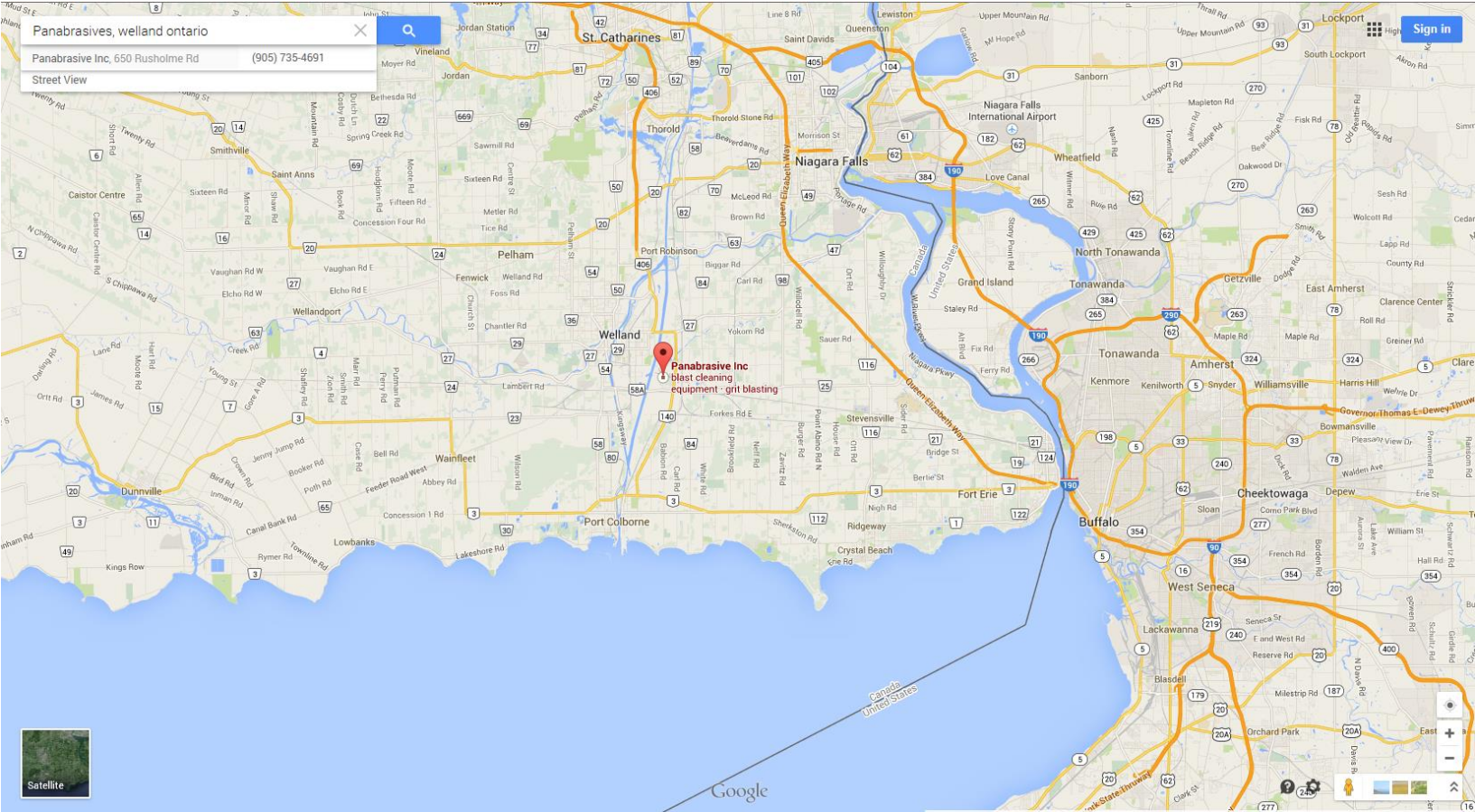


Who we are.....

- Pan Abrasive is a producer of steel shot and grit.
- Head office in France with subsidiaries located around the world.
- The North American operations consist of the Welland, Ontario facility and a plant in Bedford, Virginia.
- Each plant employs about 60 people.



Where we are.....



wabrasives.com



W Abrasives®
your key success factor

a brand of
winoa

Street View.....

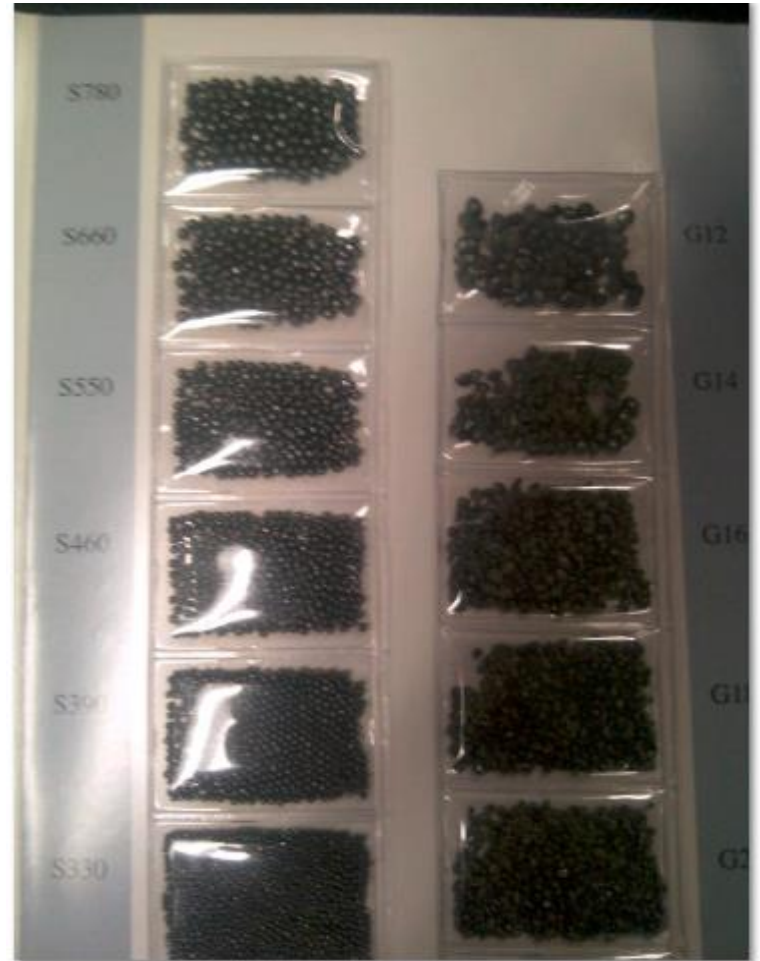
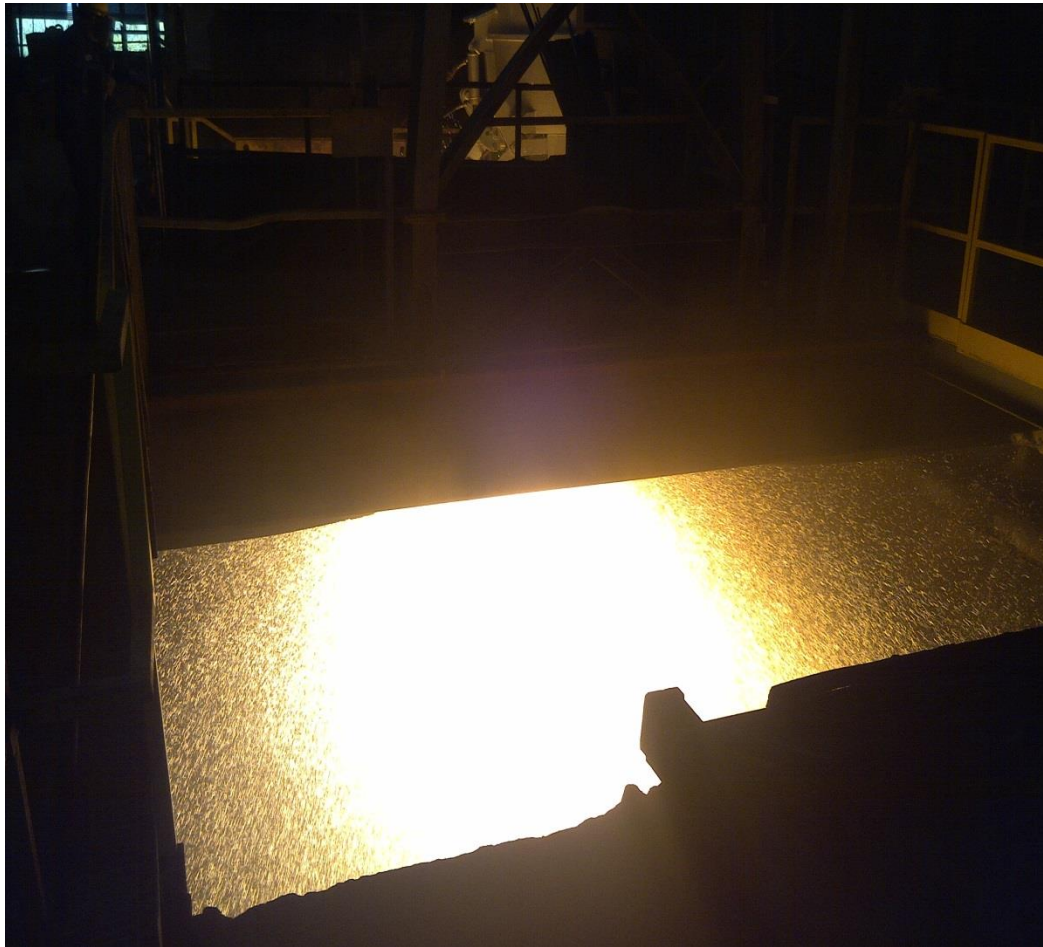


