

Attwin Technologies Pvt. Ltd.

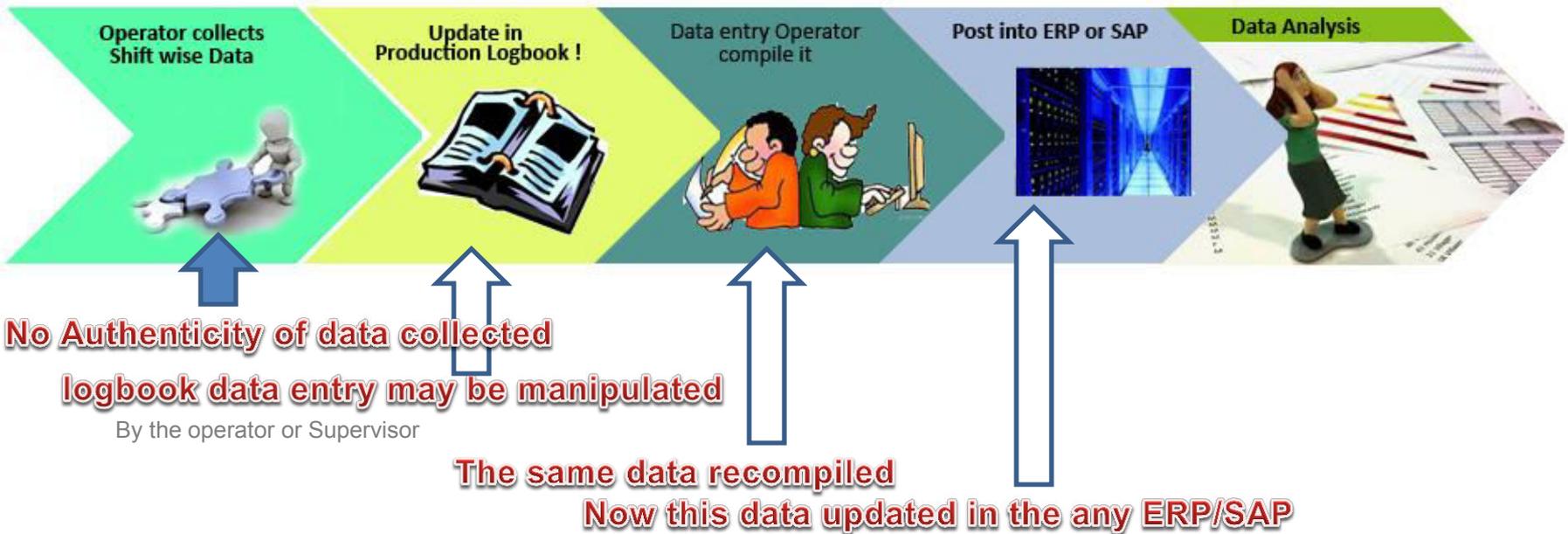


Attwin
TECHNOLOGIES

Attwin's Core proficiency

- ✓ **Manufacturing Intelligence**
- ✓ **Process Automation Solution**
- ✓ **Manufacturing ERP (QMS Based)**

