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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	.
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	**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 or 19+ mm	**17025**
CZ LA-0A	(0.0015)	.	.	Sb:(0.0007)	(0.001)	(0.001)	0.001	.	.	disc ~37 mm Ø x 25 mm	
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	
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 50D	0.0020	0.0008	0.0014	0.00024	0.0018	0.0004	0.0012	0.0003	(0.0001)	(0.004)	.	0.0026	0.0024	<0.0001	0.0004
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
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 XRF 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 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

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	.	0.053	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	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	IARM 200C	0.453	0.775	0.007	0.020	0.241	0.236	0.094	0.100	0.002	.	0.006	0.0003	0.0020	0.007	0.023
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	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	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	.

#	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	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	.	.	.	.	.	.	.
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	**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	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	.	.	.	0.0062
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	0.297	.	.	.	0.0017	(0.0013)	.	0.0015	.	0.0504	.
1	DSZU C041	0.107	1.35	0.0126	0.0055	0.63	0.059	0.040	0.067	0.017	.	0.0033	(0.0004)	0.0024	0.003	0.005
1	SS 432/1	0.102	1.34	0.024	0.039	0.043	.	0.14	0.31	.	.	.	.	.	.	.
1	SS 601/2	0.102	1.30	0.034	0.024	0.263	(0.04)	(0.03)	(0.14)	0.033	.	.	.	.	(0.09)	(0.006)
1	VS UG93	0.100	0.140	0.0033	0.0024	0.48	0.028	0.126	0.137	0.15	.	.	.	.	.	0.0008
1	VS UG17/6	0.097	0.106	(0.003)	(0.004)	0.37	(0.02)	0.105	0.127	.	.	.	.	.	.	.
1	SS 433/2	0.095	1.19	0.012	0.008	0.005	.	0.038	0.026	.	.	.	.	.	.	.
1	IRSID 1661	0.086	1.48	0.018	(0.006)	0.406	(0.013)	(0.029)	(0.021)	(0.028)	(0.025)	(0.003)	.	.	.	(0.006)
1	VS UG108	0.074	0.104	0.050	0.0082	.	0.0087	0.0092	.	.	.	.	.	.	.	.
1	SRM 1228	0.072	0.365	0.004	0.018	0.007	0.012	0.018	0.016	0.061	.	.	.	.	.	0.009
1	ECRM 057-2D	0.0507	0.246	0.0120	0.0127	.	0.0146	0.0096	0.0114	0.059	.	.	.	.	.	.
1	**BS XCCS-1**	0.043	0.356	0.0058	0.0020	0.290	0.0147	0.0131	0.028	0.061	.	0.0019	(0.0004)	0.0019	0.0020	0.0046
1	NM PC-1	0.033	0.26	0.01	0.007	0.031	.	.	0.025	.	.	.	.	.	.	.
1	DSZU C03	0.029	0.089	0.0062	0.0081	0.145	0.206	0.146	(0.27)	0.014	.	0.008	0.0004	.	0.013	0.031
1	SS 431/2	0.026	0.90	0.12	0.006	0.015	.	0.040	0.050	.	.	.	.	.	.	.
1	SS 111A	0.0258	0.155	0.0033	0.0054	0.0253	0.0171	0.0387	0.0197	0.0348	.	0.0017	(<0.001)	(<0.0005)	0.0144	0.0008
1	DSZU C040	0.015	0.011	0.0027	0.0029	0.061	0.009	0.006	0.009	0.041	.	(0.0002)	0.0004	0.0026	(0.001)	(0.001)
2	RM Fe 1/5	0.011	0.049	0.003	0.004	0.004	0.0099	0.022	0.013	0.003	.	0.002	<0.0005	<0.001	0.002	0.0019
1	VS UG2/5	0.010	0.008	(0.005)	(0.006)	(0.006)	0.012	0.075	0.039	(0.01)	.	.	.	.	.	0.022
1	SS 432/2	0.008	0.70	0.017	0.036	0.08	.	0.019	0.016	.	.	.	.	.	.	.
1	VS 005	0.007	0.0281	0.0028	0.0053	0.044	0.067	0.074	0.046	0.317	.	0.0027	.	.	0.008	0.005
1	VS UG2/10	0.0067	0.036	0.0036	0.0054	0.084	0.063	0.073	0.034	0.203	.	.	.	.	.	0.0055
1	VS 003	0.0064	0.036	0.0040	0.0052	0.084	0.062	0.074	0.034	0.201	.	0.0025	.	.	0.008	0.005
2	CZ LA-1B	0.005	0.13	0.004	0.017	0.020	0.01	0.014	0.042	0.003	.	(0.002)	0.010	0.0016	(0.002)	0.007
1	IMZ 110A	0.0034	0.067	0.0051	0.0045	.	0.021	0.021	0.027	(0.001)	.	.	.	.	0.0031	0.0035
1	VS 004	0.0033	0.040	0.0033	0.0033	0.0116	0.078	0.119	0.087	0.257	.	0.0040	.	.	0.011	.
1	VS 002	0.0024	0.104	0.0052	0.0055	0.033	0.0074	0.0061	0.0147	0.054	.	0.0010	.	.	0.0011	0.00042
1	**BS LC-6**	0.0020	0.469	0.0007	0.0009	0.050	0.0003	0.0057	0.0023	0.0021	.	(<0.0020)	(0.0004)	(0.0001)	0.0021	(0.0006)

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Als	As	B	Ca	Co	Mo

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	.	.	.	.	.	.	.	.	.	.	.	44 mm Ø x 25 or 30 mm	
SRM 1224	.	.	.	.	.	.	.	0.002	.	.	.	32 mm Ø x 19 mm	
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 mmØ x ~7 or 19+mm	**17025**
IARM 200C	0.0079	0.0014	0.0037	.	0.002	0.0090	0.0011	0.025	(0.002)	(0.002)	(0.004)	31 mm Ø x 2 or 18 mm	
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	
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	
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	

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	**17025**
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	
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	**17025**
VS UG94	.	.	.	.	.	.	0.053	(0.001)	.	.	.	~40 mm Ø x ~28 mm	
VS UG18/6	.	.	.	.	.	.	.	.	.	.	.	~45 mm Ø x ~28 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	**17025**
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 or 18 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	
BS LF2B	0.0078	(0.0003)	0.0024	(0.0001)	0.0018	0.0092	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	
NM 3404.01	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 20 mm last	
12X 10180B	0.0071	.	.	.	.	0.0065	.	.	.	0.0079	.	~40 mm Ø x ~15 mm	
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 ~7 or 19+ mm	**17025**
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 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	.	(0.0001)	.	(0.0002)	.	(0.0003)	0.0010	0.0004	(0.0007)	Fe: 99.2	(0.0006)	~40 mm Ø x ~30 mm	**17025**
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	
SS 431/2	0.005	0.004	.	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm	
SS 111A	0.0034	(0.0005)	.	(<0.001)	(<0.001)	0.0015	0.0004	0.0009	.	.	(<0.001)	44 mm Ø x 19 or 50 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)	(<0.0050)	(0.00004)	(0.0004)	39 mm Ø x ~7 or 19+ mm	**17025**

Number	N	Nb	O	Pb	Sb	Sn	Ti	V	W	Zn	Zr	Units

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	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 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 353F	0.0489	0.129	0.122	0.644	0.0098	0.0200	0.154	0.271	0.219	0.701	0.093	.	0.0261	0.107	0.1178	0.059
1	12X 355B	0.0294	0.080	0.152	0.595	0.0289	0.0284	0.486	0.632	0.081	0.103	0.118	.	0.0515	0.0603	0.0547	0.144
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
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 12746U	.	.	.	.	.	0.0218	.	.	.	.	.	0.0160	0.101	.	.	40 mm Ø x 15 mm
12X 353F	0.0013	0.0209	.	.	.	0.0112	0.060	.	0.0195	0.0164	.	0.0108	0.134	.	(0.013)	~40 mm Ø x ~15 mm
12X 355B	(0.0010)	0.043	.	.	.	0.0067	0.039	.	0.0302	0.0338	.	0.121	0.0294	.	0.087	~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	.	0.0005	38 mm Ø x ~7 or 19+ 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
BS 4142SE: 38 mm Ø x 12 mm
CKD: 44 mm Ø x 13 mm
other BS: 38 mm Ø x ~7 or 19+ mm

#	Number	Bi	Se	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Als	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
2	BS 4142SE	.	0.042	0.428	0.85	0.015	0.031	0.17	0.13	0.081	0.84	0.017	.	0.016	0.012	0.164	0.0087

Number	B	Ca	Nb	O	Pb	Sb	Sn	Ta	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	.	
BS 4142SE	.	.	.	(0.002)	0.0020	.	0.015	.	(0.002)	0.003	.	.	.	last of stock

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	SRM 1254	0.0053	(0.03)	(0.28)	(0.03)	(0.008)	(2.9)	(0.07)	(0.04)	(0.02)	(0.33)	.	.	(0.008)	.	.
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
2	HRT FE2006-N	0.0022	0.90	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	ECRM 096-2D	0.0020	0.1050	1.320	0.0128	0.0016	0.263	0.0170	0.0253	0.0243	0.0460	.	.	0.0020	.	.
1	IRSID 1667	0.0019	0.679	0.668	0.0136	0.0018	0.240	0.0115	0.0189	0.235	0.0217	.	0.0031	(0.0014)	0.0048	0.0012
1	**BS XCCS-1**	0.0019	0.043	0.356	0.0058	0.0020	0.290	0.0147	0.0131	0.028	0.061	.	0.0020	0.0046	.	0.0004
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)
2	BS 3941	0.0013	0.41	0.80	0.016	0.023	0.25	0.053	0.019	0.068	0.002	.	0.004	0.006	0.0070	0.003
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
1	**BS 1981**	0.0005	0.142	0.490	0.008	0.016	0.666	0.152	0.129	1.20	0.022	.	0.009	0.470	0.0085	0.004
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 **17025**
SRM 1254	.	.	.	.	.	.	.	(0.003)	.	.	.	32 mm Ø x 19 mm last of stock
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 **17025**
ECRM 194-1D	0.0042	0.0020	.	.	.	.	.	.	.	.	.	~37 mm Ø x 20-35 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 **17025**
HRT FE2009-N	.	.	.	.	.	.	.	.	.	.	Zn: 0.004	40 mm Ø x 40 mm
ECRM 096-2D	.	.	.	0.0252	.	.	.	.	.	.	.	38 mm Ø x 25 or 30 mm
IRSID 1667	0.0017	(0.0002)	.	0.0002	.	.	0.0002	0.0008	0.0014	.	.	37 mm Ø x 30 mm last of stock
BS XCCS-1	0.0019	(0.0004)	.	(0.0001)	.	(0.0002)	.	(0.0003)	0.0010	(0.0007)	(0.0006)	~40 mm Ø x ~30 mm **17025**
IRSID 1665	0.0067	(0.00032)	.	.	.	(0.0014)	(0.0008)	0.0031	(0.0008)	.	.	37 mm Ø x 30 mm
BS 3941	0.003	.	.	.	(0.006)	0.0010	.	(0.002)	(0.002)	.	.	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 or 18 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 **17025**
BS 4942	0.005	.	.	.	(0.0021)	.	.	0.014	.	.	.	38 mm Ø x ~7 or 19+ mm
BS 1981	0.0048	(0.0003)	.	(0.002)	(0.0020)	.	.	0.007	0.0028	(<0.01)	last	38 mm Ø x ~15 or 19 mm **17025**
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 **17025**
IMZ 111	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 40 mm
TL 1669	0.0017	0.00038	.	0.00046	.	0.00013	0.00049	0.0071	0.0504	.	(0.00021)	38 mm Ø x 25 mm Zn: 2.7*

CRM Al, Ca, AND N IN LOW ALLOY STEEL

Number	Al	Ca	**N**	Units
BS 9905	0.017	(0.0001)	**0.055**	38 mm Ø x ~7 or 19+ 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

RM C-Mo and Cr-Mo STEEL XRF SET

Part Number: BS MOLY-5 AVAILABLE INDIVIDUALLY ~7 mm discs

Grade		Number	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Al	Co	N	Sn	V
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)	.	.
1.25Cr-.5Mo	F-11	BS 45A	0.133	0.46	0.016	0.022	0.69	0.17	0.15	1.16	0.52	0.032	0.009	0.0081	0.011	0.004
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
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
9Cr-1Mo	F-9	BS 48A	0.121	0.43	0.012	0.011	0.68	0.133	0.29	8.75	0.95	0.018	0.022	0.021	0.014	0.014

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 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	12X 15266U	3.12	0.318	0.425	1.203	0.0468	0.0156	0.589	0.229	1.581	0.466	0.068	0.379	.	0.020	0.102
1	SRM 1772	3.10	1.39	0.477	0.61	0.008	0.0031	0.264	0.083	0.105	.	.	.	.	.	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	.	0.0068	(0.011)	.	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 *	2.30	1.0	0.13	0.47	0.009	0.02	0.22	0.13	0.08	0.02	0.003	0.007	0.010	0.007	0.008
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	BS 68D	1.77	0.35	0.388	0.602	0.018	0.0067	0.31	0.178	0.166	1.04	(0.004)	0.009	0.0044	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	.	.	.	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	0.0057
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	**BS 1981**	1.20	0.470	0.142	0.490	0.008	0.016	0.666	0.152	0.129	0.022	0.0048	0.009	0.0085	0.007	0.004
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	IARM 35K	1.17	0.56	0.133	0.47	0.0089	0.016	0.52	0.135	0.059	0.018	0.0048	0.0066	0.0082	0.010	0.0042
2	BS 45A	1.16	0.52	0.133	0.46	0.016	0.022	0.69	0.17	0.15	0.032	0.007	0.009	0.0081	0.011	0.004
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	.
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 9905	(0.0004)	(0.0001)	0.076	0.0021	(0.0002)	(0.002)	.	(0.002)	0.003	(0.001)	38 mm Ø x ~7 or 19+ mm **25(pre-17025)**
BS H-13	(0.0002)	(0.0003)	(0.0004)	0.0018	(0.0003)	0.0020	(0.003)	(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
12X 15266U	.	.	1.467	.	.	.	0.110	.	.	.	~40 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 *	0.003	<0.005	0.005	0.003	0.002	.	.	0.001	<0.005	0.001	38 mm Ø x ~7 or 19+ mm
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]
BS 68D	(0.0004)	(0.0002)	.	(0.001)	.	.	.	.	.	.	37 mm Ø x 12 mm last
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 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
BS 1981	(0.0003)	0.0005	(0.002)	(0.0020)	.	.	.	0.0028	(<0.01)	last	38 mm Ø x ~15 or 19 mm **17025**
12X 43400A	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm Zn: 0.0027
IARM 35K	0.0003	0.0008	0.002	0.0023	(0.0003)	0.0024	(0.001)	0.0013	(0.004)	(0.001)	31 mm Ø x 2 mm
BS 45A	.	.	.	0.0025	.	0.0027	.	.	.	.	38 mm Ø x ~7 or 19+ mm
IRSID 1745	.	.	.	.	.	.	.	(0.003)	.	.	48 mm Ø x 30 mm
12X 11572A	.	.	.	.	.	.	.	.	.	Zn:0.0009	38 mm Ø x ~15 mm
BS 1962	.	.	.	.	(0.001)	.	.	0.004	.	.	41 mm Ø x ~7 or 19+ 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)	31 mm Ø x 2 mm

LEADED STEEL

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

#	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	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	.	.	.

Number	B	Ca	Nb	O	Sb	Ti	W	Zn	Grade	Units
BS 74C	.	.	(<0.005)	.	.	.	.	.	12L14	41 mm Ø x ~7 or 19+ mm **17025**
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 **17025** Fe:[98.2]
BS 75F	.	.	.	.	.	.	.	.	11L17	40 mm Ø x 12 mm **17025** last of stock
IARM 182B	(0.0003)	(0.0005)	(0.003)	(0.003)	(0.003)	(0.003)	(0.01)	(0.001)	86L20	31 mm Ø x 2 or 18 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 **17025**
BS 73B	.	.	.	.	.	.	.	.	86L20	41 mm Ø x ~7 or 19+ mm **25(pre-17025)**
BS 70B	.	.	.	.	.	.	.	.	41L40	41 mm Ø x ~7 or 19+ mm **17025**

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:~400x~15-17mm BS:320x17mm CZ:~390x25mm DSZU:390x20mm ECRM:350x25mm IMN:50-560x15mm SS 491:500x10mm other SS:48x42x12mm VS:~380x~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)	(6)	(0.44)	(0.002)	(0.44)	.	(0.1)	
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	.	0.155	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	DSZU C012	20.9	0.39	0.021	0.0072	0.31	0.087	0.103	0.17	(3)	.	(0.013)	.	.	(1.14)	
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
1	14X MN1AJ	19.46	0.479	0.0229	0.0042	0.528	0.0603	0.352	1.434	0.205	0.510	0.048	0.149	0.0050	0.0191	Ta: 0.012 Ti: 0.067
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)	(0.014)	.	.	.	.	
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	DSZU C011	16.09	0.44	0.031	0.0093	0.41	0.105	0.058	0.30	(2.5)	.	(0.010)	.	.	.	
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	VS LG53	12.9	1.15	0.087	0.0056	0.35	0.100	0.121	0.197	.	0.010	0.013	.	.	0.0104	last of stock
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	14X MN4AB	12.70	1.15	0.0385	0.0265	1.07	0.232	1.001	2.041	(0.008)	0.772	0.0388	0.102	0.0134	0.0294	Ta: 0.0178 Ti:0.0103
1	DSZU C010	12.25	1.20	0.082	0.0035	0.49	0.120	0.108	0.187	(0.006)	.	(0.017)	.	.	.	
1	14X MN3S	11.44	0.958	0.049	0.017	1.05	0.229	1.044	0.643	(0.17)	0.307	0.0211	0.251	0.021	0.0481	Ti: 0.350
2	BS 18A	11.30	1.13	0.019	0.043	0.64	0.029	0.36	0.22	0.019	0.049	0.042	0.05	0.007	0.32	Co: 0.009
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	
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 MN5S	8.55	1.377	0.0270	0.0110	1.57	0.421	1.372	3.31	0.262	1.91	0.0155	0.021	0.0129	0.0397	Ta: 0.005 Ti: 1.01
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)
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
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

* IRSID 1833 also contains As: 0.0034, Co: 0.0089, Pb: 0.00007, and Ti: 0.0011

CRM MANGANESE STEEL SET

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

Number	C	Mn	P	S	Si	Cu	Ni	Cr	B	Co	Mo	N	Ti	V
NCS HS11720-6	2.38	5.36	0.029	0.108	1.69	0.474	3.43	0.084	0.017	0.107	1.51	0.016	0.218	0.837
NCS HS11720-1	1.96	22.96	0.188	0.0063	0.348	0.025	0.045	3.01	0.0021	0.0094	(0.0095)	0.091	0.0041	0.034
NCS HS11720-2	1.61	10.66	0.052	0.054	0.652	0.221	0.328	0.467	0.0038	0.010	0.118	0.054	0.047	0.132
NCS HS11720-3	1.16	16.75	0.077	0.055	1.16	0.143	0.152	0.257	0.0013	0.091	0.589	0.033	(0.030)	0.530
NCS HS11720-4	1.06	15.04	0.044	0.059	1.47	0.089	1.66	1.45	0.0023	0.0093	0.881	0.072	0.013	0.567
NCS HS11720-5	0.750	12.20	0.118	0.037	1.01	0.449	0.838	0.680	0.0009	0.0070	0.302	0.026	(0.018)	0.273

CRM Co/Fe/V MAGNETIC ALLOY PERMENDUR 2V

analysis listed in mass % trace: Al As B C Cu Cr Mg Mo Sn Ta Ti W 31 mm Ø x 2 or 18 mm

Number	Co	Fe	V	Mn	P	S	Si	Ni	N	Nb	O	Zr
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

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	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 12130A	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 *	0.26	0.46	1.4	0.0099	0.21	0.15	0.07	0.077	0.002	0.007	0.016	0.009	0.008	0.001	0.002
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 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	.	.
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	0.110	0.418	1.57	0.018	0.02	0.031	0.033	0.094	0.002	0.005	0.019	(0.006)	.	<0.002	0.002
2	CT X56617	0.095	0.72	2.11	0.012	0.33	0.040	0.061	0.96	.	.	1.31	.	.	.	0.034
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	14X MSFM 3F	0.087	0.55	2.10	0.060	0.52	.	.	.	.	.	0.27	.	.	.	.
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 *	0.07	0.36	1.14	0.11	1.00	0.28	0.29	1.53	0.08	0.048	0.12	0.027	0.105	.	0.48
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	0.12	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	.	.	.	.	.	.	.	.	.

Number	As	B	Bi	Ca	Nb	O	Pb	Sb	W	Zn	Zr	Units
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 12130A	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)	.	(0.001)	31 mm Ø x 2 or 18 mm
IMZ 124	0.004	.	.	.	.	.	(0.002)	0.002	.	.	.	40 mm Ø x 40 mm
BS 1144A *	0.005	<0.001	* Provisional Analysis			0.002	0.001	.	0.002	.	0.001	38 mm Ø x ~7 or 19+ mm
BS 1144	0.009	.	.	.	(0.004)	0.0016	(0.001)	.	(0.003)	.	last	38 mm Ø x 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 11170A	0.0044	.	.	.	.	.	0.0011	.	.	.	.	~40 mm Ø x ~15 mm
BS 65C	.	.	.	.	.	.	.	.	.	.	.	37 mm Ø x ~7 or 19+ mm
BS 66B	.	.	.	.	.	.	.	.	.	.	.	41 mm Ø x ~7 or 19+ mm
CT X56617	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x 20-25 mm last
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
14X MSFM 3F	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 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 *	* Provisional Analysis			.	0.165	.	.	.	0.15	.	.	~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

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	0.001	.

SILICON STEEL

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

#	Number	Si	C	Mn	P	S	Cu	Ni	Cr	Al	Als	Mo	N	Sn	Ti
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 CM-11A	3.50	0.031	0.250	0.0139	0.009	0.300	0.027	0.044	0.082	.	<0.01	0.0080	0.008	0.005
2	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	ECRM 191-2D	3.267	0.0043	0.1334	0.0087	0.0029	0.0165	0.0224	0.0314	0.985	.	0.0020	0.00105	0.0050	0.0024
1	KUT T2/1	3.24	0.026	0.184	0.009	0.017	0.09	0.11	0.03	.	.	.	.	.	.
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	12X 15251T	2.27	1.17	1.003	0.0284	0.0258	0.110	1.035	0.792	0.050	.	0.205	0.0232	0.0047	.
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	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	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	12X 15259 *	1.8	0.6	0.40	0.040	0.07	0.20	4.03	0.54	0.14	.	0.41	0.015	0.05	.
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	IRSID 1738	1.666	0.475	0.604	(0.010)	(0.040)	(0.133)	(0.076)	0.158	(0.036)	.	(0.044)	.	.	.
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	12X 15261W	1.606	0.689	0.437	0.111	0.079	0.252	0.113	0.495	1.013	.	1.508	.	0.0157	0.397
1	KUT B1/1	1.58	0.97	0.205	0.017	0.032	0.14	3.96	1.66	.	.	.	.	.	.
1	VS UG1/6	1.53	0.51	0.66	(0.005)	(0.004)	0.097	0.188	0.065	0.013	.	0.052	.	0.0029	0.015
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	12X LA2D	0.976	0.157	0.569	0.034	0.043	0.778	0.728	0.868	1.377	.	0.138	0.0186	.	.
1	SS 603/2	0.97	0.78	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)	.	.	.