What we do.....

- At both plants we process scrap steel through a 3 phase arc furnace to produce a molten bath then atomize that bath with water
- This product is then separated by shape and size.
- The round product is called shot and the irregulars will be crushed and turned into grit.
- Within each category it will then be separated by size again.
- The product is then dried, hardened, and tempered before packaging



Picture of Shot and Grit.....



wabrasives.com

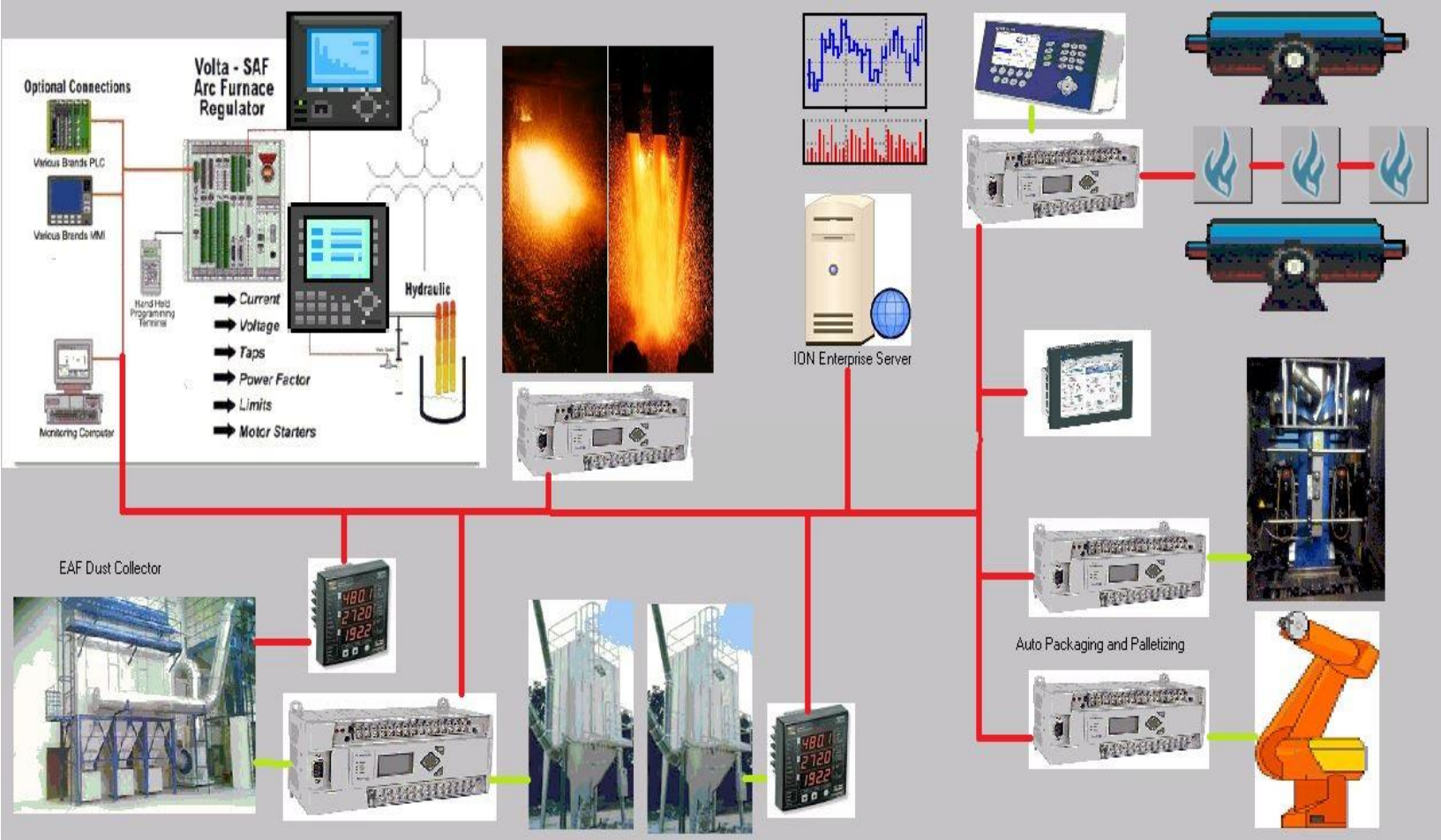
- Melt shop – 3 phase, 8.8MVA transformer with 10 inch carbon electrodes
- Heat treating: natural gas fired rotary furnaces used for drying, hardening and tempering of the product
- Packaging is accomplished by an automated form fill and seal bagging system, manual drumming and super sack.



- Plant production Visualization
- Report generation
- Historical data



Network at a Glance.....




Vista - Network Diagram....

File Edit View Favorites Tools Help

[Bedford AutoPack Printer](#)
[PNB AutoPack Printer](#)
[Tempering Furnaces](#)
[Bedford AutoPack](#)
[NODCWS](#)
[Suggested Sites](#)
[Web Slice Gallery](#)
[Enbridge Gas Distribution ...](#)

PanAbrasive inc.
www.panabrasive.com

PanAbrasive Plant Metering



EAF 7500 ION Meter

EAF Overview


Lab Data


Pumphouse


Baghouse

BagHouse Motor ION Meter

Atomization

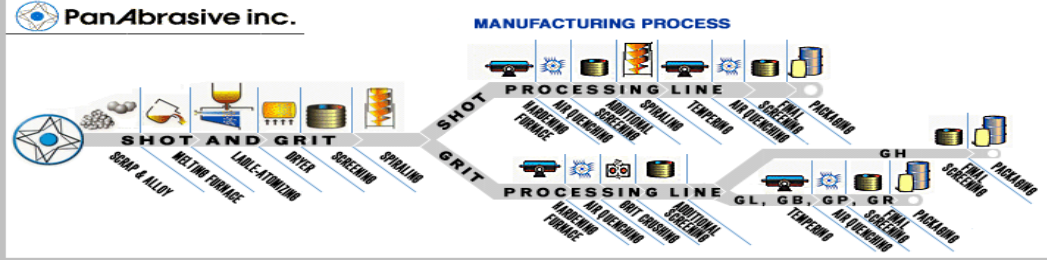



Gas Meter


Furnace Primary

USER3_226

PanAbrasive inc.



