(0.02)	B:(0.001) Ti:(0.004)
1	DSZU C022	12.89	1.15	0.087	0.0057	0.34	0.103	0.122	0.192	(0.007)	(0.03)	(0.013)	(0.01)	.	(0.03)	B:(0.001) Ti:(0.006)
1	DSZU C010	12.25	1.20	0.082	0.0035	0.49	0.120	0.108	0.187	(0.006)	(0.01)	(0.017)	.	.	.	.
1	VS LG65	12.2	1.19	0.080	0.0033	0.49	0.119	0.11	0.19	0.006	.	.	.	.	.	.
1	DSZU C021	11.23	1.32	0.035	0.010	0.105	0.32	0.36	0.62	(0.003)	0.096	(0.013)	(0.03)	.	0.124	B:(0.002) Ti:(0.005)
1	SS 493/3	11.15	0.819	0.12	0.009	0.861	0.017	3.24	0.259	0.035	1.04	0.025	.	.	0.025	.
1	14X MN3T	11.03	0.994	0.0386	0.0091	1.00	0.153	0.497	0.749	(0.040)	0.259	0.034	0.407	0.0195	0.0198	.
2	14X 15196S	10.16	1.08	0.037	0.012	1.64	0.22	0.25	0.26	0.13	0.22	.	.	0.10	0.21	last of stock
1	14X MN2R	9.65	0.701	0.0198	0.0098	1.48	0.081	0.530	0.355	0.120	1.546	0.0125	0.294	0.061	0.121	Ti:0.179
2	BS 19A	8.76	1.57	0.092	0.009	1.46	0.51	1.48	3.75	0.057	1.97	0.039	0.040	0.037	0.10	Co:0.014
1	DSZU C020	8.85	0.97	0.024	(0.015)	0.091	0.53	1.36	0.96	(0.004)	0.13	(0.020)	(0.02)	.	0.152	B:(0.002) Ti:(0.003)
2	BS 19	8.52	1.48	0.030	0.062	1.44	0.52	1.48	3.93	(0.012)	2.08	.	last	(0.027)	(0.045)	no uncertainties
1	14X MN5T	8.55	1.377	0.0270	0.0110	1.59	0.421	1.372	3.31	(0.26)	1.91	0.0155	0.021	0.0129	0.0397	Ta:0.005 Ti:(1.00)LAST
1	14X MN5U *	8.84	1.37	0.06	0.03	1.44	0.66	2.1	3.13	0.025	1.95	.	0.1	0.024	0.05	Ta:0.01 Ti:0.94
1	SS 492/3	8.33	1.18	0.0318	0.0093	0.299	0.0211	4.17	1.076	0.131	1.318	0.0225	.	.	(0.004)	Co:0.0048
1	14X MN5V *	8.1	1.4	0.06	0.02	2.4	0.54	3.1	3.26	0.14	2.3	.	0.04	0.03	0.08	Ta:0.003 Ti:0.49
2	CZ CM-9B	2.27	0.17	(0.008)	(0.010)	0.89	0.040	0.023	1.36	0.049	(0.002)	.	(0.06)	(0.003)	(0.006)	+7 informational

* Provisional Analysis

** 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

CRM

Co/Fe/V MAGNETIC ALLOY PERMENDUR 2V

analysis listed in mass %

Number	Co	Fe	V	Mn	P	S	Si	Ni	N	Nb	O	Zr	Units
IARM 326A	48.4	49.6	1.94	0.003	0.0013	0.0011	0.029	0.037	0.0004	0.038	0.0082	0.002	31 mm Ø x 2 or 18 mm

RESULFURIZED STEEL

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

#	Number	S	C	Mn	P	Si	Cu	Ni	Cr	Al	Co	Mo	N	Sn	Ti	V
1	14X MSFML	0.414	0.143	1.155	0.0689	0.404	0.1073	0.147	0.89	(0.08)	0.0509	0.264	0.026	0.0289	.	0.0154
1	IMZ 123	0.38	0.25	1.57	0.030	0.23	0.093	0.057	0.16	0.032	.	.	0.0171	(0.007)	.	.
1	ECRM 085-1D	0.336	0.067	0.977	0.062	0.008	0.291	.	.	.	0.019	.	.	.	.	0.0021
1	BS 66L	0.315	0.065	0.844	0.061	0.002	0.007	0.015	0.026	0.0008	0.0035	0.0012	0.0031	(0.0010)	(<0.0010)	0.0006
1	14X I2130A	0.305	0.0871	1.219	0.061	0.022	0.0201	0.0345	0.0505	0.0024	.	0.0102	0.0097	0.0054	.	.
1	IARM 206B	0.293	0.074	1.01	0.050	0.012	0.113	0.053	0.038	0.0025	0.007	0.018	0.0075	0.0064	0.0008	0.0016
1	IARM 199C *	0.28	0.47	1.6	0.016	0.22	0.19	0.084	0.19	(0.002)	(0.01)	0.029	0.0070	0.009	0.002	0.004
1	IMZ 124	0.28	0.10	0.60	0.082	(0.019)	0.060	0.046	0.11	0.005	.	.	0.0059	0.009	.	.
1	BS 1144A	0.271	0.468	1.43	0.0108	0.214	0.147	0.063	0.076	0.0020	0.0064	0.0154	0.0095	0.0079	(0.0008)	0.0015
1	14X MSFM 2K	0.248	0.272	1.568	0.0491	0.353	0.162	0.235	0.996	0.123	0.104	0.355	0.028	0.0218	.	0.0324
1	BS 1144	0.243	0.483	1.55	0.022	0.262	0.462	0.097	0.193	(0.002)	0.011	0.017	0.0093	0.0113	0.002	0.0039
1	14X MSFM 4A	0.224	0.226	1.141	0.0386	0.469	0.429	6.22	1.69	(0.007)	0.0253	0.974	0.0220	0.0141	.	0.0151
1	IMZ 122	0.21	0.27	1.33	0.073	0.43	0.25	0.25	0.19	(0.027)	.	.	0.0110	0.12	.	.
1	14X 606M36TA	0.196	0.378	1.574	0.0159	0.167	0.179	0.0931	0.163	0.0071	.	0.272	0.0096	0.0103	.	.
1	14X 11390A	0.190	0.420	1.040	0.0342	0.198	0.0395	0.0239	0.0609	0.0026	.	0.0067	0.0042	0.0022	.	.
1	ECRM 058-2D	0.1712	0.424	1.186	0.0098	0.1080	0.261	0.199	0.1211	.	.	0.0589	0.0107	.	.	.
1	14X MSFM3G	0.147	0.438	1.809	0.0297	0.292	0.205	0.161	0.454	(0.18)	0.0494	0.390	0.0206	0.0378	.	0.0199
1	14X 11170A	0.120	0.154	1.129	0.0133	0.151	0.1101	0.0877	0.1126	0.0023	.	0.0317	0.0112	0.0110	.	.
1	IARM 29E *	0.12	0.193	1.19	0.016	0.239	0.253	0.082	0.105	(0.003)	0.008	0.027	0.0093	0.0108	(0.001)	0.025
2	BS 65C	0.115	0.150	1.19	0.007	0.24	0.24	0.063	0.066	(0.002)	(0.007)	0.012	0.0084	.	.	0.002
2	BS 66B	0.112	0.418	1.56	0.018	0.017	0.028	0.032	0.093	(0.001)	0.005	0.019	0.0056	0.0016	(0.001)	0.0014
1	BS 3993	0.094	0.152	1.16	0.012	0.260	0.111	0.045	0.072	0.002	0.006	0.010	0.0071	0.006	(0.0008)	0.002
1	IMZ 121	0.097	0.39	1.18	0.057	(0.056)	0.032	0.029	0.036	0.016	.	.	0.0125	0.059	.	.
2	BS 52D	0.088	0.436	0.97	0.068	0.18	0.060	0.18	0.16	0.028	0.012	0.09	0.0025	0.004	(0.004)	0.002
2	BS 4150MOD	0.079	0.47	0.90	0.024	0.21	0.19	0.15	1.01	0.012	0.012	0.21	0.0087	0.013	(0.002)	0.008
2	BS 42A	0.078	0.52	1.08	0.012	0.258	0.285	0.147	0.80	0.025	(0.007)	0.195	0.008	.	.	0.004
2	BS 42	0.073	0.516	1.24	0.021	0.235	0.252	0.183	0.67	0.020	0.012	0.190	0.0080	0.012	(0.003)	0.003
1	12X 15217Q	0.073	0.176	0.652	0.058	1.390	0.231	0.864	1.24	(0.021)	0.248	0.358	0.078	0.0737	.	0.662
1	12X 15255Q	0.070	0.351	1.191	0.104	1.02	0.279	0.296	1.509	0.073	0.0502	0.1193	0.027	0.101	0.0377	0.475
1	KUT B2/2	0.064	0.065	1.22	0.087	(0.38)	0.32	1.49	.	0.10	.	1.06	.	.	(0.25)	0.87
1	IMZ 125	(0.057)	0.029	0.95	(0.018)	0.15	0.044	0.023	0.18	(0.007)	.	.	.	0.002	.	.
1	KUT A14	0.052	0.32	0.75	0.041	0.73	0.20	1.32	0.59	(0.01)	0.070	0.25	.	0.10	0.12	0.67
1	KUT B16	0.051	0.16	2.05	0.068	1.95	0.09	3.74	0.26	(0.037)	.	0.11	.	.	0.075	0.53
1	KUT B12	0.048	0.43	0.76	0.028	0.34	0.41	1.62	1.32	0.007	0.011	0.21	.	0.032	0.011	0.026
1	KUT B4	0.043	0.55	1.07	0.047	1.72	0.49	.	.	.	.	.	.	.	.	.
1	NM 304	0.033	0.19	0.29	0.093	0.082	.	(0.007)	.	.	.	.	.	.	.	.

Number	As	B	Bi	Ca	Nb	O	Pb	Sb	W	Zn	Zr	Units
14X MSFML	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
IMZ 123	0.033	.	.	.	.	.	0.030	0.030	.	.	.	40 mm Ø x 40 mm
ECRM 085-1D	.	.	.	.	.	.	0.0010	0.0073	.	0.0025	.	38 mm Ø x 25 or 30 mm
BS 66L	0.0020	(<0.0003)	.	(<0.0010)	(0.0012)	.	0.0007	0.0021	(<0.0010)	.	.	44 mm Ø x ~7 or 19+ mm 17025
14X I2130A	0.0016	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
IARM 206B	0.0045	0.0006	.	.	0.002	0.016	(0.001)	(0.002)	(0.003)	.	(0.002)	31 mm Ø x 2 or 18 mm
IARM 199C *	0.006	0.001	*	Provisional Analysis	(0.003)	(0.001)	(0.003)	(0.002)	(0.002)	.	(0.001)	31 mm Ø x 2 or 18 mm
IMZ 124	0.004	.	.	.	.	(0.002)	0.002	.	.	.	.	40 mm Ø x 40 mm
BS 1144A	0.0052	(0.0003)	Fe:97.3	(0.0005)	(0.002)	0.0019	(0.0006)	(0.002)	(0.0009)	.	(0.0006)	38 mm Ø x ~7 or 19+ mm 17025
14X MSFM 2K	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
BS 1144	0.009	.	.	.	(0.004)	0.0016	(0.001)	.	(0.003)	.	last	38 mm Ø x ~16 or 19 mm 17025
14X MSFM 4A	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm
IMZ 122	0.007	.	.	.	.	.	(0.020)	0.019	.	.	.	40 mm Ø x 40 mm
14X 606M36TA	0.0085	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
14X 11390A	0.0028	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
ECRM 058-2D	0.0095	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 25 or 30 mm
14X MSFM3G	.	0.0043	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
14X 11170A	0.0044	.	.	.	.	.	0.0011	.	.	.	.	~40 mm Ø x ~15 mm
IARM 29E *	0.008	0.0007	*	Provisional Analysis	(0.005)	(0.001)	(0.002)	(0.004)	(0.004)	(0.001)	(0.001)	31 mm Ø x 2 or 18 mm
BS 65C	.	.	.	.	.	.	.	.	.	.	.	37 mm Ø x ~7 or 19+ mm
BS 66B	.	0.0003	.	.	.	.	.	.	.	.	.	41 mm Ø x ~7 or 19+ mm
BS 3993	0.004	.	.	(0.0002)	.	(0.0030)	.	.	.	.	.	38 mm Ø x ~7 or 19+ mm 25(pre-17025)
IMZ 121	0.002	.	.	.	.	.	0.011	0.017	.	.	.	40 mm Ø x 40 mm
BS 52D	.	.	.	.	.	(0.002)	.	.	.	.	.	35 mm Ø x ~7 or 19+ mm
BS 4150MOD	0.005	.	0.070	0.0010	.	(0.003)	0.0010	.	.	.	.	38 mm Ø x ~7 or 19+ mm
BS 42A	.	.	.	.	.	.	.	.	.	.	.	37 mm Ø x ~7 or 19+ mm
BS 42	(0.004)	.	.	.	(0.002)	.	.	.	(0.002)	.	.	44 mm Ø x ~7 or 19+ mm 17025
12X 15217Q	.	.	.	.	0.131	.	.	.	0.121	.	.	40 mm Ø x 15 mm
12X 15255Q	0.0193	.	.	.	0.152	.	.	.	0.150	.	.	~40 mm Ø x ~15 mm
KUT B2/2	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x 39 mm
IMZ 125	0.065	.	.	.	.	.	.	0.014	.	.	.	40 mm Ø x 40 mm
KUT A14	0.13	0.004	.	.	0.044	.	.	0.047	.	.	.	30-35 mm Ø x 39 mm
KUT B16	.	.	.	.	0.11	.	.	.	.	.	.	30-35 mm Ø x 39 mm
KUT B12	0.011	0.0035	.	.	0.022	.	.	.	.	.	(0.002)	30-35 mm Ø x 39 mm
KUT B4	.	.	.	.	.	.	.	.	.	.	0.09	30-35 mm Ø x 39 mm
NM 304	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 25 mm

RM RESULFURIZED STEEL XRF SET

Part Number: BS RESUL-4 AVAILABLE INDIVIDUALLY

~7 mm discs

Grade	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Al	Co	N	Sn	V	As
1117	BS 65C	0.150	1.19	0.007	0.115	0.24	0.24	0.063	0.066	0.012	(0.002)	(0.007)	0.0084	0.02	0.002	(0.008)
1140 + P	BS 52D	0.436	0.97	0.068	0.088	0.18	0.060	0.18	0.16	0.09	0.028	0.012	0.0025	0.004	0.002	.
1141	BS 66B	0.418	1.57	0.018	0.110	0.02	0.031	0.033	0.094	0.019	0.002	0.005	(0.006)	0.001	0.002	.
1215	BS 66K	0.051	0.86	0.062	0.322	(0.004)	0.013	0.012	0.006	0.003	0.002	0.005	(0.0074)	<0.001		

#	Number	SILICON STEEL				# = Class, where 1 = CRM, 2 = RM, and 3 = RM with no uncertainties										Sn	Ti
		Si	C	Mn	P	S	Cu	Ni	Cr	Al	Als	Mo	N				
2	CZ SST-4A	4.73	0.062	0.376	0.031	0.020	0.111	0.082	0.105	0.514	.	0.019	0.0058	0.025	0.035		
3	CZ SP-6A	4.65	0.10	0.38	0.017	0.009	0.12	0.04	0.11	0.32	.	0.01	.	0.01	0.008		
1	DSZU C047	3.95	0.975	0.402	0.023	0.0052	0.117	0.78	4.44	0.051	.	0.96	0.0164	0.0090	0.059		
3	CZ SST-3A	3.27	0.035	0.221	0.007	0.0093	0.096	0.061	0.043	0.009	.	0.036	0.0088	0.015	0.009		
1	SRM 1218	(3.2)	0.0029	0.014	(0.002)	0.0011	0.003	(0.002)	0.006	0.005	.	(0.003)	.	.	(0.004)		
3	CZ CM-12A	3.21	0.031	0.172	0.0130	0.0106	0.173	0.030	0.067	0.098	.	0.008	0.0070	<0.01	0.005		
1	SRM 1135	3.19	0.027	0.094	0.006	0.026	0.056	0.050	0.022	0.0028	.	0.014	.	0.004	.		
2	BS 178	3.08	0.436	0.43	0.016	0.001	0.12	0.21	8.17	(0.007)	.	0.044	0.014	(0.007)	0.014		
3	CZ SP-5B	3.07	0.20	1.86	0.108	0.023	0.15	3.00	0.38	0.18	.	0.13	.	0.08	0.35		
2	CZ SST-2A	3.07	0.083	0.160	0.026	0.0089	0.205	0.066	0.138	0.010	.	0.054	0.0078	0.055	0.016		
1	SRM 1134	2.889	0.0261	0.2751	0.0276	0.0095	0.0707	0.0375	0.0198	(0.329)	.	0.0087	.	0.0034	.		
2	CZ SST-1A	2.57	0.072	0.062	0.041	0.0043	0.654	0.155	0.209	0.061	.	(0.002)	0.0059	0.110	0.004		
1	VS UG4/9	2.23	0.53	1.28	0.017	0.016	0.099	0.71	0.139	0.023	.	0.117	(0.004)	0.081	0.126		
1	VS UG91	2.23	0.49	.	0.0038	0.0021	0.057	0.039	0.064	0.048	0.048	0.058	0.010	.	0.038		
1	12X 15251U *	2.1	1.0	0.9	0.03	0.02	0.12	0.89	0.6	0.1	.	0.20	0.003	0.01	.		
1	VS UG92	1.98	0.69	0.79	0.05	0.0029	0.111	0.155	0.200	0.091	0.08	0.119	0.016	.	0.022		
1	KUT T4/1	1.97	0.17	0.23	0.012	0.041	0.16	0.077	0.24	.	.	.	.	.	(<0.005)
1	NCS HS11751	1.82	0.661	0.805	0.027	0.017	0.136	0.020	0.021	.	.	.	.	.	.
1	12X 15259Q	1.81	0.603	0.401	0.0401	0.0704	0.200	4.02	0.512	0.1488	.	0.407	0.0151	0.053	.		
1	ECRM 196-2D	1.808	0.0060	0.364	0.00369	0.00065	0.0057	0.0401	0.0282	0.2167	.	0.0142	0.00178	0.00047	0.00253		
1	VS UG4/5	1.80	0.56	1.26	(0.008)	(0.006)	0.098	0.68	0.17	0.010	.	0.087	.	.	0.17		
1	ECRM 186-1D	1.72	0.610	0.870	0.022	0.035	0.281	0.190	0.218	0.014	.	0.048	.	.	.		
1	BS 300	1.68	0.410	0.721	0.0046	0.0006	0.118	1.867	0.803	0.099	.	0.370	0.0023	0.0053	0.0096		
1	12X 44220A	1.662	0.417	0.874	0.0050	0.0009	0.031	1.89	0.846	0.029	.	0.401	0.0030	0.0019	.		
3	CZ CM-2A	1.66	0.20	0.97	0.10	0.012	1.01	1.20	1.50	0.03	.	0.33	.	0.08	0.34		
1	VS UG111	1.64	0.52	0.625	0.0028	0.0035	0.065	0.036	0.058	0.049	.	0.039	.	.	0.025		
1	VS UG1/9	1.63	0.63	0.84	0.030	0.017	0.020	0.105	0.046	0.027	.	0.135	(0.002)	(0.002)	0.069		
1	IARM 340A	1.63	0.414	0.755	0.011	0.001	0.103	1.80	0.84	0.062	.	0.39	0.0020	0.005	0.0098		
1	IARM 342A	1.63	0.257	1.37	0.006	0.0051	0.110	1.76	0.38	0.019	.	0.42	0.0102	0.021	0.0028		
1	VS UG4/10	1.61	0.695	0.834	0.031	0.0060	0.050	0.156	0.130	0.064	.	0.089	0.0192	.	0.0044		
1	KUT B1/1	1.58	0.97	0.205	0.017	0.032	0.14	3.96	1.66	.	.	.	.	.	.
1	12X 15261X	1.513	0.546	0.483	0.090	0.0518	0.308	0.0985	0.496	1.648	.	1.594	.	0.0172	0.385		
1	VS UG1/10	1.51	0.51	0.659	0.0053	0.0042	0.096	0.190	0.067	0.015	.	0.051	0.0164	0.0030	0.016		
2	CZ LA-2D	1.48	0.065	0.26	0.011	0.052	0.53	2.00	0.135	0.18	.	0.57	0.008	0.085	0.30		
1	KUT A11/1	(1.46)	0.043	0.21	0.011	0.0137	0.047	0.04	0.02	0.02	.	1.20	.	0.002	0.17		
1	VS UG4/6	1.25	0.59	1.23	(0.003)	0.0008	0.169	0.47	0.400	0.032	.	0.083	(<0.0005)	0.017	0.131		
1	VS UG87	1.25	0.59	1.18	0.026	0.022	0.030	0.50	0.260	0.024	0.02	0.044	0.010	.	0.103		
1	VS UG1/5	1.23	0.62	0.79	(0.02)	(0.03)	(0.01)	0.048	0.069	0.022	.	0.061	.	.	0.045		
1	VS UG88	1.22	0.62	1.26	0.0026	0.0043	0.171	0.52	0.474	0.01	0.009	0.104	0.020	.	0.107		
1	DSZU C046	1.21	0.785	0.257	0.025	0.0153	0.211	1.47	2.67	0.47	.	0.69	0.0099	0.0033	0.115		
2	CZ LA-3E	1.19	0.60	0.70	0.044	0.026	0.22	1.01	0.94	0.061	.	0.32	0.010	0.026	0.135		
1	KUT A12	1.19	0.031	0.31	0.014	0.082	0.18	2.43	1.25	0.18	.	0.47	.	.	0.05		
2	CZ CM-14B	1.18	0.55	1.63	0.017	0.023	0.36	1.10	1.38	0.26	.	0.400	0.0072	0.040	0.36		
2	CZ CM-14A	1.15	0.523	1.58	0.051	0.028	0.30	1.14	1.13	0.063	.	0.395	0.0095	0.027	0.40		
1	12X 15258N	1.020	0.548	1.434	0.0439	0.070	0.0934	0.327	0.465	0.032	.	0.215	.	0.0453	0.120		
1	SS 603/2	0.97	0.79	0.236	0.020	0.056	(0.05)	(0.03)	(0.04)	0.076	.	(0.004)	.	.	.		
1	SS 405/2	0.947	0.044	0.903	0.0095	0.058	0.022	0.102	0.206	0.330	.	0.025	(0.011)	.	.		
1	SS 113	0.931	0.837	1.207	0.0595	0.0294	0.179	0.0784	1.248	0.0151	.	0.056	0.0109	0.0067	0.0390		
1	NCS HS11744	0.825	0.092	1.04	0.014	0.066	0.572	1.94	0.166	0.044	.	0.912	.	0.0041	0.049		
1	CKD 188A	0.775	0.332	0.169	0.006	0.033	0.057	0.445	5.11	0.093	0.083	1.28	0.0076	0.005	0.034		
1	SS 604/2	0.75	0.199	1.91	0.016	0.072	(0.07)	(0.09)	(0.06)	0.008	.	(0.02)	.	.	.		
#	Number	Si	C	Mn	P	S	Cu	Ni	Cr	Al	Als	Mo	N	Sn	Ti		
Number	As	B	Ca	Co	Nb	O	Pb	Sb	Ta	V	W	Zr	Units				
CZ SST-4A	0.004	0.0006	.	0.012	.	.	0.008	(0.003)	.	0.031	0.026	(0.003)	~37	mm	Ø x 25 mm		
CZ SP-6A	0.003	.	.	0.003	.	.	.	.	.	0.016	0.02	.	~39	mm	Ø x 25 mm
DSZU C047	0.0077	0.0006	0.0013	0.066	0.021	.	.	.	.	1.84	1.88	.	40	mm	Ø x 25 mm
CZ SST-3A	(0.003)	0.0019	.	0.038	.	Zn:0.011	0.013	.	.	0.041	0.016	.	~37	mm	Ø x 25 mm		
SRM 1218	.	.	.	(0.002)	.	.	.	.	.	(<0.001)	.	(0.002)	32	mm	Ø x 19 mm
CZ CM-12A	0.003	.	.	0.003	.	.	.	.	.	<0.01	.	.	~39	mm	Ø x 25 mm
SRM 1135	.	.	.	.	.	.	.	.	.	<0.01	.	.	31	mm	Ø x 19 mm
BS 178	.	(0.0002)	.	0.018	(0.002)	(0.0020)	.	.	.	0.041	0.017	last	~37	mm	Ø x 19 mm		
CZ SP-5B	0.19	0.14	.	0.135	0.09	.	0.09	0.07	.	0.71	0.62	.	~39	mm	Ø x 25 mm		
CZ SST-2A	.	0.0089	.	0.022	.	Zn:0.011	0.015	0.008	.	0.024	0.019	0.017	~37	mm	Ø x 25 mm		
SRM 1134	.	.	.	.	.	.	.	.	.	.	.	.	31	mm	Ø x 19 mm
CZ SST-1A	(0.002)	0.0003	.	0.005	.	.	(0.002)	(0.002)	.	0.006	.	.	~37	mm	Ø x 25 mm		
VS UG4/9	(0.001)	(0.0003)	.	.	(<0.001)	.	0.008	.	.	0.054	0.061	.	~45	mm	Ø x 28 mm		
VS UG91	0.0004	.	.	.	0.097	.	0.00006	0.00009	.	0.049	.	.	~47	mm	Ø x ~30 mm		
12X 15251U *	* Provisional Analysis	.	.	0.23	0.27	.	.	.	.	0.39	0.04	.	~40	mm	Ø x ~15 mm
VS UG92	0.0027	.	.	.	0.034	.	0.00017	0.0005	.	0.024	.	.	~47	mm	Ø x ~30 mm		
KUT T4/1	.	.	.	.	.	.	.	.	.	.	.	.	30-35	mm	Ø x 39 mm
NCS HS11751	0.016	.	.	0.011	.	.	.	.	.	.	.	.	37	mm	Ø x 45 mm
12X 15259Q	.	.	.	0.141	0.249	.	.	.	.	0.139	0.49	.	~40	mm	Ø x ~15 mm
ECRM 196-2D	0.00033	0.00014	0.00071	0.0138	Mg:0.00075	.	.	.	.	0.00368	.	Zn:0.00019	38	mm	Ø x 25 mm
VS UG4/5	.	.	.	.	0.053	.	.	.	.	0.054	0.14	.	~45	mm	Ø x ~28 mm
ECRM 186-1D	.	.	.	.	.	.	.	.	.	.	.	.	38	mm	Ø x 25 or 30 mm
BS 300	0.0030	0.0003	0.0008	0.0079	0.0031	(0.0004)	(0.000026)	0.0007	(0.0012)	0.070	0.0009	(0.0002)	38mm	Ø x ~7	or 19+mm Fe:93.8		
12X 44220A	0.0026	.	.	.	.	.	.	.	.	0.0764	.	.	~38	mm	Ø x ~15 mm
CZ CM-2A	0.11	0.0005	.	0.43													

LOW ALLOY STEEL WITH C > 0.3%

CONTINUED ON THE NEXT PAGE

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

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Als	Co	Mo	N	Nb	Ti
1	VS UG0/6	1.40	0.329	(0.006)	(0.003)	0.221	0.286	0.55	0.73	0.129	(0.002)	(0.01)	0.079			0.0052
1	CKD 182B	1.39	0.370	0.008	0.006	0.126	0.293	2.82	0.122	0.023	0.017	0.171	0.011	0.0049	0.001	0.004
1	CKD 182C	1.36	0.363	0.009	0.008	0.111	0.294	2.80	0.123	0.028		0.171	0.012	0.0049	(0.001)	(0.002)
1	VS UG0/9	1.33	0.273	0.0040	0.0045	0.270	0.307	0.6	0.59	0.101	(0.001)		0.024	0.0022	0.041	0.017
1	VS UG0/10	1.321	0.268	0.0090	0.0044	0.244	0.265	0.353	0.596	0.101			0.052	0.0120	0.0033	0.017
1	VS UG0/5	1.32	(0.2)	(0.01)	(0.007)	(0.2)	0.265	0.351	0.60	0.108			(0.05)		(0.01)	(0.01)
1	SS 402/2	1.311	0.288	0.0161	0.0138	0.111	0.302	0.808	0.652	0.161			0.140	0.0069		
1	ECRM 035-2D	1.277	0.305	0.0038	0.011	0.216	0.0085	0.0190	0.0104	0.0193			0.0056	0.0230		0.0030
1	IMZ 65/2	1.19	0.27	0.013	0.007	0.13	0.059	0.067	0.079	0.030						
1	KUT A18	1.16	(1.99)	0.014	0.007	0.15	0.066	0.125	0.90	(0.2)					0.035	0.011
1	VS UG9/5	1.10	0.25	(0.01)	(0.007)	0.31	0.125	0.183	0.36	0.017			0.29		(0.002)	0.109
3	CZ CM-5B	1.09	1.28	0.021	0.012	0.39	0.13	0.23	2.07	0.083		0.022	0.10	0.0135	0.06	0.05
1	14X 72305A	1.085	0.349	0.0128	0.0028	0.206	0.149	0.089	0.425	0.0049			0.0231	0.0068		
1	SRM 1761a	(1.05)	0.679	0.042	0.037	0.182	0.298	1.981	0.222	0.055		(0.027)	0.103	(0.0042)	0.021	0.173
2	CZ CM-5C	1.04	1.17	0.029	0.021	0.54	0.151	0.42	2.45	0.063		0.022	0.132	0.014	0.014	0.031
1	VS UG9/9	1.04	0.310	0.0053	0.021	0.319	0.163	0.242	0.310	0.073	(0.003)		0.308	0.0027	0.0046	0.130
1	IMZ 172	1.03	0.71	0.018	0.047	0.21	0.128	0.12	4.47	0.062		0.012	0.96	0.0192		(0.002)
1	NM PC-5	1.03	0.52	0.073	0.022	0.12	0.22	0.19	1.19	0.029						
1	BS 2952	1.03	0.33	0.013	0.014	0.32	0.106	0.135	1.36	0.024		0.007	0.044	(0.0084)		0.003
1	12X 52986A	1.023	0.372	0.0049	0.0011	0.246	0.077	0.0411	1.418	0.0258	(0.002)		0.0169	(0.002)		
2	BS 53G	1.02	0.35	0.014	0.015	0.23	0.160	0.090	1.53	0.019		0.008	0.034	0.0084		(0.002)
1	CKD 184A	1.013	2.23	0.028	(0.01)	0.348	0.089	0.250	2.33	0.022	0.016	0.007	0.016	0.0104	0.013	0.010
1	NILAB 100LA D	1.002	0.333	0.012	0.018		0.019	0.027	1.517	0.005		0.007	0.012	0.0046		0.0007
1	IRSID 1747	0.990	0.333	0.0078	0.0068	0.222	0.1243	0.0850	1.501		0.0392	0.0110	0.0141	0.0084	(0.00025)	0.0041
1	IARM 324A	0.99	1.01	0.009	0.028	0.163	0.22	0.081	0.42	0.002		0.007	0.022	0.0082	0.014	0.0016
1	IARM 49D	0.99	0.39	0.0173	0.0059	0.24	0.120	0.061	1.53	0.018		(0.006)	0.016	0.0102	0.0009	0.0020
2	BS A485-1	0.98	1.10	0.019	0.004	0.62	0.16	0.13	1.07	0.017		0.010	0.029	0.0060		0.003
1	KUT B15	0.98	0.69	0.030	0.031	0.80	0.14	0.15	3.70	0.13		0.21	1.20			(0.32)
1	VS UG75	0.98	0.286	0.0127	0.0089	0.248	0.111	0.201	1.43	(0.03)			(0.01)		(0.01)	(0.001)
2	CZ LA-4C	0.95	1.63	0.021	0.012	0.07	0.056	0.045	1.78	0.048		(0.006)	0.008	0.012	0.053	(0.002)
1	12X 19965A	0.936	0.600	0.0196	0.0081	0.247	0.148	0.141	1.713	0.0256			0.210	0.0087		
1	SS 401/2	0.935	1.197	0.0265	0.0078	0.62	0.101	0.019	0.138	0.074		0.042	0.495	(0.015)		
1	IMZ 119	0.93	1.15	0.018	0.006	0.16	0.042	0.049	0.062	0.010	0.007			0.0086		(0.0007)
1	VS UG3/5	0.93	0.98	(0.03)	(0.005)	0.79	0.10	0.97	0.77	0.10			0.048		0.21	0.29
1	VS UG89	0.92	0.76	0.0085	0.01	0.385	0.373	0.51	0.420	0.01	0.007		0.044	0.017	0.0043	0.012
1	VS UG110	0.91	0.86	0.0063	0.0050	0.342	0.377	0.491	0.47	0.006			0.0052			0.0015
1	VS UG21/6	0.83	0.74	(0.02)	(0.02)	0.312	0.346	0.47	0.50							
1	12X LA45C	0.783	0.726	0.0577	0.0261	0.493	0.158	0.484	0.678	0.10		0.166	0.305			
2	IARM 172A	0.78	0.010	0.007	0.004	1.29	0.40	0.025	3.52	0.39		0.006	0.014	0.0004	0.004	0.003
1	SS 403/2	0.750	1.677	0.055	0.0381	0.209	0.221	0.223	0.463	0.0485			0.088	(0.010)		
1	IMZ 64/2	0.75	0.47	0.012	(0.005)	0.22	0.12	0.081	0.090	0.020						
1	ECRM 059-2D	0.721	0.495	0.0046	0.0084	0.188	0.0074	0.0198	0.0090	0.00045	0.00020		0.0018	0.0051		
2	CZ CM-1C	0.72	1.73	0.023	0.025	0.31	0.18	0.52	0.47	0.034		0.026	0.084	0.009	0.054	0.066
2	CZ CM-4B	0.72	0.50	0.023	0.012	0.80	0.40	1.40	2.23	0.025		0.115	0.33	0.013	0.071	0.12
1	SS 404/2	0.696	0.532	0.0479	0.0228	1.121	0.427	0.393	0.774	0.017			0.307	0.0089		
1	IMZ 118	0.69	1.72	0.026	(0.049)	0.30	0.18	0.19	0.14	(0.014)	(0.004)		0.058	0.0120		
1	IMZ 116	0.64	0.94	0.025	0.035	0.25	0.33	0.022	0.72	0.025	0.012		0.074	0.0130		(0.0008)
1	VS UG96	0.60	0.52	0.0046	0.0029	0.290	0.256	0.396	0.399	0.031			0.0042			0.0025
1	SRM 1764a	0.592	1.193	0.0210	0.0118	0.0595	0.5178	0.2006	1.468	0.0098		(0.012)	0.2007	(0.0023)	0.0416	0.0286
1	DSZU C07	0.589	0.903	0.033	0.037	1.00	0.130	0.263	0.201	0.039		0.165	0.377		0.091	0.059
1	VS UG119	0.55	0.70	0.012	(0.02)	1.63	0.207	0.142	0.195	0.039			0.0113	0.0047		0.0030
1	12X 10550	0.549	0.685	0.0184	0.0055	0.281	0.0290	0.0247	0.338	0.0325			0.0086	0.0051		
1	12X LA48	0.537	0.303	0.0363	0.039	0.335	0.334	0.521	0.439	0.057		0.105	0.489	0.0222		
1	12X 61500A	0.530	0.912	0.0104	0.0102	2.40	0.157	0.056	1.023	(0.007)	0.0067		0.0195			
2	CZ CM-6A	0.52	0.37	0.016	0.058	0.27	0.05	0.19	0.37	0.02		0.03	0.04	0.009	0.028	0.03
2	CZ BO-2B	0.515	0.745	0.0093	0.0016	0.309	0.100	0.057	0.212	0.0196		0.0055	0.006	0.004		0.0017
1	12X LA3C	0.500	1.693	0.0274	0.0442	0.163	0.213	0.280	0.375	0.0410		0.0475	0.303	0.0039		
1	IARM 34C	0.50	0.739	0.0090	0.0011	0.30	0.078	0.085	0.914	0.068		0.005	0.022	0.0030	0.004	0.0045
2	BS 43A	0.491	0.811	0.008	0.026	0.252	0.184	0.242	0.93	0.003		0.008	0.059	0.0074		0.002
2	BS 4941	0.490	0.79	0.012	0.017	0.27	0.106	0.074	0.96	0.024		0.008	0.039	0.0076		
#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Als	Co	Mo	N	Nb	Ti
1	IMZ 103A	0.49	0.78	0.066	0.051	0.42	0.27	0.57	0.58	0.026		0.002	0.18		0.040	0.17
1	IMZ 117	0.49	0.77	0.038	0.015	0.34	0.41	0.29	0.94	0.023	0.013		0.024	0.0154	0.041	(0.0014)
1	BS 1144	0.483	1.55	0.022	0.243	0.262	0.462	0.097	0.193	(0.002)		0.011	0.017	0.0093	(0.004)	0.002
1	IPT 503	0.456	0.682	0.027	0.027	0.218	0.129	0.063	0.160	0.018		0.006	0.20	0.0082		0.0011
1	SRM C1173	0.453	0.174	0.031	0.092	1.38	0.204	4.04	2.63				1.46			0.037
1	12X 14150A	0.446	1.011	0.0093	0.0031	0.261	0.1318	0.187	1.194	0.0220			0.340	0.0080		
2	BS XCCV	0.44	1.75	0.012	0.024	0.28	0.015	0.019	0.041	0.033		0.006	0.007	0.0056	(0.002)	(0.002)
1	12X LA3B	0.439	1.176	0.0215	0.0379	0.16	0.173	0.300	0.357	0.0300		0.0300	0.302	0.		

