



IMPAX TSS OEE Suite

A new set of OEE screens is now available in the latest software version for Impax TSS Monitors. Each machine's Overall Equipment Effectiveness is calculated by shift and by day. Real-time display of a machine's Availability, Performance, and Quality will inform managers as to what types of problems really exist on the shop floor. All of the data can be collected via TSS-NET for more in-depth evaluation and analysis.

RUNNING	SHIFT OEE: OVERALL EQUIPMENT EFFECTIVENESS		09:24 AM 05/10/10
SHIFT AVAILABILITY PERCENT		SHIFT PERFORMANCE PERCENT	
65.0%		60.6%	
SHIFT QUALITY PERCENT		SHIFT OEE	
99.2%		38.9%	
<	DATA	COUNTERS	>

This screen displays the **SHIFT OEE** values for the machine. The Shift OEE is calculated by multiplying the Availability Percent, the Performance Percent, and the Quality Percent. These real-time values are continuously available to operators and managers on the shop floor as well as to other management staff through TSS-NET.

RUNNING	DAILY OEE: OVERALL EQUIPMENT EFFECTIVENESS			09:26 AM 05/10/10
SHIFT	AVAILABILITY	PERFORM.	QUALITY	OEE
1 OEE	100.0%	60.0%	100.0%	60.0%
SHIFT 2 OEE	65.8%	60.6%	99.2%	39.4%
SHIFT 3 OEE	0.0%	0.0%	0.0%	0.0%
TOTAL OEE	94.8%	60.0%	99.9%	56.7%
<	DATA	COUNTERS	>	

This screen displays a machine's **DAILY OEE** values for each shift and then provides the overall daily OEE total for the machine. OEE is tracked in real-time for each shift, the day as a whole, and for the current job.

RUNNING	INSTANT EFFICIENCIES			09:28 AM 05/10/10		
CURRENT RPM	IDEAL RPM	INSTANT RPM EFFICIENCY	INSTANT FEED EFFICIENCY (PPM / RPM)			
60	100	60.0%	100.0%			
CURRENT PPM	IDEAL PPM	INSTANT PPM EFFICIENCY				
60	100	60.0%	<	DATA	COUNTERS	>

This screen provides **INSTANT EFFICIENCIES** for the machine. First, it compares the Current RPM and PPM values to the Part's Ideal RPM and PPM values giving the respective Instant Efficiencies. If a machine is not running at the Part's Ideal Speed, productivity can be significantly impaired, and this situation is common with variable speed drives. Second, if a machine cycles, but does not produce a part, the feed efficiency diminishes. This, too, can seriously impair productivity.



RUNNING	DAILY AVAILABILITY EFFICIENCIES		09:28 AM 05/10/10
	UPTIME	TOTAL TIME	PERCENT
SHIFT 1 TIME	480	480	100.0%
SHIFT 2 TIME	58	87	66.6%
SHIFT 3 TIME	0	0	0.0%
TOTAL TIME	538	567	94.8%
< DATA COUNTERS >			

This screen displays the **DAILY AVAILABILITY EFFICIENCIES** by Shift for the machine. Each Shift's Uptime is compared to the Shift's Total Time and is updated minute-by-minute during each shift. Notice on Shift 2, the Total Time was 87 minutes and the Uptime was 58 minutes giving a 66.6% Efficiency Rating. The Daily Total Time Percent is then calculated.

RUNNING	DAILY PERFORMANCE EFFICIENCIES		09:29 AM 05/10/10
	ACTUAL VALUE	TARGET VALUE	PERCENT
SHIFT 1 PERFORM.	28803	48000	60.0%
SHIFT 2 PERFORM.	3577	5900	60.6%
SHIFT 3 PERFORM.	0	0	0.0%
TOTAL PERFORM.	32380	53900	60.0%
< DATA COUNTERS >			

This screen displays the **DAILY PERFORMANCE EFFICIENCIES** by Shift for the machine. Comparing how many parts were actually produced to how many parts could have been produced on each shift gives you the Efficiency Percent. These values are updated minute-by-minute on the machine. A similar screen tracks machine cycles.

RUNNING	DAILY QUALITY EFFICIENCIES		09:31 AM 05/10/10
	PRODUCTION	SCRAP	PERCENT
SHIFT 1 QUALITY	28803	0	100.0%
SHIFT 2 QUALITY	3701	25	99.3%
SHIFT 3 QUALITY	0	0	0.0%
TOTAL QUALITY	32504	25	99.9%
< DATA COUNTERS >			

The **DAILY QUALITY EFFICIENCIES** Screen displays the Quality Percent for each shift. This value is calculated by subtracting the scrap parts from the produced parts, and then dividing the remaining number by the produced parts. Scrap can be automatically tracked by the TSS, or entered manually by the operator.

RUNNING	CURRENT SESSION EFFICIENCIES		PART NUMBER RS
	ACTUAL VALUE	TARGET VALUE	PERCENT
AVAILABILITY	159	169	94.0%
PERFORM.	9591	16900	56.7%
CYCLES	9590	16900	56.7%
FEED	9591	9590	100.0%
QUALITY	99.7%	OEE:	53.0%
CURRENT SESSION MENU			

The **CURRENT SESSION EFFICIENCIES** Screen shows the percent values for six metrics for a particular part: Availability, Performance, Cycles, Feed, Quality, and OEE. By capturing and evaluating this data, a manager can truly discover if a part is a profitable or non-profitable part, and which metric needs to be addressed to make it a more profitable part.