MANUFACTURING PROCESS

SHOT AND GRIT


SCRAP & ALLOY, MELTING FURNACE, LAB-TESTING, DRYER, SCREENING, SPIRALING, GRIT


SHOT PROCESSING LINE

HEATING FURNACE, AIR DRYING, ADDITIONAL SCREENING, SPIRALING, TEMPERING, FINAL SCREENING, AIR DRYING, PACKAGING

GRIT PROCESSING LINE

HEATING FURNACE, AIR DRYING, HOT COUSING, FUNCTIONAL SCREENING, TEMPERING, GL, GB, GP, GR, FINAL SCREENING, AIR DRYING, PACKAGING


Ontario Demand


Market Dashboard - Ontario

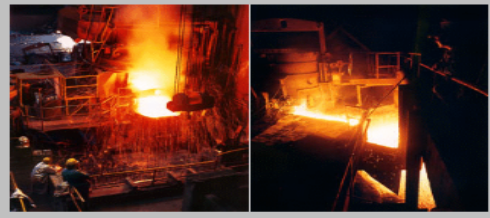
[Link to Real Time IESO Market Data](#)

EAF Operations.....

EAF Operation Overview

Real Time EAF Power Consumption

	-A-	-B-	-C-	-Avg / Total -
VOLTAGE L-N	177 V	157 V	168 V	167 V
VOLTAGE L-L	272 V	275 V	286 V	277 V
CURRENT	14,251 A	16,060 A	15,096 A	15,136 A
KW	2,016 kW	2,182 kW	2,242 kW	6,440 kW
KVAR	584 kVAR	550 kVAR	451 kVAR	1,585 kVAR
KVA	2,526 kVA	2,529 kVA	2,532 kVA	6,632 kVA
POWER FACTOR	-79.8 %	-86.3 %	-88.6 %	-97.1 %
REFRACTORY INDEX	33.2 %	31.9 %	34.9 %	



Real Time EAF Statistics

CURRENT PRI KWH	1,824 kWh	CURRENT HEAT TIME	58.5 `min
KWH / min	120 kWh	POWER ON TIME	16.5 `min
LAST BATH TEMP. (F)	3,058 F	DELAY TIME	1.8 `min
TRANSFORMER TEMP.	47.7 C	TURNAROUND TIME	40.3 `min
GUN MACHINE	OFF	NUMBER OF HEATS	7
PIT CRANE DROPS/SHIFT	10	Pit Crane Mode	Auto
PIT CRANE DROPS/DAY	51	Pit Crane Cycle Timer	-319 sec
		Pit Crane Pause	OFF
		Drip Time Preset	400
		Drip Time Acc	0

Trending

- Heat Data :
- Shift Reports :
- Voltage :
- Current :
- Power :
- TX Temp :
- Bath Temp Log :
- Gunning Machine :
- kWh / Minute :
- Regulator Log :
- Pit Crane Drops :

Pulpit Display
 KW Demand Trend
 Preheater Data
 Initiate SAF Log - 24hrs only
 Pit PLC

Equipment.. Pit Crane Operations



Network Diagram

EAF Overview

Lab Data

Atomization

BagHouse

IESO Data

Pit Crane Hoist Motor OL : Off

Pit Crane Hoist Upper Crash LS : Off

Pit Crane Trolley Fwd LS : Off

Pit Crane Hoist Upper LS : Off

Man Request - Trolley Fwd : Off

Man Request - Up : Off

Auto Request - Trolley Fwd : Off

Auto Request - Hoist Up : Off

Man Request - Trolley Rev : Off

Auto Request - Trolley Rev : Off

Pit Crane Trolley North LS : Off

Pit Crane Trolley South LS : Off

Auto Request - Mag Drop : Off

Man Request - Mag Drop : Off

Drop Time Preset 400 sec

PIT CRANE DROPS/SHIFT 0

Drop Time Actual 0 sec

PIT CRANE DROPS/DAY 0

Grizzly OL : Off

Grizzly Run Fbk : Off

Grizzly OL2 : Off

North Bin Vib Run Fbk : Off

South Bin Vib Run Fbk : Off

North Bin Vib OL : Off

South Bin Vib OL : Off

Material In North Bin : Off

Material In South Bin : Off

Man Request - Hoist Down : Off

Auto Request - Mag Lift : Off

Man Request - Mag Lift : Off

Auto Request - Hoist Down : Off

Pit Crane Hoist Lower LS : Off

Pit Crane Hoist Slack LS : Off

Pit Crane Auto Mode

Cycle Pause

Pit Crane Auto Pause Disabled

Trolley Mode - North Bin

Trolley Mode - Both Bins

Trolley Mode - South Bin

Trolley Mode - Maintenance Mode

Grizzly Mode - Auto

Grizzly Mode - Manual

North V Bin Mode - Auto

South V Bin Mode - Auto

North V Bin Mode - Manual

South V Bin Mode - Manual

M211 Mode - Auto

M211 Mode - Manual

M212 Mode - Auto

M212 Mode - Manual

M211 Running Fbk : Off

M212 Running Fbk : Off

M211 Overload : Off

M212 Overload : Off

M211 Zero Speed Sw : Off

M212 Zero Speed Sw : Off

M213 Zero Speed Sw : Off

Ermat Conveyors Local/Remote Control : On

Ermat Dryer Temp Too Low : On

wabrasives.com



Lab data....

File Edit View Favorites Tools Help
 Bedford AutoPack Printer PNB AutoPack Printer Tempring Furnaces Bedford AutoPack NODCWS Suggested Sites Web Slice Gallery Enbridge Gas Distribution ...

PanAbrasive inc.

Drying, Hardening, and Tempering

Mag Drops/Shift
11

South Conveyor
100.00

North Conveyor
100.00


Ermat Furnace

DC#2 Starter Running : On DC#3 Starter Running : On

Ermat Gas Flow : 119

Above Bed Temp. 126 F Below Bed (North)Temp. 327 F

Chamber Temp. 243 F Below Bed (East)Temp. 316 F



Ermat Dryer

Tempering Furnaces

TG1 Gas Flow : 0

Charge Temp. 119 F Discharge Temp. 123 F

Temper Grit #1

NS Hrs 0.00 Hrs DS Hrs 8.00 Hrs AS Hrs 1.45 Hrs

TG2 Gas Flow : 54

Charge Temp. 839 F Discharge Temp. 1,049 F

Temper Grit #2

NS Hrs 0.00 Hrs DS Hrs 2.07 Hrs AS Hrs 4.62 Hrs











Temper Shot Gas Flow : 81

Charge Temp. 889 F Discharge Temp. 1,116 F

Temper Shot

NS Hrs 8.00 Hrs DS Hrs 8.00 Hrs AS Hrs 8.00 Hrs

Trending

-  HF/TF Shift Report
-  Ermat
-  Ermat History
-  Hardening Gas
-  Hardening Hourly
-  HF1 Daily Total
-  HF2 Daily Total
-  Tempering Gas
-  Tempering Hourly
-  Tempering Daily Totals

Hardening Furnaces

Live Wt	Drop Count	Ave Wt	Day Run Time	Furnace Rotation
40.900 lbs	0	0.000 lbs	10.264 Hrs	ON

HF#1 Gas Flow : 103

Pre-Day Wt	Daily Wt	Charge Temp.	Discharge Temp.
47,209.73 lbs	60,594.39 lbs	1,312 F	1,361 F
23.024 Tons	30.297 Tons		

Crush Hardening Furnace

Live Wt	Drop Count	Ave Wt	Day Run Time	Furnace Rotation
39.800 lbs	0	39.616 lbs	10.257 Hrs	ON

HF#2 Gas Flow : 71

Pre-Day Wt	Daily Wt	Charge Temp.	Discharge Temp.
45,431.59 lbs	58,512.54 lbs	962 F	1,135 F
22.716 Tons	29.256 Tons		

Shot Hardening Furnace


Network Diagram

EAF Overview

Baghouse

Atomization

Link to Real Time IESO Market Data

 Gas Meter

Drying, Hardening, and Tempering Historical Data..

