

	Table 5.8 Measurement of roundness by Dial gauge deflections of 6-mm Diameter Stainless Steel (SS) Round Bar																								
	Mean values of Dial Gauge Deflection Readings before straightening of 6 mm Stainless Steel (SS) round bar x 0.01 mm																								
	Angles in Degrees																								
Length in cm	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°	330°	345°	STD DEV (mm)
15	193	193	191	188	185	181	178	172	166	160	157	153	151	149	153	157	160	165	174	179	185	188	191	194	0.1571756
20	193	196	195	194	191	188	183	178	174	165	159	155	152	150	151	153	156	161	167	174	179	185	189	192	0.1652068
25	193	195	196	196	196	193	190	185	189	174	167	161	158	155	154	155	158	163	166	172	179	184	189	192	0.1569338
30	203	205	208	206	205	201	200	193	188	182	176	171	165	160	158	160	163	166	170	177	180	188	193	198	0.1713299
35	192	196	198	199	199	197	194	190	185	179	172	164	159	152	150	150	152	155	159	164	171	176	183	188	0.1789761
40	195	199	202	203	204	204	201	198	193	187	182	175	170	164	161	157	158	160	165	168	175	182	189	195	0.166811
45	193	197	201	203	202	201	199	194	188	182	174	167	162	156	152	153	153	156	160	164	169	176	180	186	0.1828295
50	183	187	190	190	191	190	186	181	175	169	164	159	155	150	147	146	145	147	151	156	162	167	175	179	0.1646261
54	189	188	184	179	173	168	162	155	149	146	142	144	145	149	153	160	166	173	180	184	189	192	192	193	0.1790312
57.5	190	188	184	178	172	164	159	153	147	143	141	142	144	148	152	158	164	169	176	180	184	188	190	190	0.1773246
62.5	189	187	183	177	170	164	157	161	145	144	144	145	146	150	157	163	168	174	179	184	187	188	189	190	0.1685938
66.5	177	172	169	163	157	151	146	144	141	142	143	146	150	158	164	169	175	179	183	186	188	189	188	187	0.1714039
71.5	184	180	176	171	165	158	153	148	146	145	148	149	151	155	161	165	172	177	181	184	187	188	189	188	0.1558879
75.3	178	177	174	168	160	155	152	147	147	147	150	152	155	160	165	172	178	184	187	189	190	191	188	187	0.1587746

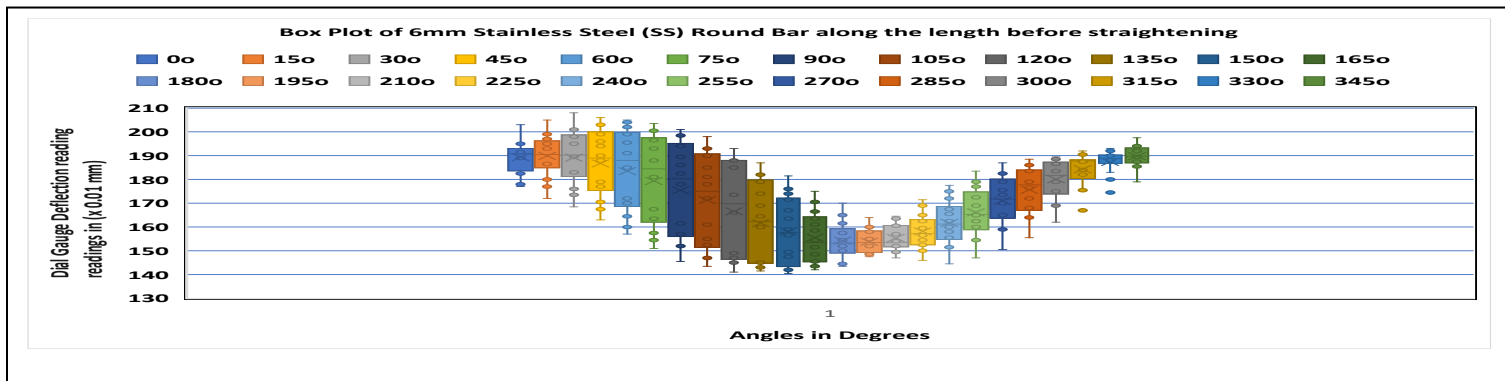


Figure 5.6 (a): Box Plot of dataset of mean values of dial gauge deflection readings of 6-mm diameter Stainless Steel (SS) round bar before straightening

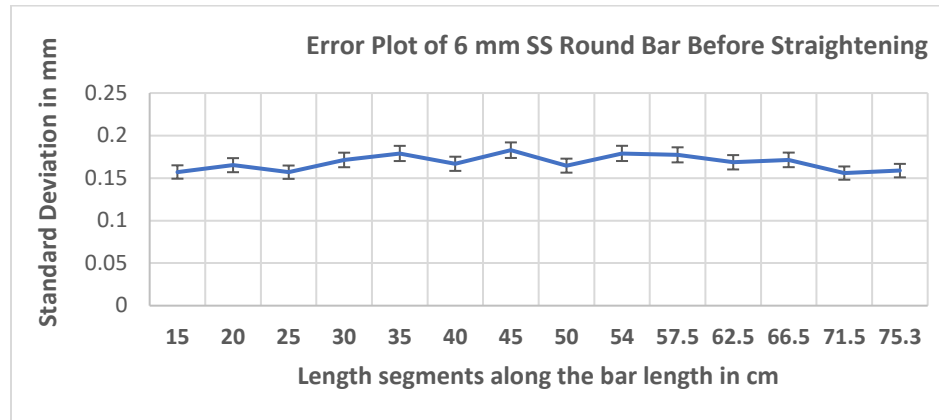


Figure 5.6(b): Error Plot of 6 mm SS Round Bar Before Straightening