The Typical Production Scenario



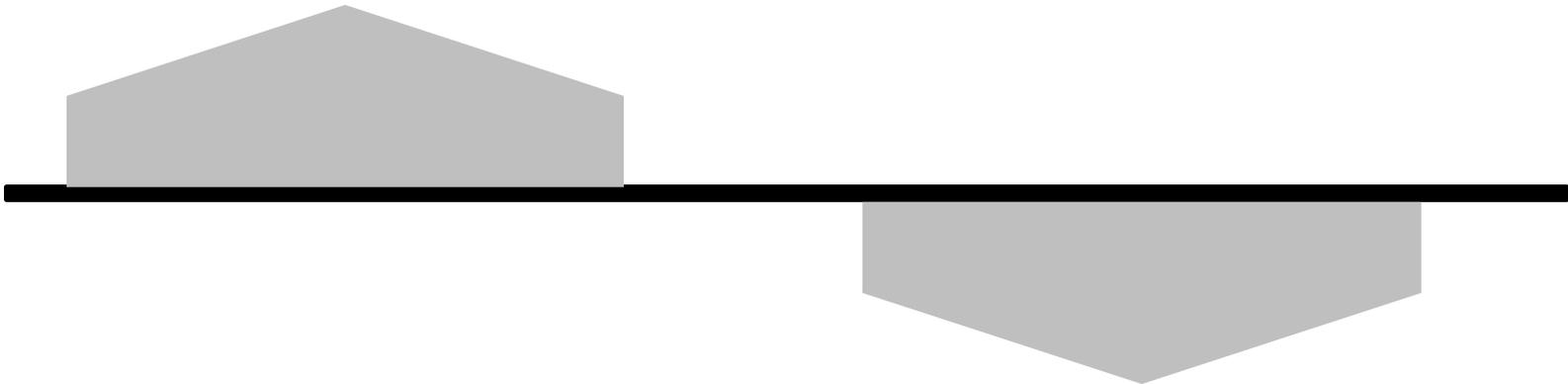
Data Analysis



- **With these data analysis ; Decisions and Planning takes place**
- **This data generation time is min 2 days to 1 month**
- **Which leads Delay in Decision Making / Planning**

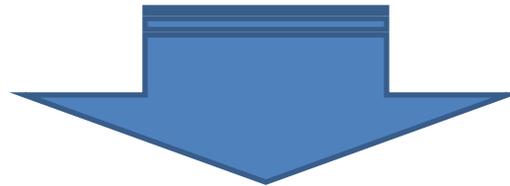
That's Leads to

Increase Losses



Decrease Profit

How can we bridge the gap between the shop floor and Production Measurement as well **Analysis with actual /accurate data**



Shop Floor



Actual Data Analysis



REALTIME PRODUCTION MONITORING SYSTEM

With the experience of
40 + years Moulding
25+ years of Software Background
25 + years of Embedded Development



PRODUCTION MEASUREMENT ANALYSIS & STATISTICAL SYSTEM



**PMASS bridge the gap of DATA Transparency of shop floor mismanagement.
and save Time, Money & Energy.**

WHY PMASS

- Production Monitoring and Shop Floor Data Collection
- is a unique system in its kind and has led the way in real-time production monitoring as an integral part of its manufacturing / production system.
- PMASS keeps track all aspects of production immediately as parts are being made, automatically updating production data in details, finished product counts, quality data and more.
- The result of this synergy is unmatched real-time visibility in details of the entire manufacturing process.

~~PLC
Connection
Require~~

A blue globe with the text 'PLC MASS' overlaid on it. The globe is semi-transparent and shows the continents. The text 'PLC' is at the top, 'MASS' is at the bottom, and 'Connection' is in the middle. The entire text is crossed out with a large red 'X'.

**ANY MAKE
MACHINE CAN
BE CONNECT
TOGETHER**



PMASS - **PRODUCTION MEASUREMENT ANALYSIS AND STATISTICAL SYSTEM** is a unique **REAL TIME MONITORING** tool for Machines having cyclic production shop floor. This product is synonymous with functional, **WIRELESS** with 300 meter or its multiple distance timeless and futuristic design.

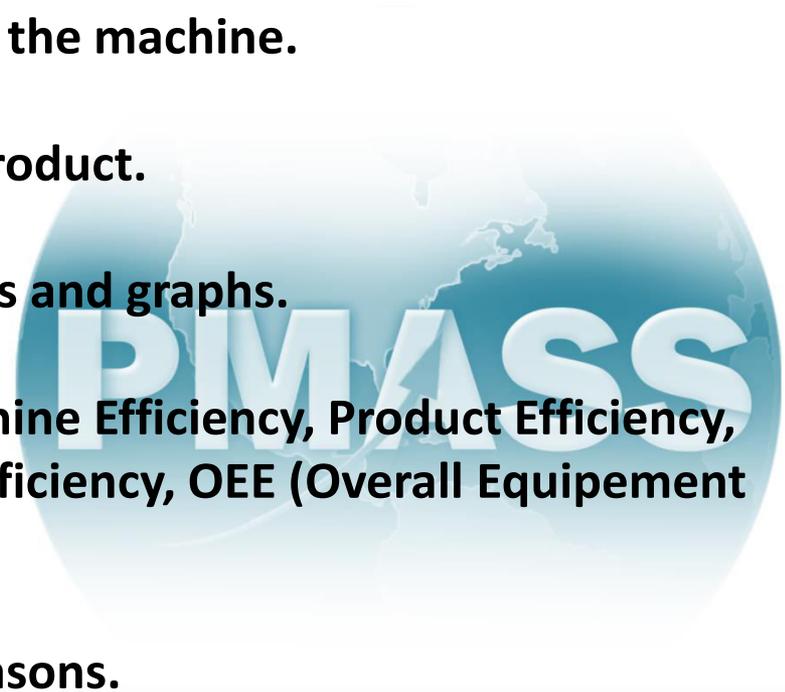
The need of the hour is online and it bridges the gap in every shop floor. Currently the data from the machine is collected through the Operators, Every Hour or Every shift basis. This is then updated in the Production Log Book and compiled by a Data entry Operator and then posted shift wise into the ERP system or SAP depending upon the organization. PMASS will bridge this gap of DATA TRANSPARANCY in the organization and help the organization to improve the Operational Efficiency and save money by collecting and update the shop floor data in every mili seconds with wireless functionality .

