

# Line Control Training Manual



Above is a Screenshot of what our performance measuring screen looks like. In this guide we will take you through our unit and leave you with the ability of operating it





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## PERMA



Menu	(	Crusher L	ine 1			
Work Element	[			-	<	>
Operator				-	<	>
Shift	Sunday Day (07:	30-17:00)		-		
Units: 0 Current Date: 0 Lost Time in: 1	06 Nov 2016 12:5	5:24	Target Time Produced Time 0	0%		
Last Reason:			Utilisation	(	0%	
Deactivate Sensor	*	START	Efficiency		0% 0%	

Above is a Screenshot of what our performance measuring screen looks like. In this guide we will take you through our unit and leave you with the ability of operating it.

Your workstation will be shown at the top of the screen, this is the line where the unit is setup. (eg. Crusher Line 1)

#### Description

Line Controls measures quantity of work elements produced over specific shift. The work elements are measured live, by various methods e.g. sensor that send a pulse to the unit.

### Benefits

Internet Connectivity





These short Interval controls ensure that we fix operation issues when the occur, and not long after the events

Linked to Per4ma where all set-ups are done against:

Shifts

Operators

Work Elements and set standards

Live information can be display at the workstation or other areas such as offices or War rooms

Recording of Lost Time that can be set up on Per4ma by Category and Description.

Audio ability to ensure that all Lost Times area recorded.

Detailed report is available on Per4ma.

### **Operator Responsibilities**

#### Work Element Selection

On the start of the shift, the operator is required to select what Work element/product that they are producing.

This can be done by either selecting the dropdown box arrow on the touch screen and selection the appropriate product or using the side arrows till the appropriate product is found.

Menu	Crusher Lir	ne 1		
Work Element	Product1 - Product1		~ <	
Operator			~ <	>
Shift	Sunday Day (07:30-17:00)		~	
Units: 0		Target Time	0%	0
Current Date: 0	06 Nov 2016 12:55:36 P	roduced Time 0		
Lost Time in: 1	20	Lost Time 0		
Last neason.		Utilisation	0%	
Deactivate Sensor	START	Efficiency	0%	
1.0.57		ORE	0%	





#### Select the operator name/code

This can be done by either selecting the dropdown box arrow on the touchscreen and selection the appropriate operator or using the side arrows till the appropriate operator is found.

Work Element	Product1 - Product1	.ine 1		
Operator	Jarryd - Jarryd		~ <	>
Shift	Sunday Day (07:30-17:00)	*		
Units: 0 Current Date: 0 Lost Time in: 1 Last Reason:	06 Nov 2016 12:55:47 20	Target Time Produced Time 0 Lost Time 0 Utilisation	0%	0
Deactivate Sensor	START	Efficiency ORE	0% 0%	

#### Shift Selection

The current shift available will be shown under shift. If there is a situation whereby there are different shifts available. The operator must select the appropriate shift they are working using the dropdown box.

Menu	Crusher Li	ne 1	-					
Work Element	Product1 - Product1		Product1 - Product1		t Product1 - Product1	duct1 - Product1 - < >		>
Operator	Jarryd - Jarryd		~ <	>				
Shift	Sunday Day (07:30-17:00)		~					
Current Date: 0	06 Nov 2016 12:55:47	Target Time	0%	0				
Lost Time in: 1	20	Lost Time 0						
Last Reason:		Utilisation	0%					
Deactivate Sensor	START	Efficiency ORE	0% 0%					





Once the above 3 steps have been followed the operator must select START on the screen, the button will change to STOP if it has been initialized and is running. The Green stacked light will be on.

Menu	Crusher Line 1	
Work Ele	ment Product] - Product]	
Operator	Torond - Torond	
openity	Sariyu - Sariyu	
Shift	Sunday Day (07:30-17:00)	~
Units: 0	Target Time	0% 0
Lost Time	e in: 120	
Last Rea	son: Lost time o	0%
	CTADT Efficiency	0%
Deactivate S	START ORE	0%
	2	
	and the second	
Menu	Crusher Line 1	
Work Flowert		
work Element	Product1 - Product1	
Operator	Jarryd - Jarryd	× < >
Shift	Sunday Day (07:30-17:00)	
Units: 30		
Current Date: 0	6 Nov 2016 12:57:06	46% 450
Lost Time in: 1	04 Produced Time 1.	.5
Last Reason: S	afety Checks (205)	05
	Utilisation	0%
Deactivate Sensor	STOP Efficiency	100%
1.0.57	ORE	1%

The unit is now running and will continue like this until the line is stopped or running below the standard that it should be. The operator will be prompted with a down time/lost time screen.







#### Alarm functionality

#### Down Time

The Alarm will start going and the Red stacked light will be on until a Down Time reason is selected.

The column on the left is the list of down time categories, by selecting one of the above an additional list will be shown on the right. These are the Down time reasons, once the operator selects the appropriate reason the alarm will be switched off and the red light will stay on until the line begins again.



Once the Line begins again the green stacked light will go on and the Line Control Unit will return to the main screen below.







## Line Control Graph Display

Sign into Per4ma. At this stage ensure that the Line Control has recorded some data to show results on your display (These displays could be a TV or Computer Screen)

Follow your menu in Per4ma to the level you require (Section.... WorkCentre...)

The click on the Icon that is circled on the bottom picture



Now you see the actual display of how the Machine, Operator or team performed.



## DIZANI



#### Display levels

Section Level. At this level Per4ma will display all Line Controls recording into a single graph. Take note of the " Counters" at the bottom. These are indicators of the what the Main Graph

included.

#### ADD PICTURE

Work Centre Level. At this level Performer will only display a single Line Control result. No series of bottom " Counters"

As you can see on the picture below – Graph at the top with averages of Efficiency, Utilisation and ORE



### Maintenance Mode

This is used in situations where there is a planned stoppage and deactivation of the sensor is required, in order not to count extra units. Eg. Dry



Select the bottom Left button DEACTIVATE SENSOR, you will be prompted with a confirmation screen.





Once confirmed the unit will go into a similar down time screen whereby the Down time needs to be selected as previously stated. Only difference being that once the Maintenance has been done. The operator needs reactivate the sensor by selecting the Complete button at the top of the down time screen.

ost Time Count: 18	Maintenance Complete	
skom	Dressing Wheel	
Machine	Full change over	
people	Grinding wheel change over	
Production	miguel	
luality	Other Delay	
pindle Borer	Paperwork	
Jtilities	Part Changeover	
	Purging line	
	Thinwall Delay	
	Tool change and minor adjust	
	Unassigned	

Troubleshooting & Updating the unit.





- This is the main desktop screen of the Unit, if this screen is ever encountered please triple tap
  - on the icon named Per4ma Line Control. It will initiate the program.
- If a Software update is required on the unit simply triple tap on the Update P4LC icon on the screen, once the update is completed the program will initialise.

Internet issues, downloading changed data/parameters & exiting of the program will be discussed with the appropriate managers.

### **Technical Information**

Line Control Sensor Wiring

Sensor Cable and Connector:

- 1. 24V sensor supply to Line Control used to count
- 2. 12V sensor supply to Line Control used to count
- 3. 0V/Neutral
- 4. 12V Live supply from Line Control- used to power a sensor or switch

SENSOR INDICATORS



Sensor Port on Line Control:

- 1. 24V sensor supply to Line Control used to count
- 2. 12V sensor supply to Line Control used to count
- 3. 0V/Neutral
- 4. 12V Live supply from Line Control- used to power a sensor or switch



## P = R - M A