17025

#	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 CM-11A	0.003	.	.	0.003	.	.	.	.	.	<0.005	.	.	~39 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
ECRM 191-2D	0.0018	.	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 20 mm
KUT T2/1	.	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x 18 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	.	31 mm Ø x ~7 or 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
12X 15251T	.	.	.	0.259	0.29	.	.	.	.	0.405	0.053	.	42 mm Ø x 15 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
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
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
12X 15259 *	.	.	.	0.14	0.26	* Provisional Analysis			.	0.14	0.50	.	~40 mm Ø x ~ 15 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
IRSID 1738	.	.	.	.	.	.	.	.	.	.	.	.	55 mm Ø x 30 mm
12X 44220A	0.0026	.	.	.	.	.	.	.	.	0.0764	.	.	~38 mm Ø x ~15 mm
CZ CM-2A	0.11	0.0005	.	0.43	0.48	.	0.06	0.008	0.027	0.10	0.23	0.03	~39 mm Ø x 25 mm
VS UG111	.	.	.	.	.	.	.	.	.	0.058	0.056	.	~45 mm Ø x ~28 mm
VS UG1/9	(0.001)	(0.0003)	.	.	0.124	.	(0.002)	.	.	0.024	0.063	.	~45 mm Ø x ~28 mm
IARM 340A	(0.004)	0.0004	(0.0004)	0.006	0.015	(0.001)	(0.001)	0.0021	.	0.064	(0.005)	(0.002)	31 mm Ø x 2 or 18 mm
IARM 342A	(0.006)	0.0004	(0.0001)	0.008	(0.002)	0.0006	0.0008	0.0021	.	0.023	(0.005)	(0.002)	31 mm Ø x 2 or 18 mm
VS UG4/10	.	.	.	.	0.030	.	.	.	.	0.0239	0.006	.	~45 mm Ø x ~28 mm
12X 15261W	.	.	.	0.363	0.691	.	.	.	.	0.114	0.256	.	~40 mm Ø x ~15 mm
KUT B1/1	.	.	.	.	.	.	.	.	.	.	.	0.001	30-35 mm Ø x 39 mm
VS UG1/6	(0.003)	.	.	(0.007)	0.092	.	(<0.0005)	(<0.0005)	.	0.041	0.076	.	~45 mm Ø x ~28 mm
VS UG1/10	.	.	.	.	0.091	.	.	.	.	0.042	0.074	.	~45 mm Ø x ~28 mm
CZ LA-2D	0.095	0.007	(0.0004)	0.26	0.24	.	0.050	0.040	.	0.30	0.29	0.003	~37 mm Ø x 25 mm
KUT A11/1	.	.	.	.	0.16	.	.	< 0.001	.	0.46	.	.	30-35 mm Ø x 39 mm
VS UG4/6	(0.001)	.	.	(0.004)	(0.03)	.	(0.005)	(<0.0005)	.	0.051	0.111	.	~45 mm Ø x ~28 mm
VS UG87	0.116	.	.	.	.	.	0.00008	0.0012	.	0.0038	.	.	~47 mm Ø x ~30 mm
VS UG1/5	.	.	.	.	0.078	.	.	.	.	0.070	(0.01)	.	~47 mm Ø x ~28 mm
VS UG88	0.0007	.	.	.	0.059	.	0.00015	0.0003	.	0.117	.	.	~47 mm Ø x ~30 mm
DSZU C046	0.0020	(0.0004)	0.0007	0.006	(0.005)	.	.	.	.	0.72	0.47	.	40 mm Ø x 25 mm
CZ LA-3E	0.056	0.005	(0.001)	0.11	0.077	.	0.009	0.024	.	0.22	0.10	0.13	~37 mm Ø x 25 mm
KUT A12	0.007	.	.	0.012	(0.03)	.	.	0.013	.	0.042	.	.	30-35 mm Ø x 39 mm
CZ CM-14B	0.015	0.0205	.	0.026	0.165	.	0.007	0.010	.	0.36	0.03	0.040	~39 mm Ø x 25 mm
CZ CM-14A	0.016	0.0062	(0.004)	0.015	0.115	.	0.013	0.006	0.015	0.345	0.021	0.044	~39 mm Ø x 25 mm
12X 15258N	.	.	.	0.272	0.103	.	.	.	.	0.218	0.102	.	~42 mm Ø x ~15 mm
12X LA2D	0.298	.	.	0.0169	.	.	.	.	.	0.0687	.	.	~40 mm Ø x ~15 mm
SS 603/2	.	.	.	(0.01)	.	.	.	.	.	(0.001)	.	(<0.005)	44 mm Ø X 19 mm
SS 405/2	.	.	.	.	.	.	.	.	.	0.411	.	.	38 mm Ø x 19 mm
SS 113	0.0020	0.0066	.	0.0415	0.0487	.	.	.	.	0.201	0.012	0.0029	44 mm Ø x 19 mm
NCS HS11744	0.019	0.0007	.	0.397	0.050	.	.	.	.	0.131	.	0.0025	38 mm Ø x 40 mm
CKD 188A	(0.005)	0.0047	.	0.006	0.122	.	0.001	0.006	0.022	0.802	0.091	0.052	44 mm Ø x 13 or 25 mm
SS 604/2	.	.	.	(0.01)	.	.	.	.	.	(0.001)	.	(<0.005)	44 mm Ø X 19 mm

Number	As	B	Ca	Co	Nb	O	Pb	Sb	Ta	V	W	Zr	Units

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 UG77	1.40	0.33	0.0061	0.0030	0.222	0.288	0.55	0.73	(0.1)	.	.	(0.08)	.	.	(0.001)
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	0.208	0.0040	0.0045	0.170	0.307	0.36	0.55	0.139	(0.001)	.	0.024	0.0022	0.041	0.029
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	(0.02)	.	.	.	.	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	0.073	0.22	.	.	1.19	.	.	.	.	.	.	.
2	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	0.602	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	.	.	.	.	.	.	.
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	VS UG78	0.74	1.96	0.0071	0.0060	0.286	0.052	0.108	1.63	(0.3)	.	.	(0.3)	.	(0.06)	(0.1)
1	VS UG8/5	0.74	1.95	(0.007)	(0.01)	(0.3)	0.051	0.113	1.63	0.32	.	.	0.77	.	0.062	(0.1)
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 LA4B	0.537	0.303	0.0363	0.039	0.335	0.334	0.521	0.499	0.057	.	0.105	0.489	0.0222	.	.
1	12X 61500A	0.530	0.912	0.0104	0.0102	0.240	0.157	0.0976	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	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	.	.
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
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

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Als	Co	Mo	N	Nb	Ti
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
2	~~12X LA3A~~	0.48	1.50	0.032	0.040	0.13	0.20	0.31	0.37	0.06	.	.	0.30	.	.	.
1	IPT 503	0.456	0.682	0.027	0.027	0.218	0.129	0.063	0.160	0.018	.	0.006	0.020	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
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	0.0080	.	.
1	NM PC-4	0.43	0.80	0.043	0.045	0.34	.	.	0.26	.	.	.	.	.	.	.
1	SRM 1173	0.423	0.19	0.033	0.092	1.28	0.204	4.06	2.70	.	.	.	1.50	.	.	.
2	BS 60C	0.422	0.80	0.011	0.013	0.24	0.15	1.71	0.87	0.034	.	0.012	0.25	(0.0067)	.	(0.001)
2	HRT FE2015-N	0.42	0.83	0.007	0.028	0.24	0.15	0.32	1.03	0.023	.	.	0.21	0.0057	.	.
1	BS 4340A *	0.42	0.77	0.006	0.001	0.26	0.13	1.8	0.88	0.03	.	0.01	0.26	0.01	<0.05	0.002
1	IARM 252C	0.416	0.92	0.025	0.008	0.248	0.109	0.505	0.501	0.017	.	0.008	0.205	0.0083	0.002	0.001
2	BS 4942	0.414	0.56	0.015	0.021	0.22	0.165	0.16	0.97	(0.004)	.	0.010	0.54	0.0080	.	.
2	**BS 1962**	0.41	0.94	0.007	0.011	0.242	0.224	0.16	1.05	0.018	.	0.008	0.229	0.0095	.	0.004
1	BS 4340 *	0.41	0.71	0.012	0.02	0.28	0.15	1.8	0.80	0.03	.	<0.05	0.23	0.01	0.002	0.002
1	VS UG116	0.41	0.59	0.012	0.027	0.246	0.221	1.13	0.89	0.026	.	.	0.044	0.0089	.	0.0022
2	BS 60D	0.406	0.82	0.014	0.009	0.22	0.075	1.76	0.76	0.032	.	0.011	0.23	0.0070	.	.
1	**BS 67C**	0.404	0.91	0.015	0.009	0.239	0.173	0.61	0.511	0.024	.	0.010	0.221	0.0075	.	(0.002)
1	~~SS 114~~	0.403	0.416	0.0044	0.0046	0.295	0.358	1.502	0.187	0.078	.	0.0171	0.184	0.0043	0.0042	0.0096
1	IMZ 63/2	0.40	0.63	0.017	0.009	0.16	0.14	0.13	0.16	(0.010)	.	.	.	.	.	.
1	SS 225/2	0.40	0.56	0.019	0.012	0.23	.	1.43	1.08	.	.	.	0.34	.	.	.
1	IPT 504	0.395	1.474	0.019	0.031	0.232	0.096	0.048	0.098	0.032	0.028	0.0077	0.009	0.0078	(0.012)	0.0011
1	12X 826M40A	0.395	0.529	0.0094	0.0025	0.248	0.1294	2.408	0.649	0.0404	.	.	0.510	0.0089	.	.
1	DSZU C06	0.395	0.416	0.035	0.039	0.097	0.040	0.459	0.315	0.029	.	0.034	0.016	.	(0.029)	(0.002)
1	CKD 186D	0.392	1.312	0.013	0.007	1.41	0.226	1.58	1.51	0.042	.	(0.006)	0.254	(0.005)	(0.004)	0.047
1	VS UG33/2	0.39	0.89	.	.	0.155	0.179	1.93	1.45	.	.	.	0.075	.	.	.
1	IARM 31F	0.39	0.70	0.012	0.018	0.258	0.181	1.78	0.83	0.026	.	0.008	0.204	0.0058	(0.002)	0.0017
1	BS 4942A *	0.39	0.64	0.008	0.002	0.26	0.064	0.055	0.96	0.010	.	0.008	0.54	0.008	0.003	0.003
1	VS UG79	0.387	0.65	0.0102	0.0077	0.451	0.230	0.24	1.82	(0.8)	.	.	(0.04)	.	(0.01)	(0.2)
1	IRSID 1731	0.386	0.458	0.017	(0.008)	0.263	0.060	2.88	0.734	(0.012)	.	.	(0.036)	.	.	(0.047)
1	DSZU C045	0.382	0.394	0.0080	0.0144	0.262	0.097	0.093	1.41	0.93	.	0.007	0.219	0.0080	0.004	0.0112
2	CZ LA-5B	0.38	1.75	0.017	0.010	0.39	0.12	2.43	3.60	0.073	.	0.075	0.75	0.02	0.060	0.05
1	VS UG3/10	0.38	0.644	0.0104	0.0077	0.453	0.230	0.243	1.83	0.84	.	.	0.042	0.012	.	0.161
1	12X 12700A	0.364	0.636	0.0205	0.0116	0.238	0.0342	0.0197	0.070	0.055	.	0.0047	0.0345	0.0073	.	.
1	IMZ 115	0.36	0.65	0.045	0.024	0.043	0.25	0.35	0.27	(0.015)	(0.0058)	.	0.070	0.0087	0.09	.
1	IRSID 1750	0.359	1.801	0.0128	0.075	0.246	0.320	0.187	0.227	0.0175	.	(0.0120)	0.0433	0.0107	(<0.0010)	(0.0016)
1	IRSID 1730	0.355	0.403	0.010	(0.018)	0.325	0.096	3.64	1.65	(0.038)	.	.	0.072	.	.	.
1	IMZ 114	0.35	1.16	0.024	0.021	0.33	0.51	0.10	0.42	(0.029)	0.018	.	0.11	0.0142	.	(0.005)
1	SRM 1762a	0.341	1.912	0.0346	0.0295	0.351	0.1186	0.923	1.156	0.0706	.	0.0616	0.353	(0.002)	0.0692	0.0952
1	12X 12701A	0.330	0.636	0.0218	0.0124	0.308	0.0346	0.0557	0.235	0.0426	.	0.0058	0.0163	0.0072	.	.
1	VS UG7/10	0.33	0.71	(0.003)	0.0075	0.217	0.0184	2.28	0.99	0.072	.	.	0.248	0.0172	0.123	0.0018
1	IMZ 174	0.33	0.32	0.029	0.023	0.93	0.17	0.13	5.10	0.080	.	0.011	1.24	0.0288	.	(0.001)
1	VS UG36/2	0.324	0.206	.	.	0.234	0.067	4.32	0.94	.	.	.	0.140	.	.	.
1	DSZU C05a	0.32	1.68	0.018	0.006	0.34	0.45	1.33	1.08	0.028	.	0.11	0.20	.	0.15	0.050
1	12X 41300A	0.319	0.551	0.0082	0.0156	0.183	0.131	0.084	0.996	0.027	.	.	0.217	0.0095	.	.
2	BS 4330V	0.318	0.91	0.008	0.0009	0.240	0.181	1.91	0.91	0.021	.	0.011	0.475	0.0076	.	.
1	SS 219/4	0.314	0.81	0.011	0.027	0.079	0.088	2.55	0.66	.	.	.	0.58	.	.	.
2	HRT FE2010-N	0.31	0.56	0.015	0.034	0.28	0.05	0.25	2.45	0.049	.	0.012	0.17	.	.	.
2	RM Fe 2/2	0.309	0.457	0.047	0.010	0.325	0.309	0.906	0.604	0.0044	.	.	0.293	.	.	.
1	DSZU C044	0.303	1.05	0.0117	0.0044	1.06	0.115	1.56	1.04	0.020	.	0.019	0.012	0.0108	0.0026	0.0058
1	**BS 4130**	0.303	0.541	0.0105	0.0113	0.245	0.221	0.088	0.924	0.0242	.	0.0065	0.168	0.0072	0.0015	0.0009
1	~~SS 6157~~	0.30	1.68	.	(0.02)	0.17	(0.05)	4.01	0.49	.	.	.	0.21	.	.	.
1	IMZ 173	0.30	0.43	0.029	0.020	1.15	0.32	0.42	5.52	0.060	.	(0.013)	1.50	0.0342	.	(0.002)
1	VS UG7/5	(0.3)	0.68	(0.005)	(0.01)	(0.2)	(0.03)	2.27	0.99	(0.07)	.	.	0.25	.	(0.1)	(0.002)

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Als	Co	Mo	N	Nb	Ti

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 UG77	.	.	.	.	.	.	.	.	.	.	(0.01)	.	.	~40 mm Ø x ~26 mm
VS UG0/6	.	.	.	.	.	.	(<0.0005)	(<0.0005)	0.0032	.	0.0046	.	.	~45 mm Ø x ~28 mm
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)	.	(0.0008)	.	0.0087	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	.	0.012	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
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
VS UG78	.	.	.	.	.	.	.	.	.	.	(0.006)	(0.4)	.	~40 mm Ø x ~26 mm
VS UG8/5	.	.	.	.	.	.	.	.	.	.	(0.006)	0.58	.	~45 mm Ø x ~28 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	.	.	.	.	.	.	.	.	.	.	.	.	.	~45 mm Ø x ~25 mm
12X 10550	0.0059	.	.	.	.	.	.	.	0.0018	.	.	.	Zn:(0.0016)	~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
BS 4941	(0.004)	.	(0.0002)	.	.	0.0017	.	.	0.006	.	0.164	.	.	41 mm Ø x ~7 or 19+ mm
BS 43A	.	.	.	.	.	.	.	.	0.011	.	0.148	.	.	41 mm Ø x ~7 or 19+ mm
IMZ 103A	.	0.006	.	.	.	.	.	.	(0.005)	.	0.17	.	.	40 mm Ø x 40 mm

Number	As	B	Ca	Fe	Mg	O	Pb	Sb	Sn	Ta	V	W	Zr	Units
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 19 mm **17025**
12X LA3A	.	.	.	.	.	.	.	.	.	.	0.19	.	.	40 mm Ø x 15 mm last
IPT 503	.	.	.	.	.	.	0.008	.	.	.	.	.	.	35 mm Ø x 20 mm
SRM C1173	.	.	.	.	.	.	.	.	.	.	0.42	.	.	32 mm Ø x 19 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
SRM 1173	.	.	.	.	.	.	.	.	.	.	0.42	.	.	32 mm Ø x 19 mm
BS 60C	.	.	.	.	.	.	.	.	0.009	.	(0.002)	.	.	41 mm Ø x ~7 or 19+ mm
HRT FE2015-N	.	.	.	.	.	.	.	.	.	.	0.006	.	.	35 mm Ø x 20 mm
BS 4340A *	0.005	<0.005	* Provisional Analysis			0.001	<0.005	.	0.008	.	<0.05	<0.005	0.002	38 mm Ø x ~7 or 19+ mm
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 2 or 18 mm
BS 4942	0.005	.	0.0006	.	.	(0.0021)	.	.	0.014	.	0.28	.	.	38 mm Ø x ~7 or 19+ mm
BS 1962	0.007	.	**25(pre-17025)**	.	(0.0001)	.	(0.001)	.	0.010	.	0.004	.	.	41 mm Ø x ~7 or 19+ mm
BS 4340 *	0.004	<0.005	* Provisional Analysis			0.001	<0.005	.	0.007	.	0.004	<0.005	<0.005	38 mm Ø x ~7 or 19+ mm
VS UG116	.	.	.	.	.	.	.	.	.	.	.	.	.	~45 mm Ø x ~25 mm
BS 60D	(0.004)	(0.0002)	(0.0005)	.	.	.	(<0.001)	(<0.002)	0.004	.	0.010	(0.004)	.	41 mm Ø x ~7 or 19+ 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
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
VS UG33/2	.	.	.	.	.	.	.	.	.	.	(0.48)	.	.	~40 mm Ø x ~28 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 or 18 mm
BS 4942A *	0.003	<0.005	0.0012	* Provisional Analysis			0.001	.	0.006	.	0.27	<0.005	0.002	38 mm Ø x ~7 or 19+ 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 25 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 12700A	0.0060	0.0014	.	.	.	.	.	.	.	.	0.0033	.	Zn:0.0120	~50 mm Ø x ~20 mm
IMZ 115	.	.	.	.	.	.	.	.	.	.	(0.063)	.	.	40 mm Ø x 40 mm
IRSID 1750	0.0188	(0.0002)	(0.0002)	.	(<0.0002)	.	(<0.001)	0.0031	0.0137	(<0.0010)	0.114	(0.004)	(0.0002)	38 mm Ø x 25 mm
IRSID 1730	.	.	.	.	.	.	.	.	(0.010)	.	(0.010)	.	.	32 mm Ø x 30 mm
IMZ 114	.	.	(0.0002)	.	.	.	0.033	(0.006)	0.008	.	0.096	.	.	40 mm Ø x 40 mm
SRM 1762a	0.0173	0.0042	.	(94.2)	.	.	.	.	0.0479	0.0203	0.2010	.	0.0285	34 mm Ø x 19 mm last
12X 12701A	0.0060	0.0010	.	.	.	.	.	.	.	.	0.0040	.	Zn:0.0014	~50 mm Ø x ~20 mm
VS UG7/10	.	.	.	.	.	.	.	.	0.0006	.	0.234	0.34	.	~45 mm Ø x ~28 mm
IMZ 174	.	.	.	.	.	.	.	.	0.010	.	0.98	0.021	.	40 mm Ø x 40 mm
VS UG36/2	.	.	.	.	.	.	.	.	.	.	0.215	.	.	~40 mm Ø x ~28 mm
DSZU C05a	(0.005)	0.010	.	.	.	.	(0.003)	(0.0005)	0.010	.	0.20	0.27	.	40 mm Ø x 25 mm
12X 41300A	0.0043	.	.	.	.	.	.	.	0.0060	.	.	.	Zn:0.0012	~38 mm Ø x ~15 mm
BS 4330V	.	.	0.0010	.	.	0.0018	.	.	0.010	.	0.094	.	.	37 mm Ø x ~7 or 19+ mm
SS 219/4	.	.	.	.	.	.	.	.	0.011	.	.	.	.	38 mm Ø x 19 mm
HRT FE2010-N	.	.	.	.	.	.	.	.	.	.	0.117	(0.014)	.	40 mm Ø x 20 mm
RM Fe 2/2	.	0.0033	.	.	.	.	.	.	0.035	.	0.310	0.013	.	40 mm Ø x 40 mm last
DSZU C044	0.0063	(0.0004)	0.0005	.	.	.	.	.	0.0046	.	0.004	(0.005)	.	40 mm Ø x 25 mm
BS 4130	0.0048	(0.0002)	0.0007	[97.5]	0.0002	0.0015	(0.00003)	(0.0021)	0.0099	(0.0025)	0.0037	0.0011	**17025**	38 mm Ø x ~7 or 19+ mm
SS 6157/1	.	.	.	.	.	.	.	.	.	.	0.10	.	.	44 mm Ø X 19 mm
IMZ 173	.	.	.	.	.	.	.	.	0.012	.	0.47	0.10	.	40 mm Ø x 40 mm
VS UG7/5	.	.	.	.	.	.	.	.	.	.	0.23	0.35	.	~45 mm Ø x ~28 mm

Number	As	B	Ca	Fe	Mg	O	Pb	Sb	Sn	Ta	V	W	Zr	Units

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	.	.	0.004
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	.	.	.	0.026	.
2	RM Fe 2/3	0.296	0.69	0.042	0.013	0.45	0.36	0.83	0.59	0.015	.	0.045	0.053	0.31	0.0197	0.033	0.33
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	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	VS UG7/9	0.28	0.55	0.012	0.031	0.251	0.013	2.59	0.99	0.144	.	(0.001)	.	0.270	0.0036	0.035	0.161
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	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 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	VS UG6/9	0.248	0.366	0.020	0.0084	0.404	0.239	0.328	1.79	0.55	.	(0.001)	.	0.205	0.0050	0.111	0.351
1	IRSID 1740	(0.246)	0.460	0.037	.	0.378	(0.118)	0.956	.	(0.114)	.	.	.	0.207	.	(0.057)	0.050
1	IRSID 1741	(0.244)	0.466	0.037	.	0.380	0.117	0.962	.	(0.102)	.	.	.	0.204	.	0.059	0.051
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	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	**BS 8620C**	0.205	0.745	0.0091	0.0250	0.235	0.172	0.591	0.551	0.0244	.	0.0045	0.0059	0.193	0.0068	0.0079	0.0016
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	0.0122
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	12X 12750T	0.202	0.248	0.0106	0.0082	0.383	0.0215	1.012	0.853	0.285	.	.	0.670	0.119	.	0.227	0.0961
1	12X 349D *	0.20	0.50	0.02	0.023	0.22	0.11	0.30	0.30	0.16	.	0.002	0.02	0.13	.	0.15	0.015
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	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	VS UG8/10	0.192	1.81	0.0064	(0.005)	0.61	0.198	0.348	0.729	0.082	.	.	.	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
1	IARM 33C	0.184	0.562	0.009	0.017	0.25	0.223	1.71	0.133	0.025	.	(0.005)	0.008	0.236	0.0078	0.009	0.0021
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 19MNVS6A	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 15253S	0.173	0.992	0.0552	0.053	0.299	0.326	0.506	1.505	0.024	.	0.0259	0.0898	0.513	0.0235	0.129	0.242
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	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	DSZU C04	0.155	0.635	0.066	0.029	0.291	0.774	0.070	0.37	0.013	.	(0.0009)	0.006	0.079	.	(0.0009)	0.214
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 45A	0.133	0.46	0.016	0.022	0.69	0.17	0.15	1.16	0.032	.	0.007	0.009	0.52	0.0081	0.011	0.004
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

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Als	As	Co	Mo	N	Sn	V

CRM LOW ALLOY STEEL WITH EXTENSIVE ANALYSIS

analysis listed in mass % — 31-34 mm Ø x 19 mm

Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	As	Co	Mo	Nb	Pb	Sn	Ta	Ti	V	W	Zr
SRM 1264a	0.87	0.25	0.010	0.025	0.067	0.25	0.14	0.06	(0.008)	0.010	0.15	0.49	0.15	0.0022	(0.008)	0.11	0.24	0.10	0.10	0.069

continued — analysis listed in mass %

Number	B	Bi	Fe.diff	Ge	Sb	Te	Zn
SRM 1264a	(0.011)	(0.0009)	[96.7]	(0.003)	0.034	0.00018	(0.001)

analysis listed in mg/kg

Number	Ag	Au	Ca	Ce	H	Hf	La	Mg	N	Nd	O	Pd	Se	Sr
SRM 1264a	(0.2)	1	0.4	2	(<5)	(13)	0.7	1.5	(32)	0.7	(10)	(0.3)	(2.1)	(5)

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 or 18 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
RM Fe 2/3	0.0015	<0.001	.	.	.	.	.	.	.	0.045	0.038	.	.	40 mm Ø x 40 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
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
VS UG7/9	(0.0003)	.	.	.	0.089	.	0.003	.	.	0.010	0.310	.	.	~45 mm Ø x ~28 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**
BS 69B	.	.	.	.	.	.	.	.	.	(0.002)	.	.	.	38 mm Ø x ~7 or 19+ 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
VS UG6/9	(0.0003)	.	.	.	(<0.001)	.	0.008	.	.	0.015	0.136	.	.	~45 mm Ø x ~28 mm
IRSID 1740	.	.	.	.	.	.	.	.	.	0.060	.	.	.	38 mm Ø x 25 mm
IRSID 1741	.	.	.	.	.	.	.	.	.	(0.049)	.	.	.	38 mm Ø x 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 Anlaysis			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
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
BS 8620C	(0.0003)	(0.0008)	[97.2]	(0.0003)	(0.001)	0.0012	(0.00004)	(0.002)	.	0.0009	(0.0005)	**17025**	(0.0008)	38 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	(0.002)	0.0011	(0.0002)	0.0024	.	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
12X 12750T	.	.	.	.	0.120	.	.	.	.	0.116	0.105	.	.	~40 mm Ø x ~15 mm
12X 349D *	.	.	.	.	.	.	* Provisional Anlaysis			0.11	0.050	.	.	~40 mm Ø x ~15 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
IMZ 112	.	.	.	.	0.013	.	.	.	.	0.010	.	.	.	40 mm Ø x 40 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
IARM 33C	(0.0002)	.	.	.	0.002	0.0021	<0.002	.	.	0.0014	0.0026	.	.	31 mm Ø x 2 or 18 mm
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 19MNVS6A	.	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
ECRM 087-1D	.	.	.	.	.	.	.	0.0046	.	.	.	.	.	38 mm Ø x 25 or 30 mm
12X 15253S	.	.	.	.	0.383	.	.	.	0.011	.	0.265	.	.	~40 mm Ø x ~15 mm
12X 15180A	.	.	.	.	.	.	.	.	.	.	.	0.0016	.	~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
BS XCCT	.	.	.	.	(0.001)	(0.005)	(<0.001)	(0.0004)	.	(0.002)	.	.	(<0.002)	36 mm Ø x ~7 or 19+ mm
DSZU C04	0.005	.	.	.	(0.022)	.	(0.0006)	(0.0005)	.	0.005	(0.022)	(0.0005)	(0.0006)	40 mm Ø x 30 mm last
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 45A	.	.	.	.	.	0.0025	.	0.0027	.	.	.	.	.	38 mm Ø x ~7 or 19+ 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