LOW ALLOY STEEL WITH C > 0.3%

CONTINUED FROM THE PREVIOUS PAGE

Number	As	B	Ca	Fe	Mg	O	Pb	Sb	Sn	Ta	V	W	Zr	Units
VS UG0/6							(<0.0005)	(<0.0005)	0.0032		0.0046			~45 mm Ø x ~28 mm last
CKD 182B	0.005	0.0003					(0.000)	0.001	0.004	0.000	0.027	0.016	0.001	44 mm Ø x 13 or 25 mm
CKD 182C	(0.005)	0.0003					(0.001)	(0.001)	(0.004)	(0.001)	0.028	0.018	(0.001)	44 mm Ø x 13 or 25 mm
VS UG0/9		(0.0002)					(0.002)		(0.008)		0.087	0.074		~45 mm Ø x ~28 mm
VS UG0/10									0.0043		0.0037	(0.006)		~45 mm Ø x ~28 mm
VS UG0/5											(0.01)	(0.01)		~45 mm Ø x ~28 mm
SS 402/2											0.194			38 mm Ø x 19 mm
ECRM 035-2D	0.0017													40 mm Ø x 20 mm
IMZ 65/2														40 mm Ø x 40 mm
KUT A18	0.003	(0.011)						0.005	0.016		0.10			30-35mm Ø x 39 mm
VS UG9/5											0.19	1.63		~45 mm Ø x ~28 mm
CZ CM-5B	0.018	0.002					0.01	0.006	0.012		0.06	0.03	0.09	~37 mm Ø x 25 mm
14X 72305A									0.0101		0.0045			~40 mm Ø x ~15 mm
SRM 1761a	(0.011)	0.0023		(95)				(0.0052)	(0.050)	(0.050)	0.054			34 mm Ø x 19 mm
CZ CM-5C	0.020	0.0012	(0.0006)				0.009	0.005	0.018		0.106	0.034	(0.07)	~39 mm Ø x 25 mm
VS UG9/9		(0.0002)					(0.002)		(0.001)		0.215	1.60		~45 mm Ø x ~28 mm
IMZ 172									0.010		0.20	0.011		40 mm Ø x 40 mm
NM PC-5														40 mm Ø x 20 mm
BS 2952	0.004		0.0003			(0.002)		0.003	0.006		0.005			44 mm Ø x 7 or 19+ mm
12X 52986A									0.0063		0.0615			~38 mm Ø x ~15 mm
BS 53G	0.004	(0.0001)	(0.0001)			0.001			0.007		0.006	(0.13)		44 mm Ø x ~7 or 19+ mm
CKD 184A	0.006	0.0005					(0.000)	0.002	0.008	0.000	0.017	(0.001)	(0.002)	44 mm Ø x 13 or 25 mm
NILAB 100LA D	0.004										0.004			34 mm Ø x 20 mm
IRSID 1747	0.0170	(0.00015)	(0.00030)		(0.00022)		(0.00025)	(0.0034)	0.0105		0.0046		(0.0001)	37 mm Ø x 30 mm
IARM 324A	0.006	0.0004	0.0009			0.003		(0.002)	0.011		0.0017	(0.003)	(0.001)	31 mm Ø x 2 or 18 mm
IARM 49D	0.004	(0.0004)				0.0008	(0.0004)	0.0016	0.0076	(0.001)	0.0034	(0.004)		31 mm Ø x 2 mm
BS A485-1	0.006					(0.0008)			0.011		0.003			39 mm Ø x ~7 or 19+ mm
KUT B15											(0.33)			30-35mm Ø x 39 mm
VS UG75											(0.006)	(0.02)		~40 mm Ø x ~26 mm
CZ LA-4C	(0.003)	0.0005							(0.006)		(0.010)	0.008		~37 mm Ø x 25 mm
12X 19965A									0.0070		0.0087		Zn:0.0008	~41 mm Ø x ~15 mm
SS 401/2											0.496			38 mm Ø x 19 mm
IMZ 119			(0.0002)								0.006			40 mm Ø x 40 mm
VS UG3/5											0.54	0.81		~45 mm Ø x ~28 mm
VS UG89	0.0043						0.0003	0.0011			0.021			~47 mm Ø x ~30 mm
VS UG110												0.004		~45 mm Ø x ~25 mm
VS UG21/6														~45 mm Ø x ~28 mm
12X LA5C	0.0085						0.0085		0.0100		0.579		Zn:0.0091	~40 mm Ø x ~15 mm
IARM 172A	(0.005)	0.0003				0.0006	(<0.01)		0.003		0.003	0.038		31 mm Ø x 2 or 18 mm
SS 403/2											0.341			38 mm Ø x 19 mm
IMZ 64/2														40 mm Ø x 40 mm
ECRM 059-2D														38 mm Ø x 25 or 30 mm
CZ CM-1C	0.036	0.0020	0.0007				0.005	0.01	0.012		0.073	0.064	0.051	~39 mm Ø x 25 mm
CZ CM-4B	0.015	0.017					0.022	0.052	0.028		0.18	0.116	Zn:0.007	~39 mm Ø x 25 mm
SS 404/2											0.107			38 mm Ø x 19 mm
IMZ 118			(0.0002)						0.22		0.059			40 mm Ø x 40 mm
IMZ 116											0.076			40 mm Ø x 40 mm
VS UG96											0.0030			~40 mm Ø x ~28 mm
SRM 1764a	0.0100	(0.0010)		(95.1)					(0.024)	0.0297	0.1063	(0.0016)	(0.0012)	34 mm Ø x 19 mm
DSZU C07	(0.0005)	0.005					(0.0003)	(0.0005)	(0.0026)		0.988	0.140		40 mm Ø x 30 mm
VS UG119									0.0018				Zn:(0.0016)	~45 mm Ø x ~25 mm
12X 10550	0.0059													~40 mm Ø x ~15 mm
12X LA4B											0.328	0.091		42 mm Ø x 15 mm
12X 61500A									0.0114		0.110		Zn:0.0055	~38 mm Ø x ~15 mm
CZ CM-6A	0.025	0.015					0.017	0.03	0.017		0.05	0.04	0.04	~39 mm Ø x 25 mm
CZ BO-2B	0.0057		(0.0008)						0.0062		(0.001)	(0.005)		~37 mm Ø x ~25 mm
12X LA3C	0.0301	Zn:(0.004)					(0.004)				0.157		0.0197	~40 mm Ø x ~15 mm
IARM 34C	0.0024	0.0003	(0.0004)				(0.0003)	(0.001)	0.0058		0.206	(0.003)	(0.001)	31 mm Ø x 2 or 18 mm
BS 43A									0.011		0.148			41 mm Ø x ~7 or 19+ mm
BS 4941	(0.004)		(0.0002)			0.0017			0.006		0.164			41 mm Ø x ~7 or 19+ mm
Number	As	B	Ca	Fe	Mg	O	Pb	Sb	Sn	Ta	V	W	Zr	Units
IMZ 103A		0.006							(0.005)		0.17			40 mm Ø x 40 mm
IMZ 117			(0.0002)								0.087			40 mm Ø x 40 mm
BS 1144	0.009					0.0016	(0.001)		0.0113		0.0039	(0.003)	last	38 mm Ø x ~16 or 19 mm 17025
IPT 503							0.008							35 mm Ø x 20 mm
SRM C1173											0.42			32 mm Ø x 19 mm
12X 41450A	0.0053								0.0090		0.0385			~38 mm Ø ~15 mm
BS XCCV	0.002				(0.0018)		(<0.0006)	(0.0003)	(0.0004)		(0.003)		(0.0002)	36 mm Ø x ~7 or 19+ mm
12X LA3B		0.0015					0.0149				Zn:0.0098	0.157	(0.027)	~40 mm Ø x ~15 mm
NM PC-4														40 mm Ø x 20 mm
BS 4340A	0.0059	(0.0002)	(0.0002)	95.4	0.0004	0.0007	(0.0003)	(0.0018)	0.0081		0.0024	0.0005	0.0016	38 mm Ø x ~7 or 19+ mm 17025
SRM 1173											0.42			32 mm Ø x 19 mm
HRT FE2015-N											0.006			35 mm Ø x 20 mm
BS 4340	0.0043	(0.0002)	0.0005	95.5	(0.0002)	0.0012	(0.0002)	(0.0013)	0.0063		0.033	0.0012	0.0005	38 mm Ø x ~7 or 19+ mm 17025
IARM 252C	0.004	(0.0001)	(0.0003)			(0.002)	0.001	<0.005	0.007		0.005	<0.005	<0.002	31 mm Ø x ~7 or 19+ mm
BS 4942	0.005		0.0006			(0.0021)			0.014		0.28			38 mm Ø x ~7 or 19+ mm last
BS 1962	0.007		<u>25(pre-17025)</u>		(0.0001)		(0.001)		0.010		0.004		last	41 mm Ø x 7, ~13, or ~16 mm
VS UG116														~45 mm Ø x ~25 mm
BS 67C						(0.0014)			0.010		0.0022		17025	38 mm Ø x ~7 or 19+ mm
SS 114	0.0025	0.0008							0.041		0.0086		0.0051	44 mm Ø x 19 or 50 mm
IMZ 63/2														40 mm Ø x 40 mm
SS 225/2														38 mm Ø x 19 mm
IPT 504														36 mm Ø x 20 mm
12X 826M40A	0.0056								0.0085					~38 mm Ø x ~15 mm
DSZU C06	(0.003)	0.003					(0.002)		(0.006)		0.072	0.026	(0.0001)	40 mm Ø x 30 mm
BS 4942A	0.0031	(0.0001)	0.0012	96.8	0.0004	0.0020	(0.0007)	(0.001)	0.0044		0.280	(0.0009)	(0.001)	38 mm Ø x ~7 or 19+ mm 17025
CKD 186D	0.007	0.0009						(0.002)	0.018	0.008	0.021	0.054	(0.002)	44 mm Ø x 13 or 25 mm
IARM 31F	(0.005)	0.0003	0.0005		(0.0003)	(0.001)	(0.001)	(0.002)	0.015	(0.003)	0.0028	(0.005)	(0.001)	31 mm Ø x 2 mm
VS RG30/1											0.70	0.89		~45 mm Ø x ~28 mm
VS UG79											(0.02)	(0.01)		~40 mm Ø x ~26 mm
IRSID 1731														44 mm Ø x 30 mm
DSZU C045	0.0052	(0.0004)	0.0005						0.0050		0.004	(0.011)		40 mm Ø x 30 mm
CZ LA-5B	0.016	0.0009					0.015	0.011	0.028		0.47	0.59	0.017	~39 mm Ø x 25 mm
VS UG3/10									0.0057		0.0053	0.006		~45 mm Ø x ~28 mm
12X 605M36														

LOW ALLOY STEEL WITH 0.13 % < C < 0.3 %

CONTINUED ON THE NEXT PAGE

= Class, where 1 = CRM and 2 = RM

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Als	As	Co	Mo	N	Sn	V
1	IARM 330A	0.299	1.00	(0.005)	(0.001)	0.273	0.074	1.80	0.90	0.045	.	(0.003)	0.0063	0.404	0.0024	0.0039	0.071
1	SRM 1269	0.298	1.35	0.012	0.0061	0.189	0.095	0.108	0.201	0.016	.	.	0.036	0.34	.	.	0.004
1	12X 352D	0.298	0.627	0.066	0.125	0.338	0.144	0.334	0.423	0.146	.	0.0095	0.0504	0.257	.	0.105	0.0584
1	ECRM 086-1D	0.297	0.879	0.024	0.037	0.206	0.320	0.168	0.150	.	.	0.023	.	0.150	.	0.026	.
2	CZ CM-3A	0.295	0.37	0.016	0.0013	0.27	0.16	1.82	1.87	0.05	.	0.005	0.012	0.33	0.007	0.007	0.007
1	VS UG9/10	0.294	0.616	.	(0.003)	0.235	0.169	0.144	0.170	0.280	.	.	.	0.282	0.015	0.0017	1.25
1	HRT FE2000-N	0.294	0.49	0.014	0.007	0.30	0.07	1.96	1.99	0.025	.	.	0.012	0.34	.	.	0.017
1	VS RG27/1	0.290	0.74	0.044	0.0043	0.28	0.208	0.142	1.83	1.07	.	.	0.025	0.191	.	.	0.072
1	IMZ 178	0.29	0.65	0.016	0.003	0.28	0.140	2.09	1.26	0.051	.	.	0.015	0.20	0.0160	0.011	0.011
1	12X 15254Z	0.285	1.117	0.043	0.047	0.916	0.123	0.394	2.12	0.599	.	.	0.550	0.758	.	0.0651	0.290
1	SRM 1225	0.274	0.48	0.007	0.014	0.221	.	0.018	0.91	.	.	.	.	0.166	.	.	0.004
1	BS HiCal-1	0.271	1.00	(0.007)	0.0007	1.29	0.152	3.28	1.55	0.070	.	0.0022	0.0024	0.379	.	(0.0002)	0.0027
2	RM Fe 2/4	0.26	0.61	0.039	0.016	0.30	0.30	0.68	0.70	(0.001)	.	0.04	0.29	0.47	0.020	0.04	0.46
2	BS 69B	0.258	1.28	0.008	0.013	1.27	0.086	1.71	0.28	0.024	.	.	0.035	0.39	0.0057	0.006	(0.002)
1	12X 12750U	0.258	0.510	0.0078	0.0053	0.599	0.106	0.786	0.792	0.253	.	.	0.581	0.088	.	0.110	0.102
1	12X 32550A	0.257	1.350	0.0061	0.0054	1.59	0.108	1.750	0.377	0.0178	.	0.0054	.	0.417	0.0101	0.0206	0.0222
1	IARM 195B	0.255	1.84	0.018	0.005	1.16	0.52	1.00	0.216	0.029	.	0.021	0.101	0.052	0.0070	0.084	0.082
2	BS 6418	0.255	1.42	0.010	0.004	1.54	0.11	1.74	0.34	0.027	.	0.0044	0.010	0.42	0.0066	0.006	0.003
1	CKD 181B	0.240	0.988	0.042	0.008	0.445	0.095	0.737	0.669	0.016	0.014	0.029	0.050	0.395	(0.005)	0.122	0.307
1	IMZ 113	0.24	0.50	0.022	0.025	0.10	0.11	0.13	1.25	0.007	0.004	.	.	0.050	0.0154	.	0.039
1	DSZU C043	0.239	2.18	0.054	0.070	0.114	0.50	2.93	0.44	0.071	.	0.0017	0.005	0.146	0.0100	0.0023	0.366
1	12X 722M24A	0.236	0.510	0.0135	0.0199	0.262	0.200	0.208	3.094	0.0187	.	0.0075	.	0.497	.	0.0116	0.0080
1	VS UG6/5	0.232	0.39	(0.006)	(0.008)	0.51	0.257	(0.2)	1.85	(0.4)	.	.	.	(0.2)	.	.	0.34
1	IARM 229B *	0.22	0.86	0.008	0.011	0.33	0.015	0.029	0.016	0.026	.	0.0011	0.011	0.49	0.007	0.001	0.006
1	ECRM 197-1D	0.219	0.792	0.0073	0.0232	0.275	0.152	0.148	0.451	0.0313	.	0.0083	0.0135	0.402	0.0114	0.0097	.
2	BS 3961	0.215	0.565	0.016	0.022	0.236	0.133	1.67	0.510	0.022	.	.	(0.010)	0.27	0.0079	(0.008)	(0.002)
2	TL 1668	0.2146	1.643	0.0137	0.0012	1.645	0.0108	0.0164	0.0173	0.0371	.	0.0016	0.0031	(0.0014)	0.0043	0.0047	0.0016
1	IPT 502	0.210	0.823	0.018	0.026	0.198	0.121	0.408	0.485	0.024	.	.	0.0083	0.155	0.0069	.	.
1	BS 8620E	0.210	0.800	0.011	0.0238	0.255	0.186	0.564	0.541	0.027	.	0.0044	0.0068	0.223	0.0080	0.011	0.0024
1	IARM 33D	0.209	0.593	0.009	0.023	0.207	0.072	1.78	0.139	0.026	.	0.0035	0.008	0.229	0.0053	0.005	0.002
2	BS 3952	0.208	0.546	0.011	0.021	0.264	0.202	0.112	0.105	0.048	.	.	.	0.519	(0.0005)	.	.
1	ECRM 187-2D	0.2038	1.257	0.0066	(0.0300)	0.2111	0.1288	0.1755	1.132	0.0223	.	0.0057	0.0112	0.0623	0.0105	0.0237	0.1222
1	BS 9325A	0.203	0.969	0.0079	0.0045	0.612	0.163	3.29	1.50	0.0056	.	0.0024	0.0093	0.358	0.0076	(0.0003)	(0.0024)
1	BS 4820A	0.203	0.64	0.008	0.014	0.185	0.212	3.28	0.116	0.029	.	0.006	0.008	0.203	0.0076	0.0097	0.0010
1	SRM 1763a	0.202	1.584	0.0123	0.022	0.633	0.042	0.513	0.498	0.0435	.	0.055	0.093	0.490	(0.0045)	(0.011)	0.307

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Als	As	Co	Mo	N	Sn	V
1	VS RG29/1	0.202	0.29	.	0.0090	0.22	1.25	4.71	0.89	0.0050	.	.	0.115	1.01	.	.	0.40
1	VS RG31/1	0.200	0.191	0.0039	0.0058	0.28	0.39	2.12	1.28	0.30	.	.	0.273	0.30	.	.	0.200
1	KUT B3	0.20	0.14	(0.012)	0.025	0.53	0.25	5.94	.	.	.	.	.	.	.	.	1.16
1	VS UG5/5	(0.2)	0.52	(0.005)	(0.03)	0.145	0.37	0.42	1.42	0.19	.	.	.	0.44	.	.	0.29
1	12X 86200A	0.198	0.849	0.0110	0.0104	0.299	0.213	0.598	0.602	0.0305	.	0.0051	.	0.224	0.0091	0.0100	0.0045
1	12X LA2E	0.195	0.57	0.0241	0.0263	0.678	0.786	0.783	0.813	1.381	.	0.282	0.0306	0.136	0.0173	0.0066	0.0990
1	IMZ 112	0.195	0.43	0.022	0.016	0.27	0.055	0.046	0.034	0.034	0.024	.	.	0.043	0.010	0.15	0.045
1	12X 349D	0.194	0.498	0.0162	0.0232	0.201	0.106	0.289	0.268	0.149	.	0.0096	0.021	0.123	.	0.153	0.0172
1	VS UG8/10	0.192	1.81	0.0064	(0.005)	0.61	0.198	0.348	0.729	0.082	.	.	0.030	0.030	0.0185	0.0052	.
1	VS UG114	0.190	1.65	0.010	0.0074	0.59	0.173	0.345	1.03	0.146	.	.	.	0.016	.	.	0.0031
2	BS 51F	0.190	0.52	0.016	0.018	0.24	0.231	1.68	0.157	0.021	.	(0.0024)	0.009	0.224	0.0060	0.009	0.003
1	IMZ 162	0.19	1.31	0.021	0.014	0.59	0.077	1.64	0.91	(0.040)	.	.	.	0.52	.	.	0.045
1	VS UG113	0.189	1.55	0.0087	0.0070	0.59	0.185	0.186	1.12	0.263	.	.	.	0.010	.	.	0.0040
2	BS 4620	0.189	0.57	0.006	0.018	0.25	0.216	1.75	0.072	0.032	.	0.0084	0.012	0.24	0.0078	0.013	(0.0008)
1	ECRM 192-1D	0.1875	1.377	0.0029	0.0010	0.219	0.0453	0.755	0.0717	0.0306	0.0285	.	0.0055	0.482	0.0118	.	.
1	VS UG112	0.186	1.63	0.0065	0.0050	0.60	0.157	0.185	0.98	0.026	.	.	.	0.021	.	.	0.014
1	DSZU C08	0.184	0.756	0.019	0.008	0.389	0.550	(6.6)	2.34	0.011	.	(0.011)	0.062	0.514	.	(0.014)	0.216
2	BS LF3	0.183	0.52	0.006	0.018	0.206	0.080	3.36	0.098	0.017	.	0.006	0.056	0.056	0.0054	0.006	(0.002)
2	HRT FE2012-N	0.18	0.70	0.010	0.008	0.31	0.14	0.13	0.25	0.030	.	.	.	0.26	.	.	.
1	IMZ 74A	0.179	1.19	0.008	0.010	0.34	0.209	0.130	0.197	0.012	.	.	0.0043	0.047	0.0118	.	0.072
1	12X 19MNV56A	0.174	1.563	0.0114	0.0245	0.357	0.203	0.110	0.1087	0.0101	.	.	.	0.0270	0.0210	0.0214	0.0939
1	ECRM 087-1D	0.174	0.671	0.010	0.046	0.263	0.171	0.118	0.078	.	.	0.024	0.015	0.021	.	0.017	.
1	12X 15180A	0.170	1.196	0.0110	0.0022	0.212	0.141	0.1030	0.118	0.018	.	0.0117	.	0.0231	0.0051	0.0115	.
2	HRT FE2013-N	0.17	0.57	0.013	0.010	0.33	0.09	1.45	1.52	0.026	.	.	.	0.26	.	.	.
1	ECRM 194-2D	0.1694	1.282	0.0137	0.00049	0.2974	0.0313	0.3316	0.760	0.0669	.	0.00208	0.00328	0.402	0.00319	.	0.00161
2	BS 3962	0.168	0.58	0.007	0.018	0.244	0.146	1.83	0.138	0.023	.	0.005	0.007	0.219	0.0072	0.007	(0.001)
2	CZ CM-8A	0.16	2.13	0.007	0.011	0.18	0.03	0.03	1.38	0.02	.	(0.002)	0.004	(0.001)	.	(0.003)	0.008
2	HRT FE1999-N	0.16	0.59	0.011	0.005	0.22	0.11	0.09	0.87	0.027	.	.	.	0.46	0.0091	.	0.021
2	BS XCCT	0.158	0.52	0.005	0.011	0.28	0.027	1.27	0.65	0.006	.	0.004	0.017	0.020	0.0076	(0.002)	0.031
1	IMZ 176A	0.15	0.75	0.018	0.003	0.35	0.103	3.62	0.41	(0.058)	.	.	(0.010)	0.027	0.0129	0.009	(0.061)
1	12X 12747U	0.149	2.02	0.029	0.041	0.337	0.437	0.391	0.443	0.015	.	0.0114	0.200	0.500	.	0.167	0.0375
2	BS 15A	0.142	1.12	0.016	0.008	0.058	0.030	0.029	0.044	0.041	.	0.003	0.005	0.008	.	0.002	0.012
2	RM Fe C/2	0.14	1.29	0.087	0.072	0.53	0.68	0.41	0.38	0.005	.	0.052	0.11	0.21	.	0.049	0.073
1	ECRM 193-1D	0.14	0.97	0.007	0.009	0.40	0.60	1.18	0.18	0.025	.	0.0062	0.007	0.35	0.0108	.	(0.002)
2	BS 1972	0.130	0.51	0.012	0.017	0.24	0.089	3.28	1.53	0.014	.	0.004	0.012	0.052	0.0096	0.006	0.003
2	BS 47A	0.130	0.44	0.017	0.015	0.27	0.11	0.12	4.22	0.015	.	.	0.011	0.47	0.018	0.008	0.016

LOW ALLOY STEEL WITH 0.13 % < C < 0.3 %

CONTINUED FROM THE PREVIOUS PAGE

Number	B	Ca	Fe	Mg	Nb	O	Pb	Sb	Ta	Ti	W	Zn	Zr	Units
IARM 330A	0.0003	0.0010	.	.	(0.003)	(0.0009)	(0.0004)	(0.001)	.	0.006	(0.004)	.	0.0015	31 mm Ø x 2 mm
SRM 1269	.	.	.	.	.	.	0.005	.	.	.	.	.	.	32 mm Ø x 19 mm
12X 352D	.	.	.	.	.	.	.	.	.	0.285	0.223	.	.	-40 mm Ø x -15 mm
ECRM 086-1D	.	.	.	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 25 or 30 mm
CZ CM-3A	0.0002	.	.	.	0.006	.	.	.	.	0.006	0.015	.	.	-39 mm Ø x 25 mm
VS UG9/10	.	.	.	.	.	.	.	.	.	0.163	1.34	.	.	-45 mm Ø x -28 mm
HRT FE2000-N	.	0.0015	.	.	.	.	.	.	.	.	0.025	.	.	40 mm Ø x 20 mm
VS RG27/1	.	.	.	.	.	.	.	.	.	0.110	0.170	.	.	-45 mm Ø x -28 mm
IMZ 178	.	.	.	.	0.105	.	.	.	.	.	0.017	.	.	40 mm Ø x 40 mm
12X 15254Z	.	.	.	.	0.347	.	.	.	.	0.303	0.349	.	.	-40 mm Ø x -15 mm
SRM 1225	.	.	.	.	.	.	.	.	.	.	.	.	.	32 mm Ø x 19 mm
BS HiCal-1	(0.0001)	0.0140 [91.9]	(0.0003)	(0.002)	.	.	(0.0005)	.	.	0.0037	(0.0009)	.	(0.0008)	-38 mm Ø x -30 mm 17025
RM Fe 2/4	(0.0027)	<0.001	.	.	(0.011)	.	<0.02	<0.03	.	(0.0065)	0.19	.	<0.02	40 mm Ø x 40 mm
BS 69B	.	.	.	.	.	.	.	.	.	(0.002)	.	.	.	38 mm Ø x -7 or 19+ mm
12X 12750U	.	.	.	.	0.111	.	.	.	.	0.159	0.100	.	.	-40 mm Ø x -15 mm
12X 32550A	.	.	.	.	.	.	.	.	.	.	.	.	.	-38 mm Ø x -15 mm
IARM 195B	0.0039	0.0002	.	.	0.007	0.0017	0.002	0.011	.	0.002	0.38	.	0.002	31 mm Ø x 2 or 18 mm
BS 6418	.	.	.	.	.	0.0012	.	.	.	0.003	.	.	.	57 mm Ø x -7 or 19+ mm
CKD 181B	0.0076	.	(95.37)	.	0.062	.	0.0005	0.017	0.042	0.155	0.188	.	0.001	44 mm Ø x -13 or 25 mm
IMZ 113	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 40 mm
DSZU C043	(0.0005)	0.0005	.	.	0.004	.	.	.	.	0.046	0.082	.	.	40 mm Ø x 25 mm
12X 722M24A	.	.	.	.	.	.	.	.	.	.	.	0.0028	.	-38 mm Ø x -15 mm
VS UG6/5	.	.	.	.	(0.01)	.	.	.	.	(0.01)	0.16	.	.	-45 mm Ø x -28 mm
IARM 229B *	(0.001)	(0.001)	.	.	(0.002)	(0.002)	* Provisional Analysis			0.002	(0.002)	.	(0.001)	31 mm Ø x 2 or 18 mm
ECRM 197-1D	.	.	.	.	.	.	.	.	.	0.0005	.	.	.	38 mm Ø x 25 mm
BS 3961	.	.	.	.	.	.	.	.	.	(<0.003)	.	.	.	44 mm Ø x -7 or 19+ mm
TL 1668	(0.00024)	0.0019	.	(0.0003)	(0.0002)	.	(0.0007)	(0.0003)	.	0.0032	.	0.0008	(0.0003)	37 mm Ø x 25 mm
IPT 502	.	.	.	.	.	.	.	.	.	0.0016	.	.	.	36 mm Ø x 20 mm
BS 8620E	(0.0003)	0.0010	97.2	(0.0003)	(0.002)	0.0016	(0.0008)	0.0015	(0.0004)	0.0016	0.0008	.	(0.0008)	38 mm Ø x -7 or 19+ mm
IARM 33D	0.0002	(0.0003)	.	.	0.002	0.0013	<0.001	(0.002)	.	0.003	<0.005	.	<0.002	31 mm Ø x 2 or 18 mm
BS 3952	.	.	.	.	.	.	.	.	.	.	.	.	.	39 mm Ø x -7 or 19+ mm
ECRM 187-2D	0.00048	.	.	.	.	.	.	.	.	.	.	.	.	39 mm Ø x 28 mm
BS 9325A	(0.0001)	0.0039	92.8	(0.0002)	0.0017	.	(0.0003)	.	(0.010)	0.0030	0.024	17025	(0.001)	-40 mm Ø x -30 mm
BS 4820A	0.0002	0.0003	.	0.0003	0.0012	0.0011	(0.0002)	0.0024	(0.002)	0.0012	(0.002)	17025	.	38 mm Ø x -7 or 19+ mm
SRM 1763a	0.0054	.	(95.3)	.	0.100	.	.	(0.011)	(0.012)	0.308	(0.002)	.	0.044	34 mm Ø x 19 mm

Number	B	Ca	Fe	Mg	Nb	O	Pb	Sb	Ta	Ti	W	Zn	Zr	Units
VS RG29/1	.	.	.	.	0.044	.	.	.	.	0.020	0.62	.	.	-45 mm Ø x -28 mm
VS RG31/1	.	.	.	.	.	.	.	.	.	0.21	0.39	.	.	-45 mm Ø x -28 mm
KUT B3	.	.	.	.	.	.	.	.	.	.	1.19	.	.	30-35mm Ø x 39 mm
VS UG5/5	.	.	.	.	(0.01)	.	.	.	.	(0.003)	0.38	.	.	-45 mm Ø x -28 mm
12X 86200A	.	.	.	.	.	.	.	.	.	.	.	.	.	-38 mm Ø x -15 mm
12X LA2E	.	.	.	.	.	.	.	.	.	.	.	.	.	-40 mm Ø x -15 mm
IMZ 112	.	.	.	.	0.013	.	.	.	.	0.010	.	.	.	40 mm Ø x 40 mm
12X 349D	.	.	.	.	.	.	.	.	.	0.101	0.049	.	.	-40 mm Ø x -15 mm
VS UG8/10	.	.	.	.	(0.003)	.	.	.	.	0.0034	.	.	.	-45 mm Ø x -28 mm
VS UG114	.	.	.	.	.	.	.	.	.	0.006	.	.	0.065	-45 mm Ø x -25 mm
BS 51F	(0.0001)	(0.0005)	.	(0.0001)	(0.0005)	0.0020	(0.00007)	(0.0011)	.	(0.0012)	(0.0030)	(0.0002)	.	38 mm Ø x -7 or 19+ mm
IMZ 162	.	.	.	.	.	.	.	.	.	0.12	.	.	.	40 mm Ø x 40 mm
VS UG113	.	.	.	.	.	.	.	.	.	0.006	0.007	.	0.169	-45 mm Ø x -25 mm
BS 4620	0.00006	0.0001	.	0.0001	0.0001	0.0009	0.0002	0.0024	.	0.0026	0.0009	0.0002	.	38 mm Ø x -7 or 19+ mm
ECRM 192-1D	.	.	.	.	.	.	.	.	.	.	.	.	.	-35 mm Ø x -30 mm
VS UG112	.	.	.	.	.	.	.	.	.	0.0028	0.005	.	0.0047	-45 mm Ø x -25 mm
DSZU C08	0.011	.	.	.	0.122	.	.	.	.	0.060	0.966	(0.003)	(0.006)	40 mm Ø x 30 mm last
BS LF3	0.0001	(0.0001)	.	.	.	0.004	.	.	.	.	.	.	.	38 mm Ø x -7 or 19+ mm
HRT FE2012-N	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 20 mm
IMZ 74A	(0.002)	(0.0004)	.	.	0.041	.	.	.	.	0.022	.	.	.	43 mm Ø x 20 mm
12X 19MNV56A	.	.	.	.	.	.	.	0.0046	.	.	.	.	.	-40 mm Ø x -15 mm
ECRM 087-1D	.	.	.	.	.	.	.	.	.	.	.	0.0016	.	38 mm Ø x 25 or 30 mm
12X 15180A	.	.	.	.	.	.	.	.	.	.	.	.	.	-40 mm Ø x -15 mm
HRT FE2013-N	.	.	.	.	.	.	.	.	.	.	.	.	.	34 mm Ø x 20 mm
ECRM 194-2D	0.00155	.	.	.	0.0290	.	.	.	.	0.00322	.	.	.	39 mm Ø x 28 mm
BS 3962	.	.	.	.	.	.	.	.	.	.	.	.	.	37 mm Ø x -7 or 19+ mm
CZ CM-8A	0.004	.	.	.	0.034	.	.	.	.	(0.001)	0.01	.	.	-39 mm Ø x 25 mm
HRT FE1999-N	0.0002	.	.	.	0.002	.	.	.	.	0.001	.	.	.	40 mm Ø x 20 mm
BS XCCT	.	.	.	.	(0.001)	(0.005)	(<0.001)	(0.0004)	.	(0.002)	.	.	(<0.002)	36 mm Ø x -7 or 19+ mm
IMZ 176A	.	.	.	.	.	.	.	.	.	.	(0.015)	.	.	40 mm Ø x 40 mm
12X 12747U	.	.	.	.	.	.	.	.	.	0.072	0.030	.	.	42 mm Ø x 15 mm
BS 15A	(0.0002)	(0.0005)	.	.	0.041	.	(0.0003)	(0.003)	.	0.008	(0.004)	.	0.022	32 mm Ø x 17 mm last
RM Fe C/2	0.0030	(0.0013)	.	.	0.0073	.	.	0.0190	.	0.0074	0.34	.	0.010	40 mm Ø x 40 mm
ECRM 193-1D	.	.	.	.	0.0232	.	.	.	.	(0.0013)	.	.	.	36-41 mm Ø x 28-35 mm
BS 1972	(0.0001)	(0.0002)	.	.	(0.001)	(0.0026)	(0.001)	(0.004)	.	(0.003)	(0.004)	.	.	39 mm Ø x -7 or 19+ mm
BS 47A	0.002	(0.003)	.	.	.	0.003	.	.	.	38 mm Ø x -7 or 19+ mm

