

Authorization To Run Production

Accept Parts ? **Yes** **No**
 (Circle One)

Signature _____

Customer Company, Inc.
 Part Name Part 4
 Part # 85368587
 Cavities 5
 Mold # M8585
 Inspection Type Inprocess
 Inspector Sheehy, Steve
 Mold Tech J, Danny
 Shift 1
 Press # 8

Rev Level B
 Material 8585 Experimental Type D
 Material Lot # 87663005
 Finished Goods Lot # 76334

Date of Inspection 8/18/2014
 Time of Inspection 3:33:33 PM

Special Notes 3 of 5 runs

Feature	Description		Sample				
Cavity 1	Target	+ / -	# 1	# 2	# 3	# 4	# 5
Item 1	1.8300	0.0500 / -0.0500	1.8791	1.8329	1.8793	N/A	N/A
Item 2	24.7270	0.0760 / -0.0760	24.7916	25.0742	24.6654	N/A	N/A
Item 3	0.5050	0.0750 / -0.0750	0.4965	0.4608	0.4803	N/A	N/A
Item 4	1.9200	0.0400 / -0.0400	1.9264	1.8855	1.9230	N/A	N/A
Flash			Pass	N/A	N/A	N/A	N/A
Visual Defects			Pass	N/A	N/A	N/A	N/A
Nail Hole I.D. In			Pass	N/A	N/A	N/A	N/A
Shorts			Pass	N/A	N/A	N/A	N/A
Cavity 2	Target	+ / -	# 1	# 2	# 3	# 4	# 5
Item 1	1.8300	0.0500 / -0.0500	1.8783	1.8528	1.8723	N/A	N/A
Item 2	24.7270	0.0760 / -0.0760	24.7953	24.8180	24.7215	N/A	N/A
Item 3	0.5050	0.0750 / -0.0750	0.4301	0.4744	0.5159	N/A	N/A
Item 4	1.9200	0.0400 / -0.0400	1.8859	1.9139	1.9296	N/A	N/A
Flash			Pass	N/A	N/A	N/A	N/A
Visual Defects			Fail	N/A	N/A	N/A	N/A
Nail Hole I.D. In			Fail	N/A	N/A	N/A	N/A
Shorts			Pass	N/A	N/A	N/A	N/A
Cavity 3	Target	+ / -	# 1	# 2	# 3	# 4	# 5
Item 1	1.8300	0.0500 / -0.0500	1.8753	1.8394	1.8462	N/A	N/A
Item 2	24.7270	0.0760 / -0.0760	24.6757	24.9948	25.1293	N/A	N/A
Item 3	0.5050	0.0750 / -0.0750	0.4850	0.4685	0.4657	N/A	N/A
Item 4	1.9200	0.0400 / -0.0400	1.9090	1.9113	1.9043	N/A	N/A
Flash			Fail	N/A	N/A	N/A	N/A
Visual Defects			Fail	N/A	N/A	N/A	N/A
Nail Hole I.D. In			Fail	N/A	N/A	N/A	N/A
Shorts			Fail	N/A	N/A	N/A	N/A
Cavity 4	Target	+ / -	# 1	# 2	# 3	# 4	# 5
Item 1	1.8300	0.0500 / -0.0500	1.8627	1.8710	1.8308	N/A	N/A
Item 2	24.7270	0.0760 / -0.0760	24.9351	25.0353	24.7994	N/A	N/A
Item 3	0.5050	0.0750 / -0.0750	0.5147	0.4871	0.5151	N/A	N/A
Item 4	1.9200	0.0400 / -0.0400	1.9237	1.8816	1.8975	N/A	N/A
Flash			Pass	N/A	N/A	N/A	N/A
Visual Defects			Pass	N/A	N/A	N/A	N/A
Nail Hole I.D. In			Pass	N/A	N/A	N/A	N/A

Certificate Of Analysis

Part: \Examples\WinSPC Tour\Part #A400

Template: COA (with Tags)