File Edit View Favorites Tools Help

Bedford AutoPack Printer
 PNB AutoPack Printer
 Tempering Furnaces
 Bedford AutoPack
 NODCWS
 Suggested Sites
 Web Slice Gallery
 Enbridge Gas Distribution ...

HMI.Magelis

Device Diagram

Change Date Range

Show Graph

Timestamp	HF1_Shift_Wt	HF1_Shift_Tmr	HF2_Shift_Wt	HF2_Shift_Tmr	TS_Shift_Wt	TS_Shift_Tmr	TG1_Shift_Wt	TG1_Shift_Tmr	TG2_Shift_Wt	TG2_Shift_Tmr
09/05/2014 7:01:01.000 AM	23.605	8.007	22.815	8.000	41.818	8.000	3.587	1.450	0.000	0.000
08/05/2014 11:01:00.000 PM	23.024	8.000	22.716	8.000	41.679	8.000	25.437	8.000	6.621	2.067
08/05/2014 3:01:00.000 PM	23.025	8.000	22.738	8.000	42.419	8.000	16.304	6.200	6.621	2.067
08/05/2014 7:01:00.000 AM	22.867	8.000	18.254	6.417	6.912	1.250	9.053	3.517	0.000	0.000
07/05/2014 11:01:00.000 PM	23.090	8.000	0.000	0.000	0.000	0.000	11.262	3.333	2.815	1.150
07/05/2014 3:01:00.000 PM	23.223	8.000	13.772	4.847	22.798	5.017	17.677	5.217	16.536	5.133
07/05/2014 7:01:01.000 AM	23.138	8.000	21.155	7.646	43.470	8.000	0.861	0.283	16.536	5.133
06/05/2014 11:01:00.000 PM	23.027	8.000	22.831	8.000	42.791	8.000	25.642	8.000	0.000	0.000
06/05/2014 3:01:00.000 PM	23.370	8.000	22.830	8.000	43.156	8.000	15.855	6.150	15.745	6.333
06/05/2014 7:01:01.000 AM	22.899	7.979	22.813	8.007	43.429	8.000	18.576	5.983	15.745	6.333
05/05/2014 11:01:00.000 PM	21.740	7.986	21.946	7.993	42.835	8.000	22.934	7.067	8.305	3.417
05/05/2014 3:01:00.000 PM	21.530	8.000	21.558	8.000	43.541	8.000	8.993	2.800	8.305	3.417
05/05/2014 7:01:01.000 AM	16.773	6.194	12.179	4.514	15.947	2.783	0.000	0.000	0.000	0.000
04/05/2014 11:01:00.000 PM	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
04/05/2014 3:01:00.000 PM	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
04/05/2014 7:01:01.000 AM	0.000	22.438	0.000	22.451	0.000	0.000	0.000	0.000	0.000	0.000
03/05/2014 11:01:00.000 PM	0.000	0.000	0.000	0.000	0.000	0.000	26.532	10.783	0.000	0.000
03/05/2014 3:01:00.000 PM	0.000	0.000	0.000	0.000	71.062	13.250	16.269	6.567	24.907	9.467
03/05/2014 7:01:01.000 AM	0.000	22.438	0.000	22.451	43.063	8.000	16.269	6.567	21.139	7.933
02/05/2014 11:01:00.000 PM	18.669	6.444	18.804	6.444	43.063	8.000	16.269	6.567	21.139	7.933
02/05/2014 3:01:00.000 PM	22.807	7.993	23.299	8.000	43.063	8.000	18.307	6.883	21.139	7.933
02/05/2014 7:01:01.000 AM	22.796	8.000	23.367	8.007	43.056	8.000	14.650	6.050	21.139	7.933
01/05/2014 11:01:00.000 PM	22.760	8.000	23.321	8.000	42.366	8.000	19.072	7.233	21.139	7.933
01/05/2014 3:01:00.000 PM	20.297	7.986	23.302	8.000	41.320	8.000	22.858	6.817	21.139	7.933
01/05/2014 7:01:01.000 AM	21.533	7.965	23.368	8.007	41.306	8.000	10.599	2.983	21.139	7.933

wabrasives.com



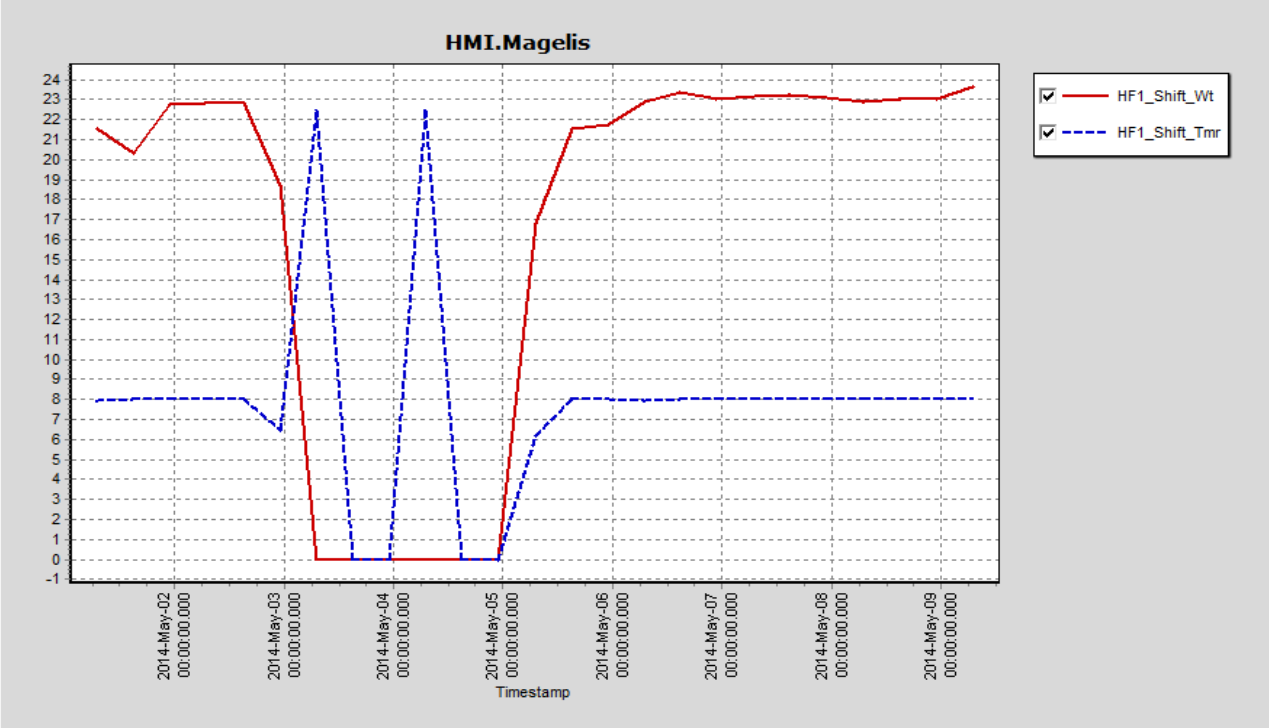
W Abrasives®
your key success factor

Graphed data....

File Edit View Favorites Tools Help
Bedford AutoPack Printer PNB AutoPack Printer Tempring Furnaces Bedford AutoPack NODCWS Suggested Sites Web Slice Gallery Enbridge Gas Distribution ...

Device Diagram Change Date Range Show Table

[Edit Graph](#)



Left-click and drag to zoom. Right-click and drag to pan.



Automated Reports Emailed by the System....