Number	B	Ca	Fe	Mg	Nb	O	Pb	Sb	Ta	Ti	W	Zn	Zr	Units
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RM LOW ALLOY STEEL XRF SETPart Number: BS LAS-24 Set of 24 samples, each 35 - 45 mm Ø x 7 mm discs **17025**

Alloy	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Al	As	Ca	Co	N	Sn	V
300M	BS 4340M	0.414	0.74	0.004	<0.001	1.65	0.134	1.78	0.78	0.35	0.076	0.007	.	0.013	0.0020	0.009	0.056
1345	BS XCCV	0.44	1.75	0.012	0.024	0.28	0.015	0.019	0.041	0.007	0.033	0.0023	.	0.006	0.0056	(0.0004)	(<0.003)
3115	BS XCCT	0.158	0.52	0.005	0.011	0.28	0.027	1.27	0.65	0.020	0.006	0.004	.	0.017	0.0076	(0.002)	0.031
4130	BS 3932	0.321	0.54	0.016	0.018	0.33	0.200	0.19	1.00	0.229	0.020	0.004	0.0043	0.011	0.0070	0.012	0.005
4140	BS 1962	0.41	0.94	0.007	0.011	0.242	0.224	0.16	1.05	0.229	0.018	0.007	.	0.008	0.0095	0.010	0.004
4150 + S	BS 42	0.516	1.24	0.021	0.073	0.235	0.252	0.183	0.67	0.190	0.020	(0.004)	.	0.012	0.0080	0.012	0.003
4330	BS 4330V	0.318	0.91	0.008	0.0009	0.240	0.181	1.91	0.91	0.475	0.021	.	0.0010	0.011	0.0076	0.010	0.094
4340	BS 60E	0.408	0.70	0.012	0.024	0.26	0.153	1.73	0.86	0.249	0.024	0.007	0.0010	0.009	0.0087	0.009	0.004
4615	BS 51E	0.15	0.59	0.010	0.021	0.28	0.22	1.75	0.14	0.21	0.028	.	.	0.035	0.0086	0.010	(0.0011)
4620	BS 4620	0.189	0.57	0.006	0.018	0.25	0.216	1.75	0.072	0.24	0.032	(0.0084)	(0.0001)	0.012	0.0078	0.013	(0.0008)
4820	BS 4820	0.188	0.57	0.010	0.025	0.25	0.11	3.29	0.12	0.21	0.020	0.005	0.0046	0.008	0.0079	(0.008)	(0.002)
6150	BS 43A	0.491	0.811	0.008	0.026	0.252	0.184	0.242	0.93	0.059	0.003	.	.	0.008	0.0074	0.011	0.148
8620	BS 1931	0.194	0.84	0.007	0.018	0.235	0.116	0.42	0.50	0.168	0.021	0.007	(0.0008)	0.012	0.0079	0.007	0.002
8822	BS 8822	0.228	0.92	0.011	0.025	0.26	0.17	0.47	0.52	0.34	0.022	0.007	(0.0004)	0.019	0.0085	0.011	0.003
8740	BS 67B	0.40	0.94	0.007	0.020	0.23	0.19	0.53	0.51	0.22	0.024	.	.	0.011	0.0078	0.009	(0.002)
9310	BS 58D	0.127	0.45	0.010	0.005	0.32	0.156	3.02	1.35	0.14	0.042	.	.	0.009	0.0147	0.012	0.005
9325	BS 9325	0.25	0.91	0.008	0.007	0.32	0.13	3.29	1.48	0.31	0.030	(0.004)	0.0049	0.010	0.0089	0.009	0.004
P-20	BS 55E	0.307	0.72	0.014	0.024	0.60	0.032	0.053	1.66	0.40	(0.004)	.	.	(0.005)	0.0096	0.002	0.019
AMS 6418	BS 69B	0.2258	1.28	0.008	0.013	1.27	0.086	1.71	0.28	0.39	0.024	.	.	0.035	0.0057	0.006	(0.002)
A193	BS 4942	0.414	0.56	0.015	0.021	0.22	0.165	0.16	0.97	0.54	(0.004)	0.005	0.0006	0.010	0.0080	0.014	0.28
A485-1	BS A485-1	0.98	1.10	0.019	0.004	0.62	0.16	0.13	1.07	0.029	0.017	0.006	.	0.010	0.0060	0.011	0.003
E52100	BS 53E	1.08	0.37	0.007	0.012	0.24	0.11	0.26	1.45	0.10	0.003	.	.	0.011	0.0086	0.005	0.004
Nitriding	BS 68C	0.38	0.60	0.018	0.008	0.305	0.178	0.166	1.77	0.36	1.06	(0.004)	(0.0002)	0.011	0.0045	0.008	0.007
LF 3	BS LF 3	0.183	0.52	0.006	0.018	0.206	0.080	3.36	0.098	0.056	0.017	0.006	(0.0001)	0.056	0.0054	0.006	(0.002)

Alloy	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Al	As	Ca	Co	N	Sn	V
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RM TOOL STEEL XRF SETPart Number: BS TS-18 AVAILABLE INDIVIDUALLY **17025** ~7 mm discs

Grade	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Al	W	V	Co	N
A-2	BS 36C	0.96	0.46	0.023	0.027	0.31	0.18	0.19	5.01	0.99	.	(0.04)	0.11	0.03	.
A-10	BS A-10	1.41	1.75	0.016	0.022	1.15	0.16	1.82	0.24	1.53	0.006	<0.005	(0.004)	(0.010)	.
D-2	BS 37D	1.54	0.28	0.021	0.015	0.29	0.063	0.21	11.07	1.09	.	0.16	0.80	0.07	0.016
H-10	BS 49	0.36	0.33	0.014	0.015	0.92	0.072	0.20	3.51	2.41	0.004	0.31	0.62	2.00	0.0186
H-11	BS TH11	0.423	0.31	0.016	0.005	0.88	0.041	0.11	5.04	1.27	.	(0.01)	0.46	(0.008)	.
H-12	BS TH12	0.372	0.40	0.020	0.005	0.92	0.064	0.16	5.02	1.41	.	1.06	0.62	0.07	.
H-13	BS 34D	0.395	0.38	0.017	0.005	1.06	0.049	0.10	5.15	1.24	.	0.10	0.94	0.031	.
L-6	BS 39B	0.67	0.62	0.009	0.019	0.214	0.163	1.45	0.79	0.17	(0.011)	.	(0.01)	(0.02)	.
M-1	BS TM1	0.86	0.23	0.007	0.012	0.46	0.054	0.057	3.72	8.4	.	1.7	1.05	0.45	.
M-2	BS 32C	0.84	0.29	(0.018)	0.0010	0.29	0.13	0.35	3.98	4.85	(0.02)	6.3	2.03	0.31	.
O-1	BS 35D	0.879	1.13	0.021	0.024	0.22	0.141	0.132	0.495	0.035	(0.005)	0.46	0.181	0.012	.
O-6	BS 41	1.41	0.89	0.013	0.011	1.02	0.038	0.15	0.22	0.23	(0.007)	0.035	0.046	.	.
S-1	BS 33E	0.49	0.29	0.022	0.005	0.20	0.038	0.08	1.25	0.045	.	2.75	0.19	0.006	.
S-5	BS 38C	0.60	0.81	0.011	0.012	2.08	0.26	0.24	0.28	0.41	0.015	0.004	0.214	0.036	0.0081
S-7	BS TS7	0.529	0.70	0.016	0.010	0.27	0.05	0.10	3.18	1.34	.	0.19	0.35	0.043	.
T-1	BS 30D	0.745	0.348	0.029	0.0010	0.301	0.116	0.191	3.93	0.342	0.0123	17.73	1.077	0.101	0.0168
	BS 10V	2.46	0.52	0.019	0.079	0.89	0.076	0.08	5.41	1.30	<0.002	0.013	9.50	0.009	0.064
HP9-4-30	BS 9-4-30	0.30	0.22	0.008	<0.001	0.06	0.09	7.25	1.00	1.00	0.004	0.01	0.085	4.40	0.0015

Grade	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Al	W	V	Co	N
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TOOL STEEL

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

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo	N	Ti	V	W	Al
1	BS PM15	3.54	0.416	0.0198	0.0127	0.912	0.142	0.203	5.33	0.0330	1.22	0.111	0.0029	14.79	0.109	0.0025
2	BS 107	2.46	0.52	0.019	0.079	0.92	0.075	0.170	5.41	0.009	1.20	0.064	.	9.50	0.013	(<0.002)
1	DSZU C070	2.43	0.38	0.021	0.054	0.79	0.130	0.153	5.37	0.053	1.28	.	.	9.39	0.29	.
1	BS A-11	2.42	0.507	0.023	0.123	0.98	0.092	0.25	5.21	0.044	1.25	0.110	0.0019	9.24	(0.080)	0.0054
1	DSZU C082	2.32	0.33	0.029	0.014	0.36	0.118	0.239	12.24	0.035	1.11	.	.	4.02	0.17	.
1	ECRM 288-1D	2.08	0.292	0.024	(0.0012)	0.260	0.060	0.298	12.00	0.018	0.103	0.0151	.	0.055	(0.68)	0.012
1	DSZU C080	1.68	0.31	0.025	0.020	1.89	0.120	0.162	5.06	0.028	0.39	.	.	5.12	3.40	.
1	BS 37G	1.663	0.326	0.021	0.0007	0.352	0.044	0.152	11.77	0.0166	0.78	0.0310	0.0025	0.70	0.034	0.0060
1	BS TS15	1.6	0.25	0.021	0.058	0.35	0.06	0.23	3.8	4.7	0.47	0.044	0.002	4.9	11.4	0.003
1	ECRM 274-1D	1.563	0.397	0.0148	0.0096	1.057	0.0281	0.077	8.036	(0.0230)	1.4551	0.0769	(0.0011)	4.010	0.0087	(0.0025T)
2	CT D2	1.53	0.48	0.013	0.005	0.40	0.04	0.10	11.46	0.02	0.75	.	.	0.89	<0.01	.
2	BS 41A	1.50	0.93	0.004	0.001	0.97	0.034	0.17	0.20	0.006	0.19	0.0077	0.004	(0.003)	(<0.003)	0.010
1	IARM 45B	1.42	0.90	0.010	0.008	0.92	0.018	0.024	0.061	0.004	0.24	0.0080	0.002	(0.003)	(0.004)	0.010
2	BS 41	1.41	0.89	0.013	0.011	1.02	0.038	0.15	0.22	.	0.23	.	.	0.046	0.035	(0.007)
2	BS A-10	1.41	1.75	0.016	0.022	1.15	0.016	1.82	0.24	(0.010)	1.53	.	.	(0.004)	<0.005	0.006
1	IARM 251A	1.398	0.33	0.014	0.058	0.58	0.13	0.131	4.1	0.129	5.16	0.044	0.003	3.9	5.5	0.01
2	IARM 45A	1.39	0.88	0.014	0.012	1.02	0.049	0.11	0.13	0.004	0.25	0.0079	0.003	0.005	.	0.011
1	DSZU C073	1.32	0.23	0.019	0.013	0.27	0.112	0.198	3.97	8.31	4.97	.	.	2.82	6.40	.
2	CT X27081	1.32	0.20	0.004	0.001	0.24	0.026	0.031	0.052	.	0.008	.	.	.	3.39	.
1	DSZU C072	1.30	0.29	0.024	0.019	0.55	0.106	0.192	4.25	0.011	5.39	.	.	3.59	6.33	.
3	CZ HS-2A	1.24	0.27	0.024	0.017	0.24	0.08	0.21	4.15	9.9	3.75	.	0.003	3.4	9.3	0.035
1	DSZU C077	1.16	0.19	0.030	0.024	0.40	0.142	0.271	4.07	7.73	3.05	.	.	2.04	12.17	.
1	DSZU C075	1.16	0.16	0.021	0.015	0.47	0.120	0.202	3.10	8.03	4.06	.	.	2.10	9.27	.
1	BS M-47	1.14	0.20	0.020	0.002	0.464	0.080	0.17	3.72	4.99	9.24	0.0219	(0.004)	1.23	1.36	(0.002)
1	IMZ 102/3	1.11	0.15	0.014	(0.0045)	1.06	0.13	0.021	1.59	.	0.43	.	.	(0.012)	.	0.017
1	DSZU C074	1.10	0.16	0.023	0.020	0.16	0.141	0.158	3.93	5.08	5.21	.	.	1.94	6.47	.
1	DSZU C071	1.06	0.20	0.020	0.028	0.38	0.162	0.149	3.77	8.10	9.67	.	.	1.07	1.74	.
1	SS 487/1	1.02	0.26	0.022	0.029	0.18	.	(0.14)	3.91	7.95	9.41	.	.	1.14	1.80	0.006
1	DSZU C081	1.01	0.32	0.017	0.011	1.10	0.124	0.207	7.78	0.029	2.13	.	.	0.25	0.05	.
2	CT M7	1.00	0.29	0.012	0.003	0.34	0.066	0.10	3.60	0.015	8.49	.	.	2.02	1.78	.
1	JK 49D	(1)	(0.4)	(0.02)	(0.01)	(0.5)	(0.1)	(0.2)	(5)	(0.3)	(3)	1.89	.	(9)	(4)	.
1	IARM 39B	0.99	0.54	0.017	0.003	0.35	0.10	0.14	4.79	0.014	1.01	0.0096	0.003	0.22	(0.026)	0.006
1	IARM 39C	0.99	0.45	0.019	0.007	0.28	0.077	0.144	4.99	0.013	0.97	0.011	0.0029	0.21	0.011	0.017
2	BS 36D	0.97	0.68	0.021	0.007	0.27	0.060	0.089	5.25	0.010	0.96	0.0108	.	0.29	0.028	0.010
2	CT A2	0.95	0.72	0.010	0.004	0.40	0.06	0.10	5.13	.	1.05	.	.	0.22	.	.
1	SS 485/1	0.94	0.41	0.043	0.039	0.30	.	(0.14)	4.02	4.97	0.66	.	.	1.02	17.8	(0.006)
1	IARM 320A *	0.94	0.32	0.021	(0.002)	0.36	0.089	0.20	4.20	4.90	4.8	0.014	(0.003)	1.78	6.0	0.024
2	CT O1	0.91	1.27	0.009	0.004	0.36	0.05	0.06	4.49	.	0.97	.	.	0.25	0.51	.
1	ECRM 290-1D	0.91	0.24	0.016	0.016	0.08	0.081	0.33	4.18	5.12	4.81	0.0325	.	1.25	6.24	.
2	CT M10	0.88	0.27	0.016	0.004	0.30	0.061	0.14	3.97	0.012	7.89	.	.	1.99	0.008	.
2	BS 35D	0.879	1.13	0.021	0.024	0.22	0.141	0.132	0.495	0.012	0.035	.	(0.003)	0.181	0.46	(0.005)
1	IARM 304A	0.857	0.260	0.019	0.0016	0.36	0.14	0.133	3.55	0.278	8.04	0.034	0.002	1.23	1.65	0.009
2	BS 32D	0.85	0.30	0.027	0.0222	0.25	0.039	0.053	4.14	0.010	4.92	0.018	.	1.82	6.15	0.018
1	IARM 306B	0.84	0.24	0.006	(0.001)	0.21	0.058	0.095	4.12	0.010	4.2	0.0049	(0.002)	0.98	(0.01)	0.08
1	SRM 1157	0.836	0.34	0.011	0.004	0.18	0.088	0.228	4.36	0.028	4.86	.	.	1.82	6.28	.
1	BS M-50	0.834	0.244	0.0066	0.0009	(0.205)	0.064	0.074	4.28	0.0151	4.29	0.0057	(0.0018)	0.99	0.0052	0.073
2	14X I4948C	0.83	0.65	0.011	0.017	0.26	0.04	0.29	4.04	0.16	0.14	.	.	0.65	18.8	.
2	CT M2	0.82	0.33	0.012	0.004	0.27	0.06	0.25	4.03	0.05	4.96	.	.	1.81	6.47	.
1	IARM 44C	0.82	0.301	0.027	0.004	0.31	0.12	0.132	4.04	0.247	5.02	0.033	0.004	1.91	6.0	0.05
2	14X 14890K	0.81	0.58	(0.012)	0.028	0.69	0.09	0.08	3.60	0.32	5.59	.	.	1.99	5.30	.
2	CT M1	0.80	0.30	0.012	0.005	0.22	0.087	0.12	3.91	.	8.22	.	.	1.05	1.58	.
1	IARM 48C	0.77	0.39	0.029	0.018	0.45	0.13	0.104	4.24	0.22	0.17	0.0165	(0.006)	1.27	17.5	0.017
1	BS 30D	0.745	0.348	0.029	0.010	0.301	0.116	0.191	3.33	0.101	3.42	0.0168	0.0189	1.777	17.73	0.0123
1	SS 486/1	0.74	0.21	0.029	0.021	0.27	(0.06)	0.45	4.08	5.20	0.8	.	.	1.82	5.80	(0.005)
1	IARM 40C	0.72	1.91	0.014	0.012	0.32	0.142	0.255	0.99	0.010	1.27	0.0083	0.008	0.010	0.009	0.019
1	14X HS1C	0.72	0.29	0.018	0.020	0.23	0.07	0.28	4.00	0.25	0.36	0.023	.	1.04	17.2	.
3	CZ HS-1A	0.72	0.28	0.023	0.011	0.28	0.08	0.14	4.15	4.7	0.06	.	0.003	1.33	17.5	0.03
1	IARM 43B	0.711	0.56	0.008	0.013	0.251	0.180	1.39	0.651	0.012	0.206	0.0093	0.0047	0.0035	<0.005	0.021
2	BS 40B	0.71	2.28	0.020	0.006	0.35	0.076	0.089	1.18	0.020	1.07	0.0076	0.002	0.10	0.11	0.002
3	CZ CM-10A	0.694	1.00	0.040	0.022	0.817	0.31	2.38	5.48	0.114	1.234	.	0.0189	0.908	0.96	0.086
#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo	N	Ti	V	W	Al
1	DSZU C076	0.69	0.18	0.024	0.022	0.58	0.120	0.213	5.75	13.88	4.29	.	.	2.03	9.81	.
1	SS 481/1	0.68	0.25	0.023	0.022	0.15	.	(0.09)	3.40	0.31	0.28	.	.	0.56	14.0	.
1	IARM 40B	0.68	1.98	0.012	0.003	0.39	0.050	0.096	1.04	0.015	1.22	0.0107	0.003	0.014	0.013	(0.006)
2	BS 39B	0.67	0.62	0.009	0.019	0.214	0.163	1.45	0.79	(0.02)	0.17	.	.	(0.01)	.	(0.011)
1	SS 482/1	0.67	0.26	0.027	0.027	0.14	.	(0.16)	3.95	0.29	0.40	.	.	1.04	17.8	.
1	DSZU C078	0.67	0.22	0.022	0.019	0.117	0.116	0.121	3.98	0.022	0.14	.	.	1.04	18.30	.
1	SS 483/1	0.65	0.22	0.023	0.023	0.16	.	(0.08)	2.90	2.06	0.18	.	.	0.22	9.28	.
2	BS 38C	0.60	0.81	0.011	0.012	2.08	0.26	0.24	0.28	0.036	0.41	0.0081	0.007	0.214	0.004	0.015
1	ECRM 179-2D	0.598	0.539	0.027	(0.0006)	0.578	0.111	0.078	1.081							

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Number	Als	As	B	Ca	Nb	O	Pb	Sb	Sn	Ta	Zr	Units
BS PM15	.	0.0040	(0.0002)	(0.0001)	0.014	0.0129	(0.00001)	(0.0010)	0.0034	(0.0003)	(0.0005)	38 mm Ø x 19+ mm
BS 10V	41 mm Ø x ~7, ~12, or 19 mm last
DSZU C070	~40 mm Ø x ~15 mm
BS A-11 Fe:79.5	0.0057	0.0008	(0.0002)	(0.0070)	0.028	(0.00006)	(0.001)	0.0055	.	(0.001)	.	38 mm Ø x ~7 or 19+ mm
DSZU C082	~35 mm Ø x 25 mm
ECRM 288-1D	.	(0.0065)	.	.	.	.	.	.	.	.	.	36-41 mm Ø x 28-35 mm
DSZU C080	~35 mm Ø x 25 mm
BS 37G	.	0.0026	0.0003	0.0014	0.0026	0.015	0.0005	0.0009	0.0010	.	.	34 mm Ø x ~7 or 19+ mm
BS 7S15 *	.	<0.05	0.0002	<0.005	0.008	(0.0026)	* Provisional Analysis (0.000064)	0.0009	0.007	.	0.006	38 mm Ø x ~7 or 19+ mm
ECRM 274-1D	.	(0.0013)	(0.0005)	.	.	.	.	(0.0002)	(0.0010)	.	.	38 mm Ø x 25 mm
CT D2	30-35 mm Ø x 20-25 mm
BS 41A	.	0.002	.	0.0006	.	0.002	.	.	0.002	.	.	38 mm Ø x ~7 or 19+ mm
IARM 45B	.	(0.002)	(0.0001)	(0.001)	(0.002)	(0.0005)	(0.001)	0.008	.	.	(0.001)	31 mm Ø x 2 or 18 mm
BS 41	42 mm Ø x 19+ mm
BS A-10	40 mm Ø x ~7 or 19+ mm
IARM 251A	.	0.016	(0.002)	(0.0005)	0.016	(0.01)	(0.002)	.	0.011	.	(0.002)	31 mm Ø x 2 or 18 mm
IARM 45A	.	(0.003)	(0.0001)	.	0.002	(0.0017)	(<0.005)	.	0.005	.	.	31 mm Ø x 2 or 18 mm
DSZU C073	~40 mm Ø x 25 mm
CT X27081	30-35 mm Ø x 20-25 mm last
DSZU C072	~40 mm Ø x ~15 mm
CZ HS-2A	0.01	.	.	~39 mm Ø x 25 mm
DSZU C077	~40 mm Ø x ~15 mm
DSZU C075	~40 mm Ø x ~15 mm
BS M-47	.	0.006	(0.002)	(0.004)	0.0037	.	.	.	0.006	.	.	38 mm Ø x ~7 or 19+ mm
IMZ 102/3	.	(0.0007)	.	.	.	.	.	.	.	(0.007)	.	40 mm Ø x 40 mm
DSZU C074	~40 mm Ø x ~15 mm
DSZU C071	~40 mm Ø x ~15 mm
SS 487/1	.	(0.012)	.	.	.	.	.	.	(0.006)	.	.	38 mm Ø x 19 mm
DSZU C081	~35 mm Ø x 25 mm
CT M7	30-35 mm Ø x 20-25 mm
JK 49D	47 mm Ø x 15 mm
IARM 39B	0.006	.	.	.	0.004	.	.	31 mm Ø x 2 or 18 mm
IARM 39C	.	(0.005)	0.001	(0.001)	0.0040	0.001	(0.0001)	(0.002)	0.005	.	(0.002)	31 mm Ø x 2 or 18 mm
BS 36D	.	0.002	.	.	.	.	.	.	0.016	.	.	38 mm Ø x ~7 or 19+ mm
CT A2	30-35 mm Ø x 20-25 mm
SS 485/1	.	(0.022)	.	.	.	.	.	.	0.019	.	.	38 mm Ø x 19 mm
IARM 320A *	.	(0.010)	(0.0011)	.	(0.012)	(0.002)	* Provisional Analysis	.	0.008	.	(0.003)	31 mm Ø x 2 or 18 mm
CT O1	30-35 mm Ø x 20-25 mm
ECRM 290-1D	36-41 mm Ø x 28-35 mm
CT M10	30-35 mm Ø x 20-25 mm
BS 35D	(0.001)	.	.	.	0.006	.	.	38 mm Ø x ~7 or 19+ mm
IARM 304A	.	(0.01)	0.002	(0.002)	0.021	0.002	.	(0.001)	0.006	(0.002)	(0.002)	31 mm Ø x 2 or 18 mm
BS 32D	38 mm Ø x ~7 or 19+ mm
IARM 306B	.	(0.003)	(0.001)	.	0.007	(0.001)	(0.001)	0.0025	0.004	.	(0.002)	31 mm Ø x 2 or 18 mm
SRM 1157	32 mm Ø x 19 mm
BS M-50	.	0.0035	(0.0001)	(0.001)	0.0008	0.0010	(0.0001)	(0.0006)	0.0045	Fe:88.8	(0.0006)	38 mm Ø x ~7 or 19+ mm
14X 14948C	40 mm Ø x 15 mm last of stock
CT M2	30-35 mm Ø x 20-25 mm
IARM 44C	.	(0.01)	(0.002)	.	0.012	(0.003)	(0.002)	(0.004)	0.010	(0.004)	.	31 mm Ø x 2 or 18 mm
14X 14890K	40 mm Ø x 15 mm last of stock
CT M1	30-35 mm Ø x 20-25 mm
IARM 48C	.	0.012	(0.001)	.	(0.005)	(0.003)	(0.0004)	(0.002)	0.012	(0.01)	(0.003)	31 mm Ø x 2 or 18 mm
BS 30D	.	0.0128	(0.0002)	0.0004	0.0071	0.0019	(0.0002)	0.0032	0.0246	(0.02)	(0.0001)	38 mm Ø x ~7 or 19+ mm
SS 486/1	.	(0.016)	.	.	.	.	.	.	0.014	.	.	38 mm Ø x 19 mm
IARM 40C	.	0.008	0.0009	(0.001)	0.003	0.0013	.	.	0.008	.	(0.002)	31 mm Ø x 2 or 18 mm
14X HS1C	(0.035)	.	.	40 mm Ø x 15 mm
CZ HS-1A	0.02	.	.	~39 mm Ø x 25 mm
IARM 43B	.	0.005	0.0002	.	0.004	0.0016	<0.0005	.	0.013	.	.	31 mm Ø x 2 or 18 mm
BS 40B	.	0.004	0.0006	.	.	.	.	.	0.005	.	.	41 mm Ø x ~7 or 19+ mm
CZ CM-10A	.	0.03	0.05	.	.	.	.	.	0.062	.	.	~39 mm Ø x 25 mm
Number	Als	As	B	Ca	Nb	O	Pb	Sb	Sn	Ta	Zr	Units
DSZU C076	~40 mm Ø x ~15 mm
SS 481/1	38 mm Ø x 19 mm last of stock
IARM 40B	.	.	(0.0010)	.	0.005	(0.0014)	.	.	0.004	.	.	31 mm Ø x 2 or 18 mm
BS 39B	(0.011)	.	.	41 mm Ø x ~7 or 19+ mm
SS 482/1	38 mm Ø x 19 mm
DSZU C078	~40 mm Ø x ~15 mm
SS 483/1	38 mm Ø x 19 mm
BS 38C	.	0.011	.	.	(0.002)	.	0.022	.	0.022	.	.	38 mm Ø x ~7 or 19+ mm
ECRM 179-2D	30 to 35 mm Ø x 20 mm
IARM 47B	.	(<0.001)	.	.	(0.002)	(0.0014)	(0.0003)	.	0.008	.	.	31 mm Ø x 2 or 18 mm
DSZU C079	~35 mm Ø x 25 mm
BS 33D	0.005	.	.	41 mm Ø x 12 mm
BS 33E	38 mm Ø x 12 mm
CT X67975	<0.001	.	0.003	.	.	30-35 mm Ø x 20-25 mm
IARM 259A	.	0.006	0.0003	.	0.003	0.0014	<0.0005	.	0.004	.	0.001	31 mm Ø x 2 or 18 mm
BS D-6	.	0.011	(0.0003)	0.0011	(0.002)	(0.0008)	(0.0003)	0.0012	0.0104	Mg: 0.0002	.	38 mm Ø x ~7 or 19 mm
IMZ 57/1	40 mm Ø x 40 mm
IARM 46B	.	(0.01)	0.0003	.	0.003	0.002	<0.002	.	0.016	.	.	31 mm Ø x 2 or 18 mm
IMZ 53/1	40 mm Ø x 40 mm
IMZ 56/1	40 mm Ø x 40 mm
BS H-19	.	0.0056	.	.	0.008	0.0071	.	.	0.0056	.	.	38 mm Ø x ~7 or 19+ mm
IARM 255A	.	(0.002)	0.0004	(0.0004)	0.004	0.0011	<0.001	.	0.006	.	<0.005	31 mm Ø x 2 or 18 mm
BS H-13	.	0.0066	(0.0002)	(0.0003)	(0.0004)	0.0018	(0.0003)	0.0020	0.0093	(0.003)	(0.0014)	38 mm Ø x ~7 or 19+ mm
IMZ 58/1	40 mm Ø x 40 mm
IMZ 51/1	40 mm Ø x 40 mm
ECRM 276-2D	0.0133	.	.	38 mm Ø x 25 or 30 mm
CT H13	30-35 mm Ø x 20-25 mm
ECRM 271-1D	.	0.0057	.	0.0009	.	0.0020	.	.	0.0084	.	.	35 mm Ø x 25 mm
BS 49	(0.004)	.	.	49 mm Ø x ~7 or 19+ mm
BS 9-4-30	35 mm Ø x ~7 or 19+ mm
IARM 341A	.	(0.003)	0.0005	0.0011	(0.005)	0.0008	(0.001)	(0.001)	(0.005)	.	(0.003)	31 mm Ø x 2 or 18 mm
IMZ 196	.	.	0.065	.	0.073	.	.	.	.	.	.	37 mm Ø x 30 mm
IMZ 170	0.087	.	.	(0.002)	0.007	.	.	40 mm Ø x 40 mm
CZ CM-17A	0.0105	0.0060	.	.	.	.	0.0177	.	0.0109	.	.	~37 mm Ø x ~25 mm
VS LG43/1	~45 mm Ø x ~28 mm
IMZ 197	.	.	(0.007)	.	(0.011)	.	.	.	0.015	.	.	37 mm Ø x 30 mm
NCS HS20741	35 mm Ø x 40 mm
VS LG42/1	~45 mm Ø x ~28 mm
VS LG37/1	~45 mm Ø x ~28 mm
IMZ 179	.	(0.007)	.	.	(0.004)	.	.	.	0.010	.	.	40 mm Ø x 40 mm
IMZ 157	40 mm Ø x 40 mm
NCS HS20742	35 mm Ø x 40 mm
IMZ 177	0.008	.	.	40 mm Ø x 40 mm
13X 14713A	.	.	.	Mg: 0.0016	.	.	.	.	0.0034	.	.	~40 mm Ø x ~15 mm
SS 422	38 mm Ø x 19 mm
IMZ 101/2	.	.	(0.0005)	.	.	.	.	.	.	.	(0.002)	40 mm Ø x 40 mm
SS 423	38 mm Ø x 19 mm
SS 424	38 mm Ø x 19 mm
NCS HS20743	0.021	.	.	.	.	.	.	.	.	.	.	35 mm Ø x 40 mm
IARM 180A	.	(0.004)	0.0004	.	(0.005)	0.0006	(0.002)	.	0.002	.	.	31 mm Ø x 2 or 18 mm
IARM 164A	.	(0.002)	(0.0001)	.	0.006	0.0005	(0.004)	.	0			

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	ECRM 299-1D	5.33	0.172	22.32	0.0154	0.2678	0.0152	0.00022	0.299	0.0382	0.0187	0.0186	0.0198	.	0.1289	0.0329
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	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
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	(0.006)	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
ECRM 299-1D	0.0054	0.0002	.	.	.	.	.	0.1775	40 mm Ø x 25 mm
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 20-25 mm
13X PH13800A	.	.	.	.	0.0051	.	.	.	~38 mm Ø x ~15 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 or 18 mm

CRM BORON IN STAINLESS STEEL

35 mm x 45 mm x 16 mm

Number	B	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Mo	Ti	V	W
DSZU C61	2.14	(0.073)	(0.38)	(0.003)	(0.005)	(0.41)	(0.09)	(0.95)	(17.8)	(0.04)	(0.24)	(0.75)	(0.19)	(0.22)
DSZU C60	1.42	(0.058)	(0.50)	(0.002)	(0.006)	(0.35)	(0.01)	(0.51)	(11.9)	(0.11)	(0.37)	(2.70)	(0.41)	(0.20)
DSZU C62	1.15	(0.065)	(0.31)	(0.010)	(0.024)	(0.32)	(0.24)	(0.84)	(14.4)	(0.59)	(0.16)	(3.36)	(0.18)	(0.14)
DSZU C63	1.05	(0.070)	(0.27)	(0.014)	(0.006)	(0.30)	(0.39)	(0.48)	(11.3)	(0.25)	(0.09)	(0.70)	(0.08)	(0.10)

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
2	BS CA304-1	0.0045	8.57	18.30	0.045	1.06	0.026	0.016	0.71	0.34	0.20	0.34	0.083	0.026	0.09	0.04
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)
1	JK 27A D	0.0033	12.04	16.76	0.0477	1.59	0.022	0.0168	0.411	0.197	0.089	2.53	0.0629	(<0.01)	0.0041	.
1	13X 31603C	0.0029	10.03	16.83	0.023	1.879	0.0263	0.0245	0.350	0.306	0.148	2.02	0.080	0.0197	0.0895	0.0427
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 91F	0.0012	0.40	16.34	0.060	0.762	0.022	0.0071	0.381	0.167	0.0174	0.112	0.0558	0.0120	0.071	0.0120
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 82D	0.0007	14.12	22.40	0.058	1.85	0.020	0.009	0.63	0.16	0.042	0.144	0.070	0.053	0.087	0.028
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
2	BS SS3951	0.0005	9.18	18.17	0.014	1.56	0.023	0.031	0.61	0.22	0.16	0.303	0.077	0.085	0.067	0.040

Number	Al	As	B	O	Pb	Sb	Sn	Ti	Zn	Units
BS CA304-1	0.003	(0.003)	0.0006	0.0041	.	(0.0020)	0.010	0.028	.	38 mm Ø x ~5 mm last, sides not parallel
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
JK 27A D	0.0169	.	0.0018	.	0.00016	.	0.0039	.	.	38 mm Ø x 25 mm last
13X 31603C	(0.005)	.	.	.	.	.	0.0053	.	.	~30 mm Ø x ~20 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 or 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 91F	0.0029	.	(0.0002)	(0.0076)	.	(0.0017)	0.0054	0.0018	.	38 mm Ø x 19 mm last
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 82D	(0.002)	.	0.0040	0.007	.	.	0.004	0.005	.	38 mm Ø x ~7 or ~11 mm last
BS 87F	0.004	0.005	(0.0006)	0.005	.	.	0.004	0.004	.	41 mm Ø x ~7 or 19+ mm
BS SS3951	0.002	.	(0.0006)	0.0075	.	.	0.007	(0.002)	.	41 mm Ø x ~7 or 19+ mm

MARAGING STEEL AND COBALT IN STAINLESS AND HIGH ALLOY STEEL

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

#	Number	Co	Mo	Ni	Cr	C	Mn	P	S	Si	Cu	Al	B	N	Nb	Ti
1	IARM 326A	48.4	(0.002)	0.037	(0.002)	(0.002)	0.003	0.0013	0.0011	0.029	(0.002)	(0.003)	(0.001)	0.0004	0.038	(0.002)
2	CT ISO070A	29.00	0.006	24.47	5.54	0.014	0.015	0.003	<0.001	0.32	0.010	0.47	0.0038	.	4.63	0.82
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	13X 14934Q	9.03	4.22	17.60	0.388	0.0254	0.254	0.024	0.0288	0.502	.	0.15	.	0.0132	.	0.694
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
1	13X 14935T	7.17	5.61	18.96	0.745	0.0105	0.494	0.036	0.055	0.441	.	(0.007)	.	0.0102	.	0.106
3	DSZU C55	6.5	1.25	2.34	14.1	0.23	0.69	0.033	0.023	0.70	.	.	.	0.11	0.29	.
3	DSZU C53	5.9	1.88	0.96	15.0	0.10	0.54	0.050	0.031	0.25	.	.	.	.	0.12	.
3	DSZU C54	5.3	1.45	1.95	18.4	0.07	0.55	0.040	0.020	0.54	.	.	.	0.13	0.41	.
1	DSZU C092	5.21	5.50	20.12	0.23	0.015	0.27	(0.006)	(0.009)	(0.10)	(0.16)	(0.006)	.	.	.	(0.008)
3	DSZU C51	4.7	0.72	1.78	11.0	0.20	0.40	0.017	0.036	0.24	.	.	.	0.090	0.12	.
3	DSZU C52	3.8	1.17	1.55	11.6	0.14	0.37	0.020	0.028	0.17	.	.	.	.	0.31	.
2	BS 85D	0.97	0.59	10.03	17.09	0.049	1.69	0.025	0.024	0.55	0.45	0.13	0.0006	0.016	0.065	0.48

