

Productivity Report

SUN BEAM INDUSTRIES

Project	Collar Pin Turning
Component	Collar Pin
Test ID	ADMIN-1936243926
Created by	Vaikunth Panchal
Date created	28-12-2019
Your reference	Mr.Aniket Savaji

Approved by



Test data

Component - Collar Pin

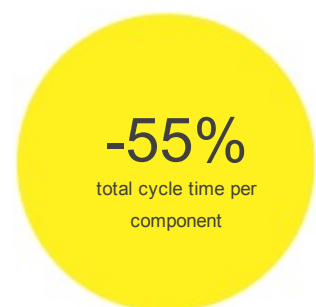
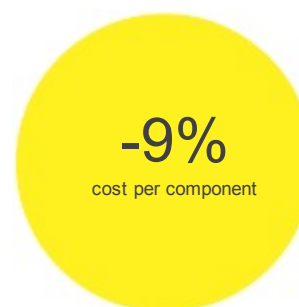
Component	Collar Pin
CMC code	
MC Code	
No. of components per set-up	1
no.of components ()	10000
No. of components per year	100000
Current situation	
Recommendation	

Machine - LMW

Machine brand	LMW
Machine ID	
Machine cost per hour	Rs 200
Tool room cost per hour	Rs 0

Analysis per component

	Reference	Recommended
Machine cost	Rs 0.90 (+0.23)	Rs 0.67
Tool change cost	Rs 0.56 (+0.56)	Rs 0.00
Tool cost	Rs 0.41 (+0.27)	Rs 0.14
Insert cost	Rs 1.23 (-.37)	Rs 1.61
Indexing/Replacement cost	Rs 0.18 (+0.12)	Rs 0.06
Tool room cost	Rs 0.00 (+0)	Rs 0.00
Scrap cost	Rs 0.00 (+0)	Rs 0.00
Rework cost	Rs 0.00 (+0)	Rs 0.00
Additional cost	Rs 0.00 (+0)	Rs 0.00
Total cost	Rs 2.72 (+0.25)	Rs 2.48
Total cycle time per set-up	0.49 (+0.24)	0.22





