Run @ Rate / OEE Analysis

Part #:
Supplier:
Location:

Revision:
Supplier #:

Supplier Quoted Production Rate: per Hour / per Day

Number of Machines Available:
Number of Molds Available:
Number of Cavities per Mold:

Planned Run Date:
Planned Shifts:
Planned Downtime: Minutes

Planned Hours to Run:

Reason(s) for Planned Downtime:

Results

Date:
Actual Minutes: Enter Start Time
Actual Downtime: Minutes
Detail Downtime (Planned/Unplanned):

Actual Shifts:
From: To:

Total Produced: Total Rejected: ACTUAL

Comments:

Supplier Run@Rate Recommendation:

Actions	Responsible	Due Date	Status

Overall Equipment Effectiveness (OEE)

Shift Length		Hours	0	Minutes		
Breaks		Breaks		Minutes Each		Minutes Total
Lunch Break		Breaks		Minutes Each		Minutes Total
Down Time		Minutes				
Ideal Run Rate		Pieces per Minute				
Total Pieces						
Reject Pieces						

Planned Production Time	Shift Length - Breaks		Minutes
Operating Time	Planned Production Time - Down Time		Minutes
Good Pieces	Total Pieces - Reject Pieces	0	Minutes

Availability	Operating Time / Planned Production Time	
Performance	(Total Pieces / Operating Time) / Ideal Run Rate	
Quality	Good Pieces / Total Pieces	
Overall OEE	Availability x Performance x Quality	

OEE OPTIONAL

SDI/Daicel Disposition:

SDE/QE Signature

Date

PASS	ACCEPT	OPTIONAL		
REJECT	REJECT	REQUIRED		

The Formulas

As described in World Class OEE, the OEE calculation is bas

Availability

Availability takes into account **Down Time Loss**, ar

Availability *= Operating Time / Planned Productio*

Performance

Performance takes into account **Speed Loss**, and is

Performance *= Ideal Cycle Time / (Operating Tim*

Ideal Cycle Time is the minimum cycle time that you

Since Run Rate is the reciprocal of Cycle Time, *Perfo*

Performance *= (Total Pieces / Operating Time) /*

Performance is capped at 100%, to ensure that if ar

Quality

Quality takes into account **Quality Loss**, and is calc

Quality *= Good Pieces / Total Pieces*

OEE

OEE takes into account all three **OEE Factors**, and

OEE *= Availability x Performance x Quality*

It is very important to recognize that improving OEE

OEE Factor	Shift 1	Shift 2
Availability	90.00%	95.00%
Performance	95.00%	95.00%
Quality	99.50%	96.00%
OEE	85.10%	86.60%

Superficially, it may appear that the second shift is

The beauty of OEE is not that it gives you one magi

Example OEE Calculation

The table below contains hypothetical shift data, to

Item	Data
Shift Length	8 hours = 480 min.
Short Breaks	2 @ 15 min. = 30 min.
Meal Break	1 @ 30 min. = 30 min.
Down Time	47 minutes
Ideal Run Rate	60 pieces per minute

Total Pieces	19,271 pieces			
Reject Pieces	423 pieces			
Planned Production Time				
	420			
	= 420 minutes			
Operating Time				
	373			
	= 373 minutes			
Good Pieces				
	= 19,271 - 423			
	= 18,848 pieces			
Availability				
	= 373 minutes / 420 minutes			
	= 0.8881 or 88.81%			
Performance				
	= (19,271 pieces / 373 minutes) / 60 pieces per minute			
	= 0.8611 or 86.11%			
Quality				

	= 18,848 / 19,271 pieces			
	= 0.9780 or 97.80%			
OEE				
	= 0.8881 x 0.8611 x 0.9780			
	= 0.7479 or 74.79%			