Number	As	Ca	Fe	Mg	O	Sb	Sn	Ta	V	W	Zr	Units
IARM 326A	<0.005	.	49.6	(0.001)	0.0082	.	<0.001	(0.01)	1.94	(0.001)	0.002	31 mm Ø x 2 or 18 mm
CT ISO070A	.	.	34.66	.	.	.	.	<0.01	0.043	<0.01	.	30-35 mm Ø x 20-25 mm
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 or 18 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 or 18 mm
CT ISO045A	.	.	70.70	.	.	.	.	.	.	.	.	30-35 mm Ø x 20-25 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)	(0.0004)	.	(0.0015)	(0.03)	0.031	(0.008)	(0.002)	38 mm Ø x ~7 or 19+ mm
CT 300	30-35 mm Ø x 20-25 mm
13X 14934Q	40 mm Ø x 15 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 mm
ECRM 285-2D	0.0050	38 mm Ø x 25 or 30 mm
CT 250	30-35 mm Ø x 20-25 mm
13X 14935T	40 mm Ø x 15 mm
DSZU C55	0.16	1.1	.	42 mm Ø x 25 mm
DSZU C53	0.25	0.58	.	42 mm Ø x 25 mm
DSZU C54	0.40	0.62	.	42 mm Ø x 25 mm
DSZU C092	~40 mm Ø x 17 mm
DSZU C51	0.08	0.32	.	42 mm Ø x 25 mm
DSZU C52	0.03	0.95	.	42 mm Ø x 25 mm
BS 85D	0.006	0.0004	.	.	0.0014	0.001	(0.006)	.	0.134	0.06	.	38 mm Ø x ~7 or 19+ mm

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 *	3.72	8.76	21.8	0.12	0.15	0.034	0.037	2.5	0.6	0.11	0.52	0.007	0.56	.	0.12
1	IARM 20B	3.52	1.94	12.42	0.18	0.35	0.019	0.004	0.40	0.069	0.030	0.32	0.0434	0.010	0.004	0.17
1	13X 14211Q	3.24	12.55	25.70	0.064	0.766	0.0157	0.0146	1.64	0.161	0.071	0.325	.	0.161	0.220	.
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	0.007	0.35	0.060	0.031	0.12	0.0222	0.010	(0.003)	0.086
1	VS LG61	1.11	9.18	18.8	0.307	1.51	0.0133	0.0107	0.83	0.065	.	1.05	.	0.47	0.40	0.197
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 *	* Provisional Analysis							~40 mm Ø x ~15 mm
IARM 20B	0.006	.	.	.	0.0056	.	0.005	31 mm Ø x 2 mm
13X 14211Q	(0.11)	.	.	.	.	.	.	~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 or 18 mm
VS LG61	0.033	.	.	.	.	.	.	~47 mm Ø x ~30 mm
IMZ 161	.	.	.	.	.	.	.	40 mm Ø x 40 mm

MANGANESE STAINLESS STEEL

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

* Provisional Analysis

# Number	Mn	Ni	Cr	C	P	S	Si	Cu	Mo	Al	Co	N	Nb	V	W
1 IARM 294A	21.6	2.9	19.7	0.017	0.026	0.0028	0.43	0.34	1.8	(0.01)	0.021	0.78	(0.03)	0.046	(0.01)
1 IARM 295A	19.7	1.84	18.0	0.021	0.028	0.0041	0.36	0.113	0.97	(0.01)	0.021	0.62	0.018	0.046	0.016
1 ECRM 294-1D	18.68	0.429	17.98	0.0657	0.0271	0.00031	0.283	0.0242	0.0861	(0.0095)	0.0288	0.566	(0.00117)	0.0694	(0.00114)
1 IARM 214A	18.3	2.33	12.36	0.018	0.033	0.002	1.00	0.36	0.44	(0.002)	0.021	0.27	0.23	0.04	0.02
1 VS RG20/1	15.77	0.673	14.35	0.064	(0.02)	(0.01)	0.81	0.265	0.089	.	.	.	0.175	0.166	0.007
1 VS RG22/1	13.41	3.94	13.25	0.054	(0.02)	(0.008)	0.63	0.358	0.121	.	.	.	0.38	0.125	0.137
2 BS 193	12.11	1.82	18.48	0.104	0.018	0.002	0.66	0.088	0.21	(0.003)	0.028	0.37	0.014	0.107	(0.007)
2 CT ISO035A	12.04	1.81	18.48	0.102	0.023	0.002	0.59	0.17	0.28	<0.004	0.037	0.33	0.004	0.058	0.002
1 13X NSC3Z	10.15	2.96	23.02	0.895	.	0.0110	1.28	0.100	0.060	0.105	.	0.498	2.81	0.110	.
2 BS 190	9.72	6.74	19.57	0.022	0.015	0.001	0.46	0.072	0.15	(0.004)	0.044	0.255	(0.004)	0.11	0.015
2 CT ISO129A	9.31	6.86	19.62	0.030	0.002	<0.001	0.40	0.152	0.25	0.014	0.102	0.264	0.025	0.144	0.03
1 IARM 19C *	9.02	6.40	19.51	0.012	0.027	0.0007	0.31	0.45	0.40	0.007	0.087	0.32	0.028	0.090	0.037
1 13X NSC6A	8.85	6.52	20.47	0.0266	0.0049	0.0055	0.523	0.0064	(0.002)	(0.009)	.	0.235	.	0.0052	.
1 VS RG23/1	8.74	1.98	18.5	0.045	(0.02)	(0.004)	0.49	0.099	0.401	.	.	.	0.24	0.69	0.3
1 13X NSC2P	8.70	4.20	21.98	0.560	.	0.0117	0.997	1.026	0.850	.	.	0.341	2.21	0.321	0.062
2 BS 181A	8.16	8.15	16.52	0.071	0.019	0.001	4.03	0.18	0.21	0.022	0.072	0.148	0.017	0.094	0.04
1 BS 181B	8.07	8.18	16.17	0.070	0.021	0.0009	3.94	0.206	0.173	0.0119	0.044	0.158	0.026	0.044	0.016
1 13X 21800A	8.00	8.32	16.81	0.0765	0.032	0.0011	4.03	0.431	0.325	0.012	0.0943	0.125	0.007	0.0619	.
1 13X NSC4F	7.97	7.03	32.58	0.513	.	0.0071	1.52	0.162	1.390	0.119	0.218	0.942	2.41	0.219	0.204
1 SRM 1297	7.11	5.34	16.69	0.066	0.038	0.0033	0.397	0.442	0.331	.	0.127	.	.	0.080	.
1 13X NSC1P	6.53	5.06	18.76	0.316	.	0.0097	0.788	0.391	0.196	.	.	0.0877	1.499	0.501	0.100
1 VS RG21/1	6.39	7.52	15.53	0.169	(0.02)	(0.008)	1.95	0.17	0.88	.	.	.	0.48	1.71	(0.2)
3 CZ SL-5A	5.8	4.94	11.7	0.37	0.021	0.014	0.36	2.90	4.12	0.035	0.26	.	0.20	0.21	0.78
2 BS 191	5.71	5.34	16.33	0.098	0.024	0.023	3.73	0.33	0.36	(0.002)	0.11	0.117	0.024	0.083	0.033
1 VS RG19/1	5.63	17.73	24.5	0.064	(0.02)	(0.009)	0.90	(0.2)	0.166	.	.	.	0.108	0.407	0.206
1 13X NSA4B	5.55	17.62	23.85	0.115	0.0302	0.0095	0.519	0.595	4.32	0.0048	.	0.446	0.154	.	.
1 13X NSA10A	5.23	12.98	20.67	0.0180	0.0206	0.0007	0.375	0.170	2.636	.	0.060	0.342	0.143	0.151	(0.061)
2 BS 180A	5.05	13.19	21.09	0.018	0.012	0.001	0.32	0.067	2.04	0.012	0.039	0.334	0.20	0.20	0.02
1 IARM 292A	5.0	1.47	21.35	0.030	0.018	0.001	0.75	0.29	0.097	0.010	0.031	0.245	0.009	0.084	0.01
1 BS 180B	4.65	11.9	21.5	0.022	0.017	0.0008	0.46	0.201	2.20	(0.007)	0.111	0.315	0.131	0.149	0.050
1 13X NSA5A	4.27	9.52	20.73	0.063	(0.010)	0.0212	0.281	0.098	2.32	(0.012)	.	0.340	0.574	.	.
1 IARM 17D	4.15	11.83	21.06	0.041	0.026	0.0018	0.416	0.412	1.52	0.0032	0.23	0.311	0.14	0.118	0.056
1 13X NSC7A	3.80	7.41	23.63	0.410	0.0155	0.0091	0.803	0.144	0.448	(0.096)	0.308	0.337	0.509	0.123	0.052
1 13X NSC5B	2.22	4.34	22.10	0.558	.	0.0155	1.19	0.787	(0.009)	0.21	.	0.296	2.38	0.0461	.

Number	As	B	Ca	O	Pb	Sb	Sn	Ta	Te	Ti	Zr	Units
IARM 294A	.	(0.003)	.	(0.003)	.	.	(0.006)	(0.003)	.	(0.002)	(0.002)	31 mm Ø x 2 or 18 mm
IARM 295A	.	0.002	.	(0.003)	.	.	0.004	.	.	0.0019	(0.001)	31 mm Ø x 2 or 18 mm
ECRM 294-1D	0.0037	(<0.00005)	(0.00026)	.	(0.000128)	(0.00053)	(0.0014)	.	(<0.00008)	(0.0008)	(0.0001)	40 mm Ø x 20 mm
IARM 214A	.	(0.001)	.	0.0026	.	.	0.008	.	.	0.002	.	31 mm Ø x 2 or 18 mm
VS RG20/1	0.093	.	-45 mm Ø x ~30 mm
VS RG22/1	0.33	.	-45 mm Ø x ~30 mm
BS 193	.	0.0007	0.0020	(0.004)	.	.	0.004	.	.	0.003	.	32 mm Ø x ~7 or 19+ mm
CT ISO035A	.	Fe: 65.91	.	.	(<0.0001)	.	0.003	.	.	0.001	<0.001	30-35 mm Ø x 20-25 mm
13X NSC3Z	0.002	.	-40 mm Ø x ~15 mm
BS 190	.	0.0005	.	0.0045	.	.	0.003	.	.	0.002	.	38 mm Ø x ~7 or 19+ mm
CT ISO129A	.	Fe: 62.62	.	.	.	.	.	.	.	.	.	30-35 mm Ø x 20-25 mm
IARM 19C *	(0.004)	0.0011	.	0.003	.	.	0.0061	0.005	.	0.003	.	31 mm Ø x 2 or 18 mm
13X NSC6A	40 mm Ø x 13 mm HIP
VS RG23/1	0.21	.	-45 mm Ø x ~30 mm
13X NSC2P	-40 mm Ø x ~15 mm
BS 181A	.	0.0009	.	0.0010	.	.	0.005	.	.	0.007	.	38 mm Ø x ~7 or 19+ mm
BS 181B	(0.002)	(0.0008)	(0.001)	0.0010	(0.0005)	(0.0007)	(0.004)	Fe:62.9	17025	0.0051	(0.0004)	38 mm Ø x ~7 or 19+ mm
13X 21800A	.	(0.001)	.	.	.	.	.	.	.	.	.	-38 mm Ø x ~15 mm
13X NSC4F	-40 mm Ø x ~15 mm
SRM 1297	32 mm Ø x 19 mm
13X NSC1P	-40 mm Ø x ~15 mm
VS RG21/1	0.18	.	-45 mm Ø x ~30 mm
CZ SL-5A	0.005	.	.	.	.	.	0.004	0.07	.	0.004	.	-39 mm Ø x 25 mm
BS 191	.	(0.0006)	.	0.002	.	.	(0.006)	0.002	.	0.012	.	38 mm Ø x ~7 or 19+ mm
VS RG19/1	0.14	.	-45 mm Ø x ~30 mm
13X NSA4B	-40 mm Ø x ~15 mm
13X NSA10A	.	0.0031	.	.	.	.	.	.	.	.	.	-38 mm Ø x ~15 mm
BS 180A	.	(0.0023)	.	0.003	.	.	(0.002)	.	.	(0.002)	.	37 mm Ø x ~7 or 19+ mm
IARM 292A	.	0.0011	.	0.0024	.	.	0.004	(0.006)	.	0.005	.	31 mm Ø x 2 or 18 mm
BS 180B	(0.004)	0.0011	0.0009	0.0043	17025	(0.0007)	0.0040	(0.003)	Fe:58.5	(0.005)	(0.0009)	38 mm Ø x ~7 or 19+ mm
13X NSA5A	-40 mm Ø x ~14 mm
IARM 17D	0.005	0.001	(0.002)	0.003	(0.0002)	(0.001)	0.0044	(0.003)	.	0.010	(0.002)	31 mm Ø x 2 or 18 mm
13X NSC7A	-40 mm Ø x ~13 mm
13X NSC5B	-40 mm Ø x ~15 mm

CRM NICKEL BINARIES

analysis listed in mass %

-40 mm Ø x ~15 mm

Number	Ni	C	Mn	P	S	Si	Cu	Cr	Al	Co	N	Mg	Mo	Nb	Ti	W
14X FeNi50B	50.09	0.0488	0.115	0.0259	0.243	0.203	0.105	0.093	0.052	0.499	.	.	.	.	.	last
14X FeNi45B	45.20	0.0045	0.0149	0.0416	0.038	0.567	0.078	0.048	0.552	0.654	.	.	.	.	.	.
14X 94100A	41.00	0.0055	0.443	0.0051	0.0027	0.103	0.0628	0.0265	.	0.0208	0.0016	0.0021	0.0053	(0.01)	0.0011	0.0017
14X FeNi35D *	34.05	0.032	0.29	0.04	0.15	0.25	0.034	0.39	.	0.41	.	.	.	.	.	* Provisional Analysis
14X FeNi20B	20.06	0.0137	0.0284	0.010	0.0089	1.12	0.074	0.102	0.018	0.994	.	.	.	.	.	.
14X FeNi10A	10.12	0.095	0.272	0.015	0.027	0.061	0.029	0.070	0.025	.	0.0055	.	.	.	.	.
14X FeNi8A	8.10	0.097	0.330	0.015	0.029	0.097	0.030	0.250	0.029	.	0.0061	.	.	.	.	.
14X FeNi6A	6.08	0.100	0.330	0.0155	0.028	0.075	0.028	0.073	0.025	.	0.0055	.	.	.	.	.

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
1	IARM 1D	0.34	0.025	9.50	18.24	0.061	1.98	0.22	0.51	.	0.208	0.130	0.027	<0.005	(0.002)	0.101
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
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	13X 12548M	0.219	0.027	1.075	12.96	0.188	0.577	0.425	0.230	.	0.353	1.318	0.0500	0.586	.	.
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
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 12536S	0.136	0.052	12.07	15.30	0.149	0.406	0.865	0.065	0.049	0.298	2.54	0.062	.	0.105	.
1	13X 8110L	0.068	0.052	4.62	12.30	0.750	0.446	0.812	0.344	(0.071)	0.31	2.81	0.0286	.	0.0108	0.211
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	13X 19003C	0.046	0.0382	12.46	18.99	0.047	1.138	0.497	0.171	.	0.105	2.50	0.077	0.120	.	0.0486
1	VS LG58	0.0280	0.0135	4.26	23.4	0.48	0.99	0.292	0.388	.	.	2.41	0.062	0.214	0.039	0.264
1	VS LG60	0.0205	0.028	19.86	21.8	0.020	2.31	0.289	0.027	0.040	.	3.62	.	0.83	0.265	0.229
2	13X 19004B	0.014	0.069	17.9	22.8	0.066	1.96	0.36	0.022	.	.	3.62	.	0.18	.	.
1	13X 18004B	0.0191	0.068	12.67	21.57	0.099	1.400	1.21	0.050	0.011	0.211	0.601	0.061	0.749	.	0.161

Number	Ag	As	B	O	Pb	Sn	Ta	W	Units
CT 416	0.0002	.	.	.	<0.001	0.005	.	.	30-35 mm Ø x 20-25 mm
IARM 1D	.	.	<0.002	0.007	.	0.006	.	0.015	31 mm Ø x 18 mm last of stock
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 or 19+ mm
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 20-25 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
13X 12548M	Sb:0.022	.	.	0.031	40 mm Ø x 15 mm
13X 43020A	.	.	(0.0032)	.	.	.	.	0.0108	~40 mm Ø x ~15 mm
IMZ 154	40 mm Ø x 40 mm
BS 155	.	.	.	0.0048	.	(0.003)	.	.	36 mm Ø x ~7 or 19+ mm
13X 12536S	.	.	0.0274	.	.	0.018	0.091	.	~40 mm Ø x ~15 mm
13X 8110L	.	0.074	0.989	.	.	.	.	.	~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
13X 19003C	(0.005)	.	.	~40 mm Ø x ~15 mm
VS LG58	0.21	~47 mm Ø x ~30 mm
VS LG60	0.115	~47 mm Ø x ~30 mm
13X 19004B	40 mm Ø x 15 mm
13X 18004B	~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
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

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 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
CT ISO124A	.	50.65	.	.	.	.	.	.	30-35 mm Ø x 20-25 mm
BS 156	.	.	0.0045	(0.004)	.	0.13	0.11	.	41 mm Ø x ~7 or 19+ mm

STAINLESS STEEL WITH NI < 5.0 %

CONTINUED ON THE NEXT PAGE

= Class, 1=CRM, 2=RM, and 3=RM with no uncertainties analysis listed in mass % except * which is mg/Kg ** Provisional Analysis

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo	N	Nb	Ti	V	W
1	14X HS11A	1.739	0.237	0.0133	0.0107	0.794	0.0562	0.188	19.34	0.074	1.52	(0.002)	.	.	1.032	2.24
1	14X HS10A	1.710	0.134	0.0135	0.0099	0.660	0.0605	0.146	14.83	0.0866	1.679	(0.001)	.	.	1.142	1.75
3	CZ SL-4A	1.38	2.85	0.038	0.017	2.28	0.75	2.04	26.3	0.11	0.92	.	1.11	0.8	0.54	0.35
2	BS 156	1.06	1.15	0.022	0.007	0.47	0.09	0.35	16.87	0.047	0.50	0.041	0.005	0.001	0.13	0.11
1	BS 93F	1.047	0.59	0.0266	(0.0025)	0.49	0.132	0.187	16.72	0.021	0.46	0.051	0.0029	0.0012	0.057	0.0016
1	13X 44004A	1.052	0.346	0.0214	0.0178	0.363	0.0548	0.207	16.74	0.0188	0.462	0.0247	.	.	0.076	0.030
1	IARM 13D **	1.04	0.70	0.020	0.0010	0.61	0.18	0.26	16.4	0.021	0.49	0.049	0.007	(0.003)	0.058	0.04
2	BS 155	1.00	0.35	0.014	0.145	0.40	0.035	0.13	16.64	0.019	0.46	0.032	0.002	.	0.10	.
1	NCS HS41752	0.97	0.46	0.023	0.0016	0.48	0.082	0.192	17.61	0.057	.	.	.	.	0.088	.
1	ECRM 291-1D	0.90	0.81	0.017	0.0088	0.91	0.071	0.56	17.15	0.0233	2.10	0.1142	.	.	0.39	.
1	VS LG40/1	0.66	0.318	(0.02)	(0.006)	0.289	(0.15)	0.271	13.67	.	0.039	.	.	.	0.038	.
1	VS LG39/1	0.406	0.64	(0.02)	(0.007)	0.94	(0.12)	0.42	13.11	.	0.136	.	.	.	0.135	.
1	13X 14122A	0.356	0.480	0.0177	0.0021	0.449	0.066	0.632	15.91	0.0224	0.855	0.0290	0.006	.	0.101	0.004
1	IARM 154B	0.35	0.405	0.017	0.0004	0.45	0.087	0.223	12.20	0.020	0.079	0.020	0.003	0.002	0.067	0.010
2	BS SS4952	0.347	0.41	0.016	0.0003	0.66	0.045	0.23	13.15	0.030	0.049	0.027	0.004	0.002	0.089	(0.007)
1	IARM 154C **	0.339	0.42	0.017	0.004	0.37	0.120	0.21	12.4	0.016	0.036	0.054	0.017	0.0013	0.042	(0.005)
2	BS SS4951	0.333	0.58	0.016	0.0012	0.62	0.033	0.15	13.55	0.013	0.009	0.0127	0.006	0.002	0.032	.
2	BS 152	0.320	0.36	0.022	0.275	0.44	0.050	0.14	13.41	0.015	0.061	0.020	0.006	.	0.051	<0.01
1	IRSID 1825	0.305	0.650	0.019	0.022	0.336	0.100	0.08	12.90	0.026	0.052	0.052	.	.	0.052	.
1	ECRM 272-1D	0.2815	0.600	0.0156	0.0196	0.420	0.0192	0.2445	11.927	0.0145	0.0030	0.0508	0.0028	0.00096	0.0167	.
1	SS 469	0.279	0.598	0.015	0.020	0.421	(0.02)	0.246	11.93	(0.01)	.	.	.	.	(0.02)	.
1	VS LG38/1	0.255	0.73	(0.02)	(0.01)	0.81	(0.16)	0.551	11.75	.	0.344	.	.	.	0.190	.
1	IMZ 168	0.24	1.36	0.019	0.012	1.12	0.093	0.17	13.91	(0.019)	0.026	(0.057)	.	(0.003)	0.053	.
1	13X 12547M	0.238	1.191	0.0441	0.0746	0.344	0.531	1.492	17.49	0.302	1.009	0.099	0.347	.	0.1021	.
1	IARM 205D	0.232	0.736	0.0209	0.0028	0.257	0.122	0.841	12.18	0.043	1.002	0.0484	0.013	0.0022	0.319	1.07
1	BS 422	0.232	0.640	0.0169	0.0013	0.404	0.080	0.676	11.25	0.0293	0.896	0.050	0.045	0.0011	0.274	0.95
1	SS 472	0.227	1.02	0.032	0.029	1.05	(0.02)	1.95	15.82	(0.02)	0.661	.	.	.	(0.02)	.
1	13X 42200A	0.220	0.651	0.0182	0.0012	0.314	0.136	0.738	11.41	0.0114	1.042	0.0585	0.0203	.	0.246	1.177
1	NCS HS41749	0.21	0.39	0.023	0.012	0.56	1.15	1.52	12.27	.	0.158	.	.	.	0.074	.
1	13X 42000A	0.208	0.679	0.0241	0.0253	0.496	0.202	0.295	12.56	0.0161	0.0398	0.0273	.	.	0.046	.
1	13X 14923A	0.205	0.501	0.0197	0.0031	0.330	0.0563	0.452	11.26	0.0207	0.819	0.0321	0.005	.	0.295	.
1	VS LG41/1	0.200	0.91	(0.02)	(0.008)	0.64	(0.12)	1.53	15.90	0.027	0.277	.	.	.	0.303	.
1	IMZ 171	0.195	0.42	0.020	0.014	0.21	0.116	0.59	11.44	0.024	1.23	0.057	.	(0.001)	0.26	.
1	NCS HS41748	0.194	0.62	0.016	0.011	0.54	0.008	0.077	12.70	.	0.010	.	.	.	0.048	.
2	HRT FE2015-H	0.19	0.52	0.021	0.002	0.37	0.07	0.25	12.87	.	0.07	0.045	.	.	0.055	.
1	13X 12548M	0.188	0.577	0.027	0.0219	0.425	0.230	1.075	12.96	0.353	1.318	0.0500	0.586	.	.	0.031
2	HRT FE2010-H	0.18	0.60	0.024	0.004	0.35	0.08	1.94	15.95	0.023	0.13	.	.	.	0.044	0.024
1	SS 70	0.18	0.38	0.024	0.020	0.35	(0.06)	0.40	16.35	.	.	.	.	.	.	.
1	IARM 20B	0.18	0.35	0.019	0.004	0.40	0.069	1.94	12.42	0.030	0.32	0.0434	0.010	0.004	0.17	3.52
1	IARM 20C	0.18	0.30	0.018	0.007	0.35	0.060	1.93	12.15	0.031	0.12	0.0222	0.010	(0.003)	0.086	2.59
1	IMZ 167	0.175	1.16	0.016	0.0025	0.755	0.106	0.16	13.07	(0.021)	0.024	0.053	.	(0.002)	0.054	.
1	SS 473	0.172	0.494	0.019	0.030	0.604	(0.02)	(0.06)	9.06	(0.01)	0.95	.	.	.	(0.02)	.
2	BS 183A	0.172	0.18	0.025	0.0040	0.293	1.85	1.85	12.14	0.035	0.12	0.0256	0.006	0.002	0.090	2.60
1	13X 15024X	0.166	0.610	0.0284	0.0294	0.750	0.332	2.99	14.55	0.1059	0.299	0.0156	0.099	.	0.150	0.039
1	13X 43100A	0.166	0.378	0.0199	0.0050	0.535	0.134	2.10	16.39	0.0239	0.0768	0.075	0.006	.	0.0577	0.004
#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo	N	Nb	Ti	V	W
2	13X 12549K	0.16	0.34	0.022	0.29	0.43	0.10	1.26	11.70	0.52	1.49	.	0.23	.	.	.
1	IARM 12C	0.155	0.55	0.022	0.0032	0.34	0.33	2.23	15.78	0.048	0.125	0.056	0.020	(0.002)	0.040	0.015
1	SS 470	0.153	0.235	0.024	0.035	0.335	(0.02)	0.369	17.68	(0.02)	.	.	.	.	(0.02)	.
2	BS 92B	0.150	0.42	0.021	0.003	0.42	0.13	2.12	15.92	0.04	0.17	0.073	(0.006)	.	0.07	0.02
1	SRM 1219	0.149	0.42	0.026	0.001	0.545	0.162	2.16	15.64	.	0.164	0.078	.	.	.	0.056
2	CT X68890	0.147	0.48	0.015	0.007	0.35	0.064	0.10	11.87	.	0.009	0.030	0.10	.	.	.
1	BS 431	0.146	0.579	0.0232	0.0047	0.33	0.28	2.25	15.8	0.050	0.092	0.049	0.034	0.0007	0.062	0.012
1	IARM 335A	0.138	0.85	0.016	0.0005	0.39	0.086	4.27	15.30	0.063	2.72	0.085	0.015	(0.002)	0.094	0.008
1	BS 355	0.136	0.862	0.0171	0.0003	0.374	0.173	4.18	15.43	0.053	2.73	0.081	0.0103	0.0007	0.106	0.0069
1	13X 41001A	0.136	0.464	0.0142	0.0037	0.298	0.056	0.0939	12.06	0.0143	0.0102	0.0316	.	.	0.079	.
1	NCS HS28747	0.132	0.453	0.027	0.0068	0.502	0.126	1.79	16.24	0.051	0.153	0.030	.	(0.002)	0.075	.
1	13X 12540M	0.131	0.800	0.051	0.0512	0.805	0.181	4.975	27.44	0.109	0.993	0.054	0.107	.	0.210	0.097
1	BS 410C	0.131	0.381	0.0206	0.0051	0.366	0.084	0.352	12.78	0.0185	0.055	0.039	0.036	0.0006	0.042	0.0131
1	BS 602F	0.128	0.420	0.025	0.008	0.354	0.120	2.10	12.00	0.029	0.08	0.029	(0.001)	(0.003)	0.029	0.011
1	IARM 10C	0.128	0.35	0.026	0.29	0.37	0.155	0.24	12.25	0.022	0.08	0.015	0.003	0.002	0.024	0.011
1	SRM 1223	0.127	1.08	0.018	0.329	0.327	0.081	0.232	12.64	.	0.053	.	.	.	0.068	.
1	ECRM 296-1D	0.1166	0.676	0.0178	0.0026	0.242	0.1498	2.790	11.82	0.0218	1.700	0.0214	.	.	0.363	.
1	BS 416	0.116	0.64	0.0237	0.35	0.232	0.154	0.371	13.41	0.0241	0.030	0.043	(0.006)	0.0012	0.100	0.0034
2	CT X23576	0.116	0.40	0.018	0.027	0.40	0.072	0.26	12.30	.	0.062	0.032	.	.	.	.
1	13X 15035U	0.115	0.674	0.0415	0.0456	0.636	0.204	2.38	14.00	0.199	0.399	0.0584	0.500	.	0.160	0.048
1	13X 64152A	0.114	0.666	0.0123	0.0020	0.224	0.0622	2.50	11.34	0.0185	1.567	0.0339	.	.	0.275	.
1	13X 41600A	0.111	0.627	0.0253	0.302	0.442	0.160	0.331	13.23	0.0216	0.0499					

STAINLESS STEEL WITH NI < 5.0 %

CONTINUED FROM THE PREVIOUS PAGE

analysis listed in mass % except * which is mg/kg

** Provisional Analysis

Number	Al	As	B	Ca*	Mg*	Pb*	O	Sb	Se	Sn	Ta	Zn	Zr	Units
14X HS11A	.	.	.	.	.	.	.	.	.	.	.	.	.	~48 mm Ø x 13 mm
14X HS10A	.	.	.	.	.	.	.	.	.	.	.	.	.	~48 mm Ø x 13 mm
CZ SL-4A	0.12	.	0.0013	.	.	.	.	.	.	0.02	.	.	.	~39 mm Ø x 25 mm
BS 156	(<0.002)	.	.	.	.	.	0.0045	.	0.142	(0.004)	.	.	.	41 mm Ø x ~7 or 19+ mm
BS 93F	0.0052	0.0056	(0.0001)	19	(6)	(2)	0.0031	0.0016	.	0.0059	.	17025	(0.001)	38 mm Ø x ~7 or 19+ mm Fe:[80.2]
13X 44004A	0.0305	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x ~15 mm
IARM 13D **	0.006	(0.01)	(0.001)	(10)	.	.	(0.003)	(0.002)	<0.005	0.011	(0.003)	.	(0.001)	31 mm Ø x 2 or 18 mm
BS 155	(0.001)	.	.	.	.	.	0.0048	.	.	(0.003)	.	.	.	36 mm Ø x ~7 or 19+ mm
NCS HS41752	(0.032)	.	.	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 35 mm
ECRM 291-1D	.	.	.	.	.	.	.	.	.	.	.	.	.	36-41 mm Ø x 28-35 mm
VS LG40/1	.	.	.	.	.	.	.	.	.	.	.	.	.	~45 mm Ø x ~28 mm
VS LG38/1	.	.	.	.	.	.	.	.	.	.	.	.	.	~45 mm Ø x ~28 mm
13X 14122A	(0.002)	.	.	.	.	.	.	.	.	0.0041	.	.	.	~40 mm Ø x ~15 mm
IARM 154B	0.002	.	(0.001)	.	.	.	0.0016	.	.	0.006	.	.	.	31 mm Ø x 18 mm last
BS SS4952	0.003	0.002	(0.0004)	19	.	.	0.005	.	.	0.004	.	.	.	38 mm Ø x ~7 or 19+ mm
IARM 154C **	(0.003)	(0.004)	0.0007	.	.	.	(0.004)	(0.001)	(0.0003)	0.006	.	.	(0.001)	31 mm Ø x 2 or 18 mm
BS SS4951	0.002	0.002	.	.	.	.	0.0055	.	.	0.003	.	.	.	42 mm Ø x ~7 or 19+ mm
BS 152	(0.002)	.	.	.	.	.	.	.	.	0.003	.	.	.	41 mm Ø x 19+ mm
IRSID 1825	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 30 mm
ECRM 272-1D	0.0046	0.0116	0.0018	9.0	(2)	.	.	0.0007	.	.	.	0.0031	.	38 mm Ø x 25 or 30 mm
SS 469	.	.	.	.	.	.	.	.	.	.	.	.	.	35 mm Ø x 19 mm
VS LG38/1	.	.	.	.	.	.	.	.	.	.	.	.	.	~45 mm Ø x ~28 mm
IMZ 168	(0.004)	.	.	.	.	.	.	.	.	0.009	.	.	.	40 mm Ø x 40 mm
13X 12547M	.	.	.	.	.	.	.	.	.	0.030	.	.	.	~40 mm Ø x ~15 mm
IARM 205D	0.0021	0.004	0.0007	(20)	(7)	(20)	0.0053	(<0.007)	(<0.005)	0.0047	(<0.005)	(<0.005)	0.0022	31 mm Ø x 2 or 18 mm
BS 422	0.0135	0.0041	(0.0002)	31	(9)	(0.5)	0.0030	(0.0007)	.	0.0043	(0.0001)	17025	(0.001)	38 mm Ø x ~7 or 19+ mm Fe:84.5
SS 472	.	.	.	.	.	.	.	.	.	.	.	.	.	35 mm Ø x 19 mm
13X 42200A	0.0020	.	.	.	.	.	.	.	.	0.0052	.	.	.	~38 mm Ø x ~15 mm
NCS HS41749	.	.	.	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 35 mm
13X 42000A	.	.	0.0013	.	.	.	.	.	.	0.0073	.	.	.	~38 mm Ø x ~15 mm
13X 14923A	0.003	.	.	44	.	.	.	.	.	0.004	.	.	.	~40 mm Ø x ~15 mm
VS LG41/1	.	.	.	.	.	.	.	.	.	.	.	.	.	~45 mm Ø x ~28 mm
IMZ 171	0.036	.	.	.	.	.	.	(0.003)	.	0.008	.	.	.	40 mm Ø x 40 mm
NCS HS41748	.	.	.	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 35 mm
HRT FE2015-H	.	.	.	.	.	.	.	.	.	.	.	.	.	30 mm Ø x 20 mm
13X 12548M	.	.	.	.	.	.	.	0.022	.	.	.	.	.	40 mm Ø x 15 mm
HRT FE2010-H	.	.	.	.	.	.	.	.	.	.	.	.	.	35 mm Ø x 20 mm
SS 70	.	.	.	.	.	.	.	.	.	.	.	.	.	44 mm Ø x 13 mm
IARM 20B	0.006	.	.	.	.	.	0.0056	.	.	0.005	.	.	.	31 mm Ø x 2 mm
IARM 20C	(0.004)	.	.	.	.	.	0.0068	.	.	0.004	.	.	.	31 mm Ø x 2 or 18 mm
IMZ 167	(0.018)	.	.	.	.	.	.	.	.	0.009	.	.	.	40 mm Ø x 40 mm
SS 473	.	.	.	.	.	.	.	.	.	.	.	.	.	35 mm Ø x 19 mm
BS 183A	0.002	(0.002)	(<0.0005)	20	.	.	0.0065	(0.001)	.	0.003	.	.	.	38 mm Ø x ~7 or 19+ mm
13X 15024X	0.0049	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
13X 43100A	.	.	.	.	.	.	.	.	.	0.004	.	.	.	~38 mm Ø x ~15 mm