Productivity result

Recommendation

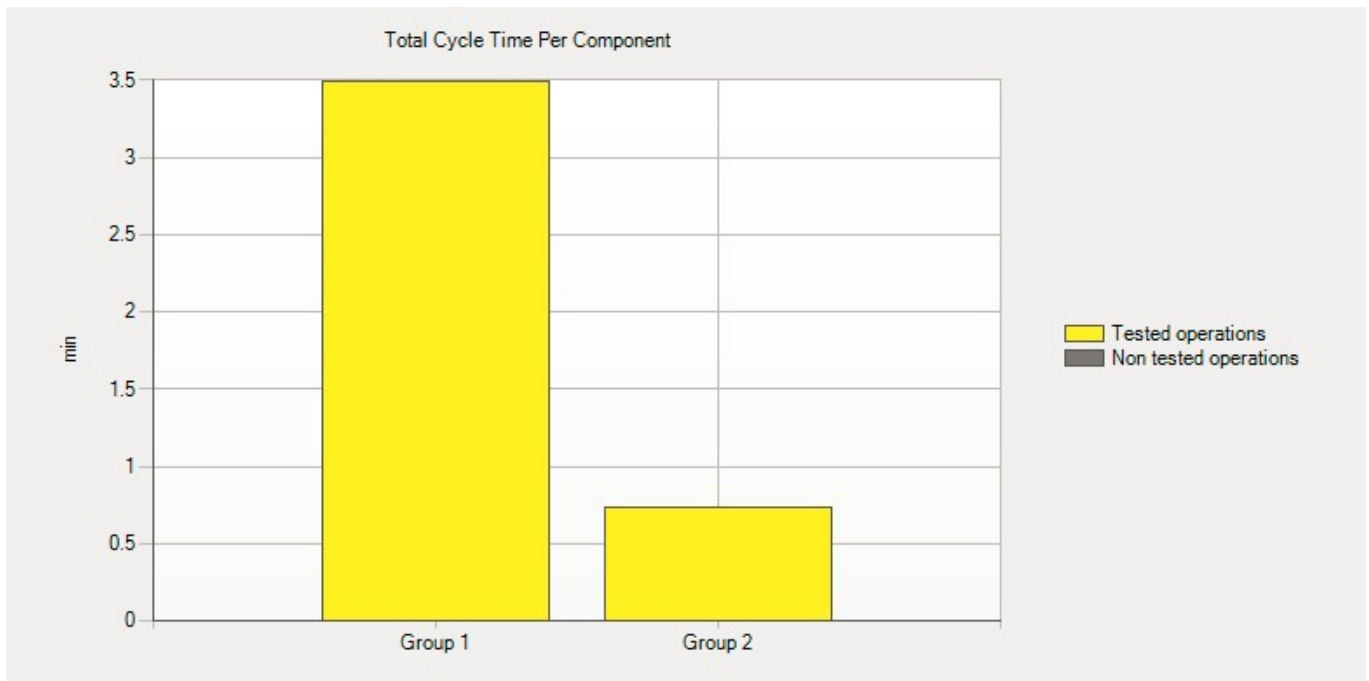
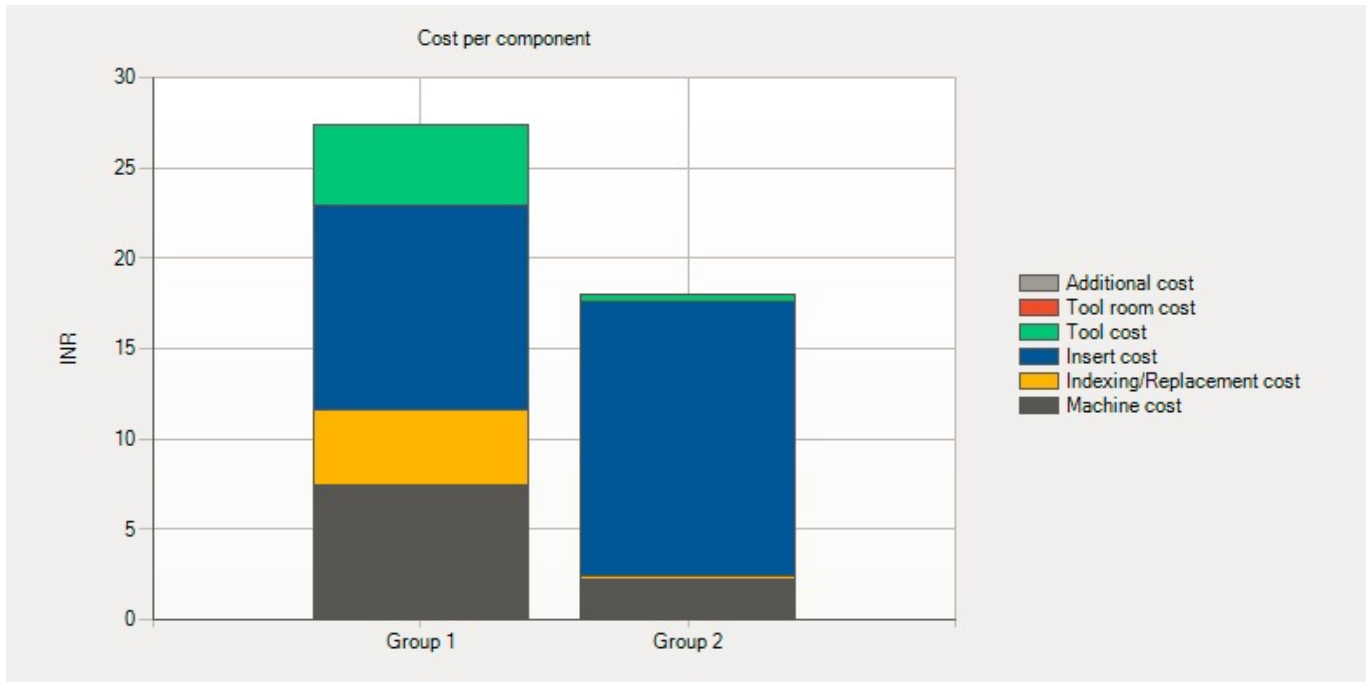
Productivity increase for recommended tools	124%
Productivity increase for total cycle time	124%
Savings in production time per year (h)	452
Savings per component	Rs 0.25
Savings per unit	Rs 2,455.66
Savings per year	Rs 24,557