LOW ALLOY STEEL WITH C < 0.13 %

= Class, where 1 = CRM and 2 = RM

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Als	Co	Mo	N	Sn	V
1	IMZ 76	0.129	1.37	0.022	0.011	0.24	0.057	0.33	0.12	0.011	.	.	0.101	.	.	(0.006)
1	VS UG86	0.129	0.217	(0.005)	(0.007)	(0.3)	0.62	1.94	1.52	.	.	.	0.311	.	.	0.327
1	**BS 1982**	0.128	0.441	0.012	0.026	0.255	0.177	0.197	2.09	0.021	.	0.010	0.89	0.0097	0.013	0.003
1	12X 93106A	0.122	0.605	0.0071	0.0103	0.206	0.199	3.255	1.107	0.0246	.	.	0.0879	0.0098	0.0094	0.0029
2	BS 47B	0.122	0.39	0.014	0.022	0.22	0.12	0.105	4.78	0.018	.	.	0.45	0.023	0.006	0.004
1	DSZU C042	0.120	0.562	0.0123	0.0058	0.319	0.131	0.203	0.962	0.023	.	0.009	0.286	0.0100	0.0064	0.178
1	CKD 187D	0.119	0.529	0.035	0.015	0.576	0.035	0.085	3.51	0.024	.	0.071	0.566	0.0120	0.013	0.560
1	CKD 187C	0.118	0.530	0.035	0.013	0.588	0.041	0.085	3.50	0.038	.	0.071	0.563	(0.0153)	0.014	0.559
1	VS UG115	0.115	0.43	0.0084	0.012	0.227	0.173	1.63	0.81	0.024	.	.	0.0126	0.013	.	.
1	IMZ 71	0.114	0.54	0.018	0.011	0.49	0.88	0.041	0.46	0.014	.	.	0.008	.	.	0.045
1	IMZ 75	0.114	0.37	0.081	0.016	0.58	0.45	0.039	0.41	0.020	.	.	0.015	.	.	(0.007)
1	SRM 1138a	0.11	0.35	0.035	0.056	0.25	0.09	0.10	0.13	.	.	.	0.05	.	.	0.02
1	IARM 156C	0.107	0.46	0.007	0.0010	0.25	0.077	3.25	1.18	0.028	.	0.009	0.113	0.0026	0.012	0.005
1	**BS 9905**	0.107	0.333	0.008	0.008	0.327	0.115	0.123	8.22	0.017	.	0.016	0.90	0.055	0.009	0.236
1	VS UG6710	0.107	0.225	0.0068	0.0067	0.342	0.626	2.04	1.41	0.46	.	.	0.339	0.0156	0.0023	0.194
1	12X 12748U	0.106	0.902	0.0309	0.050	0.221	0.347	0.376	0.401	0.111	.	0.323	0.329	.	0.080	0.0499
1	IPT 500	0.106	0.844	0.016	0.0048	0.282	0.270	0.018	0.612	0.046	.	0.0046	0.0013	0.0092	0.002	0.003
1	12X LA1B	0.104	1.262	0.0090	0.060	0.777	0.0572	0.210	1.026	0.0104	.	0.0144	0.068	0.0144	.	0.448
1	KUT A13	0.104	0.49	0.053	0.073	0.81	0.166	1.93	0.14	0.042	.	0.011	0.91	.	0.060	0.23
1	VS UG6/6	0.104	0.227	(0.007)	(0.007)	0.337	0.616	2.05	1.40	0.47	.	(0.008)	0.34	.	0.0023	0.193
2	BS 58E	0.100	0.63	0.009	0.002	0.29	0.154	3.22	1.40	0.029	.	0.013	0.110	0.0033	0.003	0.006
1	IMZ 175	0.099	0.25	0.016	0.0040	0.22	0.130	3.12	0.515	0.043	.	(0.013)	0.025	0.0099	0.011	0.014
2	BS 58C	0.098	0.57	0.011	0.014	0.29	0.14	3.20	1.29	(0.055)	.	.	0.11	.	(0.012)	
1	IMZ 73	0.097	0.68	0.019	0.013	0.12	0.17	0.13	0.079	0.010	.	.	0.013	.	.	0.022
1	KUT T3/2	0.09	0.60	0.058	0.033	0.66	0.10	0.11	0.40	.	.	.	.	.	.	.
1	12X LA6B	0.089	0.148	0.0115	0.0097	0.133	0.071	0.0112	0.0377	0.204	.	0.0067	0.0073	0.0034	.	0.0162
1	VS UG5/10	0.088	0.177	0.0067	0.0055	0.135	0.490	1.87	1.51	0.47	.	.	0.049	0.0059	0.0036	0.121
1	IARM 268B	0.087	0.58	0.011	0.035	0.21	0.31	0.127	0.094	0.002	.	0.003	0.033	0.0015	0.010	0.047
1	SS 409/2a	0.086	0.559	0.0141	0.0179	1.18	0.205	3.02	1.318	0.094	.	.	0.599	0.0108	.	0.008
1	IMZ 204	0.085	0.36	0.014	0.008	0.40	0.075	0.034	0.111	4.21	.	.	(0.007)	(0.0052)	.	.
1	SRM 1226	0.085	0.274	0.0022	0.0044	0.231	0.125	5.42	0.467	0.054	.	0.029	0.446	.	(0.003)	0.0018
1	NCS HS20747	0.083	0.967	0.02	0.015	0.472	.	.	.	.	.	.	.	.	.	.
1	DSZU C02	0.081	1.32	0.0070	0.0091	0.505	0.332	0.330	0.46	0.008	.	0.063	0.091	.	0.011	0.084
1	IMZ 72	0.081	0.31	0.092	0.012	0.34	0.27	0.039	0.52	0.013	.	.	0.006	.	.	(0.002)
1	NCS HS20745	0.068	0.813	0.1	0.024	0.33	0.297	.	.	.	.	.	.	.	.	0.022
1	VS UG117	0.064	1.41	0.012	0.021	0.60	0.214	0.072	0.129	0.018	.	.	(0.005)	0.0085	.	.
1	SRM 1271	0.064	0.73	0.005	0.0013	0.334	1.48	3.34	0.552	0.020	.	.	0.543	.	.	0.003
1	SRM C1285	0.058	0.332	0.072	0.020	0.36	0.37	1.17	0.80	.	.	0.036	0.164	.	0.035	0.150
1	SRM 1767	0.052	0.022	0.0031	0.0090	0.026	0.0014	0.002	0.0015	0.004	.	0.0050	0.020	0.0008	0.006	0.033
2	CZ CM-7A	0.05	1.17	0.011	0.016	0.56	0.09	0.05	0.10	0.13	.	0.007	0.015	0.01	0.008	0.012
1	CKD 183C	0.049	1.76	0.009	0.012	1.03	0.575	1.10	0.205	0.150	.	0.120	0.036	0.0040	0.053	(0.004)
1	CKD 183E	0.049	1.76	0.009	0.013	1.03	0.575	1.10	0.205	0.149	.	0.119	0.036	0.0040	0.053	(0.004)
1	SS 421	(0.049)	(0.11)	(0.012)	(0.027)	(0.07)	.	.	.	.	.	.	(0.028)	.	.	(<0.02)
1	12X 15252Q	0.0478	0.818	0.0213	0.0580	0.265	0.154	2.03	0.887	0.074	.	0.154	0.248	.	0.0448	0.330
1	VS UG82	0.046	1.83	(0.003)	(0.004)	0.334	0.056	0.201	0.59	.	.	.	0.93	.	.	0.56
1	VS UG97	0.041	0.59	0.0036	0.0025	0.194	0.0040	0.0048	0.0080	0.51	.	.	0.019	.	.	(0.001)
1	12X LA6C *	0.03	0.10	0.005	0.009	0.085	0.027	0.06	0.15	0.17	.	<0.002	0.02	0.006	.	0.007
1	SRM 1766	0.015	0.067	0.002	0.0024	0.010	0.015	0.021	0.024	0.012	.	0.0020	0.0035	0.0033	0.0010	0.009
1	IMZ 110	0.011	0.015	0.008	0.010	0.009	0.051	0.019	0.007	0.008	0.003	.	0.025	0.0058	0.026	0.002
1	KUT B20	0.008	0.09	0.012	0.013	0.005	0.034	0.038	0.03	(0.01)	.	(<0.01)	(<0.01)	.	(0.003)	(<0.005)
2	RM Fe 1/4	0.008	0.068	0.006	0.005	0.016	0.015	0.022	0.027	<0.002	.	0.0029	0.0016	0.0027	<0.002	<0.0005
1	SRM 1765	0.006	0.144	0.0052	0.0038	(0.004)	0.0013	0.154	0.051	(0.006)	.	0.0012	0.005	0.0010	0.002	0.0040
1	NCS HS15749	0.0045	0.247	0.010	0.0054	1.54	.	.	.	0.050	0.048	.	.	.	.	.
1	DSZU C01	0.004	0.049	0.002	0.002	0.014	0.008	0.530	0.040	0.004	.	0.217	0.124	.	(0.0008)	(0.003)
2	IARM 168A	0.003	0.12	0.030	0.064	0.46	0.009	2.32	0.004	0.19	.	0.003	0.69	0.0002	0.003	0.004
1	CKD 180B	(0.003)	0.047	0.004	0.0038	0.001	0.006	0.018	0.013	(0.001)	.	0.003	0.001	(0.0028)	0.0011	0.000
1	ECRM 064-2D	0.0026	0.1641	.	.	0.0065	0.0077	0.0115	.	.	.	0.0027	0.00077	0.0026	0.00051	0.00015

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Als	Co	Mo	N	Sn	V

Number	As	B	Ca	Ce	Fe	Nb	O	Pb	Sb	Ti	W	Zr	Units
IMZ 76	.	(0.001)	.	.	.	0.068	.	.	.	(0.003)	.	.	40 mm Ø x 40 mm
VS UG86	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~28 mm
BS 1982	0.007	.	.	.	.	(<0.003)	0.0017	(0.0003)	0.002	(0.001)	.	**25(pre-17025)**	39 mm Ø x ~7 or 19+mm
12X 93106A	0.0050	.	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~15 mm
BS 47B	0.004	.	.	.	.	.	(0.004)	.	.	.	.	.	38 mm Ø x ~7 or 19+mm
DSZU C042	0.0073	0.00023	0.0010	.	.	0.0025	.	.	.	0.0018	(0.006)	.	40 mm Ø x 25 mm
CKD 187D	(0.007)	0.0006	.	Ta: 0.016	.	0.028	.	(0.003)	0.022	0.096	0.67	0.012	44 mm Ø x 13 or 25 mm
CKD 187C	(0.007)	0.0006	.	Ta: 0.016	.	0.028	.	(0.003)	0.023	0.110	0.67	0.011	44 mm Ø x 13 or 25 mm
VS UG115	.	.	.	.	.	.	.	.	.	0.0014	.	.	~45 mm Ø x ~25 mm
IMZ 71	.	(0.002)	.	.	.	(0.005)	.	.	.	(0.002)	.	(0.002)	40 mm Ø x 40 mm
IMZ 75	.	.	.	.	.	.	.	.	.	0.024	.	.	40 mm Ø x 40 mm
SRM 1138a	.	.	.	.	.	.	.	.	.	.	.	.	32 mm Ø x 13 mm
IARM 156C	0.003	0.0002	0.0010	.	.	(0.003)	0.002	<0.001	0.0006	0.0024	0.006	0.0017	31 mm Ø x 2 or 18 mm
BS 9905	0.007	(0.0004)	(0.0001)	**25(pre-17025)**	.	0.076	0.0021	(0.0002)	(0.002)	(0.002)	0.003	(0.001)	38 mm Ø x ~7 or 19+mm
VS UG6710	.	.	.	.	.	.	.	.	.	0.128	0.41	.	~45 mm Ø x ~28 mm
12X 12748U	0.129	.	.	.	.	.	.	.	.	0.105	0.0464	.	~40 mm Ø x ~15 mm
IPT 500	0.0020	.	.	.	.	0.008	.	.	.	0.0014	.	.	34 mm Ø x 18 mm
12X LA1B	0.0212	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
KUT A13	0.070	(0.002)	.	.	.	.	.	.	0.024	0.11	.	.	30-35mm Ø x 39 mm
VS UG6/6	(0.002)	.	.	.	.	.	.	(<0.0005)	.	0.125	0.39	.	~45 mm Ø x ~28 mm
BS 58E	0.003	(0.0002)	(0.0002)	.	.	.	0.0008	.	.	(0.002)	.	.	38 mm Ø x ~7 or 19+mm
IMZ 175	.	.	.	.	.	.	.	.	.	.	(0.019)	.	40 mm Ø x 40 mm
BS 58C	low supply		.	.	.	.	.	.	.	no uncertainties		.	39 mm Ø x ~17 mm
IMZ 73	.	.	.	.	.	(0.01)	.	.	.	(0.002)	.	(0.0025)	40 mm Ø x 40 mm
KUT T3/2	.	.	.	.	.	.	.	.	.	(<0.01)	.	.	30-35mm Ø x 39 mm
12X LA6B	.	.	.	.	.	.	.	.	.	.	last	Zn:0.0191	~40 mm Ø x ~15 mm
VS UG5/10	.	.	.	.	.	(0.003)	.	.	.	0.027	0.43	.	~45 mm Ø x ~28 mm
IARM 268B	<0.005	0.0011	.	.	.	0.006	(0.015)	<0.003	.	<0.001	0.01	<0.001	31 mm Ø x 2 or 18 mm
SS 409/2a	recalibration suggested if replacing SS 409/2 directly												38 mm Ø x 19 mm last
IMZ 204	.	.	.	.	.	.	.	.	.	0.035	.	.	36 mm Ø x 30 mm
SRM 1226	.	.	.	.	.	(0.005)	.	(0.0001)	.	0.0021	(0.005)	(0.010)	32 mm Ø x 19 mm
NCS HS20747	.	.	.	.	.	0.052	.	.	.	.	.	.	35 mm Ø x 40 mm
DSZU C02	(0.007)	0.0050	.	.	.	0.026	.	(0.002)	(0.015)	0.017	(0.053)	.	40 mm Ø x 30 mm
IMZ 72	.	.	.	.	.	(0.001)	.	.	.	0.021	.	.	40 mm Ø x 40 mm
NCS HS20745	.	.	.	0.014	.	.	La: 0.0076	.	.	.	.	.	35 mm Ø x 40 mm
VS UG117	.	.	.	.	.	.	.	.	.	0.018	.	.	~45 mm Ø x ~25 mm
SRM 1271	.	.	.	.	.	0.025	.	.	.	.	.	.	32 mm Ø x 19 mm
SRM C1285	.	.	.	0.021	.	.	.	.	.	.	.	.	32 mm Ø x 19 mm
SRM 1767	0.0005	0.0010	(0.0003)	Ag: 8 ppm	.	0.010	.	.	0.0020	0.011	.	(0.004)	34 mm Ø x 19 mm
CZ CM-7A	0.005	0.0003	.	.	.	0.004	.	(0.0014)	(0.0003)	0.14	0.01	0.042	~39 mm Ø x 25 mm
CKD 183C	(0.005)	0.0005	.	.	.	(0.006)	.	.	(0.001)	(0.003)	0.353	0.081	44 mm Ø x 13 or 25 mm
CKD 183E	(0.005)	0.0005	.	.	.	(0.006)	.	.	(0.001)	(0.003)	0.351	0.080	44 mm Ø x 13 or 25 mm
SS 421	.	.	.	.	.	.	.	.	.	.	0.52	.	38 mm Ø x 19 mm
12X 15252Q	.	.	.	.	.	0.10	.	.	.	.	.	.	40 mm Ø x 15 mm
VS UG82	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~28 mm
VS UG97	.	.	.	.	.	.	.	.	.	0.154	.	.	~40 mm Ø x ~28 mm
12X LA6C *	.	* Provisional Analysis										Zn:0.005	~40 mm Ø x ~15 mm
SRM 1766	0.0035	0.00012	.	Ag: 5 ppm		0.005	.	0.003	0.0005	0.0005	.	(0.0004)	34 mm Ø x 19 mm
IMZ 110	.	.	.	.	.	.	.	0.0010	0.014	.	.	.	40 mm Ø x 40 mm
KUT B20	(0.003)	.	.	.	.	.	.	(0.002)	.	(<0.002)	.	.	30-35mm Ø x 39 mm
RM Fe 1/4	0.002	<0.0004	<0.001	.	.	<0.0005	.	<0.0001	.	<0.0005	<0.0001	<0.0001	40 mm Ø x 40 mm
SRM 1765	0.0010	0.0009	.	Ag: 2 ppm		0.0004	.	0.0003	0.0010	0.0055	.	(0.0002)	34 mm Ø x 19 mm
NCS HS15749	.	0.0026	Sol.B: 0.0018			.	.	.	.	0.002	.	.	35 mm Ø x 32 mm
DSZU C01	(0.002)	(0.0004)	.	.	.	(0.001)	.	(0.003)	.	0.002	(0.026)	(0.0004)	40 mm Ø x 30 mm
IARM 168A	(0.003)	0.0004	.	.	.	0.003	0.0008	(<0.01)	.	0.004	0.52	.	31 mm Ø x 2 or 18 mm
CKD 180B	0.001	0.0000	.	.	(99.9)	(0.0001)	.	(0.0002)	0.0004	0.000	(0.0001)	0.000	44 mm Ø x 13 or 25 mm
ECRM 064-2D	0.0036	.	.	.	.	0.0146	.	0.00018	.	.	.	.	38 mm Ø x 25 or 30 mm

Number	As	B	Ca	Ce	Fe	Nb	O	Pb	Sb	Ti	W	Zr	Units

RM LOW ALLOY STEEL XRF SET

Part 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

RM TOOL STEEL XRF SET

Part 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

CRM TOOL STEEL SET

sold in set/6 only limited supply clearance sale 36 mm Ø x 23 mm

Number	C	Mn	P	S	Si	Ni	Cr	Mo	V	W
CMSI 2179	0.941	0.401	0.035	0.012	0.167	0.099	4.93	3.54	0.38	7.05
CMSI 2180	0.879	0.304	0.030	0.015	0.216	0.143	4.47	4.10	0.74	6.44
CMSI 2176	0.845	0.294	0.0238	0.024	0.285	0.204	3.98	4.72	1.14	5.92
CMSI 2175	0.808	0.240	0.0191	0.032	0.417	0.276	3.50	5.30	1.63	5.27
CMSI 2177	0.735	0.077	0.0103	0.049	0.522	0.429	2.54	6.48	2.62	4.12
CMSI 2178	0.732	0.080	0.0138	0.031	0.435	0.378	2.98	5.85	2.11	4.68

TOOL STEEL

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	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 10V	2.46	0.52	0.019	0.079	0.89	0.076	0.08	5.41	0.009	1.30	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	5.57	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	14X HS9A	2.14	0.259	0.0222	0.0126	0.406	0.039	0.239	12.40	0.037	1.11	0.032	.	4.06	0.011	(0.022)
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
2	CT X35568	1.36	0.14	0.006	0.002	0.19	0.10	0.054	0.076	.	0.017	.	.	.	3.20	.
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
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	0.49	.	0.07	.	.	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	.	1.92	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 *	0.86	0.257	0.018	(0.002)	0.37	0.13	0.132	3.6	0.28	8.1	0.034	(0.003)	1.22	1.7	(0.010)
2	BS 32D	0.85	0.30	0.027	0.0022	0.25	0.039	0.053	4.14	0.010	4.92	0.018	.	1.82	6.15	0.018
2	14X 14946D	0.85	0.53	0.051	0.048	0.46	0.25	1.06	5.06	0.44	0.21	.	.	1.03	16.9	.
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 14948C	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	0.204	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	0.0010	0.301	0.116	0.191	3.93	0.101	0.342	0.0168	0.0189	1.077	17.73	0.0123
1	SS 486/1	0.74	0.21	0.029	0.021	0.27	.	(0.06)	4.54	0.08	5.20	.	.	1.82	5.80	(0.005)
2	CT X60937	0.72	2.12	0.015	0.075	0.34	0.048	0.088	1.02	.	1.34	.	.	0.034	0.32	0.002
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

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo	N	Ti	V	W	Al
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
2	CT X62730	0.70	2.16	0.009	0.077	0.38	0.056	0.085	1.00	.	1.32	.	.	0.020	.	0.010
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
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	(0.0153)	0.070	0.0068	0.0014	0.188	1.87	.
1	IARM 47B	0.59	0.79	0.017	0.006	1.96	0.17	0.090	0.23	0.007	0.20	0.0092	0.010	0.17	(0.016)	0.014
1	DSZU C079	0.59	0.38	0.024	0.012	0.43	0.154	0.541	4.00	0.039	4.10	.	.	0.90	0.06	.
2	BS 33D	0.515	0.31	0.016	0.020	0.312	0.040	0.059	1.28	0.045	0.050	.	.	0.22	2.65	0.008
2	BS 33E	0.49	0.29	0.022	0.005	0.20	0.038	0.08	1.25	0.006	0.045	.	(0.002)	0.19	2.75	.
2	CT X67975	0.48	0.56	0.009	0.005	0.28	0.060	0.13	1.00	.	0.53	.	.	0.30	.	.
1	IARM 259A	0.479	0.399	0.020	0.0007	0.44	0.081	0.194	3.27	0.011	1.43	0.0077	0.0026	0.256	0.035	0.016
1	**BS D-6**	0.472	0.78	0.007	0.0008	0.228	0.130	0.602	0.99	0.012	1.01	0.0031	0.0025	0.122	0.0018	0.037
1	IMZ 57/1	0.46	1.05	0.028	0.012	0.58	0.14	0.15	1.67	.	0.48	.	.	0.34	.	.
1	IARM 46B	0.45	0.27	0.019	0.0040	0.89	0.147	0.108	1.09	0.013	0.222	0.0069	0.007	0.170	1.96	0.011
1	IMZ 53/1	0.41	0.60	0.018	0.011	0.104	0.17	0.28	2.85	.	0.13	.	.	0.28	.	.
1	IMZ 56/1	0.41	0.25	0.011	0.007	1.69	0.41	0.69	0.43	.	0.66	.	.	0.19	.	.
1	**BS H-19**	0.404	0.318	0.014	0.011	0.29	0.055	0.114	4.27	4.17	0.356	0.0190	(0.002)	2.05	4.02	<0.001
1	IARM 255A	0.403	0.27	0.013	0.0012	0.93	0.049	0.083	4.84	0.009	1.33	0.0067	0.002	0.43	0.007	0.01
1	**BS H-13**	0.402	0.386	0.0103	0.0202	0.99	0.197	0.109	5.14	0.0092	1.24	0.0108	(0.0019)	0.98	0.0022	0.0152
1	IMZ 587/1	0.40	1.81	0.026	0.012	0.35	0.31	1.44	0.20	.	0.21	.	.	0.079	.	.
1	IMZ 51/1	0.40	1.53	0.023	(0.009)	0.29	0.45	0.15	0.62	.	1.50	.	.	(0.013)	.	.
1	ECRM 276-2D	0.399	0.365	0.0093	0.0189	1.034	0.183	0.203	4.975	.	1.134	0.0116	.	0.296	.	.
2	CT H13	0.39	0.30	0.015	0.005	1.05	0.061	0.10	5.23	.	1.36	.	.	1.02	.	.
1	ECRM 271-1D	0.3698	0.437	0.0120	0.00045	0.923	0.1371	0.1552	5.002	0.0139	1.247	0.0137	0.0020	0.850	0.0054	0.0234
2	BS 49	0.36	0.33	0.014	0.015	0.92	0.072	0.20	3.51	2.00	2.41	0.0186	0.003	0.62	0.31	0.004
2	BS 9-4-30	0.316	0.22	0.008	<0.002	0.06	0.088	7.25	1.00	4.46	1.01	0.0014	.	0.09	.	0.004
1	IARM 341A	0.298	0.226	0.0038	0.0008	0.10	0.143	7.16	0.99	4.4	1.01	0.0025	0.003	0.086	(0.01)	0.032
1	IMZ 196	0.179	0.42	0.018	0.012	0.46	0.080	0.44	11.04	1.55	0.65	0.058	.	0.34	1.54	0.029
1	CKD 189A	0.175	0.262	0.032	0.051	0.286	0.060	5.34	1.065	0.007	0.837	(0.004)	0.326	0.054	1.30	0.041
1	IMZ 170	0.155	0.50	0.018	0.014	0.32	0.285	0.63	8.82	(0.022)	0.88	0.065	(0.002)	0.24	(0.19)	0.11
1	VS LG43/1	0.132	0.44	(0.01)	(0.01)	0.57	(0.11)	0.44	7.46	.	0.023	.	.	0.49	.	.
1	IMZ 197	0.130	0.45	0.021	0.007	0.47	0.11	0.053	0.20	.	(0.011)	.	0.025	0.025	.	8.45
1	NCS HS20741	0.125	0.957	0.017	0.0045	0.431	.	.	12.91	.	0.41	.	.	.	.	.
1	VS LG42/1	0.124	0.41	(0.02)	(0.008)	0.46	(0.16)	0.37	5.08	.	0.52	.	.	0.020	.	.
1	VS LG37/1	0.121	0.444	(0.02)	(0.01)	0.360	(0.13)	0.704	10.10	.	0.66	.	.	0.385	.	.
1	IMZ 179	0.114	0.83	0.016	0.003	0.375	0.164	9.98	0.20	0.016	0.12	0.0108	.	0.023	(0.023)	0.061
1	IMZ 157	0.095	0.63	0.015	0.010	0.59	0.066	0.50	9.51	.	0.71	0.051	0.044	0.26	.	0.26
1	NCS HS20742	0.083	1.02	0.015	0.0035	0.636	.	.	16.58	.	.	.	.	.	.	.
1	IMZ 177	0.076	0.32	0.013	0.003	0.24	0.110	8.33	0.18	(0.017)	0.022	0.0089	.	0.010	.	0.043
1	SS 422	(0.036)	(0.09)	(0.015)	(0.025)	(0.06)	.	.	.	.	(0.033)	.	.	(<0.02)	1.28	.
1	IMZ 101/2	0.033	1.97	0.010	0.007	(0.092)	0.46	2.06	0.035	.	0.010	.	.	0.30	.	0.036
1	SS 423	(0.030)	(0.07)	(0.017)	(0.027)	(0.05)	.	.	.	.	(0.027)	.	.	(<0.02)	2.06	.
1	SS 424	(0.024)	(0.09)	(0.02)	(0.024)	(0.05)	.	.	.	.	(0.036)	.	.	(<0.02)	3.02	.
1	NCS HS20743	0.015	0.949	0.038	0.0055	0.97	.	.	11.88	.	.	0.0155	0.411	.	.	0.022
2	IARM 180A	0.007	0.41	0.004	0.046	0.023	0.89	1.29	0.037	0.004	0.006	0.0096	0.002	0.76	1.48	0.76
2	IARM 164A	0.004	1.57	0.004	0.070	0.019	0.88	1.29	0.032	0.006	0.009	0.0003	0.002	0.78	1.44	0.72

