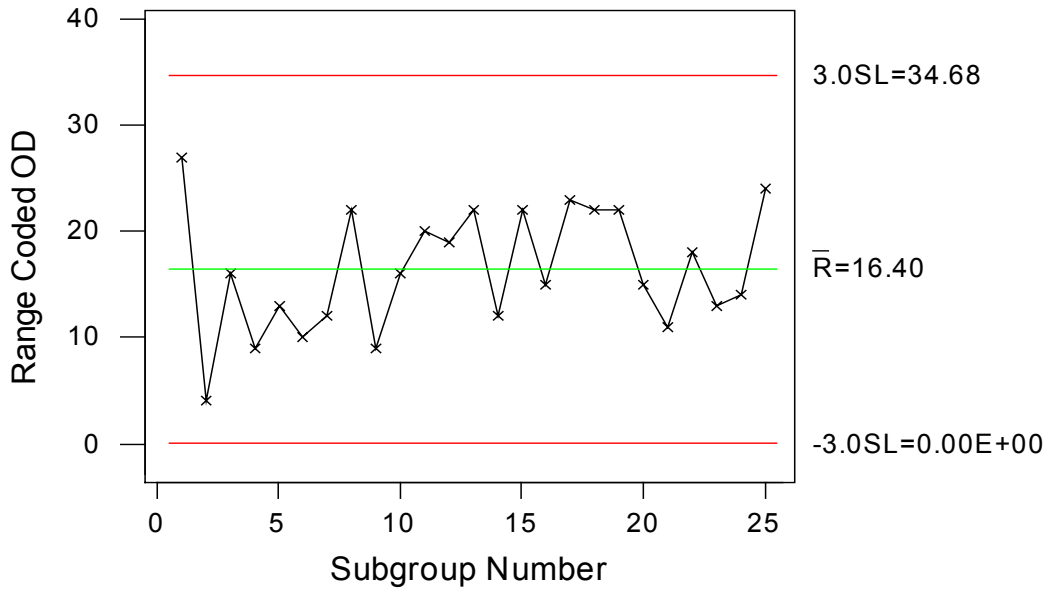
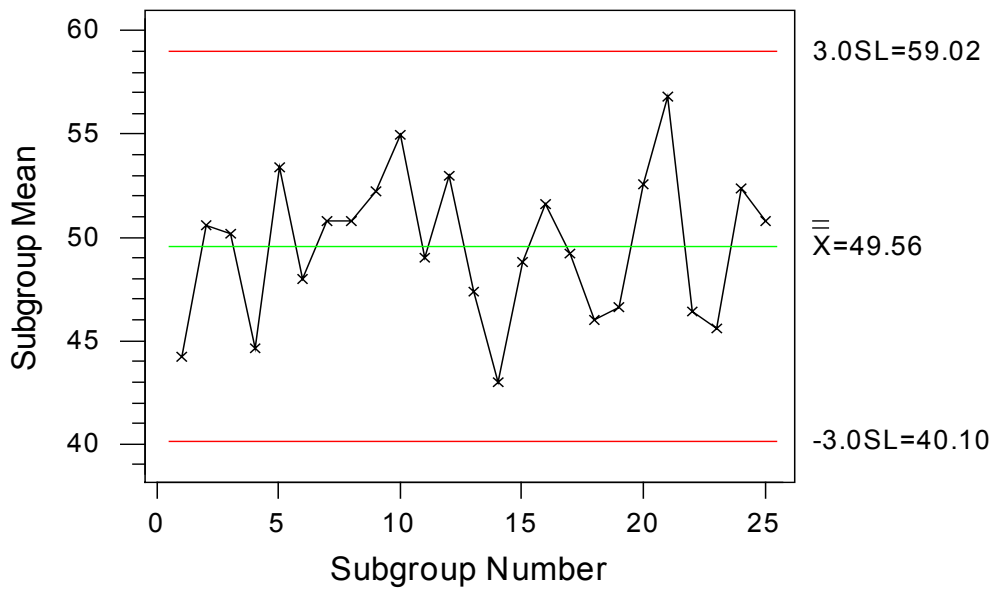