Charts

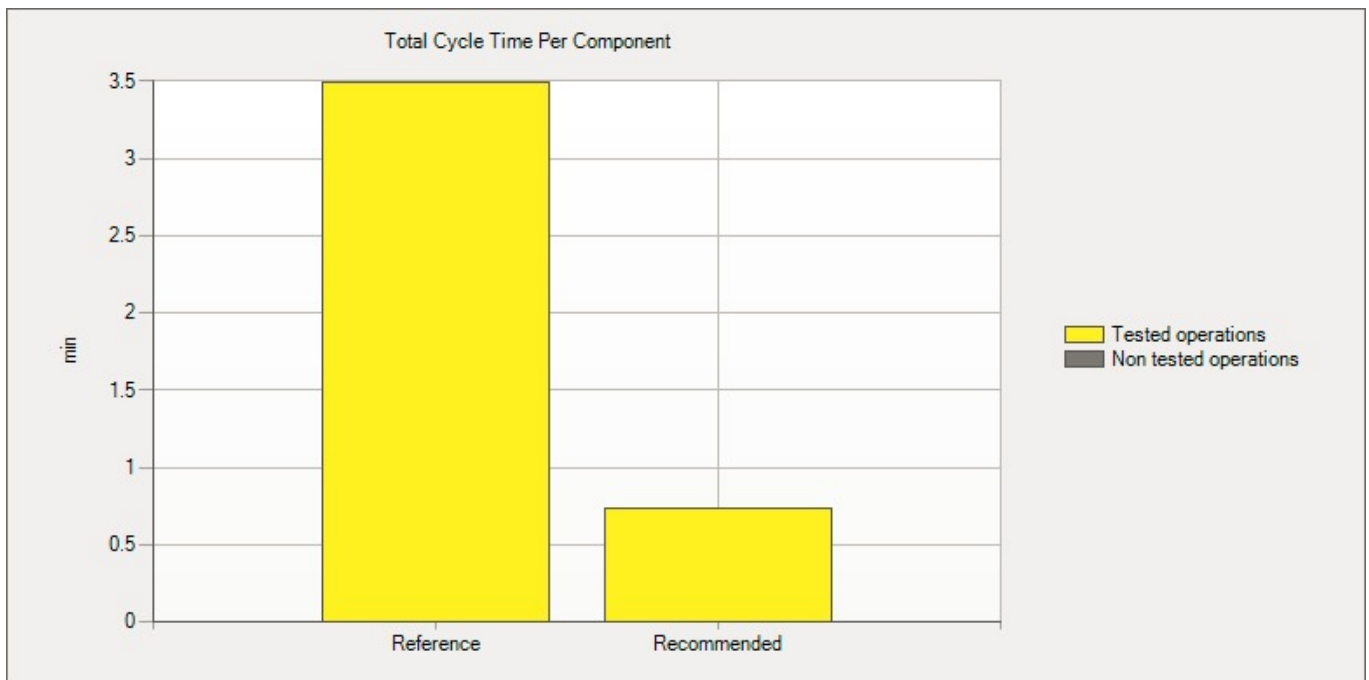
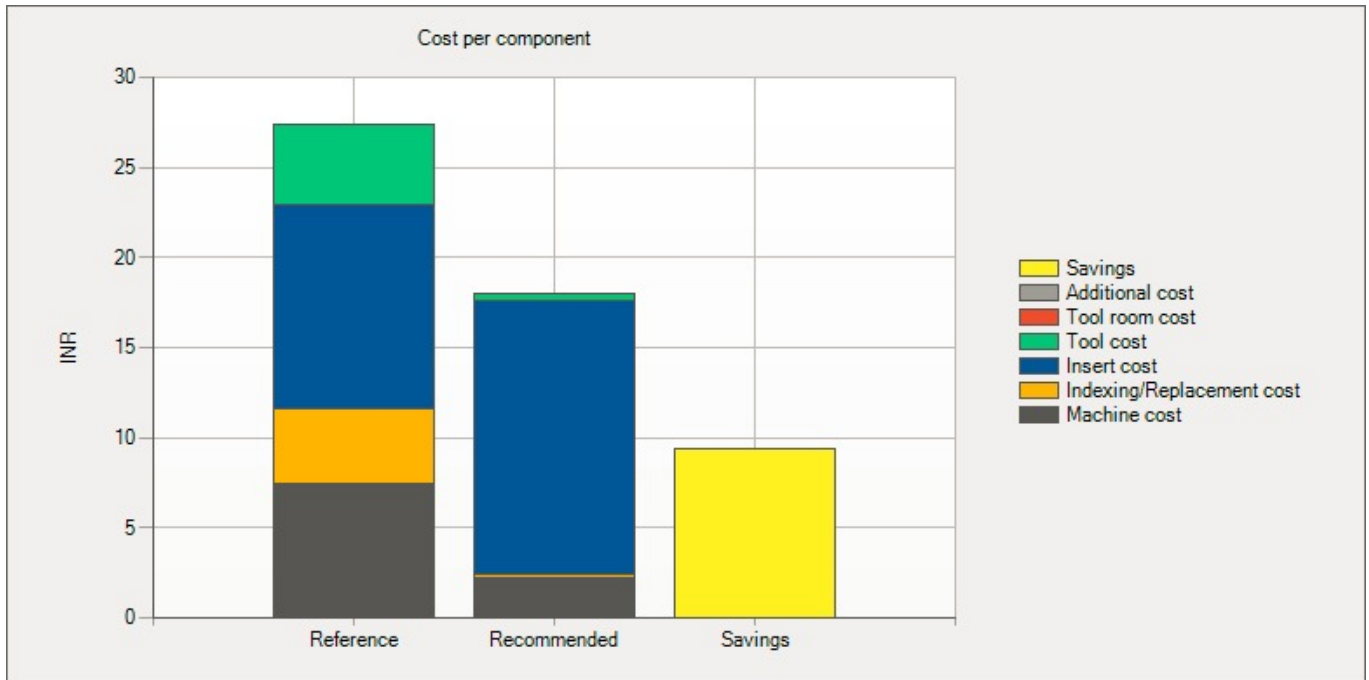
Group data

