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PURE IRON

= class, where 1 = CRM and 2 = RM * Provisional Analysis **17025** 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	CZ LA-0B	(0.003)	0.038	0.0037	0.0023	(0.0043)	0.0074	0.0070	0.009	(0.0016)	(0.0010)	(0.0017)	0.0027	.
1	IARM 27G	(0.003)	(0.003)	(0.003)	0.0011	(0.07)	0.040	0.045	0.043	(0.002)	(0.0013)	(0.0009)	(0.0003)	0.025
1	**BS LC-7B**	0.0025	0.024	0.013	0.0029	(0.005)	0.0033	0.0081	0.0090	0.0034	0.0194	0.0018	0.0043	0.0020
1	**BS LC-7A**	0.0025	0.023	0.013	0.0030	0.0056	0.0038	0.0058	0.0074	0.0034	0.0194	0.0017	0.0043	(0.005)
1	**BS 50G**	0.0023	0.010	0.0088	0.0033	0.009	0.007	0.0045	0.008	(0.001)	0.008	0.0011	0.0019	0.0030
1	VS RG24/1	0.0022	0.015	0.0027	0.0069	0.017	0.011	0.037	0.037	0.0013	.	0.012	.	.
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	BS 50D	0.0020	0.0008	0.0014	0.00024	0.0018	0.0004	0.0012	0.0003	(0.00004)	(0.0040)	0.0026	0.0024	0.0220
1	ECRM 098-1D	0.00051	0.00008	(0.00006)	0.00031	0.00048	.	.	0.00571	0.00085	.	.	0.00024	.
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
CZ LA-0A	(0.0015)	.	.	Sb:(0.0007)	(0.001)	(0.001)	0.001	.	.	disc ~37 mm Ø x 25 mm
CZ LA-0B	0.0024	.	.	.	.	(0.0013)	.	.	.	disc ~39 mm Ø x ~25 mm
IARM 27G	(0.0016)	(0.0006)	(0.0002)	(0.002)	(0.002)	(0.001)	<0.005	(0.001)	<0.005	disc 31 mm Ø X 2 or 18 mm
BS LC-7B	0.0026	(0.0001)	(0.00008)	0.0007	(0.0003)	(0.0007)	(0.0001)	(0.0004)	(0.0006)	disc 38 mm Ø x 38 mm Fe:99.9
BS LC-7A	0.0024	(0.0001)	(0.0001)	(0.0005)	(0.0004)	(0.0007)	0.0004	(0.0004)	(0.0005)	disc 38 mm Ø x 38 mm Fe:99.9
BS 50G	0.0034	(0.0001)	(0.0002)	(0.0004)	(0.00007)	Sb:0.0005	(0.003)	(0.0003)	.	disc 38 mm Ø x 38 mm Fe:99.9
VS RG24/1	.	.	.	.	.	.	0.0010	.	.	disc ~45 mm Ø x ~28mm last
TL 1669 **	0.0017	0.00038	.	0.00046	0.00013	0.0071	0.0504	(0.0006)	.	disc 38 mm Ø x 25 mm
BS 50D	(0.0001)	0.00004	0.00005	0.0002	0.00005	<0.0001	0.0001	0.0004	(0.0002)	disc 35 mm Ø x ~7 to 19+mm
ECRM 098-1D	.	.	.	.	.	.	.	.	.	octagon 35 mm Ø x 25 mm
ECRM 097-2D	0.00281	0.00012	Sb:0.00012	Ta:0.00015	Zn:0.00014	0.00043	.	0.00011	0.00386	disc 38 mm Ø x 25 or 30 mm

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

RM CARBON STEEL XRF SET

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

Grade	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Al	As	Co	N	Sn	V
Pure Iron	**BS 50F**	0.0064	0.082	0.0066	0.0031	0.016	0.0088	0.016	0.022	0.0017	0.003	0.0013	0.0023	0.0042	0.0010	(0.0003)
1018	**BS 1018**	0.195	0.79	0.012	0.024	0.237	0.130	0.104	0.177	0.044	0.029	0.0041	0.0058	0.0079	0.0099	0.0009
1020	BS 57F	0.196	0.554	0.009	0.027	0.202	0.197	0.070	0.120	0.018	(0.002)	(0.006)	0.007	0.0077	0.008	0.063
1026	BS 4932	0.234	0.76	0.010	0.015	0.25	0.15	0.080	0.144	0.033	(0.001)	(0.005)	0.005	0.0080	0.008	0.060
1035	BS 4931	0.352	0.80	0.011	0.016	0.27	0.217	0.070	0.093	0.024	(0.001)	0.005	0.006	0.0080	0.009	0.058
1040	**BS 3941**	0.407	0.802	0.016	0.023	0.257	0.053	0.018	0.069	0.0061	0.0019	0.0036	0.0042	0.0069	0.0019	0.0025
1045	BS 56E	0.483	0.72	0.010	0.025	0.24	0.015	0.015	0.021	0.005	0.062	0.0035	0.005	0.0056	(0.0006)	(<0.002)
1095	BS 64C	0.920	0.22	0.015	0.0024	0.22	0.016	0.038	0.261	0.008	(0.005)	.	0.004	0.0084	(0.001)	0.005
1522 (LF2)	BS 2932	0.208	1.20	0.008	0.020	0.186	0.060	0.034	0.077	0.026	0.022	(0.003)	0.004	0.0080	0.005	0.001
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)

CRM CARBON STEEL SET

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

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

CRM SOLUBLE ALUMINUM AND SOLUBLE BORON STEEL SET

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

Number	Al.T	Al.S	B.T	B.S	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo
NCS HS93703-1a	0.59	0.58	0.036	0.034	1.04	2.10	0.023	0.030	0.650	0.033	0.063	4.05	0.0088	0.0040
NCS HS93703-2	0.92	0.91	0.0083	0.0080	0.055	0.021	0.027	0.0033	0.827	0.422	1.09	3.09	0.262	1.56
NCS HS93703-3	0.107	0.103	0.0041	0.0037	0.792	1.34	0.013	0.038	1.09	0.532	0.533	2.11	0.488	0.397
NCS HS93703-4	0.083	0.078	0.0050	0.0048	0.475	0.612	0.015	0.015	2.57	0.687	2.01	1.31	0.403	0.977
NCS HS93703-5	(1.29)	(1.27)	0.0017	0.0015	0.651	1.53	0.036	0.0052	0.024	0.236	2.98	0.021	0.094	0.631
NCS HS93703-6	0.64	0.63	0.0033	0.0030	0.246	0.211	0.045	0.0058	0.274	0.092	3.83	0.505	0.145	0.203

Number	As	Bi	Ca	Nb	Pb	Sb	Sn	Ti	V	W	Zr
NCS HS93703-1a	0.034	0.0013	(0.0001)	0.300	(0.0001)	(0.0004)	0.0035	0.069	0.021	0.313	(0.0005)
NCS HS93703-2	0.0034	0.0006	0.0010	0.254	0.0008	0.0020	0.0069	0.346	0.376	1.97	0.087
NCS HS93703-3	0.0019	0.0004	0.0010	0.506	0.0007	0.0040	0.054	0.016	0.071	0.755	0.014
NCS HS93703-4	0.056	(0.0002)	(0.0001)	0.167	0.0006	0.0095	0.012	0.035	0.709	1.48	0.069
NCS HS93703-5	0.0064	0.0015	0.0007	0.0057	0.0007	0.010	0.015	0.111	0.231	0.050	0.41
NCS HS93703-6	0.011	(0.0002)	(0.0001)	0.070	0.0011	0.0006	0.017	0.246	0.526	1.04	0.22

CARBON STEEL

CONTINUED ON THE NEXT PAGE

= Class, where 1 = CRM and 2 = RM

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Als	As	B	Ca	Co	Mo
1	IRSID 1660	1.20	0.280	0.014	0.010	0.173	0.059	0.072	(0.026)	(0.009)	.	.	.	.	.	.
1	ECRM 090-1D	1.05	0.226	0.013	0.0095	0.281	.	0.053	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	**BS 54H**	0.737	0.829	0.0030	0.0044	0.521	0.046	0.373	0.369	0.032	.	0.0036	(0.0001)	(0.0001)	0.0030	0.0106
1	VS RG28	0.70	0.84	0.031	.	1.161	0.050	0.154	0.135	0.066	.	.	.	.	.	0.090
1	VS RG28/1	0.68	0.91	0.031	0.0071	2.36	0.040	0.168	0.194	0.068	.	.	.	.	0.072	0.104
1	IARM 373A	0.63	0.70	0.0123	0.031	0.22	0.107	0.048	0.096	0.002	.	0.0046	0.0003	0.0005	0.005	0.0176
1	VS UG20/6	0.58	0.473	(0.008)	(0.02)	0.229	0.249	0.360	0.396	.	.	.	.	.	.	.
1	SS 435/1	0.52	0.41	0.033	0.031	0.54	.	0.060	0.14	.	.	.	.	.	.	.
1	SS 435/2	0.489	0.390	0.037	0.042	0.328	.	0.133	0.184	.	.	.	.	.	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 1045**	0.458	0.796	0.0069	0.023	0.215	0.190	0.060	0.108	(0.001)	.	0.0050	(0.0003)	0.0013	0.0056	0.0170
1	IARM 200D	0.453	0.749	0.0103	0.024	0.225	0.232	0.097	0.109	(0.004)	.	0.0050	.	.	0.007	0.0217
1	VS UG123	0.45	0.552	0.016	0.026	0.216	0.196	0.084	0.111	0.024	.	.	.	.	.	.
1	IRSID 1657	0.445	0.724	0.028	(0.013)	0.274	.	0.048	(0.022)	0.004	.	0.0051	.	.	.	(0.008)
1	NM 306	0.44	0.80	0.043	0.042	0.34	.	.	0.26	.	.	.	.	.	.	.
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	NM EN-8	0.42	0.82	0.02	0.02	0.21	.	.	.	.	.	.	.	.	.	.
1	IRSID 1642	0.418	0.929	0.031	(0.031)	0.388	0.097	0.068	(0.035)	(0.020)	.	(0.042)	.	.	.	(0.009)
1	IRSID 1647	0.418	0.701	0.019	(0.027)	0.299	(0.104)	0.093	0.490	(0.060)	(0.0555)	.	.	.	.	.
1	IARM 210D	0.412	0.73	0.0052	0.030	0.230	0.273	0.122	0.096	(0.002)	.	0.0059	0.0004	0.0009	0.007	0.034
1	SS 434/1	0.41	1.49	0.050	0.027	0.31	.	0.044	0.055	.	.	.	.	.	.	.
1	IARM 349A	0.41	1.49	0.011	0.025	0.192	0.300	0.178	0.189	0.0020	.	0.005	0.0003	0.0015	0.0085	0.059
1	**BS 3941**	0.407	0.802	0.016	0.023	0.257	0.053	0.018	0.069	0.0019	.	0.0036	(0.0001)	0.0011	0.0042	0.0061
1	IRSID 1652	0.406	0.931	(0.017)	0.040	0.386	0.345	0.190	0.184	.	(0.0013)	0.038	.	.	.	(0.042)
1	IRSID 1637	0.401	0.940	0.030	0.030	0.378	0.097	0.068	(0.033)	0.022	.	0.042	.	.	.	(0.006)
1	SS 605/2	0.400	0.345	0.054	0.015	0.54	(0.06)	(0.05)	(0.06)	0.027	.	.	.	.	(0.008)	(0.01)
1	IRSID 1644	0.394	0.594	0.021	0.031	0.287	0.265	0.158	0.138	(0.017)	.	.	.	.	.	.
1	ECRM 084-1D	0.391	0.860	.	0.029	0.265	0.267	0.154	.	.	.	.	.	.	.	0.033
1	IRSID 1649	0.384	0.930	0.045	(0.047)	0.250	0.418	0.226	0.321	0.004	.	0.037	.	.	.	0.043
1	SS 460/2	0.383	0.616	0.0374	0.0099	0.126	.	.	.	0.024	(0.019)	.	0.0027	.	0.0106	.
1	VS RG30	0.38	0.357	.	0.013	0.45	0.161	0.62	3.06	.	.	.	.	.	0.50	0.62
1	**BS 1035**	0.362	0.758	0.0100	0.028	0.246	0.241	0.123	0.151	0.0008	.	0.0051	(0.0002)	0.0017	0.0073	0.049
1	IRSID 1655	0.355	1.018	(0.018)	(0.060)	0.443	0.415	0.188	0.157	(0.004)	.	(0.036)	.	.	.	(0.043)
1	IRSID 1663	0.353	0.967	0.0090	0.034	0.235	0.180	0.148	0.206	0.037	.	0.028	.	.	.	0.042
1	VS UG90	0.34	0.286	0.0079	0.012	0.221	0.200	0.265	0.261	0.037	0.032	0.0044	.	.	.	0.046
1	VS UG19/6	0.34	0.274	(0.03)	(0.03)	0.136	0.148	0.262	0.227	.	.	.	.	.	.	.
1	IARM 360A	0.331	0.733	0.008	0.023	0.260	0.235	0.078	0.113	0.0016	.	0.0060	0.0004	0.0017	0.0067	0.024
1	**BS 1030**	0.331	0.682	0.0101	0.0299	0.261	0.269	0.078	0.124	0.0014	.	0.0055	0.0003	0.0012	0.0069	0.0182
1	IARM 209D	0.322	0.68	0.0084	0.021	0.268	0.243	0.079	0.137	(0.003)	.	0.0060	0.0002	0.002	0.007	0.037
1	IRSID 1653	0.312	0.962	0.034	(0.039)	0.400	0.453	0.218	0.358	<0.004	.	(0.039)	.	.	.	(0.038)
1	VS RG27	0.30	0.91	0.054	0.0032	0.42	0.188	0.135	1.53	0.88	.	.	.	.	0.071	0.222
1	SS 434/2	0.275	1.54	0.061	0.0141	0.51	.	0.037	0.238	.	.	.	.	.	.	.

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Als	As	B	Ca	Co	Mo
1	IRSID 1654	0.270	0.979	0.036	(0.047)	0.354	0.441	0.241	0.328	.	.	0.040	.	.	.	(0.043)
1	IARM 359A	0.267	0.686	0.0094	0.020	0.233	0.186	0.068	0.121	0.002	.	0.0073	0.0003	0.0013	0.0069	0.023
1	**BS 1026**	0.260	0.715	0.0171	0.0191	0.268	0.247	0.096	0.163	0.0330	.	0.0100	(0.0002)	0.0017	0.0072	0.0289
1	VS UG94	0.26	0.186	0.0037	0.0026	0.101	0.088	0.178	0.206	0.017	.	.	.	.	.	0.0005
1	VS UG18/6	0.242	0.213	(0.003)	(0.003)	0.20	0.063	0.273	0.237	.	.	.	.	.	.	.
2	HRT FE2016-N	0.23	0.85	0.015	0.011	0.32	0.02	0.15	0.21	0.033	.	.	.	.	.	.
1	**BS 1020**	0.210	0.568	0.0058	0.0249	0.250	0.184	0.059	0.109	0.0006	.	0.0074	(0.0001)	0.0022	0.0070	0.018
1	IARM 213C	0.201	0.922	0.007	0.025	0.25	0.149	0.068	0.099	0.0019	.	0.0058	0.0003	0.0014	0.0074	0.022
1	IRSID 1664	0.2008	0.472	0.0106	0.0259	0.0616	0.0820	0.0547	0.0707	.	0.0193	0.0115	(0.0002)	(0.0005)	(0.0084)	0.0157
1	VS RG25/1	0.196	0.29	0.019	0.0088	0.100	0.065	0.037	0.060	0.067	.	.	.	.	0.012	0.010
1	**BS 1018**	0.195	0.79	0.012	0.024	0.237	0.130	0.104	0.177	0.029	.	0.0041	(0.0002)	(0.0004)	0.0058	0.044
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	IARM 28K	0.174	0.80	0.012	0.027	0.291	0.171	0.0638	0.107	(0.0025)	.	(0.005)	0.0005	.	0.0060	0.0210
1	**BS 1016**	0.172	0.77	0.011	0.030	0.193	0.153	0.107	0.091	0.0200	.	0.0066	(0.0003)	(0.0004)	0.0193	0.040
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	12X 10180B	0.169	0.722	0.0101	0.0056	0.114	0.0544	0.0333	0.0451	0.043	.	0.0059	.	.	.	0.0062
2	TL 1000	0.1692	1.4281	0.0142	0.0164	0.2258	0.0120	0.0312	0.0635	0.0226	.	(0.0016)	0.00018	0.00039	0.0042	0.0076
1	VS RG25	0.167	0.131	0.014	.	0.084	.	0.046	0.057	0.015	.	.	.	.	.	0.0028
1	VS UG124	0.165	1.41	0.019	0.032	0.384	0.020	0.015	0.035	0.039	.	.	.	.	.	.
1	VS UG109	0.161	0.353	0.020	0.0037	0.151	0.082	0.0053	0.048	0.0093	.	.	.	.	.	.
1	IARM 213D	0.158	0.725	0.0120	0.031	0.226	0.207	0.076	0.093	(0.003)	.	(0.006)	(0.0004)	.	0.009	0.0131
1	SS 456/3	0.1215	0.2121	0.0228	0.0246	0.267	.	0.0174	0.0257	0.0393	.	.	0.0014	.	0.0520	0.0013
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	0.096	1.188	0.011	0.0083	0.007	.	0.037	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 UG125	0.086	1.147	0.0044	0.0021	0.554	0.147	0.230	0.102	.	.	.	.	.	.	.
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	NM 305	0.034	0.270	0.011	0.007	0.031	.	.	0.025	.	.	.	.	.	.	.
1	ECRM 083-2D	0.0315	0.2160	0.0106	0.00561	0.00747	0.0127	0.0116	0.0219	0.0784	.	0.00177	.	.	0.00236	.
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	VS RG26	0.028	0.75	0.0037	.	0.173	0.011	.	0.025	0.30	.	.	.	.	.	0.015
1	SS 431/2	0.0249	0.902	0.121	0.0065	0.015	.	0.040	0.049	.	.	.	.	.	.	.
1	VS UG2/11	0.020	0.024	0.0029	0.0031	0.075	0.0120	0.0045	0.021	0.034	.	.	.	.	.	.
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	**BS 1005**	0.008	0.219	0.0118	0.0088	0.050	0.011	0.012	0.029	0.026	.	(0.003)	(0.0002)	(0.005)	0.0026	0.0033
1	**BS 1009**	0.008	0.212	0.0118	0.0086	0.048	0.011	0.0129	0.028	0.026	.	0.0011	(0.0002)	0.0033	0.0020	(0.003)
1	SS 111/1	0.0070	0.1623	0.0045	0.0049	0.0039	0.0089	0.0161	0.0055	.	.	0.0011	.	.	0.0053	0.0005
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	SS 432/2	0.0065	0.712	0.017	0.036	0.082	.	0.0196	0.016	.	.	.	.	.	.	.
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

#	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
BS 54H	0.0039	(0.0003)	(0.001)	(0.001)	(0.001)	0.0030	0.0009	0.0008	(0.003)	Fe:97.0	(0.0008)	44 mm Ø x 19+ mm **17025**
VS RG28	.	0.029	.	.	.	.	0.0041	0.022	0.006	.	.	~45 mm Ø x ~28 mm
VS RG28/1	.	0.041	.	.	.	.	0.022	0.035	0.0041	.	.	~45 mm Ø x ~28 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
SS 435/1	.	0.039	.	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm
SS 435/2	.	0.134	.	.	.	.	.	.	.	.	.	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 to 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 1045	0.0113	0.026	0.0040	(0.0005)	0.0017	0.0084	0.0011	(0.002)	(0.0007)	Fe:98.1	(0.0009)	38 mm Ø x ~7 or 19+ mm **17025**
IARM 200D	0.009	0.0010	.	.	.	0.0079	(0.0013)	0.0244	(0.003)	.	.	31 mm Ø X 2 or 18 mm
VS UG123	0.0078	.	.	.	.	.	.	0.0019	.	.	.	~45 mm Ø x ~25 mm
IRSID 1657	.	.	.	.	.	.	.	(0.001)	.	.	.	42 mm Ø x 30 mm
NM 306	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 25 mm last
IRSID 1648	.	.	.	.	.	0.033	.	.	.	.	.	40 mm Ø x 28 mm
NM EN-8	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 20 mm
IRSID 1642	.	.	.	.	.	.	.	(0.002)	.	.	.	45 mm Ø x 30 mm
IRSID 1647	.	.	.	.	.	.	.	.	.	.	.	41 mm Ø x 30 mm
IARM 210D	0.011	0.001	0.0034	0.001	0.002	0.010	0.0104	0.024	(0.002)	.	(0.001)	31 mm Ø x 2 or 18 mm
SS 434/1	.	0.078	.	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm
IARM 349A	0.0100	0.0012	0.003	(0.001)	(0.003)	0.015	0.0013	0.027	0.004	(0.003)	(0.002)	31 mm Ø x 2 or 18 mm
BS 3941	0.0069	0.033	0.0055	0.0010	0.0005	0.0019	0.0017	0.0025	(0.0004)	last	(0.0003)	41 mm Ø x ~7 mm **17025**
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 1649	.	.	.	.	.	0.028	.	.	.	.	.	40 mm Ø x 28 mm
SS 460/2	.	0.068	.	0.0005	(0.0006)	.	.	0.0322	.	.	(<0.0005)	38 mm Ø x 19 mm
VS RG30	.	0.139	.	.	.	.	.	0.63	0.91	.	.	~45 mm Ø x ~28 mm
BS 1035	0.0105	(0.001)	0.0036	(0.001)	(0.002)	0.0027	0.0007	0.026	0.0020	Fe:97.9	(0.0009)	40 mm Ø x ~7 or 19+ mm **17025**
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	last	(0.0002)	38 mm Ø x ~7 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
VS RG27	.	.	.	.	.	.	.	0.064	0.170	.	.	~45 mm Ø x ~28mm
SS 434/2	0.0104	0.038	.	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm

Number	N	Nb	O	Pb	Sb	Sn	Ti	V	W	Zn	Zr	Units
IRSID 1654	.	.	.	.	.	0.030	.	.	.	.	.	40 mm Ø x 34 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
HRT FE2016-N	0.0055	.	.	.	.	.	.	.	.	.	.	35 mm Ø x 20 mm
BS 1020	0.0109	(0.0003)	0.0046	(0.0002)	(0.0018)	0.0090	(0.0005)	0.0363	(0.0004)	.	(0.0005)	44 mm Ø x ~7 or 19+ mm **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 mm
IRSID 1664	0.0072	(0.0002)	.	0.0002	0.0012	0.0108	0.0013	(0.0005)	<0.002	(0.0007)	(0.0001)	37 mm Ø x 30 mm
VS RG25/1	.	0.016	.	.	.	.	0.055	0.0110	.	.	.	~45 mm Ø x ~28 mm
BS 1018	0.0079	(0.0006)	0.0014	(0.0006)	(0.001)	0.0099	0.0009	0.0009	0.0014	Fe:98.2	(0.001)	38 mm Ø x ~7 or 19+ mm **17025**
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
IARM 28K	(0.008)	0.0017	(0.005)	.	.	0.0075	(0.0015)	(0.0014)	.	.	.	31 mm Ø x 2 or 18
BS 1016	0.0113	(0.0009)	(0.003)	(0.004)	Fe:98.4	0.013	0.0010	0.0011	(0.0013)	**17025**	(0.001)	Hexagon ~60 mm Ø x 19+ mm
12X 10180C	0.0052	.	.	.	.	0.0024	.	.	.	0.0005	.	~40 mm Ø x ~15 mm
12X 10180B	0.0071	.	.	.	.	0.0065	.	.	.	0.0079	.	~40 mm Ø x ~15 mm
TL 1000	(0.0093)	0.0293	.	Mg:(0.00005)	.	(0.00106)	0.0011	(0.0033)	(0.0002)	.	.	36 mm Ø x 20 mm
VS RG25	.	.	.	.	.	.	0.039	.	.	.	.	~45 mm Ø x ~28 mm
VS UG124	0.0072	.	.	.	.	.	.	0.0043	.	.	.	~45 mm Ø x ~25 mm
VS UG109	.	.	.	.	.	.	0.071	.	.	.	.	~45 mm Ø x ~25 mm
IARM 213D	(0.008)	(0.0012)	(0.01)	.	(0.0032)	0.0147	0.0011	0.0010	(0.003)	(0.002)	(0.0015)	31 mm Ø x 2 or 18
SS 456/3	.	0.0113	.	0.0153	0.0222	.	.	0.0214	.	.	.	38 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	.	0.059	.	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm
IRSID 1661	.	.	.	.	(0.0005)	(0.0085)	.	.	.	.	.	40 mm x 42 mm x 30 mm
VS UG125	0.0112	.	.	.	.	.	.	0.035	.	.	.	~45 mm Ø x ~28 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
NM 305	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 20 mm
ECRM 083-2D	0.00157	.	.	.	.	.	.	.	.	0.00439	.	39 mm Ø x 28 mm
DSZU C03	.	(0.002)	.	(0.009)	(0.003)	0.011	0.002	0.004	(0.009)	(0.0037)	(0.0006)	40 mm Ø x 30 mm
VS RG26	.	.	.	.	.	.	0.121	.	0.0052	.	.	~45 mm Ø x ~28 mm
SS 431/2	0.0052	0.0040	.	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm
VS UG2/11	(0.007)	.	.	.	.	.	.	.	.	.	.	~45 mm Ø x ~28 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
BS 1005	0.0044	0.0008	0.0058	(0.0003)	(0.0007)	0.0009	0.0010	(0.0007)	(0.0003)	Fe:99.6	(0.0008)	38 mm Ø x ~7 or 19+ mm **17025**
BS 1009	0.0043	(0.0008)	0.0060	(0.0004)	(0.0009)	0.0007	0.0007	(0.0006)	(0.001)	Fe:99.6	(0.0006)	38 mm Ø x ~7 or 19+ mm **17025**
SS 111/1	0.0025	.	.	.	.	0.0006	0.0004	0.0002	.	.	.	44 mm Ø x 19 mm
VS 005	.	.	.	.	.	0.0021	0.0047	.	.	.	.	~45 mm Ø x ~25 mm
SS 432/2	0.0066	0.0174	.	.	.	.	.	.	.	.	.	38 mm Ø x 19 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

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
2	CZ CM-2B	0.12	0.020	0.247	0.894	0.082	0.0114	1.95	0.99	1.20	1.53	0.046	.	0.45	0.33	0.091	0.342
1	12X 12749X	0.081	.	0.176	1.41	0.023	0.066	0.48	0.253	0.47	0.453	0.202	.	0.426	0.195	0.018	0.0178
1	IMZ 120	0.065	0.031	0.60	0.40	(0.049)	0.026	0.34	0.10	0.085	0.20	0.033	.	.	.	0.008	.
1	12X 15266V	0.0640	.	0.455	1.240	0.0344	0.0258	0.674	0.226	1.317	3.49	0.526	.	0.286	0.298	0.0082	.
1	12X 350C	0.057	.	0.159	0.758	0.0296	0.040	0.467	0.196	0.160	0.335	0.290	.	0.030	0.147	0.0382	0.076
1	IRSID 1656	0.055	.	0.477	0.730	0.027	0.013	0.277	.	(0.048)	(0.017)	(0.002)	.	.	(0.007)	.	.
1	12X 355C	0.0331	0.0796	0.159	0.508	0.0214	0.0241	0.494	0.657	0.0710	0.113	0.1104	.	0.0495	0.1010	0.0564	0.153
1	12X 354B	0.023	.	0.252	5.03	0.0478	0.0105	0.200	0.0679	0.082	0.0487	0.0150	.	0.0237	0.0328	0.0154	0.0248
1	**BS 1762**	0.025	(0.02)	0.363	2.04	0.032	0.037	0.38	0.133	1.16	0.929	0.049	.	0.064	0.347	0.079	0.096
1	ECRM 055-2D	0.0187	0.00376	0.5199	0.687	0.0102	0.0205	0.3094	0.2089	0.3121	0.3217	.	.	0.0257	0.0960	0.0162	0.00104
1	SS 55	0.013	0.002	.	.	.	.	.	.	0.23	0.22	0.028	.	.	0.16	0.046	0.013
1	12X 357D	0.0127	0.018	0.312	0.219	0.0101	0.066	0.211	0.203	0.188	0.21	0.138	.	0.198	0.025	0.0145	0.074
1	**BS 1030**	0.0055	0.0024	0.331	0.682	0.0101	0.0299	0.261	0.269	0.078	0.124	0.0014	.	0.0069	0.0182	0.0114	0.0005
1	VS UG90	0.0044	0.0011	0.34	0.286	0.0079	0.012	0.221	0.200	0.265	0.261	0.037	0.032	.	0.046	.	0.039
1	VS UG89	0.0043	0.0011	0.92	0.76	0.0085	0.01	0.385	0.373	0.51	0.420	0.01	0.007	.	0.044	.	0.012
1	VS UG92	0.0027	0.0005	0.69	0.79	0.05	0.0029	1.98	0.111	0.155	0.200	0.091	0.08	.	0.119	.	0.022
1	IRSID 1670	0.0018	.	0.0011	0.3981	0.0128	0.0075	0.0046	0.0134	0.0142	0.0174	0.0479	.	0.0018	0.0009	0.0017	0.0078
1	VS UG88	0.0007	0.0003	0.62	1.26	0.0026	0.0043	1.22	0.171	0.52	0.474	0.01	0.009	.	0.104	.	0.107
1	VS UG91	0.0004	0.00009	0.49	.	0.0038	0.0021	2.23	0.057	0.039	0.064	0.048	0.048	.	0.058	.	0.038
1	SS 458/2	.	0.089	0.198	0.479	0.0281	0.0314	0.504	.	.	.	0.055	0.053	0.198	.	.	.
1	SS 457/2	.	0.050	0.307	0.327	0.0098	0.0448	0.105	.	.	.	0.088	0.084	0.0217	.	.	.
1	SS 56	.	0.005	.	0.32	.	.	.	0.36	.	.	0.005	.	0.023	.	.	.

Number	B	Bi	Ca*	Ce*	Mg*	N	Nb	O*	Pb	Se	Ta	V	W	Zn	Zr	Units
CZ CM-2B	0.0010	.	.	.	.	0.0062	(0.58)	.	0.087	.	.	0.109	0.22	.	0.013	~39 mm Ø x ~25 mm
12X 12749X	.	.	.	.	.	.	.	.	0.016	.	.	0.068	0.036	.	.	~40 mm Ø x ~15 mm
IMZ 120	.	.	.	.	.	0.0115	.	.	0.077	.	.	.	.	.	.	40 mm Ø x 40 mm
12X 15266V	.	.	.	.	.	.	1.438	.	.	.	0.116	0.106	.	.	.	~40 mm Ø x ~15 mm
12X 350C	.	.	.	.	.	.	.	.	.	.	.	0.0115	0.260	.	.	~40 mm Ø x ~15 mm
IRSID 1656	.	.	.	.	.	.	.	.	.	.	.	(0.002)	.	.	.	40 mm Ø x 35 mm
12X 355C	(0.0012)	.	.	.	.	0.0023	0.023	.	.	0.0395	.	0.1265	0.037	.	0.0192	~40 mm Ø x ~15 mm
12X 354B	.	.	.	.	.	0.0027	0.0802	.	.	.	.	0.0204	0.0248	.	.	~40 mm Ø x ~15 mm
BS 1762	0.0048	.	(20)	.	(3)	0.017	0.074	64	(0.011)	Fe:93.9	(0.03)	0.193	0.029	(0.01)	(0.01)	37 mm Ø x 25 mm **17025**
ECRM 055-2D	.	.	.	.	.	0.01069	.	.	.	.	.	0.00245	0.0166	.	.	38 mm Ø x 25 or 30 mm
SS 55	.	.	.	.	.	.	.	.	.	.	.	.	0.12	.	.	38 mm Ø x 19 mm
12X 357D	0.0036	0.0024	.	.	.	.	0.011	.	0.040	0.0057	.	0.127	0.0213	.	0.0049	~40 mm Ø x ~15 mm
BS 1030	0.0003	.	12	.	(2)	0.0107	(0.0004)	50	0.0005	.	(0.001)	0.031	0.0012	last	(0.0002)	38 mm Ø x ~7 mm **17025**
VS UG90	.	.	.	.	.	0.015	.	.	.	.	.	.	.	.	.	~47 mm Ø x ~30 mm
VS UG89	.	.	.	.	.	0.017	0.0043	.	0.0003	.	.	0.021	.	.	.	~47 mm Ø x ~30 mm
VS UG92	.	.	.	.	.	0.016	0.034	.	0.00017	.	.	0.024	.	.	.	~47 mm Ø x ~30 mm
IRSID 1670	0.0007	.	.	(2)	.	0.0016	(0.0003)	.	.	.	.	(0.0005)	.	.	.	37 mm Ø x 30 mm
VS UG88	.	.	.	.	.	0.020	0.059	.	0.00015	.	.	0.117	.	.	.	~47 mm Ø x ~30 mm
VS UG91	.	.	.	.	.	0.010	0.097	.	0.00006	.	.	0.049	.	.	.	~47 mm Ø x ~30 mm
SS 458/2	0.0069	.	.	.	.	.	0.0510	.	0.0140	.	.	0.105	.	.	(0.064)	38 mm Ø x 19 mm
SS 457/2	0.0046	.	.	.	.	.	0.0174	.	0.0098	.	.	0.153	.	.	0.025	38 mm Ø x 19 mm
SS 56	0.001	.	.	.	.	.	.	.	0.014	.	.	0.057	.	.	.	38 mm Ø x 19 mm last

RM BISMUTH STEEL

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

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

CALCIUM IN STEEL

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

#	Number	Ca	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Als	Co	Mo	N	V
1	**BS HiCal-1**	0.0140	0.271	1.00	(0.007)	0.0007	1.29	0.152	3.28	1.55	0.070	.	0.0024	0.379	.	0.0027
1	SS 115	0.0058	0.6224	0.682	0.0123	0.00093	0.2078	.	0.0196	0.0198	0.0527	.	.	.	0.0067	.
1	**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	SS 116	0.0036	0.617	0.6756	0.0092	0.00176	0.201	.	0.0155	0.0141	0.0587	.	.	.	0.0069	.
1	**BS 1020**	0.0022	0.210	0.568	0.0058	0.0249	0.250	0.184	0.059	0.109	0.0006	.	0.0070	0.018	0.0109	0.0363
2	HRT FE2009-N	0.0020	0.12	0.55	0.010	0.003	0.32	0.08	0.25	2.56	0.030	.	.	1.02	.	0.015
1	**BS 3941**	0.0011	0.407	0.802	0.016	0.023	0.257	0.053	0.018	0.069	0.0019	.	0.0042	0.0061	0.0069	0.0025
2	BS 4150MOD	0.0010	0.47	0.90	0.024	0.079	0.21	0.19	0.15	1.01	0.012	.	0.012	0.21	0.0087	0.008
1	**BS 4130**	0.0007	0.303	0.541	0.0105	0.0113	0.245	0.221	0.088	0.924	0.0242	.	0.0065	0.168	0.0072	0.0037
2	BS 4942	0.0006	0.414	0.56	0.015	0.021	0.22	0.165	0.16	0.97	(0.004)	.	0.010	0.54	0.0080	0.28
1	**BS PP20**	0.0003	0.382	1.41	0.018	0.0070	0.262	0.119	1.00	1.94	0.0132	.	0.0145	0.212	0.0080	0.066
1	IMZ 111	0.0003	0.106	0.31	0.010	0.039	0.55	0.036	0.23	0.072	0.017	0.007	.	0.084	0.0133	0.022
2	TL 1669	0.00017	0.00226	0.0955	0.0137	0.0100	0.0093	0.0217	0.0160	0.0246	0.03553 (tot)		0.0019	0.0011	0.0024	(0.0006)

Number	As	B	Bi	Nb	O	Pb	Sb	Sn	Ti	W	Zr	Other
BS HiCal-1	0.0022	(0.0001)	.	(0.002)	.	(0.0005)	.	(0.0002)	0.0037	(0.0009)	(0.0008)	~38 mm Ø x ~30 mm **17025**
SS 115	.	.	.	.	.	.	.	.	0.0027	.	.	38 mm Ø x 19 mm
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**
SS 116	.	.	.	.	.	0.00012	.	.	0.00171	.	.	44 mm Ø x 19 mm
BS 1020	0.0074	(0.0001)	.	(0.0003)	0.0046	(0.0002)	(0.0018)	0.0090	(0.0005)	(0.0004)	(0.0005)	44 mm Ø x ~7 or 19+ mm **17025**
HRT FE2009-N	.	.	.	.	.	.	.	.	.	.	Zn: 0.004	40 mm Ø x 40 mm
BS 3941	0.0036	(0.0001)	.	0.033	0.0055	0.0010	0.0005	0.0019	0.0017	(0.0004)	(0.0003)	41 mm Ø x ~7 or ~13 mm **17025** last
BS 4150MOD	0.005	.	0.070	.	(0.003)	0.0010	.	0.013	(0.002)	.	.	38 mm Ø x ~7 or 19 mm last
BS 4130	0.0048	(0.0002)	.	0.0015	0.0015	(0.00003)	(0.0021)	0.0099	0.0009	0.0011	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 PP20	0.0049	0.00011	.	0.0048	(0.0010)	.	0.0013	0.0069	0.0007	0.0058	.	38 mm Ø x ~7 or 19+ mm **17025**
IMZ 111	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 40 mm
TL 1669	0.0017	0.00038	.	0.00046	.	0.00013	0.00049	0.0071	0.0504	.	(0.00021)	38 mm Ø x 25 mm Zn: 2.7*