12/15/2009 10:15:04 AM - 9/10/2014 1:27:45 PM

Data Set: Part \Examples\WinSPC Tour\Part #A400

<p>Lot #: Lot 10, Lot 50, Lot 30, Lot 20, Lot 40, test, Lot 25, Lot 500, Machine: Machine 1, , Machine2, Machine1, CNC1, Line 1, Stamping Op1, Extrusio Shift: 1st, , 2nd, Shift 1, Shift 2, 3rd, sunday2 Work Order: component A, , WO-80010, wo 1, WO 123, WO 1234, 500-50, Test , Steer Serial #: 234567, 123, , Serial #45567, S100544, 12345, serial 1, 1</p>	<p>Test Tag: 1, 2, , 3 Tool: Tool1, tool2, , Tool G4332, Tool 1, Tool #87654, test Target: 10, 20,</p>
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Variable Name	LSL	Target	USL	X-bar	Range	Std. Dev.	Min	Max	# Samples	Cpk	Cp	Ppk	Pp
Calculated	-2.000	0.000	2.000	-0.6872	13.7500	2.5745	-7.250	6.500	43	0.1964	0.2992	0.1700	0.2590
Dev from Target_1	-4.000	0.000	4.000	0.2000	25.0000	4.9917	-18.000	7.000	25	0.3298	0.3472	0.2538	0.2671
Gap1	0.000	5.000	10.000	5.4829	8.0000	1.8821	3.000	11.000	41	0.8421	0.9322	0.8000	0.8855
Gap2	0.000	5.000	10.000	6.1823	9.5000	2.4385	3.000	12.500	39	0.6787	0.8889	0.5219	0.6835
GP1	0.000	5.000	10.000	6.1200	10.1000	2.2939	2.000	12.100	65	0.5871	0.7565	0.5638	0.7266
ID Depth	N/A	0.000	3.000	1.0441	2.9100	0.6742	0.200	3.110	84	5.8630	N/A	0.9670	N/A
Length	0.000	5.000	10.000	5.6708	11.0000	2.0137	1.500	12.500	189	1.5560	1.7971	0.7166	0.8277
OD	0.000	5.000	10.000	4.6630	13.0000	2.7968	-1.000	12.000	79	0.8465	0.9077	0.5558	0.5959
Paint-Airflow	0.000	5.000	10.000	5.6429	3.0000	1.1073	4.000	7.000	7	0.9833	1.1284	1.3116	1.5051
Paint-Humidity	0.000	5.000	10.000	5.6429	4.0000	1.3758	4.000	8.000	7	0.9833	1.1284	1.0557	1.2114
Paint-Temp	0.000	5.000	10.000	5.6429	4.0000	1.5999	4.000	8.000	7	0.9833	1.1284	0.9078	1.0418
Position	0	5	10	5.5245	5.0000	1.1730	3	8	38	1.2094	1.3511	1.2718	1.4209
Pressure	190.000	200.000	210.000	200.0000	12.0000	3.1456	193.000	205.000	20	1.3743	1.3743	1.0597	1.0597
Temp	90.000	100.000	110.000	101.3636	11.0000	2.3175	96.000	107.000	44	1.8317	2.1209	1.2422	1.4383
Thickness	4.500	5.000	5.500	5.0714	3.9710	0.8383	3.355	7.326	58	0.1870	0.2182	0.1704	0.1988
Weight	0.000	5.000	10.000	6.3402	9.5000	2.2374	3.000	12.500	146	1.5273	2.0866	0.5452	0.7449