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo	N	Ti	V	W	Al

TOOL STEEL CONTINUED FROM THE PREVIOUS PAGE

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 **17025**
BS 10V	.	.	.	.	.	.	.	.	.	.	.	41 mm Ø x ~7 or 19+ mm
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 **17025**
DSZU C082	.	.	.	.	.	.	.	.	.	.	.	~35 mm Ø x 25 mm
14X HS9A	.	.	.	.	(0.011)	.	.	.	.	.	.	35 mm Ø x 40 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	.	0.0005	0.0009	0.0010	.	.	34 mm Ø x ~7 or 19+ mm
BS TS15 *	.	<0.05	0.0002	<0.005	0.008	0.015	* Provisional Analysis		0.007	.	0.006	38 mm Ø x ~7 or 19+ mm
ECRM 274-1D	.	(0.0013)	(0.0005)	.	.	(0.0026)	(0.000064)	(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 **25(pre-17025)**
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	.	.	.	.	.	.	.	.	(0.008)	.	.	42 mm Ø x 19+ mm **17025** last
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
CT X35568	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x 20-25 mm
DSZU C073	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 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 **17025**
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
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 **17025**
IARM 304A *	.	* Provisional Analysis			(0.01)	(0.003)	<0.002	(0.01)	(0.006)	.	(0.002)	31 mm Ø x 2 or 18 mm
BS 32D	.	.	.	.	.	.	.	.	.	.	.	38 mm Ø x ~7 or 19+ mm
14X 14946D	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 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 **17025**
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 **17025**
SS 486/1	.	(0.016)	.	.	.	.	.	.	0.014	.	.	38 mm Ø x 19 mm
CT X60937	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x 20-25 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

Number	Als	As	B	Ca	Nb	O	Pb	Sb	Sn	Ta	Zr	Units
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
CT X62730	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x 20-25 mm
CZ CM-10A	.	0.03	0.05	.	.	.	.	.	0.062	.	.	~39 mm Ø x 25 mm
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 **17025**
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 **17025**
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 **17025**
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 **17025**
IMZ 587/1	.	.	.	.	.	.	.	.	.	.	.	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
CKD 189A	0.039	0.080	0.0030	.	0.017	.	0.002	(0.003)	0.029	(0.005)	0.005	44 mm Ø x 13 or 25 mm Fe(90.01)
IMZ 170	.	.	.	.	0.087	.	.	(0.002)	0.007	.	.	40 mm Ø x 40 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
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)	.	0.002	.	.	31 mm Ø x 2 or 18 mm

ALUMINUM IN STAINLESS AND HIGH ALLOY STEEL

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

#	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 *	0.95	7.29	16.99	0.072	0.74	0.024	0.0005	0.263	0.315	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	**25(pre-17025)**
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	**25(pre-17025)**
IARM 152C *	(0.004)	(0.003)	.	(0.001)	0.007	(0.01)	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	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	.
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
2	BS SS3952	0.0014	10.04	18.06	0.017	0.82	0.029	0.017	0.53	0.38	0.11	0.28	0.017	0.005	0.045	0.023
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	
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	
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	**25(pre-17025)**
BS SS3952	0.004	0.004	(0.0005)	0.005	.	.	0.017	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 ~7 or 19+ mm	
BS 9842	0.014	(0.002)	0.0025	(0.0044)	.	.	0.005	0.003	.	38 mm Ø x ~7 or 19+ mm	**25(pre-17025)**
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 19+ mm	
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	

COPPER IN STAINLESS AND HIGH ALLOY STEEL

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

#	Number	Cu	Ni	Cr	C	Mn	P	S	Si	Co	Mo	N	Nb	Ti	V	W
1	13X PH 3M	5.99	3.08	15.86	0.184	0.395	0.0188	0.0208	1.60	0.420	0.751	0.070	0.394	.	0.176	.
2	BS 9621	3.42	4.61	14.93	0.035	0.31	0.017	0.0011	0.468	0.029	0.063	0.013	0.27	(0.001)	0.096	(0.01)
2	BS 185A	3.41	4.43	14.46	0.033	0.49	0.022	0.002	0.38	0.026	0.30	0.027	0.32	(0.001)	0.048	(0.014)
2	BS 17-4PHB	3.35	4.53	15.60	0.042	0.56	0.021	0.024	0.42	0.040	0.11	0.046	0.31	.	0.059	.
2	BS 9622	3.34	4.34	14.34	0.032	0.63	0.019	0.004	0.42	0.040	0.27	0.028	0.33	(0.001)	0.074	(0.020)
2	BS 17-4PHA	3.30	4.69	15.40	0.018	0.85	0.023	0.022	0.40	0.072	0.34	0.022	0.204	.	0.043	.
2	CT 20 Cb-3	3.28	33.55	19.63	0.034	0.19	0.017	0.003	0.38	0.035	2.25	.	0.86	.	0.053	.
1	IARM 23D	3.27	4.88	15.16	0.038	0.52	0.022	0.0006	0.490	0.041	0.159	0.037	0.29	(0.003)	0.053	(0.011)
1	IARM 22C	3.24	4.63	14.28	0.042	0.63	0.027	0.0004	0.39	0.086	0.48	0.030	0.29	0.002	0.068	0.031
2	CT 630	3.25	4.20	15.94	0.036	0.39	0.018	0.013	0.63	0.11	0.11	0.028	0.36	.	0.022	.
1	SRM C2401	3.17	5.46	25.1	0.062	1.03	0.025	0.027	0.74	0.19	2.13	.	.	.	0.20	.
2	BS 187C	3.17	32.93	20.16	0.020	0.77	0.024	<0.002	0.77	0.096	2.07	0.022	0.36	(0.001)	0.059	.
2	BS 187A	3.10	33.06	19.75	0.022	0.52	0.017	0.0025	0.26	0.32	2.06	0.0157	0.57	(0.002)	0.10	(0.02)
1	13X PH17400A	3.09	4.252	15.74	0.0200	0.829	0.0202	0.0215	0.349	0.0411	0.061	0.0342	0.184	.	0.112	(0.0056)
1	ECRM 273-1D	3.046	4.85	14.747	0.0336	0.785	0.0131	0.0004	0.378	0.0391	0.2462	0.0444	0.221	.	0.0512	.
1	VS LG64	2.88	28.3	24.7	0.049	0.75	0.017	0.0032	0.76	.	2.89	.	0.048	0.64	0.094	0.013
1	SRM C2400	2.63	4.07	17.06	0.036	0.71	0.013	0.003	0.61	0.10	0.23	.	0.15	.	0.092	.
2	CT 455	2.32	8.22	11.37	0.012	0.074	0.010	0.005	0.13	.	0.027	0.002	0.28	1.18	.	.
2	BS SS1962	2.22	8.32	11.42	0.008	0.06	0.006	0.0025	0.06	(0.015)	0.008	0.0025	0.27	1.11	0.071	(<0.02)
2	BS SS1961	2.11	8.31	11.61	0.009	0.049	0.008	0.0038	0.056	0.036	0.020	0.0025	0.26	1.16	0.074	(0.01)
1	IARM 16C	2.08	8.23	11.34	0.003	0.024	0.007	0.0046	0.03	0.017	0.009	0.0030	0.248	1.16	0.070	0.008
1	SS 475	1.94	5.66	14.14	0.050	0.89	0.037	0.008	0.21	0.22	1.59	.	0.22	.	.	.
1	**BS 9812**	1.65	6.61	14.82	0.031	0.485	0.018	0.004	0.43	0.110	0.76	0.0195	0.645	(0.005)	0.088	0.025
1	**BS 9811**	1.63	6.55	14.87	0.027	0.380	0.016	0.0010	0.36	0.055	0.744	0.0196	0.62	(0.003)	0.086	0.013
1	IARM 318B	1.63	5.71	15.9	0.050	1.02	0.022	0.0006	0.41	0.100	1.57	0.032	0.086	0.014	0.115	0.087
1	13X PH2S143A	1.61	5.20	13.45	0.044	0.544	0.0205	0.0022	0.478	0.0475	1.325	0.024	0.222	.	0.087	0.019
1	**BS 179B**	1.56	6.17	25.9	0.0161	0.890	0.0243	0.0002	0.371	0.0394	3.34	0.239	0.008	(0.0008)	0.079	0.053
1	**BS 179C**	1.53	6.10	25.9	0.0164	0.878	0.0236	0.0003	0.373	0.0386	3.34	0.236	0.009	(0.0005)	0.080	0.056
1	IARM 15B	1.53	6.94	14.53	0.047	0.39	0.013	0.001	0.33	0.24	0.82	0.0355	0.65	0.005	0.033	0.12
1	13X NSA6B	1.52	31.13	26.14	0.0467	1.607	0.060	0.0113	0.64	.	7.03	0.245	0.149	.	.	.
2	CT 450	1.49	6.36	15.20	0.036	0.39	0.014	0.006	0.29	0.16	0.80	0.028	0.67	.	0.043	.
1	ECRM 295-1D	1.481	24.40	19.51	0.0166	1.758	0.0167	0.0004	0.418	0.0450	3.996	0.0615	.	.	0.0453	.
1	IARM 239B *	1.48	5.76	25.9	0.013	0.86	0.024	0.0007	0.39	0.047	3.42	0.25	0.024	(0.002)	0.10	0.10
1	13X NSA 7A	1.42	5.67	25.91	0.0209	0.951	0.022	0.0009	0.359	.	3.25	0.247	0.015	.	.	.
1	13X 14212R	1.184	8.79	20.86	0.104	1.29	0.0290	0.025	2.02	0.252	0.570	0.156	0.980	0.15	0.134	2.01

* Provisional Analysis

Number	Al	Ag	As	B	Ca	Cd	Fe	Mg	O	Pb	Sb	Sn	Ta	Units
13X PH 3M	.	.	.	0.0049	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
BS 9621	0.003	.	.	0.0004	(0.0001)	.	.	.	.	.	.	0.003	(0.002)	38 mm Ø x ~7 or 19+ mm
BS 185A	0.002	.	.	0.0017	(0.0002)	.	.	.	(0.0021)	.	.	0.007	(0.002)	38 mm Ø x ~7 or 19+ mm
BS 17-4PHB	.	.	.	0.0036	.	.	.	.	.	.	.	.	(0.002)	41 mm Ø x ~7 or 19+ mm
BS 9622	0.002	.	.	0.0004	.	.	.	.	.	.	.	0.006	.	38 mm Ø x ~7 or 19+ mm
BS 17-4PHA	.	.	.	0.0016	.	.	.	.	.	.	.	.	(0.002)	38 mm Ø x ~7 or 19+ mm
CT 20 Cb-3	.	0.0019	.	0.0023	.	.	.	.	.	0.002	.	0.003	.	30-35 mm Ø x 20-25 mm
IARM 23D	(0.005)	.	(0.005)	0.0019	0.0013	.	.	(0.0004)	0.0033	(0.001)	.	0.0059	(0.002)	31 mm Ø x 2 or 18 mm
IARM 22C	0.006	.	(0.004)	0.0006	(0.0002)	.	.	.	0.0021	(0.00003)	.	0.013	(0.004)	31 mm Ø x 2 or 18 mm
CT 630	.	0.0004	.	0.0018	.	.	.	.	.	0.001	.	0.007	.	30-35 mm Ø x20-25 mm
SRM C2401	.	.	.	.	.	.	.	.	.	.	.	.	.	32 mm Ø x 19 mm
BS 187C	0.10	.	.	(0.0019)	.	.	.	.	0.0024	last of stock		0.004	(<0.002)	44 mm Ø x 10 mm
BS 187A	(0.009)	.	.	0.0022	.	.	.	.	0.0029	.	.	0.003	<0.002	41 mm Ø x ~7 or 19+ mm
13X PH17400A	.	.	.	.	.	.	.	.	.	.	.	.	.	41 mm Ø x ~15 mm
ECRM 273-1D	.	.	0.0030	.	.	.	.	.	.	.	.	0.0021	.	40 mm Ø x 20 mm
VS LG64	0.189	.	.	.	.	.	.	.	.	.	.	.	.	~47 mm Ø x ~30 mm
SRM C2400	.	.	.	.	.	.	.	.	.	.	.	.	.	32 mm Ø x 19 mm
CT 455	.	0.0002	.	0.0024	.	.	.	.	.	<0.001	.	0.004	.	30-35 mm Ø x 20-25 mm
BS SS1962	0.067	.	0.002	0.0018	.	.	.	.	(0.001)	.	.	0.004	.	38 mm Ø x ~7 or 19+ mm
BS SS1961	0.069	.	0.004	0.0022	.	.	.	.	(0.002)	.	.	0.004	.	38 mm Ø x 12+ mm last
IARM 16C	0.072	.	(0.003)	0.0011	.	.	.	.	0.0014	.	.	(0.003)	.	31 mm Ø x 2 or 18 mm
SS 475	0.013	.	.	.	.	.	.	.	.	.	.	0.015	.	38 mm Ø x 19 mm
BS 9812	(0.002)	.	(0.005)	(0.0003)	0.0012	.	.	.	(0.007)	**25(pre-17025)**		0.004	.	50 mm Ø x ~7 or 19+ mm
BS 9811	(0.003)	.	(0.003)	(0.0003)	0.0014	.	.	.	(0.0060)	**25(pre-17025)**		0.004	.	38 mm Ø x ~7 or 19+ mm
IARM 318B	(0.004)	.	(0.004)	0.0003	.	.	.	.	0.009	.	.	0.004	(0.004)	31 mm Ø x 2 or 18 mm
13X PH2S143A	.	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
BS 179B	0.0070	.	0.0036	0.0015	(0.0004)	**17025**	[61.5]	(0.0004)	0.0037	(0.00002)	0.0005	0.0019	(0.0006)	38 mm Ø x ~7 or 19+ mm
BS 179C	0.0078	.	0.0034	0.0015	(0.0003)	**17025**	[61.6]	(0.0004)	0.0038	(0.00002)	0.0005	0.0018	(0.0006)	38 mm Ø x ~7 or 19+ mm
IARM 15B	0.006	.	.	.	.	.	.	.	0.0039	.	.	0.009	.	31 mm Ø x 2 or 18 mm
13X NSA6B	(0.080)	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
CT 450	.	0.0013	.	.	.	.	.	.	.	0.001	.	0.008	.	30-35 mm Ø x 20-25 mm
ECRM 295-1D	0.0203	.	0.0041	0.0018	.	.	48.36	(0.0003)	.	.	0.0007	0.0025	.	38 mm Ø x 25 or 30 mm
IARM 239B *	0.009	.	(0.003)	(0.001)	.	.	.	.	(0.003)	(0.001)	.	(0.003)	(0.004)	31 mm Ø x 2 or 18 mm
13X NSA 7A	(0.009)	.	.	.	.	.	.	.	.	.	.	.	.	42 mm Ø x 15 mm
13X 14212R	0.12	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 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	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
2	CT ISO098A	14.46	0.021	37.53	0.099	0.025	0.037	0.003	<0.0005	0.39	0.026	0.050	0.0065	.	5.06	1.54
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	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	IARM 99B	9.24	4.88	18.46	0.081	0.005	0.036	0.005	0.0005	0.022	0.094	0.095	0.0026	0.0011	(0.005)	0.74
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	Fe: 49.6
CT ISO070A	.	.	34.66	.	.	.	.	<0.01	0.043	<0.01	.	30-35 mm Ø x 20-25 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	
CT ISO098A	.	.	40.71	.	.	0.0003	0.0011	<0.01	0.002	<0.01	.	30-35 mm Ø x 20-25 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	
DSZU C093	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x 17 mm	
IARM 99B	.	.	.	.	0.0015	.	(0.003)	.	0.012	0.016	.	31 mm Ø x 2 mm	
BS 161A	(0.002)	(0.0008)	**25(pre-17025)**		(0.0004)	.	(0.0015)	(0.03)	0.031	(0.008)	(0.002)	38 mm Ø x ~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
2	13X 14219J	4.07	12.39	21.71	0.08	0.48	0.047	0.048	1.48	0.23	.	0.19	.	0.19	.	.
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	13X 14207K	3.17	12.64	19.85	0.146	0.900	0.021	0.051	1.525	0.247	0.031	0.300	0.095	0.246	.	.
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	13X 14215K	2.89	15.70	23.8	0.126	1.08	0.016	0.016	0.56	0.03	0.016	0.046	.	(0.016)	0.08	0.06
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 14219J	.	.	.	.	.	.	.	40 mm Ø x 15 mm
IARM 20B	0.006	.	.	.	0.0056	.	0.005	31 mm Ø x 2 or 18 mm
13X 14211Q	(0.11)	.	.	.	.	.	.	~40 mm Ø x ~15 mm
13X 14207K	.	.	.	.	.	.	.	40 mm Ø x 15 mm
VS LG59	0.079	.	.	.	.	.	.	~47 mm Ø x ~30 mm
13X 14215K	.	.	.	.	.	.	.	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 NSC3Y	9.98	3.11	23.43	0.830	.	0.0102	1.32	0.08	0.071	0.050	.	0.54	2.29	0.131	.
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	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	BS 181B *	8.0	8.2	16.2	0.069	0.023	0.001	4.0	0.20	0.18	0.012	0.044	0.15	0.03	0.043	0.018
1	IARM 18C	7.69	8.05	16.19	0.087	0.027	0.0010	3.8	0.285	0.354	0.0142	0.060	0.152	0.090	0.099	0.05
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 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	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	11.8	21.1	0.041	0.027	0.002	0.42	0.41	1.51	(0.003)	0.23	0.31	0.13	0.12	0.055
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 30 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 NSC3Y	.	.	.	.	.	.	.	.	.	.	.	~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
13X 21800A	.	(0.001)	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~15 mm
BS 181B *	.	<0.005	<0.005	0.001	.	.	0.002	.	.	0.005	.	38 mm Ø x 19+ mm
IARM 18C	.	0.0014	(0.002)	0.0018	.	.	0.004	(0.004)	.	0.013	.	31 mm Ø x 2 or 18 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 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
13X NSA5A	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 17 mm
IARM 17D *	(0.005)	(0.0005)	(0.002)	(0.003)	(0.0002)	.	0.005	(0.002)	.	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	.	.	.	.	.	.
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 FeNi40B	40.57	0.0450	0.081	0.0185	(1.09)	0.030	0.0517	0.0446	1.18	0.858	.	.	.	.	.	.
14X FeNi35C	34.52	0.082	0.174	0.030	0.140	0.309	0.355	0.1006	0.004	0.343	.	.	.	.	.	.
14X FeNi25B	25.10	0.0084	0.0121	0.011	0.58	0.019	0.035	0.0334	0.103	0.746	.	.	.	.	.	.
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	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 12535BD	0.069	0.072	14.73	16.89	0.276	0.495	1.31	0.086	0.267	0.711	3.91	0.0550	.	1.18	0.090
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	SRM C1154a	0.051	0.06	13.08	19.31	0.100	1.44	0.53	0.44	.	0.38	0.068	.	.	.	0.135
1	VS LG58	0.0280	0.0135	4.26	23.4	0.48	0.99	0.292	0.388	.	.	2.41	.	0.214	0.039	0.264
1	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 2 or 18 mm	
BS 150	.	.	.	0.012	.	(0.003)	.	0.01	35 mm Ø x ~7 or 19+ mm	
SRM 1223	.	.	.	.	.	.	.	.	32 mm Ø x 19 mm	
BS 90F	.	.	.	0.011	.	0.005	.	0.032	38 mm Ø x ~7 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	
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 12535BD	.	.	0.0135	.	.	0.0182	.	.	40 mm Ø x 15 mm	
13X 8110L	.	0.074	0.989	.	.	.	.	.	~40 mm Ø x ~15 mm	
SRM C1154a	.	.	.	.	0.017	.	.	.	32 mm Ø x 19 mm	
VS LG58	.	.	.	.	.	.	.	0.21	~47 mm Ø x ~30 mm	
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	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	0.003	0.66	0.045	0.23	13.15	0.030	0.049	0.027	0.004	0.002	0.089	(0.007)
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	0.308	12.90	0.026	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	**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	IARM 205D **	0.23	0.74	0.021	(0.003)	0.26	0.121	0.84	12.2	0.043	1.00	0.048	0.013	(0.002)	0.32	1.09
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	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	VS LG41/1	0.200	0.91	(0.02)	(0.008)	0.64	(0.12)	1.53	15.90	.	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	0.219	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	0.39	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	0.35	0.016	0.0040	0.37	0.093	1.85	12.14	0.036	0.12	0.0256	0.006	0.002	0.090	2.60
1	13X 15024X **	0.17	0.63	0.026	0.03	0.75	0.34	3.00	14.7	0.12	0.31	0.016	0.095	.	0.15	0.04
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
2	13X 12549K	0.16	0.34	0.092	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