CRM Al, Ca, AND N IN LOW ALLOY STEEL

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

C-Mo and Cr-Mo STEEL XRF SET

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

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

CRM EPMA SETS

available in sets only, as grouped 4x10x15mm

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

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

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

#	Number	Cr	Mo	C	Mn	P	S	Si	Cu	Ni	Al	As	Co	N	Sn	V
1	**BS 48B**	8.78	0.949	0.110	0.36	0.0228	0.0068	0.75	0.070	0.165	0.0157	0.0048	0.0165	0.0088	0.0049	0.033
1	**BS 9905A**	8.75	0.95	0.113	0.465	0.0133	0.0040	0.34	0.091	0.152	0.0186	0.0065	0.0136	0.034	0.0060	0.216
1	13X 90901A	8.43	0.905	0.102	0.447	0.0148	0.0009	0.429	0.039	0.249	0.021	.	.	0.0472	0.0020	0.208
2	HRT FE2012-H	5.13	2.78	0.37	0.41	0.019	0.002	0.42	0.07	0.20	.	.	.	.	.	0.42
1	**BS H-13A**	5.11	1.32	0.391	0.445	0.0187	(0.003)	1.13	0.083	0.139	(0.03)	0.0050	0.033	0.034	(0.005)	0.92
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
1	IARM 37C	4.34	0.500	0.096	0.408	0.014	(0.004)	0.31	0.121	0.148	(0.010)	(0.009)	0.015	0.008	0.009	0.017
2	BS 47A	4.22	0.47	0.130	0.44	0.017	0.015	0.27	0.11	0.12	0.015	.	0.011	0.018	0.008	0.016
1	12X 40CDV12A	3.29	0.946	0.401	0.604	0.0060	0.0013	0.250	0.0978	0.1062	0.0208	0.0040	0.0197	0.0155	0.0049	0.198
1	SRM 1772	3.10	1.39	0.477	0.61	0.008	0.0031	0.264	0.083	0.105	.	.	.	.	.	0.236
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
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 36C	2.43	0.98	0.14	0.49	0.009	0.014	0.25	0.142	0.085	(0.017)	(0.005)	(0.008)	0.008	(0.008)	0.0061
1	IARM 196A	2.35	0.129	1.08	2.40	0.040	0.014	0.35	0.25	0.61	0.015	0.025	0.013	0.0084	0.033	0.157
1	SRM 1270	2.34	0.956	0.077	0.626	0.0065	0.0065	0.247	0.114	0.174	.	.	0.038	.	.	0.013
1	**BS 46B**	2.28	1.00	0.126	0.472	0.0087	0.0187	0.219	0.128	0.081	0.020	0.0041	0.0074	0.0100	0.0073	0.0073
1	IMZ 169	2.20	1.03	0.099	0.54	0.015	0.0155	0.35	0.128	0.073	0.075	.	0.012	0.0193	0.062	(0.016)
1	ECRM 190-1D	2.18	0.410	0.395	1.28	0.0112	0.0044	0.278	.	0.934	.	.	0.034	.	.	.
1	**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**	1.79	0.421	0.386	0.853	0.010	0.0026	0.58	0.106	0.131	0.0123	0.0062	0.0093	0.0079	0.0074	0.0056
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	TL 1100	1.664	0.3349	0.3487	0.6284	0.0124	0.0049	0.2839	0.1767	3.727	0.0374	.	0.0283	0.0116	0.0083	.
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
2	BS 68B	1.51	0.309	0.39	0.52	0.010	0.020	0.26	0.163	0.165	1.08	.	0.010	0.0073	0.010	0.007
1	**BS 68E**	1.49	0.322	0.406	0.560	0.005	0.0004	0.296	0.134	0.147	1.09	(0.003)	0.007	0.0030	0.0097	0.0010
1	12X 24065A	1.412	0.1716	0.370	0.502	0.0129	0.0044	0.218	0.216	0.271	1.035	0.0074	.	0.0076	0.0120	0.0040
2	BS 58E	1.40	0.110	0.100	0.63	0.009	0.002	0.29	0.154	3.22	0.029	0.003	0.013	0.0033	0.003	0.006
1	12X 15CDV6A	1.397	0.875	0.171	0.839	0.0056	0.0086	0.152	0.0231	0.044	0.019	0.0041	.	0.0069	0.0011	0.242
1	IARM 35L	1.35	0.607	0.119	0.535	0.007	0.014	0.679	0.123	0.071	0.017	0.0045	0.0070	0.0072	0.0088	0.0037
1	SS 112	1.236	0.190	0.394	0.436	0.0043	0.0026	0.289	0.149	1.461	0.0148	0.0021	0.0175	0.0024	0.0086	.
1	12X 43400A	1.181	0.223	0.422	0.592	0.0164	0.0284	0.259	0.177	1.378	0.013	0.0084	.	0.0089	0.007	.
1	**BS 45B**	1.14	0.60	0.140	0.502	0.0068	0.017	0.583	0.101	0.136	0.030	0.0066	0.0090	0.0066	0.0069	0.0083
1	IRSID 1745	1.130	0.222	0.295	0.850	0.0077	0.081	0.220	0.202	0.188	0.0202	0.0262	.	.	0.0134	(0.004)
1	12X 11572A	1.107	0.499	0.111	0.498	0.0069	0.0025	0.649	0.0576	0.0977	0.0290	0.0030	.	0.0058	0.0049	.
1	12X 14072A	1.061	0.573	0.430	0.680	0.0151	0.0061	0.322	0.203	0.136	0.0039	.	0.0098	0.0103	(0.011)	0.301
2	**BS 1962**	1.05	0.229	0.41	0.94	0.007	0.011	0.242	0.224	0.16	0.018	0.007	0.008	0.0095	0.010	0.004
1	IPT 501	1.05	0.210	0.277	0.723	0.016	0.030	0.208	0.083	0.063	0.034	.	0.008	0.0076	0.008	.
1	IARM 299A	1.03	0.99	0.469	0.70	0.008	0.002	0.22	0.100	0.57	0.092	0.003	0.0054	0.0028	0.0055	0.120
2	BS 4150MOD	1.01	0.21	0.47	0.90	0.024	0.079	0.21	0.19	0.15	0.012	0.005	0.012	0.0087	0.013	0.008

Number	B	Ca	Nb	O	Pb	Sb	Ta	Ti	W	Zr	Units
BS 48B	(0.0002)	(0.003)	(0.001)	0.0022	(0.0002)	(0.001)	.	0.0031	0.026	(0.002)	38 mm Ø x ~7 or 19+ mm **17025** Fe: 88.7
BS 9905A	(0.0005)	(0.0002)	0.074	0.0024	(0.002)	(0.003)	(0.01)	0.0023	0.0024	(0.002)	38 mm Ø x ~7 or 19+ mm **17025** Fe: 88.9
13X 90901A	.	.	0.070	.	.	.	.	(0.0025)	0.009	.	~40 mm Ø x ~15 mm
HRT FE2012-H	.	.	(0.007)	.	.	.	.	.	.	.	40 mm Ø x 20 mm
BS H-13A	(0.0007)	(0.0006)	0.0052	(0.016)	(0.0004)	(0.002)	.	(0.03)	0.100	(0.002)	38 mm Ø x ~7 or 19+ mm **17025** Fe: 90.2
BS 47B	.	.	.	(0.004)	.	.	.	.	.	.	38 mm Ø x ~7 or 19+ mm
IARM 37C	.	.	(0.004)	.	.	.	.	(0.0025)	(0.012)	.	31 mm Ø X 2 or 18 mm
BS 47A	.	.	0.002	(0.003)	.	.	.	0.003	.	.	38 mm Ø x ~7 or 19+ mm
12X 40CDV12A	.	.	.	.	.	.	.	.	.	.	38 mm Ø x ~15 mm
SRM 1772	.	.	.	.	.	.	.	.	.	.	34 mm Ø x 19 mm
SS 407/2	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm
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 36C	.	.	.	.	.	.	.	.	.	.	31 mm Ø x 2 or 18 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 18 mm
SRM 1270	.	.	.	.	.	.	.	.	.	.	32 mm Ø x 19 mm
BS 46B	(0.0006)	0.0009	(0.003)	0.0026	(0.001)	(0.002)	.	(0.001)	0.0008	(0.002)	38 mm Ø x ~7 or 19+ mm **17025** Fe: 95.7
IMZ 169	.	.	(0.0045)	.	(0.001)	.	.	0.001	.	.	40 mm Ø x 40 mm
ECRM 190-1D	.	.	.	.	.	.	.	.	.	.	35 mm x 35 mm x 30 mm
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	(0.0003)	0.0016	<0.01	0.0015	<0.01	0.0026	.	0.0044	(0.029)	<0.01	38 mm Ø x ~7 or 19+ mm **17025** Fe: 95.6
IRSID 1749	.	(0.0002)	(<0.0005)	0.0002	(<0.0002)	0.0018	.	0.0031	(<0.0030)	(<0.0003)	41 mm Ø x 25 mm Mg: 9 ppm
ECRM 129-3D	.	.	.	.	.	0.00059	.	0.0030	.	.	39 mm Ø x 25 mm
TL 1100	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 20 mm
ECRM 195-1D	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 28 to 35 mm
SRM 1286	(0.006)	.	(0.012)	.	(0.0002)	.	.	0.040	(0.013)	(0.021)	32 mm Ø x 19 mm
BS 68B	.	.	.	.	.	.	.	0.005	.	.	41 mm Ø x 15-19 mm last
BS 68E	0.0002	(0.0003)	(0.002)	0.0011	(0.0002)	0.0024	.	0.0012	(0.002)	.	38 mm Ø x ~7 or 19+ mm Mg:0.0004 **17025**
12X 24065A	.	.	.	.	.	.	.	0.0028	.	Zn:0.0034	~40 mm Ø x ~15 mm
BS 58E	(0.0002)	(0.0002)	.	0.0008	.	.	.	(0.002)	.	.	38 mm Ø x ~7 or 19+ mm
12X 15CDV6A	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
IARM 35L	0.00044	.	(0.0026)	.	.	.	.	(0.0015)	(0.004)	.	31 mm Ø x 2 mm
SS 112	0.0007	.	0.0065	.	.	.	.	0.0100	.	.	44 mm Ø x 19 mm
12X 43400A	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm Zn: 0.0027
BS 45B	(0.0003)	0.0008	(0.002)	0.0015	(0.15)	(0.003)	.	0.0024	(0.0038)	(0.0009)	38 mm Ø x ~7 or 19+ mm **17025** Fe: 96.7
IRSID 1745	.	.	.	.	.	.	.	(0.003)	.	.	48 mm Ø x 30 mm
12X 11572A	.	.	.	.	.	.	.	.	.	Zn:0.0009	38 mm Ø x ~15 mm
12X 14072A	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~15 mm
BS 1962	.	.	.	.	(0.001)	.	.	0.004	.	last	41 mm Ø x ~7 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)	.	last	38 mm Ø x ~7 mm Bi: 0.070

LEADED STEEL

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

#	Number	Pb	C	Mn	P	S	Si	Cu	Ni	Cr	Al	As	Co	Mo	N	Sn	V
2	BS 74B	0.34	0.08	0.91	0.087	0.316	0.002	0.006	0.012	0.019	(0.002)	.	.	0.008	.	.	.
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 74D**	0.282	0.072	1.00	0.073	0.28	(0.007)	0.0057	0.0115	0.0185	(0.008)	0.0047	0.0043	0.0063	0.0040	(0.0010)	0.0012
1	**BS 75G**	0.247	0.161	1.08	0.0085	0.114	0.011	0.0300	0.045	0.079	0.0016	0.0028	0.0031	0.0174	0.0030	0.0014	0.0005
2	**BS 75F**	0.202	0.165	1.05	0.009	0.116	0.004	0.030	0.044	0.080	0.002	.	.	0.018	.	.	.
1	**BS 73C**	0.21	0.206	0.86	0.0111	0.031	0.280	0.025	0.56	0.574	0.028	0.0035	0.0028	0.180	0.0040	(0.002)	0.0031
IARM	Fe86L20-18	0.20	0.175	0.794	0.009	0.015	0.29	0.242	0.458	0.53	0.025	.	0.0085	0.203	0.0052	0.014	0.0016
1	IARM 183C	0.18	0.079	1.06	0.078	0.31	0.004	0.016	0.019	0.055	0.0021	0.003	(0.002)	0.010	0.0049	0.003	0.002
2	**BS 72B**	0.174	0.497	0.87	0.029	0.029	0.26	0.21	0.169	0.985	0.020	(0.006)	0.012	0.187	0.0081	0.014	0.004
2	**BS 73B**	0.139	0.200	0.83	0.009	0.030	0.250	0.141	0.416	0.512	0.022	0.004	0.008	0.170	0.0113	0.008	(<0.002)
2	**BS 70B**	0.135	0.40	0.90	0.009	0.022	0.27	0.13	0.25	1.00	0.024	.	.	0.205	.	.	.
1	**BS 70C**	0.133	0.387	0.90	(0.009)	0.020	0.27	0.123	0.247	0.99	0.019	0.007	0.0086	0.202	0.0079	0.008	0.0026

Number	B	Ca	Nb	O	Sb	Ti	W	Zn	Grade	Units		
BS 74B	.	.	.	.	.	.	.	.	12L14	41 mm Ø x ~7 or 19+ mm		
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 74D	0.0009	<0.001	(0.0018)	(0.028)	<0.05	(0.0007)	<0.005	Fe:98.2	12L14	41 mm Ø x ~7 or 19+ mm	**17025**	
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 ~7 or 19+ mm	**17025**	last
BS 73C	(0.0002)	(0.0005)	(0.002)	0.0013	(0.002)	0.0024	(0.006)	.	86L20	38 mm Ø x ~7 or 19+ mm	**17025**	Fe:[97.0]
IARM Fe86L20-18	CRM	.	.	.	.	.	.	.		38 mm Ø x ~2 or 19 mm		
IARM 183C	0.0011	.	0.0010	0.016	(0.001)	0.0009	(0.002)	0.001	12L14	31 mm Ø x 2 mm		
BS 72B	.	.	(0.001)	.	.	(0.002)	.	.	41L50	37 mm Ø x ~7 or 19+ mm	**17025**	
BS 73B	.	.	.	.	.	.	.	.	86L20	41 mm Ø x ~12 or ~17 mm	**25(pre-17025)**	last
BS 70B	.	.	.	.	.	.	.	.	41L40MOD	41 mm Ø x ~7 or 19+ mm	**17025**	
BS 70C	(0.0003)	.	<0.005	0.0020	(0.003)	0.0020	(0.0006)	.	41L40MOD	41 mm Ø x ~7 or 19+ mm	**17025**	Fe: 96.7

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:320x~15-17mm CZ:~390x25mm DSZU:390x20mm ECRM:350x25mm IMN:50-560x15mm NCS:360x36mm 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)	(8.6)	(0.44)	(0.002)	(0.46)	.	(0.1)	
1	VS LG68	28.8	0.39	(0.02)	0.003	.	0.11	0.20	0.13	8.6	0.46	.	0.46	.	.	
1	IMZ 199	28.74	0.90	0.022	(0.0006)	0.294	0.110	0.20	0.164	8.65	0.43	.	0.43	.	0.026	B:(0.001) Ti:(0.004)
1	IRSID 1833	22.57	0.605	0.0345	(0.0005)	0.193	0.030	0.0494	0.268	0.0025	0.0133	0.012	0.0026	0.0043	0.203	As, Co, Pb, and Ti **
1	14X MN1AL	22.08	0.597	0.053	0.0054	0.944	0.178	0.692	1.321	(0.23)	0.499	0.0585	0.096	0.0393	0.0226	Ta:(0.011) Ti: 0.0346
1	DSZU C012	20.9	0.39	0.021	0.0072	0.31	0.087	0.103	0.17	(2.9)	(0.03)	(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
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	NCS AH37335	18.70	1.30	0.048	0.007	0.457	0.021	0.593	2.00	(0.011)	0.249	0.024	0.077	Ce:0.011	0.201	Ti:0.006
1	VS LG69	18.6	0.45	0.033	0.0048	0.50	0.088	0.178	0.428	2.78	0.020	0.011	.	.	.	
1	DSZU C011a	17.4	0.45	0.042	0.008	0.43	0.089	0.11	0.36	(2.8)	(0.014)	.	.	.	.	
1	NCS AH37334	16.90	1.20	0.051	0.011	0.655	0.024	0.200	2.20	0.018	0.180	0.021	0.085	Ce:0.027	0.253	La:0.014 Ti: 0.125
1	IMZ 198	16.10	0.44	0.031	0.0090	0.423	0.104	0.058	0.30	2.80	(0.008)	.	.	.	.	Ti:(0.005)
1	VS LG66	16.1	0.44	0.031	0.010	0.41	0.104	0.059	0.30	2.6	.	.	.	.	.	
1	DSZU C011	16.09	0.44	0.031	0.0093	0.41	0.105	0.058	0.30	(2.6)	(0.01)	(0.010)	.	.	.	
2	CZ SP-2C	14.5	1.40	0.037	0.016	0.29	0.35	0.050	1.56	0.030	0.050	0.027	Co:0.044	0.037	0.051	Ti: 0.014 W: 0.033
1	DSZU C023	13.09	0.79	0.052	0.0062	0.291	0.111	3.15	0.313	(0.006)	(0.02)	(0.018)	(0.02)	.	(0.02)	B:(0.001) Ti:(0.004)
1	DSZU C022	12.89	1.15	0.087	0.0057	0.34	0.103	0.122	0.192	(0.007)	(0.03)	(0.013)	(0.01)	.	(0.03)	B:(0.001) Ti:(0.006)
1	NCS AH37333	12.46	1.23	0.061	0.009	0.428	0.017	3.34	1.72	0.022	0.951	0.024	0.108	Ce:0.029	0.085	La:0.017 Ti: 0.064
1	14X MN2S	12.3	0.80	0.024	0.0080	2.20	0.089	0.726	0.364	0.020	1.08	0.038	0.23	0.015 0	0.089	Ta:(0.006) Ti: 0.018
1	DSZU C010	12.25	1.20	0.082	0.0035	0.49	0.120	0.108	0.187	(0.006)	(0.01)	(0.017)	.	.	.	
1	DSZU C021	11.23	1.32	0.035	0.010	0.105	0.32	0.36	0.62	(0.003)	0.096	(0.013)	(0.03)	.	0.124	B:(0.002) Ti:(0.005)
1	SS 493/3	11.15	0.819	0.12	0.009	0.861	0.017	3.24	0.259	0.035	1.04	0.025	.	.	0.025	
1	14X MN3U	10.2	1.09	0.0239	0.015	1.11	0.135	0.387	0.599	0.045	0.343	0.025	0.398	0.0254	0.022	Ta: 0.010 Ti:(0.10)
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)
1	14X MN5U	8.78	1.36	0.0552	0.0273	1.47	0.691	2.10	3.18	0.0257	1.93	0.0231	0.102	0.0228	0.0490	Ti: 0.93
1	SS 492/3	8.33	1.18	0.0318	0.0093	0.299	0.0211	4.17	1.076	0.131	1.318	0.0225	.	.	(0.004)	Co: 0.0048
1	14X MN5V	8.02	1.42	0.057	0.0207	2.27	0.551	3.09	3.28	0.145	2.26	0.0146	0.041	0.0278	0.0810	Ta:(0.004) Ti: 0.51
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. Sample size 35 mm Ø x 25 mm.

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

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
2	BS 66K	0.322	0.051	0.86	0.062	(0.004)	0.013	0.012	0.006	0.002	0.005	0.003	(0.0074)	.	<0.002	0.001
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 199C	0.281	0.469	1.55	0.0155	0.21	0.193	0.085	0.190	0.0019	0.007	0.0293	0.0070	0.0084	0.0016	(0.0037)
1	IMZ 124	0.28	0.10	0.60	0.082	(0.019)	0.060	0.046	0.11	0.005	.	.	0.0059	0.009	.	.
1	**BS 1144A**	0.271	0.468	1.43	0.0108	0.214	0.147	0.063	0.076	0.0020	0.0064	0.0154	0.0095	0.0079	(0.0008)	0.0015
1	**BS 1144**	0.243	0.483	1.55	0.022	0.262	0.462	0.097	0.193	(0.002)	0.011	0.017	0.0093	0.0113	0.002	0.0039
1	14X MSFM 4A	0.224	0.226	1.141	0.0386	0.469	0.429	6.22	1.69	(0.007)	0.0253	0.974	0.0220	0.0141	.	0.0151
1	IMZ 122	0.21	0.27	1.33	0.073	0.43	0.25	0.25	0.19	(0.027)	.	.	0.0110	0.12	.	.
1	14X 606M36TA	0.196	0.378	1.574	0.0159	0.167	0.179	0.0931	0.163	0.0071	.	0.272	0.0096	0.0103	.	.
1	14X 11390A	0.190	0.420	1.040	0.0342	0.198	0.0395	0.0239	0.0609	0.0026	.	0.0067	0.0042	0.0022	.	.
1	ECRM 058-2D	0.1712	0.424	1.186	0.0098	0.1080	0.261	0.199	0.1211	.	.	0.0589	0.0107	.	.	.
1	14X MSFM3G	0.147	0.438	1.809	0.0297	0.292	0.205	0.161	0.454	(0.18)	0.0494	0.390	0.0206	0.0378	.	0.0199
1	IARM 29E	0.121	0.193	1.19	0.0157	0.239	0.253	0.082	0.105	0.0032	0.008	0.0269	0.0093	0.0109	0.0014	0.0255
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	0.112	0.418	1.56	0.018	0.017	0.028	0.032	0.093	(0.001)	0.005	0.019	0.0056	0.0016	(0.001)	0.0014
1	IARM 348A	0.102	0.384	1.46	0.0121	0.270	0.230	0.081	0.123	(0.002)	(0.010)	0.026	(0.010)	0.0112	0.0015	0.0029
1	IARM 307A	0.096	0.163	1.44	0.0113	0.281	0.190	0.197	0.104	0.032	(0.010)	0.045	0.0108	0.0090	0.0015	(0.0028)
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
1	12X 15253T	0.0821	0.222	1.208	0.0900	0.347	0.266	0.991	2.022	0.0242	0.265	1.039	0.029	0.309	.	0.276
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
1	12X 15217R	0.078	0.166	0.885	0.064	1.392	0.257	0.860	1.011	0.081	0.193	0.311	0.014	0.058	.	0.607
1	NM 307	0.073	1.03	0.52	0.073	0.22	.	.	1.19	.	.	.	.	.	.	.
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 15255R	0.067	0.392	1.09	0.080	1.01	0.288	0.317	1.49	0.161	0.045	0.113	0.0058	0.106	0.052	0.491
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	**BS 4150MOD-A**	0.062	0.503	1.12	0.0172	0.253	0.192	0.095	0.799	0.0023	0.0070	0.170	0.0081	0.0090	0.0018	0.029
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 B12	0.048	0.43	0.76	0.028	0.34	0.41	1.62	1.32	0.007	0.011	0.21	.	0.032	0.011	0.026
1	KUT B4	0.043	0.55	1.07	0.047	1.72	0.49	.	.	.	.	.	.	.	.	.
1	IARM 381A	0.043	0.272	1.16	0.013	0.269	0.379	0.185	0.129	0.0023	0.011	0.0341	(0.014)	0.0137	(0.002)	0.0299
1	NM 304	0.033	0.19	0.29	0.093	0.082	.	(0.007)	.	.	.	.	.	.	.	.

Number	As	B	Bi	Ca	Nb	O	Pb	Sb	W	Zn	Zr	Units
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 66K	.	.	.	.	.	.	.	.	.	.	.	41 mm Ø x ~7 or 19+ 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 199C	0.0059	0.0012	0.003)	(0.0011)	0.0016	0.0037	(0.001)	(0.003)	0.0023	(0.0006)	.	31 mm Ø x 2 or 18 mm
IMZ 124	0.004	.	.	.	.	.	(0.002)	0.002	.	.	.	40 mm Ø x 40 mm
BS 1144A	0.0052	(0.0003)	Fe:97.3	(0.0005)	(0.002)	0.0019	(0.0006)	(0.002)	(0.0009)	.	(0.0006)	38 mm Ø x ~7 or 19+ mm **17025**
BS 1144	0.009	.	.	.	(0.004)	0.0016	(0.001)	.	(0.003)	.	last	38 mm Ø x ~16 mm **17025**
14X MSFM 4A	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm
IMZ 122	0.007	.	.	.	.	.	(0.020)	0.019	.	.	.	40 mm Ø x 40 mm
14X 606M36TA	0.0085	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
14X 11390A	0.0028	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
ECRM 058-2D	0.0095	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 25 or 30 mm
14X MSFM3G	.	0.0043	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
IARM 29E	0.0085	0.0007	.	0.0012	0.0024	(0.005)	(0.001)	(0.003)	.	(0.004)	.	31 mm Ø x 2 or 18 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	.	0.0003	.	.	.	.	.	.	.	.	.	41 mm Ø x ~7 or 19+ mm
IARM 348A	(0.007)	(0.0013)	<0.02	0.0010	0.027	(0.003)	(0.002)	(0.003)	(0.009)	<0.003	(0.003)	31 mm Ø X 2 or 18 mm
IARM 307A	0.008	<0.005	<0.02	<0.0005	(0.002)	(0.003)	(0.002)	<0.004	(0.005)	<0.002	(0.002)	31 mm Ø X 2 or 18 mm
BS 3993	0.004	.	.	(0.0002)	.	(0.0030)	.	.	.	.	.	38 mm Ø x ~7 or 19+ mm **25(pre-17025)**
IMZ 121	0.002	.	.	.	.	.	0.011	0.017	.	.	.	40 mm Ø x 40 mm
BS 52D	.	.	.	.	.	(0.002)	.	.	.	.	last	44 mm Ø x ~7 to 19+ mm
12X 15253T	0.0216	.	.	.	0.374	.	.	Ta:0.007	0.276	.	.	~40 mm Ø x ~15 mm
BS 4150MOD	0.005	.	0.070	0.0010	.	(0.003)	0.0010	.	.	.	last	38 mm Ø x ~7 mm
BS 42A	.	.	.	.	.	.	.	.	.	.	.	37 mm Ø x ~7 or 19+ mm
12X 15217R	.	0.0044	.	.	0.102	.	.	.	0.100	.	.	~40 mm Ø x ~15 mm
NM 307	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 25 mm
BS 42	(0.004)	.	.	.	(0.002)	.	.	.	(0.002)	.	.	44 mm Ø x ~7 or 19+ mm **17025**
12X 15255R	.	.	.	.	0.203	.	Ta:0.034	.	0.143	.	(0.011)	~40 mm Ø x ~15 mm
KUT B2/2	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x 39 mm
BS 4150MOD-A	0.0038	(0.0004)	.	(0.0007)	(0.002)	0.0017	(0.0004)	(0.002)	0.0026	Fe:96.7	(0.0005)	38 mm Ø x ~7 or 19+ mm **17025**
IMZ 125	0.065	.	.	.	.	.	.	0.014	.	.	.	40 mm Ø x 40 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
IARM 381A	0.0055	.	.	.	0.0018	.	.	.	(0.003)	.	.	31 mm Ø X 2 or 18 mm
NM 304	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 25 mm

RM RESULFURIZED STEEL XRF SET

Part Number: BS RESUL-4 AVAILABLE INDIVIDUALLY ~7 mm discs

Grade	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Al	Co	N	Sn	V	As
1117	BS 65C	0.150	1.19	0.007	0.115	0.24	0.24	0.063	0.066	0.012	(0.002)	(0.007)	0.0084	0.02	0.002	(0.008)
1140 + P	BS 52D	0.436	0.97	0.068	0.088	0.18	0.060	0.18	0.16	0.09	0.028	0.012	0.0025	0.004	0.002	.
1141	BS 66B	0.418	1.57	0.018	0.110	0.02	0.031	0.033	0.094	0.019	0.002	0.005	(0.006)	0.001	0.002	.
1215	BS 66K	0.051	0.86	0.062	0.322	(0.004)	0.013	0.012	0.006	0.003	0.002	0.005	(0.0074)	<0.001	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	
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	SRM 1218	(3.2)	0.0029	0.014	(0.002)	0.0011	0.003	(0.002)	0.006	0.005	.	(0.003)	.	.	(0.004)	
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	CZ SST-2A	3.07	0.083	0.160	0.026	0.0089	0.205	0.066	0.138	0.010	.	0.054	0.0078	0.055	0.016	
1	SRM 1134	2.889	0.0261	0.2751	0.0276	0.0095	0.0707	0.0375	0.0198	(0.329)	.	0.0087	.	0.0034	.	
2	CZ SST-1A	2.57	0.072	0.062	0.041	0.0043	0.654	0.155	0.209	0.061	.	(0.002)	0.0059	0.110	0.004	
1	VS UG91	2.23	0.49	.	0.0038	0.0021	0.057	0.039	0.064	0.048	0.048	0.058	0.010	.	0.038	
1	12X 15251U	2.05	1.017	0.910	0.0253	0.0215	0.1194	0.896	0.612	0.1085	.	0.205	0.0031	0.0108	.	
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	12X 15259Q	1.81	0.603	0.401	0.0401	0.0704	0.200	4.02	0.512	0.1488	.	0.407	0.0151	0.053	.	
1	ECRM 196-2D	1.808	0.0060	0.364	0.00369	0.00065	0.0057	0.0401	0.0282	0.2167	.	0.0142	0.00178	0.00047	0.00253	
1	VS UG4/5	1.80	0.56	1.26	(0.008)	(0.006)	0.098	0.68	0.17	0.010	.	0.087	.	.	0.17	
1	NCS HS11751a	1.76	0.574	0.792	0.020	0.014	0.011	0.019	0.024	.	.	.	.	.	.	
2	CZ LA-2E	1.725	0.081	0.111	0.060	0.044	0.577	2.015	0.149	0.357	.	0.652	0.0071	0.087	0.343	
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	**17025**
1	12X 44220A	1.662	0.417	0.874	0.0050	0.0009	0.031	1.89	0.846	0.029	.	0.401	0.0030	0.0019	.	
3	CZ CM-2A	1.66	0.20	0.97	0.10	0.012	1.01	1.20	1.50	0.03	.	0.33	.	0.08	0.34	
1	VS UG111	1.64	0.52	0.625	0.0028	0.0035	0.065	0.036	0.058	0.049	.	0.039	.	.	0.025	
1	VS UG1/9	1.63	0.63	0.84	0.030	0.017	0.020	0.105	0.046	0.027	.	0.135	(0.002)	(0.002)	0.069	
1	IARM 340A	1.63	0.414	0.755	0.011	0.001	0.103	1.80	0.84	0.062	.	0.39	0.0020	0.005	0.0098	
1	IARM 342A	1.63	0.257	1.37	0.006	0.0051	0.110	1.76	0.38	0.019	.	0.42	0.0102	0.021	0.0028	
1	VS UG4/10	1.61	0.695	0.834	0.031	0.0060	0.050	0.156	0.130	0.064	.	0.089	0.0192	.	0.0044	
1	KUT B1/1	1.58	0.97	0.205	0.017	0.032	0.14	3.96	1.66	.	.	.	.	.	.	
1	12X 15261X	1.513	0.546	0.483	0.090	0.0518	0.308	0.0985	0.496	1.648	.	1.594	.	0.0172	0.385	
1	VS UG1/10	1.51	0.51	0.659	0.0053	0.0042	0.096	0.190	0.067	0.015	.	0.051	0.0164	0.0030	0.016	
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	
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-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 15258P	1.01	0.392	1.23	0.067	0.032	0.109	0.497	0.631	0.087	.	0.361	.	0.071	0.100	
1	SS 603/2	0.97	0.79	0.236	0.020	0.056	(0.05)	(0.03)	(0.04)	0.076	.	(0.004)	.	.	.	
1	SS 405/2	0.947	0.044	0.903	0.0095	0.058	0.022	0.102	0.206	0.330	.	0.025	(0.011)	.	.	
1	SS 113	0.931	0.837	1.207	0.0595	0.0294	0.179	0.0784	1.248	0.0151	.	0.056	0.0109	0.0067	0.0390	
1	SS 604/2	0.75	0.199	1.91	0.016	0.072	(0.07)	(0.09)	(0.06)	0.008	.	(0.02)	.	.	.	

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

Number	As	B	Ca	Co	Nb	O	Pb	Sb	Ta	V	W	Zr	Units	
CZ SST-4A	0.004	0.0006	.	0.012	.	.	0.008	(0.003)	.	0.031	0.026	(0.003)	~37 mm Ø x 25 mm	
CZ SST-3A	(0.003)	0.0019	.	0.038	.	Zn:0.011	0.013	.	.	0.041	0.016	.	~37 mm Ø x 25 mm	
SRM 1218	.	.	.	(0.002)	.	.	.	.	.	(<0.001)	.	(0.002)	32 mm Ø x 19 mm	
SRM 1135	.	.	.	.	.	.	.	.	.	<0.01	.	.	31 mm Ø x 19 mm	
CZ SST-2A	.	0.0089	.	0.022	.	Zn:0.011	0.015	0.008	.	0.024	0.019	0.017	~37 mm Ø x 25 mm	
SRM 1134	.	.	.	.	.	.	.	.	.	.	.	.	31 mm Ø x 19 mm	
CZ SST-1A	(0.002)	0.0003	.	0.005	.	.	(0.002)	(0.002)	.	0.006	.	.	~37 mm Ø x 25 mm	
VS UG91	0.0004	.	.	.	0.097	.	0.00006	0.00009	.	0.049	.	.	~47 mm Ø x ~30 mm	
12X 15251U	.	.	.	0.228	0.266	.	.	.	.	0.391	0.0393	.	~40 mm Ø x ~15 mm	
VS UG92	0.0027	.	.	.	0.034	.	0.00017	0.0005	.	0.024	.	.	~47 mm Ø x ~30 mm	
KUT T4/1	.	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x 39 mm	
12X 15259Q	.	.	.	0.141	0.249	.	.	.	.	0.139	0.49	.	~40 mm Ø x ~15 mm	last
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	
NCS HS11751a	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 40 mm	
CZ LA-2E	0.083	0.0043	.	0.268	0.111	.	0.068	0.033	.	0.310	0.307	.	~37 mm Ø x 25 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	last	38mm Ø x ~12 or 19mm Fe:93.8	
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	last
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	
KUT B1/1	.	.	.	.	.	.	.	.	.	.	.	0.001	30-35 mm Ø x 39 mm	
12X 15261X	0.0051	.	.	0.333	0.601	.	.	.	.	0.122	0.269	0.0297	~40 mm Ø x ~15 mm	
VS UG1/10	.	.	.	.	0.091	.	.	.	.	0.042	0.074	.	~45 mm Ø x ~28 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)	.	~45 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	
KUT A12	0.007	.	.	0.012	(0.03)	.	.	0.013	.	0.042	.	.	30-35 mm Ø x 39 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	last
12X 15258P	.	0.0100	.	0.310	0.133	.	.	.	(0.002)	0.378	0.125	.	~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	
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 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	DSZU C049	1.17	0.237	0.0166	0.0147	0.227	0.069	0.044	0.131	(0.005)	.	(0.003)	(0.002)	(0.007)	.	(0.003)
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 UG0/11	1.16	0.196	0.0054	0.0078	0.233	0.134	0.114	0.163	0.009	.	0.0109	0.011	0.005	.	0.0041
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	.	.
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	IARM 49E	1.03	0.364	(0.006)	(0.002)	0.248	0.076	0.043	1.43	0.024	.	(0.006)	0.017	(0.003)	(0.003)	0.0060
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	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	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
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	VS UG9/11	0.94	0.895	0.027	0.0085	0.312	0.163	0.354	0.985	(0.04)	.	.	0.094	0.0119	.	0.010
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	1.19	0.026	0.0078	0.60	0.101	0.019	0.138	0.074	.	0.0042	0.49	0.0159	.	.
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 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 UG8/11	0.728	1.97	0.036	0.0019	0.31	0.160	0.291	1.74	(0.01)	.	.	0.622	0.0138	.	.
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 UG1/11	0.61	0.667	0.0098	0.011	1.74	0.155	0.080	0.108	0.032	.	0.0195	0.0067	0.0100	.	0.0047
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	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 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	CZ BO-2B	0.515	0.745	0.0093	0.0016	0.309	0.100	0.057	0.212	0.0196	.	0.0055	0.006	0.004	.	0.0017
1	12X LA3C	0.500	1.693	0.0274	0.0442	0.163	0.213	0.280	0.375	0.0410	.	0.0475	0.303	0.0039	.	.
1	IARM 34C	0.50	0.739	0.0090	0.0011	0.30	0.078	0.085	0.914	0.068	.	0.005	0.022	0.0030	0.004	0.0045
2	BS 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	.	.
1	**BS 43A**	0.49	0.82	0.0074	0.025	0.252	0.18	0.24	0.92	(0.003)	.	0.008	0.059	0.0072	(0.0017)	(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
1	IMZ 117	0.49	0.77	0.038	0.015	0.34	0.41	0.29	0.94	0.023	0.013	.	0.024	0.0154	0.041	(0.0014)
1	**BS 1144**	0.483	1.55	0.022	0.243	0.262	0.462	0.097	0.193	(0.002)	.	0.011	0.017	0.0093	(0.004)	0.002
1	IPT 503	0.456	0.682	0.027	0.027	0.218	0.129	0.063	0.160	0.018	.	0.006	0.020	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
1	12X 41450A	0.446	1.011	0.0093	0.0031	0.261	0.1318	0.187	1.194	0.0220	.	.	0.340	0.0080	.	.
1	VS UG5/11	0.445	0.64	0.010	0.0037	0.29	0.146	1.40	0.912	.	.	0.0195	0.269	0.0119	.	.
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	IARM 30H	0.425	0.937	0.015	0.022	0.253	0.131	0.063	0.97	0.020	.	0.0071	0.199	0.0081	(0.003)	(0.0024)
1	IARM 305B	0.425	0.58	0.011	0.014	0.349	0.214	0.156	1.63	0.92	.	0.007	0.32	0.0044	0.002	0.0044
1	IARM 252D	0.423	0.842	0.0075	0.0128	0.256	0.270	0.424	0.468	0.024	.	0.0078	0.204	0.0068	0.0013	0.0012
1	**BS 4340A**	0.423	0.766	0.0062	(0.0008)	0.253	0.128	1.80	0.879	0.031	.	0.0111	0.259	0.0102	(0.002)	(0.0011)
1	SRM 1173	0.423	0.19	0.033	0.092	1.28	0.204	4.06	2.70	.	.	.	1.50	.	.	.
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 4340**	0.418	0.695	0.0119	0.0187	0.279	0.149	1.79	0.807	0.028	.	0.0068	0.231	0.0080	(0.001)	0.0014
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	.	.
1	IARM 252E	0.413	0.87	(0.009)	(0.012)	0.257	0.164	0.407	0.486	0.028	.	0.0093	0.204	0.0064	.	0.0010
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

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Als	Co	Mo	N	Nb	Ti
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
1	IARM 252F	0.406	0.88	0.011	0.009	0.247	0.182	0.412	0.463	0.026	.	0.0086	0.210	0.0059	0.0016	0.0010
1	IARM 30J	0.405	0.884	0.010	0.036	0.256	0.173	0.187	0.972	0.023	.	0.0098	0.205	(0.010)	0.0016	0.0013
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 55/1A	0.401	0.490	0.009	0.0053	0.406	0.112	0.570	0.998	0.006	.	0.0039	0.247	0.0023	0.010	0.012
1	IARM 31G	0.40	0.689	0.0136	(0.013)	0.262	0.183	1.814	0.820	0.0214	.	0.0083	0.223	0.0069	(0.0023)	0.0015
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	**BS 4942A**	0.393	0.64	(0.007)	0.0013	0.275	0.067	0.058	0.976	0.011	.	0.0077	0.538	0.0072	(0.0015)	0.0031
1	VS RG30/1	0.388	0.425	.	0.022	0.61	0.090	0.74	3.13	0.089	.	0.355	0.58	.	0.103	0.037
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
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 605M36A	0.373	1.504	(0.009)	0.0317	0.0283	0.199	0.146	0.243	0.0105	.	0.0151	0.292	0.0095	.	.
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	IMZ 114A	0.358	1.156	0.0235	0.0220	0.328	0.492	0.098	0.423	0.027	.	0.0057	0.112	0.0029	0.015	0.0088
1	12X 352E	0.356	0.817	0.067	0.101	0.413	0.125	0.344	0.248	0.263	.	0.025	0.230	.	0.063	0.240
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	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 349E	0.319	0.600	0.0119	0.0128	0.256	0.156	0.216	0.131	0.154	.	0.0194	0.077	.	.	0.090
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	.	.
1	SS 219/4	0.314	0.81	0.011	0.027	0.079	0.088	2.55	0.66	.	.	.	0.58	.	.	.
1	**BS 8630**	0.315	0.752	0.0032	0.0043	0.261	0.046	0.544	0.477	0.023	.	0.0029	0.194	0.0038	(0.0006)	0.0008
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	.	.	.
1	SS 222/1	0.3095	0.618	0.0175	0.0089	0.227	0.150	3.536	0.0535	.	.	0.0379	0.0287	0.0100	.	.
1	IARM 143F	0.308	0.573	(0.011)	0.0177	0.23	0.221	0.088	0.865	0.026	.	0.010	0.163	0.0098	(0.0015)	(0.0012)
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	IARM 330B	0.302	0.82	0.0075	(0.003)	0.227	0.084	1.856	0.807	0.023	.	0.013	0.406	.	(0.002)	.
1	VS UG35/2	0.301	0.109	.	.	0.94	0.174	0.84	2.63	.	.	.	0.65	.	.	.
1	SS 615/1	0.30	1.68	.	(0.02)	0.17	(0.05)	4.01	0.49	.	.	.	0.21	.	.	.
1	VS UG3/11	0.30	0.91	0.056	0.0032	0.406	0.187	0.132	1.54	0.89	.	0.072	0.220	0.022	.	0.153
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 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
DSZU C049	(0.004)	(0.0002)	(0.003)	.	.	.	.	.	(0.004)	.	(0.003)	.	.	40 mm Ø x 25 mm
KUT A18	0.003	(0.011)	.	.	.	.	.	0.005	0.016	.	0.10	.	.	30-35mm Ø x 18 mm
VS UG0/11	.	.	.	.	.	.	.	.	0.0051	.	0.0035	0.0032	.	~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
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
IARM 49E	0.0029	.	.	.	.	(0.002)	.	.	0.0065	.	0.066	.	.	31 mm Ø X 2 or 18 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
NILAB 100LA D	0.004	.	.	.	.	.	.	.	.	.	0.004	.	.	34 mm Ø x 20 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 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
VS UG9/11	.	.	.	.	.	.	.	.	0.0064	.	0.048	1.27	.	~45 mm Ø x ~28 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 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 mm
SS 403/2	.	.	.	.	.	.	.	.	.	.	0.341	.	.	38 mm Ø x 19 mm
IMZ 64/2	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 40 mm
VS UG8/11	.	.	.	.	.	.	.	.	0.0058	.	0.181	0.70	.	~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 UG1/11	.	.	.	.	.	.	.	.	0.0035	.	.	.	.	~45 mm Ø x ~28 mm
VS UG96	.	.	.	.	.	.	.	.	.	.	0.0030	.	.	~40 mm Ø x ~28 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 61500A	.	.	.	.	.	.	.	.	0.0114	.	0.110	.	Zn: 0.0055	~38 mm Ø x ~15 mm
CZ CM-6A	0.025	0.015	.	.	.	.	0.017	0.03	0.017	.	0.05	0.04	0.04	~39 mm Ø x 25 mm
CZ BO-2B	0.0057	.	(0.0008)	.	.	.	.	.	0.0062	.	(0.001)	(0.005)	.	~37 mm Ø x ~25 mm
12X LA3C	0.0301	Zn:(0.004)	.	.	.	.	(0.004)	.	.	.	0.157	.	0.0197	~40 mm Ø x ~15 mm
IARM 34C	0.0024	0.0003	(0.0004)	.	.	0.0008	(0.0003)	(0.001)	0.0058	.	0.206	(0.003)	(0.001)	31 mm Ø x 2 or 18 mm
BS 4941	(0.004)	.	(0.0002)	.	.	0.0017	.	.	0.006	.	0.164	.	.	41 mm Ø x ~7 or 19+ mm
BS 43A	(0.005)	(0.0002)	(0.0006)	[96.8]	(0.0001)	(0.003)	.	(0.002)	0.011	.	0.145	(0.005)	(0.001)	41 mm Ø x ~7 or 19+ mm
IMZ 103A	.	0.006	.	.	.	.	.	.	(0.005)	.	0.17	.	.	40 mm Ø x 40 mm
IMZ 117	.	.	(0.0002)	.	.	.	.	.	.	.	0.087	.	.	40 mm Ø x 40 mm
BS 1144	0.009	.	.	.	.	0.0016	(0.001)	.	0.0113	.	0.0039	(0.003)	last	38 mm Ø x ~16 mm **17025**
IPT 503	.	.	.	.	.	.	0.008	.	.	.	.	.	.	35 mm Ø x 20 mm
SRM C1173	.	.	.	.	.	.	.	.	.	.	0.42	.	.	32 mm Ø x 19 mm
12X 41450A	0.0053	.	.	.	.	.	.	.	0.0090	.	0.0385	.	.	~38 mm Ø ~15 mm
VS UG5/11	.	.	.	.	.	.	.	.	0.0047	.	0.148	0.049	.	~45 mm Ø x ~28 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 last
IARM 30H	0.0046	(0.0007)	(0.0009)	.	(0.001)	(0.0016)	(0.0005)	0.0013	0.008	.	(0.0040)	(0.007)	(0.002)	31 mm Ø X 2 mm
IARM 305B	(0.006)	0.0006	0.0007	.	(0.002)	0.0006	(0.0003)	(0.004)	0.011	.	0.004	(0.004)	0.0011	31 mm Ø X 2 or 18 mm
IARM 252D	0.0053	(0.0002)	(0.001)	.	(0.0002)	(0.0013)	(0.0004)	0.0024	0.012	.	0.0022	(0.004)	(0.0013)	31 mm Ø x 2 or 18 mm
BS 4340A	0.0059	(0.0002)	(0.0002)	95.4	0.0004	0.0007	(0.0003)	(0.0018)	0.0081	.	0.0024	0.0005	0.0016	38 mm Ø x ~7 or 19+ mm **17025**
SRM 1173	.	.	.	.	.	.	.	.	.	.	0.42	.	.	32 mm Ø x 19 mm
HRT FE2015-N	.	.	.	.	.	.	.	.	.	.	0.006	.	.	35 mm Ø x 20 mm
BS 4340	0.0043	(0.0002)	0.0005	95.5	(0.0002)	0.0012	(0.0002)	(0.0013)	0.0063	.	0.0033	0.0012	0.0005	38 mm Ø x ~7 or 19+ mm **17025**
IARM 252C	0.004	(0.0001)	(0.0003)	.	.	(0.002)	0.001	<0.005	0.007	.	0.005	<0.005	<0.002	31 mm Ø x 2 mm
BS 4942	0.005	.	0.0006	.	.	(0.0021)	.	.	0.014	.	0.28	.	.	38 mm Ø x ~7 or 19+ mm
IARM 252E	0.0046	.	.	.	.	.	.	.	0.0075	.	(0.0028)	.	.	31 mm Ø X 2 or 18 mm
BS 1962	0.007	.	**25(pre-17025)**	.	(0.0001)	.	(0.001)	.	0.010	.	0.004	.	.	41 mm Ø x ~7 mm last