PMASS Online Process monitoring system provides profoundly look into your production processes and can be utilized on any type of moulding machines without use of any PLC.

PMASS Online Process Monitoring system takes plant management to a higher level, supporting machine management in real time. View overall enterprise or specific work venture performance from any computer on your network (even remotely) and check production as it occurs. PMASS Online Production Monitoring provides instantaneous feedback on critical parameters such as **total parts created, production time, downtime, scrap, rejects, parts remaining to be produced , changes in cavities** etc.

FEATURES

- Real time data directly from the machine.
- Online certification of the product.
- Automatic generated reports and graphs.
- Calculates efficiencies; Machine Efficiency, Product Efficiency, Operator Efficiency, Quality Efficiency, OEE (Overall Equipment Efficiency)
- Frequent SMS for critical reasons.
- Monitoring of the process of machines from home through laptop, ipad, etc.



ALERTS

SMS Alerts:

PMASS gives SMS on the event of ;

- Continual Rejection
- Machine Stoppage / Down Time
- Preventive Maintenance / Mould Life
- Operator Delay
- Production Planning and Control/ for targeted production completion.

.....Etc.



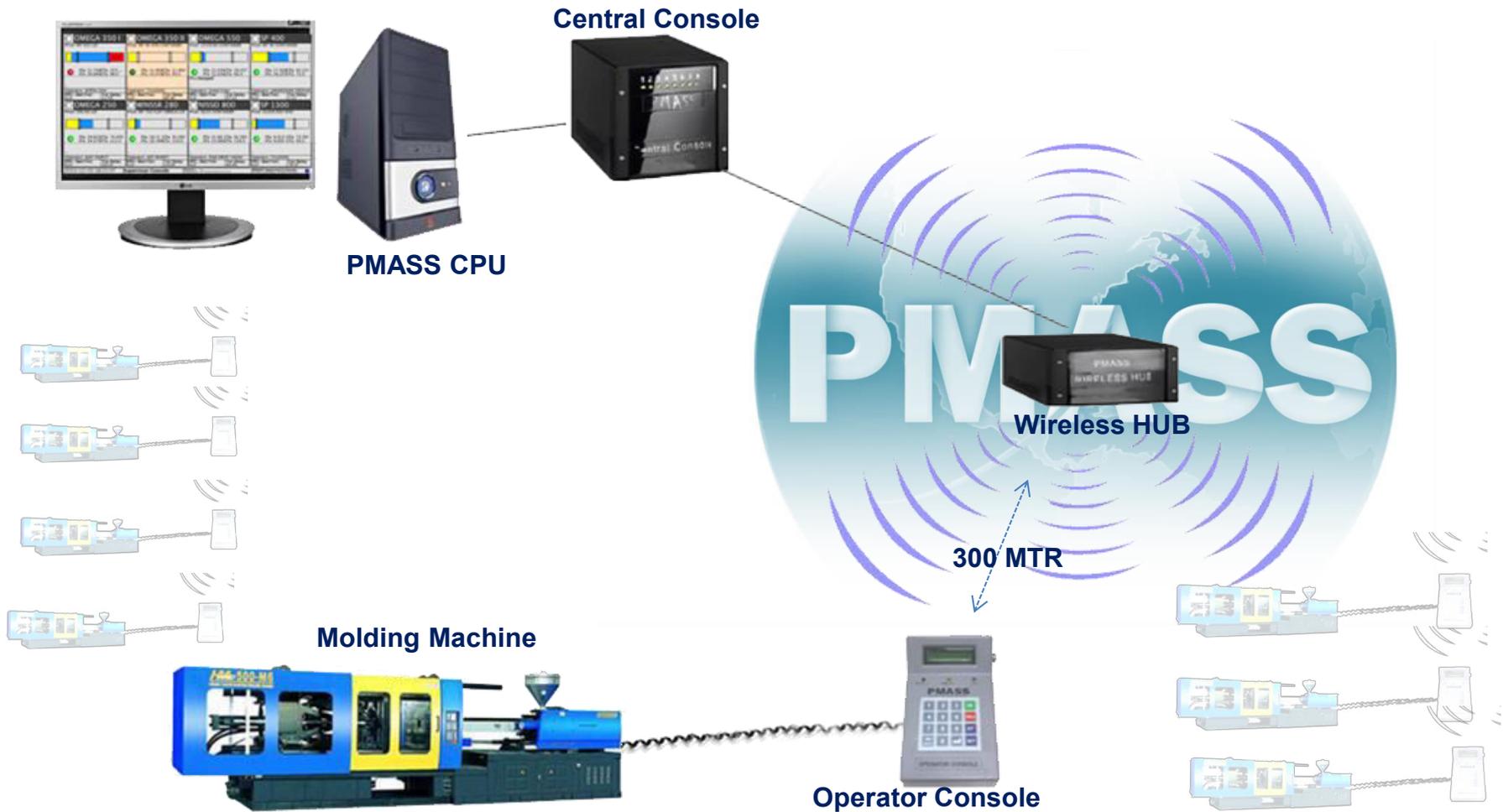
PMASS IS THE RIGHT DECISION FOR

Manufacturing Plants with Cycle-time based operations
(PLC/ Non-PLC oriented)

- Molding machine
- CNC – Machine
- Die Casting machine
- Forging
- Sheet metal
- Rubber Molding
- Welding
- Assembly Workstations
- Quality stations