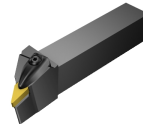




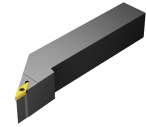
Charts

Recommendation





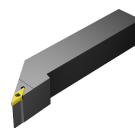
Reference



Recommended

Sub-test name	Sub-test 1	Sub-test 1
Tool		
Manufacturer	Coromant	Coromant
Code	DVJNL 2020K 16	SVJBL 2020K 16
Code (customer denomination)	DVJNL 2020K 16	SVJBL 2020K 16
Cost	Rs 7,440.00	Rs 8,080.00
No. of insert indexes	200	200
Insert indexing time (min)	5	5
Insert		
Manufacturer	Kyocera	Coromant
Code	VNMG 160404-PR	VBMT 16 04 02-PF
Code (customer denomination)	VNMG 160404-PR	VBMT 16 04 02-PF
Grade	1125	5015
No. of edges per insert	4	2
Cost per insert	Rs 350.00	Rs 990.00
No. of inserts	1	1
Cutting data		
Cut	Medium	Finishing

	Reference	Recommended
Sub-test name	Sub-test 1	Sub-test 1
Spindle speed (n) (rev/min)	3448	4000
Diameter (Dm) (mm)	12	9.75
Cutting speed (vc) (m/min)	130	123
Feed (fn) (mm/rev)	0.12	0.12
Cutting depth (ap) (mm)	0.5	0.2
Length of cut (mm)	38	38
No. of passes	2	1
Time in cut per component (min)	0.18	0.08
Block time per set-up (min)	0.18	0.08
Tool life (no.of components)	150	600
Tool life (minutes)	26.4	47.5
Tool life (meter)	10.93	22.8
Tool change criteria	(13) Burr or spalling of workpiece	(11) Bad surface finish on workpiece



Reference



Recommended

	Reference	Recommended
Sub-test name	Sub-test 1	Sub-test 1
Tool		
Manufacturer	Coromant	Coromant
Code	SVJBL 2020K 16	DVJNL 2020K 16
Code (customer denomination)	SVJBL 2020K 16	DVJNL 2020K 16
Cost	Rs 8,080.00	Rs 7,440.00
No. of insert indexes	200	200
Insert indexing time (min)	5	5
Insert		
Manufacturer	Kyocera	Coromant
Code	VBMT 160402	VNMG 160404-PF
Code (customer denomination)	VBMT 160402	VNMG 160404-PF
Grade	1125	4325
No. of edges per insert	2	4
Cost per insert	Rs 325.00	Rs 1,560.00
No. of inserts	1	1
Cutting data		
Cut	Finishing	Medium



Sub-test

	Reference	Recommended
Spindle speed (n) (rev/min)	4000	3979
Diameter (Dm) (mm)	9.75	12
Cutting speed (vc) (m/min)	123	150
Feed (fn) (mm/rev)	0.1	0.15
Cutting depth (ap) (mm)	0.2	0.5
Length of cut (mm)	38	38
No. of passes	1	2
Time in cut per component (min)	0.09	0.12
Block time per set-up (min)	0.09	0.12
Tool life (no.of components)	250	500
Tool life (minutes)	23.75	61.02
Tool life (meter)	9.5	36.42
Tool change criteria	(11) Bad surface finish on workpiece	(25) Predetermined wear criterion