

	Table 5.4 Measurement of roundness by Dial gauge deflections of 6-mm Diameter Mild Steel (MS) Round Bar Before Straightening																								
	Mean values of Dial Gauge Deflection Readings before straightening of 6 mm MS 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)
16.3	191	191	194	194	193	194	193	192	190	189	185	184	181	179	179	178	181	182	181	183	187	189	191	190	0.05431
20.0	180	181	182	183	184	186	184	185	187	190	189	183	183	182	177	175	174	171	172	168	167	166	169	173	0.07055
25.0	163	168	171	173	174	176	178	182	183	182	185	182	181	182	178	175	173	172	173	168	167	165	165	166	0.05431
30.0	174	174	176	176	178	182	183	183	185	186	185	188	187	185	186	184	184	185	181	176	177	176	174	174	0.05128
35.0	178	175	176	175	182	184	185	184	182	184	184	185	185	187	187	185	183	180	182	182	176	177	174	175	0.04505
40.0	165	166	164	170	166	171	175	174	176	180	183	183	182	183	185	183	182	176	175	174	176	172	172	167	0.06652
45.0	168	165	166	166	166	165	165	172	175	174	175	176	182	180	182	181	184	184	181	175	176	174	172	169	0.06528
50.0	165	165	167	166	169	171	174	176	176	177	178	180	179	181	183	181	178	172	169	167	167	165	164	161	0.06718
55.0	172	168	163	162	164	165	168	170	173	173	177	178	181	185	181	183	183	183	181	178	180	178	177	175	0.06727
60.0	164	162	163	162	163	168	168	168	170	173	172	175	177	174	179	178	178	177	177	172	168	168	167	166	0.05681
65.0	158	158	158	158	155	157	156	156	156	162	163	166	168	170	172	176	174	175	172	173	169	164	164	163	0.06949
70.0	162	163	158	159	155	153	158	157	156	162	166	171	171	173	175	176	177	176	175	176	175	171	167	165	0.07757
75.0	168	168	166	165	163	165	164	164	167	167	171	173	174	175	180	181	179	179	182	181	175	178	177	175	0.06331
80.0	185	186	185	185	184	184	185	183	178	177	183	182	185	192	191	193	195	196	202	203	200	199	195	196	0.07348
85.0	204	208	205	204	203	200	200	197	192	195	193	193	185	190	192	193	195	198	202	203	205	204	202	203	0.05946
93.0	204	205	203	199	191	192	187	187	183	184	183	182	182	184	188	193	196	199	203	204	205	206	211	208	0.09622

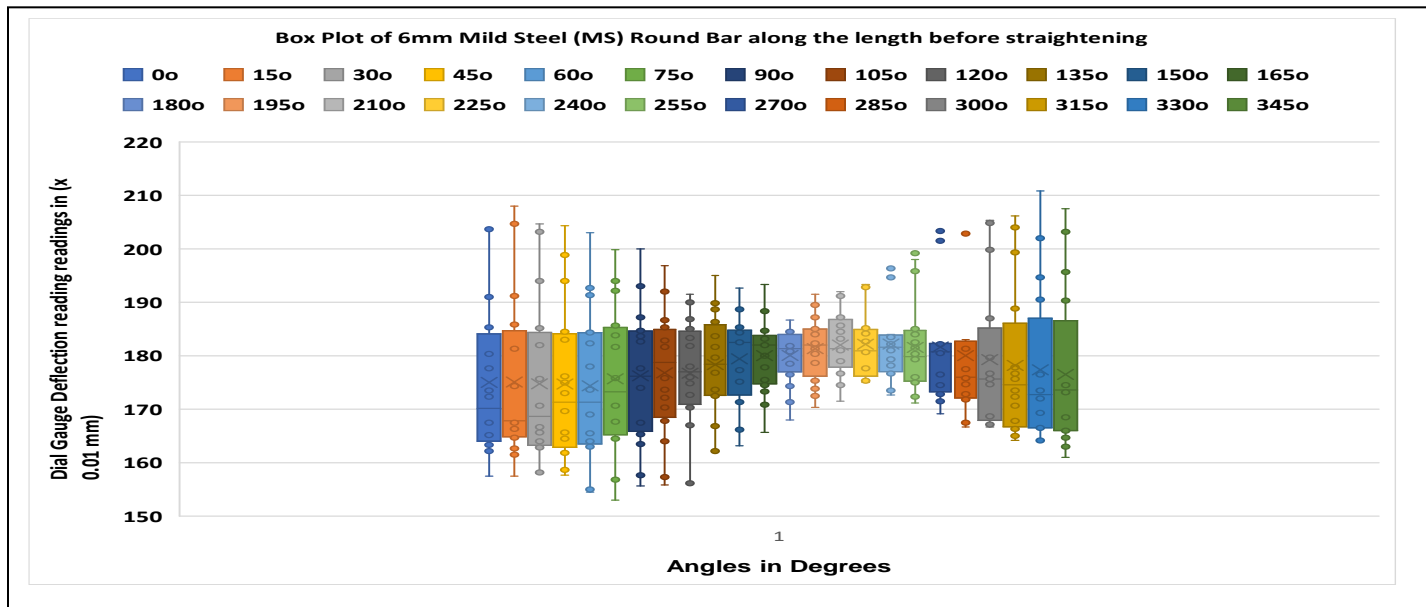


Figure 5.2(a): Box Plot of dial gauge readings dataset of mean values of 6-mm diameter Mild Steel (MS) round bar before straightening

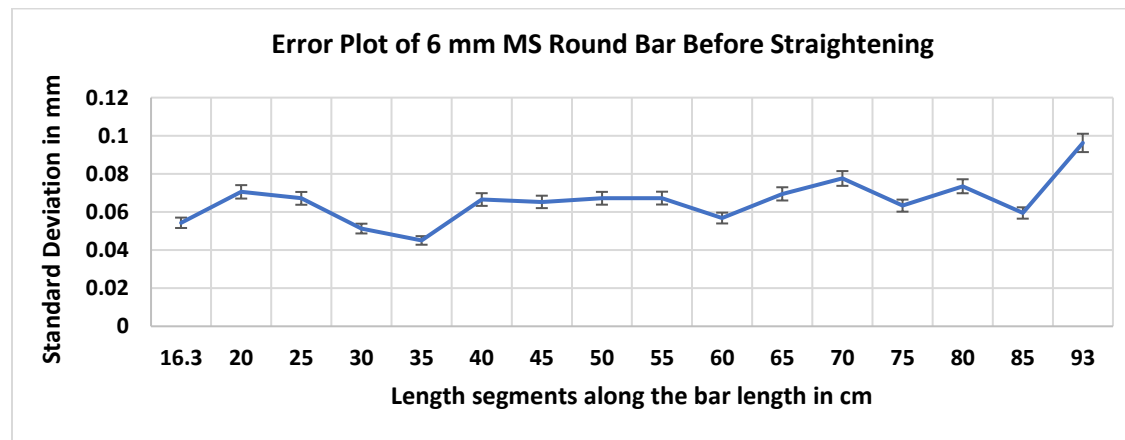


Figure 5.2(b): Error Plot of dial gauge deflection readings on 6 mm Mild Steel Round Bar before straightening