Number	Al	As	B	Ca*	Mg*	Pb*	O	Sb	Se	Sn	Ta	Zn	Zr	Units
13X 12549K	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm
IARM 12C	(0.004)	(0.004)	0.0004	7	(2)	(5)	(0.005)	.	.	0.008	(0.0005)	.	(0.001)	31 mm Ø x 2 or 18 mm
SS 470	.	.	.	.	.	.	.	.	.	.	.	.	.	35 mm Ø x 19 mm
BS 92B	(0.002)	.	.	(9)	.	.	0.0064	.	.	0.006	.	.	.	44 mm Ø x ~7 mm last
SRM 1219	.	.	.	.	.	.	.	.	.	.	.	.	.	34 mm Ø x 19 mm
CT X68890	<0.004	.	.	.	.	.	.	.	.	0.004	.	.	.	30-35 mm Ø x 20-25 mm
BS 431	0.0019	0.0038	0.0003	7	(2)	.	0.0059	0.0011	.	0.0134	.	17025	(0.001)	38 mm Ø x ~7 or 19+ mm Fe: 80.2
IARM 135A	0.019	(0.01)	0.0007	(10)	.	.	0.0020	.	.	0.0034	(0.01)	.	(0.002)	31 mm Ø x 2 or 18 mm
BS 355	0.0192	0.0039	(0.0001)	(2)	(2)	(0.3)	0.0020	(0.0009)	.	0.0038	(0.0001)	.	(0.003)	41 mm Ø x ~7 or 19+ mm 17025
13X 41001A	(0.004)	.	.	10	.	.	.	.	.	0.0051	.	.	.	~41 mm Ø x ~15 mm
NCS HS28747	.	0.0063	.	.	.	1	.	.	.	0.0057	.	.	.	38 mm Ø x 35 mm
13X 12540M	.	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
BS 410C	0.0079	0.0029	(0.0001)	22	(3)	(1)	0.0051	(0.0002)	.	0.0023	(0.001)	.	(0.0002)	38 mm Ø x ~7 or 19+ mm 17025
BS 0021	0.008	(0.004)	(<0.0002)	(2)	.	.	(0.004)	.	.	0.003	.	25 (pre-17025)	.	44 mm Ø x ~7 or 19+ mm
IARM 10C	0.003	.	<0.0005	.	.	.	0.008	.	.	0.009	.	.	.	31 mm Ø x 2 or 18 mm last of stock
SRM 1223	.	.	.	.	.	.	.	.	.	.	.	.	.	32 mm Ø x 19 mm
ECRM 296-1D	0.0275	0.0139	(0.0003)	.	.	.	.	.	.	0.0131	.	.	.	38 mm Ø x 25 or 30 mm
BS 416	(0.002)	0.0039	(0.001)	(3)	(3)	1.6	0.0081	(0.002)	.	(0.005)	(0.004)	17025	(0.002)	38 mm Ø x ~7 or 19+ mm Fe:[84.3]
CT X23576	.	.	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x 20-25 mm
13X 15035U	(0.093)	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
13X 64152A	0.0315	.	.	.	.	.	.	.	.	0.0053	.	.	.	~38 mm Ø x ~15 mm
13X 41600A	(0.004)	.	.	.	.	.	.	.	.	0.0066	.	.	.	~41 mm Ø x ~15 mm
13X 12533Z	0.059	.	0.0100	.	.	.	.	.	.	0.0097	.	.	.	~40 mm Ø x ~15 mm
IARM 291A	(0.004)	.	0.001	.	.	.	0.014	.	.	0.004	(0.001)	.	<0.005	31 mm Ø x 2 or 18 mm
CT 410	0.015	.	.	.	.	.	<10	.	.	0.006	.	.	.	30-35 mm Ø x 20-25 mm Ag: 2 ppm
IMZ 156	(0.034)	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 40 mm
SS 471	.	.	.	.	.	.	.	.	.	.	.	.	.	35 mm Ø x 19 mm
IMZ 158	1.56	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 40 mm
BS 151	(0.002)	.	.	.	.	.	0.009	.	0.328	0.005	.	.	.	50 mm Ø x ~7 or 19+ mm
13X 15023W **	0.003	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
13X 14742A	0.804	.	.	.	22	.	.	.	.	0.0046	.	0.0055	.	~40 mm Ø x ~15 mm
BS 90F	(0.006)	.	.	.	.	.	0.011	.	.	0.008	.	.	.	38 mm Ø x ~7 or 19+ mm
13X 14762A	1.318	0.0025	.	.	24	.	.	.	.	0.0048	.	.	.	~40 mm Ø x ~15 mm
IMZ 155	(0.20)	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 40 mm
CZ SL-1A	0.86	.	.	.	.	.	.	.	.	0.01	.	.	.	~39 mm Ø x 25 mm
IMZ 161	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 40 mm
IARM 11D	0.015	(0.005)	0.0006	(20)	(30)	(5)	(0.004)	(0.001)	0.006	(0.003)	(0.004)	(0.001)	.	31 mm Ø x 2 or 18 mm
IARM 14C	0.0041	(0.003)	0.0005	(10)	(5)	(1)	(0.006)	(0.002)	(0.0001)	0.004	(0.002)	(0.0003)	(0.001)	31 mm Ø x 2 or 18 mm
BS 430 **	<0.005	<0.005	<0.005	<50	<50	<50	(0.006)	(0.0076)	(0.0017)	.	<0.05	.	<0.005	44 mm Ø x 19 mm Fe: 81.7
BS 91F	0.0029	.	(0.0002)	12	.	.	.	.	.	0.0054	.	.	.	38 mm Ø x 19 mm last of stock
IMZ 163A	0.018	(0.0035)	.	.	.	(10)	.	.	.	(0.003)	.	.	.	40 mm Ø x 40 mm
BS 94C	0.004	.	.	.	.	.	0.0061	.	.	0.006	.	.	.	44 mm Ø x 19+ mm
BS 0022	0.078	0.003	0.0007	8	(5)	(6)	(0.002)	(0.0004)	.	0.004	.	25 (pre-17025)	.	38 mm Ø x ~7 or 19+ mm
BS 150	0.002	.	.	.	.	.	0.012	.	.	(0.003)	.	.	.	35 mm Ø x ~7 or 19+ mm
13X 14418A	(0.003)	.	.	.	.	.	.	.	.	0.005	.	.	.	~40 mm Ø x ~15 mm
NCS HS28748	.	0.0047	.	.	.	1	.	.	.	0.0063	.	.	.	38 mm Ø x 35 mm
BS 17-4PHB	.	.	0.0036	.	.	.	.	.	.	.	(0.002)	.	.	40 mm Ø x ~7 or 19+ mm
SRM C1296	0.035	.	.	.	.	.	.	.	.	.	.	.	.	32 mm Ø x 19 mm
SRM C2400	.	.	.	(10)	.	.	.	.	.	.	.	.	.	32 mm Ø x 19 mm
HRT FE2009-H	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 40 mm
BS 9621	0.003	.	0.0004	(1)	.	.	.	.	.	0.003	(0.002)	.	.	38 mm Ø x ~7 or 19+ mm
ECRM 273-1	.	0.0030	.	.	.	.	.	.	.	0.0021	.	.	.	40 mm Ø x 20 mm</

STAINLESS STEEL WITH C > 0.05 %

CONTINUED ON THE NEXT PAGE

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

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo	N	Nb	Ti	V	W
1	KUT S24	0.65	0.94	0.062	0.036	0.76	0.12	9.19	10.28	.	0.41	.	1.65	0.27	.	.
1	VS LG76	0.445	0.342	0.021	0.0076	0.455	0.098	13.39	13.77	.	0.263	0.031	.	0.020	0.041	2.38
1	VS LG74	0.373	0.962	0.024	0.0049	2.49	0.093	23.66	18.30	0.031	0.104	0.030	.	0.030	.	0.052
1	KUT S21	0.37	0.19	0.017	0.021	1.26	0.11	22.3	3.99	.	4.12	.	.	0.50	.	.
2	CZ CM-19A	0.361	0.783	0.0440	0.0182	1.588	0.986	15.27	13.12	0.222	1.023	(0.021)	0.091	0.254	1.235	0.311
1	VS LG79	0.313	1.28	0.017	0.0036	0.703	0.065	8.72	19.23	.	1.18	.	0.47	.	0.049	1.16
2	CZ SP-3C	0.30	0.43	0.026	0.011	0.84	0.185	5.31	16.42	0.041	0.26	.	(0.04)	(0.17)	0.19	0.12
1	DSZU C016	0.281	3.26	0.0192	0.0174	1.16	0.054	7.47	21.9	.	0.52	0.010	.	0.72	0.036	0.014
3	CZ SP-3B	0.27	0.29	0.023	0.008	0.72	0.62	5.65	15.9	0.02	0.24	.	.	0.13	0.10	0.12
1	KUT S19	0.26	0.32	0.012	0.021	2.32	0.19	12.8	7.00	.	0.11	.	0.81	0.048	.	.
1	SRM C1153a	0.225	0.544	0.030	0.019	1.00	0.226	8.76	16.70	0.127	0.24	.	.	.	0.176	.
1	VS LG34/5	0.222	0.362	0.010	0.019	0.80	0.269	9.54	17.32	.	0.266	.	.	0.138	0.195	0.33
1	13X 18001B	0.207	0.463	0.0090	0.0786	0.203	0.149	6.13	15.92	0.0231	0.816	0.0347	0.612	.	0.0996	.
1	KUT H6/1	0.20	0.49	0.021	0.024	0.67	0.10	0.15	18.9	.	.	.	.	0.10	.	(0.12)
1	13X 12855M	0.182	1.162	0.0240	0.0233	1.10	0.446	10.80	17.13	0.226	2.86	.	.	0.061	.	0.201
2	CZ SP-3D	0.171	0.34	0.021	0.015	0.71	0.73	5.36	16.44	0.033	0.25	.	(0.04)	0.088	0.11	0.12
2	13X NSB1D	0.17	0.44	.	0.058	0.58	10.0	19.1	10.0	.	0.11	0.04	.	.	.	.
1	IARM 339A	0.16	1.71	0.004	0.009	0.64	0.021	12.9	17.0	0.007	2.79	0.0060	(0.005)	(0.002)	0.007	(0.0119)
2	13X NSA3J	0.16	1.07	.	0.57	0.57	12.0	16.1	2.8	.	2.8	.	.	.	.	.
1	13X 18002D	0.159	0.722	0.0245	0.0487	0.352	0.116	7.92	17.77	0.0514	0.209	0.072	1.531	.	0.0542	.
2	13X 12540L	0.15	0.44	.	.	1.05	5.17	27.88	.	.	0.54	.	.	.	.	.
2	CZ CM-18A	0.143	1.792	0.0182	0.0119	0.903	2.393	20.44	20.59	0.097	2.282	0.0848	.	.	0.113	0.097
1	SS 468/1	0.143	1.70	0.014	0.020	1.41	8.90	17.96	0.018	.	.	.	.	.	.	.
1	SRM C1152a	0.142	0.95	0.023	0.0064	0.64	0.097	10.86	17.76	0.22	0.44	.	.	0.92	0.033	.
1	VS LG32/5	0.138	0.54	0.0057	0.039	0.185	0.019	7.10	19.75	.	0.110	.	.	.	0.317	0.205
1	IARM 289A	0.126	1.67	0.006	0.0019	0.58	0.016	7.12	17.0	0.054	(0.005)	0.0032	0.008	0.028	0.01	0.01
1	IARM 241D *	0.125	1.94	(0.003)	0.0021	0.99	0.24	9.0	18.1	0.022	(0.003)	(0.006)	(0.003)	0.018	0.034	(0.01)
1	DSZU C018	0.125	1.09	0.0268	0.0099	0.53	0.163	9.33	17.54	.	0.189	0.009	.	0.54	0.048	0.066
1	13X NSB3G	0.121	0.632	.	.	0.471	.	9.26	15.22	.	0.630	0.198	.	.	.	.
1	KUT H5	0.12	0.48	0.017	(0.003)	0.70	0.22	0.20	21.8	.	.	.	.	0.03	.	0.10
2	13X 17001B	0.114	1.73	0.080	0.016	0.34	0.037	6.05	14.89	0.15	0.12	0.040	0.76	.	.	.
1	13X 18003C	0.113	1.000	0.0545	0.0245	0.805	0.0433	10.08	19.56	0.100	0.401	0.090	1.042	.	0.0750	.
1	IRSID 1819	0.112	0.903	0.023	0.0112	0.616	0.064	7.10	17.31	0.117	0.110	0.0288	.	.	.	.
1	13X 17002E	0.112	0.801	0.0409	0.0250	0.486	0.1012	7.87	17.45	0.0702	0.204	0.061	0.487	.	0.0587	.
1	NCS HS28743	0.110	0.841	0.024	0.0082	0.780	0.089	18.02	23.71	0.102	0.115	0.057	0.016	(0.003)	0.077	.
1	IMZ 166A	0.108	1.99	0.019	0.005	2.51	0.025	21.93	25.53	0.030	(0.025)	0.077	.	0.003	0.038	.
1	VS LG81	0.104	0.29	0.0121	0.0014	0.231	0.088	22.5	11.51	.	1.22	.	0.004	2.93	0.040	0.012
1	VS LG77	0.101	0.34	0.0149	0.0021	0.44	0.116	4.32	15.67	.	0.020	0.054	0.109	.	0.022	0.006
1	IMZ 164	0.100	1.77	0.019	0.002	0.82	0.26	6.75	20.96	0.035	3.48	0.249	0.049	(0.003)	0.053	(0.025)
2	13X 17003A	0.10	0.85	0.037	0.035	0.78	0.08	11.9	11.89	0.07	0.27	.	0.34	.	.	.
1	VS LG73	0.098	1.26	0.019	0.0073	0.570	0.140	17.74	22.60	0.247	0.061	0.0319	.	0.0022	.	0.102
1	KUT S20	0.097	1.50	0.011	0.025	1.80	0.44	18.2	2.06	.	3.15	.	1.22	(0.01)	.	.
1	VS LG80	0.097	0.709	0.025	0.0029	2.15	0.166	19.38	24.7	.	0.086	0.064	.	0.015	0.032	0.029
2	BS 253	0.094	0.58	0.018	<0.001	1.81	0.14	10.89	20.68	0.15	0.21	0.146	0.017	0.005	0.050	0.03
1	IARM 234C *	0.093	1.93	0.009	(0.003)	0.89	3.40	9.0	18.2	0.035	(0.01)	0.008	0.053	0.026	0.055	(0.01)
1	SS 462	0.092	0.74	0.010	0.018	0.46	.	12.53	12.37	.	.	.	.	.	.	.
1	13X 12537T	0.0889	1.116	0.0382	0.0206	1.151	0.248	10.71	20.43	0.1520	3.05	0.048	0.102	0.273	0.0908	.
1	DSZU C015	0.087	0.420	0.0118	0.059	0.214	0.070	12.15	15.36	.	0.89	0.020	.	0.177	0.021	0.023
1	SS 464/1	0.086	0.791	0.020	0.028	0.57	.	20.05	25.39	0.054	.	.	.	.	.	.
1	IMZ 165	0.082	0.98	0.017	0.007	1.42	0.040	19.01	23.28	0.029	0.025	0.105	.	(0.002)	0.042	.
1	SS 467/1	0.082	0.788	0.018	0.019	0.52	.	9.21	18.09	.	.	.	0.99	.	.	.
1	13X 17001C *	0.08	1.55	0.064	0.013	0.24	0.02	6.45	14.9	0.1	0.1	0.006	0.57	.	.	.
1	VS LG35/5	0.078	0.81	0.042	0.0094	1.01	0.066	8.23	18.44	.	0.39	.	.	0.73	0.041	0.107
1	KUT S26	0.076	0.99	0.027	0.026	0.67	0.14	3.31	18.9	.	2.59	.	0.07	0.11	.	.
1	NCS HS41750	0.075	1.43	0.031	0.012	0.33	0.276	6.35	16.31	.	0.107	0.058	.	(0.001)	0.064	.
#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo	N	Nb	Ti	V	W
1	ECRM 270-1D	0.0742	0.540	0.0196	0.0007	1.517	0.1076	10.86	20.88	0.0685	0.2099	0.1417	.	(0.0019)	0.0256	(0.0244)
1	VS LG78	0.074	1.60	0.017	0.0017	0.58	0.053	35.4	14.71	.	0.061	0.0062	0.004	1.31	0.020	3.16
1	BS 192	0.074	0.835	0.025	0.0005	0.387	0.412	7.11	16.44	0.104	0.430	0.0290	0.168	0.076	0.124	0.05
2	BS 83G	0.073	1.66	0.024	0.004	0.56	0.114	19.15	24.50	0.153	0.085	0.026	0.061	(0.003)	0.077	0.007
1	VS LG72	0.072	1.32	.	0.0050	0.334	0.306	12.4	16.36	0.090	2.07	0.0073	.	0.57	.	0.077
1	13X 12534X	0.0716	0.589	0.0192	0.0086	0.811	0.0586	8.50	17.71	0.0602	2.04	.	0.201	0.348	0.110	0.010
1	IARM 316A	0.070	0.61	0.023	0.0011	1.50	0.19	10.81	21.07	0.118	0.250	0.16	(0.003)	(0.002)	0.042	0.022
1	VS LG63	0.068	0.356	0.010	0.0050	0.285	0.024	22.15	10.13	.	1.65	.	0.113	2.98	0.086	0.43
1	KUT S25	0.067	1.90	0.045	0.015	1.49	0.07	13.8	15.6	.	1.77	.	0.07	0.46	.	.
2	CT 305	0.067	1.85	0.025	0.022	1.55	0.29	11.95	18.58	0.22	0.45	.	.	.	0.078	.
1	SRM 1171	0.067	1.81	(0.019)	(0.013)	0.536	0.1205	11.18	17.50	(0.097)	0.167	.	.	0.346	.	(0.012)
1	BS 9841	0.067	1.69	0.024	0.024	0.54	0.356	19.55	24.30	0.116	0.57	0.064	0.070	(0.002)	0.070	0.06
1	NCS HS28744	0.067	1.10	0.028	0.021	0.435	0.166	10.39	16.80	0.063	2.01	0.063	0.027	(0.006)	0.048	.
1	SS 465/1	0.066	1.380	0.021	0.012	0.405	0.098	9.24	17.31	0.053	0.092	.	.	0.40	0.102	.
1	BS 192a	0.066	0.768													

STAINLESS STEEL WITH C > 0.05 %

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Number	Al	As	B	Bi	Ca	Ce	O	Pb	Sb	Sn	Ta	Zr	Units
KUT S24													30-35 mm Ø x 18 or 40 mm
VS LG76	0.034												~45 mm Ø x ~28 mm
VS LG74	0.035												~45 mm Ø x ~28 mm
KUT S21													30-35 mm Ø x 18 or 40 mm
CZ CM-19A	0.0788		(0.091)		(0.0036)					0.0283			~37 mm Ø x ~25 mm
VS LG79	0.059												~45 mm Ø x ~28 mm
CZ SP-3C	0.095	(0.03)	1.67							(0.02)			~39 mm Ø x 25 mm
DSZU C016	0.007				0.0004								40 mm Ø x 25 mm
CZ SP-3B	0.08		0.88							0.01			~39 mm Ø x 25 mm
KUT S19													30-35 mm Ø x 18 or 40 mm
SRM C1153a								0.006					32 mm Ø x 19 mm
VS LG34/5	0.029												~38 mm Ø x ~25 mm
13X 18001B	0.0157												~40 mm Ø x ~15 mm
KUT H6/1													30-35 mm Ø x 18 or 40 mm
13X 12855M			0.0099	0.015					0.210		0.050		~40 mm Ø x ~15 mm
CZ SP-3D	0.037	(0.03)	2.45							(0.04)			~39 mm Ø x 25 mm
13X NSB1D													40 mm Ø x 15 mm
IARM 359A	0.004	(0.001)	0.0006		0.0014		0.016			(0.002)	(0.005)	(0.003)	31 mm Ø x 2 or 18 mm
13X NSA3J													40 mm Ø x 15 mm
13X 18002D	0.0617												~40 mm Ø x ~15 mm
13X 12540L													40 mm Ø x 15 mm
CZ CM-18A	0.0344										last of stock		~37 mm Ø x ~25 mm
SS 468/1													38 mm Ø x 19 mm
SRM C1152a								0.0047					32 mm Ø x 19 mm
VS LG32/5	0.156												~38 mm Ø x ~25 mm
IARM 289A	0.01		0.0003				0.0104			(0.002)	<0.005		31 mm Ø x 2 or 18 mm
IARM 241D *	0.022	(0.001)	0.0011		* Provisional Analysis		(0.004)	(0.0004)		0.002	(0.004)	(0.007)	31 mm Ø x 2 or 18 mm
DSZU C018	0.086				0.0003								40 mm Ø x 25 mm
13X NSB3G								0.006					42 mm Ø x 15 mm
KUT H5													30-35 mm Ø x 18 or 40 mm
13X 17001B	0.01		0.008							0.030			~40 mm Ø x ~15 mm last
13X 18003C	0.0292												~40 mm Ø x ~15 mm
IRSID 1819			(0.0004)										47 mm x 47 mm x 30 mm
13X 17002E	(0.030)		0.0012								(0.012)		~40 mm Ø x ~15 mm
NCS HS28743	0.0056	0.0042						0.0004		0.0025			38 mm Ø x 35 mm
IMZ 166A	0.036	(0.0026)								(0.0035)			40 mm Ø x 40 mm
VS LG81	0.409												~45 mm Ø x ~28 mm
VS LG77													~45 mm Ø x ~28 mm
IMZ 164	0.040	(0.005)						(0.002)		(0.003)			40 mm Ø x 40 mm
13X 17003A													40 mm Ø x 15 mm
VS LG73													~45 mm Ø x ~28 mm
KUT S20													30-35 mm Ø x 18 or 40 mm
VS LG80	0.025												~45 mm Ø x ~28 mm
BS 253	0.016	0.005				0.044				0.006	25(pre-17025)		38 mm Ø x ~7 or 19+ mm
IARM 234C *	0.035	(0.002)	0.0022		* Provisional Analysis		(0.004)			(0.002)	(0.01)	(0.01)	31 mm Ø x 2 or 18 mm
SS 462		0.007						0.0005					38 mm Ø x 19 mm
13X 12537T	(0.062)		0.0029							0.0401	0.0194		~40 mm Ø x ~15 mm
DSZU C015	(0.008)				0.0017								40 mm Ø x 25 mm
SS 464/1		(0.003)						0.0004					38 mm Ø x 19 mm
IMZ 165	0.038	(0.003)						(0.001)		0.003			40 mm Ø x 40 mm
SS 467/1		0.004						0.004			0.0017		38 mm Ø x 19 mm
13X 17001C *	0.03		0.01		* Provisional Analysis					0.001	0.01		~40 mm Ø x ~15 mm
VS LG35/5	0.087												~38 mm Ø x ~25 mm
KUT S26													30-35 mm Ø x 18 or 40 mm
NCS HS41750	0.009												38 mm Ø x 35 mm
Number	Al	As	B	Bi	Ca	Ce	O	Pb	Sb	Sn	Ta	Zr	Units
ECRM 270-1D	(0.0023)	(0.0034)	Ce: 0.0487	La: 0.0154					(0.0007)	(0.0035)		(0.002)	38 mm Ø x 25 mm
VS LG78	0.15												~45 mm Ø x ~28 mm
BS 192	1.17	(0.005)	(0.0003)		0.0007		0.0014	25(pre-17025)		0.008	(0.001)		38 mm Ø x ~7 or 19+ mm
BS 83G	(0.004)		(0.001)				0.0064			0.003			38 mm Ø x ~7 or 19+ mm
VS LG72	0.089												~45 mm Ø x ~28 mm
13X 12534X	0.0485		(0.0003)					(0.0001)			0.031		~40 mm Ø x ~15 mm
IARM 316A	0.006	0.007	(0.0003)		0.0017	0.064	0.0052	(0.0001)		0.006	(0.003)		31 mm Ø x 2 or 18 mm
VS LG63	0.45												~47 mm Ø x ~28 mm
KUT S25													30-35 mm Ø x 18 or 40 mm
CT 305													30-35 mm Ø x 20-25 mm
SRM 1171													31 mm Ø x 19 mm
BS 9841	<(0.006)	(0.003)	0.0026	25(pre-17025)			(0.011)	(0.001)	(0.006)	0.006		(0.002)	44 mm Ø x ~7 or 19+ mm
NCS HS28744	0.012	0.0037						0.0005		0.0034			38 mm Ø x 35 mm
SS 465/1	0.026		0.0006					<(0.001)					38 mm Ø x 19 mm
BS 192A	0.98	(0.0035)	(0.0003)		(0.0006)		(0.0006)			0.008	25(pre-17025)		38 mm Ø x ~7 or 19+ mm
IMZ 152													40 mm Ø x 40 mm
VS LG71	0.072												~45 mm Ø x ~28 mm
IARM 7C	0.017		0.0027				0.0021	(0.0001)		0.0020	(0.002)	(0.001)	31 mm Ø x 2 or 18 mm Mg:15ppm
CT 304								<0.001		0.017			30-35 mm Ø x 20-25 mm Ag: 7ppm
BS 82E	0.006		0.0024		0.0014					0.006			38 mm Ø x ~7 or 19+ mm
13X 31008A													~38 mm Ø x ~15 mm
KUT H7/1													30-35 mm Ø x 18 or 40 mm
BS 321A	0.038	(0.006)	(0.0005)		(0.0002)		0.0013			0.010	(0.002)		38 mm Ø x 19 mm last
CT 316								0.001		0.006			30-35 mm Ø x 20-25 mm Ag: 5ppm
VS LG36/5	0.080												~38 mm Ø x ~25 mm
CT X52353													30-35 mm Ø x 20-25 mm last
13X NSB2D													40 mm Ø x 15 mm
BS 9842	0.014	(0.002)	0.0025		0.0010		(0.0044)			0.005	25(pre-17025)		38 mm Ø x ~7 or 19+ mm
BS 82D	(0.002)		0.0040		0.0007		0.007			0.004	last		38 mm Ø x ~7 or ~11 mm
13X 30908A	0.0035		0.0027		(0.0005)								~38 mm Ø x ~15 mm
SRM 1172											<0.001		32 mm Ø x 19 mm
VS LG82	0.076												~45 mm Ø x ~28 mm
BS 87F	0.004	0.005	(0.0006)		0.0007		0.005			0.004			41 mm Ø x ~7 or 19+ mm
IARM 3E *	(0.004)	(0.004)	0.0004		* Provisional Analysis		0.0046	(0.0005)		0.008	(0.005)	(0.002)	31 mm Ø x 2 or 18 mm
13X 19001B											(0.019)		40 mm Ø x 15 mm
BS 86F	(0.007)	(0.003)	0.0026		(0.001)			(0.001)		0.004			44 mm Ø x ~7 or 19+ mm
DSZU C017	0.28				0.0031								40 mm Ø x 25 mm
IARM 2H *	(0.004)	(0.008)	0.0004		* Provisional Analysis		(0.006)		(0.002)	0.011	(0.007)	(0.004)	31 mm Ø x 2 or 18 mm
BS 347B	0.002	(0.003)	0.0036		(0.0005)		0.005			0.006	<(0.004)		38 mm Ø x ~7 or 19+ mm
BS 347A	(0.002)	(0.003)	(0.0004)		(0.0002)		0.0047			0.007	<(0.004)		38 mm Ø x 19+ mm
BS 188A	0.19		0.0065				0.0012	<0.001		0.002			38 mm Ø x ~7 mm last of stock
Number	Al	As	B	Bi	Ca	Ce	O	Pb	Sb	Sn	Ta	Zr	Units

STAINLESS STEEL WITH C < 0.05 %

CONTINUED ON THE NEXT PAGE

= Class, where 1 = CRM, 2 = RM, and 3 = RM with no uncertainties analysis listed in mass %

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo	N	Nb	Ti	V	W
1	ECRM 269-1D	0.0499	1.262	0.0313	0.0010	0.441	0.366	8.044	18.150	0.1116	0.397	0.0460	0.0242	0.0006	0.0991	0.0306
2	BS 851	0.049	1.69	0.025	0.024	0.55	0.45	10.03	17.09	0.97	0.59	0.016	0.065	0.48	0.134	0.06
1	IARM 51 *	0.049	1.44	0.028	0.033	0.435	0.487	10.04	16.67	0.185	2.027	0.048	0.013	(0.002)	0.064	0.185
1	ECRM 289-1D	0.0489	1.016	0.0114	0.0027	0.531	0.090	24.68	16.83	0.065	1.102	.	.	2.01	0.260	.
1	IMZ 150A	0.048	1.35	0.0064	0.0095	0.59	0.090	12.75	18.89	0.125	0.12	.	0.0026	0.021	(0.027)	0.11
1	IARM 5H *	0.047	1.46	0.030	0.030	0.405	0.46	10.05	16.86	0.250	2.03	0.051	0.016	(0.003)	0.068	0.081
1	13X 32100A	0.0463	1.52	0.0298	0.0011	0.498	0.415	9.32	17.39	0.105	0.282	0.0115	0.0191	0.376	0.106	0.021
1	BS 188B	0.046	0.247	0.016	(0.0007)	0.266	0.120	24.81	14.32	0.274	1.30	0.0021	0.099	2.20	0.264	0.043
1	BS 303	0.044	1.80	0.028	0.326	0.415	0.627	8.17	17.23	0.071	0.410	0.023	0.008	0.017	0.056	0.023
1	IARM 4E	0.044	1.07	0.0224	0.0006	0.514	0.234	20.18	24.25	0.066	0.32	0.038	0.024	(0.003)	0.052	0.046
3	CZ SL-3A	0.043	1.73	0.024	0.002	0.53	0.22	19.6	24.6	0.06	0.38	0.065	0.013	0.003	0.066	0.03
1	KUT S15	0.043	0.38	(0.02)	0.013	0.26	1.54	3.90	16.7	.	2.46	.	0.64	.	.	.
1	13X 14216P	0.0424	0.663	0.0048	0.0070	1.566	0.231	12.06	23.44	0.248	0.209	0.0152	0.248	.	0.0722	2.25
1	IARM 8G *	0.042	1.47	0.033	0.012	0.37	0.39	9.01	17.20	0.16	0.36	0.046	0.53	(0.002)	0.062	0.032
1	VS LG70	0.042	0.834	0.042	0.0020	0.382	0.062	9.17	17.10	0.209	0.096	0.0134	.	0.305	.	0.0053
1	NILAB 500HA D	0.041	1.541	0.024	0.012	0.720	0.182	11.00	16.93	0.139	2.73	0.1154	0.023	.	0.074	.
1	13X 12538J	0.04	0.78	.	.	0.64	.	6.07	23.72	.	1.53	.	.	.	.	.
1	NCS HS41751	0.039	1.81	0.035	0.200	0.353	0.124	8.12	17.22	.	0.044	0.064	.	(0.001)	0.121	.
1	NCS HS28741	0.039	1.07	0.037	0.016	0.425	0.399	8.19	18.31	0.208	0.027	0.069	.	(0.002)	0.106	.
2	BS 321C	0.037	1.72	0.025	0.022	0.58	0.28	10.58	17.16	0.048	0.30	0.0082	0.008	0.38	0.079	(0.03)
1	IRSID 1821	0.037	1.72	(0.025)	(0.004)	0.542	0.058	10.42	17.04	0.266	2.04	0.0125	.	0.297	.	.
1	13X 14207L *	0.037	0.58	0.006	0.005	1.4	0.18	12.3	19.6	0.01	0.57	0.010	0.26	.	.	3.0
1	ECRM 292-1D	0.0367	1.744	0.0175	0.0055	0.402	0.391	10.09	18.00	0.0255	0.0464	0.0640	0.571	.	0.640	.
1	13X 66286A	0.036	1.172	0.0173	(0.0006)	0.216	0.195	25.21	18.00	0.083	1.190	0.040	.	1.92	0.264	0.098
2	BS 184A	0.035	0.06	0.007	0.001	0.080	0.041	8.34	12.66	0.036	2.20	0.0045	(0.006)	0.051	0.014	0.032
1	IARM 21C	0.035	0.051	0.007	0.0038	0.042	0.047	8.18	12.39	0.021	2.11	0.0045	0.007	0.012	0.013	(0.01)
1	SS 462/1	0.0345	0.722	0.0053	0.0041	0.463	0.0112	12.85	11.888	.	0.0304	.	.	.	.	.
1	SRM C1151a	0.034	2.37	0.017	0.038	0.29	0.385	7.25	22.59	0.033	0.79	.	.	.	0.040	.
1	BS 9812	0.031	0.485	0.018	(0.004)	0.43	1.65	6.61	14.82	0.110	0.76	0.0195	0.645	(0.005)	0.088	0.025
2	HRT FE2014-H	0.027	1.91	0.023	(0.002)	0.39	0.25	9.92	17.16	.	0.41	(0.018)	.	0.31	.	.
2	BS 317L	0.027	1.17	0.029	0.0014	0.67	0.23	13.53	18.16	0.14	3.07	0.056	0.031	.	0.09	0.018
1	VS LG75	0.027	0.728	0.0046	0.0026	0.298	0.029	24.5	14.80	0.090	0.052	0.0044	.	1.76	0.086	4.14
1	BS 9811	0.027	1.389	0.016	0.0010	0.36	1.63	6.55	14.87	0.055	14.87	0.0196	0.62	(0.003)	0.0725	0.0809
1	SRM 1155a	0.0260	1.593	0.0271	(0.0020)	0.521	0.2431	12.471	17.803	0.225	2.188	(0.0428)	0.0082	0.0039	0.0725	0.0809
2	HRT FE2013-H	0.026	0.61	0.022	0.005	0.38	0.13	6.20	25.71	.	3.63	0.28	.	0.05	.	.
#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo	N	Nb	Ti	V	W
1	13X 32900A	0.0251	1.478	0.0276	0.0269	0.556	0.354	5.57	24.91	0.0724	1.310	0.097	.	0.0139	0.0938	0.017
1	13X 31603A	0.0242	1.78	0.0284	0.0246	0.332	0.322	10.17	16.83	0.0571	1.98	0.080	0.0078	.	0.093	0.0444
1	13X NSA8A	0.0240	0.656	0.0216	0.0008	(0.40)	0.903	6.29	25.93	0.0374	3.60	0.239	(0.004)	.	0.060	0.586
1	IARM 162D *	0.024	1.82	0.030	0.027	0.57	0.52	8.16	18.31	0.075	0.57	0.097	0.009	0.012	0.068	0.026
1	IARM 153C *	0.023	1.60	0.029	0.029	0.35	0.446	11.1	18.22	0.25	3.0	0.085	0.014	(0.003)	0.058	0.045
1	ECRM 297-1D	0.0223	0.897	0.0137	0.0101	0.344	0.204	12.33	18.37	0.0413	0.290	0.0152	(0.0089)	0.0072	0.0535	(0.0057)
1	NCS HS28746	0.021	1.87	0.031	0.0009	0.510	0.340	8.24	17.19	0.191	0.069	0.011	.	0.184	0.096	.
1	BS 9942	0.021	1.84	0.025	0.006	0.49	0.305	13.55	18.21	0.086	3.30	0.071	0.005	(0.002)	0.072	0.032
1	BS 9941	0.021	1.78	0.027	0.024	0.33	0.424	13.68	18.48	0.178	3.24	0.036	0.015	(0.002)	0.062	0.068
1	IRSID 1820	0.021	1.61	(0.021)	0.0079	0.428	0.045	9.07	19.51	0.151	0.115	0.064	.	.	.	.
1	NCS HS28742	0.021	0.940	0.034	0.0028	0.414	0.043	8.11	18.2	0.216	0.025	0.059	.	0.006	0.089	.
1	IARM 301B *	0.021	0.81	0.026	0.0008	0.42	0.19	7.01	25.1	0.055	3.75	0.30	0.020	(0.005)	0.070	0.053
1	13X 30403A	0.0200	1.495	0.029	0.025	0.288	0.217	7.93	18.27	0.101	0.193	0.081	(0.019)	.	0.113	0.018
1	13X NSA9A	0.020	1.593	0.0246	(0.0008)	0.476	0.242	5.46	22.59	0.071	3.10	0.156	0.012	.	0.070	(0.024)
1	SS 463/1	0.019	1.400	0.025	0.019	0.270	0.276	10.20	18.46	0.116	0.265	0.063	.	.	.	.
1	BS 2205	0.0199	1.029	0.0227	0.0005	0.564	0.196	5.27	22.92	0.041	3.26	0.169	0.0052	0.0019	0.0560	0.0309
1	13X NSA12A	0.0192	1.272	0.0267	0.0007	0.492	1.485	24.84	19.63	0.090	4.20	0.0662	0.0088	.	0.0660	0.047
1	BS 304A	0.019	1.706	0.0402	0.0188	0.56	0.548	8.20	18.17	0.126	0.28	0.072	0.014	(0.0005)	0.067	0.042
1	IARM 212D	0.019	1.21	0.024	0.0007	0.34	0.125	5.53	22.60	0.049	3.27	0.182	(0.009)	(0.002)	0.063	0.014
1	BS 316D	0.0185	1.400	0.0294	0.0189	0.278	0.409	10.38	16.76	0.294	2.05	0.042	0.0277	(0.002)	0.074	0.072
1	BS 316E	0.0183	1.413	0.0295	0.0214	0.268	0.408	10.43	16.70	0.287	2.06	0.042	0.0282	(0.002)	0.074	0.067
1	IARM 162C	0.0181	1.45	0.032	0.024	0.25	0.44	8.68	18.07	0.158	0.34	0.074	0.011	0.0012	0.076	0.043
1	13X FV520BA	0.0181	0.655	0.0221	0.0016	0.342	1.462	5.29	13.73	0.030	1.334	0.0197	0.301	.	0.080	0.020
2	HRT FE2000-H	0.018	2.02	0.022	(0.003)	0.36	0.15	5.98	22.15	0.048	3.27	0.20	0.010	0.005	0.042	0.063
1	BS 304	0.018	1.775	0.039	0.0214	0.451	0.474	8.20	18.01	0.153	0.237	0.063	0.0054	(0.0004)	0.087	0.040
1	BS 304B *	0.018	1.71	0.024	0.024	0.54	0.26	8.7	18.3	0.22	0.42	0.079	0.083	(0.003)	0.097	0.017
1	VS LG33/5	0.018	1.32	0.025	0.016	0.44	0.167	10.40	16.26	.	0.045	.	.	0.21	0.101	0.158
1	NCS HS28745	0.018	1.17	0.042	0.0057	0.317	0.334	10.34	16.61	0.185	2.05	0.070	.	(0.002)	0.070	.
1	BS 179C	0.0164	0.878	0.0236	0.0003	0.373	1.53	6.10	25.9	0.0386	3.34	0.236	0.009	(0.0005)	0.080	0.056
1	BS 179B	0.0161	0.890	0.0243	0.0002	0.371	1.56	6.17	25.9	0.0394	3.34	0.239	0.008	(0.0008)	0.079	0.053
1	ECRM 287-1D	0.016	1.48	0.027	0.0014	0.569	0.203	10.35	18.61	0.148	0.247	0.019	.	.	.	.
1	13X 34700A	0.016	1.290	0.028	(0.0006)	0.483	0.183	9.38	17.19	0.131	0.393	0.0166	0.330	.	0.123	0.146
1	13X NSA11A	0.0159	0.640	0.0186	<0.001	0.275	0.167	23.89	20.18	0.0981	6.16	0.203	0.150	.	0.0513	0.038
3	CZ SL-2A	0.015	1.84	0.025	0.027	0.64	0.50	11.0	16.9	0.09	2.03	0.04	.	0.06	0.075	0.03
1	IARM 319A	0.015	0.53	0.024	0.0006	0.23	0.51	6.92	25.2	0.051	3.56	0.240	(0.006)	(0.003)	0.076	0.52
1	ECRM 298-1D	0.0146	0.398	0.0198	0.0006	0.262	0.201	7.056	24.72	0.055	3.799	0.263	.	0.0014	0.0607	.
1	SS 466/2	0.0141	1.311	0.0105	0.0069	0.480	0.0278	10.20	17.84	0.0184	2.776	0.0508	.	.	0.0346	.
2	BS SS3951	0.014	1.56	0.023	0.031	0.61										