Production Summary

Template: Production Summary

Data Set: All variables

Part Name	Part Folder Name			
20 oz	\Industry Examples\Packaging and Paper\Bottles\Plastic\			
Variable Name	Pieces Measured	Cpk	Cost	
Diameter	150	1.6984	0.0000	
Height	150	1.6688	0.0000	
Wall thickness	93	1.2583	0.0000	
Weight	150	1.8856	0.0000	
20 oz	\Industry Examples\Packaging and Paper\Bottles\Glass\			
Variable Name	Pieces Measured	Cpk	Cost	
Diameter	155	1.5616	0.0000	
Height	155	1.7739	0.0000	
Wall thickness	96	1.2354	0.0000	
Weight	155	1.6741	0.0000	
20 oz Bottle	\Other Examples\Example Plant\Monitoring Production - Plant 1			
Variable Name	Pieces Measured	Cpk	Cost	
Diameter	90	1.3120	0.0000	
Flow Rate	30	0.7994	0.0000	
Temperature	30	0.7765	0.0000	
Thickness	60	1.2328	0.0000	
Weight	30	0.3071	0.0000	
250mg tablet	\Industry Examples\Pharmaceutical\Pharma example\Tablets\			
Variable Name	Pieces Measured	Cpk	Cost	
Hardness	310	2.6859	0.0000	
Thickness	310	2.3242	0.0000	
Weight	320	2.8735	0.0000	
300mg tablet	\Industry Examples\Pharmaceutical\Pharma example\Tablets\			
Variable Name	Pieces Measured	Cpk	Cost	
Hardness	300	2.6804	0.0000	
Thickness	300	2.3308	0.0000	
Weight	300	2.8418	0.0000	
3-ply	\Industry Examples\Packaging and Paper\Boxes\Cardboard\			
Variable Name	Pieces Measured	Cpk	Cost	
Burst Strength	31	0.8764	0.0000	
Height	150	1.8234	0.0000	
Length	150	1.5953	0.0000	
Weight	150	1.5816	0.0000	
Width	150	1.7251	0.0000	
5-ply	\Industry Examples\Packaging and Paper\Boxes\Cardboard\			
Variable Name	Pieces Measured	Cpk	Cost	
Burst Strength	31	0.6177	0.0000	
Height	155	1.7902	0.0000	
Length	155	1.5733	0.0000	
Weight	150	1.5431	0.0000	
Width	155	1.7134	0.0000	
8 oz	\Industry Examples\Packaging and Paper\Bottles\Glass\			
Variable Name	Pieces Measured	Cpk	Cost	
Diameter	165	1.8397	0.0000	

Performance Against Specifications

Per Station By Variable

Template: Spec Performance Per Station By Variable

Data Set: Part \Examples\WinSPC Tour\Bottle

Station Name: 640M

Variable Name	LSL	USL	Readings Collected	# Outside Specs	% Outside Specs
Cap Diameter	1.500	2.000	66	0	0.00%
Fill Weight	2.750	3.500	63	0	0.00%
Flow Rate	180	200	16	0	0.00%
Height	200	220	63	0	0.00%
Injection Pressure	190	210	16	0	0.00%
Middle Thickness	20	30	48	4	8.33%
Temperature	90.0	110.0	92	0	0.00%
Thread Check	6.00	7.00	63	0	0.00%
Top Thickness	55	65	66	0	0.00%
Totals:			493	4	0.81%

New Part/Process

New Variable_1

5.000	4.000	3.000	5.000	9.100	5.000	4.000	5.000
6.000	6.000	5.000	4.000	5.000	6.000	6.000	6.000
5.000	4.000	4.000	4.000				

Min : 3.000

Max : 9.100

New Variable_2

5.000	5.000	5.500	5.600	5.900	6.000	6.100	5.500
5.900	5.800	5.900					

Min : 5.000

Max : 6.100

New Variable_3

6.000	6.500	6.900	7.000	6.900	6.500	6.900	6.800
7.000	6.500	6.400	6.700	6.800	5.800		

Min : 5.800

Max : 7.000

ReadingCollectedByStation (Shift 1)

5.000	5.000	5.000	6.000	6.000	4.000	4.000	4.000
5.000	6.000	3.000	6.000	5.000	6.000	4.000	5.000
6.000	5.000	4.000	8.800	1.100			

Min : 1.100

Max : 8.800

Zero_or_One

0.000	1.000	1.500	0.000	1.000	0.150	0.200	1.100
1.000							

Min : 0.000

Max : 1.500

Statistics Per Month By Variable

Template: Statistics Per Month By Variable

Data Set: C-Mix Mix Times (This Years Data)

Date Range: 7/1/2009 through 8/1/2009

Variable Name	Readings Collected	Standard Deviation	Average
Mix Time Mixer1	3	4.0415	52.3333
Mix Time Mixer2	4	5.0000	47.5000
Mix Time Mixer3	3	5.7735	41.6667
Mix Time Mixer4	6	5.9889	41.3333
Mix Time Mixer5	7	3.9036	44.7143
Totals:	23		

Date Range: 8/1/2009 through 9/1/2009

Variable Name	Readings Collected	Standard Deviation	Average
Mix Time Mixer1	21	3.0480	47.0952
Mix Time Mixer2	24	3.0405	47.8750
Mix Time Mixer3	17	2.9481	44.7647
Mix Time Mixer4	41	1.7676	46.0244
Mix Time Mixer5	34	1.5516	46.3235
Totals:	137		