Dan LEUNG

on Local

- [Redacted]
- [Redacted]
- EFF (1)
- [Redacted]
- Ion Enterprise
 - 2011
 - 2012
 - 2013
 - 2014 Annual Gas Report
 - 2014 Atomize Report
 - 2014 Hardening/Tempering Data
 - 2014 Heat Shift Data Report
 - 2014 Ladle Alloy Additions
 - 2014 Melt Shift Report
 - 2014 Plant Energy
 - [Redacted]


New Notices ▾

Open Remove


Date	Sender	Subject
13/05	[Redacted]	City of Welland Fire Dept (13 Ma
06/05	[Redacted]	EFF (1) M... 02:00 PM EDT

Sort by default ▾

PowerLogic ION Enterprise	Date	Time
Annual Gas Metering Report	06/01/2014	07:11 AM
Annual Gas Metering Report	20/01/2014	07:11 AM
Annual Gas Metering Report	27/01/2014	07:11 AM
Annual Gas Metering Report	10/02/2014	07:11 AM
Annual Gas Metering Report	17/02/2014	07:11 AM

 **Annual Gas Metering Report**
 PowerLogic ION Enterprise [Redacted] dan.leung... 06/01/2014 07:11 AM
[Show Details](#)

▼ 1 attachment

 Gas Metering Report.xls

wabrasives.com

Gas_Metering.Gas_PLC										
Timestamp	Plant Annual Gas M3 ()	Dryer Annual Gas M3 ()	No.1 HF Annual Gas M3 ()	No.2 HF Annual Gas M3 ()	Shot Temper Annual Gas M3 ()	Temper Grit #1 Annual Gas M3 ()	Temper Grit #2 Annual Gas M3 ()	Ladle Preheater Annual Gas M3 ()		
02/01/2014 12:00:00 AM	1,407.75	0.00	0.00	48.00	0.00	0.00	0.00	44.00		
03/01/2014 12:00:00 AM	10,761.10	1,553.00	0.00	1,361.00	54.00	242.00	446.00	441.00		
04/01/2014 12:00:00 AM	21,718.22	3,572.00	0.00	3,636.00	55.00	706.00	705.00	737.00		
05/01/2014 12:00:00 AM	28,293.63	4,651.00	80.00	4,814.00	95.00	1,192.00	803.00	898.00		
06/01/2014 12:00:00 AM	29,574.00	4,651.00	80.00	4,814.00	99.00	1,210.00	803.00	919.00		

ID: 212f590e-f59f-4735-b55c-09c75e27c7a8



W Abrasives®

Annual Gas Metering Report

01/01/2014 12:00:00 AM - 07/01/2014 12:00:00 AM (Server Local)



EAF Shift Production Data

EAF.Furnace_Secondary										
Timestamp	Heats/Shift ()	Avg kWh/Heat ()	Avg TapTemp ()	Avg POT ()	Avg Delay Time ()	Avg Turnaround ()	Avg Tap-Tap ()	kWh/Shift ()	kWh/Day ()	
04/05/2014 7:00:00 AM	0.00									
04/05/2014 3:00:00 PM	0.00									
04/05/2014 11:00:00 PM	0.00									
05/05/2014 7:00:00 AM	2.00	6,651.50	3,097.89	57.38	31.63	1,630.38	1,719.38	13,303.00	13,303	
05/05/2014 3:00:00 PM	4.00	5,024.25	2,296.40	43.13	14.88	26.75	84.75	20,097.00	20,097	
05/05/2014 11:00:00 PM	6.00	6,615.00	3,060.19	56.33	12.92	18.79	88.00	39,690.00	59,787	
06/05/2014 7:00:00 AM	5.00	6,577.20	3,069.31	56.15	21.10	22.25	99.55	32,886.00	32,886	
06/05/2014 3:00:00 PM	6.00	6,144.33	3,061.56	53.13	15.21	14.63	82.96	36,866.00	69,752	
06/05/2014 11:00:00 PM	5.00	6,581.60	3,073.34	55.90	16.35	21.50	93.75	32,908.00	102,660	
07/05/2014 7:00:00 AM	6.00	6,538.00	3,052.86	55.29	22.42	6.25	83.92	39,228.00	39,228	
07/05/2014 3:00:00 PM	5.00	6,330.80	3,067.94	54.70	17.60	22.50	94.75	31,654.00	70,882	



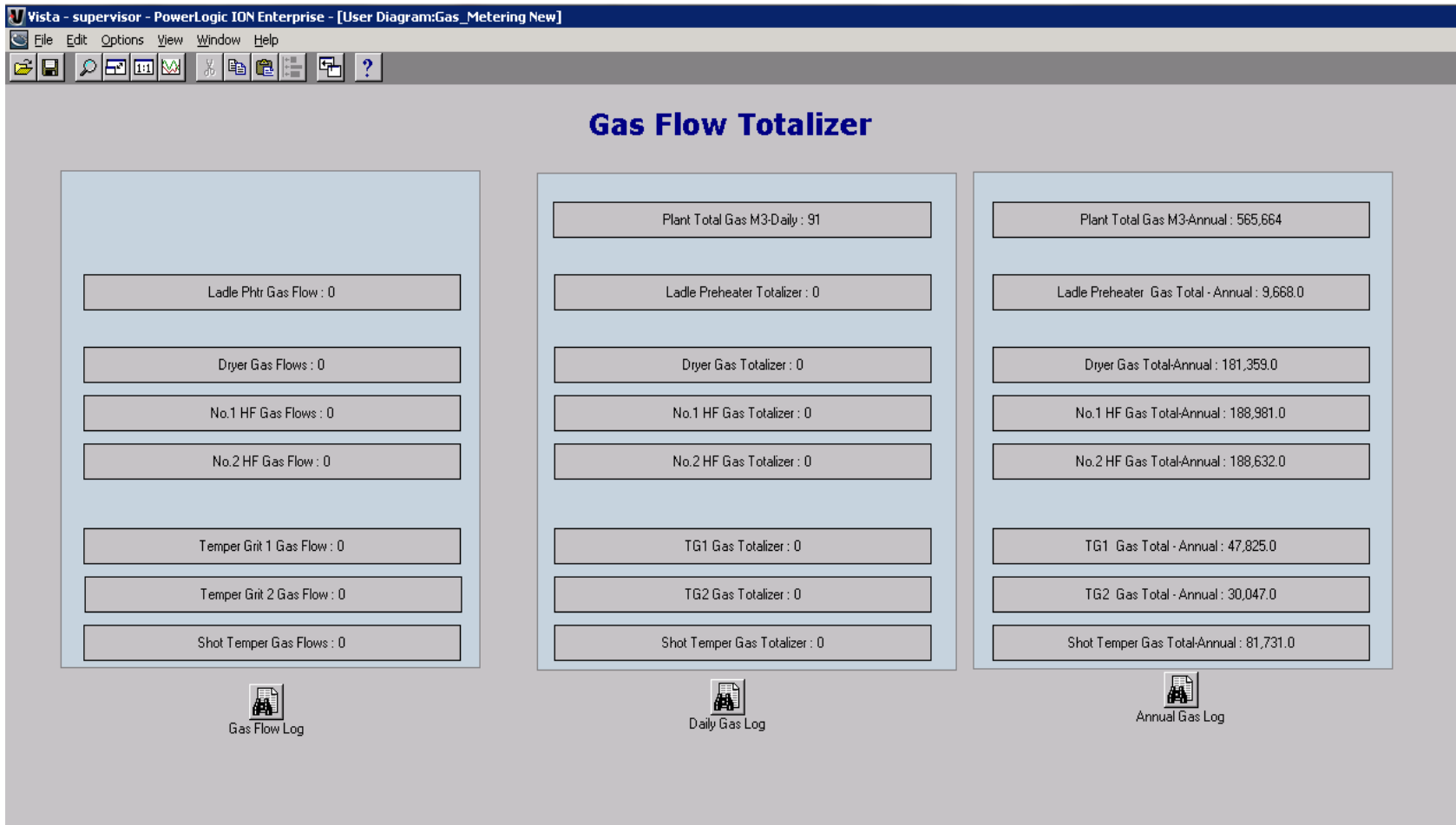
Tabular Report

04/05/2014 12:00:00 AM - 09/05/2014 12:00:00 AM (Server Local)

Data Warnings

Message	Date Added
One or more gaps were detected in data used for this report.	08/05/2014 7:17:51 AM

Gas Consumption Log....