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo	N	Nb	Ti	V	W
2	CT X68887	0.147	0.51	0.016	0.007	0.36	0.074	0.22	11.86	.	0.008	0.028	0.12	.	.	.
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	0.393	0.282	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	0.0056	0.0006	0.042	0.0131
1	**BS 0021**	0.128	0.420	0.021	0.008	0.354	0.040	0.100	12.00	0.015	0.016	0.029	(0.001)	(0.003)	0.029	0.005
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	13X 15023V	0.118	1.352	0.014	0.008	0.311	(0.052)	0.850	10.96	0.0555	1.052	0.0409	1.53	.	0.0252	0.018
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	.
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	0.0245	0.0053	.	0.0888	(0.003)
1	13X 12533Z	0.110	0.812	0.0149	0.0156	0.440	0.131	5.06	18.80	0.0299	1.05	0.073	.	0.147	0.181	.
1	IARM 291A	0.11	0.71	0.016	0.009	0.23	0.060	2.62	11.3	0.021	1.61	0.035	0.022	0.0011	0.29	(0.01)
1	BS 416 **	0.11	0.67	0.024	0.34	0.24	0.16	0.37	13.4	0.025	0.033	0.047	0.004	0.002	0.10	<0.05
2	CT 410	0.11	0.48	0.015	0.023	0.27	0.079	0.34	12.04	0.023	0.053	0.036	0.001	0.001	0.025	0.004
1	IMZ 156	0.101	0.84	0.031	0.008	1.11	0.071	0.64	16.96	(0.033)	0.035	.	.	(0.032)	0.073	.
1	SS 471	0.095	0.417	0.018	0.023	0.326	(0.02)	0.96	23.85	(0.02)	.	.	.	.	(0.03)	.
1	IMZ 158	0.091	1.34	0.015	0.007	2.23	0.097	0.24	25.51	.	0.025	.	.	0.12	0.078	.
2	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	(<0.003)	0.046	0.010
2	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
1	13X 15059P	0.084	0.995	0.0130	0.0133	0.495	0.105	1.584	15.85	0.266	0.600	0.113	0.430	0.038	0.070	0.081
1	IMZ 155	0.078	0.84	0.018	0.012	0.49	0.084	0.77	11.07	.	0.056	.	.	0.19	0.045	(0.095)
3	CZ SL-1A	0.078	0.46	0.024	0.011	1.39	0.09	0.23	13.4	0.02	0.03	0.025	.	0.004	0.017	0.1
1	IMZ 161	0.074	0.29	0.023	0.023	0.65	0.56	0.55	12.90	.	1.10	.	.	.	0.33	1.05
1	IARM 14C **	0.061	0.38	0.021	0.002	0.63	0.19	0.37	25.0	0.044	0.10	0.058	(0.013)	0.013	0.079	0.031
1	BS 91F	0.060	0.762	0.022	0.0071	0.381	0.167	0.40	16.34	0.0174	0.112	0.0558	0.0120	0.0018	0.071	0.0120
1	IMZ 163A	0.058	1.38	0.018	0.010	0.39	0.061	4.59	22.62	(0.020)	2.40	0.221	0.13	(0.002)	0.029	(0.016)
2	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	.
1	**BS 0022**	0.050	0.41	0.018	0.011	0.62	0.036	0.23	12.36	0.017	0.117	0.033	0.007	0.002	0.034	(0.008)
2	13X 14775R	0.05	1.37	0.053	0.054	0.63	0.21	1.75	17.7	0.15	0.47	.	0.75	.	.	.
2	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
1	NCS HS28748	0.045	0.742	0.028	0.013	0.644	3.23	3.85	15.88	0.119	0.259	0.030	0.230	(0.002)	0.076	.
2	BS 17-4PHB	0.042	0.56	0.021	0.024	0.42	3.35	4.53	15.60	0.040	0.11	0.046	0.31	.	0.059	.
1	SRM C1296	0.038	0.256	0.024	0.013	0.66	0.056	0.373	27.90	0.026	3.43	.	0.20	0.23	0.134	.
1	SRM C2400	0.036	0.71	0.013	0.003	0.61	2.63	4.07	17.06	0.10	0.23	.	0.15	.	0.092	.
2	HRT FE2009-H	0.035	0.78	0.034	0.003	0.35	0.08	3.89	12.83	.	0.42	(0.0339)	.	.	0.043	0.058
2	BS 9621	0.035	0.31	0.017	0.0011	0.468	3.42	4.61	14.93	0.029	0.063	0.013	0.27	(0.001)	0.096	(0.01)
1	ECRM 273-1	0.0336	0.785	0.0131	0.0004	0.378	3.046	4.85	14.747	0.0391	0.2462	0.0444	0.221	.	0.0512	.
2	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	(0.001)	0.048	(0.014)
1	13X 32101A	0.0325	4.91	0.0194	(0.0004)	0.777	0.295	1.476	21.12	0.0347	0.0970	0.241	0.0070	.	0.0830	.
2	BS 9622	0.032	0.63	0.019	0.004	0.42	3.34	4.34	14.34	0.040	0.27	0.028	0.33	(0.001)	0.074	(0.020)
2	BS 154	0.030	0.40	0.027	0.302	1.26	0.063	0.25	17.58	0.019	0.31	0.039	0.005	.	0.046	(0.01)
1	SRM 1295	0.027	0.387	0.022	0.0003	0.321	0.260	0.194	13.52	0.020	0.023	.	(<0.0005)	(0.01)	0.082	(0.002)
2	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	(0.004)	0.045	(0.002)
1	IARM 317A	0.025	1.26	0.028	0.0007	0.39	0.21	4.19	22.5	0.064	0.249	0.123	(0.004)	(0.002)	0.061	0.015
2	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	.
1	IARM 327A	0.018	0.54	0.018	0.0010	0.43	0.082	3.83	12.73	0.019	0.53	0.0157	0.008	0.0026	0.036	0.009

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo	N	Nb	Ti	V	W

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 LG39/1	.	.	.	.	.	.	.	.	.	.	.	.	.	~45 mm Ø x ~28 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
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
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
IARM 205D **	(0.002)	(0.005)	(0.001)	(10)	.	.	(0.005)	.	.	(0.005)	(0.003)	.	(0.002)	31 mm Ø x 2 or 18 mm
SS 472	.	.	.	.	.	.	.	.	.	.	.	.	.	35 mm Ø x 19 mm
NCS HS41749	.	.	.	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 35 mm
13X 42000A	.	.	0.0013	.	.	.	.	.	.	0.0073	.	.	.	~38 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 or 18 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 **	0.005	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
13X 43100A	.	.	.	.	.	.	.	.	.	0.004	.	.	.	~38 mm Ø x ~15 mm
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

Number	Al	As	B	Ca*	Mg*	Pb*	O	Sb	Se	Sn	Ta	Zn	Zr	Units
CT X68887	<0.004	.	.	.	.	.	.	.	.	0.004	.	.	.	30-35 mm Ø x 20-25 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 335A	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)**		40 mm Ø x ~7 or 19+ mm
IARM 10C	0.003	.	<0.0005	.	.	.	0.008	.	.	0.009	.	last of stock		31 mm Ø x 2 or 18 mm
SRM 1223	.	.	.	.	.	.	.	.	.	.	.	.	.	32 mm Ø x 19 mm
13X 15023V	0.14	.	.	.	.	104	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
ECRM 296-1D	0.0275	0.0139	(0.0003)	.	.	1.6	.	.	.	0.0131	.	.	.	38 mm Ø x 25 or 30 mm
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
BS 416 **	0.002	0.003	<0.005	2	3	<50	0.009	.	.	0.003	.	.	0.002	38 mm Ø x ~7 or 19+ 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
BS 90F	(0.006)	.	.	.	.	.	0.011	.	.	0.005	.	.	.	38 mm Ø x ~7 or 19+ mm
13X 15059P	.	.	.	.	.	.	.	.	.	.	.	.	.	~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 14C **	(0.004)	(0.0045)	(0.001)	.	.	.	(0.006)	.	.	0.005	(0.004)	.	(0.002)	31 mm Ø x 2 or 18 mm
BS 91F	0.0029	.	(0.0002)	12	.	.	(0.0076)	(0.0017)	.	0.0054	.	.	.	38 mm Ø x ~7 or 19+ mm
IMZ 163A	0.018	(0.0035)	.	.	.	(10)	.	.	.	(0.003)	.	.	.	40 mm Ø x 40 mm
BS 94C	0.004	.	.	8	.	.	0.0061	.	.	0.006	.	.	.	44 mm Ø x 19+ mm
BS 0022	0.078	0.003	0.0007	.	(<5)	(6)	(0.002)	(0.0004)	.	0.004	.	**25 (pre-17025)**		38 mm Ø x ~7 or 19+ mm
13X 14775R	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm
BS 150	0.002	.	.	.	.	.	0.012	.	.	(0.003)	.	.	.	35 mm Ø x ~7 or 19+ 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	.	.	.	.	.	.	.	.	.	.	.	.	.	32 mm Ø x 19 mm
HRT FE2009-H	.	.	.	(10)	.	.	.	.	.	.	.	.	.	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
BS 185A	0.002	.	0.0017	(2)	.	.	(0.0021)	.	.	0.007	(0.002)	.	.	38 mm Ø x ~7 or 19+ mm
13X 32101A	0.0122	.	0.0014	.	.	.	.	.	.	0.0035	(0.115)	.	.	~38 mm Ø x ~15 mm
BS 9622	0.002	.	0.0004	.	.	.	.	.	.	0.006	.	.	.	38 mm Ø x ~7 or 19+ mm
BS 154	(0.002)	.	.	.	.	.	0.008	.	.	(0.005)	.	.	.	38 mm Ø x ~7 or 19+ mm
SRM 1295	(0.20)	(0.006)	(<0.0004)	.	.	(1)	.	(0.003)	(<1*)	(0.02)	(<0.001)	.	.	32 mm Ø x 19 mm
BS 153	0.002	(0.004)	.	.	.	(10)	.	.	.	0.002	.	.	.	35 mm Ø x ~7 or 19+ mm
IARM 317A	0.005	(0.006)	0.0019	(3)	.	.	0.0032	.	.	0.008	(0.004)	.	.	31 mm Ø x 2 or 18 mm
BS 17-4PHA	.	.	0.0016	.	.	.	.	.	.	.	(0.002)	.	.	36 mm Ø x 12+ mm
IARM 327A	(0.003)	(0.004)	(0.001)	.	(3)	.	0.0047	.	.	0.006	(0.004)	.	(0.002)	31 mm Ø x 2 or 18 mm

Number	Al	As	B	Ca*	Mg*	Pb*	O	Sb	Se	Sn	Ta	Zn	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

#	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	KUT S21	0.37	0.19	0.017	0.021	1.26	0.11	22.3	3.99	.	4.12	.	.	0.50	.	.
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	15.1	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	.	.	0.58	.	10.0	19.1	.	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	.	12.0	16.1	.	2.8	0.20	.	.	.	.
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	.
1	VS LG62	0.153	0.73	0.019	0.0166	2.21	0.103	17.3	26.9	.	0.075	.	.	0.185	0.030	.
2	13X 12540L	0.15	0.44	.	.	1.05	.	5.17	27.88	.	0.54	.	.	.	.	.
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	.	.	.	0.033	.
1	IARM 9D *	0.142	0.58	0.034	0.028	0.38	0.11	0.20	12.52	0.022	0.037	0.022	(0.003)	(0.002)	0.022	(0.005)
1	VS LG32/5	0.138	0.54	0.0057	0.039	0.185	0.019	7.10	19.75	.	0.110	.	.	0.92	0.317	0.205
1	13X NSA2H	0.132	1.014	0.0252	0.0275	0.739	0.259	10.08	17.82	.	2.013	0.131	0.155	.	0.139	.
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)	(0.03)	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
1	13X 17002D	0.117	1.38	0.056	0.050	0.664	0.085	7.84	17.62	0.103	0.222	0.047	0.487	.	.	.
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	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	13X 12853K	0.109	0.838	0.0216	0.025	1.057	0.587	12.09	17.15	0.285	2.73	.	.	0.0028	.	0.095
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	13X 17005D	0.107	0.349	0.0209	0.057	1.500	0.1076	20.84	24.72	0.0510	0.699	0.064	0.191	.	.	.
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	KUT S20	0.097	1.50	0.011	0.025	1.80	0.44	18.2	2.06	.	3.15	.	1.22	(0.01)	.	.
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	.	12.55	12.35	.	.	.	.	.	.	.
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	.

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo	N	Nb	Ti	V	W
1	SS 467/1	0.082	0.788	0.018	0.019	0.52	.	9.21	18.09	.	.	.	0.99	.	.	.
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	.
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	**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	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
2	13X NSA1E	0.07	0.42	.	.	0.4	.	7.9	20.3	.	2.47	0.040	.	.	.	.
1	13X 12534W	0.069	0.833	0.0281	0.0146	0.661	0.070	9.27	18.54	0.1018	2.309	0.069	0.193	(0.20)	0.093	.
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 X63137	0.067	1.86	0.025	0.022	0.55	0.28	11.95	18.57	0.22	0.45	.	.	.	0.078	.
2	CT 305	0.067	1.85	0.025	0.022	0.55	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	0.021	<0.002	0.300	0.334	7.01	16.44	0.114	0.28	0.029	0.208	0.083	0.077	0.048
1	IMZ 152	0.065	1.42	0.010	0.0025	0.52	0.061	9.48	18.04	.	0.017	.	.	.	0.030	.
1	IARM 7C	0.064	1.32	0.014	0.0004	1.21	0.031	34.9	18.4	0.041	0.095	0.034	0.189	0.022	0.060	(0.02)
2	CT 304	0.063	0.78	0.026	0.023	0.56	0.34	9.60	18.57	0.20	0.33	.	0.043	.	0.037	.
2	BS 82E	0.062	1.61	0.027	0.001	0.58	0.26	12.49	22.38	0.12	0.31	0.072	0.062	0.003	0.064	0.041
1	13X 31008A	0.062	1.232	0.030	0.0040	0.510	0.157	19.35	24.45	0.078	0.337	0.063	0.012	.	0.079	0.166
1	KUT H7/1	0.062	0.35	0.018	0.022	0.42	0.085	0.10	9.07	.	.	.	.	0.21	.	0.15
2	BS 321A	0.061	1.22	0.030	0.012	0.48	0.284	9.38	17.20	0.15	0.20	0.0075	0.021	0.51	0.066	0.06
2	CT 316	0.061	1.64	0.029	0.023	0.69	0.25	12.61	17.60	0.14	2.45	.	.	.	0.051	.
1	VS LG36/5	0.060	1.97	0.017	0.027	0.70	0.085	12.6	14.95	.	0.197	.	.	0.39	0.156	0.056
2	CT X52353	0.060	0.90	0.022	0.008	0.56	0.28	11.94	17.46	0.28	0.34	.	.	.	0.053	.
2	13X NSB2D	0.06	0.62	.	.	0.66	.	11.1	18.2	.	0.21	0.095	.	.	.	.
2	13X 17004A	0.06	0.62	0.024	0.048	1.32	0.11	16.06	21.78	0.05	0.31	.	0.23	.	.	.
1	**BS 9842**	0.059	1.50	0.025	0.0016	0.99	0.147	20.02	24.19	0.237	0.111	0.037	0.026	0.003	0.075	0.011
1	IARM 3D *	0.059	1.66	0.024	0.0009	0.32	0.25	12.05	22.52	0.084	0.32	0.071	0.007	(0.002)	0.13	0.020
2	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	0.005	0.087	0.028
1	13X 30908A	0.0560	1.638	0.0267	0.0011	0.320	0.269	12.05	22.51	0.120	0.221	0.0652	0.0142	.	0.128	.
1	SRM 1172	0.056	1.7	0.025	0.01	0.59	0.10	11.3	17.4	0.12	0.22	.	0.65	.	.	.
2	BS 83D	0.056	1.39	0.026	0.010	0.51	0.17	19.55	24.92	0.16	0.23	0.024	0.019	(0.003)	0.092	0.07
2	BS 87F	0.055	1.64	0.024	0.025	0.67	0.28	10.12	17.30	0.17	0.29	0.037	0.57	0.004	0.13	0.050
1	IARM 3E *	0.055	1.62	0.026	0.0009	0.31	0.259	11.99	22.5	0.119	0.22	0.061	0.014	0.0019	0.127	0.019
1	13X 19001B	0.055	0.460	0.0151	0.0174	1.20	0.202	5.10	15.07	0.025	1.51	.	0.032	.	0.083	.
2	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	(0.006)	0.061	(0.03)
1	DSZU C017	0.053	2.03	0.040	0.0298	0.61	0.36	10.85	19.21	.	2.36	0.018	.	0.32	0.084	0.20
1	13X 12854L	0.053	1.300	0.024	0.0278	1.308	0.306	11.60	15.77	0.33	2.50	.	0.689	0.065	.	0.16
1	IARM 4D	0.052	1.20	0.022	0.0009	0.49	0.217	20.20	24.34	0.070	0.39	0.046	0.010	0.0042	0.073	0.026
1	IARM 2H *	0.051	1.86	0.032	0.028	0.25	0.44	8.22	18.29	0.129	0.27	0.081	0.010	(0.002)	0.067	0.022
2	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	(0.002)	0.04	(0.005)
2	BS 347A	0.051	1.50	0.026	0.020	0.54	0.31	9.20	17.44	0.054	0.326	0.044	0.79	(0.002)	0.10	(0.03)
2	BS 188A	0.050	0.139	0.015	0.0049	0.15	0.099	24.61	14.04	0.18	1.10	0.0029	0.050	2.21	0.24	0.055

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo	N	Nb	Ti	V	W

STAINLESS STEEL WITH C > 0.05 % CONTINUED FROM THE PREVIOUS PAGE

Number	Al	As	B	Bi	Ca	Ce	O	Pb	Sb	Sn	Ta	Zr	Units
KUT S24	.	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x 18 mm
KUT S21	.	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x 18 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 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 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 339A	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
VS LG62	0.069	.	.	.	.	.	.	.	.	.	.	.	~47 mm Ø x ~30 mm
13X 12540L	.	.	.	.	.	.	.	.	.	.	last of stock		40 mm Ø x 15 mm
SS 468/1	.	.	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm
SRM C1152a	.	.	.	.	.	.	.	0.0047	.	.	.	.	32 mm Ø x 19 mm
IARM 9D *	(0.004)	(0.004)	(0.001)	* Provisional Analysis			0.006	.	.	0.005	(0.004)	.	31 mm Ø x 2 or 18 mm
VS LG32/5	0.156	.	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~25 mm
13X NSA2H	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 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 mm
13X 17002D	(0.0046)	.	.	.	.	.	.	.	.	(0.0024)	.	.	42 mm Ø x 15 mm
13X 17001B	0.01	.	0.008	.	.	.	.	.	.	0.030	.	.	40 mm Ø x 15 mm
13X 18003C	0.0292	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
IRSID 1819	.	.	(0.0004)	.	.	.	.	.	.	.	.	.	47 mm x 47 mm x 30 mm
NCS HS28743	0.0056	0.0042	.	.	.	.	.	0.0004	.	0.0025	.	.	38 mm Ø x 35 mm
13X 12853K	.	.	0.0051	.	.	.	.	.	0.0203	.	0.013	0.015	~40 mm Ø x ~15 mm
IMZ 166A	0.036	(0.0026)	.	.	.	.	.	.	.	(0.0035)	.	.	40 mm Ø x 40 mm
13X 17005D	.	.	0.0028	.	.	.	.	.	.	.	0.049	.	~40 mm Ø x ~15 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
KUT S20	.	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x 18 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
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

Number	Al	As	B	Bi	Ca	Ce	O	Pb	Sb	Sn	Ta	Zr	Units
SS 467/1	.	0.004	.	.	.	.	.	0.004	.	.	0.0017	.	38 mm Ø x 19 mm
VS LG35/5	0.087	.	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~25 mm
KUT S26	.	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x 18 mm
NCS HS41750	0.009	.	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 35 mm
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
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
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
13X NSA1E	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm
13X 12534W	(0.08)	.	.	.	.	.	.	.	.	.	0.021	.	~40 mm Ø x ~15 mm
VS LG63	0.45	.	.	.	.	.	.	.	.	.	.	.	~47 mm Ø x ~30 mm
KUT S25	.	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x 18 mm
CT X63137	.	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x 20-25 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
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 mm
BS 321A	0.038	(0.006)	(0.0005)	.	(0.0002)	.	0.0013	.	.	0.010	(0.002)	.	38 mm Ø x ~7 or 19+ mm
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
13X 17004A	.	.	.	.	.	.	.	.	.	.	.	.	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
IARM 3D *	0.004	(0.004)	0.0003	* Provisional Analysis			0.005	.	.	0.008	(0.004)	.	31 mm Ø x 18 mm last
BS 82D	(0.002)	.	0.0040	.	0.0007	.	0.007	.	.	0.004	.	.	38 mm Ø x ~7 or 19+ 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
BS 83D	0.004	.	(0.0003)	.	(0.0003)	.	0.0069	.	.	0.006	.	.	38 mm Ø x ~12 mm last of stock
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
13X 12854L	.	.	0.0076	.	.	.	.	.	.	.	(0.06)	.	40 mm Ø x 15 mm
IARM 4D	0.009	(0.003)	0.0008	.	(0.001)	.	0.004	(0.0003)	.	0.007	(0.005)	(0.001)	31 mm Ø x 2 or 18 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 ~7 or 19+ mm
BS 188A	0.19	.	0.0065	.	.	.	0.0012	<0.001	.	0.002	.	.	38 mm Ø x ~10 or 12 mm

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 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	0.48	0.134	0.06
1	ECRM 289-1D	0.0489	1.016	0.0114	0.0027	0.531	.	24.68	14.63	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	IARM 6H *	0.043	1.58	0.029	(0.001)	0.51	0.44	9.18	17.34	0.094	0.39	0.011	0.009	0.36	0.09	0.023
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	**BS 316C**	0.0415	1.75	0.035	0.0146	0.42	0.076	10.31	16.42	0.172	2.26	0.062	(0.005)	(0.001)	0.031	0.0032
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	ECRM 292-1D	0.0367	1.744	0.0175	0.0055	0.402	0.0391	10.09	18.00	0.0255	0.0464	0.0640	0.571	.	.	.
1	13X 66286A	0.036	1.172	0.0173	(0.0006)	0.216	0.195	25.21	15.00	0.083	1.190	0.0040	.	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	**BS 9811**	0.027	0.380	0.016	0.0010	0.36	1.63	6.55	14.87	0.055	0.744	0.0196	0.62	(0.003)	0.086	0.013
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
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

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo	N	Nb	Ti	V	W
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	0.063	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	ECRM 284-2D	0.0201	1.745	0.0258	0.0237	0.537	0.1831	10.72	16.811	0.0525	2.111	0.0151	.	0.191	0.0425	.
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	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
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	.
2	BS SS3952	0.017	0.82	0.029	0.017	0.53	0.38	10.04	18.06	0.11	0.28	0.017	0.005	0.002	0.045	0.023
1	13X 31603B	0.0167	1.898	0.0262	0.0210	0.325	0.350	10.07	16.89	0.133	2.04	0.082	0.0099	(0.001)	0.101	0.063
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	0.163	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	0.187	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	0.023	0.0006	0.23	0.51	6.9	25.1	0.050	3.56	0.239	0.006	(0.003)	0.077	0.53
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	0.22	9.18	18.17	0.16	0.303	0.077	0.085	(0.002)	0.067	0.040
1	IARM 163E *	0.014	1.48	0.028	0.031	0.530	0.47	10.17	16.74	0.115	2.05	0.061	0.034	(0.020)	0.063	0.035
1	SS 461/1	0.0103	0.686	0.0053	0.0051	0.374	0.0091	6.124	14.727	(0.004)	0.0138	.	.	.	.	.
2	BS SS1961	0.009	0.049	0.008	0.0038	0.056	2.11	8.31	11.61	0.036	0.020	0.0025	0.26	1.16	0.074	(0.01)
2	BS SS1962	0.008	0.06	0.006	0.0025	0.06	2.22	8.32	11.42	(0.015)	0.008	0.0025	0.27	1.11	0.071	(<0.02)
2	CT ISO123A	0.003	0.035	0.007	<0.0005	0.031	0.010	11.10	11.67	0.016	0.92	0.003	<0.001	1.58	0.014	.

