A. New Model Required OEE (Overall Equipment Effectiveness) - Moritz Technologies GmbH 2018 B 479 H1BT-14A390-AED

A1) Supplier & Part Information

Moritz Technologies GmbH	Supplier Name
D - 96242 Gonnefeld	Location/Site Code
RHD Cockpit H Brace CHNL	Part Name
H1BT-14A390-AED	Part Number

A2) Capacity Requirements

			APW	MPW	Select for Analysis
B 479	Program Code	<PA> Requirements	10.625	12.750	<PA> Require
2018	Model Year	Revised Requirements			
3	Part PPAP Level	Source Capacity Req CPA		ATP or Study	
22-Feb-2024	Date of Study	QCP/MCPV			

A3) Key Contacts

	Name	Phone #	Email
STA Site Engineer	Nadiya Barutcu	+902128559300	nbarutcu@mursanelektrik.com
Supplier Lead	Walter Steffan	+49(0)9564804326	walter.steffan@moritz-production.de
Ford Buyer			

Capacity Requirements

Supplier to demonstrate APW of **10625** parts per week operating no more than 5 days per week

Supplier to demonstrate MPW of **12750** parts per week operating no more than 6 days per week

A4 Planned Departmental Operating Pattern & Net Available Time for All Customers

		Process 1		Process 2		Process 3		Process 4		Process 5		Process 6		Process 7		Process 8	
		APW Plan	MPW Plan	APW Plan	MPW Plan	APW Plan	MPW Plan	APW Plan	MPW Plan	APW Plan	MPW Plan	APW Plan	MPW Plan	APW Plan	MPW Plan	APW Plan	MPW Plan
A	Process description (in value stream order)	Injector															
B	Days / Week	5	6														
C	Shifts / Day	3	3														
D	Total Hours / Shift	8	8														
E	Contractual Downtime - lunch, breaks, etc. (min/shift)	0	0														
F	Dedicated or Shared Process	Dedicated															
F1	Allocation Percent (automatically displayed)	100,0%	100,0%														
G	Net Available Time (hours / week) [B*C*(D-(E/60))*F1]	120,00	144,00	-	-	-	-	-	-	-	-	-	-	-	-	-	-
G1	Planned Minutes per Changeover (into this part #)																
G2	Planned Changeover Frequency / Week (into this part #)																

A5) Required Good Parts / Week

		APW Plan	MPW Plan	APW Plan	MPW Plan	APW Plan	MPW Plan	APW Plan	MPW Plan	APW Plan	MPW Plan	APW Plan	MPW Plan	APW Plan	MPW Plan	APW Plan	MPW Plan
H	Percent of parts scrapped	0,50%															
J	**Req'd Good Parts / Week to Support Next Process** (Accounts for the scrap loss of each process)	**10625**	**12750**	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Required Incoming Parts for Injector	Avg. Weekly	Max Weekly
	10679	**12815**

A6) Required OEE (Overall Equipment Effectiveness)

		APW Plan	MPW Plan	APW Plan	MPW Plan	APW Plan	MPW Plan	APW Plan	MPW Plan	APW Plan	MPW Plan	APW Plan	MPW Plan	APW Plan	MPW Plan	APW Plan	MPW Plan
K	Ideal Cycle Time per Tool or Machine (sec/cycle)	28															
L	# of Tools or Machines in parallel	1															
M	# of identical parts produced per Tool or Machine Cycle	1															
N	Net Ideal Cycle Time (sec/part) [K / (L*M)]	28,00		-	-	-	-	-	-	-	-	-	-	-	-	-	-
P	Theoretical Parts per week at 100% OEE [G x 3600 / N]	15429	18514	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Q	**Required OEE** [J / P]	**68,9%**	**68,9%**	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R	Percent of parts reworked (re-run through process)	0,00%															
S	Can process contain its changeover, scrap & rework assumptions? [Is J/(100%-H) + (JxR) + (G1x60xG2/N) <= P]	YES	YES	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T	% Remaining for Availability & Performance Efficiency losses {P - [(J/(100%-H)) + (JxR) + (G1x60xG2/N)]} / P	30,8%	30,8%	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Enter any other assumptions for clarification (Process details and further clarifications)	Part composed of a channel and a cover															