The System.....

Management Console - supervisor - PowerLogic ION Enterprise

File Edit View Tools Help

Drag a column header here to group by that column

Enabled	Name	Type	Address	Site	Status	Protocol	Description
✓	EAF.Furnace_Secondary	ION 7500	10.7.0.60/7700	<Ethernet/PNBION>	Device Connected	ION	Login: Default Password
✓	Baghouse.Baghouse_MCC	ION 6200	10.7.0.60/7802/198	Furnace_Secondary	Site Available	6200	
✓	EAF.Furnace_Primary	ION 7330	10.7.0.61/7700	<Ethernet/PNBION>	Device Connected	ION	
✗	Elec_Metering.ALT_Meter	ION 7700	10.7.0.62/7700	<Ethernet/PNBION>	Disabled	ION	
✓	Laboratory.Chart_Recorder	DPR250	10.7.0.63/502/1	Laboratory	Site Available	MODBUS	
✓	EAF.Atomization_PLC	Control Logix	10.7.0.64/502/1	Atomization_PLC	Site Available	MODBUS	
✓	EAF.SAF	EAF_SAF	10.7.0.70/502/1	Regulator	Site Available	MODBUS	
✓	HMI.Pulpit_Display	Pulpit_Display	10.7.0.76/502	<Ethernet/PNBION>	Device Connected	MODBUS	
✓	Gas_Metering.Gas_PLC	ECOMM	10.7.0.81/502/1	Gas_Metering	Site Available	MODBUS	
✓	Baghouse.CEM_PLC	CEM_PLC	10.7.0.82/502/1	CEM_PLC	Site Available	MODBUS	Continuous Emission Monit
✓	Laboratory.Third_Station	RLW5920i	10.7.0.87/502/1	Third_Station	Site Available	MODBUS	
✓	Baghouse.DC2	Benshaw Softstart	10.7.0.91/502/2	DC2_Starter	Site Available	MODBUS	
✓	Baghouse.DC3	Benshaw Softstart	10.7.0.91/502/3	DC2_Starter	Site Available	MODBUS	
✓	Laboratory.HF1	IND331	10.7.0.93/502/1	HF1	Site Available	MODBUS	
✓	Laboratory.HF2	IND331	10.7.0.94/502/1	HF2	Site Available	MODBUS	
✓	Laboratory.TG2	IND331_TMPR	10.7.0.96/502/1	TG2	Site Available	MODBUS	
✓	HMI.Magelis	Magelis	10.7.0.99/502	<Ethernet/PNBION>	Device Connected	MODBUS	
✓	EAF.Pumphouse	PML5340	10.7.0.230/502	<Ethernet/PNBION>	Device Connected	MODBUS	

18 Device(s) Displayed

Column Selector



Modbus Device Importer

Modbus Device Importer - D:\Program Files\Schneider Electric\ION Enterprise\config\templates\Magelis_Test.ion

File Edit View Tools Settings Help

ION Map Information Modbus Register Information Configure Logging and Calculation

Magelis

- Bool Number
 - Ext Bool 1
 - Magelis PB1
 - Magelis PB2
 - Motion
 - Scale Data Type
 - Scale Error
 - Tare
 - Weight
 - Weight Mode
 - Weight Polarity
 - Zero
- Ext Number
 - AutoPack
 - AutoPack_Bag_Count
 - AutoPack_Bag_Length
 - AutoPack_Bags_per_Min_Act
 - AutoPack_Bags_per_Min_SP
 - AutoPack_Layer_Count
 - AutoPack_Pallet_Complete
 - Ext Num 1
 - HF1_Day_Drop_Cnt
 - HF1_Day_Run_Time
 - HF1_Day_Total
 - HF1_Day_Wt_per_Drop
 - HF1_PreDay_Ave
 - HF1_PreDay_Count
 - HF1_Shift_Tmr
 - HF1_Shift_Wt
 - HF2_Day_Drop_Count
 - HF2_Day_Run_Time
 - HF2_Day_Total
 - HF2_Day_Wt_per_Drop
 - HF2_Nnt_Used

Label	Modbus Reg...	Request...	Format	Mask	Scale	Multiplier	Off...	Enu...	Constant Value
Magelis PB1	00001	RW	PackedBool	None	1	1	0	False	
Magelis PB2	00002	RW	PackedBool	None	1	1	0	False	
HF1_Day_Dro...	40001	RW	IEEEFloat	None	1	1	0	False	
Scale Error	40002	R	UINT16	0x0001	1	1	0	False	
Tare	40002	R	UINT16	0x0002	1	1	0	False	
Zero	40002	R	UINT16	0x0004	1	1	0	False	
Weight	40002	R	UINT16	0x0008	1	1	0	False	
Motion	40002	R	UINT16	0x0010	1	1	0	False	
Weight Mode	40002	R	UINT16	0x0080	1	1	0	False	
Scale Data Type	40002	R	UINT16	0x4000	1	1	0	False	
Weight Polarity	40002	R	UINT16	0x8000	1	1	0	False	
HF1_Day_Wt_...	40003	RW	IEEEFloat	None	1	1	0	False	
HF1_Day_Total	40005	R	IEEEFloat	None	1	1	0	False	
HF1_PreDay_...	40007	R	IEEEFloat	None	1	1	0	False	
HF1_PreDay_...	40009	R	IEEEFloat	None	1	1	0	False	
HF1_Shift_Wt	40011	R	IEEEFloat	None	1	1	0	False	
HF1_Shift_Tmr	40013	R	IEEEFloat	None	1	1	0	False	
HF1_Day_Run...	40015	R	IEEEFloat	None	1	1	0	False	
TG2_Run_Tim...	40017	R	IEEEFloat	None	1	1	0	False	
HF2_Not_Used	40024	RW	IEEEFloat	None	1	1	0	False	
HF2_Day_Wt_...	40026	RW	IEEEFloat	None	1	1	0	False	
HF2_Day_Total	40028	R	IEEEFloat	None	1	1	0	False	
Not_Used	40030	R	IEEEFloat	None	1	1	0	False	
HF2_Day_Dro...	40032	R	IEEEFloat	None	1	1	0	False	
HF2_Shift_Wt	40034	R	IEEEFloat	None	1	1	0	False	
HF2_Shift_Tmr	40036	R	IEEEFloat	None	1	1	0	False	
HF2_Day_Run...	40038	R	IEEEFloat	None	1	1	0	False	
TS_DS_Run_...	40040	R	IEEEFloat	None	1	1	0	False	
TS_AS_Run_T...	40042	R	IEEEFloat	None	1	1	0	False	
TS_NS_Run_...	40044	R	IEEEFloat	None	1	1	0	False	
TG1_Run_Tim...	40046	R	IEEEFloat	None	1	1	0	False	
TS_Run_Timer	40048	R	IEEEFloat	None	1	1	0	False	
TG1_Chrg_T...	40051	RW	IEEEFloat	None	1	1	0	False	
TG1_DisChrg...	40053	RW	IEEEFloat	None	1	1	0	False	
TG2_Chrg_T...	40055	RW	IEEEFloat	None	1	1	0	False	
TG2_DisChrg...	40057	RW	IEEEFloat	None	1	1	0	False	
TS_Chrg_Te...	40059	RW	IEEEFloat	None	1	1	0	False	
TS_DisChrg...	40061	RW	IEEEFloat	None	1	1	0	False	