CONNECTION

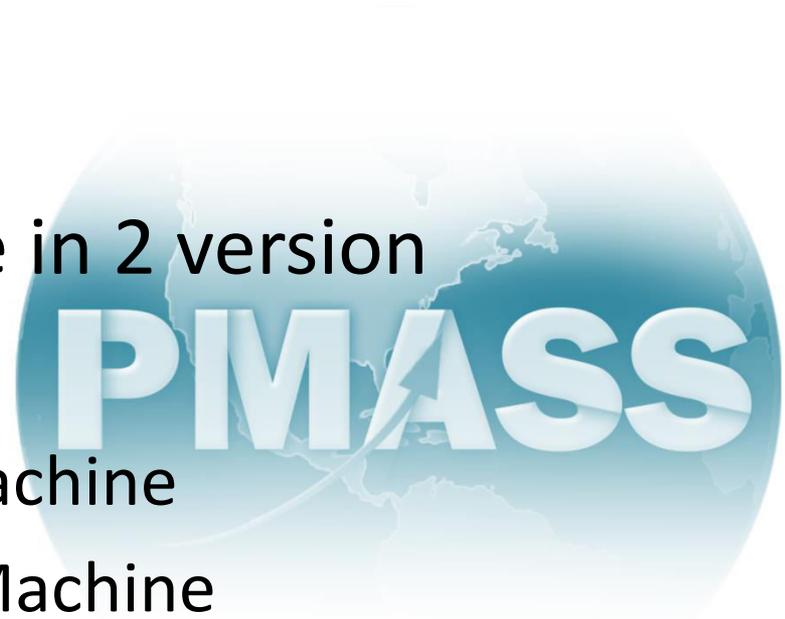


MAIN SCREEN for 8 IM Machines

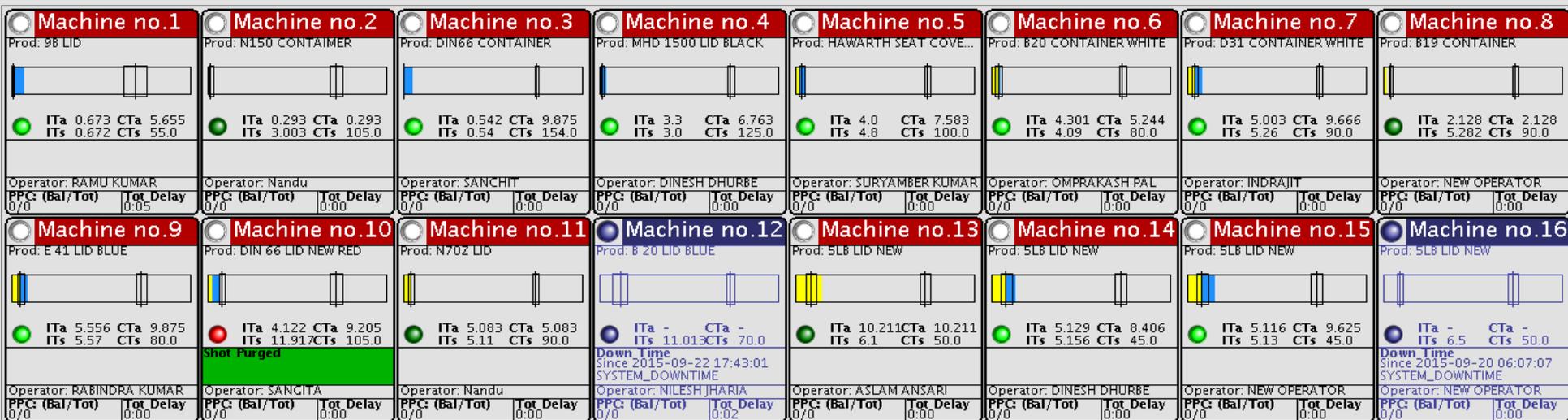
<p>OMEGA 350 I</p> <p>Prod: MF 40 ATB CONTAINER</p> <p>ITa 21.896CTa 54.264 ITs 17.225CTs 80.0</p> <p>Operator: Govind singh</p> <p>PPC: (Bal/Tot) 269/91 Tot Delay 34:52</p>	<p>OMEGA 350 II</p> <p>Prod: EK 22 EM 32 R COTAIN...</p> <p>ITa 39.709CTa 39.709 ITs 40.87 CTs 140.0</p> <p>Operator: Govind singh</p> <p>PPC: (Bal/Tot) 143/62 Tot Delay 287:00</p>	<p>OMEGA 550</p> <p>Prod: MF70Z CONTAINER(NEW)</p> <p>ITa 27.023CTa 78.989 ITs 28.903CTs 84.0</p> <p>Operator: Govind singh</p> <p>PPC: (Bal/Tot) 253/89 Tot Delay 12:01</p>	<p>SP 400</p> <p>Prod: EM 32 R CONTAINER</p> <p>ITa - CTa - ITs 15.809CTs 78.0</p> <p>Down Time Since 2015-02-12 11:24:59 SYSTEM_DOWNTIME</p> <p>Operator: RAJENDRA YADAV</p> <p>PPC: (Bal/Tot) 0/0 Tot Delay 0:00</p>