A7) Shared Process - Total Allocation Plan

		Injector															
U	Total % Allocation from "Shared Loading Plan" Sheet																

B. Supplier Demonstrated OEE - Phase 3 PPAP (Capacity Verification)

B1) Equipment Availability

		Injector															
V	Total Available Time (Include ACTUAL changeover time for Shared) (minutes)	480															
W	Planned Downtime - lunches/breaks/mtgs. (minutes)	0															
X	Net Available Time (minutes) [V - W]	480		-	-	-	-	-	-	-	-	-	-	-	-	-	-
Y	Shared Equip Changeover Time ACTUAL (minutes)																
Z	Shared Equip Changeover Time Weekly Scaled (minutes) [Y * (X / 60) / (G / G2)]	0		-	-	-	-	-	-	-	-	-	-	-	-	-	-
AB	Observed Unplanned Downtime (minutes)	30															
AC	Operating Time (minutes) [X - Y - AB]	450		-	-	-	-	-	-	-	-	-	-	-	-	-	-
AD	**Equipment Availability [(X - Z - AB) / X * 100]**	**93,8%**		-	-	-	-	-	-	-	-	-	-	-	-	-	-

B2) Performance Efficiency

AE	Total Parts Run (Good, Scrapped, & Reworked)	964															
AF	Net Ideal Cycle Time (seconds/part) [N]	28,00		-	-	-	-	-	-	-	-	-	-	-	-	-	-
AG	**Performance Efficiency (AE * AF / AC)**	**100,0%**		-	-	-	-	-	-	-	-	-	-	-	-	-	-
AH	"Availability" and/or "Performance Efficiency" Losses Not Captured (minutes) [AC - (AE * AF)]	0		-	-	-	-	-	-	-	-	-	-	-	-	-	-

B3) Quality Rate

		#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
AJ	# Parts Scrapped	3	0,3%	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AK	# Parts Reworked	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AL	**Quality Rate [(AE - AJ - AK) / AE]**	**99,7%**															

B4) Overall Equipment Effectiveness (OEE)

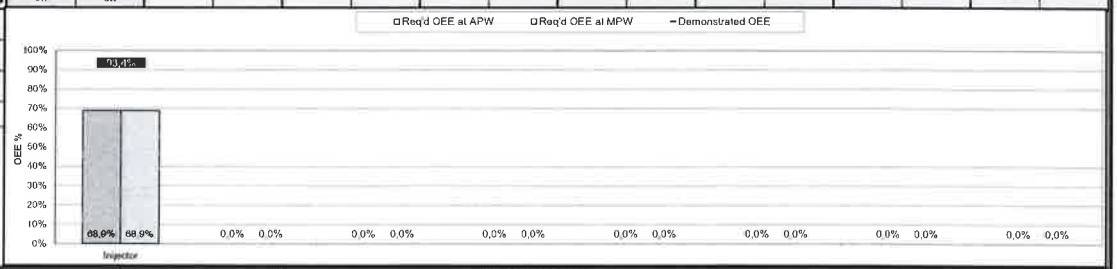
AM	**Phase 3 OEE [AD * AG * AL]**	**93,4%**		-	-	-	-	-	-	-	-	-	-	-	-	-	-
B5)	**Process Specific Weekly Part Estimate [P * AM]**	**14410**	**17292**	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B6)	**Observed Average Cycle Time (sec/cycle)**	**28**															

C. Gap Analysis - Required OEE vs. Demonstrated OEE; Predicted Good Parts / Week

Process Description		Injector															
		APW Result	MPW Result	APW Result	MPW Result	APW Result	MPW Result	APW Result	MPW Result	APW Result	MPW Result	APW Result	MPW Result	APW Result	MPW Result	APW Result	MPW Result
Capacity Analysis Results		OK	OK														

Predicted Good Parts per wk	Average	Maximum
Required Capacity (APW/MPW)	**10625**	**12750**
Phase 3 Demonstrated Capacity	**14410**	**17292**
Commitment (APPC/MPPC)	**11220**	**13210**

NOTES



SUPPLIER OPERATION MANAGEMENT APPROVAL

Walter Steffan — Quality Manager
Authorized Representative Name / Title

walter.steffan@moritz-production.de
Email

22.02.2024
Date

09564 8043 26
Phone Number

Signature

Version 5.6

FOR STA USE

Site Engineer — Signature/Date

STA LL6 Supervisor — Signature/Date

☐ Approved

☐ Rejected