Start Modbus Device Impor... 3:40 PM

Partial List of Current Device Types

Device ID	Device Type	Display Name	Tree File	Map File	Protocol Name	Translator DLL
055	COMPACT...	Micrologic A Compact ...	compactNsx.i...	compactNsx....	MODBUS	xlcompactnsx...
056	COMPACT...	Micrologic E Compact ...	compactNsx.i...	compactNsx....	MODBUS	xlcompactnsx...
057	SEPAM10	Sepam Series 10	sepam10.ion	sepam10.xml	MODBUS	xlsepam.dll
058	SEPAM20	Sepam Series 20	sepam20.ion	sepam20.xml	MODBUS	xlsepam.dll
059	SEPAM40	Sepam Series 40	sepam40.ion	sepam40.xml	MODBUS	xlsepam.dll
060	SEPAM48	Sepam Series 48	sepam40.ion	sepam40.xml	MODBUS	xlsepam.dll
061	SEPAM80	Sepam Series 80	sepam80.ion	sepam80.xml	MODBUS	xlsepam.dll
062	ControlLogix	Control Logix	CTLX500.ion	CTLX500.xml	MODBUS	xlmod.dll
063	DPR250	DPR250	DPR250.ion	DPR250.xml	MODBUS	xlmod.dll
064	ECOMM	ECOMM	GasMtrPLC.ion	GasMtrPLC.xml	MODBUS	xlmod.dll
065	PM1200	PM1200	pm1200.ion	pm1200.xml	MODBUS	xlmod.dll
066	DM6200	DM6200	dm6200.ion	dm6200.xml	MODBUS	xlmod.dll
067	EM5600	EM5600	EM5600.ion	EM5600.xml	MODBUS	xlEM5600.dll
068	CEM_PLC	CEM_PLC	CEM_PLC.ion	CEM_PLC.xml	MODBUS	xlmod.dll
073	SAF_Modbus	SAF_Modbus	EAF_SAF.ion	EAF_SAF.xml	MODBUS	xlmod.dll
077	BSAF_Mod...	BSAF_Modbus	BEAF_SAF.ion	BEAF_SAF.xml	MODBUS	xlmod.dll
087	EAF_SAF	EAF_SAF	EAF_SAF.ion	EAF_SAF.xml	MODBUS	xlmod.dll
114	FCE_Alloys	FCE_Alloys	Scale_Data.ion	Scale_Data.xml	MODBUS	xlmod.dll
117	IND331	IND331	IND331_Link....	IND331_Link....	MODBUS	xlmod.dll
123	BenshawSo...	Benshaw Softstart	Benshaw_Sof...	Benshaw_Sof...	MODBUS	xlmod.dll
130	RLWS920i	RLWS920i	RLSW920i.ion	RLSW920i.xml	MODBUS	xlmod.dll
156	Magelis	Magelis	Magelis_Test....	Magelis_Test....	MODBUS	xlmod.dll
157	IND331_TM...	IND331_TMPR	IND331_TM...	IND331_TM...	MODBUS	xlmod.dll
158	ViewMarq	ViewMarq	ViewMarq.ion	ViewMarq.xml	MODBUS	xlmod.dll
159	Pulpit_Display	Pulpit_Display	Fce_Display.ion	Fce_Display.x...	MODBUS	xlmod.dll
160	PML5340	PML5340	Pumphouse.ion	Pumphouse.xml	MODBUS	xlmod.dll
161	AltMeter	Alt Meter	Alt_Meter.ion	Alt_Meter.xml	MODBUS	xlmod.dll

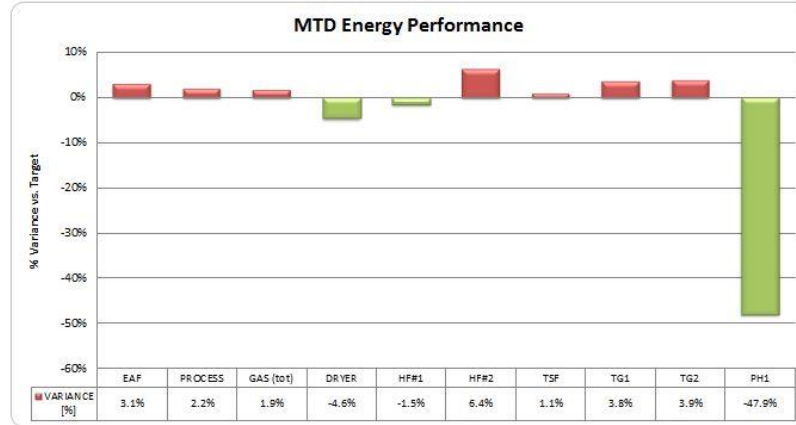
Update List Delete Device Close



Energy Dashboard Summary

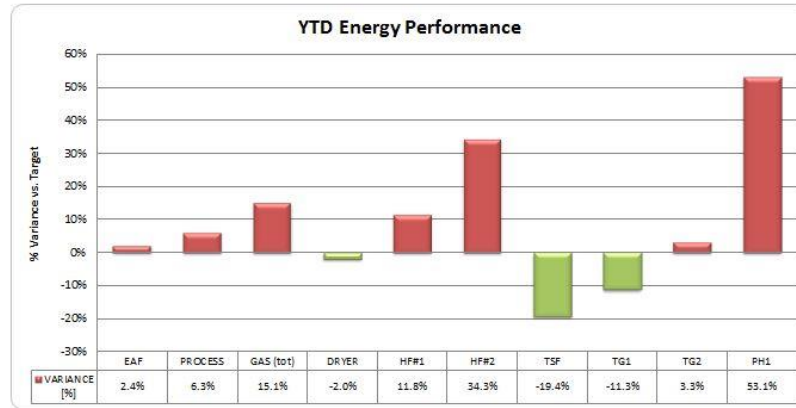
SEPT

	MTD USAGE [KWH/MTON]	TARGET [KWH/MTON]	VARIANCE [%]
EAF	603	585	3.1%
PROCESS	175	171	2.2%
GAS (tot)	606	595	1.9%
DRYER	114	120	-4.6%
HF#1	300	305	-1.5%
HF#2	293	275	6.4%
TSF	167	165	1.1%
TG1	182	175	3.8%
TG2	182	175	3.9%
PH1	1	3	-47.9%

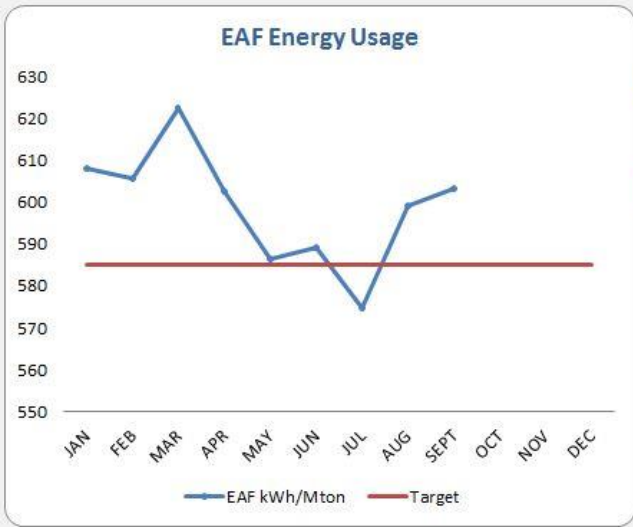


2014

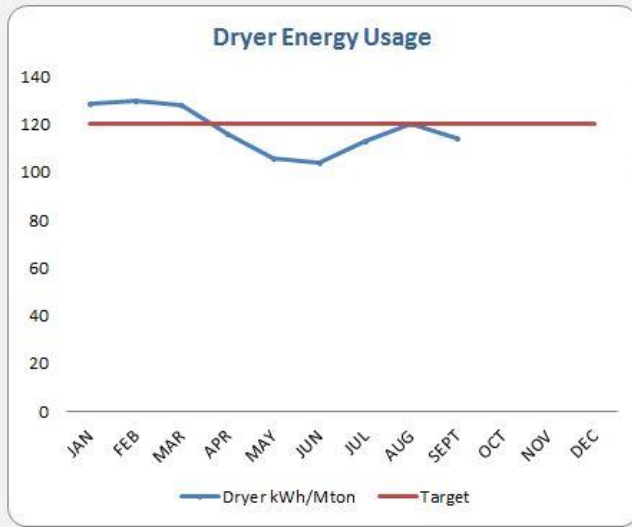
	YTD USAGE [KWH/MTON]	TARGET [KWH/MTON]	VARIANCE [%]
EAF	599	585	2.4%
PROCESS	182	171	6.3%
GAS (tot)	685	595	15.1%
DRYER	118	120	-2.0%
HF#1	341	305	11.8%
HF#2	369	275	34.3%
TSF	133	165	-19.4%
TG1	155	175	-11.3%
TG2	181	175	3.3%
PH1	4	3	53.1%