<p>OMEGA 250</p> <p>Prod: MF 50Z LID</p> <p>ITa 24.59 CTa 77.411 ITs 24.527CTs 75.0</p> <p>Operator: SUDARSHN KUMAR</p> <p>PPC: (Bal/Tot) 306/78 Tot Delay 20:52</p>	<p>WINDSOR 260</p> <p>Prod: DIN 55 LID</p> <p>ITa 32.291CTa 1039... ITs 30.735CTs 95.0</p> <p>-</p> <p>Operator: SANDIP RAJPUT</p> <p>PPC: (Bal/Tot) 285/18 Tot Delay 24:05</p>	<p>NISSEI 800</p> <p>Prod: N120 CONTAINER</p> <p>ITa - CTa - ITs 19.0 CTs 118.0</p> <p>Down Time Since 2015-02-12 11:24:59 SYSTEM_DOWNTIME</p> <p>Operator: TULSIDAS</p> <p>PPC: (Bal/Tot) 0/0 Tot Delay 0:00</p>	<p>SP 1300</p> <p>Prod: GLOVE BOX RHD</p> <p>ITa 9.013 CTa 3207... ITs 9.002 CTs 420.0</p> <p>-</p> <p>Operator: RAJKUMAR YADAV</p> <p>PPC: (Bal/Tot) 63/5 Tot Delay 0:00</p>