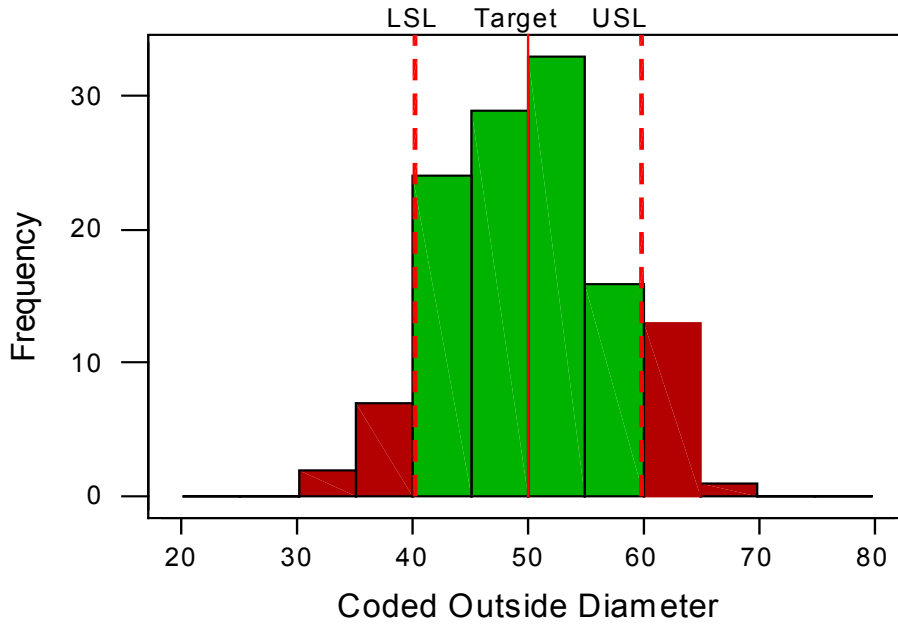
Motor Shaft Outside Diameter  
R chart (subgroups 1-25)



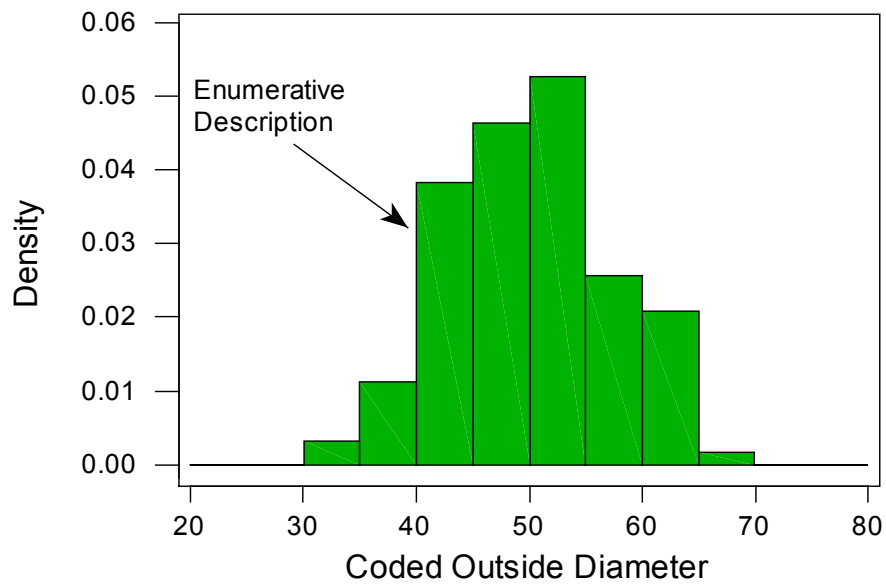
Motor Shaft Outside Diameter  
X-bar chart (subgroups 1-25)