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo	N	Nb	Ti	V	W

RM TRACE ELEMENTS IN STAINLESS STEEL

certified analysis | informational analysis | 40 mm Ø x 20 mm

Number	As	Pb	Sb	Sn	Zn	C	Mn	P	Si	Cu	Ni	Cr	Mo	N	B	Ca	Ti	V
DSZU C25	0.093	0.038	0.094	0.095	0.034	0.3	0.1	0.02	0.3	0.7	1.6	13	0.1	0.10	0.03	0.004	.	0.03
DSZU C35	0.064	0.086	0.058	0.064	0.058	0.1	1.1	0.03	0.3	0.5	11	16	1.4	0.02	0.002	0.001	0.05	.
DSZU C22	0.051	0.023	0.050	0.051	0.019	0.4	0.1	0.02	0.2	0.5	1.5	13	0.1	0.04	0.03	0.002	.	0.03
DSZU C34	0.042	0.015	0.033	0.039	0.041	0.1	1.0	0.03	0.3	0.4	12	16	1.1	0.11	0.005	0.001	0.05	.
DSZU C33	0.021	0.0046	0.015	0.020	0.019	0.1	1.1	0.03	1.0	0.3	16	17	1.2	0.14	0.02	0.0004	0.05	.
DSZU C24	0.014	0.0017	0.010	0.011	0.0035	0.4	0.1	0.02	0.2	0.3	1.5	13	0.1	0.12	0.007	0.003	.	0.03
DSZU C31	0.012	0.0017	0.007	0.010	0.028	0.1	1.4	0.03	0.8	0.2	10	17	0.8	0.04	0.02	0.008	0.05	.
DSZU C23	0.008	0.0008	0.006	0.010	0.0028	0.4	0.1	0.02	0.3	0.2	1.4	13	0.1	0.10	0.004	0.002	.	0.03
DSZU C32	0.008	0.0005	0.0015	0.006	0.015	0.1	1.2	0.03	0.6	0.2	11	17	1.0	0.04	0.02	0.005	0.05	.
DSZU C21	0.005	0.0002	0.0011	0.003	0.0026	0.4	0.1	0.02	0.3	0.2	1.2	13	0.1	0.03	0.002	0.001	.	0.03

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	0.001	(0.006)	.	38 mm Ø x 19+ mm
ECRM 289-1D	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 or 18 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
IARM 6H *	0.041	(0.005)	(0.004)	.	(0.002)	.	.	0.014	.	31 mm Ø x 2 mm * Provisional Analysis
KUT S15	.	.	.	.	.	.	.	.	.	30-35 mm Ø x 18 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
BS 316C	(0.004)	0.0054	(0.0003)	(0.0003)	0.0055	(0.001)	0.0014	0.0052	(0.01)	38 mm Ø x ~7 or 19+ mm **17025** Fe:[68.4]
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
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)	.	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)	.	0.0013	.	.	0.007	.	0.005	.	37 mm Ø x ~7 or 19+ 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
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
13X NSA8A	.	.	.	.	.	.	.	.	.	~44 mm Ø x ~15 mm

Number	Al	As	B	Ca	O	Pb	Sb	Sn	Ta	Units
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
ECRM 284-2D	0.0027	0.0063	0.0026	.	0.0099	.	.	0.0047	.	38 mm Ø x 30 mm last of stock
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 or 18 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
13X FV520BA	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 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 SS3952	0.004	.	(0.0005)	0.0015	0.005	.	.	0.017	.	44 mm Ø x ~7 or 19+ mm
13X 31603B	0.009	.	.	0.0022	.	.	.	0.0057	.	~30 mm Ø x ~20 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 ~7 or 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 *	0.011	(0.005)	(0.002)	.	(0.003)	.	.	0.005	(0.003)	31 mm Ø x 2 or 18 mm * Provisional Analysis
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 or 18 mm * Provisional Analysis
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

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 81P	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	**BS 316C**	0.0415	1.75	0.035	0.0146	0.42	0.076	10.31	16.42	0.172	2.26	0.062	(0.005)	0.031	0.0032
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 321A	0.061	1.22	0.030	0.012	0.48	0.284	9.38	17.20	0.15	0.20	0.0075	0.021	0.066	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 347A	0.051	1.50	0.026	0.020	0.54	0.31	9.20	17.44	0.054	0.326	0.044	0.79	0.10	(0.03)
355	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
PH13-8 Mo	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 410A	0.134	0.46	0.017	0.0010	0.37	0.027	0.23	13.17	(0.011)	0.207	0.036	.	0.021	.
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

Number	Al	B	Ca	Se	Sn	Ti					
SET BS SS-17											
BS 185A	0.002	0.0017	(0.0002)	.	0.007	(0.001)					
BS 17-4PHA	.	0.0016	.	.	.	.	Ta: (0.002)				
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 81P	(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 316C	(0.004)	(0.0003)	(0.0003)	.	0.0052	(0.001)	O: 0.0055	Fe:[68.4]	Sb: 0.0014	**17025**	
BS 317L	(0.005)	0.0013	(0.001)	.	0.005	.					
BS 321A	0.038	(0.0005)	(0.0002)	.	0.010	0.51					
BS 86F	(0.007)	0.0026	(0.001)	.	0.004	(0.006)					
BS 347A	(0.002)	(0.0004)	(0.0002)	.	0.007	(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 410A	(0.003)	.	.	.	(0.004)	.					
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

HIGH ALLOY STEEL

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

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Co	Mo	N	Nb	Ti	V
3	CZ SP-8B	2.37	0.86	0.022	0.012	1.40	0.075	2.72	37.6	0.13	0.075	0.10	.	0.04	0.13	0.13
2	CZ SP-4C	0.34	1.66	0.020	0.010	1.75	0.056	37.1	22.1	0.011	0.065	0.105	(0.04)	0.022	0.031	0.059
3	CZ SP-4B	0.31	1.36	0.027	0.008	1.51	0.04	35.8	20.8	0.025	.	0.02	.	.	.	.
1	IARM 242A	0.24	0.018	0.002	0.0004	0.02	0.007	11.1	3.00	0.004	13.5	1.21	0.0003	0.004	0.009	0.01
3	CZ SL-6A	0.17	0.24	0.015	0.029	0.23	0.22	32.3	6.8	0.26	0.69	0.13	.	0.36	1.8	0.15
2	CT 972	0.098	0.59	0.031	0.027	0.41	0.13	35.84	0.06	0.17	0.44	0.11	.	0.09	0.36	0.06
1	SRM 1246	0.082	0.91	0.018	0.001	0.18	0.49	30.8	20.1	0.30	0.076	0.36	(0.018)	(0.09)	0.32	(0.040)
2	23X DS5E	0.080	1.04	.	.	1.98	0.30	36.6	8.64	0.083	0.50	0.30	.	.	0.17	.
1	**BS 800**	0.073	0.789	0.0161	0.00036	0.560	0.323	31.29	19.90	0.279	0.054	0.195	0.0112	0.0183	0.469	0.071
1	NCS HS41747	0.071	0.807	0.015	0.0006	0.36	0.038	32.27	20.72	0.299	0.050	0.297	.	.	0.49	.
3	HH 5157A	0.067	0.95	0.012	0.003	0.43	0.33	29.31	21.48	0.45	.	.	.	.	0.55	.
2	23X 8004E	0.06	0.70	.	.	0.53	0.30	31.8	19.72	0.31	0.53	0.33	.	.	0.34	.
2	23X DS2E	0.06	1.00	.	.	2.07	0.30	37.4	17.81	0.04	0.48	0.30	.	.	0.17	.
1	IARM 24B	0.053	0.82	0.009	0.0010	0.28	0.052	35.86	0.121	0.002	0.036	0.011	0.0017	<0.01	0.002	<0.005
1	SS 479	0.0529	0.680	0.0029	0.0030	0.553	0.0052	24.87	19.922	(0.013)	(0.002)	(0.003)	0.0057	0.625	0.0306	0.0052
2	CT 971	0.052	0.20	0.038	0.017	0.27	0.02	36.03	0.22	0.25	0.17	0.23	.	0.04	0.48	0.05
2	23X DS4E	0.05	1.02	.	.	2.01	0.30	37.1	16.83	0.037	0.48	0.29	.	.	0.20	.
1	SRM 1230	0.044	0.64	0.023	0.0007	0.43	0.14	24.2	14.8	0.24	0.15	1.18	.	.	2.12	0.23
3	HH 5179A	0.042	0.87	0.012	0.003	0.38	0.26	34.13	22.20	0.30	.	.	.	.	0.46	.
2	BS 186A	0.040	0.72	0.008	0.0053	0.19	0.016	35.86	0.16	(0.001)	0.028	0.0032	0.0026	(<0.002)	(<0.003)	0.0012
3	HH 5196A	0.036	1.05	0.011	0.002	0.45	0.24	31.46	20.66	0.31	.	.	.	.	1.13	.
3	HH 5300A	0.026	0.86	0.013	0.003	0.35	0.28	33.56	18.18	0.45	.	.	.	.	0.54	.
1	13X 14934Q	0.0254	0.254	0.024	0.0288	0.502	.	17.60	0.388	0.15	9.03	4.22	0.0132	.	0.694	.
1	SRM 1158	0.025	0.468	0.004	0.005	0.194	0.039	36.03	0.062	.	0.008	0.010	.	.	.	0.001
1	IARM 302B *	0.022	0.93	0.026	0.0007	0.56	0.70	17.7	20.3	0.016	0.072	6.2	0.182	(0.014)	(0.005)	0.051
2	BS 187A	0.022	0.52	0.017	0.0025	0.26	3.10	33.06	19.75	(0.009)	0.32	2.06	0.0157	0.57	(0.002)	0.10
2	CT ISO139A	0.021	1.00	0.001	0.0005	0.015	<0.001	41.69	0.004	.	0.066	<0.001	.	.	.	.
1	SRM 1247	0.021	0.38	0.018	0.002	0.32	1.75	43.5	23.4	0.060	0.089	2.73	(0.017)	(0.46)	0.75	(0.048)
2	BS 187C	0.020	0.77	0.024	<0.002	0.77	3.17	32.93	20.16	0.10	0.096	2.07	0.022	0.36	(0.001)	0.059
2	CT ISO141A	0.0199	0.31	0.001	<0.001	0.28	<0.001	47.16	<0.001	0.001	0.030	<0.001	<0.001	.	0.014	0.024
1	13X 31254A	0.0185	0.590	0.0191	0.0011	0.400	0.575	18.34	20.11	0.0134	0.125	6.13	0.205	.	.	0.0595
2	CT ISO136A	0.018	0.44	0.001	<0.001	0.198	<0.001	44.92	0.002	.	0.009	<0.001	.	.	.	.
1	ECRM 299-1D	0.0154	0.2678	0.0152	0.00022	0.299	0.0382	0.172	22.32	5.33	0.0187	0.0186	0.0198	.	0.1289	0.0329
1	**BS 189A**	0.0147	0.639	0.019	(0.001)	0.30	0.184	23.8	20.4	0.0129	0.100	6.04	0.198	(0.13)	0.0065	0.054
1	NILAB 501HA D	0.014	0.858	0.020	0.003	.	0.761	17.69	19.79	0.003	0.159	6.14	0.2243	0.007	.	0.044
1	KUT S22	0.014	0.34	0.009	0.008	0.61	(0.02)	28.2	1.00	.	.	0.82	.	.	0.13	.
1	NCS HS41753	0.013	1.45	0.025	0.0057	0.42	1.51	24.40	19.27	(0.012)	.	4.29	0.020	(0.012)	(0.0013)	0.093
1	ECRM 379-1D	0.0121	1.804	0.0166	0.0006	0.393	0.984	30.83	26.79	(0.00246)	0.0390	3.290	0.0550	(0.0028)	(0.0014)	0.0663
2	CT ISO124A	0.011	0.73	0.007	0.006	0.40	0.015	48.07	0.079	.	0.012	0.009	.	.	.	.
1	13X 14935T	0.0105	0.494	0.036	0.055	0.441	.	18.96	0.745	(0.007)	7.17	5.61	0.0102	.	0.106	.
1	14X 93603A	0.0101	0.339	0.0050	0.0045	0.153	0.0460	35.79	0.024	0.0404	0.0974	0.0145	0.0057	.	0.0011	.
1	SRM 1159	0.007	0.30	0.003	0.003	0.32	0.038	48.2	0.06	.	0.022	0.01	.	.	.	.
1	IARM 98B	0.007	0.18	0.002	0.0007	0.17	0.028	29.4	0.012	0.07	17.0	0.010	0.0024	0.002	0.03	(0.003)
1	**BS 160A**	0.0064	0.180	0.0007	(0.0002)	0.158	0.026	29.6	0.0138	0.088	17.0	0.0100	0.0026	0.0014	0.026	0.0008
3	CZ SP-7A	0.006	0.08	0.007	0.010	0.036	0.08	47.3	0.01	0.003	0.003	0.01	.	.	0.004	0.001
1	IARM 99B	0.005	0.036	0.005	0.0005	0.022	0.094	18.46	0.081	0.095	9.24	4.88	0.0011	(0.005)	0.74	0.012
1	**BS 161A**	0.004	0.031	0.004	0.0007	0.032	0.22	18.40	0.12	0.14	9.22	4.82	(0.002)	(0.004)	0.65	0.031
2	CT ISO138A	0.002	0.48	0.001	0.006	<0.010	<0.001	39.98	<0.001	.	0.64	<0.001	.	.	0.34	.
1	IARM 326A	(0.002)	0.003	0.0013	0.0011	0.029	(0.002)	0.037	(0.002)	(0.003)	48.4	(0.002)	0.0004	0.038	(0.002)	1.94
1	ECRM 285-2D	0.0018	0.0168	0.0053	0.0025	0.0117	0.0094	18.07	0.0236	0.1067	7.76	4.99	0.0007	.	0.520	.

Number	As	B	Ca	Ce	Mg	O	Se	Sn	Ta	W	Zr	Units
CZ SP-8B	0.05	0.03	.	.	.	.	.	0.06	.	0.05	.	~39 mm Ø x 25 mm
CZ SP-4C	.	.	.	.	.	.	.	.	.	(0.01)	.	~39 mm Ø x 25 mm Fe:(36.6)
CZ SP-4B	.	.	.	.	.	.	.	.	.	.	.	~39 mm Ø x 25 mm last of stock
IARM 242A	.	(0.0005)	.	.	.	0.0006	.	(0.001)	0.008	<0.01	.	31 mm Ø x 2 or 18 mm
CZ SL-6A	0.004	.	.	.	.	.	.	0.006	.	1.74	.	~39 mm Ø x 25 mm
CT 972	.	.	.	.	Pb: 0.0014	.	0.28	0.0008	.	.	.	30-35 mm Ø x 20-25 mm Ag: 0.005
SRM 1246	(0.004)	<0.001	Ga: (0.004)		.	(0.003)	.	.	.	(<0.004)	.	35 mm Ø x 19 mm Fe: 46.2
23X DS5E	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm
BS 800	0.0036	0.0032	0.00030	.	(0.002)	(0.0009)	**17025**	0.0026	(0.001)	0.0056	0.0018	44 mm Ø x ~7 or 19+ mm Fe:46.0 Pb, Sb in ppm
NCS HS41747	.	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 30 mm
HH 5157A	.	.	.	.	.	.	.	.	.	.	.	44 mm Ø x 12 mm sale price
23X 8004E	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm
23X DS2E	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm
IARM 24B	<0.005	(0.001)	.	.	.	0.003	0.19	0.0018	<0.005	<0.04	<0.005	31 mm Ø x 2 or 18 mm Fe: 62.6
SS 479	(0.002)	<0.0005	.	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm
CT 971	.	.	.	.	Pb: 0.015	.	0.20	0.026	.	.	.	30-35 mm Ø x 20-25 mm Ag: 0.026
23X DS4E	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm
SRM 1230	.	0.0055	.	.	.	.	.	.	.	.	.	32 mm Ø x 19 mm
HH 5179A	.	.	.	.	.	.	.	.	.	.	.	41 mm Ø x 12 mm sale price
BS 186A	.	.	.	.	.	.	0.229	(0.002)	.	(0.01)	.	38 mm Ø x ~7 or 19+ mm
HH 5196A	.	.	.	.	.	.	.	.	.	.	.	44 mm Ø x 12 mm sale price
HH 5300A	.	.	.	.	.	.	.	.	.	.	.	41 mm Ø x 12 mm sale price
13X 14934Q	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm
SRM 1158	.	.	.	.	.	.	.	.	.	.	.	32 mm Ø x 19 mm
IARM 302B *	.	0.0027	(0.004)	.	(0.001)	(0.003)	.	0.0071	(0.01)	(0.028)	(0.001)	31 mm Ø x 2 or 18 mm * Provisional Analysis
BS 187A	.	0.0022	.	(0.025)	.	0.0029	.	0.003	<0.002	(0.02)	.	41 mm Ø x ~7 or 19+ mm
CT ISO139A	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x 20-25 mm Fe: 57.10
SRM 1247	(0.003)	0.002	Ga: (0.011)		.	(0.005)	.	.	.	(0.005)	.	35 mm Ø x 19 mm Fe: 26.5
BS 187C	.	(0.0019)	.	.	.	0.0024	.	0.004	(<0.002)	.	.	44 mm Ø x 10 mm last of stock
CT ISO141A	.	.	.	.	0.0002	.	.	.	.	.	.	30-35 mm Ø x 20-25 mm Fe: 52.12
13X 31254A	.	0.0025	.	.	.	.	.	.	.	0.017	.	~40 mm Ø x ~15 mm
CT ISO136A	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x 20-25 mm Fe: 54.27
ECRM 299-1D	0.0054	0.0002	.	.	.	.	.	.	.	.	0.1775	40 mm Ø x 25 mm
BS 189A	0.0039	(0.0002)	(0.0004)	.	.	0.0024	.	0.0035	.	0.037	(0.001)	38 mm Ø x ~7 or 19+ mm Fe: [48.1] **17025**
NILAB 501HA D	.	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 20 mm
KUT S22	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x 18 mm
NCS HS41753	.	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 35 mm
ECRM 379-1D	(0.0018)	0.00190	0.0033	.	(0.0006)	(0.0027)	.	0.0021	.	(0.0091)	(0.00033)	38 or 45 mm Ø x 25 mm Sb: 0.00057
CT ISO124A	.	.	.	.	.	.	0.167	.	.	.	.	30-35 mm Ø x 20-25 mm Fe: 50.65
13X 14935T	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm
14X 93603A	.	.	.	.	0.0019	.	.	.	.	.	(0.0009)	~40 mm Ø x ~15 mm
SRM 1159	.	.	.	.	.	.	.	.	.	.	.	31 mm Ø x 19 mm Fe: 51.0
IARM 98B	<0.002	0.001	<0.0005	.	0.0040	0.0021	.	0.002	<0.05	(0.02)	<0.01	31 mm Ø x 2 or 18 mm Fe: 52.9
BS 160A	0.0011	0.0010	(0.0004)	.	0.0032	0.0022	.	0.0024	Ta, W:(0.0001)		0.0048	38 mm Ø x ~7 or 19+ mm Fe: 52.9 **17025**
CZ SP-7A	.	.	.	.	.	.	.	.	.	.	.	~39 mm Ø x 25 mm
IARM 99B	.	0.0026	.	.	.	0.0015	.	(0.003)	.	0.016	.	31 mm Ø x 2 mm
BS 161A	(0.002)	0.0023	(0.0008)	.	.	(0.0004)	.	(0.0015)	(0.03)	(0.008)	(0.002)	38 mm Ø x ~7 or 19+ mm **25(pre-17025)**
CT ISO138A	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x 20-25 mm Fe: 58.53
IARM 326A	<0.005	(0.001)	.	.	(0.001)	0.0082	.	<0.001	(0.01)	(0.001)	0.002	31 mm Ø x 2 or 18 mm Fe: 49.6
ECRM 285-2D	.	0.0009	.	.	.	.	.	.	.	.	0.0050	38 mm Ø x 25 or 30 mm

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	0.0147	0.639	0.019	(0.001)	0.30	0.184	23.8	20.4	6.04	0.0129	(0.0002)	0.100	0.198	(0.13)	0.0035	0.0065	0.054	0.037	0.0024
CRM **17025**																			
BS 179A Alloy 255	0.017	1.04	0.021	0.001	0.44	1.94	5.84	25.45	3.24	(0.009)	(0.001)	0.58	0.184	0.030	0.005	0.006	0.070	(0.2)	.
BS 183 Greek Ascoloy	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

CRM CAST IRON SET

AVAILABLE IN SET/7 only 30 mm Ø x 28 mm

Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Mo	Sn	Ti	V	Ce	La	Mg	N
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

RM GRAY IRON

as cast (not chill cast) CONTAINS FREE GRAPHITE **OES 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 13
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

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Ce	Co	Mg	Mo	Ti	V
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	SCRM 670/18	3.610	0.341	.	.	2.166	0.969	0.889	0.488	.	0.0113	.	0.0465	0.0131	0.102	0.0229
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	**BS 291DI**	3.35	0.456	0.0216	0.0156	2.32	0.189	0.170	0.159	0.0089	.	0.0062	**0.044**	0.0220	0.0265	0.013
1	**BS 291DH**	3.35	0.456	0.0216	0.0156	2.32	0.189	0.170	0.159	0.0089	.	0.0062	**0.043**	0.0220	0.0265	0.013
1	**BS 291DG**	3.35	0.456	0.0216	0.0156	2.32	0.189	0.170	0.159	0.0089	.	0.0062	**0.042**	0.0220	0.0265	0.013
1	**BS 291DF**	3.35	0.456	0.0216	0.0156	2.32	0.189	0.170	0.159	0.0089	.	0.0062	**0.041**	0.0220	0.0265	0.013
1	**BS 291DE**	3.35	0.456	0.0216	0.0156	2.32	0.189	0.170	0.159	0.0089	.	0.0062	**0.040**	0.0220	0.0265	0.013
1	**BS 291DD**	3.35	0.456	0.0216	0.0156	2.32	0.189	0.170	0.159	0.0089	.	0.0062	**0.039**	0.0220	0.0265	0.013
1	**BS 291DC**	3.35	0.456	0.0216	0.0156	2.32	0.189	0.170	0.159	0.0089	.	0.0062	**0.038**	0.0220	0.0265	0.013
1	**BS 286AG**	3.24	0.740	0.201	0.0162	2.03	0.341	1.360	0.165	(0.009)	.	(0.004)	**0.038**	0.258	0.054	0.151
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	**BS 286AD**	3.24	0.740	0.201	0.0162	2.03	0.341	1.360	0.165	(0.009)	.	(0.004)	**0.035**	0.258	0.054	0.151
1	**BS 286AC**	3.24	0.740	0.201	0.0162	2.03	0.341	1.360	0.165	(0.009)	.	(0.004)	**0.034**	0.258	0.054	0.151
1	**BS 286AB**	3.24	0.740	0.201	0.0162	2.03	0.341	1.360	0.165	(0.009)	.	(0.004)	**0.033**	0.258	0.054	0.151
1	**BS 291CD**	3.11	0.527	0.0266	0.0182	2.40	0.211	0.259	0.040	(0.01)	.	(0.005)	**0.042**	0.0044	0.0173	0.0081
1	**BS 291CC**	3.11	0.527	0.0266	0.0182	2.40	0.211	0.259	0.040	(0.01)	.	(0.005)	**0.041**	0.0044	0.0173	0.0081
1	**BS 291CB**	3.11	0.527	0.0266	0.0182	2.40	0.211	0.259	0.040	(0.01)	.	(0.005)	**0.040**	0.0044	0.0173	0.0081
1	SCRM 667/13	3.04	0.222	.	.	2.866	0.497	1.303	0.294	.	0.110	.	0.070	.	.	0.103
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	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	SRM C2424	2.68	0.268	0.041	0.024	3.37	0.125	0.061	0.13	(<0.01)	0.0046	(0.05)	0.006	0.019	0.050	0.083
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

Number	As	B	Ca	Fe	La	Nb	Pb	Sb	Sn	W	Zr	Units	
SCRM 668/13	.	.	.	.	.	.	.	.	.	.	.	48 mm x 42 mm x 12 mm	
SCRM 670/18	.	.	.	.	.	.	.	.	.	.	.	48 mm x 42 mm x 12 mm	
SCRM 666/12	.	.	.	.	.	.	.	.	.	.	.	48 mm x 42 mm x 12 mm	
BS 291DI	0.0017	0.0089	0.0012	[93.1]	.	0.0024	0.0009	0.0024	0.0019	(0.002)	0.0017	~35 mm Ø x ~30 mm	**17025**
BS 291DH	0.0017	0.0089	0.0012	[93.1]	.	0.0024	0.0009	0.0024	0.0019	(0.002)	0.0017	~35 mm Ø x ~30 mm	**17025**
BS 291DG	0.0017	0.0089	0.0012	[93.1]	.	0.0024	0.0009	0.0024	0.0019	(0.002)	0.0017	~35 mm Ø x ~30 mm	**17025**
BS 291DF	0.0017	0.0089	0.0012	[93.1]	.	0.0024	0.0009	0.0024	0.0019	(0.002)	0.0017	~35 mm Ø x ~30 mm	**17025**
BS 291DE	0.0017	0.0089	0.0012	[93.1]	.	0.0024	0.0009	0.0024	0.0019	(0.002)	0.0017	~35 mm Ø x ~30 mm	**17025**
BS 291DD	0.0017	0.0089	0.0012	[93.1]	.	0.0024	0.0009	0.0024	0.0019	(0.002)	0.0017	~35 mm Ø x ~30 mm	**17025**
BS 291DC	0.0017	0.0089	0.0012	[93.1]	.	0.0024	0.0009	0.0024	0.0019	(0.002)	0.0017	~35 mm Ø x ~30 mm	**17025**
BS 286AG	(0.01)	0.0085	(0.001)	[91.4]	.	(0.003)	.	.	(0.004)	(0.008)	(0.007)	~35 mm Ø x ~30 mm	**17025**
BS 286AF	(0.01)	0.0085	(0.001)	[91.4]	.	(0.003)	.	.	(0.004)	(0.008)	(0.007)	~35 mm Ø x ~30 mm	**17025**
BS 286AE	(0.01)	0.0085	(0.001)	[91.4]	.	(0.003)	.	.	(0.004)	(0.008)	(0.007)	~35 mm Ø x ~30 mm	**17025**
BS 286AD	(0.01)	0.0085	(0.001)	[91.4]	.	(0.003)	.	.	(0.004)	(0.008)	(0.007)	~35 mm Ø x ~30 mm	**17025**
BS 286AC	(0.01)	0.0085	(0.001)	[91.4]	.	(0.003)	.	.	(0.004)	(0.008)	(0.007)	~35 mm Ø x ~30 mm	**17025**
BS 286AB	(0.01)	0.0085	(0.001)	[91.4]	.	(0.003)	.	.	(0.004)	(0.008)	(0.007)	~35 mm Ø x ~30 mm	**17025**
BS 291CD	(0.004)	0.0009	(0.001)	[93.2]	.	(0.003)	(0.001)	(0.01)	0.131	(0.005)	(0.002)	~35 mm Ø x ~30 mm	**17025**
BS 291CC	(0.004)	0.0009	(0.001)	[93.2]	.	(0.003)	(0.001)	(0.01)	0.131	(0.005)	(0.002)	~35 mm Ø x ~30 mm	**17025**
BS 291CB	(0.004)	0.0009	(0.001)	[93.2]	.	(0.003)	(0.001)	(0.01)	0.131	(0.005)	(0.002)	~35 mm Ø x ~30 mm	**17025**
SCRM 667/13	.	.	.	.	.	.	.	.	.	.	.	48 mm x 42 mm x 12 mm	
SCRM 669/14	.	.	.	.	.	.	.	.	.	.	.	48 mm x 42 mm x 12 mm	
SRM C1137a	.	.	.	.	.	.	.	.	.	.	.	32 mm Ø x 19 mm	
SRM C2424	.	(0.002)	.	.	0.0011	.	.	.	.	.	.	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	