STAINLESS STEEL WITH C < 0.05 %

CONTINUED FROM THE PREVIOUS PAGE

analysis listed in mass %

Number	Al	As	B	Ca	O	Pb	Sb	Sn	Ta	Units
ECRM 269-1D	.	0.0061	.	.	.	.	.	0.0099	.	35 mm Ø x 25 mm
BS 85D	0.13	0.006	0.0006	0.0004	0.0014	0.0004	0.001	(0.006)	.	38 mm Ø x 19+ mm
IARM 51 *	(0.004)	(0.006)	0.0006	(0.0002)	0.0059	.	(0.002)	0.0080	(0.006)	31 mm Ø x 2 or 18 mm * Provisional Analysis
ECRM 269-1D	0.199	.	0.0044	.	.	.	.	0.111	.	38 mm Ø x 30 mm
IMZ 150A	0.022	.	.	.	.	.	.	.	.	40 mm Ø x 40 mm
IARM 5H *	(0.004)	(0.007)	0.0009	<0.002	(0.006)	.	(0.002)	0.011	(0.003)	31 mm Ø x 2 mm * Provisional Analysis
13X 32100A	0.0247	.	0.0025	.	.	.	.	0.0115	.	~38 mm Ø x ~15 mm
BS 188B	0.168	0.0045	0.0047	(0.00003)	0.0006	(0.0001)	(0.0006)	0.0051	.	38 mm Ø x ~7 or 19+ mm Fe: 55.8 17025
BS 303	0.0019	.	0.0013	(0.0015)	0.0058	.	(0.002)	0.0091	.	44 mm Ø x ~7 or 19+ mm 17025 Fe:[70.7]
IARM 4E	0.004	(0.005)	0.0011	.	0.0021	.	.	0.0060	0.005	31 mm Ø x 2 or 18 mm
CZ SL-3A	0.007	.	0.002	.	.	.	.	0.006	.	~39 mm Ø x 25 mm
KUT S15	.	.	.	.	.	.	.	.	.	30-35 mm Ø x 18 or 40 mm
13X 14216P	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
IARM 8G *	0.0026	(0.007)	0.001	<0.0005	0.0023	<0.0005	(0.01)	0.011	(0.005)	31 mm Ø x 2 or 18 * Provisional Analysis
VS LG70	0.029	.	.	.	.	.	.	.	.	~45 mm Ø x ~28 mm
NILAB 500HA D	.	.	.	.	.	.	.	.	.	38 mm Ø x 20 mm
13X 12538J	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm
NCS HS41751	(0.004)	.	.	.	.	(0.001)	.	.	.	38 mm Ø x 35 mm
NCS HS28741	.	0.0035	.	.	.	0.0001	.	0.0051	.	38 mm Ø x 35 mm
BS 321C	0.044	(0.004)	(0.0005)	(0.0001)	(0.0011)	.	.	0.006	.	38 mm Ø x ~7 or 19+ mm
IRSID 1821	.	.	.	.	.	.	.	.	.	47 mm x 47 mm x 30 mm
13X 14207L *	.	* Provisional Analysis	.	.	.	.	.	.	0.08	~40 mm Ø x ~15 mm
ECRM 292-1D	(0.002)	(0.008)	(0.0006)	.	.	.	.	.	(0.001)	38 mm Ø x 25 or 30 mm
13X 66286A	0.193	.	0.0044	.	.	.	.	.	.	~40 mm Ø x ~15 mm
BS 184A	1.00	.	(0.0004)	(0.0003)	(0.0003)	.	.	(0.002)	(0.002)	38 mm Ø x ~7 or 19+ mm
IARM 21C	1.07	.	0.0004	.	0.0004	.	.	0.005	(0.002)	31 mm Ø x 2 or 18 mm
SS 462/1	.	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm
SRM C1151a	.	.	.	.	.	0.0039	.	.	.	32 mm Ø x 19 mm
BS 9812	(0.002)	(0.005)	(0.0003)	0.0012	(0.007)	.	.	0.004	.	50 mm Ø x ~7 or 19+ mm 25(pre-17025)
HRT FE2014-H	.	.	.	.	.	.	.	.	.	35mm Ø x 20 mm
BS 317L	(0.005)	(0.003)	0.0013	(0.001)	0.007	.	.	0.005	.	37 mm Ø x ~7 or 19+ mm
VS LG75	0.113	.	.	.	.	.	.	.	.	~45 mm Ø x ~28 mm
BS 9811	(0.003)	(0.003)	(0.0003)	0.0014	(0.0060)	.	.	0.004	.	38 mm Ø x ~7 or 19+ mm 25(pre-17025)
SRM 1155a	<0.01	(0.007)	(0.002)	.	(0.003)	<0.005	.	(0.0069)	.	32 mm Ø x 19 mm
HRT FE2013-H	.	.	.	.	.	.	.	.	.	40 mm Ø x 20 mm
Number	Al	As	B	Ca	O	Pb	Sb	Sn	Ta	Units
13X 32900A	0.007	.	0.0028	0.0033	.	.	.	.	.	~40 mm Ø x ~15 mm
13X 31603A	0.00098	.	0.0011	(0.003)	.	.	.	0.0045	.	~40 mm Ø x ~15 mm last of stock
13X NSA8A	.	.	.	.	.	.	.	.	.	~44 mm Ø x ~15 mm
IARM 162D *	(0.003)	<0.008	0.0026	<0.002	(0.005)	.	<0.002	0.011	(0.01)	31 mm Ø x 2 or 18 mm * Provisional Analysis
IARM 153C *	(0.003)	(0.006)	0.0007	(0.003)	(0.005)	(0.001)	(0.001)	0.010	(0.01)	31 mm Ø x 2 or 18 mm * Provisional Analysis
ECRM 297-1D	0.0195	0.0040	1.146	(0.0002)	.	.	.	.	.	40 mm Ø x 30 mm
NCS HS28746	0.086	0.0032	.	.	.	0.0002	.	0.0065	.	38 mm Ø x 35 mm
BS 9942	0.004	(0.004)	0.0014	0.0014	(0.0023)	.	.	0.006	.	44 mm Ø x ~7 or 19+ mm 25(pre-17025)
BS 9941	0.004	(0.010)	0.0025	(0.0003)	(0.0058)	.	.	0.007	.	38 mm Ø x ~7 or 19+ mm 25(pre-17025)
IRSID 1820	.	.	(0.0013)	.	.	.	.	.	.	47 mm x 47 mm x 30 mm
NCS HS28742	.	0.0025	.	.	.	0.0001	.	(0.0001)	.	38 mm Ø x 35 mm
IARM 301B *	(0.006)	<0.004	0.003	<0.001	0.007	<0.005	<0.001	(0.005)	(0.003)	31 mm Ø x 2 or 18 mm * Provisional Analysis
13X 30403A	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
13X NSA9A	.	.	.	.	.	.	.	.	.	40 mm Ø x ~15 mm
SS 463/1	.	.	0.0022	.	.	.	.	.	.	38 mm Ø x 19 mm
BS 2205	0.0080	0.0059	0.0016	0.0014	0.0034	(0.0001)	0.0010	0.0050	17025	38 mm Ø x ~7 or 19+ mm Fe:[67.0] Mg:(0.0004) Zr:(0.006)
13X NSA12A	0.0169	.	0.0020	.	.	.	.	.	.	~40 mm Ø x ~15 mm
BS 304A	0.0028	(0.007)	(0.0005)	.	0.0061	(0.0001)	(0.002)	0.0096	.	38 mm Ø x ~7 or 19+ mm 17025 Fe:[70.1]
IARM 212D	(0.005)	(0.01)	0.001	(0.001)	0.0034	(0.001)	.	(0.003)	(0.003)	31 mm Ø x 2 mm
BS 316D	(0.002)	0.0048	0.0038	(0.0008)	0.0039	(0.0003)	(0.002)	0.0080	.	38 mm Ø x ~7 or 19+ mm 17025 Fe: 68.1
BS 316E	0.0027	0.0045	0.0036	(0.0006)	0.0039	(0.0002)	(0.002)	0.0082	.	38 mm Ø x ~7 or 19+ mm 17025 Fe: 68.1
IARM 162C	0.004	(0.006)	(0.001)	(0.001)	0.005	(0.001)	.	0.011	last	31 mm Ø x 18 mm
13X FV520BA	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
HRT FE2000-H	.	.	0.0013	.	.	.	.	.	.	40 mm Ø x 20 mm
BS 304	0.0022	(0.005)	(0.0005)	(0.001)	0.0083	(0.0003)	(0.002)	0.0116	.	38 mm Ø x ~7 or 19+ mm 17025 Fe:[70.5]
BS 304B *	0.003	0.005	0.0005	0.0009	0.003	<0.005	.	0.006	.	38 mm Ø x ~7 or 19+ mm * Provisional Analysis
VS LG33/5	0.024	.	.	.	.	.	.	.	.	~38 mm Ø x ~25 mm
NCS HS28745	.	0.0055	.	.	.	0.0001	.	0.0073	.	38 mm Ø x 35 mm
BS 179C	0.0078	0.0034	0.0015	(0.0003)	0.0038	(0.00002)	0.0005	0.0018	(0.0006)	38 mm Ø x ~7 or 19+ mm 17025 Fe:[61.6]
BS 179B	0.0070	0.0036	0.0015	(0.0004)	0.0037	(0.00002)	0.0005	0.0019	(0.0006)	38 mm Ø x 19+ mm 17025 Fe:[61.5]
ECRM 287-1D	.	.	0.924	.	.	.	.	.	.	38 mm Ø x 25 or 30 mm
13X 34700A	0.023	.	0.0008	.	.	.	.	.	.	~38 mm Ø x ~15 mm
13X NSA11A	(0.021)	.	.	.	.	.	.	.	.	~38 mm Ø x ~15 mm
CZ SL-2A	0.005	0.008	0.002	.	.	.	.	0.01	.	~39 mm Ø x 25 mm
IARM 319A	(0.010)	(0.004)	0.0020	.	0.0025	.	.	0.0055	(0.002)	31 mm Ø x 2 mm
ECRM 298-1D	0.0285	.	0.0021	.	.	0.00008	.	.	.	38 mm Ø x 25 mm Fe: 63.38
SS 466/2	0.0018	0.0020	0.0039	.	.	.	.	.	.	38 mm Ø x 19 mm
BS SS3951	0.002	.	(0.0006)	0.0005	0.0075	.	.	0.007	.	41 mm Ø x ~7 or 19+ mm
IARM 163E *	0.0039	(0.008)	0.0019	(0.002)	0.007	.	(0.002)	0.012	.	31 mm Ø x 2 mm * Provisional Analysis, last
HRT FE2016-H	.	.	.	.	.	.	.	.	.	30 mm Ø x 20 mm
SS 461/1	0.069	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm
BS SS1961	0.067	0.004	0.0022	.	(0.002)	.	.	0.004	.	38 mm Ø x 12 mm last
BS SS1962	0.062	0.002	0.0018	.	(0.001)	.	.	0.004	.	38 mm Ø x ~7 or 19+ mm
CT ISO123A	0.027	.	0.0021	.	.	.	.	.	.	30-35 mm Ø x 20-25 mm Fe: 74.72
ECRM 284-3D	.	0.00131	0.00020	.	.	.	.	0.00074	.	39 mm Ø x 28 mm
Number	Al	As	B	Ca	O	Pb	Sb	Sn	Ta	Units

STAINLESS STEEL XRF SETS

AVAILABLE IN SETS OR INDIVIDUALLY

-7 mm discs

Grade	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo	N	Nb	V	W
SET BS SS-17															
15-5PH	BS 185A	0.033	0.49	0.022	0.002	0.38	3.41	4.43	14.46	0.026	0.30	0.027	0.32	0.048	(0.014)
17-4PH	BS 17-4PHA	0.018	0.85	0.023	0.022	0.40	3.30	4.69	15.40	0.072	0.34	0.022	0.204	0.043	
17-7PH	BS 192	0.075	0.84	0.025	0.001	0.38	0.41	7.10	16.42	0.104	0.42	0.029	0.17	0.13	0.04
253 MA	BS 253	0.094	0.58	0.018	<0.001	1.81	0.14	10.89	20.68	0.15	0.21	0.146	0.017	0.050	0.03
255	BS 179C	0.0164	0.878	0.0236	0.0003	0.373	1.53	6.10	25.9	0.0386	3.34	0.236	0.009	0.080	0.056
2205 (318)															
	BS 2205	0.0199	1.029	0.0227	0.0005	0.564	0.196	5.27	22.92	0.041	3.26	0.169	0.0052	0.0560	0.0309
303	BS 303	0.044	1.80	0.028	0.326	0.415	0.627	8.17	17.23	0.071	0.410	0.023	0.008	0.056	0.023
304 L	BS 81F	0.026	1.35	0.023	0.012	0.36	0.19	10.06	18.15	0.21	0.41	0.069		0.078	0.037
309	BS 82D	0.058	1.85	0.020	0.009	0.63	0.16	14.12	22.40	0.042	0.144	0.070	0.053	0.087	0.028
310	BS 83G	0.073	1.66	0.024	0.004	0.56	0.114	19.15	24.50	0.153	0.085	0.026	0.061	0.077	0.007
316 L															
	BS 316D	0.0185	1.400	0.0294	0.0189	0.278	0.409	10.38	16.76	0.294	2.05	0.042	0.0277	0.074	0.072
317 L	BS 317L	0.027	1.17	0.029	0.0014	0.67	0.23	13.53	18.16	0.14	3.07	0.056	0.031	0.09	0.018
321	BS 85D	0.049	1.69	0.025	0.024	0.55	0.45	10.03	17.09	0.97	0.59	0.016	0.065	0.134	0.06
330	BS 86F	0.054	1.30	0.021	0.0011	1.22	0.23	34.99	18.74	0.098	0.24	0.035	0.19	0.061	(0.03)
347	BS 347B	0.051	1.57	0.028	0.026	0.51	0.15	9.16	17.24	0.05	0.38	0.056	0.71	0.04	(0.005)
PH13-8 Mo															
	BS 355	0.136	0.862	0.0171	0.0003	0.374	0.173	4.18	15.43	0.053	2.73	0.081	0.0103	0.106	0.0069
	BS 184A	0.035	0.06	0.007	0.001	0.080	0.041	8.34	12.66	0.036	2.20	0.0045	(0.006)	0.014	0.032
SET BS 400-SS-16															
182PM	BS 150	0.048	1.71	0.020	0.33	0.43	0.042	0.19	18.61	0.024	1.97	0.029	0.003	0.054	0.01
410	BS 410C	0.131	0.381	0.0206	0.0051	0.366	0.084	0.352	12.78	0.0185	0.055	0.039	0.0056	0.0006	0.0131
416	BS 90F	0.085	0.53	0.023	0.328	0.58	0.12	0.30	13.01	0.021	0.14	0.037	0.011	0.076	0.032
416 Se	BS 151	0.090	0.41	0.021	0.018	0.65	0.11	0.24	13.19	0.018	0.088	0.022	0.005	0.046	0.010
420	BS 98	0.309	0.48	0.019	0.0014	0.72	0.098	0.21	13.35	0.020	0.034	0.0181	0.003	0.075	0.009
420F															
	BS 152	0.32	0.36	0.022	0.275	0.44	0.050	0.14	13.41	0.015	0.061	0.020	0.006	0.051	<0.01
422	BS 97	0.216	0.71	0.021	0.0004	0.39	0.066	0.76	11.82	0.041	1.05	0.030	0.007	0.21	0.95
430	BS 91E	0.066	0.42	0.017	0.002	0.52	0.05	0.17	16.58	0.02	0.035	0.032	(0.004)	0.09	0.01
430F	BS 153	0.026	0.41	0.018	0.280	0.53	0.052	0.140	17.38	0.017	0.30	0.021	0.002	0.045	(0.002)
431	BS 92B	0.150	0.42	0.021	0.003	0.42	0.13	2.12	15.92	0.04	0.17	0.073	(0.006)	0.07	0.02
440C															
	BS 93E	1.02	0.52	0.022	0.0010	0.90	0.12	0.35	17.33	0.048	0.50	0.0359	0.005	0.24	0.11
440F	BS 155	1.00	0.35	0.014	0.145	0.40	0.035	0.13	16.64	0.019	0.46	0.032	0.002	0.10	
440F Se	BS 156	1.06	1.15	0.022	0.007	0.47	0.09	0.35	16.87	0.047	0.50	0.041	0.005	0.13	0.11
446	BS 94C	0.057	0.45	0.024	0.002	0.62	0.056	0.43	25.90	0.042	0.20	0.065	0.032	0.12	(0.03)
450	BS 95A	0.035	0.58	0.026	0.004	0.46	1.50	6.42	14.72	0.081	0.73	0.0255	0.55	0.052	0.02
455	BS 96A	0.009	0.04	0.007	0.004	0.06	2.07	8.38	11.62	0.03	0.021	.	0.26	0.07	.

Grade	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo	N	Nb	V	W
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Number	Al	B	Ca	Se	Sn	Ti
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SET BS SS-17

BS 185A	0.002	0.0017	(0.0002)	.	0.007	(0.001)									
BS 17-4PHA		0.0016	.	.											
BS 192	1.15	(0.0004)	0.0007	.	0.009	0.078									
BS 253	0.016	.	.	.	0.006	0.005			Ce: 0.044	As: 0.005					
BS 179C	0.0078	0.0015	(0.0003)	.	0.0018	(0.0005)			As: 0.0034	O: 0.0038	Sb: 0.0005	17025			
BS 2205	0.0080	0.0016	0.0014	.	0.0050	0.0019			As: 0.0059	Fe:[67.0]	O: 0.0034	Sb:0.0010	17025		
BS 303	0.0019	0.0013	(0.0015)	.	0.0091	0.017			O: 0.0058	17025					
BS 81F	(0.003)	0.0026	(0.0004)	.	0.007	0.003			O:(0.0064)						
BS 82D	(0.002)	0.0040	0.0007	.	0.004	0.005									
BS 83G	(0.004)	(0.001)	O:0.0064	.	0.003	(0.003)									
BS 316D	(0.002)	0.0038	(0.0008)	O:0.0039	0.0080	(0.002)			As: 0.0048	Fe: 68.1	17025				
BS 317L	(0.005)	0.0013	(0.001)	.	0.005										
BS 85D	0.13	0.0006	0.0004	.	(0.006)	0.48			As: 0.006	O: 0.0014	Sb: 0.001				
BS 86F	(0.007)	0.0026	(0.001)	.	0.004	(0.006)									
BS 347B	0.002	0.0036	(0.0005)	.	0.006	(0.002)									
BS 355	0.0192	0.0039	(0.0002)	.	0.0038	0.0007			O: 0.0020						
BS 184A	1.00	(0.0004)	(0.0003)	.	(0.002)	0.051									

SET BS 400-SS-16

BS 150	0.002	.	.	.	(0.003)	(0.002)									
BS 410C	0.0079	(0.0001)	0.0022	.	0.0023	0.0006			17025						
BS 90F	(0.006)	.	.	.	0.005	(0.002)									
BS 151	(0.002)	.	.	0.328	0.005	(<0.003)									
BS 98	0.003	.	(0.0005)	.	0.006	0.002									
BS 152	(0.002)	.	.	.	0.003	(0.002)									
BS 97	0.018	.	.	.	(0.003)	(0.002)									
BS 91E	(0.002)	.	0.0008	.	0.004	(0.002)									
BS 153	(0.004)	.	.	.	0.002	(0.004)									
BS 92B	(0.002)	.	(0.0009)	.	0.006	(0.002)									
BS 93E	0.009	.	.	.	0.003	0.007									
BS 155	(0.001)	.	.	.	(0.003)	(0.002)									
BS 156	(<0.002)	.	.	0.142	(0.004)	0.001									
BS 94C	0.004	.	0.0008	.	0.006										
BS 95A	0.002	0.0010	0.0008	.	0.008	(0.003)									
BS 96A	0.08	(0.0017)	.	.	.	1.18									

Number	Al	B	Ca	Se	Sn	Ti
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RM HIGH ALLOY STEEL XRF SET

Part Number: BS HAS-12

AVAILABLE INDIVIDUALLY

~7 mm 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
		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 183 Greek Ascology	0.16	0.43	0.020	0.013	0.33	0.068	2.00	12.81	0.35	.	.	0.029	.	(0.003)	(0.0016)	0.003	0.12	2.77	.
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 188A A-286	0.050	0.139	0.015	0.0049	0.15	0.099	24.61	14.04	1.10	0.19	0.0065	0.18	0.0029	0.050	0.002	2.21	0.24	0.055	.
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	.

Number Grade	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Al	B	Co	N	Nb	Sn	Ti	V	W	O
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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	.	.	.	.

RM GRAY IRON as cast (not chill cast) CONTAINS FREE GRAPHITE OBS regularly requires extension of preburn time to analyze correctly

Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	As	Co	Mo	Sb	Sn	Ti	V	mm Ø x mm H
BS 20G	3.33	0.58	0.028	0.029	3.02	0.54	0.38	0.086	0.008	0.004	0.022	0.19	(<0.001)	0.12	0.012	0.018	47 x 19+
BS 20W	3.27	0.62	0.045	0.036	2.64	0.29	0.082	0.092	0.004	0.004	0.005	0.054	(<0.001)	0.086	0.015	0.007	47 x 13
BS 20R	3.25	0.62	0.047	0.034	2.72	0.35	0.096	0.094	0.005	0.004	0.006	0.053	(<0.001)	0.104	0.015	0.007	47 x 19+
BS 20E	3.24	0.80	0.042	0.044	2.29	0.23	0.156	0.088	0.006	(0.003)	0.006	0.042	(<0.002)	0.093	0.017	0.007	47 x 19+
BS 20P	3.22	0.63	0.032	0.044	2.62	0.067	0.143	0.079	0.008	(0.004)	0.018	0.033	(<0.001)	0.099	0.018	0.017	44 x 19+

DUCTILE / NODULAR IRON

= Class, where 1 = CRM and 2 = RM

* Provisional Analysis

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Ce	Co	Mg	Mo	Ti	V
1	SCRM 666/12	3.599	0.106	.	.	1.763	0.0581	1.709	0.102	.	.	.	0.0838	0.0979	0.1069	0.0486
1	SCRM 667/13	3.04	0.222	.	.	2.866	0.497	1.303	0.294	.	0.110	.	0.070	.	.	0.103
1	SCRM 670/19	3.532	0.324	.	0.0085	2.216	0.985	0.916	0.484	.	0.0139	.	0.0470	0.0098	0.109	0.0231
1	BS 291EH *	3.22	0.479	0.0193	0.0119	2.07	0.237	0.098	0.0153	0.0485	.	0.0026	0.046	0.0075	0.0157	0.0082
1	BS 291EG *	3.21	0.481	0.0194	0.0120	2.07	0.235	0.099	0.0151	0.0484	.	0.0032	0.045	0.0074	0.0157	0.0083
1	BS 291EF *	3.22	0.480	0.0191	0.0119	2.077	0.236	0.0987	0.0150	0.0482	.	0.0035	0.044	0.0074	0.0156	0.0082
1	BS 291EE *	3.23	0.481	0.0190	0.0118	2.08	0.235	0.0988	0.0153	0.0476	.	0.0036	0.043	0.0075	0.0156	0.0082
1	BS 291ED *	3.23	0.480	0.0189	0.0119	2.09	0.236	0.099	0.0148	0.0473	.	0.0038	0.042	0.0075	0.0155	0.0082
1	BS 291EC *	3.23	0.479	0.0190	0.0127	2.09	0.236	0.099	0.0140	0.0464	.	0.0053	0.041	0.0072	0.0158	0.0083
1	BS 291EB *	3.24	0.477	0.0188	0.0121	2.10	0.235	0.099	0.0142	0.046	.	0.0044	0.040	0.0072	0.0158	0.0082
1	BS 291EA *	3.24	0.48	0.018	0.0121	2.12	0.235	0.100	0.0150	0.046	.	0.0048	0.039	0.0072	0.0159	0.0082
1	BS 286AF	3.24	0.740	0.201	0.0162	2.03	0.341	1.360	0.165	(0.009)	.	(0.004)	0.037	0.258	0.054	0.151
1	BS 286AE	3.24	0.740	0.201	0.0162	2.03	0.341	1.360	0.165	(0.009)	.	(0.004)	0.036	0.258	0.054	0.151
1	SRM C1137a	2.86	0.52	0.087	0.017	1.15	0.192	2.17	0.643	(0.007)	0.016	.	0.032	0.86	(0.04)	0.019
1	BAS SIMO 1/4	2.57	0.329	0.031	0.010	3.95	0.027	0.017	0.913	0.024	.	0.014	0.028	0.699	0.007	0.008
1	BAS SIMO 2/2	2.14	0.434	0.025	0.007	4.75	0.010	0.0189	0.856	0.013	0.006	0.0029	0.026	0.484	0.005	0.009
1	SCRM 669/14	2.955	0.526	.	.	2.201	0.194	0.473	0.214	.	0.0415	.	0.0224	0.0550	0.0499	0.532
1	SCRM 668/13	3.724	0.712	.	.	1.400	0.751	0.097	0.962	.	0.0245	.	0.0116	0.0193	0.091	0.193
1	SRM C2424	2.68	0.268	0.041	0.024	3.37	0.125	0.061	0.13	(<0.01)	0.0046	.	0.006	0.019	0.050	0.083

Number	As	B	Ca	Fe	La	Nb	Pb	Sn	W	Zr	Units
SCRM 666/12	.	.	.	.	.	.	.	.	.	.	48 mm x 42 mm x 12 mm
SCRM 667/13	.	.	.	.	.	.	.	.	.	.	48 mm x 42 mm x 12 mm
SCRM 670/19	.	.	.	.	.	.	.	.	.	.	48 mm x 42 mm x 12 mm
BS 291EH *	0.0003	0.0054	0.0010	[93.6]	.	0.0032	0.0002	0.048	0.0034	0.0024	~35 mm Ø x ~30 mm
BS 291EG *	0.0003	0.0055	0.0010	[93.7]	.	0.0033	0.0003	0.0484	0.0032	0.0024	~35 mm Ø x ~30 mm
BS 291EF *	0.0003	0.0055	0.0010	[93.7]	.	0.0034	0.0005	0.0481	0.0031	0.0023	~35 mm Ø x ~30 mm
BS 291EE *	0.0003	0.0055	0.0009	[93.6]	.	0.0035	0.0004	0.0481	0.0031	0.0023	~35 mm Ø x ~30 mm
BS 291ED *	0.0003	0.0054	0.0009	[93.6]	.	0.0033	0.0004	0.0480	0.0030	0.0022	~35 mm Ø x ~30 mm
BS 291EC *	0.0002	0.0054	0.0010	[93.7]	.	0.0033	0.0002	0.0481	0.0037	0.0023	~35 mm Ø x ~30 mm
BS 291EB *	0.0002	0.0054	0.0009	[93.7]	.	0.0033	0.0004	0.048	0.0035	0.0022	~35 mm Ø x ~30 mm
BS 291EA *	0.0002	0.0054	0.0009	[93.6]	.	0.0033	0.0002	0.048	0.0040	0.0021	~35 mm Ø x ~30 mm
BS 286AF	(0.01)	0.0085	(0.001)	[91.4]	.	(0.003)	.	(0.004)	(0.008)	(0.007)	~35 mm Ø x ~30 mm
BS 286AE	(0.01)	0.0085	(0.001)	[91.4]	.	(0.003)	.	(0.004)	(0.008)	(0.007)	~35 mm Ø x ~30 mm
SRM C1137a	.	.	.	.	.	.	.	.	.	.	32 mm Ø x 19 mm
BAS SIMO 1/4	0.002	.	.	.	.	.	.	0.046	.	.	48 mm x 42 mm x 12 mm
BAS SIMO 2/2	0.039	.	.	.	.	.	.	0.038	.	.	48 mm x 42 mm x 12 mm
SCRM 669/14	.	.	.	.	.	.	.	.	.	.	48 mm x 42 mm x 12 mm
SCRM 668/13	.	.	.	.	.	.	.	.	.	.	48 mm x 42 mm x 12 mm
SRM C2424	.	(0.002)	.	.	0.0011	.	.	.	.	.	32 mm Ø x 19 mm

RM Si-Mo CAST IRON

BAS SIMO: 48 mm x 42 mm x 12 mm block

CTIF: each unit = one pair 43 mm Ø x 5 mm discs

Number	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Al	Ti	V	Co	As	Sn	Ce	Mg
CTIF SiMo-3	3.18	0.61	0.053	(0.0006)	4.02	0.0325	0.066	0.110	0.604	1.15	0.0176	0.0171	0.0296	.	.	.	0.013
CTIF SiMo-1	2.98	0.365	0.013	(0.0015)	4.03	0.035	0.065	0.036	0.752	.	(0.018)	(0.018)	(0.03)	.	.	.	0.019
CTIF SiMo-5	2.94	0.439	0.0282	.	4.31	0.0121	0.194	0.032	0.841	.	0.010	(0.0095)	(0.013)	.	.	.	.
CTIF SiMo-2 (2.85)	0.335	0.0260	(0.001)	3.85	0.036	(0.061)	0.038	1.04	1.51	(0.016)	(0.017)	(0.030)	.	.	.	.	0.072
BAS SIMO 1/3	2.70	0.333	0.040	0.007	4.07	0.028	0.030	0.899	0.776	0.026	0.007	0.007	0.013	0.047	0.048	.	0.036
CTIF SiMo-4	2.70	0.280	0.0211	(0.0015)	4.35	0.0657	(0.029)	0.0845	0.400	(0.038)	0.0171	0.0133	(0.015)	.	.	.	0.100
BAS SIMO 2/3	2.20	0.463	0.035	0.010	4.78	0.007	0.011	0.903	0.486	0.026	0.010	0.005	0.005	(0.001)	0.052	(0.001)	0.024

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 C1145	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 C1145	(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 ~38 mm
VS Chg 10/6	.	(0.003-0.006)	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~38 mm
VS Chg 11/6	.	(0.003-0.006)	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~38 mm
VS Chg 9/6	.	(0.003-0.006)	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~38 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 MAGNESIUM - continued on the next page