Number	As	B	Ca	Fe	Mg	O	Pb	Sb	Sn	Ta	V	W	Zr	Units
VS UG116	.	.	.	.	.	.	.	.	.	.	.	.	.	~45 mm Ø x ~25 mm
IARM 252F	(0.006)	.	.	.	.	.	.	.	0.006	.	(0.003)	(0.003)	.	31 mm Ø X 2 or 18 mm
IARM 30J	(0.002)	.	.	.	.	.	.	.	0.0109	.	0.0045	(0.005)	.	31 mm Ø X 2 mm
SS 114	0.0025	0.0008	.	.	.	.	.	.	0.041	.	0.0086	.	0.0051	44 mm Ø x 19 mm
IMZ 55/1A	.	0.0018	.	.	.	.	.	0.0051	0.017	.	0.107	.	.	38 mm Ø x 20 mm
IARM 31G	(0.004)	0.0004	.	.	.	.	.	.	0.0077	.	0.0036	(0.004)	(0.0012)	31 mm Ø X 2 or 18 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
BS 4942A	0.0031	(0.0001)	0.0012	96.8	0.0004	0.0020	(0.0007)	(0.001)	0.0044	.	0.280	(0.0009)	(0.001)	38 mm Ø x ~7 or 19+ mm **17025**
VS RG30/1	.	.	.	.	.	.	.	.	.	.	0.70	0.89	.	~45 mm Ø x ~28 mm
VS UG79	.	.	.	.	.	.	.	.	.	.	(0.02)	(0.01)	.	~40 mm Ø x ~26 mm
IRSID 1731	.	.	.	.	.	.	.	.	.	.	.	.	.	44 mm Ø x 30 mm
DSZU C045	0.0052	(0.0004)	0.0005	.	.	.	.	.	0.0050	.	0.004	(0.011)	.	40 mm Ø x 25 mm
VS UG3/10	.	.	.	.	.	.	.	.	0.0057	.	0.0053	0.006	.	~45 mm Ø x ~28 mm
12X 605M36A	0.0102	.	0.0033	.	.	.	.	.	0.0101	.	.	.	.	~38 mm Ø x ~15 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
IMZ 114A	0.0035	0.0019	.	.	.	.	0.021	0.018	0.014	.	0.096	(0.007)	Zn:(0.006)	38 mm Ø x 20 mm
12X 352E	0.029	.	.	.	.	.	.	.	0.109	(0.018)	0.0251	0.275	.	~40 mm Ø x ~15 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
DSZU C05a	(0.005)	0.010	.	.	.	.	(0.003)	(0.0005)	0.010	.	0.20	0.27	.	40 mm Ø x 25 mm
12X 349E	0.0107	.	.	.	.	.	.	.	0.115	.	0.0262	0.093	.	~40 mm Ø x ~15 mm
12X 41300A	0.0043	.	.	.	.	.	.	.	0.0060	.	.	.	Zn:0.0012	~38 mm Ø x ~15 mm
SS 219/4	.	.	.	.	.	.	.	.	0.011	.	.	.	.	38 mm Ø x 19 mm
BS 8630	0.0038	(0.0002)	(0.0007)	97.3	(0.0007)	0.0008	(0.0007)	0.0012	0.0029	.	0.0006	(0.001)	(0.001)	44 mm Ø x 19+ mm **17025**
HRT FE2010-N	.	.	.	.	.	.	.	.	.	.	0.117	(0.014)	.	40 mm Ø x 20 mm
SS 222/1	.	.	.	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm
IARM 143F	0.0051	.	.	.	.	(0.003)	.	.	0.010	.	0.0046	(0.003)	.	31 mm Ø X 2 or 18 mm
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
IARM 330B	.	.	.	.	.	.	.	.	0.0047	.	0.076	0.024	.	31 mm Ø X 2 or 18 mm
VS UG35/2	.	.	.	.	.	.	.	.	.	.	0.108	.	.	~40 mm Ø x ~28 mm
SS 615/1	.	.	.	.	.	.	.	.	.	.	0.10	.	.	44 mm Ø X 19 mm
VS UG3/11	.	.	.	.	.	.	.	.	.	.	0.064	0.176	.	~45 mm Ø x ~28 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	12X 16604A	0.299	0.444	0.0064	0.0018	0.239	0.131	1.892	1.912	0.0111	.	.	0.0366	0.334	0.0046	0.0060	0.0069
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	ECRM 086-1D	0.297	0.879	0.024	0.037	0.206	0.320	0.168	0.150	.	.	0.023	.	.	.	0.026	.
2	CZ CM-3A	0.295	0.37	0.016	0.0013	0.27	0.16	1.82	1.87	0.05	.	0.005	0.012	0.33	0.007	0.007	0.007
1	VS UG9/10	0.294	0.616	.	(0.003)	0.235	0.169	0.144	0.170	0.280	.	.	.	0.282	0.015	0.0017	1.25
1	VS RG27/1	0.290	0.74	0.044	0.0043	0.28	0.208	0.142	1.83	1.07	.	.	0.025	0.191	.	.	0.072
1	IMZ 178	0.29	0.65	0.016	0.003	0.28	0.140	2.09	1.26	0.051	.	.	0.015	0.20	0.0160	0.011	0.011
1	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
1	IARM 380A	0.268	1.24	0.021	0.025	0.181	0.265	0.114	0.192	0.0029	.	(0.007)	(0.010)	0.059	(0.012)	0.0117	0.0475
2	RM Fe 2/4	0.26	0.61	0.039	0.016	0.30	0.30	0.68	0.70	(0.001)	.	0.04	0.29	0.47	0.020	0.04	0.46
2	BS 69B	0.258	1.28	0.008	0.013	1.27	0.086	1.71	0.28	0.024	.	.	0.035	0.39	0.0057	0.006	(0.002)
1	12X 12750U	0.258	0.510	0.0078	0.0053	0.599	0.106	0.786	0.792	0.253	.	.	0.581	0.088	.	0.110	0.102
1	12X 32550A	0.257	1.350	0.0061	0.0054	1.59	0.108	1.750	0.377	0.0178	.	0.0054	.	0.417	0.0101	0.0206	0.0222
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	IARM 380B	0.243	1.27	0.016	0.027	0.238	0.307	0.182	0.153	(0.0021)	.	0.0058	0.014	0.055	(0.013)	0.0132	0.049
2	HRT FE2018-N	0.24	0.74	0.012	(0.003)	0.29	0.06	0.43	1.46	0.017	.	.	.	0.75	0.0066	.	0.30
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	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	12X 356D	0.228	0.325	0.057	0.040	0.235	0.402	0.070	0.246	0.031	.	0.025	0.110	0.0299	0.0107	0.0372	0.071
2	DSZU C043A	0.222	2.14	0.060	0.064	0.131	0.51	2.93	0.49	0.066	.	(0.001)	.	0.146	(0.009)	0.0023	0.25
1	IARM 229B	0.220	0.858	0.0073	0.0106	0.329	0.0153	0.030	0.017	0.025	.	(0.002)	0.0116	0.495	0.0072	0.0012	0.0059
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	**BS 8620F**	0.212	0.85	0.0090	0.033	0.243	0.234	0.427	0.547	0.040	.	0.0078	0.0089	0.206	0.0106	0.0102	0.0054
1	DSZU C048	0.212	0.467	0.0102	0.0059	0.273	0.262	0.105	0.175	0.0293	.	0.0085	0.015	0.016	(0.011)	0.016	.
2	TL 1001	0.2108	0.8645	0.0141	0.0236	0.2141	0.1902	0.5378	0.5290	0.0191	.	(0.0051)	(0.0070)	0.1987	0.0102	0.0090	.
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	VS UG4/11	0.21	0.59	0.024	0.0069	0.285	0.074	0.173	1.21	0.032	.	.	0.0108	0.87	0.020	.	0.78
1	IARM 33D	0.209	0.593	0.009	0.023	0.207	0.072	1.78	0.139	0.026	.	0.0035	0.008	0.229	0.0053	0.005	0.002
2	BS 3952	0.208	0.546	0.011	0.021	0.264	0.202	0.112	0.105	0.048	.	.	.	0.519	(0.0005)	.	.
1	ECRM 187-2D	0.2038	1.257	0.0066	(0.0300)	0.2111	0.1288	0.1755	1.132	0.0223	.	0.0057	0.0112	0.0623	0.0105	0.0237	0.0122

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Als	As	Co	Mo	N	Sn	V
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	12X 12747V	0.201	1.240	0.0648	0.0275	0.298	0.232	0.494	0.58	0.0271	.	0.0075	0.211	0.606	0.025	0.144	0.0272
1	VS RG31/1	0.200	0.191	0.0039	0.0058	0.28	0.39	2.12	1.28	0.30	.	.	0.273	0.30	.	.	0.200
1	KUT B3	0.20	0.14	(0.012)	0.025	0.53	0.25	.	5.94	.	.	.	.	.	.	.	1.16
1	VS UG5/5	(0.2)	0.52	(0.005)	(0.03)	0.145	0.37	0.42	1.42	0.19	.	.	.	0.44	.	.	0.29
1	IARM 155F	0.199	0.617	0.008	(0.013)	0.223	0.219	3.36	0.144	0.0356	.	(0.006)	0.012	0.244	(0.005)	0.0084	0.0015
1	IMZ 112B ##	0.195	0.43	0.022	0.016	0.27	0.055	0.046	0.034	(0.03)	.	.	.	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
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	**BS 51F**	0.188	0.519	0.016	0.017	0.24	0.231	1.68	0.156	0.022	.	(0.005)	0.0086	0.224	0.0061	0.008	0.0030
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
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 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	.
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)
1	VS UG7/11	0.164	0.293	0.0045	0.0062	0.39	0.468	2.09	1.31	0.276	.	.	0.291	0.298	0.014	.	0.208
2	HRT FE1999-N	0.16	0.59	0.011	0.005	0.22	0.11	0.09	0.87	0.027	.	.	.	0.46	0.0091	.	0.021
2	BS XCCT	0.158	0.52	0.005	0.011	0.28	0.027	1.27	0.65	0.006	.	0.004	0.017	0.020	0.0076	(0.002)	0.031
1	IMZ 176A	0.15	0.75	0.018	0.003	0.35	0.103	3.62	0.41	(0.058)	.	.	(0.010)	0.027	0.0129	0.009	(0.061)
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
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)
1	12X 15252R	0.137	0.321	0.044	0.044	0.097	0.153	2.03	0.96	0.035	.	.	0.153	0.247	0.020	0.047	0.288
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 % — analysis listed in mg/kg

Number	B	Bi	Fe.diff	Ge	Sb	Te	Zn	Ag	Au	Ca	Ce	H	Hf	La	Mg	N	Nd	O	Pd	Se	Sr
SRM 1264a	(0.011)	(0.0009)	[96.7]	(0.003)	0.034	0.00018	(0.001)	(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 mm
12X 16604A	.	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø X ~15 mm
SRM 1269	.	.	.	.	.	.	0.005	.	.	.	.	.	.	32 mm Ø x 19 mm
ECRM 086-1D	.	.	.	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 25 or 30 mm
CZ CM-3A	0.0002	.	.	.	0.006	.	.	.	.	0.006	0.015	.	.	~39 mm Ø x 25 mm
VS UG9/10	.	.	.	.	.	.	.	.	.	0.163	1.34	.	.	~45 mm Ø x ~28 mm
VS RG27/1	.	.	.	.	.	.	.	.	.	0.110	0.170	.	.	~45 mm Ø x ~28 mm
IMZ 178	.	.	.	.	0.105	.	.	.	.	.	0.017	.	.	40 mm Ø x 40 mm
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**
IARM 380A	.	.	.	.	(0.0020)	.	.	.	.	.	(0.009)	.	.	31 mm Ø X 2 or 18 mm
RM Fe 2/4	(0.0027)	<0.001	.	.	(0.011)	.	<0.02	<0.03	.	(0.0065)	0.19	.	<0.02	40 mm Ø x 40 mm
BS 69B	.	.	.	.	.	.	.	.	.	(0.002)	.	.	.	38 mm Ø x ~7 or 19+ mm
12X 12750U	.	.	.	.	0.111	.	.	.	.	0.159	0.100	.	.	~40 mm Ø x ~15 mm
12X 32550A	.	.	.	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~15 mm
BS 6418	.	.	.	.	.	0.0012	.	.	.	0.003	.	.	.	57 mm Ø x ~7 or 19+ mm
IARM 380B	.	.	.	.	(0.0016)	.	.	.	.	0.0011	(0.003)	.	.	31 mm Ø X 2 or 18 mm
HRT FE2018-N	(0.0003)	.	.	.	.	.	.	.	.	.	.	.	.	36 mm Ø x 20 mm
IMZ 113	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 40 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
12X 356D	(0.002)	Ca:0.0063	.	Se:0.010	0.019	.	0.034	0.0203	.	0.016	0.086	0.011	.	~40 mm Ø x ~15 mm
DSZU C043A	(0.001)	0.0004	.	.	0.006	.	.	.	.	0.041	0.092	.	.	40 mm Ø x 25 mm
IARM 229B	(0.0006)	(0.0003)	.	.	(0.0019)	(0.0017)	(0.0005)	(0.0006)	(0.003)	0.0019	(0.003)	.	(0.0008)	31 mm Ø x 2 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 20 mm
BS 8620F	(0.0003)	0.0020	97.1	(0.0002)	0.0025	0.0026	(0.002)	(0.002)	**17025**	0.0016	0.0016	.	(0.0008)	38 mm Ø x ~7 or 19+ mm
DSZU C048	.	(0.0017)	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 25 mm
TL 1001	.	.	.	.	.	.	.	.	.	(0.0134)	.	.	.	40 mm Ø x 20 mm
IPT 502	.	.	.	.	.	.	.	.	.	0.0016	.	.	.	36 mm Ø x 20 mm
VS UG4/11	.	.	.	.	0.071	.	.	.	.	0.034	0.0092	.	.	~45 mm Ø x ~28 mm
IARM 33D	0.0002	(0.0003)	.	.	0.002	0.0013	<0.001	(0.002)	.	0.003	<0.005	.	<0.002	31 mm Ø x 2 or 18 mm
BS 3952	.	.	.	.	.	.	.	.	.	.	.	.	.	39 mm Ø x ~7 or 19+ mm
ECRM 187-2D	0.00048	.	.	.	.	.	.	.	.	.	.	.	.	39 mm Ø x 28 mm

Number	B	Ca	Fe	Mg	Nb	O	Pb	Sb	Ta	Ti	W	Zn	Zr	Units
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
12X 12747V	.	.	.	.	.	.	.	.	.	0.099	0.0276	.	.	~40 mm Ø X ~15 mm
VS RG31/1	.	.	.	.	.	.	.	.	.	0.21	0.39	.	.	~45 mm Ø x ~28 mm
KUT B3	.	.	.	.	.	.	.	.	.	.	1.19	.	.	30-35mm Ø x 39 mm
VS UG5/5	.	.	.	.	(0.01)	.	.	.	.	(0.003)	0.38	.	.	~45 mm Ø x ~28 mm
IARM 155F	.	.	.	.	0.0016	(0.003)	.	.	.	0.0020	(0.004)	.	.	31 mm Ø X 2 or 18 mm
IMZ 112B ## BACKORDERED	.	.	.	.	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
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
BS 51F	(0.0002)	(0.0005)	[96.7]	(0.0001)	(0.0007)	(0.002)	(0.0008)	(0.003)	(0.005)	0.0012	(0.0024)	**17025**	(0.0009)	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
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 15180A	.	.	.	.	.	.	.	.	.	.	.	0.0016	.	~40 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
VS UG7/11	.	.	.	.	.	.	.	.	.	0.20	0.385	.	.	~45 mm Ø x ~28 mm
HRT FE1999-N	0.0002	.	.	.	0.002	.	.	.	.	0.001	.	.	.	40 mm Ø x 20 mm last
BS XCCT	.	.	.	.	(0.001)	(0.005)	(<0.001)	(0.0004)	.	(0.002)	.	.	(<0.002)	36 mm Ø x ~7 or 19+ mm
IMZ 176A	.	.	.	.	.	.	.	.	.	.	(0.015)	.	.	40 mm Ø x 40 mm
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
ECRM 193-1D	.	.	.	.	0.0232	.	.	.	.	(0.0013)	.	.	.	36-41 mm Ø x 28-35 mm
12X 15252R	.	.	.	.	0.067	.	.	.	.	(0.0007)	(0.0013)	.	.	~40 mm Ø x ~15 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	12X 15256Q	0.123	0.492	0.0125	0.0163	0.190	0.0550	5.33	0.362	0.1300	.	0.493	0.0740	0.0056	0.107	0.619
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	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 75A	0.112	0.394	0.080	0.016	0.618	0.428	0.041	0.401	0.009	.	0.0037	0.018	0.0024	0.023	0.013
1	SRM 1138a	0.11	0.35	0.035	0.056	0.25	0.09	0.10	0.13	.	.	.	0.05	.	.	0.02
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
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	VS UG6/11	0.091	0.691	0.028	0.022	0.96	0.449	0.640	0.759	0.0107	.	0.0392	0.0082	0.0083	.	0.0075
1	KUT T3/2	0.09	0.60	0.058	0.033	0.66	0.10	0.11	0.40	.	.	.	.	.	.	.
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	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	DSZU C050	0.082	1.21	0.040	0.065	0.287	0.304	0.118	0.075	(0.008)	.	.	0.48	.	(0.004)	0.007
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
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	SS 421	(0.049)	(0.11)	(0.012)	(0.027)	(0.07)	.	.	.	.	.	.	(0.028)	.	.	(<0.02)
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)
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	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
12X 15256Q	.	.	.	.	.	0.0509	.	.	.	.	0.101	.	~40 mm Ø x ~15 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
VS UG115	.	.	.	.	.	.	.	.	.	0.0014	.	.	~45 mm Ø x ~25 mm
IMZ 75A	.	0.0021	.	.	.	0.024	.	.	.	0.023	.	.	38 mm Ø x 20 mm
SRM 1138a	.	.	.	.	.	.	.	.	.	.	.	.	32 mm Ø x 13 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
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	.	.	.	.	.	.	.	.	.	no uncertainties			39 mm Ø x ~17 mm last
IMZ 73	.	.	.	.	.	(0.01)	.	.	.	(0.002)	.	(0.0025)	40 mm Ø x 40 mm
VS UG6/11	.	.	.	.	.	.	.	.	.	.	.	.	~45 mm Ø x ~28 mm
KUT T3/2	.	.	.	.	.	.	.	.	.	(<0.01)	.	.	30-35mm Ø x 39 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 mm
IMZ 204	.	.	.	.	.	.	.	.	.	0.035	.	.	36 mm Ø x 20 mm
SRM 1226	.	.	.	.	.	(0.005)	.	(0.0001)	.	0.0021	(0.005)	(0.010)	32 mm Ø x 19 mm
DSZU C050	(0.002)	(0.002)	.	.	.	.	.	.	.	(0.002)	.	.	40 mm Ø x 25 mm
IMZ 72	.	.	.	.	.	(0.001)	.	.	.	0.021	.	.	40 mm Ø x 40 mm last
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
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
SS 421	.	.	.	.	.	.	.	.	.	.	0.52	.	38 mm Ø x 19 mm
VS UG82	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~28 mm
VS UG97	.	.	.	.	.	.	.	.	.	0.154	.	.	~40 mm Ø x ~28 mm
IARM 168A	(0.003)	0.0004	.	.	.	0.003	0.0008	(<0.01)	.	0.004	0.52	.	31 mm Ø x 2 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 |

LOW ALLOY STEEL XRF SET

Part Number: BS LAS-24 Set of 24 samples, each 35 - 45 mm Ø x 7 mm discs **CRM, 17025** others are RM

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 4330MOD**	0.316	0.92	0.0052	0.0010	0.269	0.105	1.83	0.848	0.478	0.031	0.0038	(0.001)	0.034	0.0031	0.0062	0.083
4340	**BS 4340**	0.418	0.695	0.0119	0.0187	0.279	0.149	1.79	0.807	0.231	0.028	0.0043	0.0005	0.0068	0.0080	0.0063	0.0033
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**	0.49	0.82	0.0074	0.025	0.252	0.18	0.24	0.92	0.059	(0.003)	(0.005)	(0.0006)	0.008	0.0072	0.011	0.145
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

this item sold out, most BS are available as XRF

CRM SOLUBLE ELEMENTS IN LOW ALLOY STEEL SET

available in set/7 only -S = Soluble, -T = Total 38 mm Ø x 30 mm

Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al-S	Al-T	B-S	B-T	Mo
NCS HS11717a-1	0.0023	0.018	0.012	0.0027	0.0054	0.0036	0.011	0.023	0.0069	0.0078	0.0002	0.0004	0.0053
NCS HS11717a-2	0.0028	0.104	0.014	0.011	0.077	0.049	0.045	0.042	0.024	0.026	0.0011	0.0012	0.304
NCS HS11717a-3	0.032	0.303	0.018	0.067	1.55	0.403	0.563	0.236	0.295	0.298	0.0018	0.0020	0.034
NCS HS11717a-4	0.096	0.669	0.012	(0.050)	1.09	0.316	0.400	0.102	0.214	0.216	0.0085	0.0096	0.144
NCS HS11717a-5	0.243	1.04	0.030	0.042	0.769	0.248	0.393	0.106	0.101	0.104	0.0071	0.0074	0.105
NCS HS11717a-6	0.387	1.47	0.038	0.030	0.436	0.167	0.206	0.409	0.050	0.051	0.0047	0.0049	0.071
NCS HS11717a-7	0.498	2.10	0.050	0.022	0.176	0.075	0.107	0.612	0.022	0.024	0.0031	0.0033	0.196

Number	As	Bi	Co	N	Nb	Pb	Sb	Sn	Ti	V
NCS HS11717a-1	0.0034	(<0.00001)	0.0015	0.0016	(<0.0005)	(<0.0001)	0.00041	0.00020	0.0002	(0.0001)
NCS HS11717a-2	0.011	(<0.00001)	0.058	0.0017	0.031	(<0.0001)	0.00031	0.0073	0.020	0.011
NCS HS11717a-3	0.019	(<0.00001)	0.099	0.0032	0.079	(<0.0001)	0.00041	0.016	0.049	0.052
NCS HS11717a-4	0.073	(0.00001)	0.146	0.0031	0.223	(<0.0001)	0.00044	0.049	0.202	0.098
NCS HS11717a-5	0.071	(0.00001)	0.296	0.0048	0.318	(<0.0001)	0.00052	0.099	0.178	0.257
NCS HS11717a-6	0.045	(0.00001)	0.248	0.0049	0.106	(<0.0001)	0.00048	0.151	0.124	0.201
NCS HS11717a-7	0.034	(0.00001)	0.198	0.0063	0.153	(<0.0001)	0.00050	0.197	0.088	0.147

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

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	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**	1.64	0.27	(0.017)	0.067	0.357	0.065	(0.18)	4.12	4.87	0.48	0.045	0.0016	4.81	11.6	0.0032
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	.
1	IARM 41D	1.519	0.256	0.021	0.012	0.256	0.047	0.114	11.5	(0.020)	0.74	0.0152	(0.003)	0.77	0.034	0.014
2	**BS 41A**	1.50	0.93	0.004	0.001	0.97	0.034	0.17	0.20	0.006	0.19	0.0077	0.004	(0.003)	(<0.003)	0.010
1	IARM 45B	1.42	0.90	0.010	0.008	0.92	0.018	0.024	0.061	0.004	0.24	0.0080	0.002	(0.003)	(0.004)	0.010
2	**BS 41**	1.41	0.89	0.013	0.011	1.02	0.038	0.15	0.22	.	0.23	.	.	0.046	0.035	(0.007)
2	BS A-10	1.41	1.75	0.016	0.022	1.15	0.016	1.82	0.24	(0.010)	1.53	.	.	(0.004)	<0.005	0.006
1	IARM 251A	1.398	0.33	0.014	0.058	0.58	0.13	0.131	4.1	0.129	5.16	0.044	0.003	3.9	5.5	0.01
2	IARM 45A	1.39	0.88	0.014	0.012	1.02	0.049	0.11	0.13	0.004	0.25	0.0079	0.003	0.005	.	0.011
1	DSZU C073	1.32	0.23	0.019	0.013	0.27	0.112	0.198	3.97	8.31	4.97	.	.	2.82	6.40	.
2	CT X27081	1.32	0.20	0.004	0.001	0.24	0.026	0.031	0.052	.	0.008	.	.	.	3.39	.
1	DSZU C072	1.30	0.29	0.024	0.019	0.55	0.106	0.192	4.25	0.011	5.39	.	.	3.59	6.33	.
3	CZ HS-2A	1.24	0.27	0.024	0.017	0.24	0.08	0.21	4.15	9.9	3.75	.	0.003	3.4	9.3	0.035
1	DSZU C077	1.16	0.19	0.030	0.024	0.40	0.142	0.271	4.07	7.73	3.05	.	.	2.04	12.17	.
1	DSZU C075	1.16	0.16	0.021	0.015	0.47	0.120	0.202	3.10	8.03	4.06	.	.	2.10	9.27	.
1	**BS M-47**	1.14	0.20	0.020	0.002	0.464	0.080	0.17	3.72	4.99	9.24	0.0219	(0.004)	1.23	1.36	(0.002)
1	IMZ 102/3	1.11	0.15	0.014	(0.0045)	1.06	0.13	0.021	1.59	.	0.43	.	.	(0.012)	.	0.017
1	DSZU C074	1.10	0.16	0.023	0.020	0.16	0.141	0.158	3.93	5.08	5.21	.	.	1.94	6.47	.
1	DSZU C071	1.06	0.20	0.020	0.028	0.38	0.162	0.149	3.77	8.10	9.67	.	.	1.07	1.74	.
1	SS 487/1	1.02	0.26	0.022	0.029	0.18	.	(0.14)	3.91	7.95	9.41	.	.	1.14	1.80	0.006
1	DSZU C081	1.01	0.32	0.017	0.011	1.10	0.124	0.207	7.78	0.029	2.13	.	.	0.25	0.05	.
2	CT M7	1.00	0.29	0.012	0.003	0.34	0.066	0.10	3.60	0.015	8.49	.	.	2.02	1.78	.
1	IARM 39B	0.99	0.54	0.017	0.003	0.35	0.10	0.14	4.79	0.014	1.01	0.0096	0.003	0.22	(0.026)	0.006
1	IARM 39C	0.99	0.45	0.019	0.007	0.28	0.077	0.144	4.99	0.013	0.97	0.011	0.0029	0.21	0.011	0.017
2	BS 36D	0.97	0.68	0.021	0.007	0.27	0.060	0.089	5.25	0.010	0.96	0.0108	.	0.29	0.028	0.010
2	CT A2	0.95	0.72	0.010	0.004	0.40	0.06	0.10	5.13	.	1.05	.	.	0.22	.	.
1	SS 485/1	0.94	0.41	0.043	0.039	0.30	.	(0.14)	4.02	4.97	0.66	.	.	1.02	17.8	(0.006)
1	IARM 320A	0.93	0.33	0.021	(0.0015)	0.36	0.091	0.204	4.22	4.90	4.79	(0.014)	0.0032	1.76	6.01	0.023
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	0.857	0.260	0.019	0.0016	0.36	0.14	0.133	3.55	0.278	8.04	0.034	0.002	1.23	1.65	0.009
2	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	.
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
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	I4X 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	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 FeT1-18	0.80	0.295	0.026	(<0.0010)	0.30	0.034	0.14	3.98	0.096	0.124	0.0195	0.026	1.05	18.0	0.054
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	IARM 281A	0.74	0.30	0.015	0.019	0.29	0.096	0.15	3.89	4.8	0.49	0.0064	0.004	0.90	17.6	0.007
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)
1	IARM 40C	0.72	1.91	0.014	0.012	0.32	0.142	0.255	0.99	0.010	1.27	0.0083	0.008	0.010	0.009	0.019
1	14X HS1C	0.72	0.29	0.018	0.020	0.23	0.07	0.28	4.00	0.25	0.36	0.023	.	1.04	17.2	.
3	CZ HS-1A	0.72	0.28	0.023	0.011	0.28	0.08	0.14	4.15	4.7	0.06	.	0.003	1.33	17.5	0.03
1	IARM 43B	0.711	0.56	0.008	0.013	0.251	0.180	1.39	0.651	0.012	0.206	0.0093	0.0047	0.0035	<0.005	0.021
2	BS 40B	0.71	2.28	0.020	0.006	0.35	0.076	0.089	1.18	0.020	1.07	0.0076	0.002	0.10	0.11	0.002

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo	N	Ti	V	W	Al
1	DSZU C076	0.69	0.18	0.024	0.022	0.58	0.120	0.213	5.75	13.88	4.29	.	.	2.03	9.81	.
1	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	.	0.578	0.111	0.0741	1.081	.	0.070	0.0068	.	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	IMZ 58/1	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	.	.
1	**BS H-13A**	0.391	0.445	0.0187	(0.003)	1.13	0.083	0.139	5.11	0.033	1.32	0.034	(0.03)	0.92	0.100	(0.03)
2	CT H13	0.39	0.30	0.015	0.005	1.05	0.061	0.10	5.23	.	1.36	.	.	1.02	.	.
1	IARM 255B	0.389	0.317	0.010	(0.002)	0.91	0.073	0.062	4.82	0.0090	1.30	(0.005)	.	0.515	.	0.032
1	IARM 42C	0.382	0.40	0.022	0.0037	0.85	0.066	0.051	4.86	0.022	1.29	0.0201	0.0125	0.84	0.32	0.018
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	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
2	CZ CM-17A	0.142	0.524	0.0310	0.0175	0.612	0.201	0.520	9.58	0.0329	1.116	0.0743	0.0236	0.247	0.099	0.0089
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	13X 14713A	0.0446	0.495	0.0203	0.0080	0.911	0.0368	0.122	7.17	0.0110	0.0266	0.0065	0.0056	0.0411	.	0.551
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

#	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
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	.	(0.006)	(0.0005)	(0.001)	0.009	(0.018)	.	Fe:71.4	0.0074	.	(0.003)	38 mm Ø x ~7 or 19+ mm **17025**
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 ~16 mm
IARM 41D	.	(0.01)	(0.0006)	(0.0008)	(0.004)	(0.003)	(0.0008)	.	(0.005)	.	(0.002)	31 mm Ø x 2 or 18 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 ~7 or 19+ mm **17025**
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 mm
IARM 45A	.	(0.003)	(0.0001)	.	0.002	(0.0017)	(<0.005)	.	0.005	.	.	31 mm Ø x 2 mm
DSZU C073	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
CT X27081	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x ~16 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 ~16 mm
IARM 39B	.	.	.	.	0.006	.	.	.	0.004	.	.	31 mm Ø x 2 or 18 mm
IARM 39C	.	(0.005)	0.001	(0.001)	0.0040	0.001	(0.0001)	(0.002)	0.005	.	(0.002)	31 mm Ø x 2 or 18 mm
BS 36D	.	0.002	.	.	.	.	.	.	0.016	.	.	38 mm Ø x ~7 or 19+ mm
CT A2	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x ~16 mm
SS 485/1	.	(0.022)	.	.	.	.	.	.	0.019	.	.	38 mm Ø x 19 mm
IARM 320A	.	0.013	0.0011	.	(0.015)	(0.0021)	.	.	0.008	.	(0.003)	31 mm Ø x 2 or 18 mm
CT O1	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x ~19 mm
ECRM 290-1D	.	.	.	.	.	.	.	.	.	.	.	36-41 mm Ø x 28-35 mm
CT M10	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x ~16 mm
BS 35D	.	.	.	.	(0.001)	.	.	.	0.006	.	.	38 mm Ø x ~7 or 19+ mm **17025**
IARM 304A	.	(0.01)	0.002	(0.002)	0.021	0.002	.	(0.001)	0.006	(0.002)	(0.002)	31 mm Ø x 2 or 18 mm
14X 14946	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
BS 32D	.	.	.	.	.	.	.	.	.	.	.	38 mm Ø x ~7 or 19+ mm
IARM 306B	.	(0.003)	(0.001)	.	0.007	(0.001)	(0.001)	0.0025	0.004	.	(0.002)	31 mm Ø x 2 or 18 mm
SRM 1157	.	.	.	.	.	.	.	.	.	.	.	32 mm Ø x 19 mm
BS M-50	.	0.0035	(0.0001)	(0.001)	0.0008	0.0010	(0.0001)	(0.0006)	0.0045	Fe:88.8	(0.0006)	38 mm Ø x ~7 or 19+ mm **17025**
14X 14948C	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm last of stock
CT M2	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x ~16 mm
IARM 44C	.	(0.01)	(0.002)	.	0.012	(0.003)	(0.002)	(0.004)	0.010	(0.004)	.	31 mm Ø x 2 mm
CT M1	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x ~16 mm
IARM FeT1-18	.	.	.	.	(0.004)	(0.0027)	.	.	(0.010)	.	.	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**
IARM 281A	.	(0.02)	(0.003)	.	0.094	(0.003)	.	.	0.02	.	(0.002)	31 mm Ø x 2 or 18 mm
SS 486/1	.	(0.016)	.	.	.	.	.	.	0.014	.	.	38 mm Ø x 19 mm
IARM 40C	.	0.008	0.0009	(0.001)	0.003	0.0013	.	.	0.008	.	(0.002)	31 mm Ø x 2 or 18 mm
14X HS1C	.	.	.	.	.	.	.	.	(0.035)	.	.	40 mm Ø x 15 mm
CZ HS-1A	.	.	.	.	.	.	.	.	0.02	.	.	~39 mm Ø x 25 mm
IARM 43B	.	0.005	0.0002	.	0.004	0.0016	<0.0005	.	0.013	.	.	31 mm Ø x 2 or 18 mm
BS 40B	.	0.004	0.0006	.	.	.	.	.	0.005	.	.	41 mm Ø x ~7 or 19+ mm

Number	Als	As	B	Ca	Nb	O	Pb	Sb	Sn	Ta	Zr	Units
DSZU C076	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
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	.	.	.	.	0.00144	.	.	0.00175	.	.	.	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 (LAST) or 18 (OK) 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 ~16 mm
IARM 259A	.	0.006	0.0003	.	0.003	0.0014	<0.0005	.	0.004	.	0.001	31 mm Ø x 2 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 mm
IMZ 58/1	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 40 mm
IMZ 51/1	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 40 mm
ECRM 276-2D	.	.	.	.	.	.	.	.	0.0133	.	.	38 mm Ø x 25 or 30 mm
BS H-13A Fe:90.2		0.0050	(0.0007)	(0.0006)	0.0052	(0.016)	(0.0004)	(0.002)	(0.005)	.	(0.002)	38 mm Ø x ~7 or 19+ mm **17025**
CT H13	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x ~16 mm
IARM 255B	.	.	.	.	(0.006)	.	.	.	(0.006)	.	.	31 mm Ø x 2 or 18 mm
IARM 42C	.	(0.01)	0.0011	(0.0005)	(0.004)	0.003	0.0007	(0.004)	(0.006)	(0.004)	(0.002)	31 mm Ø x 2 or 18 mm
ECRM 271-1D	.	0.0057	.	0.0009	.	0.0020	.	.	0.0084	.	.	35 mm Ø x 25 mm
BS 49	.	.	.	.	.	.	.	.	(0.004)	.	.	49 mm Ø x ~7 or 19+ mm
BS 9-4-30	.	.	.	.	.	.	.	.	.	.	.	35 mm Ø x ~7 or 19+ mm
IARM 341A	.	(0.003)	0.0005	0.0011	(0.005)	0.0008	(0.001)	(0.001)	(0.005)	.	(0.003)	31 mm Ø x 2 or 18 mm
IMZ 196	.	.	0.065	.	0.073	.	.	.	.	.	.	37 mm Ø x 30 mm
IMZ 170	.	.	.	.	0.087	.	.	(0.002)	0.007	.	.	40 mm Ø x 40 mm
CZ CM-17A	0.0105	0.0060	.	.	.	.	0.0177	.	0.0109	.	.	~37 mm Ø x ~25 mm
VS LG43/1	.	.	.	.	.	.	.	.	.	.	.	~45 mm Ø x ~28 mm
IMZ 197	.	.	(0.007)	.	(0.011)	.	.	.	0.015	.	.	37 mm Ø x 30 mm
NCS HS20741	.	.	.	.	.	.	.	.	.	.	.	35 mm Ø x 40 mm
VS LG42/1	.	.	.	.	.	.	.	.	.	.	.	~45 mm Ø x ~28 mm
VS LG37/1	.	.	.	.	.	.	.	.	.	.	.	~45 mm Ø x ~28 mm
IMZ 179	.	(0.007)	.	.	(0.004)	.	.	.	0.010	.	.	40 mm Ø x 40 mm
IMZ 157	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 40 mm
NCS HS20742	.	.	.	.	.	.	.	.	.	.	.	35 mm Ø x 40 mm
IMZ 177	.	.	.	.	.	.	.	.	0.008	.	.	40 mm Ø x 40 mm
13X 14713A	.	.	.	Mg:0.0016	.	.	.	.	0.0034	.	.	~40 mm Ø x ~15 mm
SS 422	.	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm
IMZ 101/2	.	.	(0.0005)	.	.	.	.	.	.	.	(0.002)	40 mm Ø x 40 mm
SS 423	.	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm
SS 424	.	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm
NCS HS20743	0.021	.	.	.	.	.	.	.	.	.	.	35 mm Ø x 40 mm
IARM 180A	.	(0.004)	0.0004	.	(0.005)	0.0006	(0.002)	.	0.002	.	.	31 mm Ø x 2 mm