VERSION

- PMASS available in 2 version
 - PMASS for 8 Machine
 - PMASS for 16 Machine



MAIN SCREEN for 16 IM Machines



EXPANDED VIEW

for one selected IM Machine

OMEGA 350 I

Prod: MF 40 ATB CONTAINER



ITa 16.838CTa 3
ITs 17.225CTs 8

Operator: Govind singh

PPC: (Bal/Tot) 0/0
Tot D 37:59

OMEGA 350 II

Prod: MF 40 ATB CONTAINER



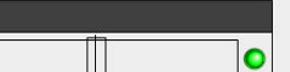
ITa 16.838CTa 3
ITs 17.225CTs 8

Operator: Govind singh

PPC: (Bal/Tot) 0/0
Tot D 37:59

OMEGA 550

Prod: MF 70Z CONTAINER(NEW)



ITa 28.903CTa 3
ITs 84.000CTs 2

Operator: Govind singh

PPC: (Bal/Tot) 0/0
Tot D 249:12

SP 400

Prod: MF 32 R CONTAINER



ITa - CTa -
ITs 15.809CTs 78.0

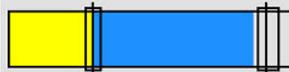
Time 2015-02-12 11:24:59
M_DOWNTIME

Operator: RAJENDRA YADAV

Bal/Tot) Tot Delay 0:00

OMEGA 250

Prod: MF 50Z LID



ITa 24.501CTa 7
ITs 24.527CTs 7

Operator: SUDARSHN KUMAR

PPC: (Bal/Tot) 0/0
Tot D 24:24

SP 1300

Prod: GLOVE BOX RHD



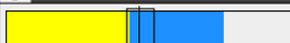
ITa 9.013 CTa 3799...
ITs 9.002 CTs 420.0

Operator: RAJKUMAR YADAV

Bal/Tot) Tot Delay 0:00

Console Details & Configuration

OMEGA 550



Current Cycle Details		PPC Details	
Injection Time (Actual):	26.778 s	Balance:	0
Cycle Time (Actual):	47.118 s	Total:	0
Delay Time:	0 s		
Cpk:	0.519		

Production Details		Mold Details	
Operator:	Govind singh	Name:	MF70Z CONTAIN...
Shift ID:	Shift 1	Cavity Count:	1
Total OK Qty:	378	Injection Time (Std):	28.903 ± 3.0 s
Total Rejected Qty:	2	Cycle Time (Std):	84.0 ± 2.0 s
Total Delay Time:	16:33	Cycle Time (Ideal):	79.598
		Balance Shots:	0
		Mold Material:	ABS
		Product Colour:	BLACK

Operator Messages

Set Parameters

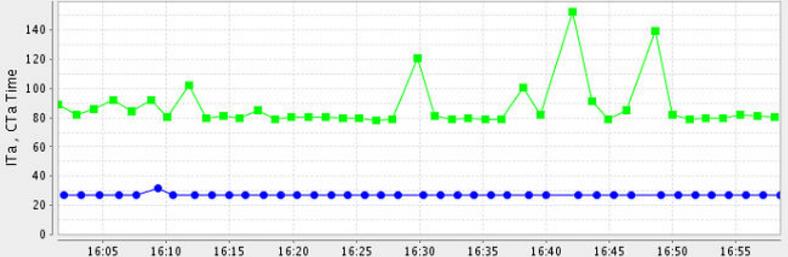
Operator: Govind singh

Mold: MF70Z CONTAINER(NEW)

ITs (sec): 28.903 IT Tol (sec): 3.000

CTs (sec): 84.000 CT Tol (sec): 2.000

Set



No of Shots: 40

Set

IT CT

Enter Name

Save Graph

ADVANTAGES

- **Getting accurate real time data:**

Online data can be reviewed anywhere.

- **Production Reports:**

No Manual Data Entry Required, so authentic data will be reflected on report .

- **Rejection Reports:**

PMASS Certifies the Product Online.