Date Range: 9/1/2009 through 10/1/2009

Variable Name	Readings Collected	Standard Deviation	Average
Mix Time Mixer1	31	2.0713	49.9032
Mix Time Mixer2	28	1.5477	50.1071
Mix Time Mixer3	22	2.3192	43.0455
Mix Time Mixer4	70	1.7493	44.5714
Mix Time Mixer5	65	1.0622	45.3231
Totals:	216		

Date Range: 10/1/2009 through 11/1/2009

Variable Name	Readings Collected	Standard Deviation	Average
Mix Time Mixer1	28	0.8325	52.2143
Mix Time Mixer2	30	0.9279	52.0333
Mix Time Mixer3	20	2.3278	48.0500
Mix Time Mixer4	58	2.0288	47.2414
Mix Time Mixer5	49	2.2079	46.4286
Totals:	185		

Date Range: 11/1/2009 through 12/1/2009

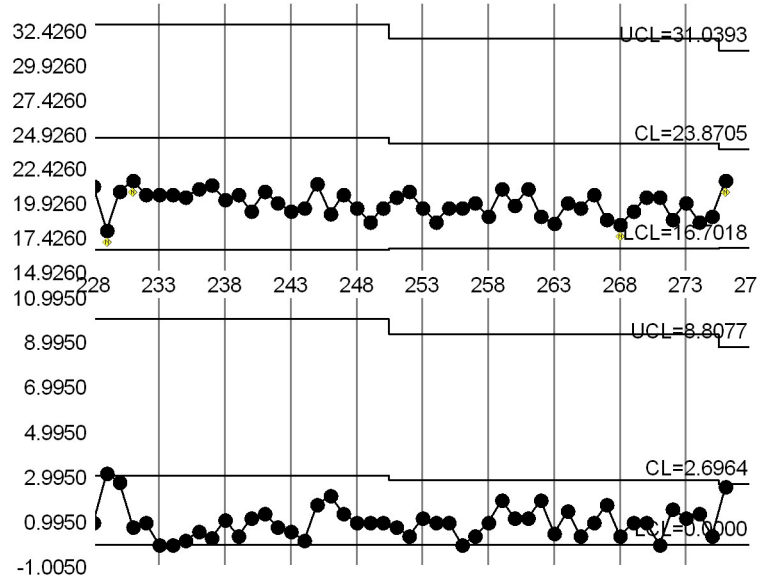
Variable Name	Readings Collected	Standard Deviation	Average
Mix Time Mixer1	11	0.5045	52.6364
Mix Time Mixer2	12	0.6030	52.0000
Mix Time Mixer3	25	0.9165	45.5600
Mix Time Mixer4	41	0.6344	45.5610

Variable Name: Centering Screw
Part Name: (invalid)

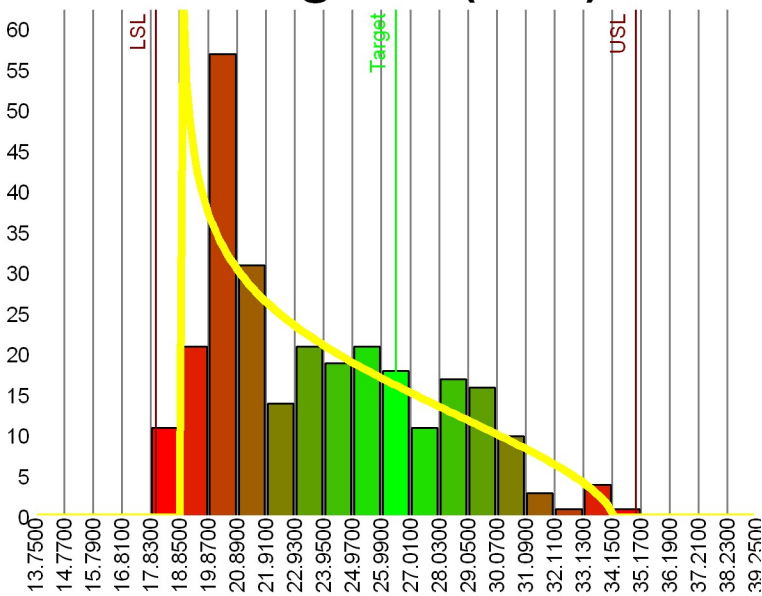
Readings: 276
Subgroups: 276

Mu: 23.8623
Sigma: 2.3893
Cp: 1.1859
Cpk: 0.8179
Pp: 0.7248
Ppk: 0.4999
Skew: 0.6239
Kurtosis: 2.3588

X & MR



Histogram (Ind.)