Number	Als	As	B	Ca	Nb	O	Pb	Sb	Sn	Ta	Zr	Units

ALUMINUM IN STAINLESS AND HIGH ALLOY STEEL

= Class, where 1 = CRM and 2 = RM

#	Number	Al	Ni	Cr	C	Mn	P	S	Si	Cu	Co	Mo	N	Nb	Ti	V
1	ECRM 299-1D	5.33	0.172	22.32	0.0154	0.2678	0.0152	0.00022	0.299	0.0382	0.0187	0.0186	0.0198	.	0.1289	0.0329
1	IMZ 158	1.56	0.24	25.51	0.091	1.34	0.015	0.007	2.23	0.097	.	0.025	.	.	0.12	0.078
1	13X PH17700A	1.172	6.98	16.88	0.0732	0.496	0.0181	0.0008	0.551	0.146	0.0464	0.340	0.0192	0.0201	0.051	0.0390
1	**BS 192**	1.17	7.11	16.44	0.074	0.835	0.025	0.0005	0.387	0.412	0.104	0.430	0.0290	0.168	0.076	0.124
2	CT X92834	1.14	8.32	12.57	0.035	0.044	0.003	0.003	0.019	0.030	0.030	2.20	.	0.001	0.019	<0.004
1	IARMFe177PH-18	1.09	7.11	17.08	0.080	0.730	0.020	(0.0005)	0.51	0.36	0.048	0.350	0.0153	0.009	0.083	0.062
1	13X PH13800A	1.075	8.04	12.53	0.0386	0.0332	0.0064	0.0030	0.081	0.0449	0.0220	2.10	0.0041	.	0.0122	0.0188
1	IARM 21D	1.03	8.29	12.69	0.032	0.052	0.008	(0.0014)	0.039	0.017	0.078	2.23	0.0037	(0.005)	0.016	0.017
2	BS 184A	1.00	8.34	12.66	0.035	0.06	0.007	0.001	0.080	0.041	0.036	2.20	0.0045	(0.006)	0.051	0.014
1	**BS 192A**	0.98	7.01	16.44	0.066	0.768	0.021	<0.002	0.300	0.334	0.114	0.28	0.029	0.208	0.083	0.077
1	IARM 152C	0.94	7.30	16.99	0.072	0.74	0.024	0.0006	0.263	0.316	0.113	0.36	0.0172	0.012	0.098	0.072

Number	As	B	Ca	O	Sn	Ta	W	Zr	Units	
ECRM 299-1D	0.0054	0.0002	.	.	.	.	.	0.1775	40 mm Ø x 25 mm	
IMZ 158	.	.	.	.	.	.	.	.	40 mm Ø x 40 mm	
13X PH17700A	.	0.0033	.	.	0.0055	.	0.009	.	~38 mm Ø x ~15 mm	
BS 192	(0.005)	(0.0003)	0.0007	0.0014	0.008	(0.001)	0.05	.	38 mm Ø x ~7 or 19+ mm	**25(pre-17025)**
CT X92834	.	0.0009	.	.	0.002	.	.	<0.001	30-35 mm Ø x x ~19 mm	
IARM Fe177PH-18	.	(0.0017)	.	.	(0.006)	.	(0.011)	.	31 mm Ø x 2 or 18 mm	
13X PH13800A	.	.	.	.	0.0051	.	.	.	~38 mm Ø x ~15 mm	
IARM 21D	.	.	.	.	.	.	(0.012)	.	31 mm Ø x 2 or 18 mm	
BS 184A	.	(0.0004)	(0.0003)	(0.0003)	(0.002)	.	0.032	.	38 mm Ø x ~7 or 19+ mm	
BS 192A	(0.0035)	(0.0003)	(0.0006)	(0.0006)	0.008	.	0.048	.	38 mm Ø x ~7 or 19+ mm	**25(pre-17025)**
IARM 152C	(0.004)	0.0029	(0.0005)	(0.001)	0.007	(0.005)	0.026	.	31 mm Ø x 2 mm	

CALCIUM IN STAINLESS AND HIGH ALLOY STEEL

= Class, where 1 = CRM and 2 = RM

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

Number	Al	As	B	O	Pb	Sb	Sn	Ti	Zn	Units	
BS Ca304-4	0.017	0.0063	0.0031	0.013	0.0008	(0.0002)	0.0024	0.0046	Zr:0.0036	~38 mm Ø x ~38mm Fe: 70.7	**17025**
13X 14923A	0.003	.	.	.	.	.	0.004	.	.	~40 mm Ø x ~15 mm	
ECRM 379-1D	(0.00246)	(0.0018)	0.00190	(0.0027)	(0.000038)	0.00057	0.0021	(0.0014)	.	38 or 45 mm Ø x 25 mm	
BS 193	(0.003)	.	0.0007	(0.004)	.	.	0.004	0.003	.	32 mm Ø x ~7 or 19+ mm	
BS SS4952	0.003	0.002	(0.0004)	0.005	.	.	0.004	0.002	.	38 mm Ø x ~7 or 19+ mm	
BS 82E	0.006	.	0.0024	.	.	.	0.006	0.003	.	38 mm Ø x ~7 to 19 mm	
BS 9942	0.004	(0.004)	0.0014	(0.0023)	.	.	0.006	(0.002)	.	44 mm Ø x ~7 or 19+ mm	**25(pre-17025)**
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 87F	0.004	0.005	(0.0006)	0.005	.	.	0.004	0.004	.	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 3N	5.83	3.03	16.0	0.110	0.39	0.0136	0.019	1.25	0.306	0.74	0.111	0.45	0.0193	0.246	.
1	13X PH 4P	5.53	4.07	15.5	0.033	0.69	0.021	0.019	0.64	0.50	0.255	0.082	0.355	0.075	0.55	.
1	13X PH 2M	4.03	3.56	16.80	0.0598	1.184	0.0201	0.0419	0.502	0.0927	1.009	0.052	0.143	0.049	0.1028	.
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)
1	**BS 17-4PHB**	3.35	4.52	15.60	0.042	0.559	0.022	0.023	0.43	0.040	0.110	0.047	0.315	0.0045	0.061	(0.02)
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	.
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	**BS 17-4PHC**	3.23	4.24	15.40	0.033	0.81	0.022	0.027	0.399	0.077	0.45	0.027	0.258	(0.001)	0.090	0.121
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	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)
1	13X 45500A	2.20	8.36	11.39	0.0041	0.0263	0.0049	0.0020	0.059	0.0152	0.0185	0.0030	0.250	1.187	0.0689	.
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	IARM 15C	1.54	6.35	14.39	0.032	0.760	0.019	0.0018	0.26	0.024	0.722	0.0148	0.63	(0.002)	0.041	(0.020)
1	13X NSA 7B	1.53	6.37	25.69	0.013	0.864	0.0160	0.0005	0.278	0.047	3.28	0.232	(0.009)	.	0.080	0.133
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	**BS 450**	1.51	6.24	14.4	0.029	0.596	0.016	0.0013	0.323	0.028	0.671	0.022	0.59	<0.008	0.051	0.016
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	5.78	25.9	0.013	0.86	0.025	0.0005	0.39	0.048	3.42	0.25	0.024	0.002	0.099	0.106
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	.	.	.
2	HRT FE2004-H	1.33	24.25	19.08	0.021	1.83	0.021	0.004	0.47	0.046	4.17	.	0.046	0.005	0.042	.
1	13X PH 7F	0.77	5.41	13.16	0.118	1.487	0.028	0.0057	1.402	0.049	2.52	0.044	0.241	0.0196	0.043	.

Number	Al	Ag	As	B	Ca	Cd	Fe	Mg	O	Pb	Sb	Sn	Ta	Units
13X PH 3N	0.050	.	.	0.0042	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
13X PH 4P	0.029	.	.	0.0031	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
13X PH 2M	0.0419	.	.	0.0047	.	.	.	.	.	.	.	.	.	~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	0.034	.	(0.003)	0.0036	(0.0004)	**17025**	[74.8]	(0.0002)	(0.002)	(0.001)	(0.002)	0.012	(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 ~19 mm
CT 630	.	0.0004	.	0.0018	.	.	.	.	.	0.001	.	0.007	.	30-35 mm Ø x ~16 mm
BS 17-4PHC	0.0023	.	0.0043	0.0026	0.0007	**17025**	74.8	.	0.010	(0.0001)	.	0.0100	.	44 mm Ø x ~7 or 19+ mm
BS 187A	(0.009)	.	.	0.0022	.	.	.	.	0.0029	last of stock		0.003	<0.002	41 mm Ø x ~7 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 ~19 mm
BS SS1962	0.067	.	0.002	0.0018	.	.	.	.	(0.001)	.	.	0.004	.	38 mm Ø x ~7 or 19+ mm
13X 45500A	0.073	.	.	.	.	.	.	.	.	.	.	0.0048	(0.0050)	~38 mm Ø x ~15 mm
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 19+ mm
IARM 15C	(0.005)	.	0.0044	(0.0006)	(0.0004)	.	.	.	(0.003)	(0.003)	(0.003)	0.009	(0.004)	31 mm Ø x 2 or 18 mm
13X NSA 7B	0.0142	.	.	0.0018	.	.	.	.	.	0.0009	0.0020	.	.	~41 mm Ø x ~15 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
BS 450	(0.003)	.	0.0033	(0.0003)	<0.005	**17025**	75.5	.	0.0027	<0.005	0.0010	0.0046	.	44 mm Ø x ~7 or 19+ mm
CT 450	.	0.0013	.	.	.	.	.	.	.	0.001	.	0.008	.	30-35 mm Ø x ~15-19 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	0.008	.	0.0008	.	.	.	.	.	(0.004)	.	.	(0.003)	.	31 mm Ø x 2 mm
13X NSA 7A	(0.009)	.	.	.	.	.	.	.	.	.	.	.	.	42 mm Ø x 15 mm last
HRT FE2004-H	0.005	.	.	0.0021	.	.	.	.	.	.	.	.	.	32 mm Ø x 20 mm
13X PH 7F	0.012	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm

MARAGING STEEL AND COBALT IN STAINLESS AND HIGH ALLOY STEEL

= Class, where 1 = CRM, 2 = RM

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

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

TUNGSTEN IN STAINLESS AND HIGH ALLOY STEEL

= Class, where 1 = CRM and 2 = RM

#	Number	W	Ni	Cr	C	Mn	P	S	Si	Cu	Co	Mo	N	Nb	Ti	V
1	VS LG57	4.24	25.2	13.70	0.016	0.52	0.011	0.0023	0.56	0.080	.	0.401	.	.	1.81	0.65
1	13X 14219K	4.17	12.66	21.46	0.0997	0.482	0.0401	0.0456	1.504	0.138	0.0475	0.169	.	0.140	.	0.0188
1	13X 14212S	3.68	8.81	21.64	0.119	0.166	0.032	0.0386	2.47	0.611	0.1090	0.520	0.0055	0.550	.	0.1175
1	VS LG59	3.08	35.1	15.81	0.073	1.15	0.011	0.0083	0.63	0.083	.	0.094	.	0.106	1.12	0.273
1	113X 14215L	3.02	15.86	22.89	0.136	1.110	0.0050	0.0068	0.596	0.0110	0.0057	0.0048	.	0.0196	.	0.0480
2	BS 183A	2.60	1.85	12.14	0.172	0.35	0.016	0.0040	0.37	0.093	0.036	0.12	0.0256	0.006	0.002	0.090
1	IARM 20C	2.59	1.93	12.15	0.18	0.30	0.018	0.007	0.35	0.060	0.031	0.12	0.0222	0.010	(0.003)	0.086
1	IMZ 161	1.05	0.55	12.90	0.074	0.29	0.023	0.023	0.65	0.56	.	1.10	.	.	.	0.33

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

MANGANESE STAINLESS STEEL

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

#	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 NSC3AB	11.00	3.19	24.1	0.74	0.019	0.010	1.39	0.287	0.059	0.035	0.019	0.51	2.56	0.158	0.034
1	IARM 296A	10.6	1.71	11.2	0.074	0.027	0.002	0.38	0.12	0.60	(0.005)	0.018	0.23	0.043	0.056	(0.01)
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	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
2	BS 181A	8.16	8.15	16.52	0.071	0.019	0.001	4.03	0.18	0.21	0.022	0.072	0.148	0.017	0.094	0.04
1	**BS 181B**	8.07	8.18	16.17	0.070	0.021	0.0009	3.94	0.206	0.173	0.0119	0.044	0.158	0.026	0.044	0.016
1	13X NSC2Q	8.02	3.63	20.95	0.574	.	0.014	1.02	1.01	0.339	0.37	.	0.299	2.03	0.293	0.063
1	13X 21800A	8.00	8.32	16.81	0.0765	0.032	0.0011	4.03	0.431	0.325	0.012	0.0943	0.125	0.007	0.0619	.
1	13X NSC4G	7.78	7.52	31.7	0.470	.	0.0065	1.53	0.208	1.31	0.26	0.238	0.90	2.37	0.224	0.208
1	NM 303	7.21	1.59	12.68	0.16	0.035	0.050	0.40	0.68	0.17	.	0.063	.	.	0.071	.
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 NSC1Q	6.79	5.10	19.46	0.269	0.0103	(0.007)	0.93	0.438	0.240	0.034	0.015	0.087	1.48	0.540	0.104
1	VS RG21/1	6.39	7.52	15.53	0.169	(0.02)	(0.008)	1.95	0.17	0.88	.	.	.	0.48	1.71	(0.2)
3	CZ SL-5A	5.8	4.94	11.7	0.37	0.021	0.014	0.36	2.90	4.12	0.035	0.26	.	0.20	0.21	0.78
2	BS 191	5.71	5.34	16.33	0.098	0.024	0.023	3.73	0.33	0.36	(0.002)	0.11	0.117	0.024	0.083	0.033
1	VS RG19/1	5.63	17.73	24.5	0.064	(0.02)	(0.009)	0.90	(0.2)	0.166	.	.	.	0.108	0.407	0.206
1	13X NSA4B	5.55	17.62	23.85	0.115	0.0302	0.0095	0.519	0.595	4.32	0.0048	.	0.446	0.154	.	.
1	IARM FeN50-18	5.27	11.90	21.0	0.030	0.026	(0.0013)	0.24	0.28	2.01	(0.006)	0.081	0.26	0.18	0.121	0.023
1	13X NSA10A	5.23	12.98	20.67	0.0180	0.0206	0.0007	0.375	0.170	2.636	.	0.060	0.342	0.143	0.151	(0.061)
2	BS 180A	5.05	13.19	21.09	0.018	0.012	0.001	0.32	0.067	2.04	0.012	0.039	0.334	0.20	0.20	0.02
1	IARM 292A	5.0	1.47	21.35	0.030	0.018	0.001	0.75	0.29	0.097	0.010	0.031	0.245	0.009	0.084	0.01
1	**BS 180B**	4.65	11.9	21.5	0.022	0.017	0.0008	0.46	0.201	2.20	(0.007)	0.111	0.315	0.131	0.149	0.050
2	HRT FE2017-H	4.43	15.45	20.15	0.015	0.022	0.002	0.34	0.21	3.17	.	.	0.311	0.131	.	.
1	IARM 17D	4.15	11.83	21.06	0.041	0.026	0.0018	0.416	0.412	1.52	0.0032	0.23	0.311	0.14	0.118	0.056
1	13X NSC7B	3.55	7.50	23.9	0.397	0.019	0.0098	0.88	0.220	0.435	0.204	0.297	0.429	0.82	0.167	0.041
1	13X NSC5C	2.06	4.42	21.6	0.524	.	0.024	1.18	0.84	0.472	0.24	0.093	0.265	2.31	0.102	0.050

Number	As	B	Ca	O	Pb	Sb	Sn	Ta	Te	Ti	Zr	Units
IARM 294A	.	(0.003)	.	(0.003)	.	.	(0.006)	(0.003)	.	(0.002)	(0.002)	31 mm Ø x 2 or 18 mm
IARM 295A	.	0.002	.	(0.003)	.	.	0.004	.	.	0.0019	(0.001)	31 mm Ø x 2 or 18 mm
ECRM 294-1D	0.0037	(<0.00005)	(0.00026)	.	(0.000128)	(0.00053)	(0.0014)	.	(<0.00008)	(0.0008)	(0.0001)	40 mm Ø x 20 mm
IARM 214A	.	(0.001)	.	0.0026	.	.	0.008	.	.	0.002	.	31 mm Ø x 2 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 ~19 mm
13X NSC3AB	.	.	.	.	.	.	(0.0035)	.	.	(0.009)	.	~40 mm Ø x ~15 mm
IARM 296A	.	(0.001)	.	(0.003)	.	.	0.007	.	.	(0.002)	.	31 mm Ø x 2 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 ~16 mm
13X NSC6A	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 13 mm HIP
VS RG23/1	.	.	.	.	.	.	.	.	.	0.21	.	~45 mm Ø x ~30 mm
BS 181A	.	0.0009	.	0.0010	.	.	0.005	.	.	0.007	last	38 mm Ø x ~7 mm
BS 181B	(0.002)	(0.0008)	(0.001)	0.0010	(0.0005)	(0.0007)	(0.004)	Fe:62.9	**17025**	0.0051	(0.0004)	38 mm Ø x ~7 or 19+ mm
13X NSC2Q	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
13X 21800A	.	(0.001)	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~15 mm
13X NSC4G	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
NM 303	.	.	.	.	.	.	.	.	.	.	.	35 mm Ø x 20 mm
SRM 1297	.	.	.	.	.	.	.	.	.	.	.	32 mm Ø x 19 mm
13X NSC1Q	.	.	.	.	.	.	0.0026	.	.	0.004	.	~40 mm Ø x ~15 mm
VS RG21/1	.	.	.	.	.	.	.	.	.	0.18	.	~45 mm Ø x ~30 mm
CZ SL-5A	0.005	.	.	.	.	.	0.004	0.07	.	0.004	.	~39 mm Ø x 25 mm
BS 191	.	(0.0006)	.	0.002	.	.	(0.006)	0.002	.	0.012	.	38 mm Ø x ~7 or 19+ mm
VS RG19/1	.	.	.	.	.	.	.	.	.	0.14	.	~45 mm Ø x ~30 mm
13X NSA4B	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
IARM FeN50-18	.	.	.	(0.006)	.	.	(0.007)	.	.	(0.002)	.	31 mm Ø x 2 or 18 mm
13X NSA10A	.	0.0031	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~15 mm
BS 180A	.	(0.0023)	.	0.003	.	.	(0.002)	.	last	(0.002)	.	37 mm Ø x ~7-12 mm last
IARM 292A	.	0.0011	.	0.0024	.	.	0.004	(0.006)	.	0.005	.	31 mm Ø x 2 mm
BS 180B	(0.004)	0.0011	0.0009	0.0043	**17025**	(0.0007)	0.0040	(0.003)	Fe:58.5	(0.005)	(0.0009)	38 mm Ø x ~7 or 19+ mm
HRT FE2017-H	.	.	.	.	.	.	.	.	.	.	.	30 mm x 30 mm x 10 mm
IARM 17D	0.005	0.001	(0.002)	0.003	(0.0002)	(0.001)	0.0044	(0.003)	.	0.010	(0.002)	31 mm Ø x 2 or 18 mm
13X NSC7B	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
13X NSC5C	.	.	.	.	.	.	.	.	.	.	.	~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 FeNi50C	51.5	0.0245	0.057	0.0168	0.16	0.151	0.089	0.066	0.319	0.416	.	.	.	.	.	.
14X FeNi45C	45.88	0.0082	0.0222	0.026	0.0015	0.77	0.089	0.076	0.98	0.572	.	.	.	.	.	.
14X FeNi40C	40.1	0.012	0.031	0.0148	1.03	0.050	0.081	0.64	2.00	1.057	.	.	.	.	.	.
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 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 10D	0.334	0.0178	0.291	12.42	0.110	1.11	0.475	0.192	(0.0027)	0.0187	0.148	0.0241	0.0027	0.0015	0.051
2	BS 150	0.33	0.020	0.19	18.61	0.048	1.71	0.43	0.042	0.002	0.024	1.97	0.029	0.003	.	0.054
1	SRM 1223	0.329	0.018	0.232	12.64	0.127	1.08	0.327	0.081	.	.	0.053	.	.	.	0.068
2	BS 90F	0.328	0.023	0.30	13.01	0.085	0.53	0.58	0.12	(0.006)	0.021	0.14	0.037	0.011	.	0.076
1	**BS 303**	0.326	0.028	8.17	17.23	0.044	1.80	0.415	0.627	0.0019	0.071	0.410	0.023	0.008	0.017	0.056
1	13X 30300A	0.312	0.0205	8.60	17.62	0.041	1.83	0.422	0.025	.	0.0255	0.334	0.034	.	.	0.091
2	CT 303	0.31	0.029	9.08	17.78	0.070	1.64	0.58	0.49	.	0.16	0.41	.	.	.	0.044
1	IARM 355A	0.31	0.0186	0.427	17.81	0.0274	0.47	0.435	0.083	0.0016	0.047	0.337	0.0439	0.0095	0.0020	0.038
2	BS 154	0.302	0.027	0.25	17.58	0.030	0.40	1.26	0.063	(0.002)	0.019	0.31	0.039	0.005	.	0.046
2	13X 12549K	0.29	0.092	1.26	11.70	0.16	0.34	0.43	0.10	.	0.52	1.49	.	0.23	.	.
2	BS 153	0.280	0.018	0.140	17.38	0.026	0.41	0.53	0.052	0.002	0.017	0.30	0.021	0.002	(0.004)	0.045
2	BS 152	0.275	0.022	0.14	13.41	0.320	0.36	0.44	0.050	(0.002)	0.015	0.061	0.020	0.006	.	0.051
3	CZ SP-1A	0.26	0.024	8.6	17.7	0.047	1.87	0.33	0.52	0.004	0.095	0.42	.	0.012	0.02	0.058
1	IARM 352A	0.21	0.0182	0.269	13.11	0.341	1.13	0.357	0.148	(0.0025)	(0.016)	0.38	0.029	(0.012)	0.0015	0.028
1	13X 43020A	0.189	0.0246	0.517	16.07	0.147	1.439	0.415	0.0687	0.0047	0.0191	0.226	0.0212	0.0102	.	0.0542
1	IMZ 154	0.16	0.040	9.86	17.71	0.076	2.18	0.89	0.33	(0.16)	0.105	2.58	.	.	1.00	0.073
1	NCS HS41751A	0.16	0.035	8.07	17.41	0.075	1.70	0.71	0.26	.	0.13	0.33	0.077	.	.	0.068
2	BS 155	0.145	0.014	0.13	16.64	1.00	0.35	0.40	0.035	(0.001)	0.019	0.46	0.032	0.002	.	0.10
1	13X 12536T	0.090	0.0449	12.12	16.09	0.146	0.374	0.546	0.0793	0.108	0.280	2.48	0.0084	0.060	0.444	0.0513
1	13X 12535BE	0.0591	0.0400	14.79	16.95	0.229	0.342	1.407	0.130	0.194	0.146	4.09	0.029	.	0.625	0.252
1	SRM C1154a	0.051	0.06	13.08	19.31	0.100	1.44	0.53	0.44	.	0.38	0.068	.	.	.	0.135
1	VS LG58	0.0280	0.0135	4.26	23.4	0.48	0.99	0.292	0.388	.	.	2.41	.	0.214	0.039	0.264
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 19004C	0.0135	0.074	17.90	22.77	0.075	2.01	0.35	0.0112	0.030	0.0501	3.43	.	0.152	.	0.041

Number	Ag	As	B	O	Pb	Sn	Ta	W	Units	
CT 416	0.0002	.	.	.	<0.001	0.005	.	.	30-35 mm Ø x ~16 mm	
IARM 10D	.	(0.007)	(0.002)	(0.005)	.	0.010	.	(0.005)	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 to 19 mm	last
BS 303	.	.	0.0013	0.0058	.	0.0091	.	0.023	44 mm Ø x ~7 or 19+ mm	**17025**
13X 30300A	.	.	0.0035	.	.	.	.	.	~40 mm Ø x ~15 mm	
CT 303	0.0003	.	.	.	0.001	0.007	.	.	30-35 mm Ø x ~16 mm	
IARM 355A	.	(0.004)	(0.0011)	(0.010)	(0.0002)	(0.005)	.	(0.018)	31 mm Ø x 2 or 18 mm	
BS 154	.	.	.	0.008	.	(0.005)	.	(0.01)	38 mm Ø x ~7 or 19+ mm	
13X 12549K	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm	
BS 153	.	(0.004)	.	.	(0.001)	0.002	.	(0.002)	35 mm Ø x ~7 or 19+ mm	
BS 152	.	.	.	.	.	0.003	.	<0.01	41 mm Ø x ~7 or 19+ mm	
CZ SP-1A	.	0.006	0.0007	.	.	0.01	.	0.03	~39 mm Ø x 25 mm	
IARM 352A	.	(0.005)	(0.0007)	(0.005)	.	0.0046	.	(0.005)	31 mm Ø x 2 or 18 mm	
13X 43020A	.	.	(0.0032)	.	.	.	.	0.0108	~40 mm Ø x ~15 mm	
IMZ 154	.	.	.	.	.	.	.	.	40 mm Ø x 40 mm	
NCS HS41751A	.	.	.	.	.	.	.	.	38 mm Ø x 38 mm	
BS 155	.	.	.	0.0048	.	(0.003)	.	.	36 mm Ø x ~7 or 19+ mm	
13X 12536T	.	.	0.0214	.	.	0.0068	0.104	.	~40 mm Ø x ~15 mm	
13X 12535BE	.	.	0.0051	.	.	0.0194	(0.020)	.	~40 mm Ø x ~15 mm	
SRM C1154a	.	.	.	.	0.017	.	.	.	32 mm Ø x 19 mm	
VS LG58	.	.	.	.	.	.	.	0.21	~47 mm Ø x ~30 mm	
13X 19004B	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm	
13X 19004C	.	.	(0.001)	.	.	(0.001)	0.011	.	~40 mm Ø x ~15 mm	

SELENIUM IN STAINLESS AND HIGH ALLOY STEEL

= Class, where 1 = CRM and 2 = RM

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

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

STAINLESS STEEL WITH NI < 5.0 %

CONTINUED ON THE NEXT PAGE

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

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo	N	Nb	Ti	V	W
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	IARM 13D	1.040	0.697	0.0195	0.0012	0.614	0.184	0.256	16.36	0.0212	0.488	0.0492	0.0074	0.0035	0.058	0.046
1	13X 44004B	1.012	0.378	0.0232	0.0018	0.440	0.0687	0.197	16.50	0.0167	0.468	0.0308	0.008	(0.004)	0.0484	0.0156
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	.
2	HRT FE2018-H	0.37	0.73	0.026	(0.003)	0.33	0.29	0.56	16.34	.	1.04	0.0134	.	.	0.064	.
1	13X 14122A	0.356	0.480	0.0177	0.0021	0.449	0.066	0.632	15.91	0.0224	0.855	0.0290	0.006	.	0.101	0.004
1	13X 40900A	0.035	0.716	0.0032	0.0059	0.616	0.134	0.231	10.98	0.053	0.102	0.007	0.032	0.530	0.099	.
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)
1	IARM 154C	0.339	0.423	0.0174	0.0043	0.37	0.120	0.215	12.41	0.016	0.036	0.054	0.014	0.0015	0.043	(0.005)
2	BS SS4951	0.333	0.58	0.016	0.0012	0.62	0.033	0.15	13.55	0.013	0.009	0.0127	0.006	0.002	0.032	.
2	BS 152	0.320	0.36	0.022	0.275	0.44	0.050	0.14	13.41	0.015	0.061	0.020	0.006	.	0.051	<0.01
1	IRSID 1825	0.305	0.650	0.019	0.022	0.336	0.100	0.308	12.90	0.026	0.052	.	.	.	0.052	.
1	13X 42027A	0.294	0.356	0.0139	0.0005	0.544	0.035	0.163	15.25	0.0191	0.990	0.402	0.004	(0.002)	0.048	0.019
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	IARM 205D	0.232	0.736	0.0209	0.0028	0.257	0.122	0.841	12.18	0.043	1.002	0.0484	0.013	0.0022	0.319	1.07
1	**BS 422**	0.232	0.640	0.0169	0.0013	0.404	0.080	0.676	11.25	0.0293	0.896	0.050	0.045	0.0011	0.274	0.95
1	SS 472	0.227	1.02	0.032	0.029	1.05	(0.02)	1.95	15.82	(0.02)	0.661	.	.	.	(0.02)	.
1	13X 42200A	0.220	0.651	0.0182	0.0012	0.314	0.136	0.738	11.41	0.0114	1.042	0.0585	0.0203	.	0.246	1.177
1	NCS HS41749	0.21	0.39	0.023	0.012	0.56	1.15	1.52	12.27	.	0.158	.	.	.	0.074	.
1	13X 42000A	0.208	0.679	0.0241	0.0253	0.496	0.202	0.295	12.56	0.0161	0.0398	0.0273	.	.	0.046	.
1	13X 14923A	0.205	0.501	0.0197	0.0031	0.330	0.0563	0.452	11.26	0.0207	0.819	0.0321	0.005	.	0.295	.
1	VS LG41/1	0.200	0.91	(0.02)	(0.008)	0.64	(0.12)	1.53	15.90	.	0.277	.	.	.	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)	.
1	13X 41800A	0.172	0.328	0.0176	0.0006	0.316	0.104	2.05	12.30	0.0357	0.068	0.028	(0.006)	.	0.020	2.75
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	IARM Fe418-18	0.168	0.429	0.016	(0.0005)	0.32	0.22	2.00	12.4	0.029	0.104	0.031	(0.019)	.	0.046	2.63
1	13X 15024X	0.166	0.610	0.0284	0.0294	0.750	0.332	2.99	14.65	0.1059	0.299	0.0156	0.099	.	0.150	0.039
1	13X 43100A	0.166	0.378	0.0199	0.0050	0.535	0.134	2.10	16.39	0.0239	0.0768	0.075	0.006	.	0.0577	0.004
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
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	IARM Fe410-18	0.132	0.50	0.017	0.0014	0.29	0.046	0.280	12.2	0.012	0.146	0.046	0.0021	.	0.065	(0.008)
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	**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

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo	N	Nb	Ti	V	W
1	SRM 1223	0.127	1.08	0.018	0.329	0.327	0.081	0.232	12.64	.	0.053	.	.	.	0.068	.
1	ECRM 296-1D	0.1166	0.676	0.0178	0.0026	0.242	0.1498	2.790	11.82	0.0218	1.700	0.0214	.	.	0.363	.
1	**BS 416**	0.116	0.64	0.0237	0.35	0.232	0.154	0.371	13.41	0.0241	0.030	0.043	(0.006)	0.0012	0.100	0.0034
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	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)
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	NCS HS11721-4	0.093	0.531	0.029	0.026	0.506	0.169	0.632	17.43	0.176	0.089	0.023	.	0.288	0.241	.
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
1	13X 15023W **	0.09	1.76	0.01	0.005	0.35	0.03	0.96	11.2	0.05	0.98	0.01	1.43	.	0.03	0.039
1	13X 14742A	0.084	0.714	0.0214	0.0008	0.910	0.1267	0.449	17.60	0.0186	0.0968	0.0209	0.0202	0.0051	0.0463	.
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 14762A	0.082	0.662	0.0275	0.0007	1.069	0.0801	0.346	24.38	0.0293	0.0553	0.0285	0.0277	0.0058	0.0993	.
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 11D	0.070	0.400	0.023	0.004	0.83	0.085	0.60	17.35	0.024	0.075	0.021	0.009	(0.003)	0.052	0.008
1	**BS 430**	0.064	0.706	0.0239	0.0022	0.38	0.120	0.223	16.58	0.018	0.052	0.057	(0.007)	(0.002)	0.055	(0.007)
1	IARM 14C	0.061	0.385	0.021	0.0015	0.63	0.19	0.364	24.9	0.043	0.101	0.058	0.013	0.013	0.078	0.031
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	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	13X 14418A	0.0450	0.819	0.0265	0.0108	0.291	0.173	4.65	15.44	0.1004	0.847	0.0423	(0.009)	.	0.0539	0.013
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	.
1	**BS 17-4PHB**	0.042	0.559	0.022	0.023	0.43	3.35	4.52	15.60	0.040	0.110	0.047	0.315	0.0045	0.061	(0.02)
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	13X 41008A	0.029	0.711	0.010	0.0048	0.641	0.091	0.319	12.36	0.049	0.036	0.0131	0.020	.	0.056	.
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
1	13X 40930A	0.0227	0.707	0.0104	0.0046	0.689	0.222	0.301	11.09	0.0241	0.0328	0.0075	0.051	0.434	0.0339	.
1	IMZ 300	0.020	0.78	0.032	0.0071	0.71	0.159	0.311	17.20	(0.004)	(0.010)	0.008	0.36	0.165	(0.008)	0.011
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
1	13X 14775S	0.006	1.405	0.047	0.154	0.552	0.167	1.949	17.78	0.153	0.529	.	0.691	.	0.0287	.

#	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
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]
IARM 13D	(0.006)	(0.008)	0.0005	(7)	.	.	0.0031	(0.0027)	.	0.011	(0.004)	.	(0.0017)	31 mm Ø x 2 or 18 mm
13X 44004B	0.0160	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 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
HRT FE2018-H	0.010	.	(0.0004)	.	.	.	.	.	.	.	.	.	.	36 mm Ø x 20 mm
13X 14122A	(0.002)	.	.	.	.	.	.	.	.	0.0041	.	.	.	~40 mm Ø x ~15 mm
13X 40900A	0.0311	.	.	.	.	.	.	.	.	0.0080	.	.	.	~40 mm Ø x ~15 mm
BS SS4952	0.003	0.002	(0.0004)	19	.	.	0.005	.	.	0.004	.	.	.	38 mm Ø x ~7 or 19+ mm
IARM 154C	(0.0034)	(0.004)	0.0007	.	.	.	(0.0042)	(0.001)	(0.0003)	0.0058	.	.	(0.0014)	31 mm Ø x 2 or 18 mm
BS SS4951	0.002	0.002	.	.	.	.	0.0055	.	.	0.003	.	.	.	42 mm Ø x ~7 to 19+ mm
BS 152	(0.002)	.	.	.	.	.	.	.	.	0.003	.	.	.	41 mm Ø x 19+ mm
IRSID 1825	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 30 mm
13X 42027A	0.004	.	.	.	.	.	.	.	.	0.0026	.	.	.	~40 mm Ø x ~15 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
IARM 205D	0.0021	0.004	0.0007	(20)	(7)	(20)	0.0053	(<0.007)	(<0.005)	0.0047	(<0.005)	(<0.005)	0.0022	31 mm Ø x 2 or 18 mm
BS 422	0.0135	0.0041	(0.0002)	31	(9)	(0.5)	0.0030	(0.0007)	.	0.0043	(0.0001)	**17025**	(0.001)	38 mm Ø x ~7 or 19+ mm Fe:84.5
SS 472	.	.	.	.	.	.	.	.	.	.	.	.	.	35 mm Ø x 19 mm
13X 42200A	0.0020	.	.	.	.	.	.	.	.	0.0052	.	.	.	~38 mm Ø x ~15 mm
NCS HS41749	.	.	.	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 35 mm
13X 42000A	.	.	0.0013	.	.	.	.	.	.	0.0073	.	.	.	~38 mm Ø x ~15 mm
13X 14923A	0.003	.	.	44	.	.	.	.	.	0.004	.	.	.	~40 mm Ø x ~15 mm
VS LG41/1	.	.	.	.	.	.	.	.	.	.	.	.	.	~45 mm Ø x ~28 mm
IMZ 171	0.036	.	.	.	.	.	.	(0.003)	.	0.008	.	.	.	40 mm Ø x 40 mm
NCS HS41748	.	.	.	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 35 mm
HRT FE2015-H	.	.	.	.	.	.	.	.	.	.	.	.	.	30 mm Ø x 20 mm
13X 12548M	.	.	.	.	.	.	.	0.022	.	.	.	.	.	40 mm Ø x 15 mm
HRT FE2010-H	.	.	.	.	.	.	.	.	.	.	.	.	.	35 mm Ø x 20 mm
SS 70	.	.	.	.	.	.	.	.	.	.	.	.	.	44 mm Ø x 13 mm
IARM 20B	0.006	.	.	.	.	.	0.0056	.	.	0.005	.	.	.	31 mm Ø x 2 mm
IARM 20C	(0.004)	.	.	.	.	.	0.0068	.	.	0.004	.	.	.	31 mm Ø x 2 mm
IMZ 167	(0.018)	.	.	.	.	.	.	.	.	0.009	.	.	.	40 mm Ø x 40 mm
SS 473	.	.	.	.	.	.	.	.	.	.	.	.	.	35 mm Ø x 19 mm
13X 41800A	(0.003)	.	.	.	.	.	.	.	.	0.0040	.	.	.	~38 mm Ø x ~15 mm
BS 183A	0.002	(0.002)	(<0.0005)	20	.	.	0.0065	(0.001)	.	0.003	.	.	.	38 mm Ø x ~7 or 19+ mm
IARM Fe418-18	(0.004)	.	.	.	.	.	(0.004)	.	.	(0.005)	.	.	.	31 mm Ø x 2 or 18 mm
13X 15024X	0.0049	.	.	.	.	.	.	.	.	.	.	.	.	~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 or 19+ mm
SRM 1219	.	.	.	.	.	.	.	.	.	.	.	.	.	34 mm Ø x 19 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
IARM Fe410-18	(0.003)	.	.	.	.	.	(0.009)	.	.	.	.	.	.	31 mm Ø x 2 or 18 mm
NCS HS28747	.	0.0063	.	.	1	.	.	.	.	0.0057	.	.	.	38 mm Ø x 35 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