Energy Dashboard - Melting and Drying



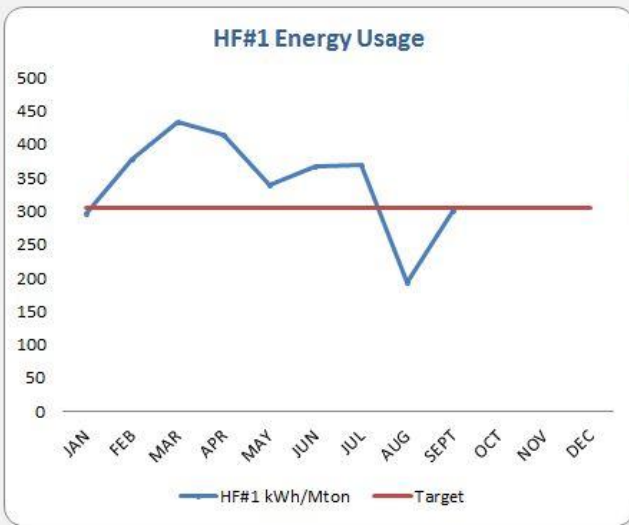
SEPT
603 ✓
 Target
585



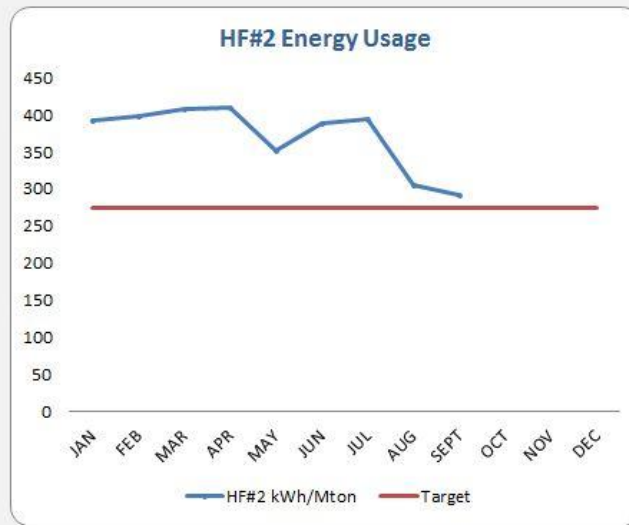
SEPT
114 ✓
 Target
120



Energy Dashboard - Hardening



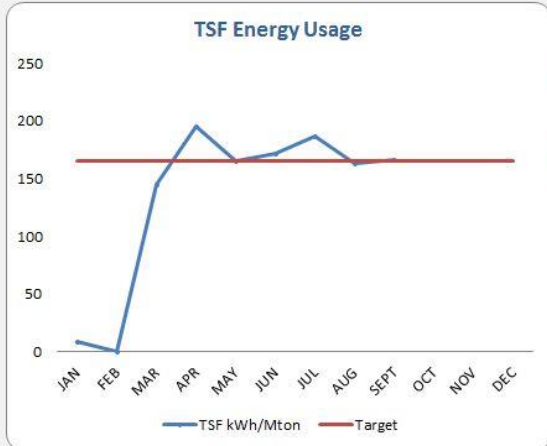
SEPT
300 ✓
Target
305



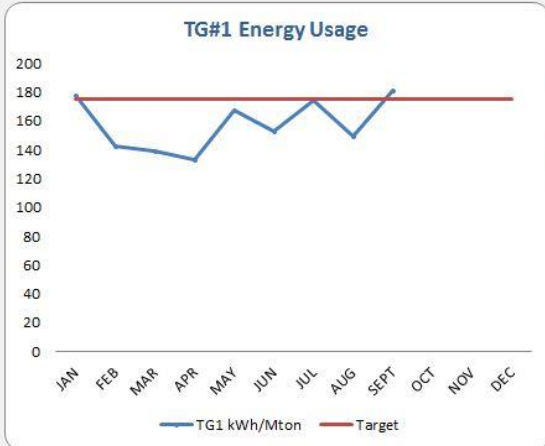
SEPT
293 !
Target
275



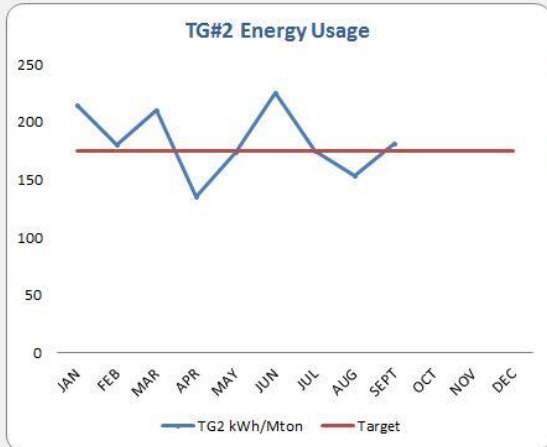
Energy Dashboard - Tempering



SEPT
167 !
Target
165



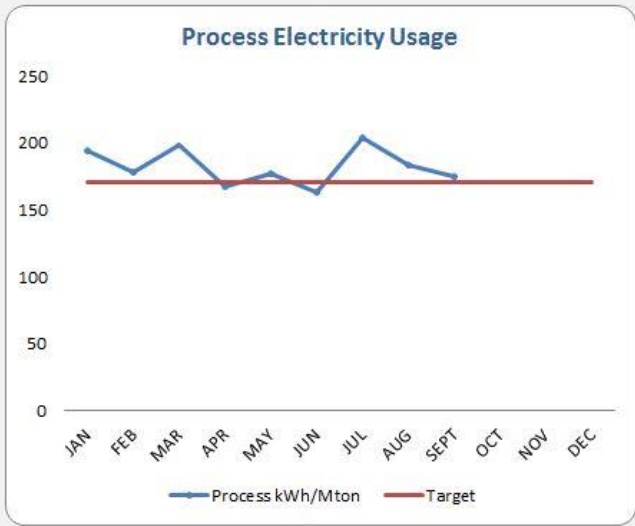
SEPT
182 !
Target
175



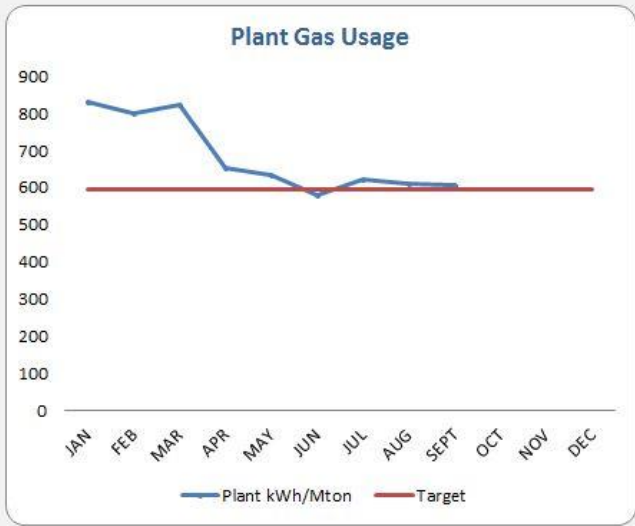
SEPT
182 !
Target
175



Energy Dashboard – Process and Plant



SEPT
175 ✓
Target
171



SEPT
606 ✓
Target
595



Our finished product....packaged in poly bags



wabrasives.com



Our Finished Product... Packaged in a Drum Container.



wabrasives.com