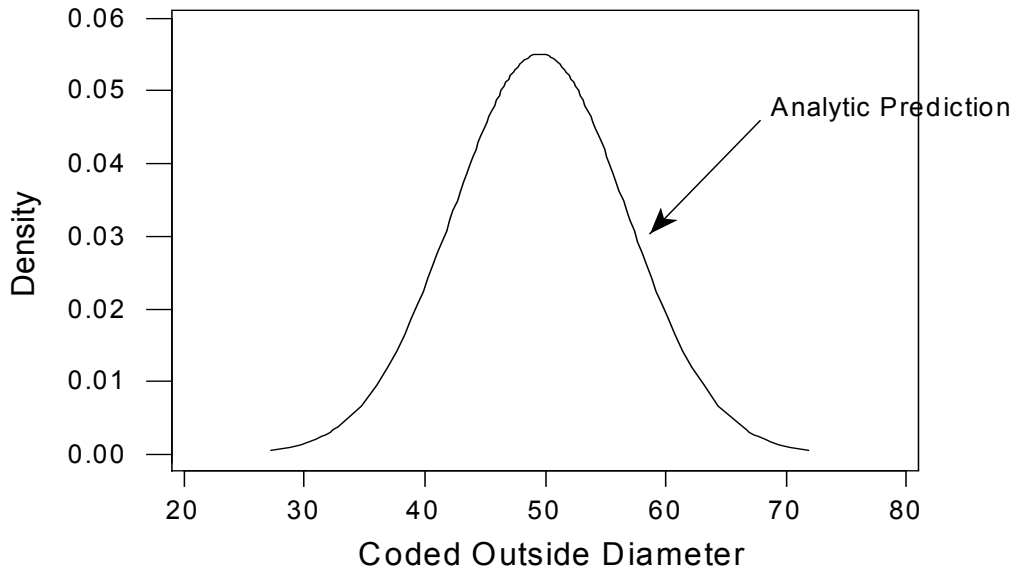


### Motor Shaft Outside Diameter (125 values)



### Motor Shaft Outside Diameter (125 values)





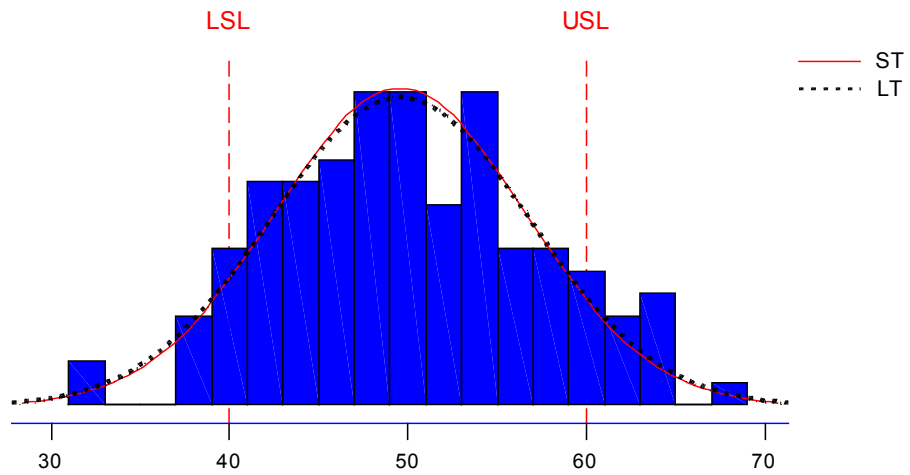
### Process Capability Analysis for OD

Process Data

USL	60.00
Target	50.00
LSL	40.00
Mean	49.56
Sample N	125
StDev (ST)	7.05073
StDev (LT)	7.25071

Potential (ST) Capability

Cp	0.47
CPU	0.49
CPL	0.45
Cpk	0.45
Cpm	0.46



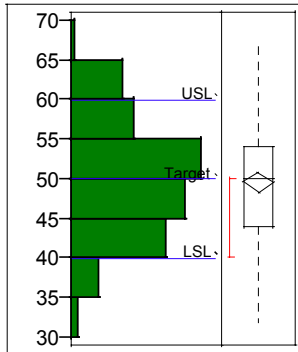
Overall (LT) Capability

Pp	0.46
PPU	0.48
PPL	0.44
Ppk	0.44

	Observed Performance		Expected ST Performance		Expected LT Performance	
PPM < LSL	72000.00	PPM < LSL	87567.44	PPM < LSL	93669.69	
PPM > USL	80000.00	PPM > USL	69343.59	PPM > USL	74953.76	
PPM Total	152000.00	PPM Total	156911.03	PPM Total	168623.45	

## Distributions

### OD



## Quantiles

100.0%	maximum	67.000
99.5%		67.000
97.5%		63.000
90.0%		60.000
75.0%	quartile	54.000
50.0%	median	50.000
25.0%	quartile	44.000
10.0%		40.000
2.5%		37.000
0.5%		32.000
0.0%	minimum	32.000

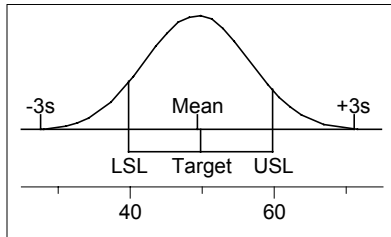
## Moments

Mean	49.56
Std Dev	7.2361102
Std Err Mean	0.6472174
upper 95% Mean	50.841024
lower 95% Mean	48.278976
N	125

## Capability Analysis

Specification	Value	Portion	% Actual
Lower Spec Limit	40	Below LSL	7.2000
Upper Spec Limit	60	Above USL	8.0000
Spec Target	50	Total Outside	15.2000

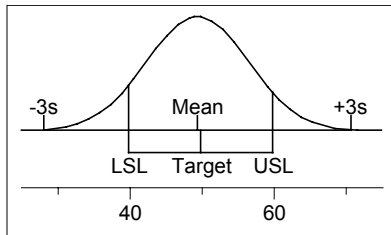
**Overall, Sigma = 7.23611**



Capability	Index	Lower CI	Upper CI
CP	0.461	0.403	0.518
CPK	0.440	0.371	0.509
CPM	0.460	0.403	0.517
CPL	0.440		
CPU	0.481		

Portion	Percent	PPM
Below LSL	9.3225	93225.376
Above USL	7.4543	74543.467
Total Outside	16.7769	167768.84

**Fixed n = 5, Sigma = 7.08463**



Capability	Index	Lower CI	Upper CI
CP	0.471	0.412	0.529
CPK	0.450	0.380	0.520
CPM	0.470	0.412	0.528
CPL	0.450		
CPU	0.491		

Portion	Percent	PPM
Below LSL	8.8604	88604.292
Above USL	7.0293	70292.999
Total Outside	15.8897	158897.29