Number	Al	As	B	Ca*	Mg*	Pb*	O	Sb	Se	Sn	Ta	Zn	Zr	Units
SRM 1223	.	.	.	.	.	.	.	.	.	.	.	.	.	32 mm Ø x 19 mm
ECRM 296-1D	0.0275	0.0139	(0.0003)	.	.	1.6	.	.	.	0.0131	.	.	.	38 mm Ø x 25 or 30 mm
BS 416	(0.002)	0.0039	(0.001)	(3)	(3)	(6)	0.0081	(0.002)	.	(0.005)	(0.004)	**17025**	(0.002)	38 mm Ø x ~7 or 19+ mm Fe:[84.3]
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
IARM 291A	(0.004)	.	0.001	.	.	.	0.014	.	.	0.004	(0.001)	.	<0.005	31 mm Ø x 2 or 18 mm
CT 410	0.015	.	.	.	.	<10	.	.	.	0.006	.	.	.	30-35 mm Ø x ~16 mm Ag: 2 ppm
IMZ 156	(0.034)	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 40 mm
SS 471	.	.	.	.	.	.	.	.	.	.	.	.	.	35 mm Ø x 19 mm
NCS HS11721-4	0.124	0.022	.	.	.	(2)	.	.	.	0.034	.	.	.	38 mm Ø x 30 mm last
IMZ 158	1.56	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 40 mm
BS 151	(0.002)	.	.	.	.	.	0.009	.	0.328	0.005	.	.	.	50 mm Ø x ~7 or 19+ mm
13X 15023W **	0.003	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
13X 14742A	0.804	.	.	.	22	.	.	.	.	0.0046	.	0.0055	.	~40 mm Ø x ~15 mm
BS 90F	(0.006)	.	.	.	.	.	0.011	.	.	0.005	.	.	.	38 mm Ø x ~7 to 19 mm last
13X 14762A	1.318	0.0025	.	.	24	.	.	.	.	0.0048	.	.	.	~40 mm Ø x ~15 mm
IMZ 155	(0.20)	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 40 mm
CZ SL-1A	0.86	.	.	.	.	.	.	.	.	0.01	.	.	.	~39 mm Ø x 25 mm
IMZ 161	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 40 mm
IARM 11D	0.015	(0.005)	0.0006	(20)	(30)	(5)	(0.004)	.	(0.001)	0.006	(0.003)	(0.004)	(0.001)	31 mm Ø x 2 or 18 mm
BS 430	0.0015	0.0037	(0.0004)	(3)	(2)	(6)	0.0075	(0.001)	.	0.0084	(0.001)	**17025**	(0.001)	44 mm Ø x ~7 or 19+ mm Fe:81.7
IARM 14C	0.0041	(0.003)	0.0005	(10)	(5)	(1)	(0.006)	(0.002)	(0.0001)	0.004	(0.002)	(0.0003)	(0.001)	31 mm Ø x 2 or 18 mm
IMZ 163A	0.018	(0.0035)	.	.	.	(10)	.	.	.	(0.003)	.	.	.	40 mm Ø x 40 mm last
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
BS 150	0.002	.	.	.	.	.	0.012	.	.	(0.003)	.	.	.	35 mm Ø x ~7 or 19+ mm
13X 14418A	(0.003)	.	.	.	.	.	.	.	.	0.005	.	.	.	~40 mm Ø x ~15 mm
NCS HS28748	.	0.0047	.	.	.	1	.	.	.	0.0063	.	.	.	38 mm Ø x 35 mm
BS 17-4PHB	0.034	(0.003)	0.0036	(4)	(2)	(10)	(0.002)	(0.002)	.	0.012	(0.002)	**17025**	(0.002)	41 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
13X 41008A	0.076	.	.	.	.	.	.	.	.	0.0077	.	.	0.007	~40 mm Ø x ~15 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
13X 40930A	0.0362	.	.	.	.	.	.	.	.	0.0069	.	.	.	~40 mm Ø x ~15 mm
IMZ 300	0.012	(0.004)	(0.0005)	.	.	.	.	.	.	0.007	.	.	.	38 mm Ø x 20 mm
BS 17-4PHA	.	.	0.0016	.	.	.	.	.	.	.	(0.002)	.	.	36 mm Ø x ~7 or 19+ 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
13X 14775S	0.0301	(0.002)	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 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	VS LG76	0.445	0.342	0.021	0.0076	0.455	0.098	13.39	13.77	.	0.263	0.031	.	0.020	0.041	2.38
1	VS LG74	0.373	0.962	0.024	0.0049	2.49	0.093	23.66	18.30	0.031	0.104	0.030	.	0.030	.	0.052
1	KUT S21	0.37	0.19	0.017	0.021	1.26	0.11	22.3	3.99	.	4.12	.	.	0.50	.	.
2	CZ CM-19A	0.361	0.783	0.0440	0.0182	1.588	0.986	15.27	13.12	0.222	1.023	(0.021)	0.091	0.254	1.235	0.311
1	VS LG79	0.313	1.28	0.017	0.0036	0.703	0.065	8.72	19.23	.	1.18	.	0.47	.	0.049	1.16
2	CZ SP-3C	0.30	0.43	0.026	0.011	0.84	0.185	5.31	16.42	0.041	0.26	.	(0.04)	(0.17)	0.19	0.12
1	DSZU C016	0.281	3.26	0.0192	0.0174	1.16	0.054	7.47	21.9	.	0.52	0.010	.	0.72	0.036	0.014
3	CZ SP-3B	0.27	0.29	0.023	0.008	0.72	0.62	5.65	15.1	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	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)
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)
1	13X 18002D	0.159	0.722	0.0245	0.0487	0.352	0.116	7.92	17.77	0.0514	0.209	0.072	1.531	.	0.0542	.
2	CZ CM-18A	0.143	1.792	0.0182	0.0119	0.903	2.393	20.44	20.59	0.097	2.282	0.0848	.	.	0.113	0.097
1	SS 468/1	0.143	1.70	0.014	0.020	1.41	.	8.90	17.96	0.018	.	.	.	.	.	.
1	SRM C1152a	0.142	0.95	0.023	0.0064	0.64	0.097	10.86	17.76	0.22	0.44	.	.	.	0.033	.
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 NSA2J	0.132	1.03	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)	0.0023	1.00	0.242	8.98	18.12	0.022	(0.02)	(0.008)	0.028	0.018	0.031	(0.012)
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 18003C	0.113	1.000	0.0545	0.0245	0.805	0.0433	10.08	19.56	0.100	0.401	0.090	1.042	.	0.0750	.
1	IRSID 1819	0.112	0.903	0.023	0.0112	0.616	0.064	7.10	17.31	0.117	0.110	0.0288	.	.	.	.
1	13X 17002E	0.112	0.801	0.0409	0.0250	0.486	0.1012	7.87	17.45	0.0702	0.204	0.061	0.487	.	0.0587	.
1	NCS HS28743	0.110	0.841	0.024	0.0082	0.780	0.089	18.02	23.71	0.102	0.115	0.057	0.016	(0.003)	0.077	.
1	IMZ 166A	0.108	1.99	0.019	0.005	2.51	0.025	21.93	25.53	0.030	(0.025)	0.077	.	0.003	0.038	.
1	13X 12855N	0.107	0.918	0.0020	0.0063	0.863	0.340	11.79	16.29	0.155	2.96	0.0078	0.098	0.083	.	0.199
1	13X 14828A	0.104	1.52	0.0268	0.0067	2.19	0.409	11.25	19.3	0.143	0.301	0.037	0.016	.	0.080	0.0167
1	VS LG81	0.104	0.29	0.0121	0.0014	0.231	0.088	22.5	11.51	.	1.22	.	0.004	2.93	0.040	0.012
1	VS LG77	0.101	0.34	0.0149	0.0021	0.44	0.116	4.32	15.67	.	0.020	0.054	0.109	.	0.022	0.006
1	IMZ 164	0.100	1.77	0.019	0.002	0.82	0.26	6.75	20.96	0.035	3.48	0.249	0.049	(0.003)	0.053	(0.025)
2	13X 17003A	0.10	0.85	0.037	0.035	0.78	0.08	11.9	11.89	0.07	0.27	.	0.34	.	.	.
1	VS LG73	0.098	1.26	0.019	0.0073	0.570	0.140	17.74	22.60	0.247	0.061	0.0319	.	0.0022	.	0.102
1	KUT S20	0.097	1.50	0.011	0.025	1.80	0.44	18.2	2.06	.	3.15	.	1.22	(0.01)	.	.
1	VS LG80	0.097	0.709	0.025	0.0029	2.15	0.166	19.38	24.7	.	0.086	0.064	.	0.015	0.032	0.029
2	**BS 253**	0.094	0.58	0.018	<0.001	1.81	0.14	10.89	20.68	0.15	0.21	0.146	0.017	0.005	0.050	0.03
1	IARM 234C	0.092	1.93	0.0090	(0.0027)	0.88	3.41	9.00	18.15	0.034	0.012	(0.01)	0.053	0.026	0.055	(0.006)
1	SS 462	0.092	0.74	0.010	0.018	0.46	.	12.53	12.37	.	.	.	.	.	.	.
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	13X 17004B	0.084	0.497	0.018	0.039	1.23	0.0449	16.04	21.37	0.055	0.455	0.0086	0.179	0.034	.	.
1	IMZ 165	0.082	0.98	0.017	0.007	1.42	0.040	19.01	23.28	0.029	0.025	0.105	.	(0.002)	0.042	.
1	SS 467/1	0.082	0.788	0.018	0.019	0.52	.	9.21	18.09	.	.	.	0.99	.	.	.
1	13X 12854M	0.081	1.84	0.038	0.028	0.89	0.205	11.38	15.64	0.344	2.00	0.0097	0.33	0.052	.	0.141
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

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo	N	Nb	Ti	V	W
1	13X 17001C	0.0769	1.543	0.055	0.0134	0.215	0.0161	6.31	14.83	0.0979	0.0967	.	0.546	.	.	.
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	VS LG78	0.074	1.60	0.017	0.0017	0.58	0.053	35.4	14.71	.	0.061	0.0062	0.004	1.31	0.020	3.16
1	**BS 192**	0.074	0.835	0.025	0.0005	0.387	0.412	7.11	16.44	0.104	0.430	0.0290	0.168	0.076	0.124	0.05
2	BS 83G	0.073	1.66	0.024	0.004	0.56	0.114	19.15	24.50	0.153	0.085	0.026	0.061	(0.003)	0.077	0.007
1	NM 301	0.073	1.38	0.037	0.021	0.39	0.41	7.89	18.0	0.17	0.36	.	.	.	0.07	.
1	VS LG72	0.072	1.32	.	0.0050	0.334	0.306	12.4	16.36	0.090	2.07	0.0073	.	0.57	.	0.077
1	NM 302	0.072	1.06	0.031	0.018	0.49	0.40	10.12	16.92	0.19	2.03	.	.	.	0.066	.
1	13X 12534X	0.0716	0.589	0.0192	0.0086	0.811	0.0586	8.50	17.71	0.0602	2.04	.	0.201	0.348	0.110	0.010
1	IARM 316A	0.070	0.61	0.023	0.0011	1.50	0.19	10.81	21.07	0.118	0.250	0.16	(0.003)	(0.002)	0.042	0.022
1	IARM 18D	0.069	8.1	0.032	0.0025	3.68	0.421	8.39	16.7	0.086	0.325	0.170	(0.031)	0.012	0.064	(0.026)
1	13X 12853L	0.069	1.156	0.0053	0.0062	0.994	0.092	12.31	17.13	0.0415	2.718	0.0086	0.180	0.0455	.	0.089
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	.	.
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	SS 4657	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	IMZ 152A	0.065	1.38	0.0115	0.0072	0.55	0.065	8.47	17.10	(0.006)	0.010	0.083	(0.003)	(0.003)	0.013	(0.004)
1	VS LG71	0.064	1.33	0.032	0.0072	0.602	0.204	10.40	17.63	0.188	0.161	.	.	0.473	.	0.048
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	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
1	**BS 321D**	0.060	1.76	0.024	0.022	0.27	0.358	9.09	17.42	0.096	0.274	0.0083	(0.009)	0.55	0.054	(0.03)
2	13X NSB2D	0.06	0.62	.	.	0.66	.	11.1	18.2	.	0.21	0.095	.	.	.	.
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
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	SRM 1172	0.056	1.7	0.025	0.01	0.59	0.10	11.3	17.4	0.12	0.22	.	0.65	.	.	.
1	VS LG82	0.056	0.308	0.023	0.0027	0.69	2.89	27.3	23.2	.	2.95	0.0076	0.037	0.85	0.050	0.116
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
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	IARM Fe304H-18	0.052	1.82	0.031	0.027	0.298	0.460	8.35	18.4	0.136	0.43	0.072	(0.010)	.	0.075	0.027
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)

#	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
VS LG76	0.034	.	.	.	.	.	.	.	.	.	.	.	~45 mm Ø x ~28 mm
VS LG74	0.035	.	.	.	.	.	.	.	.	.	.	.	~45 mm Ø x ~28 mm
KUT S21	.	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x 18 mm
CZ CM-19A	0.0788	.	(0.091)	.	(0.0036)	.	.	.	.	0.0283	.	.	~37 mm Ø x ~25 mm
VS LG79	0.059	.	.	.	.	.	.	.	.	.	.	.	~45 mm Ø x ~28 mm
CZ SP-3C	0.095	(0.03)	1.67	.	.	.	.	.	.	(0.02)	.	.	~39 mm Ø x 25 mm
DSZU C016	0.007	.	.	.	0.0004	.	.	.	.	.	.	.	40 mm Ø x 25 mm
CZ SP-3B	0.08	.	0.88	.	.	.	.	.	.	0.01	.	.	~39 mm Ø x 25 mm
KUT S19	.	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x 18 mm
SRM C1153a	.	.	.	.	.	.	.	0.006	.	.	.	.	32 mm Ø x 19 mm
13X 18001B	0.0157	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
KUT H6/1	.	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x 18 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 18002D	0.0617	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
CZ CM-18A	0.0344	.	.	.	.	.	.	.	.	.	.	.	~37 mm Ø x ~25 mm
SS 468/1	.	.	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm
SRM C1152a	.	.	.	.	.	.	.	0.0047	.	.	.	.	32 mm Ø x 19 mm
VS LG32/5	0.156	.	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~25 mm
13X NSA2J	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
IARM 289A	0.01	.	0.0003	.	.	.	0.0104	.	.	(0.002)	<0.005	.	31 mm Ø x 2 mm
IARM 241D	0.022	(0.001)	0.0016	.	(0.0012)	.	(0.005)	(0.0003)	.	(0.0022)	(0.007)	(0.005)	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 18003C	0.0292	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
IRSID 1819	.	.	(0.0004)	.	.	.	.	.	.	.	.	.	47 mm x 47 mm x 30 mm
13X 17002E	(0.030)	.	0.0012	.	.	.	.	.	.	.	(0.012)	.	~40 mm Ø x ~15 mm
NCS HS28743	0.0056	0.0042	.	.	.	.	.	0.0004	.	0.0025	.	.	38 mm Ø x 35 mm
IMZ 166A	0.036	(0.0026)	.	.	.	.	.	.	.	(0.0035)	.	.	40 mm Ø x 40 mm
13X 12855N	0.048	.	0.0098	.	.	.	.	.	0.093	.	0.122	.	~40 mm Ø x ~15 mm
13X 14828A	0.008	.	.	.	.	.	.	.	.	0.0128	.	.	~40 mm Ø x ~15 mm
VS LG81	0.409	.	.	.	.	.	.	.	.	.	.	.	~45 mm Ø x ~28 mm
VS LG77	.	.	.	.	.	.	.	.	.	.	.	.	~45 mm Ø x ~28 mm
IMZ 164	0.040	(0.005)	.	.	.	.	.	(0.002)	.	(0.003)	.	.	40 mm Ø x 40 mm
13X 17003A	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm
VS LG73	.	.	.	.	.	.	.	.	.	.	.	.	~45 mm Ø x ~28 mm
KUT S20	.	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x 18 mm
VS LG80	0.025	.	.	.	.	.	.	.	.	.	.	.	~45 mm Ø x ~28 mm
BS 253	0.016	0.005	.	.	.	0.044	.	.	.	0.006	**25(pre-17025)**		38 mm Ø X ~7 or 19+ mm
IARM 234C	0.035	(0.001)	0.0023	.	(0.0017)	.	(0.005)	(0.001)	.	0.0017	(0.003)	(0.006)	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
13X 17004B	0.043	.	0.0066	.	.	.	.	.	.	.	0.057	.	~40 mm Ø x ~15 mm
IMZ 165	0.038	(0.003)	.	.	.	.	.	(0.001)	.	0.003	.	.	40 mm Ø x 40 mm
SS 467/1	.	0.004	.	.	.	.	.	0.004	.	.	0.0017	.	38 mm Ø x 19 mm
13X 12854M	.	.	0.0101	0.0052	.	.	.	.	0.068	.	0.020	0.0146	~40 mm Ø x ~15 mm
VS LG35/5	0.087	.	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~25 mm

Number	Al	As	B	Bi	Ca	Ce	O	Pb	Sb	Sn	Ta	Zr	Units
13X 17001C	0.0312	.	0.0085	.	.	.	.	.	.	.	0.0124	.	~40 mm Ø x ~15 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
VS LG78	0.15	.	.	.	.	.	.	.	.	.	.	.	~45 mm Ø x ~28 mm
BS 192	1.17	(0.005)	(0.0003)	.	0.0007	.	0.0014	**25(pre-17025)**		0.008	(0.001)	.	38 mm Ø x ~7 or 19+ mm
BS 83G	(0.004)	.	(0.001)	.	.	.	0.0064	.	.	0.003	.	.	38 mm Ø x ~7 or 19+ mm
NM 301	.	.	.	.	.	.	.	.	.	.	.	.	35 mm Ø x 20 mm
VS LG72	0.089	.	.	.	.	.	.	.	.	.	.	.	~45 mm Ø x ~28 mm
NM 302	.	.	.	.	.	.	.	.	.	.	.	.	35 mm Ø x 20 mm
13X 12534X	0.0485	.	.	.	.	.	.	.	.	.	0.031	.	~40 mm Ø x ~15 mm
IARM 316A	0.006	0.007	(0.0003)	.	0.0017	0.064	0.0052	(0.0001)	.	0.006	(0.003)	.	31 mm Ø x 2 or 18 mm
IARM 18D	(0.006)	.	(0.0011)	.	.	.	.	.	.	(0.007)	.	.	31 mm Ø x 18 mm
13X 12853L	0.18	.	0.0018	.	.	.	.	.	.	.	0.034	.	~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
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
SS 4657/1	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
IMZ 152A	(0.004)	(0.002)	0.0022	.	.	.	.	.	.	(0.001)	.	.	38 mm Ø x 20 mm
VS LG71	0.072	.	.	.	.	.	.	.	.	.	.	.	~45 mm Ø x ~28 mm
CT 304	.	.	.	.	.	.	.	<0.001	.	0.017	.	.	30-35 mm Ø x ~16 mm Ag: 7ppm
BS 82E	0.006	.	0.0024	.	0.0014	.	.	.	.	0.006	.	.	38 mm Ø x ~7 to 19 mm
13X 31008A	.	.	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~15 mm
KUT H7/1	.	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x 18 mm
CT 316	.	.	.	.	.	.	.	0.001	.	0.006	.	.	30-35 mm Ø x ~19 mm Ag: 5ppm
VS LG36/5	0.080	.	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~25 mm
BS 321D	0.103	0.0040	0.0012	.	(0.0003)	.	0.0009	(0.0003)	(0.001)	0.0091	**17025**	(0.001)	44 mm Ø x ~7 or 19+ mm Fe,Mg
13X NSB2D	.	.	.	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm
BS 9842	0.014	(0.002)	0.0025	.	0.0010	.	(0.0044)	.	.	0.005	**25(pre-17025)**		38 mm Ø x ~7 or 19+ mm
BS 82D	(0.002)	.	0.0040	.	0.0007	.	0.007	.	.	0.004	.	last	38 mm Ø x ~7 mm
SRM 1172	.	.	.	.	.	.	.	.	.	.	<0.001	.	32 mm Ø x 19 mm
VS LG82	0.076	.	.	.	.	.	.	.	.	.	.	.	~45 mm Ø x ~28 mm
BS 87F	0.004	0.005	(0.0006)	.	0.0007	.	0.005	.	.	0.004	.	.	41 mm Ø x ~7 or 19+ mm
BS 86F	(0.007)	(0.003)	0.0026	.	(0.001)	.	.	(0.001)	.	0.004	.	.	44 mm Ø x ~7 or 19+ mm
DSZU C017	0.28	.	.	.	0.0031	.	.	.	.	.	.	.	40 mm Ø x 25 mm
IARM Fe304H-18	(0.005)	0.0076	.	.	.	.	(0.008)	.	.	(0.014)	.	.	31 mm Ø x 2 or 18 mm
BS 347B	0.002	(0.003)	0.0036	.	(0.0005)	.	0.005	.	.	0.006	(<0.004)	.	38 mm Ø x ~7 or 19+ mm
BS 347A	(0.002)	(0.003)	(0.0004)	.	(0.0002)	.	0.0047	.	.	0.007	(<0.004)	.	38 mm Ø x 19+ mm

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
1	IARM 8H *	0.049	1.81	0.0250	(0.002)	0.40	0.192	9.08	17.14	0.083	0.237	0.027	0.48	0.0027	0.049	(0.016)
1	IARM 6i	0.049	1.76	0.0208	(0.023)	0.31	0.202	9.20	17.76	0.052	0.133	(0.013)	(0.018)	0.60	0.048	(0.023)
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 4F	0.047	1.17	0.0195	0.0015	0.494	0.146	20.1	24.5	0.067	0.142	0.056	0.007	0.0031	0.146	0.012
1	13X 14211R	0.047	0.787	0.0093	0.008	1.73	0.336	12.64	24.48	0.034	0.395	.	0.150	0.206	0.039	2.99
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	IARM Fe303-18	0.046	1.55	0.033	0.35	0.47	0.61	8.12	17.2	0.140	0.42	0.069	0.015	.	0.072	0.029
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	IARM 4G	0.0454	1.36	0.027	0.0008	0.630	0.320	19.2	24.9	0.085	0.580	0.058	0.008	0.029	0.092	0.017
1	IARM 6J	0.045	1.52	0.028	(0.002)	0.62	0.383	9.00	17.74	0.191	0.387	0.0109	0.010	0.34	0.081	0.026
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
1	13X 18004C	0.0430	1.57	0.0060	0.0063	1.21	0.048	12.26	21.62	0.168	0.562	0.0225	0.748	0.095	0.152	0.004
3	CZ SL-3A	0.043	1.73	0.024	0.002	0.53	0.22	19.6	24.6	0.06	0.38	0.065	0.013	0.003	0.066	0.03
1	KUT S15	0.043	0.38	(0.02)	0.013	0.26	1.54	3.90	16.7	.	2.46	.	0.64	.	.	.
1	IARM 8i	0.0424	1.395	0.0352	0.0118	0.38	0.441	9.01	17.08	0.301	0.416	0.052	0.60	(0.008)	0.057	0.060
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	1.468	0.0327	0.0126	0.36	0.390	9.02	17.20	0.162	0.359	0.046	0.53	0.0024	0.062	0.032
1	VS LG70	0.042	0.834	0.042	0.0020	0.382	0.062	9.17	17.10	0.209	0.096	0.0134	.	0.305	.	0.0053
1	NILAB 500HA D	0.041	1.541	0.024	0.012	0.720	0.182	11.00	16.93	0.139	2.73	0.1154	0.023	.	0.074	.
1	13X 12538J	0.04	0.78	.	.	0.64	.	6.07	23.72	.	1.53	.	.	.	.	.
1	NCS 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	.
1	13X 14207L	0.0388	0.597	0.0061	0.0060	1.448	0.186	12.43	19.63	0.0089	0.573	0.0099	0.258	0.0119	0.0043	2.99
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	IMZ 153A	0.037	1.49	0.021	0.0073	0.73	0.102	13.57	16.45	0.015	2.61	0.107	0.034	0.036	0.020	.
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	.	.	.
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	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	13X 31400A	0.033	1.60	0.026	0.0006	2.23	0.210	18.76	24.38	0.129	0.240	0.0288	0.018	.	0.092	0.015
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
1	13X NSA9B	0.030	1.52	0.0237	0.0009	0.290	0.154	5.75	22.39	0.033	3.27	0.184	0.021	.	0.060	0.033
1	13X 30403B	0.0277	1.820	0.0321	0.0266	0.288	0.497	8.13	18.30	0.178	0.313	0.083	0.0201	0.0013	0.0700	0.035
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	.	.
1	VS LG75	0.027	0.728	0.0046	0.0026	0.298	0.029	24.5	14.80	0.190	0.052	0.0044	.	1.76	.	4.14
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

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo	N	Nb	Ti	V	W
1	**BS 317L**	0.025	1.17	0.029	0.0017	0.67	0.23	13.51	18.2	0.14	3.07	0.055	0.031	0.0034	0.091	0.017
1	IARM 162D	0.0240	1.82	0.0296	0.0271	0.570	0.52	8.15	18.31	0.074	0.573	0.097	0.0090	0.013	0.063	0.028
1	IARM Fe304L-18	0.024	1.39	0.034	0.029	0.43	0.54	8.17	18.34	0.156	0.462	0.081	0.013	0.0056	0.076	0.056
1	NCS HS28764	0.024	0.985	0.032	0.024	0.454	0.203	11.68	18.78	0.105	3.23	.	0.145	.	0.059	0.046
1	IARM 153C	0.0225	1.60	0.0289	0.0288	0.349	0.442	11.10	18.22	0.251	3.00	0.086	0.015	0.004	0.058	0.043
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	IARM Fe316L-18	0.021	1.70	0.033	0.029	0.438	0.550	10.12	16.7	0.209	2.02	0.067	(0.027)	(0.003)	(0.067)	(0.06)
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	**BS 2205A**	0.021	1.48	0.029	0.0006	0.53	0.300	5.26	22.73	0.071	3.17	0.157	0.010	(0.002)	0.083	(0.02)
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	13X NSA8B	0.0206	0.596	0.0248	0.0007	0.285	0.589	7.48	25.49	0.0448	3.49	0.232	0.026	.	0.0583	0.599
1	13X NSA13A	0.020	0.761	0.0249	0.0005	0.257	0.156	6.73	25.27	0.032	3.73	0.269	0.028	.	0.0712	0.035
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	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	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	13X FV520BA	0.0181	0.655	0.0221	0.0016	0.342	1.462	5.29	13.73	0.030	1.334	0.0197	0.301	.	0.080	0.020
2	HRT FE2000-H	0.018	2.02	0.022	(0.003)	0.36	0.15	5.98	22.15	0.048	3.27	0.20	0.010	0.005	0.042	0.063
1	IARM Fe2205-18	0.018	1.18	0.023	(0.0013)	0.46	0.208	5.57	22.6	0.104	3.20	0.17	0.011	(0.003)	0.063	0.024
1	NCS HS28745	0.018	1.17	0.042	0.0057	0.317	0.334	10.34	16.61	0.185	2.05	0.070	.	(0.002)	0.070	.
1	SS 476	0.0171	1.755	0.0302	0.0234	0.323	0.302	10.17	16.88	0.162	2.04	0.0794	0.0107	.	0.066	0.041
1	**BS 304B**	0.017	1.72	0.022	0.023	0.540	0.257	8.68	18.3	0.220	0.42	0.081	0.074	(0.0018)	0.097	(0.01)
1	IARM 239C	0.017	0.87	0.023	(0.0010)	0.38	1.49	6.14	25.8	0.039	3.33	0.228	(0.006)	(0.004)	0.083	(0.05)
1	IARM FeZ100-18	0.017	0.52	0.026	(0.0009)	0.24	0.55	7.1	25.5	0.123	3.61	0.22	(0.005)	.	0.090	0.56
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	**BS 316F**	0.015	1.46	0.029	0.026	0.55	0.437	10.09	16.79	0.126	2.10	0.061	0.011	0.011	0.062	0.045
1	IARM 319A	0.015	0.53	0.024	0.0006	0.23	0.51	6.92	25.2	0.051	3.56	0.240	(0.006)	(0.003)	0.076	0.52
1	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	.
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
2	HRT FE2016-H	0.011	1.83	0.023	0.007	0.35	0.21	11.33	16.85	.	2.03	0.073	.	.	0.061	.
1	SS 461/1	0.0103	0.686	0.0053	0.0051	0.374	0.0091	6.124	14.727	(0.004)	0.0138	.	.	.	.	.
1	13X 30600A	0.0090	0.648	0.0091	0.0007	4.23	0.0121	14.96	17.43	0.0149	0.0040	0.027	(0.004)	.	0.0206	.
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)
1	JK 27B	0.0089	1.510	0.0298	0.0207	0.401	0.265	12.56	17.36	0.142	2.510	0.0630	.	.	0.057	0.031
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)
1	IARM 354A	0.0076	(0.012)	(0.0029)	(0.0019)	(0.04)	(0.018)	11.05	11.61	0.022	0.95	0.0018	(0.02)	1.56	(0.02)	(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	.
1	13X 46500A	(0.003)	0.004	0.0020	0.0010	0.075	0.0373	10.91	11.70	0.0101	0.948	0.0031	0.005	1.51	0.0049	.
1	ECRM 284-3D	0.0025	0.0615	0.0049	0.0066	0.0442	0.0105	12.09	17.37	0.0366	2.236	0.0418	.	0.0050	.	0.0039

#	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

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
IARM 8H	(0.005)	.	(0.0002)	.	.	.	.	(0.008)	(0.01)	31 mm Ø x 2 or 18 mm
IARM 6i	0.084	(0.005)	0.0034	(0.0004)	0.0012	.	.	(0.0060)	.	31 mm Ø x 2 or 18 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 4F	0.015	(0.003)	(0.0012)	(0.002)	(0.004)	.	(0.001)	(0.005)	(0.007)	31 mm Ø x 2 or 18 mm
13X 14211R	0.089	.	.	.	.	.	.	.	0.0152	~40 mm Ø x ~15 mm
13X 32100A	0.0247	.	0.0025	.	.	.	.	0.0115	.	~38 mm Ø x ~15 mm
IARM Fe303-18	.	0.007	(0.0012)	.	(0.006)	.	.	(0.015)	.	31 mm Ø x 2 or 18 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**
IARM 4G	0.008	(0.005)	0.0032	(0.001)	(0.003)	(0.0005)	(0.001)	0.008	(0.008)	31 mm Ø x 2 mm
IARM 6J	0.0195	.	0.0024	.	(0.001)	.	.	(0.009)	(0.01)	31 mm Ø x 2 or 18 mm
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 mm
13X 18004C	0.011	.	.	.	.	.	.	(0.0025)	.	~40 mm Ø x ~15 mm
CZ SL-3A	0.007	.	0.002	.	.	.	.	0.006	.	~39 mm Ø x 25 mm
KUT S15	.	.	.	.	.	.	.	.	.	30-35 mm Ø x 18 last
IARM 8i	(0.0030)	.	(0.0005)	.	(0.004)	.	.	(0.012)	.	31 mm Ø x 2 or 18 mm
13X 14216P	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
IARM 8G	0.0030	(0.007)	(0.0005)	(0.0005)	(0.003)	.	.	0.0107	(0.004)	31 mm Ø x 2 mm
VS LG70	0.029	.	.	.	.	.	.	.	.	~45 mm Ø x ~28 mm
NILAB 500HA D	.	.	.	.	.	.	.	.	.	38 mm Ø x 20 mm
13X 12538J	.	.	.	.	.	.	.	.	.	40 mm Ø x 15 mm
NCS HS28741	.	0.0035	.	.	.	0.0001	.	0.0051	.	38 mm Ø x 35 mm
13X 14207L	0.0226	.	.	.	.	.	.	.	0.082	~40 mm Ø x ~15 mm
IRSID 1821	.	.	.	.	.	.	.	.	.	47 mm x 47 mm x 30 mm
IMZ 153A	0.036	.	.	.	.	.	.	.	.	38 mm Ø x 20 mm
ECRM 292-1D	(0.002)	(0.008)	.	(0.0006)	.	.	.	.	(0.001)	38 mm Ø x 25 or 30 mm
BS 184A	1.00	.	(0.0004)	(0.0003)	(0.0003)	.	.	(0.002)	(0.002)	38 mm Ø x ~7 or 19+ mm
SS 462/1	.	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm
SRM C1151a	.	.	.	.	.	0.0039	.	.	.	32 mm Ø x 19 mm
13X 31400A	0.022	.	.	0.0024	.	.	.	.	.	~40 mm Ø x ~15 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)**
13X NSA9B	.	.	0.0018	.	.	.	.	.	.	~40 mm Ø x ~15 mm
13X 30403B	0.0056	.	.	0.0027	.	.	.	0.0139	.	~40 mm Ø x ~15 mm
HRT FE2014-H	.	.	.	.	.	.	.	.	.	35mm Ø x 20 mm
VS LG75	0.113	.	.	.	.	.	.	.	.	~45 mm Ø x ~28 mm
BS 9811	(0.003)	(0.003)	(0.0003)	0.0014	(0.0060)	.	.	0.004	.	38 mm Ø x ~7 or 19+ mm **25(pre-17025)**
SRM 1155a	<0.01	(0.007)	(0.002)	.	(0.003)	<0.005	.	(0.0069)	.	32 mm Ø x 19 mm
13X 32900A	0.007	.	0.0028	0.0033	.	.	.	.	.	~40 mm Ø x ~15 mm

Number	Al	As	B	Ca	O	Pb	Sb	Sn	Ta	Units
BS 317L	0.0044	(0.003)	0.0012	0.0017	(0.006)	(0.0002)	(0.002)	0.0049	(0.002)	37 mm Ø x ~7 or 19+ mm **17025**
IARM 162D	(0.0026)	0.0072	0.0027	(0.003)	0.005	.	(0.0019)	0.0102	(0.005)	31 mm Ø x 2 mm
IARM Fe304L-18	(0.003)	0.007	(0.0012)	.	(0.006)	.	.	(0.013)	.	31 mm Ø x 2 mm
NCS HS28764	.	.	Bi:0.013	.	.	.	.	.	.	40 mm Ø x 30 mm
IARM 153C	(0.003)	0.0061	0.0009	(0.0026)	0.006	(0.001)	(0.002)	0.010	(0.006)	31 mm Ø x 2 or 18 mm
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)**
IARM Fe316L-18	(0.006)	.	.	.	(0.005)	.	.	(0.013)	.	31 mm Ø x 18 mm
IRSID 1820	.	.	(0.0013)	.	.	.	.	.	.	47 mm x 47 mm x 30 mm
BS 2205A	(0.004)	0.0072	0.0022	0.0007	0.0046	.	.	0.0058	.	38 mm Ø x ~7 or 19+ mm **17025** Fe: 66.2
NCS HS28742	.	0.0025	.	.	.	0.0001	.	(0.0001)	.	38 mm Ø x 35 mm
13X NSA8B	.	.	0.0017	0.0011	.	.	.	.	.	~38 mm Ø x ~15 mm
13X NSA13A	(0.007)	.	0.0030	.	.	(0.0008)	.	0.0046	.	~40 mm Ø x ~15 mm
SS 463/1	.	.	0.0022	.	.	.	.	.	.	38 mm Ø x 19 mm
13X NSA12A	0.0169	.	0.0020	.	.	.	.	.	.	~40 mm Ø x ~15 mm
IARM 212D	(0.005)	(0.01)	0.001	(0.001)	0.0034	(0.001)	.	(0.003)	(0.003)	31 mm Ø x 2 mm last of stock
13X FV520BA	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
HRT FE2000-H	.	.	0.0013	.	.	.	.	.	.	40 mm Ø x 20 mm
IARM Fe2205-18	(0.007)	.	.	.	(0.004)	.	.	(0.006)	.	31 mm Ø x 2 or 18 mm
NCS HS28745	.	0.0055	.	.	.	0.0001	.	0.0073	.	38 mm Ø x 35 mm
SS 476	.	0.0053	.	0.0028	.	.	.	0.0059	.	38 mm Ø x 19 mm
BS 304B	0.0036	0.0051	(0.0004)	0.0009	0.0038	(0.0008)	.	0.0057	.	38 mm Ø x ~7 or 19+ mm **17025** Fe: 69.6
IARM 239C	0.007	(0.004)	0.0014	.	* Provisional Analysis			(0.003)	(0.004)	31 mm Ø x 2 or 18 mm
IARM FeZ100-18	(0.017)	.	0.002	.	(0.003)	.	.	(0.006)	.	31 mm Ø x 2 or 18 mm
BS 179C	0.0078	0.0034	0.0015	(0.0003)	0.0038	(0.00002)	0.0005	0.0018	(0.0006)	38 mm Ø x ~7 or 19+ mm **17025** Fe:[61.6]
BS 179B	0.0070	0.0036	0.0015	(0.0004)	0.0037	(0.00002)	0.0005	0.0019	(0.0006)	38 mm Ø x 19+ mm **17025** Fe:[61.5]
ECRM 287-1D	.	.	0.924	.	.	.	.	.	.	38 mm Ø x 25 or 30 mm
13X 34700A	0.023	.	0.0008	.	.	.	.	.	.	~38 mm Ø x ~15 mm
13X NSA11A	(0.021)	.	.	.	.	.	.	.	.	~38 mm Ø x ~15 mm
CZ SL-2A	0.005	0.008	0.002	.	.	.	.	0.01	.	~39 mm Ø x 25 mm
BS 316F	(0.002)	0.0067	0.0019	0.0018	0.0055	(0.0002)	.	0.0092	Fe:68.1	38 mm Ø x ~7 or 19+ mm **17025**
IARM 319A	(0.010)	(0.004)	0.0020	.	0.0025	.	.	0.0055	(0.002)	31 mm Ø x 2 mm
SS 466/2	0.0018	0.0020	0.0039	.	.	.	.	.	.	38 mm Ø x 19 mm
IARM 163E *	0.0039	(0.008)	0.0019	(0.002)	0.007	.	(0.002)	0.012	.	31 mm Ø x 2 mm * Provisional Analysis, last
HRT FE2016-H	.	.	.	.	.	.	.	.	.	30 mm Ø x 20 mm
SS 461/1	0.069	.	.	.	.	.	.	.	.	38 mm Ø x 19 mm
13X 30600A	0.020	.	.	.	Mg:0.0016	.	.	.	.	~32 mm Ø x ~20 mm
BS SS1961	0.067	0.004	0.0022	.	(0.002)	.	.	0.004	.	38 mm Ø x 12 mm last
JK 27B	.	.	0.00072	0.0022	.	.	.	0.0068	.	~37 mm Ø x 25 mm
BS SS1962	0.062	0.002	0.0018	.	(0.001)	.	.	0.004	.	38 mm Ø x ~7 or 19+ mm
IARM 354A	(0.05)	(0.002)	0.0023	(0.0003)	(0.0012)	(0.004)	(0.0002)	(0.002)	.	31 mm Ø x 2 or 18 mm
CT ISO123A	0.027	.	0.0021	.	.	.	.	.	.	44-47 mm Ø x ~16 mm Fe: 74.72
13X 46500A	0.069	.	0.0016	.	.	.	.	0.0030	.	~32 mm Ø x ~20 mm
ECRM 284-3D	.	0.00131	0.00020	.	.	.	.	0.00074	.	39 mm Ø x 28 mm

Number	Al	As	B	Ca	O	Pb	Sb	Sn	Ta	Units

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	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 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 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	.	last of stock
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 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 C26	0.0077	0.0025	0.0019	0.0042	0.0189	0.3	0.1	0.02	0.3	0.7	1.6	13	0.1	0.025	0.0003	0.0009	0.03	
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 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 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	0.064	0.041
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 316F**	0.015	1.46	0.029	0.026	0.55	0.437	10.09	16.79	0.126	2.10	0.061	0.011	0.062	0.045
317 L	**BS 317L**	0.025	1.17	0.029	0.0017	0.67	0.23	13.51	18.2	0.14	3.07	0.055	0.031	0.091	0.017
321	**BS 85D**	0.048	1.69	0.024	0.024	0.54	0.45	9.98	17.09	0.97	0.59	(0.02)	0.062	0.132	(0.07)
330	BS 86F	0.054	1.30	0.021	0.0011	1.22	0.23	34.99	18.74	0.098	0.24	0.035	0.19	0.061	(0.03)
347	BS 347B	0.051	1.57	0.028	0.026	0.51	0.15	9.16	17.24	0.05	0.38	0.056	0.71	0.04	(0.005)
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 410C	0.131	0.381	0.0206	0.0051	0.366	0.084	0.352	12.78	0.0185	0.055	0.039	0.0056	0.0006	0.0131
416	BS 90F	0.085	0.53	0.023	0.328	0.58	0.12	0.30	13.01	0.021	0.14	0.037	0.011	0.076	0.032
416 Se	BS 151	0.090	0.41	0.021	0.018	0.65	0.11	0.24	13.19	0.018	0.088	0.022	0.005	0.046	0.010
420	BS 98	0.309	0.48	0.019	0.0014	0.72	0.098	0.21	13.35	0.020	0.034	0.0181	0.003	0.075	0.009
420F	BS 152	0.32	0.36	0.022	0.275	0.44	0.050	0.14	13.41	0.015	0.061	0.020	0.006	0.051	<0.01
422	BS 97	0.216	0.71	0.021	0.0004	0.39	0.066	0.76	11.82	0.041	1.05	0.030	0.007	0.21	0.95
430	BS 91E	0.066	0.42	0.017	0.002	0.52	0.05	0.17	16.58	0.02	0.035	0.032	(0.004)	0.09	0.01
430F	BS 153	0.026	0.41	0.018	0.280	0.53	0.052	0.140	17.38	0.017	0.30	0.021	0.002	0.045	(0.002)
431	BS 92B	0.150	0.42	0.021	0.003	0.42	0.13	2.12	15.92	0.04	0.17	0.073	(0.006)	0.07	0.02
440C	BS 93E	1.02	0.52	0.022	0.0010	0.90	0.12	0.35	17.33	0.048	0.50	0.0359	0.005	0.24	0.11
440F	BS 155	1.00	0.35	0.014	0.145	0.40	0.035	0.13	16.64	0.019	0.46	0.032	0.002	0.10	.
440F Se	BS 156	1.06	1.15	0.022	0.007	0.47	0.09	0.35	16.87	0.047	0.50	0.041	0.005	0.13	0.11
446	BS 94C	0.057	0.45	0.024	0.002	0.62	0.056	0.43	25.90	0.042	0.20	0.065	0.032	0.12	(0.03)
450	BS 95A	0.035	0.58	0.026	0.004	0.46	1.50	6.42	14.72	0.081	0.73	0.0255	0.55	0.052	0.02
455	BS 96A	0.009	0.04	0.007	0.004	0.06	2.07	8.38	11.62	0.03	0.021	.	0.26	0.07	.