= Class, where 1 = CRM and 2 = RM

#	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
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	CZ 02033 2g	3.78	0.096	0.125	0.009	1.10	0.88	0.650	0.027	0.036	(0.004)	0.019	0.013	0.012	(0.002)	0.029	0.017
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	Y 4510251-16	3.75	0.39	0.034	0.012	1.69	0.423	0.60	0.52	0.050	.	0.061	0.034	.	0.203	0.036	0.198
1	VS ChG 25	3.74	0.68	0.0090	0.0035	1.46	0.79	0.38	0.25	0.037	.	0.009	.	.	0.253	0.017	0.086
1	Y 451047	3.73	2.35	0.51	0.0036	2.02	1.98	3.57	1.58	0.060	.	.	.	.	0.050	0.40	0.018
1	SCRM 668/13	3.724	0.712	.	0.0036	1.400	0.751	0.097	0.962	0.0116	.	.	0.0245	.	0.0193	0.091	0.193
1	CZ 20033 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	.	0.0029	1.763	0.0581	1.709	0.102	0.0838	.	0.026	0.026	0.027	0.0979	0.1069	0.0486
1	CZ 20034 15a	3.54	0.051	0.054	0.0029	1.68	1.322	0.661	0.070	0.031	.	0.026	0.026	0.027	0.005	0.034	0.014
1	SCRM 670/19	3.532	0.324	.	0.0085	2.216	0.985	0.916	0.484	0.0470	.	.	0.0139	.	0.0098	0.109	0.0231
1	11X SG1A	3.53	0.278	0.0363	0.0095	2.96	0.0194	0.042	0.0299	0.040	.	0.0187	.	.	.	0.0150	.
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
1	11X SG2A	3.48	0.297	0.0353	0.0075	3.03	0.0245	0.0263	0.0304	0.055	.	0.0238	.	.	.	0.0146	.
1	Y 451042	3.47	0.71	0.043	0.012	2.11	0.35	1.39	1.02	0.023	.	.	.	.	0.22	0.029	0.15
1	CZ 02033 2e	3.47	0.168	0.106	0.010	1.03	0.89	0.620	0.043	0.038	(0.006)	0.025	0.017	0.005	(0.002)	0.039	0.026
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
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
1	Y 451044	3.36	0.231	0.040	0.0060	2.44	.	2.24	0.16	0.033	.	.	0.006	.	.	0.073	.
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 20034 14a	3.29	0.218	0.0115	0.0103	2.25	0.578	0.021	0.042	0.015	.	0.009	0.009	0.005	0.633	0.018	0.013
1	CZ 20034 14b	3.26	0.240	0.0115	0.0096	2.34	0.640	0.020	0.042	0.015	.	0.012	0.012	0.005	0.635	0.021	0.012
1	BS 286AF	3.24	0.740	0.201	0.0162	2.03	0.341	1.360	0.165	0.037	.	(0.009)	.	(0.004)	0.258	0.054	0.151
1	BS 286AE	3.24	0.740	0.201	0.0162	2.03	0.341	1.360	0.165	0.036	.	(0.009)	.	(0.004)	0.258	0.054	0.151
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
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 02033 1g	3.22	0.701	0.036	0.007	2.53	0.027	0.357	0.044	0.050	.	0.062	0.023	0.010	0.185	0.054	0.019
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 02033 1e	3.15	0.718	0.037	0.006	2.72	0.012	0.367	0.037	0.044	.	0.058	0.027	0.022	0.185	0.046	0.015
1	CZ 02033 1c	3.15	0.674	0.064	0.010	2.36	0.035	0.367	0.051	0.019	.	0.033	0.009	.	0.197	0.036	0.019
#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Mg	Te	Al	Ce	Co	Mo	Ti	V
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	CKD 247C (U)	3.13	0.99	0.099	0.0033	1.29	0.84	0.503	0.029	0.053	(0.007)	0.041	0.058	0.097	0.024	0.057	0.010
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	CKD 247B	3.09	1.05	0.098	0.0034	1.20	0.822	0.437	0.041	0.056	(0.008)	0.043	0.053	0.095	0.023	0.067	0.013
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	Y 2863-9	3.04	1.43	0.049	0.015	1.53	0.269	1.59	0.72	0.043	.	.	.	.	1.38	0.212	0.41
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	.	0.0074	2.866	0.497	1.303	0.294	0.070	.	.	0.110	.	.	.	0.103
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	.	.	.	.	.
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	.	0.009	2.201	0.194	0.473	0.214	0.0224	.	.	0.0415	.	0.0550	0.0499	0.532
1	CKD 245B(U)	2.95	1.38	0.42	0.035	1.59	0.081	0.194	0.197	0.003	(0.017)	0.038	(0.00)	0.007	0.115	0.110	0.055
1	CKD 245A	2.94	1.38	0.41	0.039	1.58	0.076	0.161	0.166	0.003	(0.018)	0.019	(0.00)	0.003	0.114	0.087	0.073
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
1	CKD 246B	2.73	0.354	0.66	0.020	0.76	1.39	0.065	1.16	0.016	(0.00)	0.101	0.007	0.012	0.009	0.014	0.013
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
#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Mg	Te	Al	Ce	Co	Mo	Ti	V

BS: 28-34 mm Ø x 17-35 mm

CKD 24x: 37 mm x 37 mm x ~15-20 mm

SCRM: 48 mm x 42 mm x 12 mm

VS: ~40 mm Ø x ~40 mm

CZ: 40 mm Ø x 18 mm

SRM: 32 mm Ø x 19 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	.	.
Y 451045	.	.	.	.	.	.	.	.	.	.	.	.	.	.
CZ 02033 2g	.	0.0023	0.006	.	.	.	.	0.008	0.029	.	0.015	(0.004)	.	Zn: 0.020
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
Y 4510251-16	.	0.0044	.	.	.	0.016	.	.	.	.	0.030	.	.	.
VS ChG 25	.	.	.	.	.	.	.	.	0.052	.	0.017	.	.	.
Y 451047	.	0.31	.	.	.	.	0.012	.	.	.	.	.	.	.
SCRM 668/13	.	.	.	.	.	.	.	.	.	.	.	.	.	.
CZ 02033 3c	(0.007)	0.0044	(0.002)	.	.	.	.	0.005	.	.	0.009	(0.003)	.	.
SCRM 666/12	.	.	.	.	.	.	.	.	.	.	.	.	.	.
CZ 20034 15a	(0.003)	0.0041	0.012	.	.	.	.	.	0.058	.	0.005	0.006	.	.
SCRM 670/19	.	.	.	.	.	.	.	.	.	.	.	.	.	.
11X SG1A	0.0021	.	.	.	.	.	.	.	.	.	.	.	Zn:0.041	~50Ø x ~15mm
CZ 20034 15b	(0.003)	0.0033	0.010	.	.	.	.	.	0.058	.	0.005	0.007	.	.
11X SG2A	0.0022	.	.	.	.	.	.	.	.	.	.	.	Zn:0.040	~50Ø x ~15mm
Y 451042	.	.	.	.	.	.	.	.	.	.	.	.	.	.
CZ 02033 2e	.	0.0024	0.005	.	.	.	.	(0.004)	0.028	.	0.015	0.008	.	Zn: 0.025
CZ 20034 15c	(0.003)	0.0057	0.008	.	.	.	.	.	0.056	.	0.006	0.004	.	.
CZ 02033 3b	.	0.0042	0.001	.	.	.	.	0.009	.	.	0.019	.	.	.
Y 451044	.	.	.	.	.	.	.	.	.	.	.	.	.	.
VS ChG 28	.	.	.	.	.	.	.	.	0.015	.	0.0017	.	.	last of stock
CZ 20034 14a	0.036	0.0096	0.007	.	.	.	.	(0.005)	0.015	.	0.027	(0.005)	0.011	Zn: 0.010
CZ 20034 14b	0.034	0.0100	0.007	.	.	.	.	(0.005)	0.016	.	0.028	(0.005)	0.014	Zn: 0.009
BS 286AF	(0.01)	0.0085	.	(0.001)	[91.4]	.	(0.003)	.	.	.	(0.004)	(0.008)	(0.007)	17025
BS 286AE	(0.01)	0.0085	.	(0.001)	[91.4]	.	(0.003)	.	.	.	(0.004)	(0.008)	(0.007)	17025
CZ 02033 3d	(0.018)	0.0071	(0.002)	.	.	.	.	0.005	0.007	.	0.009	.	.	.
CZ 02033 1f	.	0.0043	(0.001)	.	.	.	.	0.009	.	.	0.030	0.022	(0.008)	.
CZ 02033 1g	.	0.0034	0.005	.	.	.	.	0.016	.	.	0.028	0.015	(0.004)	.
CZ 20034 13c	(0.002)	.	.	.	.	.	.	.	(0.002)	.	0.014	(0.003)	(0.02)	.
CZ 02033 1e	.	0.0036	(0.002)	.	.	.	.	0.007	.	.	0.032	0.021	(0.007)	Zn: 0.009
CZ 02033 1c	.	0.0005	0.016	.	.	.	.	0.006	.	.	0.032	0.015	Zn:0.001	.

Number	As	B	Bi	Ca	Fe	La	Nb	Pb	Sb	Se	Sn	W	Zr	Other
CZ 20034 14c	0.035	0.0123	.	.	.	.	.	.	0.020	.	0.025	(0.003)	0.013	Zn: 0.010
CKD 247C (U)	0.012	0.000	0.007	Zn:0.018	(92.6)	0.023	0.048	(0.002)	0.005	(0.000)	0.040	(0.002)	0.009	last of stock
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	.
CKD 247B	0.010	0.000	0.007	.	(92.7)	0.019	0.052	(0.002)	0.005	(0.000)	0.038	(0.002)	0.009	Zn: 0.012
VS ChG 24	.	.	.	.	.	.	.	.	0.009	.	0.077	.	.	.
Y 2863-9	(0.041)	0.153	.	.	.	.	0.11	(0.093)	(0.116)	.	(0.124)	.	.	.
VS ChM5/1	.	.	.	.	.	.	.	.	.	.	.	.	.	.
SCRM 667/13	.	.	.	.	.	.	.	.	.	.	.	.	.	.
VS ChM6/1	.	.	.	.	.	.	.	.	.	.	.	.	.	.
VS ChM8/1	.	.	.	.	.	.	.	.	.	.	.	.	.	.
VS ChM13	.	.	.	.	.	.	.	.	.	.	.	.	.	.
SCRM 669/14	.	.	.	.	.	.	.	.	.	.	.	.	.	.
CKD 245B(U)	0.006	0.003	0.009	.	(92.5)	(0.00)	0.029	0.020	0.052	(0.029)	0.076	0.020	0.004	.
CKD 245A	0.002	0.007	0.008	.	(92.7)	(0.00)	(0.001)	0.015	0.050	(0.036)	0.076	0.021	0.003	last
VS ChG 26	.	.	.	.	.	.	.	.	.	.	0.031	.	.	.
VS ChM10	.	.	.	.	.	.	.	.	.	.	.	.	.	.
SRM C1137a	.	.	.	.	.	.	.	.	.	.	.	.	.	.
CKD 246B	0.003	0.000	(0.001)	.	(92.6)	0.003	(0.001)	(0.002)	0.004	(0.00)	0.002	(0.011)	0.000	.
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: 28-34 mm Ø x 17-35 mm

CKD 24x: 37 mm x 37 mm x ~13-20 mm
CZ: 40 mm Ø x 18 mmSCRM: 48 mm x 42 mm x 12 mm
SRM: 32 mm Ø x 19 mmVS: ~39 mm Ø x ~39 mm
Y: 30 mm Ø x 30 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	.
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	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	X
0.065 - 0.074	0.07	.	X	X	.	.	X	.	X	X	X	X	.
0.075 - 0.084	0.08	.	.	X	.	.	.	X	X	X	X	X	.
0.085 - 0.094	0.09	.	X	X	.	.	.	X	X	X	X	X	.
0.095 - 0.104	0.10	.	.	.	.	.	.	X	X	X	X	X	.
0.105 - 0.114	0.11	.	.	.	.	.	.	X	X	X	X	X	.
0.115 - 0.124	0.12	.	.	.	.	.	.	X	X	X	X	X	.
0.125 - 0.134	0.13	.	.	.	.	.	.	X	.	X	X	.	.
0.135 - 0.144	0.14	.	.	.	.	.	.	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	.	.	.	.	.	.	.	.	.	.	.	.

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 trace Mg, order as part number CTIF 8018 <0.005

CAST IRON WITH C > 2.75%

CONTINUED ON THE NEXT PAGE

= Class, 1 = CRM and 2 = RM

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Co	Mo	Nb	Sn	Ti	V	Zn
1	CZ 02033 4e	4.45	0.034	0.023	0.006	0.090	0.005	0.049	0.030	(0.003)	0.033	0.002		(0.001)	0.011	0.015	.
1	SCRM 672/1	4.322	0.474	0.198	0.036	0.143	0.100	0.083	0.0186	0.0102	0.139	0.117		0.0047	0.0373	0.0988	.
1	CZ 02033 4d	4.19	0.112	0.050	0.041	0.259	0.084	0.063	0.056	0.007	(0.003)	0.024		(0.001)	0.009	0.012	0.009
1	SCRM 659/9	4.174	1.010	0.0215	0.0372	1.361	.	.	.	.	.	.	.	.	.	.	.
1	Y 2582-7	4.13	2.06	0.306	0.111	1.85	.	0.026	0.157	.	.	.	.	.	0.399	0.821	.
2	BS CC-14	(4.04)	(0.01)	0.016	0.003	0.64	0.021	0.074	0.031	0.006	0.036	(0.003)		0.002	0.004	0.021	.
1	DSZU CH04	4.01	1.77	0.074	0.018	0.73	0.55	0.273	0.100	0.014	(0.05)	(0.004)	(0.005)	(0.002)	0.025	(0.004)	.
1	DSZU CH05	3.99	2.23	0.119	0.039	0.46	0.61	0.85	1.63	(0.002)	(0.07)	0.109	(0.3)	(0.01)	0.070	0.200	.
1	CZ 02033 4b	3.95	0.145	0.041	0.046	0.252	0.062	0.023	0.049	0.003	0.005	0.005		0.001	0.006	0.004	0.008
1	Y 2582-6	3.93	1.46	0.168	0.124	0.99	.	0.094	0.387	.	.	(0.112)		.	0.105	0.506	.
1	VS ChG 2/9	3.93	0.456	0.513	0.078	0.387	0.082	.	0.060	.	.	.	.	.	0.080	0.049	.
1	DSZU CH06	3.88	0.85	0.050	0.050	0.28	1.03	1.23	(2.8)	0.025	(0.07)	0.29	(0.05)	(0.03)	0.33	0.205	.
1	CZ 20034 16c	3.87	1.311	0.173	0.0243	0.95	0.345	0.376	0.332	0.004	0.006	0.195		0.125	0.057	0.027	0.017
1	CZ 20034 16a	3.80	1.292	0.171	0.0266	1.00	0.332	0.390	0.374	0.007	0.010	0.203		0.125	0.0763	0.021	0.019
1	CZ 20034 16b	3.78	1.327	0.170	0.0236	1.00	0.332	0.388	0.378	0.007	0.010	0.202		0.121	0.070	0.029	0.020
1	VS ChG 32	3.74	1.90	0.061	0.018	0.60	0.171	.	0.031	.	.	0.113		0.060	0.040	0.294	.
1	Y 2582-4	3.70	0.857	0.087	0.076	0.451	.	0.032	0.117	.	.	(0.031)		.	0.030	0.158	.
1	Y 451043	3.69	0.49	0.063	0.049	1.50	0.34	0.23	0.47	.	.	0.22		.	.	0.11	.
1	11X HPC5A	3.68	1.028	0.246	0.223	1.175	.	.	1.42	.	.	.		.	.	.	.
1	Y 2582-5	3.67	0.596	0.072	0.117	0.183	.	0.502	0.171	.	.	(0.68)		.	0.066	0.335	.
1	VS ChG 1/9	3.61	1.12	0.184	0.038	1.13	0.041	.	0.017	.	.	.		.	0.014	0.006	.
1	CZ 02033 7b	3.61	0.304	0.021	0.020	1.82	0.036	1.28	0.536	0.022	0.050	0.96		.	0.015	0.007	.
1	CZ 02033 7c	3.55	0.389	0.028	0.026	1.73	0.016	1.26	0.542	0.040	0.048	0.966		(0.004)	0.026	0.067	.
1	DSZU CH03	3.54	0.40	0.023	0.034	0.57	0.194	0.187	0.612	0.035	(0.05)	(0.019)	(0.010)	(0.004)	0.059	0.009	.
1	VS ChG 3/9	3.54	0.387	0.037	0.053	0.516	0.123	.	0.100	.	.	.		.	0.125	0.096	.
1	VS ChG 27	3.53	1.21	0.044	0.029	1.82	0.348	0.022	0.162	0.008	.	0.147		0.115	0.056	0.160	.
1	SCRM 660/10	3.522	0.398	0.143	0.1089	1.719	.	.	.	.	.	.		.	.	.	.
1	VS ChG 5/9	3.51	0.60	0.104	0.036	0.84	0.037	.	0.307	.	.	.		.	(0.1)	0.441	.
1	11X C10C	3.48	0.696	0.103	0.050	2.10	1.54	2.673	0.302	0.104	.	0.335		0.0458	0.0709	0.0589	.
1	Y 2863-5	3.47	0.78	0.564	0.070	0.89	0.365	0.62	1.53	.	.	0.67		.	0.133	0.129	.
1	11X C2U	3.414	1.203	0.268	0.093	1.081	0.1085	1.702	0.882	0.053	0.226	0.111	(0.030)	0.046	0.094	0.314	.
1	CZ 02033 8c	3.41	0.408	0.168	0.058	1.93	0.158	0.102	0.125	0.004	0.030	0.041		0.067	0.022	0.015	.
1	11X C3AB	3.408	0.447	0.451	0.201	0.849	0.295	3.20	2.02	0.0090	0.241	0.216	(0.19)	0.209	0.040	0.692	0.0389
1	VS CHL1/1	3.39	0.53	0.048	0.029	1.32	0.344	0.410	0.264	.	0.017	0.036		.	0.061	0.073	.
1	11X HPC3J	3.38	1.287	2.01	0.0473	1.63	.	2.18	1.48	.	.	0.120		.	.	.	.
1	VS ChG 1/5	3.38	1.09	0.160	0.029	1.04	(0.04)	.	(0.08)	.	.	.		.	0.005	0.050	.
1	VS ChG 35	3.34	1.23	0.102	0.021	0.617	0.090	2.15	0.233	.	.	0.027		.	0.022	0.043	.
1	KUT 120	3.34	0.59	0.059	0.18	1.84	.	.	.	.	.	.		.	.	.	.
1	NCS HS11783	3.33	0.756	0.083	0.090	1.73	0.666	0.304	0.386	.	.	0.238		0.066	0.057	0.174	.
1	SCRM 658/11	3.278	0.502	0.177	0.067	1.933	.	.	.	.	.	.		.	.	.	.
1	Y 2863-3	3.32	1.27	0.115	0.049	2.27	0.62	2.01	0.49	.	.	0.313		.	0.176	0.45	.
1	KUT 121	3.32	0.61	0.135	0.17	(1.86)	.	.	.	.	.	.		.	.	.	.
1	KUT 205	3.32	0.80	0.025	(0.010)	1.88	0.81	0.61	0.64	.	.	1.79		(0.035)	.	.	.
1	KUT 206	3.32	0.75	0.027	(0.010)	1.84	1.01	0.21	0.12	.	.	2.14		(0.107)	.	.	.
1	KUT 122	3.31	0.61	0.22	0.20	1.72	.	.	.	.	.	.		.	.	.	.
1	KUT 123	3.30	0.69	0.31	0.074	(1.87)	.	.	.	.	.	.		.	.	.	.
1	NCS HS11784	3.30	0.528	0.78	0.031	2.68	0.015	0.024	0.812	(0.0012)	.	0.142	(0.0012)	0.0005	0.084	0.020	.
1	Y 2582-3	3.29	1.22	0.045	0.056	0.689	.	0.046	0.030	.	.	.		.	0.043	0.071	.
1	11X HPC1H	3.29	0.620	0.808	0.0035	3.27	.	.	1.056	.	.	0.060		.	.	.	.
1	SCRM 665/4	3.25	0.24	1.09	0.053	1.66	.	.	(1)	.	.	.		.	.	.	.
#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Co	Mo	Nb	Sn	Ti	V	Zn
1	11X C9D	3.24	1.886	0.069	0.0260	1.462	0.581	2.79	1.206	0.051	0.1301	0.155	0.0766	0.040	(0.062)	0.359	0.009
1	VS ChG 4/9	3.24	1.42	0.030	0.024	0.455	0.199	.	0.155	.	.	.		.	0.10	0.169	.
2	BAS NCRM3	3.24	0.67	0.125	0.090	0.29	1.21	3.64	0.95	.	.	0.78		.	0.92	.	.
1	11X HPC1G	3.22	0.499	0.75	0.0311	2.60	.	.	.	.	.	.		.	.	.	.
1	NCS HS11782	3.21	1.09	0.088	0.035	1.64	0.042	0.014	0.061	.	.	0.0048		.	0.027	0.0079	.
1	KUT 125	3.20	0.73	0.70	0.019	(1.87)	.	.	.	.	.	.		.	.	.	.
1	VS ChG 31	3.19	0.97	0.347	0.043	1.60	0.281	.	0.156	.	.	0.0069		0.013	0.0063	0.0035	.
1	NCS HS11785	3.19	0.482	0.79	0.030	2.52	0.021	0.031	0.817	(0.0030)	.	0.139	(0.0009)	0.0010	0.076	0.018	.
1	DSZU CH02	3.18	1.09	0.007	0.0116	1.35	0.038	0.658	0.59	0.026	(0.06)	0.224	(0.4)	(0.014)	0.161	(0.005)	.
1	VS ChM 12	3.17	1.00	0.030	0.007	3.10	0.062	1.65	0.039	0.050	.	.		.	0.013	0.0027	.
1	SCRM 671/1	3.165	0.811	0.108	0.0503	0.868	.	0.0627	0.0609	0.030	0.098	0.0259		0.0103	0.0407	0.0122	.
1	KUT 126	3.16	0.81	1.41	0.016	1.90	.	.	.	.	.	.		.	.	.	.
1	KUT 202	3.16	0.81	0.024	(0.010)	1.77	0.24	2.07	2.36	.	.	0.44		(0.21)	.	.	.
1	KUT 204	3.15	0.80	0.023	(0.009)	1.79	0.64	1.09	1.22	.	.	1.38		(0.215)	.	.	.
1	CZ 02033 6a	3.14	1.22	0.077	0.032	3.37	0.225	0.023	1.40	0.022	.	0.005		0.119	0.066	0.300	.
1	KUT 127	3.14	0.79	1.55	0.014	1.81	.	.	.	.	.	.		.	.	.	.
1	CZ 02033 6c	3.11	1.25	0.097	0.019	3.25	0.273	0.021	1.33	0.024	0.005	0.006		0.131	0.107	0.192	.
1	CZ 02033 7a	3.11	0.321	0.043	0.019	1.83	0.022	1.29	0.479	0.029	0.044	1.07		.	0.027	0.005	.
1	SCRM 653/4	3.10	0.110	0.023	0.050	1.22	.	(1)	.	.	.	.		.	.	.	.
1	VS ChG 30	3.06	2.10	0.090	0.035	1.97	0.576	.	0.24	.	.	0.0061		0.015	0.012	0.0074	.
2	BAS NCRM1	3.05	1.22	0.300	0.156	0.95	2.17	0.57	0.55								

CAST IRON WITH C > 2.75%

CONTINUED FROM THE PREVIOUS PAGE

analysis in mass % except * = mg/kg

Number	As	B	Bi	Ca*	Ce	La	Mg	N	Pb	Sb	Se	Te	W	Zr	Units
CZ 02033 4e	.	.	(0.002)	.	.	.	.	.	.	(0.002)	.	.	.	.	40 mm Ø x 18 mm
SCRM 672/1	0.0079	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm x 37 mm x 10 mm
CZ 02033 4d	(0.012)	(0.0001)	(0.002)	.	.	.	.	.	.	0.007	.	.	.	.	40 mm Ø x 18 mm
SCRM 659/9	.	.	.	.	.	.	.	.	.	.	.	.	.	.	48 mm x 42 mm x 12 mm
Y 2582-7	0.043	.	.	.	.	.	.	.	.	.	.	.	.	.	30 mm Ø x 30 mm
BS CC-14	(<0.001)	(0.0003)	(<0.0005)	11	(0.002)	(0.0007)	(0.024)	.	0.0002	(0.001)	.	0.005	(0.003)	(0.002)	32 mm Ø x 17 mm last
DSZU CH04	.	(0.0007)	.	(7)	.	.	(0.0001)	.	(0.007)	.	.	.	(<0.0002)	.	~30 mm x ~35 mm
DSZU CH05	.	(0.03)	.	(20)	.	.	(0.001)	.	.	.	.	.	.	.	~30 mm x ~35 mm
CZ 02033 4b	.	.	.	.	.	.	.	.	0.004	(0.001)	.	.	.	.	40 mm Ø x 18 mm
Y 2582-6	0.0018	.	.	.	.	.	.	.	.	.	.	.	.	.	30 mm Ø x 30 mm
VS ChG 2/9	(0.003)	.	.	.	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~38 mm
DSZU CH06	.	(0.02)	.	(10)	.	.	.	.	.	.	.	.	0.1	.	~35 mm x ~35 mm
CZ 20034 16c	(0.003)	0.020	.	.	.	.	.	.	0.015	0.010	.	.	0.015	(0.002)	40 mm Ø x 18 mm
CZ 20034 16a	0.005	0.018	.	.	.	.	.	.	0.006	0.011	.	.	0.019	(0.002)	40 mm Ø x 18 mm
CZ 20034 16b	0.005	0.018	.	.	.	.	.	.	0.007	0.011	.	.	0.019	(0.002)	40 mm Ø x 18 mm
VS ChG 32	.	.	0.361	.	.	.	.	.	.	.	.	.	.	.	~35 mm Ø x ~20 mm
Y 2582-4	0.0017	.	.	.	.	.	.	.	.	.	.	.	.	.	30 mm Ø x 30 mm
Y 451043	.	.	.	.	.	.	.	.	.	0.12	.	.	.	.	30 mm Ø x 30 mm last
11X HPC5A	.	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 17 mm
Y 2582-5	0.0022	.	.	.	.	.	.	.	.	.	.	.	.	.	30 mm Ø x 30 mm
VS ChG 1/9	(0.003)	.	.	.	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~38 mm
CZ 02033 7b	.	.	.	.	.	.	.	.	.	.	.	.	0.045	.	40 mm Ø x 18 mm
CZ 02033 7c	.	0.0008	(0.002)	.	.	.	.	.	.	.	.	(0.006)	0.037	.	40 mm Ø x 18 mm
DSZU CH03	(0.004)	(0.001)	.	(20)	.	.	(0.0001)	.	(0.01)	.	.	.	(0.006)	.	~30 mm x ~35 mm
VS ChG 3/9	(0.003)	.	.	.	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~38 mm
VS ChG 27	.	.	.	.	.	.	.	.	.	0.029	.	.	.	.	~40 mm Ø x ~40 mm
SCRM 660/10	.	.	.	.	.	.	.	.	.	.	.	.	.	.	48 mm x 42 mm x 12 mm
VS ChG 5/9	(0.003)	.	.	.	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~38 mm
11X Cl0C	0.0200	.	.	.	.	.	.	.	0.0050	0.0095	.	.	0.327	.	~40 mm Ø x ~15 mm
Y 2863-5	.	0.060	.	.	.	.	.	.	.	.	.	.	0.158	.	30 mm Ø x 30 mm
11X C2U	0.0288	0.0213	0.0055	.	.	.	.	0.0110	0.023	0.104	0.0199	.	0.062	.	~40 mm Ø x ~15 mm
CZ 02033 8c	(0.006)	0.009	0.009	.	.	.	.	.	.	0.008	0.014	.	.	.	40 mm Ø x 18 mm
11X C3AB	0.098	0.0054	0.0144	.	.	.	.	0.0095	0.022	0.245	0.0193	.	0.0520	.	~40 mm Ø x ~15 mm
VS ChL1/1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~38 mm
11X HPC3J	.	.	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
VS ChG 1/5	(0.002)	.	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~40 mm last
VS ChG 35	.	.	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~40 mm
KUT 120	.	.	.	.	.	.	.	.	.	.	.	.	.	.	30 x 30 x 13 mm
NCS HS11783	0.0085	.	.	.	.	.	.	.	.	0.142	.	.	.	.	31 mm Ø x 28 mm
SCRM 658/11	.	.	.	.	.	.	.	.	.	.	.	.	.	.	48 mm x 42 mm x 12 mm
Y 2863-3	.	0.056	.	.	.	.	.	.	.	.	.	.	.	.	30 mm Ø x 30 mm
KUT 121	.	.	.	.	.	.	.	.	.	.	.	.	.	.	30 x 30 x 13 mm
KUT 205	.	.	.	.	.	.	.	.	.	.	.	.	.	.	30 x 30 x 13 mm
KUT 206	.	.	.	.	.	.	.	.	.	.	.	.	.	.	30 x 30 x 13 mm
KUT 122	.	.	.	.	.	.	.	.	.	.	.	.	.	.	30 x 30 x 13 mm
KUT 123	.	.	.	.	.	.	.	.	.	.	.	.	.	.	30 x 30 x 13 mm
NCS HS11784	0.0041	.	0.0083	.	.	.	.	.	0.0002	0.0007	.	.	.	.	31 mm Ø x 28 mm
Y 2582-3	0.009	.	.	.	.	.	.	.	.	.	.	.	.	.	30 mm Ø x 30 mm
11X HPC1H	.	.	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
SCRM 665/4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	48 mm x 42 mm x 12 mm
Number	As	B	Bi	Ca*	Ce	La	Mg	N	Pb	Sb	Se	Te	W	Zr	Units
11X C9D	0.068	0.0049	.	.	.	.	.	.	0.0052	0.149	.	0.011	0.304	.	~40 mm Ø x ~15 mm
VS ChG 4/9	(0.003)	.	.	.	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~38 mm
BAS NCRM3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm x 37 mm x 10 mm
11X HPC1G	.	.	.	.	.	.	.	.	.	.	.	.	.	last of stock	40 mm Ø x 15 mm
NCS HS11782	0.0065	.	.	.	.	.	.	.	.	.	.	.	.	.	31 mm Ø x 28 mm
KUT 125	.	.	.	.	.	.	.	.	.	.	.	.	.	.	30 x 30 x 13 mm
VS ChG 31	.	.	0.068	.	.	.	.	.	.	.	.	.	.	.	~35 mm Ø x ~20 mm
NCS HS11785	0.0049	.	0.013	.	.	.	.	.	0.0002	0.0005	.	.	.	.	31 mm Ø x 28 mm
DSZU CH02	.	(0.016)	.	(10)	.	.	(0.002)	.	.	.	.	.	.	.	~35 mm Ø x ~18 mm
VS ChM 12	.	.	.	.	.	.	(0.08)	.	.	.	.	.	.	.	~38 mm Ø x ~38 mm
SCRM 671/1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm x 37 mm x 12 mm
KUT 126	.	.	.	.	.	.	.	.	.	.	.	.	.	.	30 x 30 x 13 mm
KUT 202	.	.	.	.	.	.	.	.	.	.	.	.	.	.	30 x 30 x 13 mm
KUT 204	.	.	.	.	.	.	.	.	.	.	.	.	.	.	30 x 30 x 13 mm
CZ 02033 6a	.	.	.	.	.	.	.	.	.	0.056	.	.	.	.	40 mm Ø x 18 mm
KUT 127	.	.	.	.	.	.	.	.	.	.	.	.	.	.	30 x 30 x 13 mm
CZ 02033 6c	.	0.0024	.	.	.	.	.	.	.	(0.003)	0.044	.	0.007	.	40 mm Ø x 18 mm
CZ 02033 7a	.	.	.	.	.	.	.	.	.	.	.	.	0.022	.	40 mm Ø x 18 mm
SCRM 653/4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	48 mm x 42 mm x 12 mm last
VS ChG 30	.	.	0.082	.	.	.	.	.	.	.	.	.	.	.	~35 mm Ø x ~20 mm
BAS NCRM1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm x 37 mm x 10 mm
VS ChL3/1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~38 mm
DSZU CH08	.	(0.08)	.	(10)	.	.	.	.	.	.	.	.	.	.	~35 mm x ~35 mm
VS ChG 39	.	.	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~40 mm
BS CC-11	0.006	0.0012	(<0.0005)	2	(0.001)	(0.001)	(0.013)	.	0.0007	0.14	.	(0.002)	(0.002)	(0.002)	32 mm Ø x 17 mm last
BAS LARM2	0.044	.	.	.	0.008	.	.	.	0.007	.	.	.	.	.	40 mm x 37 mm x 10 mm
BAS LARM4	.	.	.	.	0.008	.	.	.	0.018	.	.	.	.	.	40 mm x 37 mm x 10 mm
BAS LARM1	.	0.006	0.011	.	0.005	.	.	.	.	.	.	.	.	.	40 mm x 37 mm x 10 mm
BAS LARM5	0.018	0.0012	0.0010	.	.	.	.	.	0.0005	.	.	.	.	.	40 mm x 37 mm x 10 mm last
BAS LARM3	0.092	0.003	0.022	.	.	.	.	.	.	.	.	.	.	.	40 mm x 37 mm x 10 mm
Y 2863-4	.	0.041	.	.	.	.	.	.	.	.	.	.	.	.	30 mm Ø x 30 mm
BAS LARM5/1	.	0.0016	0.0012	.	.	.	.	.	<0.001	.	.	.	.	.	40 mm x 37 mm x 10 mm
BAS NCRM2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm x 37 mm x 10 mm
KUT 124	.	.	.	.	.	.	.	.	.	.	.	.	.	.	30 x 30 x 13 mm
CZ 02033 6b	.	.	.	.	.	.	.	.	.	0.049	.	.	.	.	40 mm Ø x 18 mm
SCRM 662/4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	48 mm x 42 mm x 12 mm
VS ChG 36	.	.	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~40 mm
SCRM 657/8	.	.	.	.	.	.	.	.	.	.	.	.	.	.	48 mm x 42 mm x 12 mm
CZ 20034 12b	0.024	0.047	0.006	.	.	.	.	.	0.009	0.046	.	.	0.007	(0.002)	40 mm Ø x 18 mm
SRM C1145a	(0.03)	(0.02)	.	.	.	.	.	.	0.0012	(0.04)	.	.	.	(0.002)	32 mm Ø x 19 mm
11X ClR	0.0141	0.0357	0.011	.	.	.	.	0.0091	0.005	0.046	0.0050	.	0.100	0.0030	~40 mm Ø x ~15 mm
VS ChG34	.	.	0.223	.	.	.	.	.	.	.	.	.	.	.	~35 mm Ø x ~20 mm
SCRM 664/4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	48 mm x 42 mm x 12 mm
CZ 20034 12a	0.022	0.036	0.005	.	.	.	.	.	0.007	0.046	.	.	0.011	(0.002)	40 mm Ø x 18 mm
NCS HS11786	0.0075	.	0.015	.	.	.	.	.	0.0003	0.0008	.	.	.	.	31 mm Ø x 28 mm
KUT 201	.	.	.	.	.	.	.	.	.	.	.	.	.	.	30 x 30 x 13 mm
Number	As	B	Bi	Ca*	Ce	La	Mg	N	Pb	Sb	Se	Te	W	Zr	Units

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	11X C5Y *	2.75	0.75	0.09	0.09	1.9	0.42	1.2	0.94	0.06	0.045	0.53	0.015	0.03	0.09	0.075	0.01
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	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	11X C7N	2.51	1.942	0.0266	0.0101	0.829	0.075	0.0303	0.507	0.0127	0.0335	0.071	0.051	0.0114	0.022	0.036	0.0226
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	2.47	0.133	0.328	0.006	1.72	0.023	0.147	0.037	0.028	0.053	0.006	.	0.0191	0.072	0.059	0.0004
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 5a	2.30	0.804	0.035	0.100	1.26	0.014	0.096	0.054	0.060	.	0.100	.	.	0.008	0.005	.
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	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	11X C4R	1.86	0.493	0.108	0.098	2.92	0.345	2.02	1.531	0.040	0.0316	0.101	0.0373	0.0102	0.080	0.0208	0.0083
1	CKD 242A	1.84	0.060	0.039	0.036	3.06	0.055	0.039	0.029	0.036	0.002	1.13	0.013	0.010	0.19	0.37	(0.00)
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
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11X C5Y *	0.02	0.005	* Provisional Analysis					0.01	0.005	0.03	0.006	.	0.005	0.001	~40 mm Ø x ~15 mm
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 ~38 mm
DSZU CH01	.	(0.03)	.	(10)	.	(0.0005)	.	.	.	.	.	(0.02)	.	~30 mm x ~35 mm
VS ChG 40	.	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~40 mm
SCRM 661/4	.	.	.	.	.	.	.	.	.	.	.	.	.	48 mm x 42 mm x 12 mm
SCRM 656/9	.	.	.	.	.	.	.	.	.	.	.	.	.	48 mm x 42 mm x 12 mm
11X C7N	0.0159	0.0097	0.0137	.	.	.	0.025	0.0106	0.025	.	.	0.066	(0.003)	40 mm Ø x 15 mm	
Y 2863-2	.	0.0025	.	.	.	.	.	.	.	.	.	.	.	30 mm Ø x 30 mm
VS ChG 37	.	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~40 mm
SCRM 673	0.044	.	.	.	.	.	.	.	.	.	.	.	.	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	.	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~40 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
CZ 02033 5a	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 18 mm
CZ 02033 5c	.	0.0078	0.007	.	.	.	.	.	.	(0.002)	(0.010)	.	(0.009)	40 mm Ø x 18 mm
SCRM 675	0.035	.	.	.	.	.	.	.	.	.	.	.	.	40 mm x 37 mm x 10 mm
SCRM 655/4	.	.	.	.	.	.	.	.	.	.	.	.	.	48 mm x 42 mm x 12 mm
11X C4R	0.0050	0.0086	0.0144	Ag: 0.008	0.008	0.0078	0.019	0.015	0.021	.	.	0.120	0.0031	~40 mm Ø x ~15 mm	
CKD 242A	0.015	0.008	(0.015)	.	(0.00)	0.000	.	(0.012)	0.007	.	.	(0.08)	(0.007)	37mm x 37mm x 18 or 20mm	
Y 2863-1	.	0.0024	30 mm Ø x 30 mm	