Loss Analyzer

Piece-Level Losses

LSL Violations: 0
USL Violations: 0

Process-Level Losses

Cost of Process Shift: 0.0000
Cost of Process Variability: 0.0000

Estimated Losses This Period

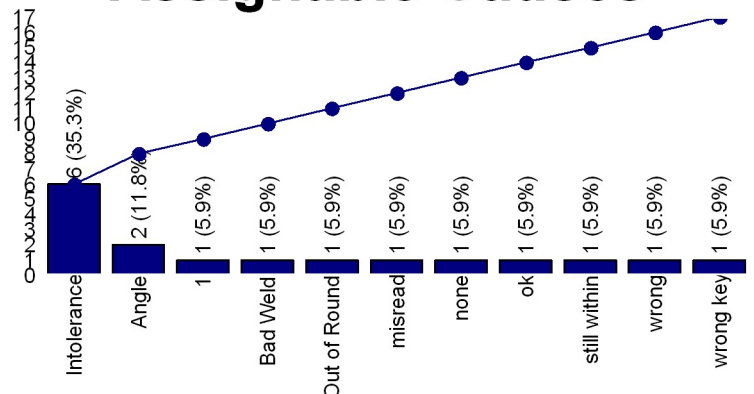
Pieces Measured: 276
Total Process Losses: 0
Pieces Scrapped: 0
Total Scrap Losses: 0

Losses This Period:

Summary of Violations Recorded

Number: 30
Control Test Name: 1 pt beyond control limits

Assignable Causes



Variable: Bottle.Weight

Subgroup: 1	X-Bar: 3.054	X-Bar UCL: 3.287	X-Bar CL: 3.125	X-Bar LCL: 2.963
	R: 0.293	R UCL: 0.409	R CL: 0.159	R LCL: 0.000

Sample	Value	Date/Time	User@Station	USL	Target	LSL
1	3.052	8/1/2008 3:23:37 PM	Admin@640M	3.500	3.125	2.750
2	2.908	8/1/2008 3:23:53 PM	Admin@640M	3.500	3.125	2.750
3	3.201	8/1/2008 3:24:17 PM	Admin@640M	3.500	3.125	2.750

Tags: Tare Weight: .25

Assignable Cause:
Corrective Action:
Note:

Subgroup: 2	X-Bar: 3.030	X-Bar UCL: 3.287	X-Bar CL: 3.125	X-Bar LCL: 2.963
	R: 0.053	R UCL: 0.409	R CL: 0.159	R LCL: 0.000

Sample	Value	Date/Time	User@Station	USL	Target	LSL
1	3.031	8/1/2008 3:25:38 PM	Admin@640M	3.500	3.125	2.750
2	3.003	8/1/2008 3:25:56 PM	Admin@640M	3.500	3.125	2.750
3	3.056	8/1/2008 3:27:24 PM	Admin@640M	3.500	3.125	2.750

Tags: Tare Weight: .25

Assignable Cause:
Corrective Action:
Note:

Subgroup: 3	X-Bar: 3.016	X-Bar UCL: 3.287	X-Bar CL: 3.125	X-Bar LCL: 2.963
	R: 0.097	R UCL: 0.409	R CL: 0.159	R LCL: 0.000

Sample	Value	Date/Time	User@Station	USL	Target	LSL
1	3.049	8/1/2008 3:27:56 PM	Admin@640M	3.500	3.125	2.750
2	3.047	8/1/2008 3:28:08 PM	Admin@640M	3.500	3.125	2.750
3	2.952	8/1/2008 3:28:38 PM	Admin@640M	3.500	3.125	2.750

Tags: Tare Weight: .25

Assignable Cause:
Corrective Action:
Note:

Subgroup: 4	X-Bar: 3.051	X-Bar UCL: 3.287	X-Bar CL: 3.125	X-Bar LCL: 2.963
	R: 0.023	R UCL: 0.409	R CL: 0.159	R LCL: 0.000

Sample	Value	Date/Time	User@Station	USL	Target	LSL
1	3.059	8/1/2008 3:29:47 PM	Admin@640M	3.500	3.125	2.750
2	3.058	8/1/2008 3:29:50 PM	Admin@640M	3.500	3.125	2.750
3	3.036	8/1/2008 3:31:01 PM	Admin@640M	3.500	3.125	2.750