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 2/2	2.14	0.434	0.025	0.007	4.75	0.010	0.0189	0.856	0.484	0.013	0.005	0.009	0.0029	0.039	0.038	0.006	0.026

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	**17025**
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	
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	**17025**

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
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	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	.	.	1.400	0.751	0.097	0.962	0.0116	.	.	0.0245	.	0.0193	0.091	0.193
1	CZ 02033 2d	3.71	0.194	0.165	0.011	1.28	0.92	0.635	0.032	0.058	.	0.015	0.021	0.018	0.013	0.019	0.028
1	CZ 02033 3c	3.68	0.333	0.026	0.007	2.15	0.421	0.040	0.100	0.006	(0.005)	0.024	0.013	0.026	0.490	0.021	0.016
1	SCRM 670/18	3.610	0.341	.	.	2.166	0.969	0.889	0.488	0.0465	.	.	0.0113	.	0.0131	0.102	0.0229
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	Y 451087-5	3.58	0.44	0.034	0.018	1.74	0.26	0.59	0.50	0.039	.	.	.	.	0.18	0.055	0.20
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	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	**BS 291DI**	3.35	0.456	0.0216	0.0156	2.32	0.189	0.170	0.159	**0.044**	.	0.0089	.	0.0062	0.0220	0.0265	0.013
1	**BS 291DH**	3.35	0.456	0.0216	0.0156	2.32	0.189	0.170	0.159	**0.043**	.	0.0089	.	0.0062	0.0220	0.0265	0.013
1	**BS 291DG**	3.35	0.456	0.0216	0.0156	2.32	0.189	0.170	0.159	**0.042**	.	0.0089	.	0.0062	0.0220	0.0265	0.013
1	**BS 291DF**	3.35	0.456	0.0216	0.0156	2.32	0.189	0.170	0.159	**0.041**	.	0.0089	.	0.0062	0.0220	0.0265	0.013
1	**BS 291DE**	3.35	0.456	0.0216	0.0156	2.32	0.189	0.170	0.159	**0.040**	.	0.0089	.	0.0062	0.0220	0.0265	0.013
1	**BS 291DD**	3.35	0.456	0.0216	0.0156	2.32	0.189	0.170	0.159	**0.039**	.	0.0089	.	0.0062	0.0220	0.0265	0.013
1	**BS 291DC**	3.35	0.456	0.0216	0.0156	2.32	0.189	0.170	0.159	**0.038**	.	0.0089	.	0.0062	0.0220	0.0265	0.013
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 286AG**	3.24	0.740	0.201	0.0162	2.03	0.341	1.360	0.165	**0.038**	.	(0.009)	.	(0.004)	0.258	0.054	0.151
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	**BS 286AD**	3.24	0.740	0.201	0.0162	2.03	0.341	1.360	0.165	**0.035**	.	(0.009)	.	(0.004)	0.258	0.054	0.151
1	**BS 286AC**	3.24	0.740	0.201	0.0162	2.03	0.341	1.360	0.165	**0.034**	.	(0.009)	.	(0.004)	0.258	0.054	0.151

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Mg	Te	Al	Ce	Co	Mo	Ti	V
1	**BS 286AB**	3.24	0.740	0.201	0.0162	2.03	0.341	1.360	0.165	**0.033**	.	(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
1	CZ 20034 14c	3.14	0.275	0.0162	0.0081	2.49	0.585	0.030	0.045	0.017	.	0.007	0.019	0.009	0.646	0.018	0.013
1	CZ 20034 13a	3.13	0.691	0.0244	0.0046	2.19	0.021	1.266	0.122	0.053	.	0.017	0.011	0.024	0.364	0.014	0.048
1	CZ 20034 13b	3.12	0.692	0.0243	0.0041	2.12	0.021	1.313	0.125	0.054	.	0.019	0.011	0.024	0.364	0.012	0.048
1	**BS 291CD**	3.11	0.527	0.0266	0.0182	2.40	0.211	0.259	0.040	**0.042**	.	(0.01)	.	(0.005)	0.0044	0.0173	0.0081
1	**BS 291CC**	3.11	0.527	0.0266	0.0182	2.40	0.211	0.259	0.040	**0.041**	.	(0.01)	.	(0.005)	0.0044	0.0173	0.0081
1	**BS 291CB**	3.11	0.527	0.0266	0.0182	2.40	0.211	0.259	0.040	**0.040**	.	(0.01)	.	(0.005)	0.0044	0.0173	0.0081
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	.	.	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	.	.	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	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 CZ: 40 mm Ø x 18 mm SCRM: 48 mm x 42 mm x 12 mm SRM: 32 mm Ø x 19 mm VS: ~40 mm Ø x ~40 mm Y: 30 mm Ø x 30 mm

CAST IRON WITH MAGNESIUM - continued from the previous page

sizes shown below

Number	As	B	Bi	Ca	Fe	La	Nb	Pb	Sb	Se	Sn	W	Zr	Other
CZ 20034 17b	0.008	(0.0002)	(0.001)	.	.	.	.	(0.002)	.	.	(0.002)	0.004	.	
CZ 20034 17a	0.007	(0.0002)	(0.001)	.	.	.	.	(0.002)	.	.	(0.002)	0.004	.	
CZ 20034 17c	0.0005	(0.0006)	(0.002)	.	.	.	.	(0.002)	.	.	(0.002)	0.004	.	
Y 2863-11	(0.022)	0.053	.	.	.	.	0.33	(0.0057)	(0.174)	.	(0.108)	0.010	.	
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
VS ChG 25	.	.	.	.	.	.	.	.	0.052	.	0.017	.	.	
Y 451047	.	0.31	.	.	.	.	0.012	.	.	.	.	.	.	
SCRM 668/13	.	.	.	.	.	.	.	.	.	.	.	.	.	
CZ 02033 2d	.	0.0036	0.002	.	.	.	.	0.013	0.022	.	0.025	0.003	Zn:0.023	last
CZ 02033 3c	(0.007)	0.0044	(0.002)	.	.	.	.	0.005	.	.	0.009	(0.003)	.	
SCRM 670/18	.	.	.	.	.	.	.	.	.	.	.	.	.	
SCRM 666/12	.	.	.	.	.	.	.	.	.	.	.	.	.	
Y 451087-5	.	0.019	.	.	.	.	.	.	.	.	0.0045	.	.	
CZ 20034 15a	(0.003)	0.0041	0.012	.	.	.	.	.	0.058	.	0.005	0.006	.	
11X SG1A	0.0021	.	.	.	.	.	.	.	.	.	.	.	Zn:0.041	~500 x ~15mm
CZ 20034 15b	(0.003)	0.0033	0.010	.	.	.	.	.	0.058	.	0.005	0.007	.	
11X SG2A	0.0022	.	.	.	.	.	.	.	.	.	.	.	Zn:0.040	~500 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	.	.	.	.	.	.	.	.	.	.	.	.	.	
BS 291DI	0.0017	0.0089	.	0.0012	[93.1]	.	0.0024	0.0009	0.0024	.	0.0019	(0.002)	0.0017	**17025**
BS 291DH	0.0017	0.0089	.	0.0012	[93.1]	.	0.0024	0.0009	0.0024	.	0.0019	(0.002)	0.0017	**17025**
BS 291DG	0.0017	0.0089	.	0.0012	[93.1]	.	0.0024	0.0009	0.0024	.	0.0019	(0.002)	0.0017	**17025**
BS 291DF	0.0017	0.0089	.	0.0012	[93.1]	.	0.0024	0.0009	0.0024	.	0.0019	(0.002)	0.0017	**17025**
BS 291DE	0.0017	0.0089	.	0.0012	[93.1]	.	0.0024	0.0009	0.0024	.	0.0019	(0.002)	0.0017	**17025**
BS 291DD	0.0017	0.0089	.	0.0012	[93.1]	.	0.0024	0.0009	0.0024	.	0.0019	(0.002)	0.0017	**17025**
BS 291DC	0.0017	0.0089	.	0.0012	[93.1]	.	0.0024	0.0009	0.0024	.	0.0019	(0.002)	0.0017	**17025**
VS ChG 28	.	.	.	.	.	.	.	.	0.015	.	0.0017	.	.	
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 286AG	(0.01)	0.0085	.	(0.001)	[91.4]	.	(0.003)	.	.	.	(0.004)	(0.008)	(0.007)	**17025**
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**
BS 286AD	(0.01)	0.0085	.	(0.001)	[91.4]	.	(0.003)	.	.	.	(0.004)	(0.008)	(0.007)	**17025**
BS 286AC	(0.01)	0.0085	.	(0.001)	[91.4]	.	(0.003)	.	.	.	(0.004)	(0.008)	(0.007)	**17025**

Number	As	B	Bi	Ca	Fe	La	Nb	Pb	Sb	Se	Sn	W	Zr	Other
BS 286AB	(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	
CZ 20034 14c	0.035	0.0123	.	.	.	.	.	.	0.020	.	0.025	(0.003)	0.013	Zn: 0.010
CZ 20034 13a	(0.002)	.	.	.	.	.	.	.	(0.002)	.	0.014	(0.003)	0.029	
CZ 20034 13b	(0.002)	.	.	.	.	.	.	.	(0.002)	.	0.014	(0.003)	0.023	
BS 291CD	(0.004)	0.0009	.	(0.001)	[93.2]	.	(0.003)	(0.001)	(0.01)	.	0.131	(0.005)	(0.002)	**17025**
BS 291CC	(0.004)	0.0009	.	(0.001)	[93.2]	.	(0.003)	(0.001)	(0.01)	.	0.131	(0.005)	(0.002)	**17025**
BS 291CB	(0.004)	0.0009	.	(0.001)	[93.2]	.	(0.003)	(0.001)	(0.01)	.	0.131	(0.005)	(0.002)	**17025**
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	
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

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 mm SCRM: 48 mm x 42 mm x 12 mm SRM: 32 mm Ø x 19 mm VS: ~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
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	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	.
1	CZ 02033 4c	4.06	0.250	0.054	0.038	0.423	0.085	0.084	0.080	0.005	0.035	0.002	.	0.002	0.010	0.015	0.016
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 451043-10	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	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 33	3.38	0.77	0.137	0.087	0.93	0.077	.	0.81	.	.	0.084	.	0.115	0.064	0.061	.
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	SCRM 658/11	3.278	0.502	0.177	0.067	1.933	.	.	.	.	.	.	.	.	.	.	.
1	SCRM 674	3.32	1.48	0.011	0.081	0.48	0.101	0.144	0.021	0.004	0.014	0.048	.	0.014	0.023	0.024	0.0187
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	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)	.	.	.	.	.	.	.	.
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	3.95	.	.	0.78	.	.	.	0.02	.
1	11X HPC1G	3.22	0.499	0.75	0.0311	2.60	.	.	.	.	.	.	.	.	.	.	.
1	KUT 125	3.20	0.73	0.70	0.019	(1.87)	.	.	.	.	.	.	.	.	.	.	.
1	VS ChG 31	3.19	0.97	0.047	0.043	1.60	0.281	.	0.156	.	.	0.0069	.	0.013	0.0063	0.0035	.

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Co	Mo	Nb	Sn	Ti	V	Zn
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	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	KUT 203	3.14	0.79	0.024	(0.009)	1.78	0.43	1.63	1.79	.	.	0.91	.	(0.16)	.	.	.
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	.	.	1.02	.	.	.	0.03	.
1	VS ChL3/1	3.04	0.250	0.067	0.024	2.39	0.60	1.08	0.533	.	0.016	0.262	.	.	0.043	0.103	.
1	DSZU CH08	3.02	0.79	0.056	0.058	2.05	1.60	2.52	2.13	0.29	(0.07)	0.96	(0.3)	(0.008)	0.315	0.34	.
1	VS ChG 39	3.01	0.82	0.304	0.088	1.45	0.414	1.09	1.08	.	.	0.113	.	.	0.168	0.274	.
2	BS CC-11	3.00	1.18	0.022	(0.024)	1.92	0.14	0.064	0.060	0.029	0.021	0.011	.	0.045	0.011	0.016	.
2	BAS LARM2	(3.0)	(0.3)	(0.05)	(<0.01)	(2.0)	.	.	2.50	0.066	.	0.22	.	0.22	0.33	.	.
2	BAS LARM4	(3.0)	(0.3)	(0.05)	(<0.01)	(2.0)	0.26	.	1.19	0.014	.	1.00	.	0.11	0.17	.	.
2	BAS LARM1	(3.0)	(0.3)	(0.05)	(<0.01)	(2.0)	2.49	0.49	0.50	.	.	.	.	.	0.14	0.11	.
2	BAS LARM5	(3.0)	(0.3)	(0.05)	(<0.01)	(2.0)	.	2.46	.	.	.	0.62	.	0.025	.	0.24	.
2	BAS LARM3	(3.0)	(0.3)	(0.05)	(<0.01)	(2.0)	1.20	1.80	.	0.042	.	.	.	.	.	0.55	.
1	Y 2863-4	2.99	0.93	0.310	0.059	1.54	0.97	0.93	0.76	.	.	0.61	.	.	0.090	0.082	.
2	BAS NCRM2	2.97	0.95	0.068	0.119	1.82	1.67	2.10	1.99	.	.	0.36	.	.	.	0.16	.
1	KUT 124	2.97	0.62	0.50	0.051	1.63	.	.	.	.	.	.	.	.	.	.	.
1	CZ 02033 6b	2.95	1.15	0.095	0.020	3.23	0.272	0.026	1.36	0.007	.	0.005	.	0.140	0.068	0.083	.
1	SCRM 662/4	2.95	0.76	0.30	0.087	2.33	.	.	(1)	.	.	.	.	.	.	.	.
1	VS ChG 36	2.94	0.454	0.232	0.036	1.50	0.70	0.542	0.476	.	.	0.406	.	.	0.027	0.086	.
1	SCRM 657/8	2.93	0.062	0.100	0.024	3.02	.	.	(1)	.	.	.	.	.	.	.	.
1	CZ 20034 12b	2.92	1.047	0.484	0.077	2.96	0.223	0.174	0.638	0.077	0.008	0.117	.	0.042	0.071	0.326	0.004
1	SRM C1145a	2.92	0.187	0.215	0.191	0.271	0.46	0.62	0.63	(0.04)	0.058	0.48	.	(0.10)	0.012	0.112	.
2	**BS CC-22**	2.87	1.84	0.274	0.16	0.74	0.34	0.151	0.98	0.006	0.010	0.022	0.013	0.079	0.022	0.25	.
1	VS ChG 34	2.87	0.54	0.230	0.086	1.20	0.140	.	1.22	.	.	0.201	.	0.29	0.030	0.115	.
1	SCRM 664/4	2.84	0.57	0.44	0.112	2.71	.	.	(1)	.	.	.	.	.	.	.	.
1	11X C1Q	2.82	1.341	0.092	0.0349	1.40	0.154	0.556	0.335	0.069	0.0407	0.062	0.091	0.0248	0.196	0.1036	0.0051
1	CZ 20034 12a	2.82	0.996	0.480	0.073	2.57	0.160	0.174	0.640	0.077	0.004	0.114	.	0.041	0.085	0.340	(0.003)
1	KUT 201	2.77	0.74	0.024	(0.009)	1.71	0.10	2.47	2.90	.	.	0.13	.	(0.31)	.	.	.

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Co	Mo	Nb	Sn	Ti	V	Zn

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
CZ 02033 4c	.	.	.	.	.	.	.	.	0.003	(0.001)	.	.	.	.	40 mm Ø x 18 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
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 451043-10	.	.	.	.	.	.	.	.	.	0.12	.	.	.	.	30 mm Ø x 30 mm
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 C10C	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
CZ 02033 8c	(0.006)	.	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 33	.	.	0.116	.	.	.	.	.	.	.	.	.	.	.	~35 mm Ø x ~20 mm
VS ChG 35	.	.	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~40 mm
KUT 120	.	.	.	.	.	.	.	.	.	.	.	.	.	.	30 x 30 x 13 mm
SCRM 658/11	.	.	.	.	.	.	.	.	.	.	.	.	.	.	48 mm x 42 mm x 12 mm
SCRM 674	0.028	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm x 37 mm x 10 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
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
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
KUT 125	.	.	.	.	.	.	.	.	.	.	.	.	.	.	30 x 30 x 13 mm
VS ChG 31	.	.	0.068	.	.	.	.	.	.	.	.	.	.	.	~35 mm Ø x ~20 mm

Number	As	B	Bi	Ca*	Ce	La	Mg	N	Pb	Sb	Se	Te	W	Zr	Units
DSZU CH02	.	(0.016)	.	(10)	.	.	(0.002)	.	.	.	.	.	.	.	~35 mm Ø x ~18 mm
VS ChM 12	.	.	.	.	.	.	(0.08)	.	.	.	.	.	.	.	~38 mm Ø x ~38 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
KUT 203	.	.	.	.	.	.	.	.	.	.	.	.	.	.	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
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
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 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
BS CC-22	0.091	0.043	.	.	<0.002	<0.002	<0.001	(0.012)	0.001	0.059	.	0.034	0.012	0.026	32 mm Ø x 17 mm **25(pre-17025)**
VS ChG34	.	.	0.223	.	.	.	.	.	.	.	.	.	.	.	~35 mm Ø x ~20 mm
SCRM 664/4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	48 mm x 42 mm x 12 mm
11X C1Q	0.0105	0.054	0.0093	.	.	.	.	0.0095	0.0107	0.055	0.005	.	.	0.0072	~40 mm Ø x ~ 15 mm
CZ 20034 12a	0.022	0.036	0.005	.	.	.	.	.	0.007	0.046	.	.	0.011	(0.002)	40 mm Ø x 18 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	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	SCRM 656/8	2.61	0.823	0.062	0.107	2.59	.	.	(1)	.	.	.	.	.	.	.	.
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	11X C5W	2.52	0.846	0.080	0.096	2.09	1.80	1.595	1.111	0.0484	0.0558	0.471	0.0403	0.0371	0.054	0.089	(0.019)
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
2	BS 1B	2.50	1.89	0.026	0.035	1.85	0.013	2.12	0.79	0.015	0.20	0.175	0.021	0.010	0.057	0.113	.
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	11X C8U	2.50	0.424	0.831	0.154	1.38	0.259	0.175	0.360	(0.10)	0.081	0.128	0.031	0.080	0.071	0.0452	0.0051
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 654/4	2.28	0.74	0.130	0.170	1.635	.	.	(1)	.	.	.	.	.	.	.	.
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 |

Number	As	B	Bi	Ca*	Ce	Mg	N	Pb	Sb	Se	Te	W	Zr	Units
VS ChL4/1	.	.	.	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~38 mm
SRM C1291	.	.	.	.	.	.	.	.	.	.	.	.	.	32 mm Ø x 19 mm
VS ChG 6/9	(0.003)	.	.	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~38 mm
SCRM 656/8	.	.	.	.	.	.	.	.	.	.	.	.	.	48 mm x 42 mm x 12 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
11X C5W	0.0199	0.011	0.0108	.	.	.	0.0171	0.0295	0.0265	(0.005)	0.0010	0.0297	0.0050	~40 mm Ø x ~15 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
BS 1B	0.004	0.012	.	.	0.010	.	.	(0.001)	(0.001)	.	0.021	0.10	(0.002)	32 mm Ø x 17 mm
Y 2863-2	.	0.0025	.	.	.	.	.	.	.	.	.	.	.	30 mm Ø x 30 mm
11X C8U	0.077	0.0330	0.0164	Ag: 0.008	.	.	0.0032	0.0057	0.0631	0.0280	.	0.013	0.0040	~40 mm Ø x ~15 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 654/4	.	.	.	.	.	.	.	.	.	.	.	.	last	48 mm x 42 mm x 12 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	.	.	0.0078	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)	(0.000)	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 |

ALLOYED CAST IRON

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

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Mo	Pb	Sn	Ti	V	Mg	N
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	0.369	0.0047	0.098	0.449	2.57	1.17	.	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	11X 15294U	3.16	0.590	0.081	0.051	0.374	0.220	1.28	27.53	.	0.755	0.014	0.0633	.	0.144	.	.
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	SRM C1290	3.04	0.66	0.030	0.013	0.971	0.065	0.917	30.5	.	(0.041)	.	.	.	0.442	.	.
1	Y TSK205	3.03	0.16	0.041	0.088	1.65	0.35	0.37	30.35	.	0.22	.	.	.	0.077	.	0.108
1	Y 451054-2	3.00	1.42	0.133	0.016	0.56	0.324	1.43	7.23	.	2.48	.	.	0.015	0.88	.	.
1	11X 15309S *	3.0	1.5	0.04	0.06	1.4	0.5	0.9	23.2	.	0.25	.	.	.	0.06	.	.
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	BAS NIRM2	2.91	2.01	0.100	0.011	1.53	5.86	13.88	1.49	.	.	.	.	.	.	0.037	.
2	11X 20003K	2.91	1.53	0.174	0.007	3.03	0.52	17.8	2.53	.	.	.	.	.	.	.	.
1	11X S/1 Cr3J	2.91	0.861	0.072	0.023	1.07	9.01	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	.	.	.	.	.	.	.	.
2	11X S/2 Cr4D	2.82	0.97	0.049	0.010	2.59	0.24	20.7	1.10	.	.	.	.	.	.	.	.
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	11X 15310A	2.71	1.45	0.051	0.0278	0.892	2.64	5.66	21.22	.	0.980	.	.	.	0.071	.	.
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	.	.
2	11X S/3 Cr1D	2.61	0.7	0.046	0.011	2.52	0.19	31.7	0.15	.	.	.	.	.	.	.	.
1	11X S/1 Cr5G	2.58	1.315	0.114	0.033	1.494	3.90	17.45	3.74	.	.	.	.	.	.	.	.
1	Y TSK201	2.56	1.07	0.253	0.023	0.66	1.53	2.44	10.14	.	2.56	.	.	.	0.42	.	0.029
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	11X 15295Q	2.430	1.126	0.078	0.081	1.032	0.259	0.331	25.64	.	0.486	0.0093	0.0455	.	(0.169)	.	.
2	BAS CRRM3/1	2.42	0.85	0.068	0.059	0.82	1.21	1.28	17.48	0.084	1.65	.	.	0.021	0.022	.	.
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	.	.
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	.	.
2	11X S/3 Cr2C	2.30	0.85	0.045	0.010	2.59	0.21	31.0	2.62	.	.	.	.	.	.	.	.
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	.
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	.	.
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
1	VS ChG43	0.60	1.26	0.052	0.015	3.87	0.240	0.280	22.79	.	(0.02)	.	.	0.036	0.028	.	.