- **Operator Efficiency:**

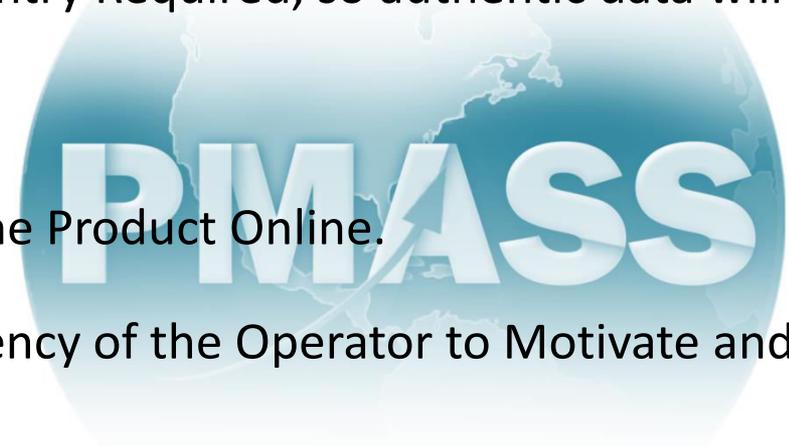
Displays the Efficiency of the Operator to Motivate and Assess the Team.

- **Manufacturing Cost & Material Accountability:**

This activity is done by PMASS as a system.

- **OEE:**

During every Shift the OEE is calculated by the System Automatically.



REPORTS & GRAPHS

Sr. No.	Reports	Machine	Product	Production	Delay Time	Down Time	Efficiency	Shift	Values	Raw material	Department	Operator	Purging
1	Hourly Production Report		✓	✓	✓	✓							
2	Shift wise production Report	✓	✓	✓	✓	✓	✓	✓					
3	Daily Production Report	✓	✓	✓	✓	✓	✓						
4	Daily Production Analysis Report	✓	✓	✓	✓	✓		✓		✓			
5	Downtime Report for Management	✓	✓					✓					
6	Downtime Report Department wise	✓				✓		✓			✓		
7	Rejection Analysis Report	✓	✓	✓									
8	Material Reconciliation Report	✓		✓				✓		✓			✓
9	Variation in Standard Report	✓	✓	✓									
10	Operator Performance Report	✓	✓		✓		✓					✓	
11	OEE Report	✓				✓	✓	✓					

Sr.No	Graphs	Date	Machine	Product	Ok Qty	Rejected Qty	Target Qty	Downtime	Department	Production Efficiency	Available Time Efficiency	Quality Time Efficiency	OEE Efficiency	Value
1	Hourly Production Graph	✓	✓		✓	✓								
2	Shift wise Production Graph	✓	✓		✓	✓								
3	Shift wise Production Performance Graph	✓	✓	✓	✓	✓	✓							
4	Daily Production Analysis Date wise Production vs. Rejection Graph	✓	✓		✓	✓								
5	Daily Production Analysis Date wise Plan vs. Actual Graph	✓	✓	✓	✓	✓	✓							
6	Downtime Machine wise Graph	✓	✓					✓						
7	Downtime Machine wise Contribution Graph	✓	✓					✓						
8	Downtime Department wise Graph	✓						✓	✓					
9	Downtime Loss Analysis All Machine Graph	✓	✓											✓
10	Rejection Analysis Product wise Graph			✓		✓								
11	Rejection Analysis Product Graph	✓		✓		✓								
12	Rejection Analysis Machine Graph	✓	✓			✓								
13	Rejection Analysis Machine wise Graph	✓	✓			✓								
14	Pareto Analysis Product Graph	✓		✓		✓								
15	Pareto Analysis Downtime Graph	✓	✓					✓						
16	Pareto Analysis Machine wise Graph	✓	✓			✓								
17	Production Efficiency for Machine Graph	✓	✓							✓				
18	Available Time Efficiency for Machine wise Graph	✓	✓				✓				✓			
19	Available Time Efficiency Date wise Graph	✓					✓				✓			
20	Quality Time Efficiency Machine wise Graph	✓	✓				✓					✓		
21	Quality Time Efficiency Date wise Graph	✓					✓					✓		
22	OEE Machine Efficiency Graph	✓	✓				✓						✓	
23	OEE Date wise Graph	✓					✓						✓	

**PMASS USES PATENTED METHOD
AND ALL RIGHTS ARE WITH ATTWIN
TECHNOLOGIES PVT. LTD..**



Patent No : 271090

CONTACT DETAILS



Attwin Technologies Pvt. Ltd.

Tara Heights, Wakdewadi, Pune-411005,

Maharashtra, India,

:



: +9822343408



: salse@attwin.com

Visit us

: www.attwin.com



Thanks for your valuable time.

www.attwin.com