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 82E	0.006	0.0024	0.0014	.	0.006	0.003					
BS 83G	(0.004)	(0.001)	O:0.0064	.	0.003	(0.003)					
BS 316F	(0.002)	0.0019	0.0018	.	0.0092	0.011	As:0.0067	Fe: 68.1	O: 0.0055	**17025**	
BS 317L	0.0044	0.0012	0.0017	.	0.0049	0.0034	**17025**				
BS 85D	0.13	(0.001)	0.0004	.	0.0062	0.48	**17025**				
BS 86F	(0.007)	0.0026	(0.001)	.	0.004	(0.006)					
BS 347B	0.002	0.0036	(0.0005)	.	0.006	(0.002)					
BS 355	0.0192	0.0039	(0.0002)	.	0.0038	0.0007	O: 0.0020				
BS 184A	1.00	(0.0004)	(0.0003)	.	(0.002)	0.051					
SET BS 400-SS-16											
BS 150	0.002	.	.	.	(0.003)	(0.002)					
BS 410C	0.0079	(0.0001)	0.0022	.	0.0023	0.0006	**17025**				
BS 90F	(0.006)	.	.	.	0.005	(0.002)					
BS 151	(0.002)	.	.	0.328	0.005	(<0.003)					
BS 98	0.003	.	(0.0005)	.	0.006	0.002					
BS 152	(0.002)	.	.	.	0.003	(0.002)					
BS 97	0.018	.	.	.	(0.003)	(0.002)					
BS 91E	(0.002)	.	0.0008	.	0.004	(0.002)					
BS 153	(0.004)	.	.	.	0.002	(0.004)					
BS 92B	(0.002)	.	(0.0009)	.	0.006	(0.002)					
BS 93E	0.009	.	.	.	0.003	0.007					
BS 155	(0.001)	.	.	.	(0.003)	(0.002)					
BS 156	(<0.002)	.	.	0.142	(0.004)	0.001					
BS 94C	0.004	.	0.0008	.	0.006	.					
BS 95A	0.002	0.0010	0.0008	.	0.008	(0.003)					
BS 96A	0.08	(0.0017)	.	.	.	1.18					

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
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
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	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	DSZU C103	0.064	0.287	0.027	(0.006)	0.34	0.066	0.21	27.04	5.28	.	0.013	.	(0.002)	0.29	0.035
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
1	**BS CD4MCU**	0.045	0.568	0.025	0.021	0.71	2.93	5.62	24.46	0.0063	(0.03)	1.98	0.229	(0.004)	0.021	0.108
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
2	DSZU C102	0.038	0.265	0.025	(0.006)	1.27	0.031	0.19	24.41	4.98	.	0.022	.	(0.005)	0.25	0.089
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	SRM 1158	0.025	0.468	0.004	0.005	0.194	0.039	36.03	0.062	.	0.008	0.010	.	.	.	0.001
2	DSZU C101	0.024	0.198	0.013	(0.006)	0.32	0.055	0.34	21.77	5.06	.	0.026	.	(0.011)	0.31	0.023
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
1	13X 17005E	0.0217	0.209	0.0040	0.0431	1.739	0.120	20.06	24.65	0.049	0.0265	0.599	0.0097	0.101	0.0073	.
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)
1	**BS CD4MCU-A**	0.021	0.38	(0.008)	0.0072	0.31	2.92	5.18	24.6	(0.009)	(0.005)	1.92	0.0112	(0.009)	0.021	(0.006)
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
2	CT ISO136A	0.018	0.44	0.001	<0.001	0.198	<0.001	44.92	0.002	.	0.009	<0.001	.	.	.	.
1	IARM 157D	0.0154	0.626	0.016	0.0005	0.28	0.196	23.9	20.31	0.020	0.102	6.08	0.203	0.149	0.009	0.050
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	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
1	NCS HS41753a	0.012	0.973	0.021	0.013	0.480	1.26	24.28	19.16	.	0.180	4.25	0.041	0.812	0.004	0.075
2	CT ISO124A	0.011	0.73	0.007	0.006	0.40	0.015	48.07	0.079	.	0.012	0.009	.	.	.	.
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
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
1	IARM 26D	0.038	0.224	0.013	(0.0008)	(0.05)	0.047	24.6	14.29	0.29	0.040	1.23	0.0035	(0.007)	2.17	0.223
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	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)
IARM 242A	.	(0.0005)	.	.	.	0.0006	.	(0.001)	0.008	<0.01	.	31 mm Ø x 2 mm
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
NCS HS41747	.	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 30 mm
HH 5157A	.	.	.	.	.	.	.	.	.	.	.	44 mm Ø x 12 mm sale price
DSZU C103	.	.	.	.	.	.	.	.	.	(0.004)	(0.001)	38 mm Ø x 18 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
BS CD4MCU	0.0040	0.0028	(0.001)	.	(0.0003)	0.019	**17025**	(0.03)	.	0.024	(0.002)	36 mm Ø x 26 mm Fe: 63.2
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, ~12 or 19 mm
DSZU C102	.	.	.	.	.	.	.	.	.	(0.020)	(0.003)	38 mm Ø x 18 mm
HH 5196A	.	.	.	.	.	.	.	.	.	.	.	44 mm Ø x 12 mm sale price
HH 5300A	.	.	.	.	.	.	.	.	.	.	.	41 mm Ø x 12 mm sale price
SRM 1158	.	.	.	.	.	.	.	.	.	.	.	32 mm Ø x 19 mm
DSZU C101	.	.	.	.	.	.	.	.	.	(0.011)	(0.003)	38 mm Ø x 18 mm
BS 187A	.	0.0022	.	(0.025)	.	0.0029	.	0.003	<0.002	(0.02)	.	41 mm Ø x ~7 mm last
13X 17005E	.	0.0030	.	.	.	.	.	.	0.015	.	.	~40 mm Ø x ~15 mm
CT ISO139A	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x ~16 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 CD4MCU-A	0.0022	(0.0008)	(0.001)	.	(0.0003)	0.0061	**17025**	0.0024	.	(0.009)	(0.002)	44 mm Ø x 19+ mm Fe: 64.5
CT ISO141A	.	.	.	.	0.0002	.	.	.	.	.	.	30-35 mm Ø x ~16 mm Fe: 52.12
CT ISO136A	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x ~16 mm Fe: 54.27
IARM 157D	.	0.0007	.	.	.	.	.	0.0036	.	0.036	.	31 mm Ø x 2 or 18 mm Fe: 48.0
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	**17025**	0.0035	.	0.037	(0.001)	38 mm Ø x ~7 or 19+ mm Fe: [48.1]
NILAB 501HA D	.	.	.	.	.	.	.	.	.	.	.	38 mm Ø x 20 mm
KUT S22	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x 18 or 40 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
NCS HS41753a	.	.	.	.	.	.	.	.	.	0.058	.	37 mm Ø x 35 mm
CT ISO124A	.	.	.	.	.	.	0.167	.	.	.	.	44-47 mm Ø x ~11 or ~19 mm Fe: 50.65
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 mm Fe: 52.9
BS 160A	0.0011	0.0010	(0.0004)	.	0.0032	0.0022	**17025**	0.0024	Ta, W:(0.0001)		0.0048	38 mm Ø x ~7 or 19+ mm Fe: 52.9
BS 161A	(0.002)	0.0023	(0.0008)	.	.	(0.0004)	.	(0.0015)	(0.03)	(0.008)	(0.002)	38 mm Ø x ~12 or 19 mm last **25(pre-17025)**
IARM 26D	.	0.0063	.	.	.	.	.	0.0039	.	0.036	.	31 mm Ø x 2 or 18 mm
CT ISO138A	.	.	.	.	.	.	.	.	.	.	.	30-35 mm Ø x ~16 mm Fe: 58.53
ECRM 285-2D	.	0.0009	.	.	.	.	.	.	.	.	0.0050	38 mm Ø x 25 or 30 mm

HIGH ALLOY STEEL XRF SET

Part Number: BS HAS-12 RM except CRM as noted, available as set or individually * Provisional Analysis ~7 mm Ø discs

Number Grade	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Al	B	Co	N	Nb	Sn	Ti	V	W	O
BS 189A AL6XN	0.0147	0.639	0.019	(0.001)	0.30	0.184	23.8	20.4	6.04	0.0129	(0.0002)	0.100	0.198	(0.13)	0.0035	0.0065	0.054	0.037	0.0024
CRM **17025**																			
BS 179A Alloy 255	0.017	1.04	0.021	0.001	0.44	1.94	5.84	25.45	3.24	(0.009)	(0.001)	0.58	0.184	0.030	0.005	0.006	0.070	(0.2)	.
BS 183B Greek Ascoloy	0.181	0.344	0.018	0.0042	0.41	0.074	1.96	12.45	0.33	0.0009	(0.0007)	0.032	0.044	(0.0075)	0.0046	(0.0016)	0.165	3.5	(0.0054)
CRM **17025**																			
BS 186A Invar 36	0.040	0.72	0.008	0.0053	0.19	0.016	35.86	0.16	0.0032	(0.001)	.	0.028	0.0026	(<0.002)	(0.002)	(<0.003)	0.0012	(0.01)	.
BS 187A Carp. 20Cb3	0.022	0.52	0.017	0.0025	0.26	3.10	33.06	19.75	2.06	(0.009)	0.0022	0.32	0.0157	0.57	0.003	(0.002)	0.10	(0.02)	.
BS 188B A-286	0.046	0.247	0.016	(0.0007)	0.266	0.120	24.81	14.32	1.30	0.168	0.0047	0.274	0.0021	0.099	0.0051	2.20	0.264	0.043	0.0006
CRM **17025**																			
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 SETS

AVAILABLE IN SETS ONLY, as grouped

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

RM GRAY IRON

as cast (not chill cast) CONTAINS FREE GRAPHITE **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 19+
BS 20E	3.24	0.80	0.042	0.044	2.29	0.23	0.156	0.088	0.006	(0.003)	0.006	0.042	(<0.002)	0.093	0.017	0.007	47 x 19+
BS 20P	3.22	0.63	0.032	0.044	2.62	0.067	0.143	0.079	0.008	(0.004)	0.018	0.033	(<0.001)	0.099	0.018	0.017	44 x 19+

DUCTILE / NODULAR IRON

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

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Ce	Co	**Mg**	Mo	Ti	V
1	SCRM 666/12	3.599	0.106	.	.	1.763	0.0581	1.709	0.102	.	.	.	**0.083**	0.0979	0.1069	0.0486
1	SCRM 667/13	3.04	0.222	.	.	2.866	0.497	1.303	0.294	.	0.110	.	**0.070**	.	.	0.103
1	**BS 285BH**	3.43	0.732	0.0470	0.0128	1.93	0.321	1.38	1.05	0.0168	.	0.0034	**0.052**	0.238	0.0429	0.122
1	**BS 286CI**	3.27	0.714	0.20	(0.012)	2.00	0.363	1.43	0.349	0.012	(0.03)	0.027	**0.052**	0.258	0.052	0.150
1	**BS 285BG**	3.44	0.731	0.0469	0.0126	1.93	0.321	1.39	1.05	0.0165	.	0.0038	**0.051**	0.238	0.0427	0.122
1	**BS 286CH**	3.27	0.714	0.20	(0.012)	2.00	0.363	1.43	0.349	0.012	(0.03)	0.027	**0.051**	0.258	0.052	0.150
1	**BS 285BF**	3.43	0.732	0.0472	0.0127	1.93	0.320	1.386	1.047	0.0164	.	0.0033	**0.050**	0.238	0.0424	0.122
1	**BS 286CG**	3.27	0.714	0.20	(0.012)	2.00	0.363	1.43	0.349	0.012	(0.03)	0.027	**0.050**	0.258	0.052	0.150
1	**BS 285BE**	3.45	0.732	0.0474	0.0128	1.93	0.321	1.38	1.047	0.0162	.	(0.003)	**0.049**	0.238	0.0428	0.122
1	**BS 286CF**	3.27	0.714	0.20	(0.012)	2.00	0.363	1.43	0.349	0.012	(0.03)	0.027	**0.049**	0.258	0.052	0.150
1	**BS 285BD**	3.45	0.730	0.0471	0.0126	1.93	0.322	1.39	1.047	0.0160	.	0.0036	**0.048**	0.238	0.0427	0.121
1	**BS 286CE**	3.27	0.714	0.20	(0.012)	2.00	0.363	1.43	0.349	0.012	(0.03)	0.027	**0.048**	0.258	0.052	0.150
1	**BS 286CD**	3.27	0.714	0.20	(0.012)	2.00	0.363	1.43	0.349	0.012	(0.03)	0.027	**0.047**	0.258	0.052	0.150
1	SCRM 670/23	3.585	0.318	0.0464	0.0098	2.234	0.976	0.907	0.498	.	0.0123	.	**0.0468**	0.0109	0.111	0.0257
1	**BS 286CC**	3.27	0.714	0.20	(0.012)	2.00	0.363	1.43	0.349	0.012	(0.03)	0.027	**0.046**	0.258	0.052	0.150
1	BS 291GK *	3.34	0.50	0.034	0.014	2.31	0.23	0.098	0.069	0.044	.	0.004	**0.046**	0.030	0.027	0.033
1	BS 291GJ *	3.34	0.50	0.034	0.014	2.31	0.23	0.098	0.069	0.043	.	0.004	**0.045**	0.030	0.027	0.033
1	BS 291GI *	3.34	0.50	0.034	0.014	2.31	0.23	0.098	0.069	0.043	.	0.004	**0.044**	0.030	0.027	0.033
1	**BS 286CB**	3.27	0.714	0.20	(0.012)	2.00	0.363	1.43	0.349	0.012	(0.03)	0.027	**0.043**	0.258	0.052	0.150
1	BS 291GH *	3.34	0.50	0.034	0.014	2.31	0.23	0.098	0.069	0.042	.	0.004	**0.043**	0.030	0.027	0.033
1	BS 291GG *	3.34	0.50	0.034	0.014	2.31	0.23	0.098	0.069	0.041	.	0.004	**0.042**	0.030	0.027	0.033
1	BS 291GF *	3.34	0.50	0.034	0.014	2.31	0.23	0.098	0.069	0.040	.	0.004	**0.041**	0.030	0.027	0.033
1	BS 291GD *	3.34	0.50	0.034	0.014	2.31	0.23	0.098	0.069	0.039	.	0.004	**0.039**	0.030	0.027	0.033
1	BS 291GC *	3.34	0.50	0.034	0.014	2.31	0.23	0.098	0.069	0.038	.	0.004	**0.038**	0.030	0.027	0.033
1	BS 291GB *	3.34	0.50	0.034	0.014	2.31	0.23	0.098	0.069	0.037	.	0.004	**0.037**	0.030	0.027	0.033
2	BAS SIMO 1/5	2.72	0.330	0.031	0.014	3.94	0.005	0.035	0.889	0.029	.	0.004	**0.034**	0.738	0.008	0.004
1	SRM C1137a	2.86	0.52	0.087	0.017	1.15	0.192	2.17	0.643	(0.007)	0.016	.	**0.032**	0.86	(0.04)	0.019
1	BAS SIMO 2/2	2.14	0.434	0.025	0.007	4.75	0.010	0.0189	0.856	0.013	0.006	0.0029	**0.026**	0.484	0.005	0.009
1	SCRM 669/15	3.09	0.52	0.041	0.0108	2.41	0.217	0.48	0.260	.	0.040	.	**0.023**	0.057	0.058	0.50
1	SCRM 668/14	3.77	0.702	0.045	0.0220	1.72	0.65	0.096	0.99	.	0.023	.	**0.009**	0.0179	0.086	0.195
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

Number	As	B	Ca	Fe	La	Nb	Pb	Sb	Sn	W	Zr	Units	
SCRM 666/12	.	.	.	.	.	.	.	.	.	.	.	48 mm x 42 mm x 12 mm	
SCRM 667/13	.	.	.	.	.	.	.	.	.	.	.	48 mm x 42 mm x 12 mm	
BS 285BH	0.0007	0.0084	0.0010	90.54	.	0.0040	0.0009	(0.2)	0.0017	0.0612	0.0055	~35 mm Ø x ~30 mm	**17025**
BS 286CI	(0.002)	0.0086	0.0012	91.1	(0.005)	(0.005)	(0.0007)	.	(0.01)	0.0025	(0.003)	~35 mm Ø x ~30 mm	**17025**
BS 285BG	0.0008	0.0084	0.0010	90.54	.	0.0039	0.0009	(0.2)	0.0017	0.0611	0.0055	~35 mm Ø x ~30 mm	**17025**
BS 286CH	(0.002)	0.0086	0.0012	91.1	(0.005)	(0.005)	(0.0007)	.	(0.01)	0.0025	(0.003)	~35 mm Ø x ~30 mm	**17025**
BS 285BF	0.0009	0.0084	0.0010	90.54	.	0.0039	0.0008	(0.2)	0.0018	0.0608	0.0054	~35 mm Ø x ~30 mm	**17025**
BS 286CG	(0.002)	0.0086	0.0012	91.1	(0.005)	(0.005)	(0.0007)	.	(0.01)	0.0025	(0.003)	~35 mm Ø x ~30 mm	**17025**
BS 285BE	0.0010	0.0084	0.0009	90.53	.	0.0038	0.0007	(0.2)	0.0016	0.0607	0.0054	~35 mm Ø x ~30 mm	**17025**
BS 286CF	(0.002)	0.0086	0.0012	91.1	(0.005)	(0.005)	(0.0007)	.	(0.01)	0.0025	(0.003)	~35 mm Ø x ~30 mm	**17025**
BS 285BD	0.0010	0.0084	0.0009	90.54	.	0.0039	0.0007	(0.2)	0.0017	0.0608	0.0055	~35 mm Ø x ~30 mm	**17025**
BS 286CE	(0.002)	0.0086	0.0012	91.1	(0.005)	(0.005)	(0.0007)	.	(0.01)	0.0025	(0.003)	~35 mm Ø x ~30 mm	**17025**
BS 286CD	(0.002)	0.0086	0.0012	91.1	(0.005)	(0.005)	(0.0007)	.	(0.01)	0.0025	(0.003)	~35 mm Ø x ~30 mm	**17025**
SCRM 670/23	.	.	.	.	.	.	.	.	.	.	.	48 mm x 42 mm x 12 mm	
BS 286CC	(0.002)	0.0086	0.0012	91.1	(0.005)	(0.005)	(0.0007)	.	(0.01)	0.0025	(0.003)	~35 mm Ø x ~30 mm	**17025**
BS 291GJ *	0.005	0.016	0.001	[93.1]	.	0.004	<0.005	0.003	0.048	0.004	0.002	~33-35 mm Ø x ~28-32 mm	
BS 291GJ *	0.005	0.016	0.001	[93.1]	.	0.004	<0.005	0.003	0.048	0.004	0.002	~33-35 mm Ø x ~28-32 mm	
BS 291GI *	0.005	0.016	0.001	[93.1]	.	0.004	<0.005	0.003	0.048	0.004	0.002	~33-35 mm Ø x ~28-32 mm	
BS 286CB	(0.002)	0.0086	0.0012	91.1	(0.005)	(0.005)	(0.0007)	.	(0.01)	0.0025	(0.003)	~35 mm Ø x ~30 mm	**17025**
BS 291GH *	0.005	0.016	0.001	[93.1]	.	0.004	<0.005	0.003	0.048	0.004	0.002	~33-35 mm Ø x ~28-32 mm	
BS 291GG *	0.005	0.016	0.001	[93.1]	.	0.004	<0.005	0.003	0.048	0.004	0.002	~33-35 mm Ø x ~28-32 mm	
BS 291GF *	0.005	0.016	0.001	[93.1]	.	0.004	<0.005	0.003	0.048	0.004	0.002	~33-35 mm Ø x ~28-32 mm	
BS 291GD *	0.005	0.016	0.001	[93.1]	.	0.004	<0.005	0.003	0.048	0.004	0.002	~33-35 mm Ø x ~28-32 mm	
BS 291GC *	0.005	0.016	0.001	[93.1]	.	0.004	<0.005	0.003	0.048	0.004	0.002	~33-35 mm Ø x ~28-32 mm	
BS 291GB *	0.005	0.016	0.001	[93.1]	.	0.004	<0.005	0.003	0.048	0.004	0.002	~33-35 mm Ø x ~28-32 mm	
BAS SIMO 1/5	(0.001)	.	.	.	.	.	.	.	0.052	.	.	48 mm x 42 mm x 12 mm	
SRM C1137a	.	.	.	.	.	.	.	.	.	.	.	32 mm Ø x 19 mm	
BAS SIMO 2/2	0.039	.	.	.	.	.	.	.	0.038	.	.	48 mm x 42 mm x 12 mm	
SCRM 669/15	.	.	.	.	.	.	.	.	.	.	.	48 mm x 42 mm x 12 mm	
SCRM 668/14	.	.	.	.	.	.	.	.	.	.	.	48 mm x 42 mm x 12 mm	
SRM C2424	.	(0.002)	.	.	0.0011	.	.	.	.	.	.	32 mm Ø x 19 mm	

RM Si-Mo CAST IRON

BAS SIMO: 48 mm x 42 mm x 12 mm block CTIF: each unit = one pair 43 mm Ø x 5 mm discs

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

CAST IRON WITH MAGNESIUM - continued on the next page

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

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Mg	Te	Al	Ce	Co	Mo	Ti	V
1	CZ 20034 17b	4.38	0.501	0.089	0.0040	0.178	0.111	2.34	0.200	0.009	.	(0.002)	(0.003)	0.043	0.030	0.016	0.086
1	CZ 20034 17a	4.30	0.494	0.115	0.0034	0.170	0.082	2.38	0.200	0.007	.	(0.002)	(0.003)	0.043	0.030	0.016	0.086
1	CZ 20034 17c	4.08	0.503	0.104	0.0033	0.150	0.037	2.32	0.178	0.007	.	(0.002)	(0.003)	0.043	0.030	0.015	0.076
1	Y 2863-11	4.03	0.61	0.613	0.026	0.79	0.96	0.46	1.65	0.0075	.	.	.	.	0.94	0.29	0.079
2	CZ SPL17 43A	3.98	1.322	0.190	0.008	1.63	0.385	0.411	0.032	(0.04)	.	0.024	0.017	0.045	0.152	0.065	0.152
2	CZ SPL17 42A	3.94	0.764	0.294	0.0040	1.94	0.199	0.492	0.145	(0.06)	.	0.087	0.039	0.010	0.021	0.126	0.093
1	Y 451045	3.90	0.12	0.023	0.0027	2.29	0.022	0.45	0.028	0.033	.	.	.	.	0.0030	0.016	0.0014
1	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	SCRM 668/14	3.77	0.702	0.045	0.0220	1.72	0.65	0.096	0.99	0.009	.	.	0.023	.	0.0179	0.086	0.195
1	Y 2863-12	3.77	0.158	0.053	0.057	0.150	0.55	0.192	2.31	0.0024	.	.	.	.	0.44	0.030	0.229
1	CZ 02033 2f	3.77	0.091	0.159	0.009	1.23	0.89	0.658	0.022	0.053	.	0.024	0.018	(0.003)	(0.002)	0.021	0.010
1	Y 4510251B-16	3.75	0.39	0.034	0.012	1.69	0.423	0.60	0.52	0.053	.	0.061	0.034	.	0.203	0.036	0.198
1	CZ 02033 3c	3.68	0.333	0.026	0.007	2.15	0.421	0.040	0.100	0.006	(0.005)	0.024	0.013	0.026	0.490	0.021	0.016
1	SCRM 666/12	3.599	0.106	.	.	1.763	0.0581	1.709	0.102	0.0838	.	.	.	.	0.0979	0.1069	0.0486
2	Y 4510058B-18	3.59	0.435	0.047	0.020	1.68	0.268	0.595	0.526	**0.042**	.	.	0.022	.	0.180	0.044	0.174
2	Y 4510058C-18	3.59	0.435	0.047	0.020	1.68	0.268	0.595	0.526	**0.039**	.	.	0.022	.	0.180	0.044	0.174
2	Y 4510058D-18	3.59	0.435	0.047	0.020	1.68	0.268	0.595	0.526	**0.036**	.	.	0.022	.	0.180	0.044	0.174
2	Y 4510058E-18	3.59	0.435	0.047	0.020	1.68	0.268	0.595	0.526	**0.03**2	.	.	0.022	.	0.180	0.044	0.174
1	SCRM 670/22	3.55	0.300	0.040	0.009	2.25	0.96	0.87	0.49	0.044	.	.	0.013	.	0.014	0.104	0.019
2	CZ SPL17 31A	3.54	0.041	0.025	0.006	2.10	0.005	0.538	0.019	0.070	.	0.005	(0.004)	0.022	0.004	0.007	0.008
1	CZ 20034 15b	3.52	0.048	0.054	0.0031	1.66	1.322	0.681	0.067	0.037	.	0.029	0.021	0.027	0.004	0.025	0.013
2	CZ SPL17 34A	3.48	0.980	0.105	0.008	2.29	0.230	0.493	0.102	0.026	.	0.010	0.008	0.025	0.072	0.044	0.073
1	CZ 20034 15c	3.47	0.060	0.054	0.0028	1.68	1.123	0.728	0.078	0.040	.	0.010	0.030	0.026	(0.002)	0.036	0.019
2	CZ SPL17 32A	3.39	0.288	0.037	0.007	2.74	0.306	0.015	0.060	0.024	.	0.029	(0.004)	(0.002)	0.116	0.044	0.005
1	CZ 02033 3b	3.38	0.260	0.012	0.012	1.74	0.400	0.049	0.235	0.012	.	0.026	0.006	0.012	0.456	0.023	0.009

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Mg	Te	Al	Ce	Co	Mo	Ti	V
2	CZ SPL17 40A	3.38	0.042	0.021	0.0035	1.98	0.010	0.045	0.031	0.007	.	0.096	0.012	0.027	0.005	0.015	0.014
1	VS ChG 28	3.29	0.414	0.025	0.015	2.22	1.29	0.166	0.127	0.010	.	0.015	.	.	0.0024	0.0041	0.0020
1	CZ 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	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 20034 13c	3.15	0.704	0.0261	0.0044	2.23	0.089	1.299	0.124	0.064	.	0.022	0.011	0.024	0.360	0.015	0.043
1	CZ 20034 14c	3.14	0.275	0.0162	0.0081	2.49	0.585	0.030	0.045	0.017	.	0.007	0.019	0.009	0.646	0.018	0.013
1	CZ 20034 13a	3.13	0.691	0.0244	0.0046	2.19	0.021	1.266	0.122	0.053	.	0.017	0.011	0.024	0.364	0.014	0.048
1	CZ 20034 13b	3.12	0.692	0.0243	0.0041	2.12	0.021	1.313	0.125	0.054	.	0.019	0.011	0.024	0.364	0.012	0.048
1	VS ChG 24	3.05	0.245	0.260	0.0048	2.50	0.100	0.87	0.031	0.015	.	0.007	.	.	0.031	0.060	0.0067
1	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	**BS CC-11A**	3.07	1.23	0.020	0.011	1.90	0.007	0.046	0.048	0.014	0.026	0.0055	0.018	(0.007)	0.0063	0.0091	0.0066
1	**BS CC-11B**	2.97	1.17	0.020	0.008	1.94	0.0210	0.173	0.189	0.025	0.019	0.028	0.045	(0.022)	0.018	0.031	0.0179
1	VS ChM6/1	3.03	0.54	0.055	0.0074	2.75	.	.	.	0.072	.	0.022	.	.	.	.	.
1	VS ChM8/1	3.02	0.83	0.055	0.0034	3.39	.	.	.	0.105	.	0.041	.	.	.	.	.
2	CZ SPL17 36A	3.02	0.057	0.026	0.010	2.13	0.007	0.011	0.014	0.012	.	(0.003)	0.0007	(0.004)	0.004	0.021	0.021
1	VS ChM13	2.96	1.05	0.043	0.009	2.98	0.062	1.65	0.273	0.09	.	0.065	.	.	.	0.018	0.0096
1	SCRM 669/14	2.955	0.526	.	.	2.201	0.194	0.473	0.214	0.0224	.	.	0.0415	.	0.0550	0.0499	0.532
1	VS ChG 26	(2.9)	0.126	0.123	0.0041	2.98	0.014	1.52	0.050	0.044	.	0.038	.	.	0.075	0.0026	0.040
1	VS ChM10	2.89	0.43	0.067	0.017	1.13	0.082	0.85	0.067	0.024	.	0.005	.	.	.	0.028	0.079
1	SRM C1137a	2.86	0.52	0.087	0.017	1.15	0.192	2.17	0.643	0.032	.	(0.007)	0.016	.	0.86	(0.04)	0.019
2	CZ SPL17 33A	2.75	0.710	0.060	0.007	3.10	0.730	0.389	0.239	0.021	.	0.054	0.026	0.015	0.220	0.130	0.356
1	SRM C2424	2.68	0.268	0.041	0.024	3.37	0.125	0.061	0.13	0.006	.	(<0.01)	0.0046	(0.05)	0.019	0.050	0.083
1	VS ChM9	2.61	1.28	0.075	0.021	1.59	0.095	0.38	0.083	0.011	.	0.016	.	.	.	0.027	0.068
1	VS ChM11	2.26	0.77	0.032	0.011	2.32	0.067	1.75	0.122	0.066	.	0.035	.	.	.	0.014	0.0044
1	Y 2863-7	1.98	3.42	0.067	0.0061	3.10	0.089	4.47	0.150	0.050	.	.	0.019	.	0.052	0.060	0.87

#	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	.	
CZ SPL17 43A	.	0.0014	(0.002)	.	.	.	0.008	0.014	(0.004)	.	0.067	0.038	Zn:0.013	
CZ SPL17 42A	.	0.0036	(0.002)	.	.	.	0.045	0.020	0.015	.	0.027	0.020	Zn:0.013	
Y 451045	.	.	.	.	.	.	.	.	.	.	.	.	.	
CZ 02033 2g	.	0.0023	0.006	.	.	.	.	0.008	0.029	.	0.015	(0.004)	.	Zn: 0.020
SCRM 668/14	.	.	.	.	.	.	.	.	.	.	.	.	.	
Y 2863-12	(0.0097)	0.0078	.	.	.	.	0.21	(0.056)	(0.471)	.	(0.307)	0.13	.	
CZ 02033 2f	.	0.0020	(0.002)	.	.	.	.	0.005	0.028	.	0.014	(0.003)	(0.005)	Zn: 0.018
Y 4510251B-16	.	0.0044	.	.	.	0.016	.	.	.	.	0.030	.	.	last
CZ 02033 3c	(0.007)	0.0044	(0.002)	.	.	.	.	0.005	.	.	0.009	(0.003)	.	
SCRM 666/12	.	.	.	.	.	.	.	.	.	.	.	.	.	
Y 4510058B-18	0.0021	0.024	.	.	.	.	.	.	.	.	.	.	.	
Y 4510058C-18	0.0021	0.024	.	.	.	.	.	.	.	.	.	.	.	
Y 4510058D-18	0.0021	0.024	.	.	.	.	.	.	.	.	.	.	.	
Y 4510058E-18	0.0021	0.024	.	.	.	.	.	.	.	.	.	.	last	
SCRM 670/22	.	.	.	.	.	.	.	.	.	.	.	.	.	
CZ SPL17 31A	.	(0.0004)	.	.	.	.	.	.	.	.	(0.003)	(0.005)	.	
CZ 20034 15b	(0.003)	0.0033	0.010	.	.	.	.	.	0.058	.	0.005	0.007	.	
CZ SPL17 34A	.	0.0076	(0.005)	.	.	.	0.014	(0.006)	0.007	.	0.051	0.016	Zn:0.007	
CZ 20034 15c	(0.003)	0.0057	0.008	.	.	.	.	.	0.056	.	0.006	0.004	.	
CZ SPL17 32A	.	(0.0005)	(0.007)	.	.	.	.	0.022	0.023	.	(0.012)	(0.008)	Zn:0.011	
CZ 02033 3b	.	0.0042	0.001	.	.	.	.	0.009	.	.	0.019	.	.	

Number	As	B	Bi	Ca	Fe	La	Nb	Pb	Sb	Se	Sn	W	Zr	Other
CZ SPL17 40A	.	0.0008	.	.	.	.	.	.	.	.	(0.004)	.	Zn:(0.002)	
VS ChG 28	.	.	.	.	.	.	.	.	0.015	.	0.0017	.	.	
CZ 20034 14b	0.034	0.0100	0.007	.	.	.	.	(0.005)	0.016	.	0.028	(0.005)	0.014	Zn: 0.009
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 20034 13c	(0.002)	.	.	.	.	.	.	.	(0.002)	.	0.014	(0.003)	(0.02)	
CZ 20034 14c	0.035	0.0123	.	.	.	.	.	.	0.020	.	0.025	(0.003)	0.013	Zn: 0.010
CZ 20034 13a	(0.002)	.	.	.	.	.	.	.	(0.002)	.	0.014	(0.003)	0.029	
CZ 20034 13b	(0.002)	.	.	.	.	.	.	.	(0.002)	.	0.014	(0.003)	0.023	
VS ChG 24	.	.	.	.	.	.	.	.	0.009	.	0.077	.	.	
Y 2863-9	(0.041)	0.153	.	.	.	.	0.11	(0.093)	(0.116)	.	(0.124)	.	.	
VS ChM5/1	.	.	.	.	.	.	.	.	.	.	.	.	.	
SCRM 667/13	.	.	.	.	.	.	.	.	.	.	.	.	.	
BS CC-11A	0.0018	0.0008	(0.005)	(0.0009)	93.6	(0.004)	(0.007)	(0.002)	(0.01)	Zn:0.0032	(0.004)	(0.017)	(0.0025)	**17025**
BS CC-11B	0.0074	0.0033	(0.016)	(0.002)	93.2	(0.008)	0.043	0.014	0.026	Zn:0.008	0.021	0.028	0.0165	**17025**
VS ChM6/1	.	.	.	.	.	.	.	.	.	.	.	.	.	
VS ChM8/1	.	.	.	.	.	.	.	.	.	.	.	.	.	
CZ SPL17 36A	.	0.022	(0.007)	.	.	.	.	0.016	.	.	(0.002)	.	Zn:(0.002)	
VS ChM13	.	.	.	.	.	.	.	.	.	.	.	.	.	
SCRM 669/14	.	.	.	.	.	.	.	.	.	.	.	.	.	
VS ChG 26	.	.	.	.	.	.	.	.	.	.	0.031	.	.	
VS ChM10	.	.	.	.	.	.	.	.	.	.	.	.	.	
SRM C1137a	.	.	.	.	.	.	.	.	.	.	.	.	.	
CZ SPL17 33A	.	0.0064	(0.002)	.	.	.	0.032	0.010	0.019	.	0.039	0.079	Zn:0.009	
SRM C2424	.	(0.002)	.	.	.	0.0011	.	.	.	.	.	.	.	
VS ChM9	.	.	.	.	.	.	.	.	.	.	.	.	.	
VS ChM11	.	.	.	.	.	.	.	.	.	.	.	.	.	
Y 2863-7	(0.021)	0.100	.	.	.	.	0.041	(0.0025)	(0.010)	.	(0.0073)	.	.	

BS: 28-35 mm Ø x 17-35 mm
CZ: 40 mm Ø x 18 mm
SCRM: 48 mm x 42 mm x 12 mm
SRM: 32 mm Ø x 19 mm
Y: 30-35 mm Ø x 18-30 mm
VS ChM: ~39 mm Ø x ~39 mm
VS ChG: ~34 mm x ~35 mm X ~22 mm

RM CAST IRON WITH YOUR CHOICE OF MAGNESIUM LEVELS

each unit: 2 pcs mushroom 43 mm Ø x 5 mm

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

Magnesium level available in the below samples. X = available

For Mg Range	Order Suffix	3601B	4497	4500	5037	5781	5783	6134	6135	6736	7160	8018	8532
<0.005	<0.005	X	.	.	.	X	X	.	.	.	.	X	X
0.005 - 0.009	0.005	X	.	.	X	X	X	.	.	X	.	X	.
0.010 - 0.014	0.01	.	.	.	X	X	X	.	.	X	X	X	.
0.015 - 0.024	0.02	X	.	.	X	X	X	.	X	X	X	X	.
0.025 - 0.034	0.03	.	.	.	X	.	X	.	X	X	X	X	.
0.035 - 0.044	0.04	.	.	.	X	.	X	.	X	X	X	X	.
0.045 - 0.054	0.05	.	.	.	X	.	X	.	X	X	X	X	.
0.055 - 0.064	0.06	.	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 0.08 % Mg, order as part number CTIF 8018 0.08

CRM WHITE IRON

analysis listed in mass %

Number	C	Mn	P	S	Si	Cu	Ni	Cr	Co	Mo	Nb	Ti	V	
BS WI-2	3.61	0.80	0.22	0.056	0.52	0.0124	0.254	0.229	0.0118	0.219	0.128	0.089	0.215	**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	
VS ChG 8/6	(2.7)	1.51	0.040	0.013	3.93	.	.	(0.2)	.	.	.	.	(0.3)	
VS ChG 10/6	(2.7)	0.86	0.103	0.0072	2.86	.	.	(0.2)	.	.	.	.	(0.3)	
VS ChG 11/6	(2.7)	0.312	0.23	0.039	1.79	.	.	(0.2)	.	.	.	.	(0.3)	
VS ChG 9/6	(2.7)	0.155	0.38	0.071	0.80	.	.	(0.2)	.	.	.	.	(0.3)	
BS WI-1	1.75	0.24	0.051	0.114	1.90	0.027	0.053	0.048	0.0074	0.0103	0.027	0.020	0.008	**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
VS ChG 8/6	.	(0.003-0.006)	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~40 mm
VS ChG 10/6	.	(0.003-0.006)	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~40 mm
VS ChG 11/6	.	(0.003-0.006)	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~40 mm
VS ChG 9/6	.	(0.003-0.006)	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~40 mm
BS WI-1	0.075	0.0067	0.0032	.	0.0005	[95.5]	0.0009	0.115	.	0.0081	0.185	0.0034	~35 mm Ø x ~30 mm

CAST IRON WITH C > 2.75%

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
2	CZ SPL17 35A	4.55	0.096	0.024	0.011	0.078	0.004	0.024	0.022	(0.002)	0.023	0.003	.	(0.002)	(0.002)	0.009	.
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	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	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	11X C6W	3.80	0.967	0.088	0.064	0.81	0.952	0.072	0.396	0.021	0.046	1.32	0.010	0.030	0.195	0.045	0.0045
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	SCRM 674/1	3.71	1.437	0.0180	0.078	0.484	.	0.161	0.0296	0.0061	0.0066	0.0497	.	0.0164	0.0131	0.0125	.
1	Y 2582-4	3.70	0.857	0.087	0.076	0.451	.	0.032	0.117	.	.	(0.031)	.	.	0.030	0.158	.
2	CZ SPL17 39A	3.70	0.812	0.160	0.045	1.90	0.298	0.032	0.488	0.008	(0.002)	0.203	.	(0.003)	(0.074)	0.232	0.035
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	VS ChG 5/9	3.51	0.60	0.104	0.036	0.84	0.037	.	0.307	.	.	.	.	.	(0.1)	0.441	.
1	11X HPC4Q	3.48	1.19	1.63	0.102	1.70	0.078	2.03	0.788	.	.	0.101	.	.	.	0.029	.
1	Y 2863-5	3.47	0.78	0.564	0.070	0.89	0.365	0.62	1.53	.	.	0.67	.	.	0.133	0.129	.
1	11X C3AD	3.45	0.896	0.539	0.180	1.06	0.351	4.34	1.669	0.0104	0.240	0.235	0.021	0.166	0.127	0.605	0.007
2	CZ SPL17 41A	3.41	0.512	0.199	0.068	1.92	0.151	0.104	0.125	(0.003)	0.031	0.041	.	0.066	0.048	0.011	(0.001)
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	.
2	CZ SPL17 38A	3.39	0.401	0.067	0.036	2.37	0.510	0.306	0.141	0.034	0.021	0.101	0.008	0.032	0.012	0.061	0.028
1	11X C10D	3.38	0.754	0.104	0.086	1.89	0.643	0.873	0.429	0.024	0.059	0.288	.	0.035	0.0474	0.1048	.
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	Y 2863-3	3.32	1.27	0.115	0.049	2.27	0.62	2.01	0.49	.	.	0.313	.	.	0.176	0.45	.
1	KUT 121	3.32	0.61	0.135	0.17	(1.86)	.	.	.	.	.	.	.	.	.	.	.
1	KUT 205	3.32	0.80	0.025	(0.010)	1.88	0.81	0.61	0.64	.	.	1.79	.	(0.035)	.	.	.
1	KUT 206	3.32	0.75	0.027	(0.010)	1.84	1.01	0.21	0.12	.	.	2.14	.	(0.107)	.	.	.
1	KUT 122	3.31	0.61	0.22	0.20	1.72	.	.	.	.	.	.	.	.	.	.	.
1	KUT 123	3.30	0.69	0.31	0.074	(1.87)	.	.	.	.	.	.	.	.	.	.	.
1	NCS HS11784	3.30	0.528	0.78	0.031	2.68	0.015	0.024	0.812	(0.0012)	.	0.142	(0.0012)	0.0005	0.084	0.020	.
1	Y 2582-3	3.29	1.22	0.045	0.056	0.689	.	0.046	0.030	.	.	.	.	.	0.043	0.071	.
1	11X HPC1H	3.29	0.620	0.808	0.0035	3.27	.	.	1.056	.	.	0.060	.	.	.	.	.
1	VS ChG 4/9	3.24	1.42	0.030	0.024	0.455	0.199	.	0.155	.	.	.	.	.	0.10	0.169	.
1	11X HPC3K	3.24	1.00	2.52	0.078	1.37	0.132	1.52	1.19	.	.	0.172	.	.	.	0.042	.
2	BAS NCRM3	3.24	0.67	0.125	0.090	0.29	1.21	3.64	3.95	.	.	0.78	.	.	.	0.02	.
1	NCS HS11782	3.21	1.09	0.088	0.035	1.64	0.042	0.014	0.061	.	.	0.0048	.	.	0.027	0.0079	.
1	KUT 125	3.20	0.73	0.70	0.019	(1.87)	.	.	.	.	.	.	.	.	.	.	.