Tags: Tare Weight: .25

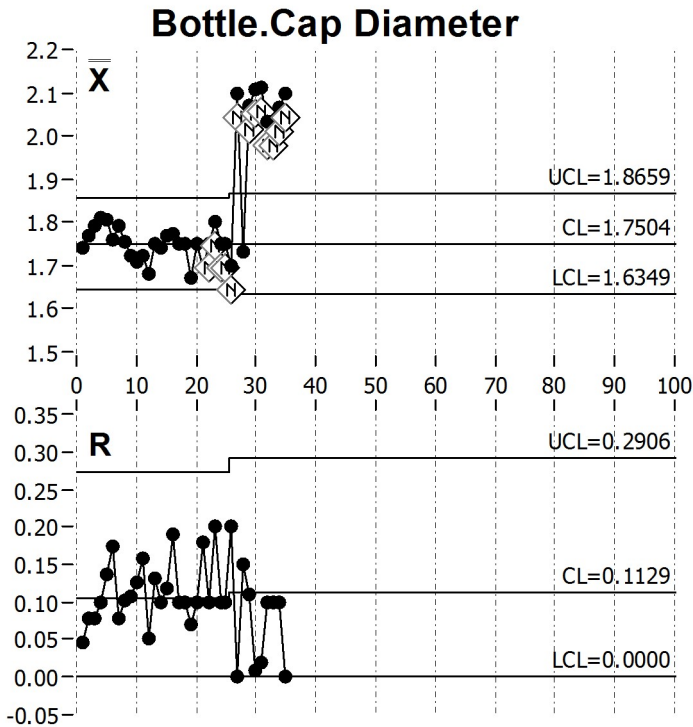
Assignable Cause:
Corrective Action:
Note:

Subgroup: 5	X-Bar: 2.983	X-Bar UCL: 3.287	X-Bar CL: 3.125	X-Bar LCL: 2.963
	R: 0.196	R UCL: 0.409	R CL: 0.159	R LCL: 0.000

Sample	Value	Date/Time	User@Station	USL	Target	LSL
1	3.030	8/1/2008 3:31:26 PM	Admin@640M	3.500	3.125	2.750