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Mo	Pb	Sn	Ti	V	Mg	N

Number	Ce	Co	Nb	W	Zr	Units	Other
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)	38 mm Ø x 19+ mm	**17025** Fe:[73.0] As:0.0040 N:0.111 O:0.0129
VS ChG41	.	.	.	.	.	~35 mm Ø x ~17 mm	
11X 15294U	.	0.237	.	0.35	.	~40 mm Ø x ~15 mm	
Y 451052-7	B:0.015	.	0.010	0.175	.	30 mm Ø x 30 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	
11X 15309S *	.	0.03	.	0.015	.	~40 mm Ø x ~15 mm	
Y 451052-2	B:0.142	.	0.182	1.99	.	30 mm Ø x 30 mm	
BAS NIRM5/1	0.016	.	0.15	.	.	48 mm x 42 mm x 12 mm	
BAS CRRM4/2	.	.	.	.	.	48 mm x 42 mm x 12 mm	
BAS NIRM2	0.017	.	.	.	.	40 mm x 37 mm x 10 mm	last of stock
11X 20003K	.	.	.	.	.	40 mm Ø x 15 mm	
11X S/1 Cr3J	.	.	.	.	.	~40 mm Ø x ~15 mm	
11X 20001K	.	.	.	.	.	40 mm Ø x 15 mm	
11X S/2 Cr1E	.	.	.	.	.	40 mm Ø x 15 mm	
11X S/2 Cr4D	.	.	.	.	.	40 mm Ø x 15 mm	
BAS NIRM 2/1	0.015	.	.	.	.	48 mm x 42 mm x 12 mm	
Y 451054-3	.	.	.	.	.	30 mm Ø x 30 mm	
11X 15310A	.	0.0709	.	0.137	.	40 mm Ø x ~15 mm	
VS ChG45	.	.	.	.	.	~35 mm Ø x ~17 mm	
11X 20002J	.	.	.	.	.	40 mm Ø x 15 mm	
BAS NCRM4	.	.	.	.	.	40 mm x 37 mm x 10 mm	
11X S/3 Cr1D	.	.	.	.	.	40 mm Ø x 15 mm	
11X S/1 Cr5G	.	.	.	.	.	~40 mm Ø x ~15 mm	
Y TSK201	.	.	.	.	.	35 mm Ø x 30 mm	
BAS NIRM3	0.007	.	0.09	.	.	40 mm x 37 mm x 10 mm	
11X S/3 Cr3B	.	.	.	.	.	40 mm Ø x 15 mm	
BAS NIRM6	0.003	.	.	.	.	40 mm x 37 mm x 10 mm	
11X 15295Q	.	0.494	0.070	0.219	.	~40 mm Ø x ~15 mm	
BAS CRRM3/1	.	.	.	.	.	40 mm x 37 mm x 10 mm	
Y 451052-3	B:0.102	.	0.149	1.57	.	30 mm Ø x 30 mm	
Y 451054-4	.	.	.	.	.	30 mm Ø x 30 mm	
11X S/3 Cr2C	.	.	.	.	.	40 mm Ø x 15 mm	
VS ChG42	.	.	.	.	.	~35 mm Ø x ~17 mm	
CKD 251	0.017	0.09	0.10	.	last	37 mm Ø x 22 mm	
Y TSK200	.	.	.	.	.	35 mm Ø x 30 mm	
BAS NIRM1	0.018	.	.	.	.	40 mm x 37 mm x 10 mm	
BAS NIRM7	0.005	.	.	.	.	40 mm x 37 mm x 10 mm	
Y 451052-4	B:0.086	.	0.071	1.05	.	30 mm Ø x 30 mm	
BAS NIRM4	0.011	.	0.37	.	.	40 mm x 37 mm x 10 mm	
BAS CRRM2/1	.	.	.	.	.	40 mm x 37 mm x 10 mm	
BAS CRRM1/1	.	.	.	.	.	40 mm x 37 mm x 10 mm	
Y 451054-5	.	.	.	.	.	30 mm Ø x 30 mm	
Y TSK202	.	.	.	.	.	35 mm Ø x 30 mm	
Y 451052-5	B:0.076	.	0.022	0.694	.	30 mm Ø x 30 mm	
Y 451054-6	.	.	.	.	.	30 mm Ø x 30 mm	
BAS NIRM8/1	0.013	.	.	.	.	48 mm x 42 mm x 12 mm	
VS ChG44	.	.	.	.	.	~35 mm Ø x ~17 mm	
Y TSK203	.	.	.	.	.	35 mm Ø x 30 mm	
Y 451052-6	B:0.055	.	0.014	0.370	.	30 mm Ø x 30 mm	
Y TSK204	.	.	.	.	.	35 mm Ø x 30 mm	
VS ChG43	.	.	.	.	.	~35 mm Ø x ~17 mm	

Number	Ce	Co	Nb	W	Zr	Units

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 FO19	4.04	1.05	1.05	0.032	0.057	.	.	.	.	.	.	.	.	.	.
CTIF FO12	3.71	1.86	0.44	0.038	0.004	0.77	.	.	0.008	.	.	0.011	.	.	.
CTIF FO8	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 FO6	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 FO10	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 FO11	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 FO18	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 FO5	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 FPA 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 FO17	3.01	2.48	0.475	0.470	0.168	(0.006)	0.021	(0.016)	.	0.032	.	0.024	0.032	0.018	.
CTIF FAL 1	3.0	1.0	0.2	0.04	<0.001	0.2	0.06	0.04	2.1	.	0.015	.	0.01	.	.
CTIF NR 3L	2.99	3.05	0.72	0.088	0.052	0.26	21.58	2.97	.	.	.	.	.	.	.
CTIF NH1	2.98	1.35	0.90	0.060	0.105	1.99	1.38	0.83	.	.	1.45	.	.	.	.
CTIF NH8	2.98	0.80	0.57	0.052	0.076	0.065	8.16	5.03	.	.	0.125	.	.	.	.
CTIF NR 3S	2.92	2.91	0.77	0.024	.	0.33	24.63	3.05	.	.	.	.	.	.	.
CTIF FT1	2.9	2.12	0.71	0.12	0.025	0.012	0.11	0.057	.	.	.	0.067	0.19	0.525	.

Number	C	Si	Mn	P	S	Cu	Ni	Cr	Al	Co	Mo	Sn	Ti	V	W
CTIF NR 8L	2.89	1.70	5.19	0.054	0.030	0.075	13.33	0.165	.	.	.	.	.	.	.
CTIF NH4	2.84	0.49	0.28	0.12	0.022	0.09	3.60	2.46	.	.	0.30	.	.	.	.
CTIF FO4	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 FO9	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 FO7	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 FO1	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 FO19	.	.	.	.	.	.	.	.	.	0.0005	.	
CTIF FO12	.	.	.	.	.	.	.	.	.	.	.	
CTIF FO8	.	.	.	.	.	.	.	.	.	.	.	
CTIF FCR7	.	.	.	.	.	.	.	.	.	.	.	
CTIF FO6	.	.	.	.	.	.	.	.	.	.	.	
CTIF FO10	.	.	.	.	.	.	.	.	.	.	.	
CTIF NH3	.	.	.	.	.	.	.	.	.	.	.	
CTIF FO11	.	.	.	.	.	.	.	.	.	.	.	
CTIF FO18	.	.	.	.	.	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 FO5	.	.	.	.	.	.	.	.	.	.	.	
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 FPA 1	0.0109	.	.	.	.	0.0125	.	.	.	.	.	
CTIF NR 8S	.	.	.	.	.	.	.	.	.	.	.	
CTIF FO17	.	.	.	.	.	.	.	.	.	.	.	
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 FO4	.	.	.	.	.	.	.	.	.	.	.	last of stock
CTIF FCR2	.	.	.	.	.	.	.	.	.	.	.	
CTIF FL5	.	(0.002)	.	(0.0005)	.	.	.	.	.	.	.	
CTIF FCR Ni3	.	.	.	.	.	.	.	.	.	.	.	
CTIF NH6	.	.	.	.	.	.	.	.	.	.	.	
CTIF FO9	.	.	.	.	.	.	.	.	.	.	.	
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 FO7	.	.	.	.	.	.	.	.	.	.	.	
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 FO1	.	.	.	.	.	.	.	.	.	.	.	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 Ni1	.	.	.	.	.	.	.	.	.	.	.	

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

ALLOY	ISO?	NUMBER
1.0812		ECRM 191-2D
1.2344		ECRM 271-1D
1.2367		HRT FE2012-H
1.2510		HRT FE2006-N
1.4765		ECRM 299-1D
1.5415		HRT FE2012-N
1.6587		HRT FE2013-N
1.7149 20MnCrS5		ECRM 187-2D
1.7160		ECRM 194-1D
1.8550		ECRM 129-3D
1.8519		HRT FE2010-N
1.8928		ECRM 194-2D
1005	17025	BS LC-6
1005		ECRM 064-2D
1005		IMZ 110
1005		RM Fe 1/4
1005		SRM 1765
1005		SRM 1766
1005		SS 111A
1008		ECRM 057-2D
1009		IMZ 71
100C6		IRSID 1747
1010		IMZ 111
1010		IRSID 1665
1011		IMZ 73
1017		IMZ 112
1017		IRSID 1664
1018		12X 10180A
1018		12X 10180B
1018		12X 10180C
1018	17025	BS 2931B
1018		ECRM 087-1D
1020	17025	BS 1020
1026	17025	BS 1026
1026		IARM 359A
1030	17025	BS 1030
1030		IARM 209D
1033		IRSID 1663
1035		IRSID 1645
1035		IARM 360A
1039		IRSID 1637
1040		12X 10400
1040		BS 3941
1040		IARM 210D
1040		IRSID 1657
1042		IRSID 1656
1043		IRSID 1652
1045		BS 56E
1045	17025	BS 56H
1045		IARM 200C
1045		IPT 503
1050		IARM 254A
1055		NM 3405.01
1060		IARM 373A
1069		ECRM 059-2D
1070		IRSID 1667
1078		ECRM 056-2D
1078		SRM 1224
1090		SS 602/2
1095		SRM 1227
1117	25(preceeded 17025)	BS 3993
1117		BS 65C
1140 P		BS 52D
1141		BS 66B
1144	17025	BS 1144
1144		IARM 199C
11L17	17025	BS 75F
11L17	17025	BS 75G
1215	17025	BS 66L
1215		IARM 206B
12L14	17025	BS 74C
12L14		IARM 183C
12Mn18Cr		BS 193
1345		BS XCCV
13-8PH		13X PH13800
13-8PH		BS 184A
13-8PH		CT X92834
1429		ECRM 058-2D
1513		IMZ 76
1526 MOD		SRM 1269
1533		IMZ 114
1541		IARM 349A
1541		IPT 504
1541		IRSID 1648
1544		IRSID 1644
1552		12X LA3
15-5PH		BS 185A
15-5PH		BS 9621
15-5PH		BS 9622
15-5PH		ECRM 273-1D
15-5PH		IARM 22C
17-4PH		13X PH17400
17-4PH		BS 17-4PHA
17-4PH		BS 17-4PHB
17-4PH		IARM 23D
17-4PH		SRM C2400
17-7PH		13X PH17700
17-7PH 25(preceeded 17025)		BS 192
17-7PH 25(preceeded 17025)		BS 192A
17-7PH		IARM 152C
182FM		BS 150
18Cr2Ni12Mn		CT ISO035A
201		BS 191
201		SRM 1297
20Cb3		BS 187A
20Cb3		CT 20 Cb-3
20MoCr4		ECRM 197-1D
2101		IARM 292A
21Cr6Ni9Mn		CT ISO129A
2205	17025	BS 2205
2205		IARM 212D
2304		IARM 317A
2507		IARM 301B
253 MA	25(pre-17025)	BS 253
253 MA		IARM 316A
254 SMO		13X 31254
254 SMO		IARM 302B
254 SMO		NILAB 501HAD
255, Duplex		IARM 239B
300M		12X 44220
300M	17025	BS 300
300M		IARM 340A
301		IARM 289A
301		IRSID 1819
302		IARM 241D
302 HQ		IARM 234C
303		13X 30300
303	17025	BS 303
303		CT 303
303		CZ SP-1A
303		IARM 1D
303 Se		IARM 253A
304		IARM 2H
304 H		13X NSB1
304 H		CT 304
304 H		SS 468/1
304 H		VS LG61
304 H + Mo		13X NSA2
304 L	17025	BS 304
304 L	17025	BS 304A
304 L		BS 304B
304 L		BS SS3951
304 L		BS SS3952
304 L		IARM 162D
304 L		ECRM 287-1D
304 L		ECRM 292-1D
304 L		IARM 162C
304 L		SS 463/1
305		CT 305
305		CT X52353
305		CT X63137
305		ECRM 297-1D
308		DSZU C017
309		13X 30908
309		BS 82D
309		BS 82E
309		IARM 3D
309		IARM 3E
310		13X 31008
310		BS 83D
310		BS 83G
310	25(pre-17025)	BS 9841
310	25(pre-17025)	BS 9842
310		CZ SL-3A
310		IARM 4D
310		IARM 4E
310		SS 464/1
3115		BS XCCT
314		IMZ 165
314		IMZ 166A
316	17025	BS 316C
316		IARM 5H
316		JK 27A D
316		NILAB 500HAD
316		SRM 1155A
316 H		CT 316
316 H		IARM 339A
316 L		13X 31603
316 L	17025	BS 316D
316 L	17025	BS 316E
316 L		CZ SL-2A
316 L		IARM 163E
316 L		SS 466/2
316 Ti		ECRM 284-2D
317 L		BS 317L
317 L	25(pre-17025)	BS 9941
317 L	25(pre-17025)	BS 9942
317 L		IARM 153C
318	17025	BS 2205
321		13X 32100
321		BS 321C
321		BS 85D
321		IARM 6H
321		SRM 1171
321		SS 465/1
321 - Ti		IMZ 152
321 H		BS 321A
330		IARM 7C
3310		BS 1972
347		13X 34700
347		BS 347A
347		BS 347B
347		IARM 8G
347 H		BS 87F
348		SRM 1172
355	17025	BS 355
355		IARM 335A
35MV7		IRSID 1750
405		SRM 1295
409 + Cr		NCS HS20743
410	25(pre-17025)	BS 0021
410	17025	BS 410C
410		CT 410
410		CT X23576
410		IARM 9D
410 + Mo		ECRM 296-1D
410 + Mo		IMZ 161
410 Cb		CT X68887
410 Cb		CT X68890
410 H		13X 41001
410, F6NM	25(pre-17025)	BS 0022
4130	17025	BS 4130
4130		IPT 501
4130		SRM 1225
4140		12X 41400
4140	25(pre-17025)	BS 1962
4140		IARM 30i
4140 Bi		BS 4140A
4140 Bi		BS 4140B
4142 Se		BS 4142SE
4150 Bi & S		BS 4150MOD
4150 S	17025	BS 42
4150 S		BS 42A
416		BS 90F
416		BS 416
416		CT 416
416		SRM 1223
416 H		13X 41600
416 Se		BS 151
41CAD7		IRSID 1749
41L40	17025	BS 70B
41L50	17025	BS 72B
42		CT ISO138A
42		CT ISO139A
420		BS SS4951
420		BS SS4952
420		ECRM 272-1D
420		IARM 154B
420		SS 469
420 F		BS 152
422	17025	BS 422
422		IARM 205D
430		BS 91F
430		NCS HS20742
430 F		BS 153
430 F		BS 154
431	17025	BS 431
431		BS 92B
431		IARM 12C
431		HRT FE2010-H
431		SRM 1219
4320		BS 3961
4330 MOD		BS 4330V
4340		BS 4340

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

ALLOY	ISO?	NUMBER
4340		BS 4340A
4340		BS 60C
4340		IARM 31F
4340 + Mn		BS 60D
440 C		13X 44004
440 C	17025	BS 93F
440 C		IARM 13D
440 F		BS 155
440F Se		BS 156
446		BS 94C
446		IARM 14C
4615		BS 3962
4620		BS 4620
4620		BS 51F
4620		IARM 33C
4620		IARM 33D
4820	17025	BS 4820A
5160		IMZ 116
6150		BS 4941
6150		IARM 34C
6418		BS 6418
6418		BS 69B
6526		BS 9-4-30
709		CT X67975
800	17025	BS 800
8620	17025	BS 8620C
8620		IPT 502
86L20	25(preceeded 17025)	BS 73B
86L20		IARM 182B
8740	17025	BS 67C
8740		IARM 252C
904L		13X NSA12
904L		ECRM 295-1D
9310		BS 58C
9310		BS 58E
9310		IARM 156C
9325	17025	BS 9325A
9-4-30		IARM 341A
A-10		BS A-10
A-11		BS 10V
A-11	17025	BS A-11
A-106 Gr B		SRM 1228
A-193 B16		BS 4942
A-193 B16		BS 4942A
A-2		BS 36D
A-2		CT A2
A-2		IARM 39B
A-20		BS 187C
A-242		IPT 500
A-242 Mod		SRM C1285
A-286		BS 188A
A-286	17025	BS 188B
A-286		SRM 1230
A-36	17025	BS 2931B
A-36		IARM 213C
A-36		SRM 1767
A-485-1		BS A485-1
A-6		BS 40B
A-6		IARM 40B
A-6		IARM 40C
A-6F		CT X56617
A-6F		CT X60937
A-6F		CT X62730
Aermet 100		CT ISO045A
Aermet 100		IARM 242A
AL6XN	17025	BS 189A
C-.5Mo		BS 3952
C-.5Mo		IARM 229B
C-250		IARM 308A
C-350		IARM 309A
CA6NM		HRT FE2009-H
CA6NM		IARM 327A
CD3MN		13X NSA1
CD3MN		13X NSA5
CD3MN		ECRM 298-1D
CD4MCu		SRM C2401
CD6MN		VS LG58
CF-3		IRSID 1820
CF8M		13X 12534
CLA1		IARM 164A
CLA11		IARM 180A
CLA5		IARM 168A
CLA9		IARM 172A
CPM15V	17025	BS PM15
Custom 450	25(pre-17025)	BS 9811
Custom 450	25(pre-17025)	BS 9812
Custom 450		CT 450
Custom 450		IARM 15B
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
D-7		14X HS9
Duplex		13X NSA9
Duplex	17025	BS 2205
Duplex		IMZ 163A
Duplex		IMZ 164
E52100		BS 2952
E52100		BS 53G
E52100		IARM 49D
E52100 Bi		BS 53MOD
Elect./ Magnetic		SRM 1159
Electrolytic		SRM 1265a
F-11	25(preceeded 17025)	BS 1981
F-11		BS 45A
F-11		IARM 35K
F-2		CT X27081
F-2		CT X35568
F-22	25(preceeded 17025)	BS 1982
F-22		SRM 1270
F-22 + Cr		HRT FE2009-N
F-5		BS 47A
F-5		BS 47B
F-51	17025	BS 2205
F-9	17025	BS 48B
F-91	25(preceeded 17025)	BS 9905
Ferallium 255	17025	BS 179B
Ferallium 255	17025	BS 179C
Greek Ascoloy		BS 183A
Greek Ascoloy		IARM 20B
Greek Ascoloy		IARM 20C
H-10		BS 49
H-11		ECRM 276-2D
H-11		IARM 255A
H-11		IMZ 173
H-13	17025	BS H-13
H-13		CT H13
H-13		IMZ 174
H-19	17025	BS H-19
HC 250+V		SRM C1290
High Perm		CT ISO124A
High Perm		CT ISO136A
High Perm 49		CT ISO141A
HSLA 100		SRM 1271
HY 130		SRM 1226
HY 80		SRM 1286
Hy-Tuff		IARM 342A
Invar		14X 93603
Invar-36 + Se		BS 186A
Invar-36 + Se		IARM 24B
ISO 898-1		SS 457/2
KOVAR	17025	BS 160A
KOVAR		IARM 98B
L-2, 6150		BS 43A
L-6	17025	BS 39B
L-6		IARM 43B
LDX2101		13X 32101
LF-2		BS 2931B
LF-2	17025	BS LF2B
LF-2		ECRM 096-2D
LF-2		SS 601/2
LF-3		BS LF3
M-1		CT M1
M-1		IARM 304A
M-10		CT M10
M-10		IARM 324A
M-152		13X 64152
M-152		IARM 291A
M-2		14X 14892
M-2		CT M2
M-2		IARM 44C
M-2		SRM 1157
M-35		IARM 320A
M-4		IARM 251A
M-42		SS 487/1
M-47	17025	BS M-47
M-50	17025	BS M-50
M-50		IARM 306B
M-7		CT M7
Maraging 250		CT 250
Maraging 300		CT 300
Maraging 300		IARM 99B
MaragingA538C	25(pre17025)	BS 161A
Mold Steel	17025	BS PP20
Nitriding 135G	17025	BS 68E
Nitriding 135G		BS 68D
Nitronic 40		13X NSC6
Nitronic 40		BS 190
Nitronic 40		IARM 19C
Nitronic 50		BS 180A
Nitronic 50		IARM 17D
Nitronic 60		13X 21800
Nitronic 60		BS 181A
Nitronic 60		BS 181B
Nitronic 60		IARM 18C
NMS 100		IARM 214A
NMS 140		IARM 295A
NMS J38		IARM 294A
O-1	17025	BS 35D
O-1		CT O1
O-6	17025	BS 41
O-6	25(preceeded 17025)	BS 41A
O-6		IARM 45A
O-6		IARM 45B
P-6, HY100		BS 1972
P-20		BS 55G
PP-20	17025	BS PP20
Permendur 2V		IARM 326A
RA330		BS 86F
S-1		BS 33D
S-1		BS 33E
S-1		IARM 46B
S-5		BS 38C
S-5		IARM 47B
S-7		IARM 259A
S-7		SRM 1772
SA213-T22		IMZ 159
SA213-T22		IMZ 160
SA213-T22		IMZ 169
SAE G2500		BS 20E
STA 361		IARM 268B
T-1		14X HS1
T-1	17025	BS 30D
T-1		IARM 48C
T-15		BS TS15
VM12		IMZ 196
W-5		14X 72305
Z30C13		IRSID 1825
Zeron 100, Duplex		13X NSA8
Zeron 100, Duplex		IARM 319A

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

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.

CARBON STEEL SPECIFICATIONS

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

| Number | C | Mn | P | S |

CARBON STEEL SPECIFICATIONS

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

| Number | C | Mn | P | S | Si |

RESULFURIZED STEEL SPECIFICATIONS

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

| Number | C | Mn | P | S |

These are specifications, not samples for sale.

LOW ALLOY STEEL SPECIFICATIONS

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

Number C Mn P S Si Ni Cr Mo Pb Other

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	0.20-0.50	.	4.00-4.75	4.00-4.50	0.30-0.55	1.75-2.20	3.75-4.50	
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 |

These are specifications, not samples for sale.

STAINLESS AND HIGH ALLOY STEEL SPECIFICATIONS

* notes optional chemistry

Number	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	N	Nb	Other
13-8PH	<0.05	<0.20	<0.01	<0.008	<0.10	.	7.50-8.50	12.25-13.25	2.00-2.50	<0.01	.	Al: 0.90-1.35
15-5PH	<0.07	<1.00	<0.04	<0.03	<1.00	2.50-4.50	3.50-5.50	14.00-15.50	.	.	0.15-0.45	
17-4PH	<0.07	<1.00	<0.04	<0.03	<1.00	3.00-5.00	3.00-5.00	15.00-17.50	.	.	0.15-0.45	
201	<0.15	5.5-7.5	<0.060	<0.03	<1.00	.	3.50-5.50	16.00-18.00	.	<0.25	.	
202	<0.15	7.5-10.0	<0.060	<0.03	<1.00	.	4.00-6.00	17.00-19.00	.	<0.25	.	
301	<0.15	<2.00	<0.045	<0.03	<1.00	.	6.00-8.00	16.00-18.00	.	.	.	
302	<0.15	<2.00	<0.045	<0.03	<1.00	.	8.00-10.00	17.00-19.00	.	.	.	
302B	<0.15	<2.00	<0.045	<0.03	2.00-3.00	.	8.00-10.00	17.00-19.00	.	.	.	
303	<0.15	<2.00	<0.20	>0.15	<1.00	.	8.00-10.00	17.00-19.00	<0.60*	.	.	Zr: <0.60*
304	<0.08	<2.00	<0.045	<0.03	<1.00	.	8.00-10.50	18.00-20.00	.	.	.	
304L	<0.03	<2.00	<0.045	<0.03	<1.00	.	8.00-12.00	18.00-20.00	.	.	.	
305	<0.12	<2.00	<0.045	<0.03	<1.00	.	10.00-13.00	17.00-19.00	.	.	.	
308	<0.08	<2.00	<0.045	<0.03	<1.00	.	10.00-12.00	19.00-21.00	.	.	.	
309	<0.20	<2.00	<0.045	<0.03	<1.00	.	12.00-15.00	22.00-24.00	.	.	.	
310	<0.25	<2.00	<0.045	<0.03	<1.50	.	19.00-22.00	24.00-26.00	.	.	.	
314	<0.25	<2.00	<0.045	<0.03	1.50-3.00	.	19.00-22.00	23.00-26.00	.	.	.	
316	<0.08	<2.00	<0.045	<0.03	<1.00	.	10.00-14.00	16.00-18.00	2.00-3.00	.	.	
316	<0.08	<2.00	<0.045	<0.03	<1.00	.	10.00-14.00	16.00-18.00	2.00-3.00	.	.	
316L	<0.03	<2.00	<0.045	<0.03	<1.00	.	10.00-14.00	16.00-18.00	2.00-3.00	.	.	
321	<0.08	<2.00	<0.045	<0.03	<1.00	.	9.00-12.00	17.00-19.00	.	.	.	Ti: >5xC
347	<0.08	<2.00	<0.045	<0.03	<1.00	.	9.00-13.00	17.00-19.00	.	.	>10xC	
348	<0.08	<2.00	<0.045	<0.03	<1.00	.	9.00-13.00	17.00-19.00	.	.	>10xC	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	.	

Number C Mn P S Si Cu Ni Cr Mo N Nb Other

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