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Co	Mo	Nb	Sn	Ti	V	Zn
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	.
1	NCS HS11785	3.19	0.482	0.79	0.030	2.52	0.021	0.031	0.817	(0.0030)	.	0.139	(0.0009)	0.0010	0.076	0.018	.
1	DSZU CH02	3.18	1.09	0.007	0.0116	1.35	0.038	0.658	0.59	0.026	(0.06)	0.224	(0.4)	(0.014)	0.161	(0.005)	.
1	11X C2V	3.17	1.23	0.256	0.077	1.180	0.191	1.803	1.126	0.104	0.116	0.116	0.0160	0.0627	0.0870	0.328	0.0115
1	VS ChM 12	3.17	1.00	0.030	0.007	3.10	0.062	1.65	0.039	0.050	.	.	.	.	0.013	0.0027	.
1	SCRM 671/1	3.165	0.811	0.108	0.0503	0.868	.	0.0627	0.0609	0.030	0.098	0.0259	.	0.0103	0.0407	0.0122	.
1	KUT 126	3.16	0.81	1.41	0.016	1.90	.	.	.	.	.	.	.	.	.	.	.
1	KUT 202	3.16	0.81	0.024	(0.010)	1.77	0.24	2.07	2.36	.	.	0.44	.	(0.21)	.	.	.
1	SCRM 657/9	3.157	0.112	0.101	0.0401	3.209	.	.	.	.	.	.	.	.	.	.	.
1	KUT 204	3.15	0.80	0.023	(0.009)	1.79	0.64	1.09	1.22	.	.	1.38	.	(0.215)	.	.	.
1	KUT 127	3.14	0.79	1.55	0.014	1.81	.	.	.	.	.	.	.	.	.	.	.
1	CZ 02033 6c	3.11	1.25	0.097	0.019	3.25	0.273	0.021	1.33	0.024	0.005	0.006	.	0.131	0.107	0.192	.
2	CZ SPL17 37A	3.07	0.211	0.025	0.023	3.30	0.149	0.106	0.328	0.039	0.031	0.325	.	0.073	0.008	0.122	(0.001)
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	11X C9E	3.03	1.87	0.045	0.020	1.39	0.433	2.66	1.48	0.072	0.169	0.166	0.077	0.047	0.116	0.437	0.0091
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	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 LARM5/1	2.98	0.33	0.049	0.012	2.02	.	2.56	.	.	.	0.58	.	0.023	.	0.23	.
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	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	.
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	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	NCS HS11786	2.82	0.768	1.70	0.064	2.05	0.044	0.048	1.98	(0.0094)	.	0.251	0.012	0.0062	0.102	0.029	.
1	11X C5Y	2.78	0.754	0.092	0.092	1.913	0.443	1.186	0.950	0.060	0.0495	0.54	0.020	0.0357	0.0934	0.0739	0.0107
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 SPL17 35A	.	(0.0002)	.	.	.	.	.	.	(0.002)	.	.	.	(0.005)	.	40 mm Ø x 18 mm
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 18-30 mm
DSZU CH04	.	(0.0007)	.	(7)	.	.	(0.0001)	.	(0.007)	.	.	.	(<0.0002)	.	~30 mm x ~35 mm x ~19mm
DSZU CH05	.	(0.03)	.	(20)	.	.	(0.001)	.	.	.	.	.	.	.	~30 mm x ~35 mm x ~19mm
CZ 02033 4b	.	.	.	.	.	.	.	.	0.004	(0.001)	.	.	.	.	40 mm Ø x 18 mm
VS ChG 2/9	(0.003)	.	.	.	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~40 mm
DSZU CH06	.	(0.02)	.	(10)	.	.	.	.	.	.	.	.	0.1	.	~35 mm x ~35 mm x ~19mm
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
11X C6W	0.0544	0.0043	0.007	Cd:(0.0003)		Ag:0.0042	.	0.0070	0.007	0.058	0.006	0.013	0.0242	.	~40 mm Ø x ~15 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	.	.	.	.	.	.	.	.	.	.	.	~37 mm x ~37 mm x ~24 mm
SCRM 674/1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm x 37 mm x 10 mm
Y 2582-4	0.0017	.	.	.	.	.	.	.	.	.	.	.	.	.	30 mm Ø x 18-30 mm
CZ SPL17 39A	.	0.0195	0.008	.	.	.	.	.	0.017	0.037	.	.	.	.	40 mm Ø x 18 mm
Y 2582-5	0.0022	.	.	.	.	.	.	.	.	.	.	.	.	.	30 mm Ø x 18-30 mm
VS ChG 1/9	(0.003)	.	.	.	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~40 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 x ~16mm
VS ChG 3/9	(0.003)	.	.	.	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~40 mm
VS ChG 27	.	.	.	.	.	.	.	.	.	0.029	.	.	.	.	~35 mm x ~35 mm x ~22 mm
VS ChG 5/9	(0.003)	.	.	.	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~40 mm
11X HPC4Q	.	.	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
Y 2863-5	.	0.060	.	.	.	.	.	.	.	.	.	.	0.158	.	30 mm Ø x 18-30 mm
11X C3AD	0.086	0.0253	0.0124	.	.	.	.	0.0075	0.0170	0.243	0.028	.	0.040	.	~40 mm Ø x ~15 mm
CZ SPL17 41A	.	(0.0004)	(0.007)	.	.	.	.	.	0.010	0.016	.	.	0.012	.	40 mm Ø x 18 mm
VS ChL1/1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~38 mm
CZ SPL17 38A	.	0.0027	(0.002)	.	.	.	.	.	(0.003)	0.018	.	.	(0.005)	.	40 mm Ø x 18 mm
11X C10D	0.019	0.0030	.	Cd:(0.0004)		.	.	0.0057	0.006	0.040	.	.	0.308	.	~40 mm Ø x ~15 mm
VS ChG 35	.	.	.	.	.	.	.	.	.	.	.	.	.	.	~34 mm Ø x ~37 mm
KUT 120	.	.	.	.	.	.	.	.	.	.	.	.	.	.	30 x 30 x 13 mm
Y 2863-3	.	0.056	.	.	.	.	.	.	.	.	.	.	.	.	30 mm Ø x 18-30 mm
KUT 121	.	.	.	.	.	.	.	.	.	.	.	.	.	.	30 x 30 x 13 mm
KUT 205	.	.	.	.	.	.	.	.	.	.	.	.	.	.	30 x 30 x 13 mm
KUT 206	.	.	.	.	.	.	.	.	.	.	.	.	.	.	30 x 30 x 13 mm
KUT 122	.	.	.	.	.	.	.	.	.	.	.	.	.	.	30 x 30 x 13 mm
KUT 123	.	.	.	.	.	.	.	.	.	.	.	.	.	.	30 x 30 x 13 mm
NCS HS11784	0.0041	.	0.0083	.	.	.	.	.	0.0002	0.0007	.	.	.	.	31 mm Ø x 28 mm
Y 2582-3	0.009	.	.	.	.	.	.	.	.	.	.	.	.	.	30 mm Ø x 18-30 mm
11X HPC1H	.	.	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
VS ChG 4/9	(0.003)	.	.	.	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~40 mm
11X HPC3K	.	.	.	.	.	.	.	.	.	.	.	.	.	.	~40 mm Ø x ~15 mm
BAS NCRM3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm x 37 mm x 10 mm
NCS HS11782	0.0065	.	.	.	.	.	.	.	.	.	.	.	.	.	31 mm Ø x 28 mm
KUT 125	.	.	.	.	.	.	.	.	.	.	.	.	.	.	30 x 30 x 13 mm

Number	As	B	Bi	Ca*	Ce	La	Mg	N	Pb	Sb	Se	Te	W	Zr	Units
VS ChG 31	.	.	0.068	.	.	.	.	.	.	.	.	.	.	.	~37 mm x ~37 mm x ~24 mm
NCS HS11785	0.0049	.	0.013	.	.	.	.	.	0.0002	0.0005	.	.	.	.	31 mm Ø x 28 mm
DSZU CH02	.	(0.016)	.	(10)	.	.	(0.002)	.	.	.	.	.	.	.	~35 mm Ø x ~18 mm
11X C2V	0.0541	0.0098	0.0084	.	.	.	.	0.0096	0.0133	0.115	0.0157	.	0.0228	.	~40 mm Ø x ~15 mm
VS ChM 12	.	.	.	.	.	.	(0.08)	.	.	.	.	.	.	.	~38 mm Ø x ~38 mm
SCRM 671/1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm x 37 mm x 12 mm
KUT 126	.	.	.	.	.	.	.	.	.	.	.	.	.	.	30 x 30 x 13 mm
KUT 202	.	.	.	.	.	.	.	.	.	.	.	.	.	.	30 x 30 x 13 mm
SCRM 657/9	.	.	.	.	.	.	.	.	.	.	.	.	.	.	48 mm x 42 mm x 12 mm
KUT 204	.	.	.	.	.	.	.	.	.	.	.	.	.	.	30 x 30 x 13 mm
KUT 127	.	.	.	.	.	.	.	.	.	.	.	.	.	.	30 x 30 x 13 mm
CZ 02033 6c	.	0.0024	.	.	.	.	.	.	.	(0.003)	0.044	.	0.007	.	40 mm Ø x 18 mm
CZ SPL17 37A	.	0.0124	(0.002)	.	.	.	.	.	(0.002)	.	.	.	0.026	.	40 mm Ø x 18 mm
VS ChG 30	.	.	0.082	.	.	.	.	.	.	.	.	.	.	.	~37 mm x ~37 mm x ~24 mm
BAS NCRM1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm x 37 mm x 10 mm
VS ChL3/1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	~38 mm Ø x ~38 mm
11X C9E	0.53	0.0047	.	.	.	.	.	.	(0.0023)	0.145	.	0.0097	0.31	(0.0017)	~40 mm Ø x ~15 mm
DSZU CH08	.	(0.08)	.	(10)	.	.	.	.	.	.	.	.	.	.	~35 mm x ~35 mm x ~19mm
VS ChG 39	.	.	.	.	.	.	.	.	.	.	.	.	.	.	~34 mm Ø x ~37 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 last
BAS LARM3	0.092	0.003	0.022	.	.	.	.	.	.	.	.	.	.	.	40 mm x 37 mm x 10 mm
Y 2863-4	.	0.041	.	.	.	.	.	.	.	.	.	.	.	.	30 mm Ø x 18-30 mm
BAS LARM5/1	.	0.0016	0.0012	.	.	.	.	.	<0.001	.	.	.	.	.	40 mm x 37 mm x 10 mm
BAS NCRM2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	40 mm x 37 mm x 10 mm
KUT 124	.	.	.	.	.	.	.	.	.	.	.	.	.	.	30 x 30 x 13 mm
CZ 02033 6b	.	.	.	.	.	.	.	.	.	0.049	.	.	.	.	40 mm Ø x 18 mm
SCRM 662/4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	48 mm x 42 mm x 12 mm
VS ChG 36	.	.	.	.	.	.	.	.	.	.	.	.	.	.	~34 mm Ø x ~37 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
VS ChG 34	.	.	0.223	.	.	.	.	.	.	.	.	.	.	.	~37 mm x ~37 mm x ~24 mm
CZ 20034 12a	0.022	0.036	0.005	.	.	.	.	.	0.007	0.046	.	.	0.011	(0.002)	40 mm Ø x 18 mm
NCS HS11786	0.0075	.	0.015	.	.	.	.	.	0.0003	0.0008	.	.	.	.	31 mm Ø x 28 mm
11X C5Y	0.0203	0.0058	0.005	.	.	.	.	0.0094	0.0108	0.030	0.0072	(0.0022)	0.0072	(0.0024)	~40 mm Ø x ~15 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	DSZU CH01	2.61	0.258	0.012	0.0045	1.95	0.097	0.072	0.88	0.079	(0.06)	0.070	(0.010)	(0.05)	0.132	0.134	.
1	VS ChG 40	2.59	1.56	0.059	0.019	1.60	0.98	1.61	1.47	.	.	0.229	.	.	0.18	0.325	.
1	11X C8V	2.60	0.394	1.00	0.204	1.643	0.310	0.275	0.148	0.086	0.126	0.148	0.0217	0.1063	0.235	0.064	0.0068
1	SCRM 661/4	2.56	0.30	0.84	0.068	2.96	.	.	(1)	.	.	.	.	.	.	.	.
1	SCRM 656/9	2.537	0.820	0.060	0.108	2.504	.	.	.	.	.	.	.	.	.	.	.
1	Y 2863-2	2.50	1.83	0.069	0.026	3.14	0.020	3.73	0.136	.	.	0.096	.	.	0.066	0.61	.
1	VS ChG 37	2.49	0.92	0.038	0.046	2.03	0.512	0.90	0.82	.	.	0.55	.	.	0.092	0.227	.
1	SCRM 673/1	2.455	0.123	0.317	0.0112	1.702	.	0.103	0.0423	0.0287	0.053	0.0092	.	0.0206	0.0718	0.052	.
1	CZ 20034 11b	2.44	0.382	0.271	0.140	3.67	0.130	0.082	1.178	0.067	0.005	1.144	.	0.074	0.041	0.182	.
1	VS ChG 38	2.43	0.302	0.386	0.084	2.30	1.20	0.162	1.98	.	.	0.046	.	.	0.105	0.119	.
1	CZ 02033 5b	2.42	0.812	0.033	0.073	1.32	0.031	0.188	0.061	0.062	.	0.089	.	.	0.007	0.005	.
1	VS ChL2/1	2.38	1.03	0.054	0.023	0.55	0.97	0.114	0.077	.	0.013	0.012	.	.	0.009	0.050	.
1	CZ 20034 11a	2.37	0.343	0.271	0.163	3.31	0.086	0.084	1.219	0.046	0.005	1.130	.	0.070	0.028	0.184	.
1	SCRM 652/4	2.34	1.19	0.071	0.129	0.878	.	.	(1)	.	.	.	.	.	.	.	.
1	DSZU CH07	2.33	1.36	0.090	0.064	3.01	0.35	0.403	0.34	0.036	.	0.66	(0.08)	(0.07)	0.150	0.52	.
1	CZ 02033 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	11X C4S	1.954	0.565	0.1014	0.096	2.98	0.095	3.21	1.382	0.006	0.0210	0.177	0.0233	0.0140	0.080	0.0165	0.0037
1	SCRM 675	1.92	1.81	0.045	0.072	1.29	0.012	0.210	0.080	0.007	0.023	0.034	.	0.0062	0.007	0.178	0.0006
1	SCRM 655/4	1.90	0.44	0.180	0.076	2.110	.	.	(1)	.	.	.	.	.	.	.	.
1	Y 2863-1	1.78	2.41	0.021	0.009	3.62	0.022	4.77	0.031	.	.	0.038	0.0052	.	0.068	1.13	.

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

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

Number	As	B	Bi	Ca*	Ce	Mg	N	Pb	Sb	Se	Te	W	Zr	Units

ALLOYED CAST IRON, CHART 1 of 2

= Class, where 1 = CRM and 2 = RM

#	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Mo	Pb	Sn	Ti	V	Mg	N
2	DSZU CH021	3.93	3.66	0.064	0.009	0.52	0.369	5.86	9.07	0.168	4.42	.	.	0.093	0.61	.	.
1	VS CHG41/1	3.88	1.23	0.037	0.090	1.77	0.56	5.84	8.7	.	0.50	.	.	0.21	0.25	.	.
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 ChG 48	3.44	0.100	0.0070	0.0039	0.923	0.90	0.280	22.79	0.049	0.591	.	0.0018	0.0022	0.0016	0.072	.
1	VS CHG44/1	3.25	1.91	0.018	0.029	1.28	2.46	0.210	25.4	.	0.028	.	.	0.43	0.106	.	.
1	11X 15309T	3.18	1.53	0.034	0.021	1.22	0.056	0.152	24.9	0.097	0.066	.	0.0047	0.013	0.098	.	.
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	.	.
2	58A SC01141	3.08	0.62	0.045	0.036	0.56	0.77	1.21	15.32	.	2.70	.	.	0.020	0.28	.	.
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	NCS HS11788	2.97	1.62	0.191	0.010	3.29	0.51	17.77	2.56	(0.0023)	0.0013	.	0.0003	0.043	0.017	.	.
1	Y 451052-2	2.96	1.24	0.211	0.0077	0.491	1.57	1.99	9.75	.	2.17	.	.	0.300	0.669	.	.
2	BAS NIRM5/1	2.95	1.01	0.103	0.005	1.50	0.21	21.7	0.51	.	.	.	.	.	.	0.055	.
2	58A ZS01036	2.95	0.719	0.077	0.024	0.970	0.448	0.806	13.89	.	0.683	.	0.048	0.035	0.135	.	.
2	BAS NIRM2/2	2.94	2.01	0.096	0.007	1.43	5.93	13.69	1.48	.	.	.	.	.	.	0.044	.
2	BAS CRRM4/2	2.93	0.58	0.049	0.042	0.45	0.53	0.58	21.93	<0.005	1.15	.	.	0.008	0.11	.	.
2	11X 20003K	2.91	1.53	0.174	0.007	3.03	0.52	17.8	2.53	.	.	.	.	.	.	.	.
1	11X S/1 Cr3J	2.91	0.861	0.072	0.023	1.07	9.01	14.53	1.61	.	.	.	.	.	.	.	.
2	DSZU CH022	2.90	1.76	0.033	0.018	0.43	2.53	2.19	14.85	0.053	2.65	.	.	0.078	0.45	.	.
2	11X 20001J	2.90	0.58	0.005	0.143	1.01	0.01	21.4	1.50	.	.	.	.	.	.	.	.
2	11X S/2 Cr1E	2.83	1.68	0.31	0.011	2.85	0.02	16.5	2.48	.	.	.	.	.	.	.	.
1	11X 15294W	2.76	0.451	0.082	0.029	0.36	0.103	0.309	29.3	(0.147)	0.091	0.012	0.036	.	0.132	.	.
1	Y 451054-3	2.73	1.09	0.105	0.036	0.99	0.451	1.20	12.97	.	2.08	.	.	0.045	0.66	.	.
1	VS ChG45	(2.7)	1.01	0.096	0.047	2.96	0.040	0.60	32.65	.	0.198	.	.	0.011	0.111	.	.
1	VS CHG42/1	2.69	2.78	0.068	0.034	0.411	1.37	0.26	14.8	.	1.87	.	.	0.131	0.48	.	.
2	BAS NCRM4	2.66	0.40	0.203	0.012	2.13	0.68	5.34	7.94	.	0.57	.	.	.	0.11	.	.
1	NCS HS11787	2.65	1.08	0.067	0.037	2.07	0.306	19.84	1.98	(0.085)	0.0014	.	0.0054	0.022	0.0096	.	.
1	11X 15310B	2.63	0.97	0.070	0.029	0.99	2.37	4.59	20.7	0.018	0.92	.	.	0.034	0.096	.	.
1	11X 0331-2M	2.62	1.85	0.050	(0.09)	3.14	6.68	15.1	1.54	0.137	0.067	0.019	0.0271	0.198	0.051	.	.
1	11X 15295S	2.58	1.02	0.059	0.048	0.783	0.213	0.326	28.5	0.122	0.363	0.008	0.026	0.008	0.270	.	.
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 NIRM6/1	2.53	4.07	0.225	0.049	2.68	0.11	26.9	1.02	.	0.51	.	.	.	.	.	.
2	BAS NIRM3	2.51	0.51	0.208	0.096	2.21	1.00	17.8	2.43	.	.	.	.	.	.	.	.
1	VS ChG 47	2.43	0.949	0.099	0.083	2.73	0.0104	0.149	14.45	0.0056	0.0019	.	0.093	0.041	0.129	.	.
1	VS CHG45/1	1.96	0.59	0.021	0.0091	3.08	0.056	0.95	33.8	.	0.209	.	.	.	0.21	.	.
1	VS CHG43/1	0.87	1.02	0.063	0.076	4.44	0.171	0.439	23.7	.	0.107	.	.	0.033	0.040	.	.

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

Number	B	Ce	Co	Nb	W	Zr	Units	Other
DSZU CH021	.	.	.	.	.	.	35 mm x 35 mm x 16 mm	
VS CHG41/1	.	.	.	.	.	.	~37 mm Ø x ~22 mm	
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	0.177	.	.	0.018	0.015	.	30 mm Ø x 18-30 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 ChG 48	As:0.0021	.	0.044	.	.	Sb:0.0017	~35 mm Ø x ~17 mm	
VS CHG44/1	.	.	.	.	.	.	~37 mm Ø x ~22 mm	
11X 15309T	.	.	0.76	0.056	0.022	.	~40 mm Ø x ~15 mm	
Y 451052-7	0.015	.	.	0.010	0.175	.	30 mm Ø x 18-30 mm	
58A SC01141	.	.	.	.	.	.	~35 mm Ø x ~30 mm	
SRM C1290	.	.	.	.	.	.	32 mm Ø x 19 mm	
Y TSK205	.	.	.	.	.	.	35 mm Ø x 18-30 mm	
Y 451054-2	.	.	.	.	.	.	30 mm Ø x 18-30 mm	
NCS HS11788	0.0008	.	(0.0063)	.	(0.0002)	.	31 mm Ø x 28 mm	As: 0.014
Y 451052-2	0.142	.	.	0.182	1.99	.	30 mm Ø x 18-30 mm	
BAS NIRM5/1	.	0.016	.	0.15	.	.	48 mm x 42 mm x 12 mm	
58A ZS01036	.	.	0.024	0.025	0.172	.	~32 mm Ø x ~30 mm	As: (0.003)
BAS NIRM2/2	.	0.018	.	.	.	.	48 mm x 42 mm x 12 mm	
BAS CRRM4/2	.	.	.	.	.	.	48 mm x 42 mm x 12 mm	
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 15294W	.	.	0.128	.	0.265	.	~40 mm Ø x ~15 mm	
Y 451054-3	.	.	.	.	.	.	30 mm Ø x 18-30 mm	
VS ChG45	.	.	.	.	.	.	~36 mm x ~36 mm Ø x ~18 mm	last
VS CHG42/1	.	.	.	.	.	.	~37 mm Ø x ~22 mm	
DSZU CH022	.	.	.	.	.	.	35 mm x 35 mm x 16 mm	
BAS NCRM4	.	.	.	.	.	.	40 mm x 37 mm x 10 mm	
NCS HS11787	0.0007	.	(0.0054)	.	(0.0002)	.	31 mm Ø x 28 mm	As: 0.0075
11X 15310B	.	.	0.157	.	0.188	.	~40 mm Ø x ~15 mm	
11X 0331-2M	.	.	0.179	0.134	0.004	0.0022	~40 mm Ø x ~15 mm	
11X 15295S	.	.	1.55	0.091	0.202	(0.0012)	~40 mm Ø x ~15 mm	
Y TSK201	.	.	.	.	.	.	35 mm Ø x 18-30 mm	
BAS NIRM6/1	.	0.006	.	.	.	.	48 mm x 42 mm x 12 mm	
BAS NIRM3	.	0.007	.	0.09	.	.	40 mm x 37 mm x 10 mm	
VS ChG 47	As:0.014	.	0.0042	.	.	Sb:0.040	~35 mm Ø x ~17 mm	
VS CHG45/1	.	.	.	.	.	.	~37 mm Ø x ~22 mm	
VS CHG43/1	.	.	.	.	.	.	~37 mm Ø x ~22 mm	

Number	B	Ce	Co	Nb	W	Zr	Units	Other

ALLOYED CAST IRON, CHART 2 of 2

= Class, where 1 = CRM and 2 = RM

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

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

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

Number B Ce Co Nb W Units Other

RM CAST IRON MUSHROOMS CONTINUED ON THE NEXT PAGE

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

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

CARBON STEEL

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

Number		C	Mn	P	S	Si	Cu	Ni	Cr	Al	Co	Mo	N	V	W
1	VS UG128	0.816	0.405	0.014	0.0139	0.324	0.0235	0.032	0.038	0.0078	.	.	0.0088	0.0046	.
1	**BS 54J**	0.78	0.77	0.0090	0.0108	0.552	0.080	0.037	0.177	0.0021	0.0042	0.0138	0.0060	0.0014	0.0024
1	VS UG129	0.728	.	.	0.013	.	.	.	.	0.0014	.	.	.	.	.
1	NM 309	0.57	0.80	0.037	0.046	0.20	.	0.034	0.081	.	.	.	.	.	.
1	IARM Fe1050-18	0.499	0.79	0.0045	0.027	0.223	0.179	0.068	0.100	(0.003)	0.0056	0.018	0.0097	0.0270	.
1	NM 306A	0.46	0.71	0.085	0.043	0.28	.	0.023	0.13	.	.	.	.	.	.
1	BS 1040 *	0.40	0.79	0.01	0.033	0.23	0.24	0.07	0.12	0.002	0.007	0.02	0.01	0.03	<0.005
1	VS UG131	0.39	0.56	0.0100	0.0031	0.207	0.030	0.026	0.853	.	.	.	0.0070	.	.
1	**BS 1030A**	0.34	0.763	0.0059	0.016	0.28	0.189	0.141	0.112	0.0021	0.0061	0.029	0.0082	0.0261	(0.0011)
1	SS 4527/1	0.323	1.30	0.035	0.017	0.055	0.22	0.19	0.067	.	.	0.054	.	.	0.054
1	VS UG121	(0.3)	0.55	0.014	0.027	0.244	0.180	0.078	0.126	0.023	.	.	0.0068	0.0018	.
1	**BS 1026A**	0.270	0.76	0.0064	0.021	0.180	0.094	0.081	0.123	0.0091	(0.005)	0.053	0.100	0.0257	0.0009
1	IARM Fe1020-18	0.226	0.547	0.006	0.024	0.235	0.198	0.078	0.125	(0.003)	0.0065	0.0252	0.0098	0.036	.
1	IMZ 112A	0.212	0.471	0.0055	0.0188	0.257	0.068	0.055	0.099	0.017	0.080	0.054	0.0058	0.043	0.072
2	BS 57F	0.196	0.554	0.009	0.027	0.202	0.197	0.070	0.120	(0.002)	0.007	0.018	0.0077	0.063	.
2	BS 2971	0.187	1.01	0.015	0.024	0.237	0.065	0.111	0.152	0.022	.	0.040	0.0084	(0.002)	.
1	VS UG132	0.180	0.466	0.0075	0.0030	0.201	0.039	0.024	0.035	.	.	.	0.0054	.	.
1	12X 10180D	0.179	0.807	0.014	0.025	0.286	0.066	0.053	0.0251	(0.003)	0.007	0.0026	0.007	.	.
1	IMZ 71A	0.126	0.493	0.0126	0.0075	0.494	0.90	0.036	0.505	0.019	0.025	0.018	0.0065	0.055	0.023
1	NM 308	0.11	0.47	0.013	0.008	0.067	.	0.009	0.032	.	.	.	.	.	.
1	VS UG122	(0.1)	0.433	(0.02)	(0.02)	0.396	0.288	0.378	0.72	.	.	.	0.0038	0.0040	.
1	VS UG120	0.096	0.685	0.027	(0.02)	0.96	0.447	0.634	0.75	0.011	.	.	(0.008)	0.0078	.
1	DSZU C041a	0.085	1.35	0.021	0.0092	0.59	0.046	0.032	0.035	0.029	0.010	0.0038	(0.008)	0.0033	(0.003)
1	IARM Fe1215-18	0.043	0.96	0.059	0.29	(0.006)	0.164	0.055	0.051	.	0.0055	0.016	0.0109	0.0020	.
1	**BS XCAS**	0.024	0.471	0.008	0.0064	0.339	0.020	0.031	0.035	(0.027)	0.0086	0.0069	0.0055	0.020	(0.006)
1	**BS XCCS-2**	0.021	0.58	0.0055	0.0059	0.40	0.047	0.099	0.039	0.073	0.016	0.013	0.0139	0.018	0.020
1	DSZU C040A	0.013	0.012	0.0023	0.0029	0.060	0.007	0.005	0.007	0.039	(0.002)	(0.001)	0.0068	(0.001)	(0.002)

Number	As	B	Fe	Nb	O	Sb	Sn	Ti	Alloy	Units	Others
VS UG128	.	.	.	.	.	.	.	.		~38 mm Ø x ~20 mm	
BS 54J	0.0025	<0.0005	97.6	(0.002)	(0.0011)	(0.0006)	(0.005)	0.0020	1080	38 mm Ø x ~7 or 19+ mm **17025**	
VS UG129	.	.	.	.	.	.	.	.		~38 mm Ø x ~20 mm	
NM 309	.	.	.	.	.	.	.	.	1060 + P	40 mm Ø x 20 mm	
IARM Fe1050-18	(0.0030)	(0.0005)	98.0	(0.0013)	0.0026	0.0015	0.0103	0.0008	1050	31 mm Ø x 2 or 18 mm	
NM 306A	.	.	.	.	.	.	.	.	1045 + P	40 mm Ø x 20 mm	
BS 1040 *	0.005	0.0003	[98.0]	<0.005	<0.05	0.002	0.009	<0.005	1040	28 mm Ø x ~7 or 19+ mm	
VS UG131	.	.	.	.	.	.	.	.		~39 mm Ø x ~25 mm	
BS 1030A	(0.005)	(0.0003)	98.0	(0.0007)	0.0047	0.0014	(0.015)	0.0014	1030	38 mm Ø x ~7 or 19+ mm **17025**	Zn:0.0033
SS 4527/1	0.015	.	.	.	.	.	0.094	0.031		38 mm Ø x 19 mm	
VS UG121	.	.	.	.	.	.	.	.		~45 mm Ø x ~25 mm	
BS 1026A	(0.005)	(0.0003)	98.3	0.0008	0.0042	0.0013	0.0068	(0.0006)	1026	38 mm Ø x ~7 or 19+ mm **17025**	Ca:0.0025
IARM Fe1020-18	0.0044	.	98.5	(0.0012)	(0.007)	0.0018	0.0080	.	1020	31 mm Ø x 2 or 18 mm	
IMZ 112A	0.023	0.0010	.	0.0123	Pb:0.008	0.021	0.162	0.0138	1023	38 mm Ø x 20 mm Zn: 0.0020	
BS 57F	(0.006)	.	Ca:(0.0003)	.	(0.006)	.	0.008	.	1020	44 mm Ø X 17 or 19+ mm	
BS 2971	0.003	.	.	.	.	.	(0.005)	.	LF-2	44 mm Ø X ~7 or 19+ mm	
VS UG132	.	.	.	.	.	.	.	.		~39 mm Ø x ~25 mm	
12X 10180D	0.0068	.	.	.	.	.	0.0033	.	1018	~40 mm Ø x ~15 mm	
IMZ 71A	0.016	0.0009	.	0.0100	.	0.013	0.015	0.0041	1010 - 1013	35 mm Ø x 20 mm Zr: 0.0065	
NM 308	.	.	.	.	.	.	.	.	1010	40 mm Ø x 20 mm	
VS UG122	.	.	.	.	.	.	.	.		~45 mm Ø x ~25 mm	
VS UG120	.	.	.	.	.	.	.	.		~45 mm Ø x ~25 mm	
DSZU C041a	(0.004)	(0.0005)	.	(0.002)	.	.	(0.004)	0.0049		40 mm Ø x 25 mm	
IARM Fe1215-18	0.0043	.	.	0.0012	.	0.0018	0.0083	0.0007	1215	~38 mm Ø x ~3 or ~19 mm	
BS XCAS	0.0016	(0.0002)	99.0	(0.0015)	0.008	0.0006	0.0017	0.0010	1008	38 mm Ø x 30 mm **17025**	
BS XCCS-2	(0.004)	0.021	98.6	(0.003)	0.0066	(0.0016)	(0.0015)	0.011	1009 + Al	~37 mm D x ~30 mm **17025**	Ca: 0.0032
DSZU C040A	(0.0002)	0.00032	.	(0.0003)	Ca:0.0021		(0.0002)	0.0010	1005	40 mm Ø x 25 mm	

RESULFURIZED STEEL

= Class, where 1 = CRM and 2 = RM

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

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

LOW ALLOY AND TOOL STEEL, CHART 1 of 2

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

	Number	C	Mn	P	S	Si	Cu	Ni	Cr	Al	Co	Mo	N	V	W
1	IARM Fe15V-18	3.51	0.39	0.022	0.010	0.89	0.084	0.123	5.5	.	0.018	1.24	.	15.6	0.080
2	BS 37D	1.54	0.28	0.021	0.015	0.29	0.063	0.21	11.07	.	0.07	1.09	0.016	0.80	0.16
1	IARM FeM4-18	1.42	0.298	0.013	0.062	0.60	0.104	0.127	4.16	.	0.080	5.07	0.042	3.97	5.55
1	IARM FeM62-18	1.32	0.27	0.016	0.015	0.37	0.115	0.129	3.86	(0.006)	0.105	10.2	0.045	2.02	6.31
1	**BS E52100**	0.99	0.371	0.011	0.004	0.270	0.090	0.066	1.54	0.019	0.0067	0.0209	0.0057	0.0046	(0.0015)
2	BS 36C	0.96	0.46	0.023	0.027	0.31	0.18	0.19	5.01	.	0.03	0.99	.	0.11	(0.04)
2	BS TM1	0.86	0.23	0.007	0.012	0.46	0.054	0.057	3.72	.	0.45	8.4	.	1.05	1.7
1	IARM FeM2-18	0.853	0.337	0.025	(0.0010)	0.26	0.098	0.182	4.23	(0.014)	0.28	4.92	0.0148	1.90	5.81
1	IARM FeM1-18	0.85	0.318	0.013	(0.003)	0.44	0.091	0.104	3.67	0.007	0.226	8.0	0.037	1.19	1.98
1	**BS 33F**	0.569	0.295	0.0134	0.0009	0.76	0.039	0.211	1.31	0.019	0.017	0.202	0.0124	0.25	2.28
2	BS TS7	0.529	0.70	0.016	0.010	0.27	0.05	0.10	3.18	.	0.043	1.34	.	0.35	0.19
1	**BS TS-7A**	0.527	0.74	0.013	0.016	0.84	0.127	(0.031)	3.35	0.061	(0.005)	1.62	0.0124	0.265	(0.0014)
1	IARM FeS7-18	0.51	0.271	0.021	0.0032	0.47	0.128	0.170	3.28	(0.015)	0.0106	1.39	0.0102	0.233	(0.016)
1	**BS D-6A**	0.47	0.78	0.0076	0.0010	0.232	0.136	0.60	0.99	0.038	0.013	1.00	0.0031	0.123	0.0019
1	12X 41400B	0.452	0.764	0.0095	0.041	0.32	0.161	0.156	0.999	0.0137	.	0.177	0.0124	.	.
1	**BS 4140C**	0.43	0.922	0.010	0.026	0.29	0.260	0.131	0.94	0.0215	0.0078	0.169	0.0064	0.0026	(0.003)
2	PV 101/1	0.424	0.798	0.014	0.027	0.177	0.108	0.091	1.013	.	.	0.099	.	.	.
2	BS TH11	0.423	0.31	0.016	0.005	0.88	0.041	0.11	5.04	.	(0.008)	1.27	.	0.46	(0.01)
1	**BS 300A** **	0.416	0.716	0.0049	0.0008	1.71	0.118	1.87	0.798	0.098	0.0087	0.38	0.0023	0.070	<0.01
1	IARM Fe4140-19	0.401	(0.9)	0.008	0.022	0.22	0.23	0.14	1.1	0.031	0.009	0.17	0.0110	0.0030	(0.003)
1	IARM 170B	0.400	0.821	(0.005)	(0.004)	0.21	(0.005)	0.197	0.009	0.230	(0.005)	(0.003)	.	(0.002)	.
2	BS 34D	0.395	0.38	0.017	0.005	1.06	0.049	0.10	5.15	.	0.031	1.24	.	0.94	0.10
1	**BS 8740**	0.39	0.86	0.011	0.023	0.25	0.16	0.55	0.49	0.037	0.0086	0.27	0.0073	0.0024	0.0023
2	BS 68C	0.38	0.60	0.018	0.008	0.305	0.178	0.166	1.77	1.06	0.011	0.36	0.0045	0.007	.
1	IARM Fe5140H-18	0.37	0.93	0.014	0.022	0.187	0.253	0.266	0.67	0.13	0.0081	0.031	0.007	(0.0024)	(0.003)
2	BS TH12	0.372	0.40	0.020	0.005	0.92	0.064	0.16	5.02	.	0.07	1.41	.	0.62	1.06
1	**BS 4330MOD**	0.316	0.92	0.0052	0.0010	0.269	0.105	1.83	0.848	0.031	0.034	0.478	0.0031	0.083	(0.001)
1	IARM 378A	0.274	1.38	0.018	0.037	0.307	0.299	0.142	0.187	(0.0029)	0.013	0.031	(0.02)	0.0844	(0.006)
2	BS 9325	0.25	0.91	0.008	0.007	0.32	0.13	3.29	1.48	0.030	0.010	0.31	0.0089	0.004	.
1	IARM 169B	0.232	0.75	(0.004)	(0.004)	(0.32)	(0.005)	(0.010)	0.010	0.36	(0.003)	(0.004)	.	(0.002)	(0.003)
2	BS 8822	0.228	0.92	0.011	0.025	0.26	0.17	0.47	0.52	0.022	0.019	0.34	0.0085	0.003	.
1	IARM Fe8620-18	0.211	0.857	0.012	0.026	0.23	0.197	0.446	0.536	0.0246	0.0085	0.197	0.007	0.0061	(0.004)
1	BS 8822A *	0.21	0.85	0.021	0.033	0.28	0.032	0.57	0.56	0.011	0.005	0.38	0.008	0.003	<0.05
1	**BS 4820B**	0.199	0.67	0.0081	0.0113	0.269	0.221	3.32	0.116	0.038	0.012	0.251	0.0075	0.0016	(0.003)
2	BS 1931	0.194	0.84	0.007	0.018	0.235	0.116	0.42	0.50	0.021	0.012	0.168	0.0079	0.002	.
1	IARM Fe4820-18	0.192	0.541	(0.011)	0.0018	0.26	0.167	3.51	0.144	0.022	0.0107	0.287	0.007	0.0015	(0.004)
2	BS 61C	0.187	0.76	0.014	0.026	0.21	0.030	0.55	0.505	0.033	0.012	0.169	0.0050	<0.002	.
2	PV 102/1	0.186	1.226	0.024	0.018	0.184	0.109	0.140	0.995	.	.	0.030	.	.	.
2	BS 8620A	0.184	0.80	0.008	0.079	0.21	0.15	0.44	0.48	0.016	0.010	0.16	0.0107	0.004	.
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	0.003	.
2	BS 58D	0.127	0.45	0.010	0.005	0.32	0.156	3.02	1.35	0.042	0.009	0.14	0.0147	0.005	.
1	IARM FeE9310-18	0.121	0.62	0.009	0.0128	0.256	0.158	3.07	1.09	0.036	0.009	0.086	0.0070	0.0030	.
1	IARM FeDP1080-18	0.110	1.88	0.014	(0.006)	0.11	0.042	0.554	0.554	(0.002)	0.069	0.445	(0.009)	(0.0043)	(0.030)
1	**BS 3310**	0.104	0.54	0.0092	0.0144	0.257	0.199	3.49	1.55	0.035	0.0096	(0.052)	0.0075	0.0029	(0.003)
2	HRT FE2003-H	0.104	0.46	0.013	0.002	0.43	0.05	0.26	8.66	(0.004)	0.013	0.93	.	0.217	.
1	IARM FeF9-18	0.104	0.459	(0.011)	0.0036	0.345	0.093	0.148	8.72	.	0.013	0.94	0.0323	0.214	0.0030
1	IARM Fe91-18	0.099	0.453	0.015	(0.002)	0.27	0.041	0.187	8.24	(0.006)	0.013	0.94	0.046	0.198	(0.003)
1	IARM FeP92-18	0.092	0.737	(0.005)	(0.005)	0.20	0.074	0.82	9.4	(0.005)	0.036	0.52	(0.0036)	0.188	1.97
1	IARM FeT23-18	0.068	0.82	0.012	0.006	0.18	0.046	0.53	2.47	.	0.085	0.261	(0.003)	0.238	1.60