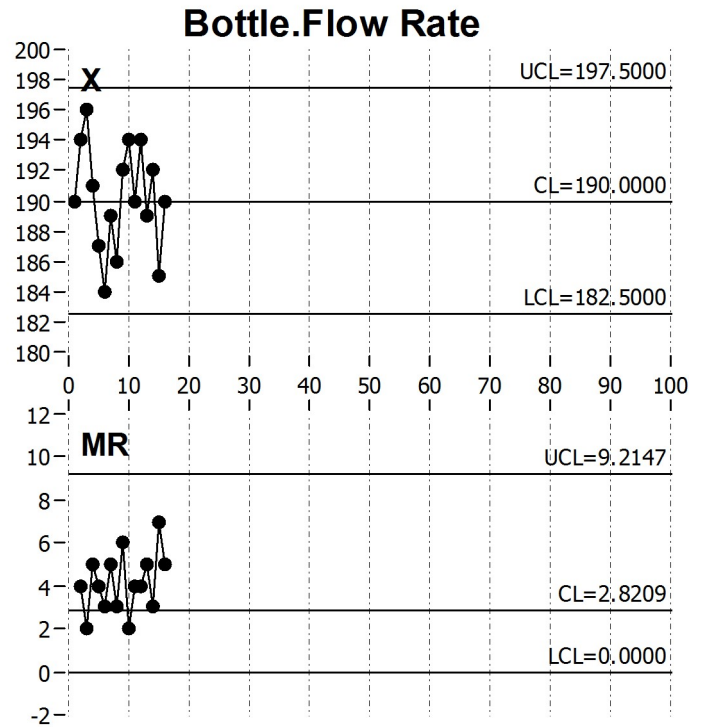
Variable: Cap Diameter

USL	LSL	# Readings
2.000	1.500	105



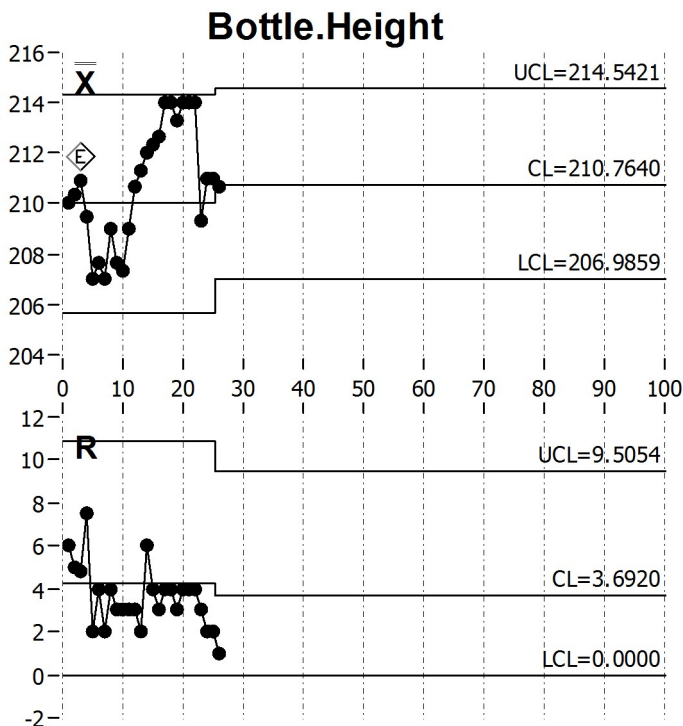
Variable: Flow Rate

USL	LSL	# Readings
200	180	16



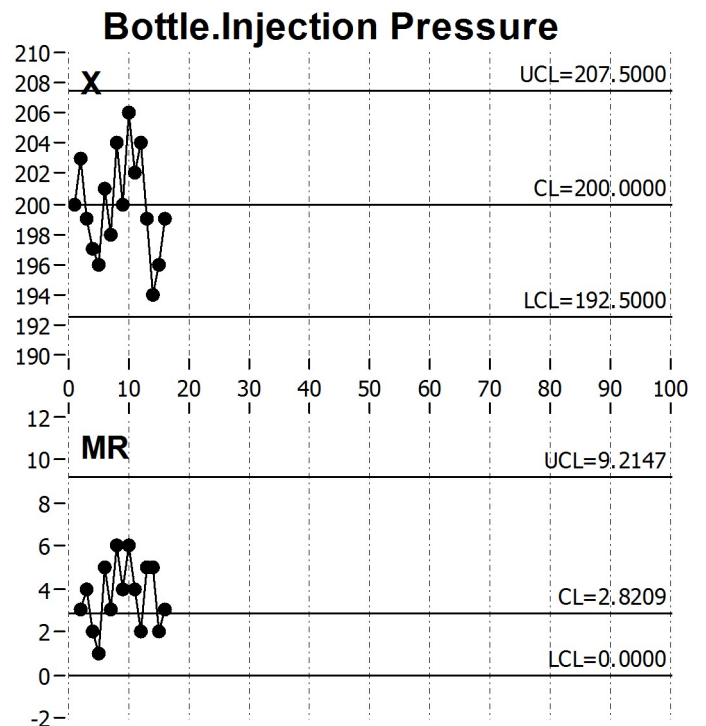
Variable: Height

USL	LSL	# Readings
220	200	78



Variable: Injection Pressure

USL	LSL	# Readings
210	190	16



Process Improvement Savings Report

Template: Process Improvement Savings

Data Set: Part \Examples\Cost Model\Machining Operation

Part / Variable Name	Avg \$ Cost/10,000 @ Current Mean	Avg \$ Cost/10,000 @ Optimal Mean	Savings per 10,000 from Process Shift	Avg \$ Cost/10,000 @ Current Variability	Avg \$ Cost/10,000 @ Half Variability	Savings per 10,000 from Reduced Variability	Total Possible Savings per 10,000
Machining Operation							
Cut Length	\$81,692	\$49,227	\$32,465	\$81,692	\$0	\$81,692	\$114,157
Drilling ID	\$89,389	\$89,288	\$101	\$89,389	\$0	\$89,389	\$89,490
Final Inspection	\$193,738	\$125,884	\$67,854	\$193,738	\$0	\$193,738	\$261,592
Raw Material Length	\$33,951	\$32,272	\$1,679	\$33,951	\$0	\$33,951	\$35,630
Total Savings			\$102,099			\$398,770	\$500,869