

Table 6.10

Measurement of roundness by Dial gauge deflections of 6-mm Diameter Mild Steel (MS) Round Bar After Straightening
Mean values of Dial Gauge Deflection Readings after straightening of 6 mm MS round bar x 0.01 mm

Length in cm	Angles in Degrees																								STD DEV (mm)
	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°	330°	345°	
16.3	191	191	193	194	193	194	193	192	190	189	187	184	181	179	179	178	181	182	181	183	187	189	191	190	0.0538
20.0	183	181	183	183	184	183	184	183	187	190	189	183	183	182	177	175	174	177	178	175	177	178	179	181	0.0427
25.0	182	177	179	178	181	183	180	182	183	184	185	183	184	182	178	177	178	180	178	180	182	183	182	183	0.0389
30.0	177	174	176	178	179	182	183	184	185	186	185	186	184	183	182	184	182	181	182	178	183	179	178	177	0.0378
35.0	178	180	178	177	179	182	181	183	182	184	186	183	185	183	182	181	182	180	182	182	184	180	179	177	0.0288
40.0	176	177	175	178	177	178	179	178	178	180	182	183	182	183	181	182	181	178	177	178	182	178	175	176	0.0364
45.0	177	173	177	173	176	175	178	179	177	178	179	177	182	180	182	181	182	181	180	178	183	181	178	176	0.0345
50.0	175	176	175	174	174	175	176	178	176	177	178	180	179	181	182	181	178	177	178	179	181	183	180	176	0.0411
55.0	177	174	176	174	175	175	177	176	175	173	177	176	174	178	180	181	183	183	181	179	180	179	178	175	0.0289
60.0	176	175	173	174	175	175	178	177	175	173	176	175	177	172	173	175	176	173	174	176	175	176	175	174	0.0289
65.0	174	175	176	178	176	177	179	175	176	175	174	176	174	174	172	173	174	177	175	177	179	174	175	173	0.0377
70.0	176	174	171	174	176	176	175	173	172	173	175	174	173	173	172	174	173	176	174	176	179	176	175	175	0.0311
75.0	176	175	175	174	178	176	177	175	174	172	174	175	174	173	175	176	175	176	173	176	175	178	177	175	0.0133
80.0	180	177	183	181	183	182	185	183	178	178	183	182	181	184	182	183	184	183	181	184	182	184	183	182	0.0285
85.0	182	183	189	190	185	189	190	193	192	194	193	189	185	183	185	186	189	191	192	190	188	184	184	183	0.0476
93.0	183	187	186	187	188	192	187	187	183	184	183	184	182	184	188	193	192	197	196	196	190	188	184	183	0.0573

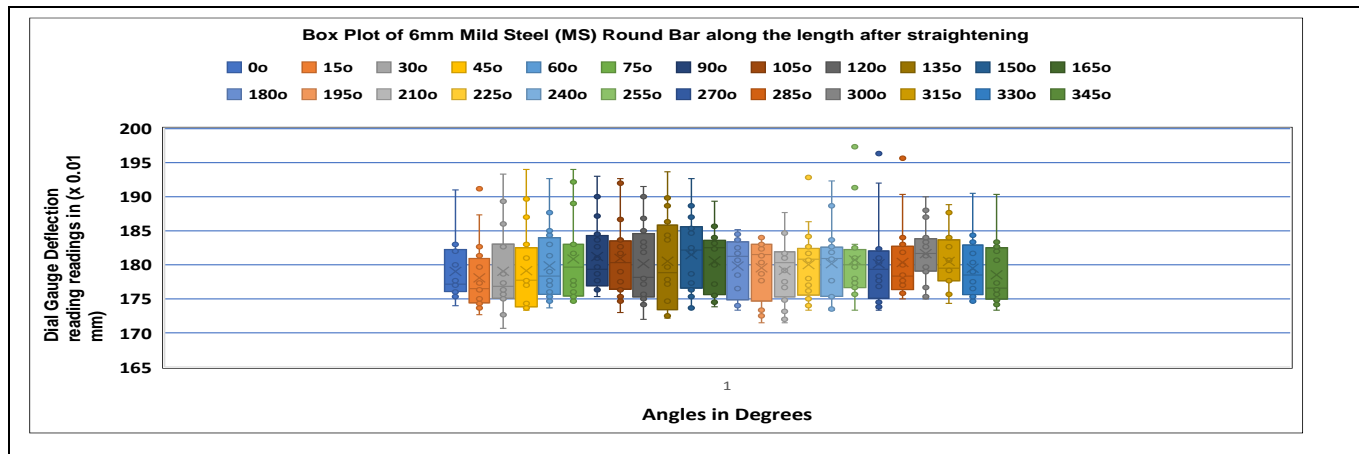


Figure 6.15(a): Box Plot of dial gauge readings dataset of mean values of 6-mm diameter Mild Steel (MS) round bar before straightening

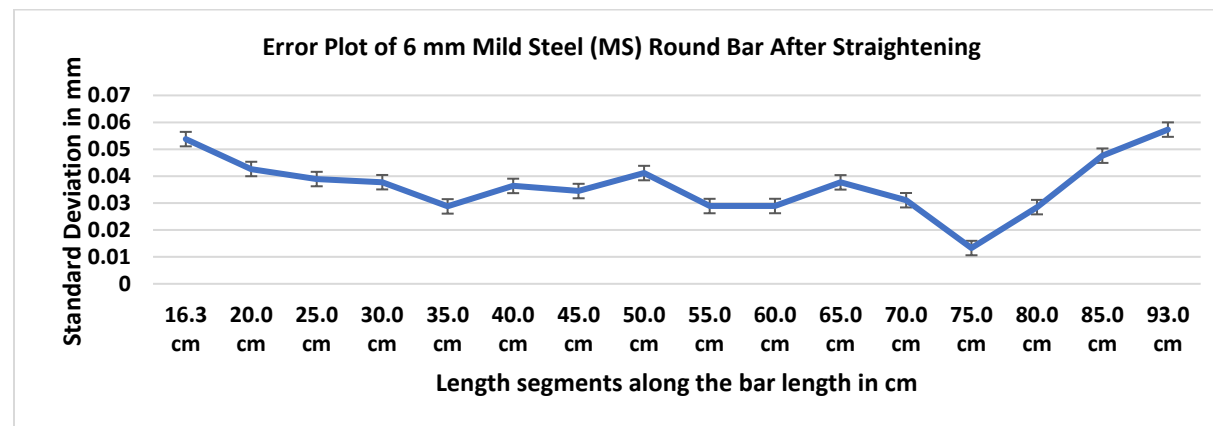


Figure 6.15(b): Error Plot of dial gauge readings on 6 mm Mild Steel Round Bar after straightening