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

Number	As	B	Fe	Nb	O	Sb	Sn	Ti	Alloy	Units	Others
IARM Fe15V-18	.	.	.	.	.	.	0.0054	0.0027	CPM15V	38 mm Ø x 2 or 19 mm	
BS 37D	.	.	.	0.0031	.	0.004	.		D-2	37 mm Ø x ~7 or 19+ mm	
IARM FeM4-18	0.0058	.	79.0	.	.	.	0.0050	0.0018	M-4	~38 mm Ø x ~3 or ~19 mm	
IARM FeM62-18	.	(0.003)	.	(0.017)	(0.003)	.	.	(0.003)	M-62	31 mm Ø x 2 or 18 mm	
BS E52100	0.0033	Ca:0.0006	96.6	(0.0010)	0.0009	0.0011	0.0049	(0.0010)	E52100	38 mm Ø x ~7 or 19+ mm	**17025**
BS 36C	.	.	.	.	.	.	.	.	A-2	38 mm Ø x ~7 or 19+ mm	
BS TM1	.	.	.	.	.	.	.	.	M-1	41 mm Ø x ~7 or 19+ mm	
IARM FeM2-18	(0.008)	.	81.4	(0.021)	(0.0016)	.	(0.007)	(0.0016)	M-2	31 mm Ø x 2 or 18 mm	
IARM FeM1-18	.	.	.	.	.	.	0.0041	0.0044	M-1	~38 mm Ø x ~3 or ~19 mm	Zr: 0.0013
BS 33F	(0.003)	(0.0007)	94.0	(0.002)	0.0024	(0.01)	(0.004)	(0.002)	S-1 MOD	38 mm Ø x ~7 to 19+ mm	**17025**
BS TS-7	.	.	.	.	.	.	.	.	S-7	38 mm Ø x ~7 or 19+ mm	
BS TS-7A	(0.005)	0.0021	92.3	<0.01	(0.005)	<0.01	(0.004)	(0.003)	S-7	36 mm Ø x 25 mm	**17025** Ca: 0.0004
IARM FeS7-18	(0.005)	.	(93.6)	(0.005)	0.0023	(0.0016)	(0.006)	0.0014	S-7	31 mm Ø x 2 or 18 mm	Pb:0.0003
BS D-6A	0.0101	0.0004	95.6	<0.01	0.0009	0.0014	(0.009)	0.0024	D-6	38 mm Ø x ~7 or 19+ mm	17025 Ca: 0.0011
12X 41400B	0.015	.	.	.	.	.	0.0099	.	4140	~38 mm Ø x ~20 mm	Zn:0.0012
BS 4140C	0.0052	(0.0007)	96.8	0.0019	0.0011	0.0021	0.0095	0.0009	4140	38 mm Ø x ~7 or 19+ mm	Ca:0.0010 **17025**
PV 101/1	.	.	.	.	.	.	.	.	42CrMo4	40 mm Ø x 25 mm	
BS TH11	.	.	.	.	.	.	.	.	H-11	38 mm Ø x ~7 or 19+ mm	
BS 300A **	0.0029	(0.00032)	93.8	(0.002)	<0.01	0.0011	0.0065	0.0095	300M	38 mm Ø x ~7 or 19+ mm	**17025**
IARM Fe4140-19	(0.005)	.	.	(0.002)	.	(0.004)	0.010	0.0009	4140	31 mm Ø x 2 or 18 mm	
IARM 170B	.	(0.0004)	.	(0.004)	.	.	(0.002)	(0.19)	CLA7	31 mm Ø x 2 or 18 mm	
BS 34D	.	.	.	.	.	.	.	.	H-13	41 mm Ø x ~7 or 19+ mm	
BS 8740	0.0051	0.0003	96.91	(0.0007)	(0.001)	0.0017	0.008	0.0012	8740	38 mm Ø x ~7 or 19+ mm	**17025**
BS 68C	(0.004)	.	.	.	.	.	0.008	.	P-20 + Al	37 mm Ø x ~7 or 19+ mm	
IARM Fe5140H-18	(0.011)	.	.	(0.002)	.	.	0.0089	0.0015	5140H	31 mm Ø x 2 or 18 mm	
BS TH12	.	.	.	.	.	.	.	.	H-12	38 mm Ø x ~7 or 19+ mm	
BS 4330MOD	0.0038	(0.0009)	95.1	0.007	(0.001)	(0.0007)	0.0062	0.0027	4330MOD	44 mm Ø x ~7 or 19+ mm	Zr:0.0016 **17025**
IARM 378A	.	(0.0006)	.	(0.003)	.	.	0.0236	(0.003)	A615-75	31 mm Ø x 2 or 18 mm	
BS 9325	0.004	Ca:0.0049	.	.	0.0010	.	0.009	.	9325	38 mm Ø x ~7 or 19+ mm	
IARM 169B	.	0.0003	.	(0.004)	.	.	(0.002)	0.23	CLA6	31 mm Ø x 2 or 18 mm	
BS 8822	0.007	.	.	.	0.0022	.	0.011	.	8822	47 mm Ø x ~7 or 19+ mm	
IARM Fe8620-18	0.009	.	.	.	.	.	0.0072	0.0015	8620	31 mm Ø x 2 or 18 mm	
BS 8822A *	<0.05	0.0005	[97]	0.002	<0.05	0.002	0.004	0.002	8822	37 mm Ø x 25 mm	Ta: 0.007
BS 4820B	0.0055	Ca:0.0004	94.8	0.0022	(0.0015)	0.0028	0.0098	0.0013	4820	38 mm Ø x ~7 to 19+ mm	**17025**
BS 1931	0.007	.	.	.	(0.0052)	.	0.007	.	8620	41 mm Ø x ~7 or 19+ mm	
IARM Fe4820-18	(0.006)	.	.	(0.003)	(0.003)	.	.	(0.0011)	4820	31 mm Ø x 2 or 18 mm	
BS 61C	0.0029	.	Ca:(0.0004)	(<0.002)	.	0.0004	0.0014	.	8620	41 mm Ø x ~7 or 19+ mm	
PV 102/1	.	.	.	.	.	.	.	.	16MnCr5	40 mm Ø x 25 mm	
BS 8620A	0.007	Bi:0.073	.	.	(0.004)	.	0.009	(0.002)	8620 + Bi	38 mm Ø x ~7 or 19+ mm	
BS 1982	0.007	.	.	(0.003)	0.0017	0.002	0.013	(0.001)	F-22	39 mm Ø x ~7 or 19+ mm	
BS 58D	.	.	.	.	.	.	0.012	.	9310	41 mm Ø x ~7 or 19+ mm	
IARM FeE9310-18	.	.	94.6	0.285	(0.0017)	.	0.008	.	9310	31 mm Ø x 2 or 18 mm	
IARM FeDP1080-18	.	.	.	0.014	(0.0055)	.	(0.0064)	(0.0013)	DP1080	31 mm Ø x 2 or 18 mm	
BS 3310	0.0058	(0.0008)	93.7	(0.0009)	(0.0008)	0.0019	0.0103	0.0010	3310	44 mm Ø x ~7 or 19+ mm	**17025** Ta:0.007
HRT FE2003-H	.	0.004	.	0.064	.	.	.	.	F-91	40 mm Ø x 20 mm	
IARM FeF9-18	0.006	.	88.9	0.078	0.0025	(0.0026)	0.0062	0.0028	F-9	31 mm Ø x 2 or 18 mm	
IARM Fe91-18	.	.	.	0.014	(0.003)	.	(0.0064)	(0.0021)	F-91	31 mm Ø x 2 or 18 mm	
IARM FeP92-18	.	0.0026	.	(0.011)	(0.013)	.	(0.006)	(0.003)	F-92 MOD	31 mm Ø x 2 or 18 mm	
IARM FeT23-18	.	0.0020	.	0.052	0.0044	.	(0.004)	(0.004)	T23	31 mm Ø x 2 or 18 mm	

Number	As	B	Fe	Nb	O	Sb	Sn	Ti	Alloy	Units	Others

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

LOW ALLOY AND TOOL STEEL, CHART 2 of 2

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

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

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

SILICON STEEL

= Class, where 1 = CRM and 2 = RM

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

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

STAINLESS AND HIGH ALLOY STEEL

= Class, where 1 = CRM and 2 = RM

Number		C	Mn	P	S	Si	Cu	Ni	Cr	Al	Co	Mo	N	V	W
2	BS 93E	1.02	0.52	0.022	0.0010	0.90	0.12	0.35	17.33	0.009	0.048	0.50	0.0359	0.24	0.11
2	BS 98	0.309	0.48	0.019	0.0014	0.72	0.098	0.21	13.35	0.003	0.020	0.034	0.0181	0.075	0.009
2	DSZU C116	0.296	0.464	0.0214	0.0118	0.295	0.082	0.209	12.71	(0.006)	0.021	0.029	0.022	0.029	(0.01)
1	IARM FeA100-18	0.222	(0.013)	(0.004)	(<0.0010)	(0.039)	(0.010)	11.2	2.98	(0.007)	13.4	1.19	(0.0010)	(0.007)	(0.006)
2	BS 97	0.216	0.71	0.021	0.0004	0.39	0.066	0.76	11.82	0.018	0.041	1.05	0.030	0.21	0.95
1	**BS 183B**	0.181	0.344	0.018	0.0042	0.41	0.074	1.96	12.45	0.0009	0.032	0.33	0.044	0.165	3.5
1	13X 12548N	0.175	0.510	0.023	0.189	0.193	0.264	1.10	12.70	(0.02)	0.388	1.42	0.102	0.025	0.038
1	**BS 183C**	0.173	0.368	0.015	0.0040	0.427	0.060	1.87	12.72	0.0020	0.027	0.189	0.039	0.109	2.83
1	**BS 431A**	0.159	0.53	0.019	0.0036	0.31	0.111	2.21	15.78	(0.0012)	0.041	0.172	0.058	0.079	0.021
2	DSZU C115	0.145	0.341	0.0278	0.0026	0.389	0.122	1.66	11.73	0.011	0.028	0.368	0.039	0.250	1.98
2	DSZU C119	0.128	0.229	0.027	0.0068	0.51	0.069	0.244	25.38	0.017	(0.01)	0.084	0.010	0.052	0.046
2	DSZU C120	0.078	0.158	0.0138	0.0030	0.35	0.122	8.46	30.8	(0.02)	(0.03)	(0.03)	0.042	0.041	(0.01)
2	DSZU C117	0.071	0.200	0.0240	0.0122	0.393	0.091	0.52	16.89	0.012	0.019	0.044	0.008	0.027	(0.04)
1	IARM Fe309-18	0.066	1.61	0.029	(0.002)	0.30	0.430	12.2	22.42	.	0.248	0.357	.	0.073	0.063
2	BS 91E	0.066	0.42	0.017	0.002	0.52	0.05	0.17	16.58	(0.002)	0.02	0.035	0.032	0.09	0.01
1	**BS 309**	0.062	1.61	0.028	0.0011	0.24	0.349	12.16	22.40	(0.0025)	0.200	0.193	0.073	0.075	(0.031)
1	**BS 347C**	0.051	1.67	0.022	0.022	0.677	0.110	10.08	17.27	(0.003)	0.072	0.27	0.039	0.097	0.013
2	CZ SP-1B	0.050	1.67	0.039	0.30	0.505	0.47	8.32	17.42	(0.003)	0.161	0.40	0.063	0.060	0.032
2	PV 112/1	0.047	1.577	0.018	0.023	0.515	0.102	11.14	17.56	.	.	2.03	.	.	.
2	HRT FE2021-H	0.041	1.19	0.021	0.002	0.34	0.17	12.7	15.6	0.007	0.044	1.11	0.088	0.59	(0.025)
1	IARM Fe174PH-18	0.041	0.47	0.024	(<0.0040)	0.52	3.33	4.73	15.10	0.007	0.047	0.315	0.0436	0.051	0.015
1	13X 33425A	0.039	0.997	0.028	0.0052	0.85	0.204	20.90	22.3	0.017	0.092	2.52	0.0106	(0.014)	(0.006)
1	13X 41500A	0.038	0.596	0.021	0.0101	0.402	0.129	3.52	13.00	.	0.099	0.504	0.0504	0.091	.
2	BS 95A	0.035	0.58	0.026	0.004	0.46	1.50	6.42	14.72	0.002	0.081	0.73	0.0255	0.052	0.02
1	13X 41008B	0.034	0.684	0.013	0.0070	0.761	0.267	0.338	12.36	0.028	0.053	0.042	0.0088	0.061	.
1	**BS 2507**	0.026	0.79	0.023	(0.0005)	0.32	0.222	6.94	25.3	(0.004)	0.040	3.75	0.273	0.064	0.074
2	TL 2001D	0.0244	0.679	0.022	0.0006	0.27	0.612	7.5	25.58	.	0.046	3.49	0.279	0.079	0.57
1	IARM FeKovar-18	0.024	0.26	(0.004)	(0.0055)	(0.09)	0.077	29.0	0.068	.	17.3	0.062	.	.	(0.020)
2	PV 111/1	0.0226	1.538	0.019	0.026	0.485	0.105	8.57	18.49	.	.	0.173	.	.	.
1	**BS 186B**	0.022	0.288	(0.0027)	0.0016	0.254	0.057	36.1	0.11	0.0080	0.041	0.025	0.0033	(0.002)	(0.007)
1	**BS 160B**	0.022	0.27	0.0033	0.0032	0.112	0.059	29.13	0.06	(0.005)	17.24	0.047	0.0006	0.0039	(0.011)
2	TL 2003D	0.0193	1.068	0.0274	0.0169	0.5020	0.2773	9.231	18.25	.	0.1270	0.2871	0.0556	0.0711	0.0150
1	IARM FeN40-18	0.019	9.13	0.025	0.0012	0.31	0.421	6.42	19.45	.	0.122	0.343	0.348	0.086	0.030
1	**BS 254**	0.019	0.95	0.026	0.0009	0.312	0.612	18.47	20.2	<0.01	0.08	6.07	0.210	0.062	(0.02)
2	DSZU C118	0.018	1.23	0.0057	0.0098	0.142	0.344	3.45	19.69	(0.004)	0.093	0.337	0.028	0.109	0.32
1	BS 179A	0.017	1.04	0.021	0.001	0.44	1.94	5.84	25.45	(0.009)	0.58	3.24	0.184	0.070	(0.2)
1	IARM Fe155PH-18	0.015	0.616	0.021	(0.0004)	0.430	3.35	4.79	15.13	0.014	0.024	0.129	0.0494	0.055	0.019
2	TL 2002D	0.0149	1.30	0.022	0.0206	0.53	0.438	11.0	16.7	.	0.087	2.05	0.0341	0.068	.
1	ECRM 298-2D	0.0140	0.788	0.0210	0.0006	0.331	0.105	6.87	24.91	0.0148	0.0482	3.78	0.277	0.070	0.0094
1	SS 477	0.0102	1.623	0.0209	0.00039	0.473	1.340	25.07	20.38	0.0303	0.0875	4.23	0.0562	0.0527	.
2	BS 96A	0.009	0.04	0.007	0.004	0.06	2.07	8.38	11.62	0.08	0.03	0.021	.	0.07	.
1	IARM 99D	(0.006)	(0.013)	(0.004)	0.0011	(0.03)	(0.045)	18.4	(0.12)	0.117	9.24	4.8	0.0014	(0.037)	(0.010)
1	**BS 161B**	0.0031	0.010	(0.004)	0.0007	0.0107	0.010	18.56	0.034	0.073	9.28	4.87	0.0011	0.0011	0.010

Number		As	B	Fe	Nb	O	Sb	Sn	Ti	Alloy	Units		
BS 93E		.	.	.	0.005	0.0040	.	0.003	0.007	440C	41 mm Ø x ~7 or 19+ mm		
BS 98		(0.003)	(0.0002)	.	0.003	0.0038	.	0.006	0.002	420	38 mm Ø x ~7 mm last of stock		
DSZU C116		.	.	.	(0.01)	.	.	(0.005)	(0.002)		40 mm Ø x 20 mm		
IARM FeA100-18		.	.	.	0.070	(0.0009)	.	(0.004)	(0.008)	Aermet 100	31 mm Ø x 2 or 18 mm		
BS 97		.	.	.	0.007	.	.	(0.003)	(0.002)	422	35 mm Ø x ~7 or 19+ mm		
BS 183B		(0.005)	(0.0007)	80.4	(0.0075)	(0.0054)	0.0009	0.0046	(0.0016))	Greek Ascoloy	38 mm Ø x ~7 or 19+ mm	**17025**	
13X 12548N		(0.003)	.	.	0.49	.	0.019	0.0064	0.0027	Resulfurized	~40 mm Ø x ~15 mm		
BS 183C		0.0041	(0.0008)	81.1	0.0054	(0.005)	0.0007	0.0039	(0.002)	Greek Ascoloy	38 mm Ø x ~7 or 19+ mm	**17025**	Ca: 0.0006
BS 431A		0.0033	0.0002	80.5	0.0062	0.0067	0.0012	0.0047	0.0010	431	38 mm Ø x ~7 or 19+ mm	**17025**	Zr: 0.0012
DSZU C115		.	.	.	0.015	.	.	0.006	(0.0020)		40 mm Ø x 20 mm		
DSZU C119		.	.	.	(0.02)	.	.	(0.006)	1.02		40 mm Ø x 20 mm		
DSZU C120		.	.	.	0.015	.	.	0.004	0.005		40 mm Ø x 20 mm		
DSZU C117		.	.	.	(0.02)	.	.	(0.005)	0.59		40 mm Ø x 20 mm		
IARM Fe309-18		0.0065	.	.	0.021	.	0.0018	0.012	.	309	~38 mm Ø x ~3 or ~19 mm		
BS 91E		.	.	.	(0.004)	.	.	0.004	(0.002)	430	41 mm Ø x ~7 or 19+ mm		
BS 309		0.0048	(0.0004)	62.6	0.0090	0.0027	(0.0017)	0.0089	0.0020	309, 309H	38 mm Ø x ~7 or 19+ mm	**17025**	Ca: 0.0010
BS 347C		(0.003)	0.0018	69.1	0.58	0.0053	(0.002)	0.0034	(0.004)	347	44 mm Ø x ~7 or 19+ mm	**17025**	
CZ SP-1B		(0.003)	0.0007	.	(0.012)	.	.	0.013	(0.002)		~37 mm Ø x ~25 mm		
PV 112/1		.	.	.	.	.	.	.	0.394	316 Ti	40 mm Ø x 25 mm		
HRT FE2021-H		0.004	0.0021	.	0.57	.	0.003	0.005	0.004	X8CrNiMoVNb16-13	50 mm Ø x 20 mm		
IARM Fe174PH-18		.	.	.	(0.0015)	0.0035	.	0.0069	.	17-4 PH	31 mm Ø x 2 or 18 mm		
13X 33425A		(0.0021)	.	.	0.047	.	(0.002)	0.0106	0.178		~40 mm Ø x ~15 mm		
13X 41500A		.	.	.	0.040	.	.	.	0.0012	415	~40 mm Ø x ~15 mm		
BS 95A		.	0.0010	.	0.55	.	.	0.008	(0.003)	450	38 mm Ø x ~7 or 19+ mm		
13X 41008B		.	.	.	0.019	.	.	0.0081	.	410	~40 mm Ø x ~15 mm Zr:0.047		
BS 2507		0.0046	0.0021	62.3	(0.011)	0.0038	0.0008	0.0050	0.0028	2507	38 mm Ø x ~7 or 19+ mm	**17025**	
TL 2001D		.	.	.	0.024	.	.	.	.	Super Duplex	40 mm Ø x 20 mm		
IARM FeKovar-18		.	.	53.3	.	.	.	0.0021	.	Kovar	31 mm Ø x 2 or 18 mm		
PV 111/1		.	.	.	.	.	.	.	.	304 L	40 mm Ø x 25 mm		
BS 186B		0.0022	(0.0006)	63.0	(0.002)	0.0011	(0.0007)	0.0025	0.0028	Invar 36	43 mm Ø x ~7 or 19+ mm	**17025**	Zr: 0.0020
BS 160B		<0.005	0.0003	53.0	0.0015	0.0010	(0.0009)	0.0020	(0.003)	Kovar	38 mm Ø x ~7 or 19+ mm	**17025**	Ca: 0.0004
TL 2003D		.	.	.	0.0150	.	.	.	.	304 L	40 mm Ø x 20 mm		
IARM FeN40-18		.	.	.	0.032	.	.	0.0081	.	Nitronic 40	~38 mm Ø x ~3 or ~19 mm		
BS 254		(0.006)	0.0018	52.9	(0.03)	0.0038	0.0014	0.0063	0.0019	254 SMO	38 mm Ø x ~7 or 19+ mm	**17025**	Zr: 0.0026
DSZU C118		.	.	.	0.116	.	.	0.026	0.117		40 mm Ø x 20 mm		
BS 179A		(0.003)	(0.001)	.	0.030	.	.	0.005	0.006	Ferralium 255	31 mm Ø x ~7 or 19+ mm		
IARM Fe155PH-18		(0.0026)	(0.0005)	75.03	0.273	0.0028	.	0.0021	.	15-5PH	31 mm Ø x 2 or 18 mm		
TL 2002D		.	.	.	.	.	.	.	0.0098	316 MOD	40 mm Ø x 20 mm		
ECRM 298-2D		0.0028	0.0024	.	0.0011	.	0.0006	0.0029	0.0023	1.4410	38 mm Ø x 25 mm		
SS 477		0.00399	0.00198	.	Mg:0.00053	.	0.00078	0.00453	.		38 mm Ø x 19 mm		
BS 96A		.	(0.0017)	.	0.26	.	.	.	1.18	455	38 mm Ø x ~7 or 19+ mm		
IARM 99D		.	0.0026	.	(0.011)	.	.	.	0.67	Maraging 300	31 mm Ø x 2 or 18 mm		
BS 161B		.	0.0027	66.6	(0.0034)	0.0005	.	(0.0011)	0.67	Maraging 300	41 mm Ø x ~7 or 19+ mm	**17025**	

CRM CAST IRON

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

continued

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

ALLOY	ISO?	NUMBER
1.0812		ECRM 191-2D
1.2344		ECRM 271-1D
1.2367		HRT FE2012-H
1.4410		ECRM 298-2D
1.4435, 1.4436		JK 27B
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 1005
1005		DSZU C040a
1005		ECRM 064-2D
1005		RM Fe 1/5
1005		SRM 1765
1005		SRM 1766
1005		SS 111/1
1008	17025	BS XCAS
1008		ECRM 057-2D
1009	17025	BS 1009
1009 + Al	17025	BS XCCS-2
100C6		IRSID 1747
1010		IMZ 111
1010		NM 308
1011		IMZ 73
1012, 1013		IMZ 71A
1016	17025	BS 1016
1017		IMZ 112B
1017		IRSID 1664
1018		12X 10180B
1018		12X 10180C
1018	17025	BS 1018
1018		ECRM 087-1D
1018		IARM 28K
1020	17025	BS 1020
1020		BS 57F
1020		IARM Fe1020-18
1023		IMZ 112A
1026	17025	BS 1026
1026	17025	BS 1026A
1026		IARM 359A
1030	17025	BS 1030
1030	17025	BS 1030A
1030		IARM 209D
1033		IRSID 1663
1035	17025	BS 1035
1035		IARM 360A
1039		IRSID 1637
1040	17025	BS 3941
1040		IARM 210D
1040		IRSID 1657
1042		IRSID 1656
1042		NM EN-8
1043		IRSID 1652
1045	17025	BS 1045
1045		BS 56E
1045		IARM 200D
1045		IPT 503
1045 + P		NM 306A
1050		IARM Fe1050-18
1060		IARM 373A
1060 + P		NM 309
1069		ECRM 059-2D
1070	17025	BS 54H
1078		ECRM 056-2D
1078		SRM 1224
1080		BS 54J
1090		SS 602/2
1095		BS 64C
1095		SRM 1227
1117	25(preceeded 17025)	BS 3993
1117		BS 65C
1117		IARM 29E
1118		IARM 307A
1118		IARM 307B
1140 P		BS 52D
1141		BS 66B
1141		IARM 348A
1144	17025	BS 1144
1144	17025	BS 1144A
1144		IARM 199C
11L17	17025	BS 75F
11L17	17025	BS 75G
1215		BS 66K
1215	17025	BS 66L
1215		IARM Fe1215-18
12L14		BS 74B
12L14	17025	BS 74C
12L14	17025	BS 74D
12L14		IARM 183C
12Mn18Cr		BS 193
1345		BS XCCV
13-8PH		13X PH13800
13-8PH		BS 184A
13-8PH		CT X92834
13-8PH		IARM 21D
1429		ECRM 058-2D
1513		IMZ 76
1526 MOD		SRM 1269
1541		IARM 349A
1541		IPT 504
1541		IRSID 1648
1544		IRSID 1644
15-5PH		BS 185A
15-5PH		BS 9621
15-5PH		BS 9622
15-5PH		IARM Fe155PH-18
15-5PH		ECRM 273-1D
16MnCr5		PV 102/1
17-4PH		13X PH2
17-4PH		BS 17-4PHA
17-4PH	17025	BS 17-4PHB
17-4PH	17025	BS 17-4PHC
17-4PH		IARM Fe174PH-18
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
17-7PH		IARM Fe177PH-18
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		13x NSA9
2205	17025	BS 2205
2205	17025	BS 2205A
2205		IARM 212D
2205		HRT FE2000-H
2205		IARM Fe2205-18
2304		IARM 317A
2507	17025	BS 2507
2507		IARM 301B
253 MA	25(pre-17025)	BS 253
253 MA		IARM 316A
254 SMO	17025	BS 254
254 SMO		NILAB 501HAD
255, Duplex		IARM 239B
255, Duplex		IARM 239C
300M		12X 44220
300M	17025	BS 300
300M	17025	BS 300A
300M		IARM 340A
301		IARM 289A
301		IARM 289B
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 Fe303-18
303 Se		IARM 253A
303 Se		IARM 253B
304 H		13X NSB1
304 H + Ca	17025	BS CA304-4
304 H		CT 304
304 H		IARM Fe304H-18
304 H		SS 468/1
304 L		13X 30403
304 L	17025	BS 304B
304 L		IARM 162D
304 L		IARM Fe304L-18
304 L		ECRM 287-1D
304 L		ECRM 292-1D
304 L		IARM 162C
304 L		PV 111/1
304 L		TL 2003D
304 L		SS 463/1
305		ECRM 297-1D
306		13X 30600A
308		DSZU C017
309		BS 82E
309	17025	BS 309
309		IARM Fe309-18
310		13X 31008
310		BS 83G
310	25(pre-17025)	BS 9841
310	25(pre-17025)	BS 9842
310		CZ SL-3A
310		IARM 4E
310		IARM 4F
310		IARM 4G
310		SS 464/1
3115		BS XCCT
314		IMZ 165
314		IMZ 166A
316 H		13X NSA2
316 H		CT 316
316 H		IARM 339A
316 H		NILAB 500HAD
316 L	17025	BS 316F
316 L		CZ SL-2A
316 L		IARM Fe316L-18
316 L		IARM 163E
316 L		SRM 1155A
316 L		SS 466/2
316 MOD		TL 2002
316 Ti		IRSID 1821
316 Ti		PV 112/1
316 Ti		VS LG72
317 L	17025	BS 317L
317 L	25(pre-17025)	BS 9941
317 L	25(pre-17025)	BS 9942
317 L		IARM 153C
318	17025	BS 2205
318		BS 2205A
321		13X 32100
321	17025	BS 85D
321	17025	BS 321D
321		IARM 6i
321		IARM 6J
321		SRM 1171
321		SS 465/1
321 - Ti		IMZ 152
32750		13X NSA13
3310		BS 3310
347		13X 34700
347		BS 347A
347		BS 347B
347		BS 347C
347		IARM 8G
347		IARM 8H
347		IARM 8i
347 H		BS 87F
348		SRM 1172
355	17025	BS 355
355		IARM 335A
35MV7		IRSID 1750
405		SRM 1295
409		13X 40900
409		13X 40930
409 + Cr		NCS HS20743
410		13X 41008
410	25(pre-17025)	BS 0021
410, F6NM	25(pre-17025)	BS 0022
410	17025	BS 410C
410		CT 410
410		IARM Fe410-18
410 + Mo		ECRM 296-1D
410 + Mo		IMZ 161
410 H		13X 41001
4130	17025	BS 4130
4130		IARM 143F
4130		SRM 1225
4130 H		IPT 501
4140		12X 41400
4140	25(pre-17025)	BS 1962
4140	17025	BS 4140C
4140		IARM 30H
4140		IARM 30J
4140		IARM Fe4140-19
4140 Bi		BS 4140A
4140 Bi		BS 4140B
41L40MOD	17025	BS 70B
41L40MOD	17025	BS 70C
4150 Bi & S		BS 4150MOD
4150 S	17025	BS 4150MOD-A
4150 S	17025	BS 42
4150 S		BS 42A
415		13X 41500A
416		BS 90F
416	17025	BS 416
416		CT 416
416		IARM 10D
416		SRM 1223
416 H		13X 41600
416 Se		BS 151
418		IARM Fe418-18
41CAD7		IRSID 1749
41L40	17025	BS 70B
41L50	17025	BS 72B
42		CT ISO138A
42		CT ISO139A
42CrMo4		PV 101/1
420		BS 98
420		BS SS4951
420		BS SS4952
420		ECRM 272-1D
420		IARM 154C
420		SS 469
420 F		BS 152

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

ALLOY	ISO?	NUMBER
420 F S		IARM 352A
422		13X 42200
422		BS 97
422	17025	BS 422
422		IARM 205D
430		BS 91E
430	17025	BS 430
430		IARM 11D
430		NCS HS20742
430 F		BS 153
430 F		BS 154
430 F S		IARM 355A
431	17025	BS 431
431		BS 92B
431		IARM 12C
431		HRT FE2010-H
431		SRM 1219
4320		BS 3961
4330 MOD		BS 4330MOD
4330 MOD		IARM 330B
4340	17025	BS 4340
4340	17025	BS 4340A
4340		IARM 31G
439 MOD		NCS HS11721-4
440 C		13X 44004
440 C		BS 93E
440 C	17025	BS 93F
440 C		IARM 13D
440 F		BS 155
440 F Se		BS 156
440 F Se		IARM 353A
441		NCS HS11721-4
446		BS 94C
450		BS 95A
450	17025	BS 450
450	25(pre-17025)	BS 9811
450	25(pre-17025)	BS 9812
450		IARM 15C
450		CT 450
455		13X 45500
455		BS 96A
455		BS SS1962
455		CT 455
455		IARM 16C
446		IARM 14C
4615		BS 3962
4620		BS 4620
4620	17025	BS 51F
4620		IARM 33D
465		13X 46500
465		IARM 354A
465		CT ISO123A
4820	17025	BS 4820A
4820		BS 4820B
4820		IARM 155F
4820		IARM Fe4820-18
5140H		IARM Fe5140H-18
5160		IMZ 116
6150	17025	BS 43A
6150		BS 4941
6150		IARM 34C
630		CT 630
6418		BS 6418
6418		BS 69B
6526		BS 9-4-30
709		CT X67975
8620		BS 1931
8620 + Bi		BS 8620A
8620	17025	BS 8620F
8620		IARM Fe8620-18
8620		IPT 502
86L20 25(preceeded 17025)		BS 73B
86L20		BS 73C
8630	17025	BS 8630
8740		BS 67B
8740	17025	BS 8740
8740		IARM 252C
8740		IARM 252D
8740		IARM 252E
8740		IARM 252F
8822		BS 8822
8822		BS 8822A
904L		13X NSA12
904L		ECRM 295-1D
9310		BS 58C
9310		BS 58D
9310		BS 58E
9310		IARM FeE9310-18
9325		BS 9325
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	17025	BS 4942A
A-2		BS 36C
A-2		BS 36D
A-2		CT A2
A-2		IARM 39B
A-2		IARM 39C
A-242		IPT 500
A-242 Mod		SRM C1285
A-286	17025	BS 188B
A-286		IARM 26D
A-286		SRM 1230
A-36		IARM 213C
A-36		IARM 213D
A-36		SRM 1767
A-485-1		BS A485-1
A-6		BS 40B
A-6		IARM 40B
A-6		IARM 40C
A615-75		IARM 378A
A706-60		IARM 380A
A706-60		IARM 380B
A706-80		IARM 381A
Aermet 100		CT ISO045A
Aermet 100		IARM 242A
Aermet 100		IARM FeA100-18
AL6XN	17025	BS 189A
AL6XN		IARM 157D
C-.5Mo		BS 3952
C-.5Mo		IARM 229B
C-250		IARM 308A
C-350		IARM 309A
CA6NM		HRT FE2009-H
CA6NM		IARM 327A
CD3MN		ECRM 298-2D
CD4MCU	17025	BS CD4MCU
CD4MCU	17025	BS CD4MCU-A
CD6MN		VS LG58
CF-3		IRSID 1820
CLA6		IARM 169B
CLA7		IARM 170B
CLA11		IARM 180A
CLA5		IARM 168A
CLA9		IARM 172A
CPM15V	17025	BS PM15
CPM15V		IARM Fe15V-18
D-2		BS 37G
D-2		CT D2
D-2		IARM 41D
D-3, D-4		ECRM 288-1D
D-6	17025	BS D-6
D-6	17025	BS D-6A
D6-AC		IARM 299A
DP1080		IARM FeDP1080-18
Duplex		13X NSA9
Duplex	17025	BS 2205
Duplex		IMZ 163A
Duplex		IMZ 164
Duplex		TL 2001
E52100		BS 53G
E52100	17025	BS E52100
E52100		IARM 49E
E52100 Bi		BS 53MOD
Elect./ Magnetic		SRM 1159
Electrolytic		SRM 1265a
F-11		BS 45A
F-11	17025	BS 45B
F-11		IARM 35L
F-2		CT X27081
F-22	17025	BS 46B
F-22 25(preceeded 17025)		BS 1982
F-22		IARM 36C
F-22		SRM 1270
F-22 + Cr		HRT FE2009-N
F-5		BS 47A
F-5		BS 47B
F-5		IARM 37C
F-51	17025	BS 2205
F-51		BS 2205A
F-9	17025	BS 48B
F-9		IARM FeF9-18
F-91		13X 90901
F-91	17025	BS 9905A
F-91		HRT FE2003-H
F-91		IARM Fe91-18
Ferralium 255		BS 179A
Ferallium 255	17025	BS 179B
Ferallium 255	17025	BS 179C
F6NM 25(preceded 17025)		BS 0022
Greek Ascoloy		BS 183A
Greek Ascoloy	17025	BS 183B
Greek Ascoloy	17025	BS 183C
Greek Ascoloy		IARM 20C
H-10		BS 49
H-11		BS TH11
H-11		ECRM 276-2D
H-11		IARM 255A
H-11		IARM 255B
H-11		IMZ 173
H-12		BS TH12
H-13		BS 34D
H-13	17025	BS H-13A
H-13		CT H13
H-13		IARM 42C
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	17025	BS 186B
Invar-36 + Se		BS 186A
Invar-36 + Se		IARM 24B
Invar 42		14X 94100
ISO 898-1		SS 457/2
Kovar	17025	BS 160A
Kovar	17025	BS 160B
Kovar		IARM 98B
Kovar		IARM FeKovar-18
L-2	17025	BS 43A
L-6	17025	BS 39B
LDX2101		13X 32101
LF-2		BS 2971
LF-2	17025	BS LF2B
LF-2		SS 601/2
LF-3		BS LF3
M-1		BS TM1
M-1		CT M1
M-1		IARM 304A
M-1		IARM FeM1-18
M-10		CT M10
M-10		IARM 324A
M-152		13X 64152
M-152		IARM 291A
M-2		BS 32D
M-2		CT M2
M-2		IARM 44C
M-2		IARM FeM2-18
M-2		SRM 1157
M-35		IARM 320A
M-4		IARM 251A
M-4		IARM FeM4-18
M-42		SS 487/1
M-47	17025	BS M-47
M-50	17025	BS M-50
M-50		IARM 306B
M-65		IARM FeM62-18
M-7		CT M7
Maraging 250		CT 250
Maraging 250		ECRM 285-2
Maraging 300	25(pre17025)	BS 161A
Maraging 300	17025	BS 161B
Maraging 300		CT 300
Maraging 300		IARM 99D
Mold Steel	17025	BS PP20
NIT 135M		IARM 305B
Nitriding 135G		BS 68B
Nitriding 135G	17025	BS 68E
Nitronic 40		13X NSC6
Nitronic 40		BS 190
Nitronic 40		IARM FeN40-18
Nitronic 50		BS 180A
Nitronic 50	17025	BS 180B
Nitronic 50		IARM 17D
Nitronic 50		IARM FeN50-18
Nitronic 60		13X 21800
Nitronic 60		BS 181A
Nitronic 60	17025	BS 181B
Nitronic 60		IARM 18D
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-20	17025	BS 55G
P-20 + Al		BS 68C
PP-20	17025	BS PP20
RA330		BS 86F
Railroad Steel	17025	BS 54H
S-1		BS 33D
S-1		BS 33E
S-1		IARM 46B
S-1 MOD	17025	BS 33F
S-5		BS 38C
S-5		IARM 47B
S-7		BS TS7
S-7	17025	BS TS-7A
S-7		IARM 259A
S-7		IARM FeS7-18
S-7		SRM 1772
S42027		13X 42027A
SA213-T22		IMZ 159
SA213-T22		IMZ 160
SA213-T22		IMZ 169
SAE G2500		BS 20E
STA 361		IARM 268B
T-1	17025	BS 30D
T-1		IARM FeT1-18
T-4		IARM 281A
T-15	17025	BS TS15
T23		IARM FeT23-18
VM12		IMZ 196
W-5		14X 72305
Z30C13		IRSID 1825
Zeron 100, Duplex		13X NSA8
Zeron 100, Duplex		IARM 319A
Zeron 100, Duplex		IARM FeZ100-18

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

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STAINLESS AND HIGH ALLOY STEEL SPECIFICATIONS

* notes optional chemistry

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

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

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