Number	As	B	Bi	Ca*	Ce	Mg	N	Pb	Sb	Se	Te	W	Zr	Units
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#	Number	ALLOYED CAST IRON					# = Class, where 1 = CRM and 2 = RM					Pb	Sn	Ti	V	Mg	N	
		C	Mn	P	S	Si	Cu	Ni	Cr	Al	Mo							
2	BAS NCRM5	3.70	0.27	0.025	0.015	1.15	0.204	6.74	10.44	.	0.10	.	.	.	0.06	.	.	.
1	SRM C1292	3.47	0.55	0.049	0.016	0.59	0.36	5.04	11.4	.	0.25	.	.	.	0.041	.	.	.
2	BAS CRRM5/2	3.43	0.30	0.029	0.018	0.20	0.22	0.36	30.35	0.15	0.63	.	.	0.009	0.11	.	.	.
1	Y 451052-1	3.31	1.54	0.049	0.047	0.08	0.49	2.57	1.77	.	1.47	.	.	.	0.952	.	.	.
1	BS PM15	3.54	0.416	0.0198	0.0127	0.912	0.142	0.203	5.33	0.0025	1.22	(0.00001)	0.0034	0.0029	14.79	(0.0002)	0.111	.
1	VS CHG41	3.53	0.323	0.032	0.015	1.08	0.494	5.44	8.58	.	0.603	.	.	.	0.255	0.204	.	.
1	Y 451052-7	3.13	0.201	0.024	0.116	2.48	0.154	0.129	31.26	.	0.086	.	.	0.033	0.087	.	.	.
1	11X 15309S	3.05	1.506	0.040	0.086	1.398	0.505	0.919	23.26	.	0.249	.	.	0.0156	0.056	.	.	.
1	SRM C1290	3.04	0.66	0.030	0.013	0.971	0.065	0.917	30.25	.	(0.041)	.	.	.	0.442	.	.	.
1	Y TSK205	3.31	1.54	0.041	0.048	1.56	0.37	30.35	.	0.22	.	.	.	0.077	.	.	.	0.108
1	Y 451054-2	2.00	1.42	0.133	0.018	0.023	0.01	14.53	1.61	.	2.48	.	.	0.015	0.88	.	.	.
1	NCS HS11788	0.97	1.62	0.191	0.010	3.29	0.51	17.77	2.56	(0.0023)	0.0013	.	0.0003	0.043	0.017	.	.	.
1	Y 451052-2	2.96	1.24	0.211	0.0077	0.491	1.57	1.99	9.75	.	2.17	.	.	0.300	0.669	.	.	.
2	BAS NIRM5/1	2.95	1.01	0.103	0.005	1.50	0.21	21.7	0.51	.	.	.	.	.	0.055	.	.	.
2	BAS CRRM4/2	2.93	0.58	0.049	0.042	0.45	0.53	0.58	21.93	<0.005	1.15	.	.	0.008	0.11	.	.	.
2	11X 20003K	2.91	1.53	0.174	0.007	3.03	0.52	17.8	2.53	.	.	.	.	.	.	.	.	.
2	11X S/1 Cr3J	2.91	0.851	0.072	0.023	1.07	0.01	14.53	1.61	.	.	.	.	.	.	.	.	.
2	11X 20001J	2.90	0.58	0.005	0.143	1.01	0.01	21.4	1.50	.	.	.	.	.	.	.	.	.
2	11X S/2 Cr1E	2.83	1.68	0.31	0.011	2.85	0.02	16.5	2.48	.	.	.	.	.	.	.	.	.
1	11X 0331-1J	2.82	1.646	0.069	0.13	2.50	7.59	12.43	0.607	0.122	0.120	0.0327	0.0439	0.1099	.	.	.	.
2	BAS NIRM2/1	2.81	2.08	0.129	0.010	1.50	5.98	13.95	1.48	.	.	.	.	.	0.050	.	.	.
1	Y 451054-3	2.73	1.09	0.105	0.036	0.99	0.451	1.20	12.97	.	2.08	.	.	0.045	0.66	.	.	.
1	VS CHG45	(2.7)	1.01	0.096	0.047	2.96	0.040	0.60	32.65	.	0.198	.	.	0.011	0.111	.	.	.
2	11X 20002J	2.67	1.06	0.060	0.045	2.04	0.30	20.0	2.03	.	.	.	.	.	.	.	.	.
2	BAS NCRM4	2.66	0.40	0.203	0.012	2.13	0.68	5.34	7.94	.	0.57	.	.	.	0.11	.	.	.
1	NCS HS11787	2.65	1.08	0.067	0.037	2.07	0.306	19.84	1.98	(0.085)	0.0014	.	.	0.0054	0.022	0.0096	.	.
1	11X 0331-2K	2.64	1.272	0.049	0.119	2.32	6.47	14.26	1.025	0.191	0.0644	0.0205	0.0205	0.14	0.0158	.	.	.
2	11X S/3 Cr1D	2.61	0.7	0.046	0.011	2.52	0.19	31.7	0.15	.	.	.	.	.	.	.	.	.
1	Y TSK201	2.56	1.07	0.253	0.023	0.66	1.53	2.44	10.14	.	2.56	(0.015)	0.047	.	0.42	.	.	0.029
1	11X 15295R	2.52	0.491	0.0504	0.0413	0.589	0.197	0.304	27.53	0.19	0.391	.	.	0.201	.	.	.	.
2	BAS NIRM3	2.51	0.51	0.208	0.096	2.21	1.00	17.8	2.43	.	.	.	.	.	.	.	.	.
2	11X S/3 Cr3B	2.49	0.66	0.053	0.050	2.44	0.23	29.4	4.06	.	.	.	.	.	.	.	.	.
2	BAS NIRM6	2.44	4.00	0.217	0.062	2.43	0.10	26.7	1.07	.	0.45	.	.	.	.	.	.	.
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	.	.	.
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	11X 15294V	2.29	0.467	0.093	0.031	0.399	0.134	0.649	30.82	(0.177)	0.325	0.0084	0.0560	.	0.117	.	.	.
1	VS CHG42	2.27	2.43	0.022	0.017	0.478	1.09	0.149	14.45	.	1.90	.	.	.	0.38	.	.	.
1	CKD 251	2.25	1.97	0.015	0.015	1.14	0.38	19.7	1.07	(0.02)	0.12	(0.009)	(0.01)	(0.005)	(0.02)	0.022	.	.
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	BAS NIRM7	2.05	0.71	0.058	0.020	3.05	0.52	32.9	3.53	.	0.99	.	.	.	0.019	.	.	.
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	.	.	.
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
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	.	.	.
2	BAS NIRM8/1	1.34	1.60	0.109	0.010	5.42	0.23	35.2	2.34	.	0.75	.	.	.	0.043	.	.	.
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	Units					Other	
																		Ce	Co	Nb	W	Zr	As	Bi
	BAS NCRM5	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm x 37 mm x 10 mm				
	SRM C1292	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	32 mm Ø x 19 mm				
	BAS CRRM5/2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	48 mm x 42 mm x 12 mm				
	Y 451052-1	B:0.177	.	0.018	0.015	.	.	.	.	.	.	.	.	.	.	.	.	.	30 mm Ø x 30 mm				
	BS PM15	.	0.0330	0.014	0.109	(0.0005)	.	.	.	.	.	17025	Fe:[73.0]	As:0.0040	N:0.111	O:0.0129	.	.	38 mm Ø x 19+ mm	last			
	VS CHG41	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	~35 mm Ø x ~17 mm				
	Y 451052-7	B:0.015	.	0.010	0.175	.	.	.	.	.	.	.	.	.	.	.	.	.	30 mm Ø x 30 mm				
	11X 15309S	.	0.032	0.0192	0.015	.	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm				
	SRM C1290	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	32 mm Ø x 19 mm				
	Y TSK205	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	35 mm Ø x 30 mm				
	Y 451054-2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	30 mm Ø x 30 mm				
	NCS HS11788	B:0.0008	(0.0063)	.	(0.0002)	.	.	.	.	.	.	.	.	.	.	.	.	.	31 mm Ø x 28 mm	As: 0.014			
	Y 451052-2	B:0.1																						

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	.
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 F01	2.02	3.18	0.71	0.112	0.074	0.036	0.120	0.090	.	.	0.032	0.38	0.018	0.019	.
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

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 F01	last of stock
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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ALLOY	ISO?	NUMBER	ALLOY	ISO?	NUMBER	ALLOY	ISO?	NUMBER
1.0812		ECRM 191-2D	17-4PH		BS 17-4PHB	316 H		IARM 339A
1.2344		ECRM 271-1D	17-4PH		SRM C2400	316 L		13X 31603
1.2367		HRT FE2012-H	17-7PH		13X PH17700	316 L	17025	BS 316D
1.2510		HRT FE2006-N	17-7PH 25(preceded 17025)		BS 192	316 L	17025	BS 316E
1.4765		ECRM 299-1D	17-7PH 25(preceded 17025)		BS 192A	316 L		CZ SL-2A
1.5415		HRT FE2012-N	17-7PH		IARM 152C	316 L		IARM 163E
1.6587		HRT FE2013-N	182FM		BS 150	316 L		SS 466/2
1.7149	20MnCrS5	ECRM 187-2D	18Cr2Ni12Mn		CT ISO035A	316 Ti		ECRM 284-2D
1.7160		ECRM 194-1D	201		BS 191	317 L		BS 317L
1.8550		ECRM 129-3D	201		SRM 1297	317 L	25(pre-17025)	BS 9941
1.8519		HRT FE2010-N	20Cb3		BS 187A	317 L	25(pre-17025)	BS 9942
1.8928		ECRM 194-2D	20Cb3		CT 20 Cb-3	317 L		IARM 153C
1005	17025	BS LC-6	20MoCr4		ECRM 197-1D	318	17025	BS 2205
1005		ECRM 064-2D	2101		IARM 292A	321		13X 32100
1005		RM Fe 1/4	21Cr6Ni9Mn		CT ISO129A	321		BS 321C
1005		SRM 1765	2205	17025	BS 2205	321		BS 85D
1005		SRM 1766	2205		IARM 212D	321		SRM 1171
1005		SS 111	2304		IARM 317A	321		SS 465/1
1006		BS XCCS	2507		IARM 301B	321 - Ti		IMZ 152
1008		ECRM 057-2D	253 MA	25(pre-17025)	BS 253	321 H		BS 321A
1009		IMZ 71	253 MA		IARM 316A	330		IARM 7C
100C6		IRSID 1747	254 SMO		13X 31254	3310		BS 1972
1010		IMZ 111	254 SMO		IARM 302B	347		13X 34700
1010		IRSID 1665	254 SMO		NILAB 501HAD	347		BS 347A
1011		IMZ 73	255, Duplex		IARM 239B	347		BS 347B
1016		BS 1016	300M		12X 44220	347		IARM 8G
1017		IMZ 112	300M	17025	BS 300	347 H		BS 87F
1017		IRSID 1664	300M		IARM 340A	348		SRM 1172
1018		12X 10180B	301		IARM 289A	355	17025	BS 355
1018		12X 10180C	301		IRSID 1819	355		IARM 335A
1018		BS 1018	302		IARM 241D	35MV7		IRSID 1750
1018	17025	BS 2931B	302 HQ		IARM 234C	405		SRM 1295
1018		ECRM 087-1D	303		13X 30300	409 + Cr		NCS HS20743
1020	17025	BS 1020	303	17025	BS 303	410	25(pre-17025)	BS 0021
1026	17025	BS 1026	303		CT 303	410	17025	BS 410C
1026		IARM 359A	303		CZ SP-1A	410		CT 410
1030	17025	BS 1030	303		IARM 1D	410		CT X23576
1030		IARM 209D	303 Se		IARM 253A	410 + Mo		ECRM 296-1D
1033		IRSID 1663	304		IARM 2H	410 + Mo		IMZ 161
1035		IRSID 1645	304 H		13X NSB1	410 Cb		CT X68890
1035		IARM 360A	304 H		CT 304	410 H		13X 41001
1039		IRSID 1637	304 H		SS 468/1	410, F6NM	25(pre-17025)	BS 0022
1040		12X 10400	304 H		VS LG61	4130	17025	BS 4130
1040	17025	BS 3941	304 L	17025	BS 304	4130		IPT 501
1040		IARM 210D	304 L	17025	BS 304A	4130		SRM 1225
1040		IRSID 1657	304 L		BS 304B	4140		12X 41400
1042		IRSID 1656	304 L		BS SS3951	4140	25(pre-17025)	BS 1962
1042		NM EN-8	304 L		IARM 162D	4140		IARM 30i
1043		IRSID 1652	304 L		ECRM 287-1D	4140 Bi		BS 4140A
1045		BS 56E	304 L		ECRM 292-1D	4140 Bi		BS 4140B
1045	17025	BS 56H	304 L		IARM 162C	41L40MOD	17025	BS 70B
1045		IPT 503	304 L		SS 463/1	41L40MOD		BS 70C
1050		IARM 254A	305		CT 305	4150 Bi & S		BS 4150MOD
1055		NM 3405.01	305		CT X52353	4150 S	17025	BS 42
1060		IARM 373A	305		ECRM 297-1D	4150 S		BS 42A
1069		ECRM 059-2D	308		DSZU C017	416		BS 90F
1078		ECRM 056-2D	309		13X 30908	416	17025	BS 416
1078		SRM 1224	309		BS 82D	416		CT 416
1090		SS 602/2	309		BS 82E	416		SRM 1223
1095		SRM 1227	309		IARM 3E	416 H		13X 41600
1117	25(preceded 17025)	BS 3993	310		13X 31008	416 Se		BS 151
1117		BS 65C	310		BS 83G	41CAD7		IRSID 1749
1140	P	BS 52D	310	25(pre-17025)	BS 9841	41L40	17025	BS 70B
1141		BS 66B	310	25(pre-17025)	BS 9842	41L50	17025	BS 72B
1144	17025	BS 1144	310		CZ SL-3A	42		CT ISO138A
1144	17025	BS 1144A	310		IARM 4E	42		CT ISO139A
1144		IARM 199C	310		SS 464/1	420		BS SS4951
11L17	17025	BS 75F	3115		BS XCCT	420		BS SS4952
11L17	17025	BS 75G	314		IMZ 165	420		ECRM 272-1D
1215	17025	BS 66L	314		IMZ 166A	420		IARM 154B
1215		IARM 206B	316	17025	BS 316C	420		IARM 154C
12L14	17025	BS 74C	316		IARM 5H	420		SS 469
12L14		IARM 183C	316		IARM 5i	420 F		BS 152
12Mn18Cr		BS 193	316		JK 27A D	422		13X 42200
1345		BS XCCV	316		NILAB 500HAD	422	17025	BS 422
13-8PH		13X PH13800	316		SRM 1155A	422		IARM 205D
13-8PH		BS 184A	316 H		CT 316	430		BS 91F
13-8PH		CT X92834				430		BS 430
1429		ECRM 058-2D				430		IARM 11D
1513		IMZ 76				430		NCS HS20742
1526 MOD		SRM 1269				430 F		BS 153
1541		IARM 349A				430 F		BS 154
1541		IPT 504				431	17025	BS 431
1541		IRSID 1648				431		BS 92B
1544		IRSID 1644				431		IARM 12C
15-5PH		BS 185A				431		HRT FE2010-H
15-5PH		BS 9621				431		SRM 1219
15-5PH		BS 9622				4320		BS 3961
15-5PH		ECRM 273-1D				4330 MOD		BS 4330V
15-5PH		IARM 22C				4340	17025	BS 4340
17-4PH		13X PH2				4340	17025	BS 4340A
17-4PH		13X PH17400				4340		IARM 31F
17-4PH		BS 17-4PHA				440 C		13X 44004
						440 C	17025	BS 93F

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
440 C		IARM 13D	E52100		BS 2952	Nitriding 135G	17025	BS 68E
440 F		BS 155	E52100		BS 53G	Nitronic 40		13X NSC6
440F Se		BS 156	E52100		IARM 49D	Nitronic 40		BS 190
446		BS 94C	E52100 Bi		BS 53MOD	Nitronic 40		IARM 19C
455		13X 45500	Elect./ Magnetic		SRM 1159	Nitronic 50		BS 180A
446		IARM 14C	Electrolytic		SRM 1265a	Nitronic 50	17025	BS 180B
4615		BS 3962	F-11		BS 45A	Nitronic 50		IARM 17D
4620		BS 4620	F-11	17025	BS 45B	Nitronic 60		13X 21800
4620		BS 51F	F-2		CT X27081	Nitronic 60		BS 181A
4620		IARM 33D	F-2		CT X35568	Nitronic 60	17025	BS 181B
4820	17025	BS 4820A	F-22	17025	BS 46B	NMS 100		IARM 214A
5160		IMZ 116	F-22	25(preceded 17025)	BS 1982	NMS 140		IARM 295A
6150		BS 4941	F-22		SRM 1270	NMS J38		IARM 294A
6150		IARM 34C	F-22 + Cr		HRT FE2009-N	O-1	17025	BS 35D
6418		BS 6418	F-5		BS 47A	O-1		CT O1
6418		BS 69B	F-5		BS 47B	O-6	17025	BS 41
6526		BS 9-4-30	F-51	17025	BS 2205	O-6	25(preceded 17025)	BS 41A
709		CT X67975	F-9	17025	BS 48B	O-6		IARM 45A
800	17025	BS 800	F-91	25(preceded 17025)	BS 9905	O-6		IARM 45B
8620		BS 8620A (XRF)	F-91	17025	BS 9905A	P-6, HY100		BS 1972
8620	17025	BS 8620E	Ferallium 255	17025	BS 179B	P-20		BS 55G
8620		IPT 502	Ferallium 255	17025	BS 179C	PP-20	17025	BS PP20
86L20	25(preceded 17025)	BS 73B	Greek Ascoloy		BS 183A	Permendur 2V		IARM 326A
86L20		BS 73C	Greek Ascoloy		IARM 20B	RA330		BS 86F
86L20		IARM 182B	Greek Ascoloy		IARM 20C	S-1		BS 33D
8740	17025	BS 67C	H-10		BS 49	S-1		BS 33E
8740		IARM 252C	H-11		ECRM 276-2D	S-1		IARM 46B
904L		13X NSA12	H-11		IARM 255A	S-5		BS 38C
904L		ECRM 295-1D	H-11		IMZ 173	S-5		IARM 47B
9310		BS 58C	H-13	17025	BS H-13	S-7		IARM 259A
9310		BS 58E	H-13		CT H13	S-7		SRM 1772
9325	17025	BS 9325A	H-13		IMZ 174	SA213-T22		IMZ 159
9-4-30		IARM 341A	H-19	17025	BS H-19	SA213-T22		IMZ 160
A-10		BS A-10	HC 250+V		SRM C1290	SA213-T22		IMZ 169
A-11		BS 10V	High Perm		CT ISO124A	SAE G2500		BS 20E
A-11	17025	BS A-11	High Perm		CT ISO136A	STA 361		IARM 268B
A-106 Gr B		SRM 1228	High Perm 49		CT ISO141A	T-1		14X HS1
A-193 B16		BS 4942	HSLA 100		SRM 1271	T-1	17025	BS 30D
A-193 B16	17025	BS 4942A	HY 130		SRM 1226	T-1		IARM 48C
A-2		BS 36D	HY 80		SRM 1286	T-15		BS TS15
A-2		CT A2	Hy-Tuff		IARM 342A	VM12		IMZ 196
A-2		IARM 39B	Invar		14X 93603	W-5		14X 72305
A-2		IARM 39C	Invar-36 + Se		BS 186A	Z30C13		IRSID 1825
A-20		BS 187C	Invar-36 + Se		IARM 24B	Zeron 100, Duplex		13X NSA8
A-242		IPT 500	Invar 42		14X 94100	Zeron 100, Duplex		IARM 319A
A-242 Mod		SRM C1285	ISO 898-1		SS 457/2			
A-286		BS 188A	KOVAR	17025	BS 160A			
A-286	17025	BS 188B	KOVAR		IARM 98B			
A-286		SRM 1230	L-2, 6150		BS 43A			
A-36	17025	BS 2931B	L-6	17025	BS 39B			
A-36		IARM 213C	L-6		IARM 43B			
A-36		SRM 1767	LDX2101		13X 32101			
A-485-1		BS A485-1	LF-2		BS 2931B			
A-6		BS 40B	LF-2	17025	BS LF2B			
A-6		IARM 40B	LF-2		ECRM 096-2D			
A-6		IARM 40C	LF-2		SS 601/2			
Aermet 100		CT ISO045A	LF-3		BS LF3			
Aermet 100		IARM 242A	M-1		CT M1			
AL6XN	17025	BS 189A	M-1		IARM 304A			
C-.5Mo		BS 3952	M-10		CT M10			
C-.5Mo		IARM 229B	M-10		IARM 324A			
C-250		IARM 308A	M-152		13X 64152			
C-350		IARM 309A	M-152		IARM 291A			
CA6NM		HRT FE2009-H	M-2		CT M2			
CA6NM		IARM 327A	M-2		IARM 44C			
CD3MN		13X NSA5	M-2		SRM 1157			
CD3MN		ECRM 298-1D	M-35		IARM 320A			
CD6MN		VS LG58	M-4		IARM 251A			
CF-3		IRSID 1820	M-42		SS 487/1			
CLA1		IARM 164A	M-47	17025	BS M-47			
CLA11		IARM 180A	M-50	17025	BS M-50			
CLA5		IARM 168A	M-50		IARM 306B			
CLA9		IARM 172A	M-7		CT M7			
CPM15V	17025	BS PM15	Maraging 250		CT 250			
Custom 450	25(pre-17025)	BS 9811	Maraging 300		CT 300			
Custom 450	25(pre-17025)	BS 9812	MaragingA538C	25(pre17025)	BS 161A			
Custom 450		CT 450	Mold Steel	17025	BS PP20			
Custom 450		IARM 15B	Nitriding 135G		BS 68B			
Custom 455		BS SS1961						
Custom 455		BS SS1962						
Custom 455		CT 455						
Custom 455		IARM 16C						
Custom 465		CT ISO123A						
Custom 630		CT 630						
D-2		BS 37G						
D-2		CT D2						
D-3, D-4		ECRM 288-1D						
D-6	17025	BS D-6						
D6-AC		IARM 299A						
Duplex		13X NSA9						
Duplex	17025	BS 2205						
Duplex		IMZ 163A						
Duplex		IMZ 164						

The best efforts have been made in the construction of this chart. Some samples do not perfectly fit the alloy specifications, but are considered acceptable for the purposes of calibration and type standardization.

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

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
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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
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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	0.45-0.65	<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

These are specifications,
not samples for sale.

TOOL STEEL SPECIFICATIONS

* notes optional chemistry

Number	C	Mn	P	S	Si	Ni	Cr	Co	Mo	V	W	Other
A-2	0.95-1.05	<1.00	<0.03	<0.03	<0.50	.	4.75-5.50	.	0.90-1.40	0.15-0.50	.	.
A-4	0.95-1.05	1.80-2.20	<0.03	<0.03	<0.50	.	0.90-2.20	.	0.90-1.40	.	.	.
A-6	0.65-0.75	1.80-2.50	<0.03	<0.03	<0.50	.	0.90-1.20	.	0.90-1.40	.	.	.
A-7	2.00-2.85	<0.80	<0.03	<0.03	<0.50	.	5.00-5.75	.	0.90-1.40	3.90-5.15	0.50-1.50	.
A-8	0.50-0.60	<0.50	<0.03	<0.03	0.75-1.10	.	4.75-5.50	.	1.15-1.65	.	1.00-1.50	.
A-9	0.45-0.55	<0.50	<0.03	<0.03	0.95-1.15	1.25-1.75	4.75-5.50	.	1.30-1.80	0.80-1.40	.	.
A-10	1.25-1.50	1.60-2.10	<0.03	<0.03	1.00-1.50	1.55-2.05	.	.	1.25-1.75	.	.	.
A-11	2.45	0.50	.	.	0.90	.	5.25	.	1.30	9.75	.	.
D-2	1.40-1.60	<0.60	<0.03	<0.03	<0.60	.	11.00-13.00	<1.00	0.70-1.20	<1.10	.	.
D-3	2.00-2.35	<0.60	<0.03	<0.03	<0.60	.	11.00-13.50	.	.	<1.00	<1.00	.
D-4	2.05-2.40	<0.60	<0.03	<0.03	<0.60	.	11.00-13.00	.	0.70-1.20	<1.00	.	.
D-5	1.40-1.60	<0.60	<0.03	<0.03	<0.60	.	11.00-13.00	2.50-3.50	0.70-1.20	<1.00	.	.
D-7	2.15-2.50	<0.60	<0.03	<0.03	<0.60	.	11.50-13.50	.	0.70-1.20	3.80-4.40	.	.
H-10	0.35-0.45	0.25-0.70	<0.03	<0.03	0.80-1.20	.	3.00-3.75	.	2.00-3.00	0.25-0.75	.	.
H-11	0.33-0.43	0.20-0.50	<0.03	<0.03	0.80-1.20	.	4.75-5.50	.	1.10-1.60	0.30-0.60	.	.
H-12	0.30-0.40	0.20-0.50	<0.03	<0.03	0.80-1.20	.	4.75-5.50	.	1.25-1.75	<0.50	1.00-1.70	.
H-13	0.32-0.45	0.20-0.50	<0.03	<0.03	0.80-1.20	.	4.75-5.50	.	1.10-1.75	0.80-1.20	.	.
H-14	0.35-0.45	0.20-0.50	<0.03	<0.03	0.80-1.20	.	4.75-5.50	.	.	.	4.00-5.25	.
H-19	0.32-0.45	0.20-0.50	<0.03	<0.03	0.80-1.20	.	4.00-4.75	4.00-4.50	0.30-0.55	1.75-2.20	3.75-4.50	4.50
H-21	0.26-0.36	0.15-0.40	<0.03	<0.03	0.15-0.50	.	3.00-3.75	.	.	0.30-0.60	8.50-10.00	.
H-22	0.30-0.40	0.15-0.40	<0.03	<0.03	0.15-0.40	.	1.75-3.75	.	.	0.25-0.50	10.00-11.75	.
H-23	0.25-0.35	0.15-0.40	<0.03	<0.03	0.15-0.60	.	11.00-12.75	.	.	0.75-1.25	11.00-12.75	.
H-24	0.42-0.53	0.15-0.40	<0.03	<0.03	0.15-0.40	.	2.50-3.50	.	.	0.40-0.60	14.00-16.00	.
H-26	0.45-0.55	0.15-0.40	<0.03	<0.03	0.15-0.40	.	3.75-4.50	.	.	0.75-1.25	17.25-19.00	.
H-42	0.55-0.70	0.15-0.40	<0.03	<0.03	0.20-0.45	.	3.75-4.50	.	4.50-5.50	1.75-2.20	5.50-6.75	.
L-2	0.45-1.00	0.10-0.90	<0.03	<0.03	<0.50	.	0.70-1.20	.	<0.25	0.10-0.30	.	.
L-6	0.65-0.75	0.25-0.80	<0.03	<0.03	<0.50	1.25-2.00	0.60-1.20	.	<0.50	.	.	.
M-1	0.78-0.88	0.15-0.40	<0.03	<0.03	0.20-0.50	.	3.50-4.00	.	8.20-9.20	1.00-1.35	1.40-2.10	.
M-2	0.78-1.05	0.15-0.40	<0.03	<0.03	0.20-0.45	.	3.75-4.50	.	4.50-5.50	1.75-2.20	5.50-6.75	.
M-3.1	1.00-1.10	0.15-0.40	<0.03	<0.03	0.20-0.45	.	3.75-4.50	.	4.75-6.50	2.25-2.75	5.00-6.75	.
M-3.2	1.15-1.25	0.15-0.40	<0.03	<0.03	0.20-0.45	.	3.75-4.50	.	4.75-6.50	2.75-3.25	5.00-6.75	.
M-4	1.25-1.40	0.15-0.40	<0.03	<0.03	0.20-0.45	.	3.75-4.75	.	4.25-5.50	3.75-4.50	5.25-6.50	.
M-6	0.75-0.85	0.15-0.40	<0.03	<0.03	0.20-0.45	.	3.75-4.50	11.00-13.00	4.50-5.50	1.30-1.70	3.75-4.75	.
M-7	0.97-1.05	0.15-0.40	<0.03	<0.03	0.20-0.55	.	3.50-4.00	.	8.20-9.20	1.75-2.25	1.40-2.10	.
M-10	0.84-1.05	0.10-0.40	<0.03	<0.03	0.20-0.45	.	3.75-4.50	.	7.75-8.50	1.80-2.20	.	.
M-30	0.75-0.85	0.15-0.40	<0.03	<0.03	0.20-0.45	.	3.50-4.25	4.50-5.50	7.75-9.00	1.00-1.40	1.30-2.30	.
M-33	0.85-0.92	0.15-0.40	<0.03	<0.03	0.25-0.55	.	3.50-4.00	7.75-8.75	9.00-10.00	1.00-1.35	1.30-2.10	.
M-34	0.85-0.92	0.15-0.40	<0.03	<0.03	0.20-0.45	.	3.50-4.00	7.75-8.75	7.75-9.20	1.90-2.30	1.40-2.10	.
M-36	0.80-0.90	0.15-0.40	<0.03	<0.03	0.20-0.45	.	3.75-4.50	7.75-8.75	4.50-5.50	1.75-2.25	5.50-6.50	.
M-41	1.05-1.15	0.20-0.60	<0.03	<0.03	0.15-0.50	.	3.75-4.50	4.75-5.75	3.25-4.25	1.75-2.25	6.25-7.00	.
M-42	1.05-1.15	0.15-0.40	<0.03	<0.03	0.15-0.65	.	3.50-4.25	7.75-8.75	9.00-10.00	0.95-1.35	1.15-1.85	.
M-46	1.22-1.30	0.20-0.40	<0.03	<0.03	0.40-0.65	.	3.70-4.20	7.80-8.80	8.00-8.50	3.00-3.30	1.90-2.20	.
M-48	1.50	.	.	.	.	.	3.75	9.00	5.25	3.10	10.0	.
M-52	0.90	.	.	.	.	.	4.00	.	4.00	2.00	1.25	.
M-61	1.60	.	.	.	.	.	4.00	.	6.50	5.00	12.0	.
M-62	1.30	.	.	.	.	.	3.75	.	10.5	2.00	6.25	.
O-1	0.85-1.00	1.00-1.40	<0.03	<0.03	<0.50	.	0.40-0.60	.	.	<0.30	0.40-0.60	.
O-2	0.85-0.95	1.40-1.80	<0.03	<0.03	<0.50	.	<0.35	.	<0.30	<0.30	.	.
O-6	1.25-1.55	0.30-1.10	<0.03	<0.03	0.55-1.50	.	<0.30	.	0.20-0.30	.	.	.
O-7	1.10-1.30	<1.00	<0.03	<0.03	<0.60	.	0.35-0.85	.	<0.30	<0.40	1.00-2.00	.
P-20	0.28-0.40	0.60-1.00	<0.03	<0.03	0.20-0.80	.	1.40-2.00	.	0.30-0.55	.	.	.
P-21	0.18-0.22	0.20-0.40	<0.03	<0.03	0.20-0.40	4.00-4.25	0.20-0.30	.	.	0.15-0.25	.	Al: 1.05-1.25
P-6	0.05-0.15	0.35-0.70	<0.03	<0.03	0.10-0.40	3.25-3.75	1.25-1.75	.	.	.	.	.
S-1	0.40-0.55	0.10-0.40	<0.03	<0.03	0.15-1.20	.	1.00-1.80	.	<0.50	0.15-0.30	1.50-3.00	.
S-2	0.40-0.55	0.30-0.50	<0.03	<0.03	0.90-1.20	.	.	.	0.30-0.60	<0.50	.	.
S-4	0.50-0.65	0.60-0.95	<0.03	<0.03	1.75-2.25	.	<0.35	.	.	<0.35	.	.
S-5	0.50-0.65	0.60-1.00	<0.03	<0.03	1.75-2.25	.	<0.35	.	0.20-1.35	<0.35	.	.
S-6	0.40-0.50	1.20-1.50	<0.03	<0.03	2.00-2.50	.	1.20-1.50	.	0.30-0.50	0.20-0.40	.	.
S-7	0.45-0.55	0.20-0.80	<0.03	<0.03	0.20-1.00	.	3.00-3.50	.	1.30-1.80	0.20-0.30*	.	.
T-1	0.65-0.80	0.10-0.40	<0.03	<0.03	0.20-0.40	.	3.75-4.50	.	.	0.90-1.30	17.25-18.25	.
T-15	1.50-1.60	0.15-0.40	<0.03	<0.03	0.15-0.40	.	3.75-5.00	4.75-5.25	<1.00	4.50-5.25	11.75-13.00	.
T-4	0.70-0.80	0.10-0.40	<0.03	<0.03	0.20-0.40	.	3.75-4.50	4.25-5.75	0.40-1.00	0.80-1.20	17.50-19.00	.
T-5	0.75-0.85	0.20-0.40	<0.03	<0.03	0.20-0.40	.	3.75-5.00	7.00-9.50	0.50-1.25	1.80-2.40	17.50-19.00	.
T-6	0.75-0.85	0.20-0.40	<0.03	<0.03	0.20-0.40	.	4.00-4.75	11.00-13.00	0.40-1.00	1.50-2.10	18.50-21.00	.
T-8	0.75-0.85	0.20-0.40	<0.03	<0.03	0.20-0.40	.	3.75-4.50	4.25-5.75	0.40-1.00	1.80-2.40	13.25-14.75	.
W-1	0.70-1.50	0.10-0.40	<0.025	<0.025	0.10-0.40	<0.20	<0.15	.	<0.10	<0.10	<0.15	Cu: <0.20
W-2	0.85-1.50	0.10-0.40	<0.03	<0.03	0.10-0.40	<0.20	<0.15	.	<0.10	0.15-0.35	<0.15	Cu: <0.20
W-5	1.05-1.15	0.10-0.40	<0.03	<0.03	0.10-0.40	<0.20	0.40-0.60	.	<0.10	<0.10	<0.15	Cu: <0.20
Number	C	Mn	P	S	Si	Ni	Cr	Co	Mo	V	W	Other

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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	Ta: <0.10
384	<0.08	<2.00	<0.045	<0.03	<1.00	.	17.00-19.00	15.00-17.00	.	.	.	
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	.	

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