

Akebono Project | Final Document

(Please follow this document)

1) Main Page | Akebono Main page

Graphic User Interface (Window application)

akebono Mold Identification System

Current Mold Data

Mold Name:	
Mold ID:	HP-21
Current Shorts:	2,900
Maximum Shots:	3,000
Hard Chrome Short:	9,000
Last Wash Date:	10/07/18
Last Hard Chrome Date:	10/08/18
Last block change date:	10/10/17

Reset Mold Current Short >> Click

Reset Mold Hard Chrome Short >> Click

Insert Custom Mold Physical Specific >> Click

Show This Mold Historical >> Click

Data to be displayed

- » Admin/User input the **Mold ID** value manually.
- » Rest of the data from DB
- » Display data

2) Status Mold Display

STATUS MOLD DISPLAY

Mold ID STATUS DISPLAY								STATUS RUNNING	M/C
SETTING MOLD	MODEL	SHOT COUNTER		HARD CHORM		CHANGE BOXES			
		CURRENT	SETTING	CURRENT	SETTING	CURRENT	SETTING		
HP-1	AN610	3333	6000	11245	30000	121113	100000	●	HOTPRESS 3
HP-2	AN610	3455	8000	23414	30000	30002	120000	●	HOTPRESS 3
HP-3	AN610	8100	8000	35245	40000	45235	140000	●	HOTPRESS 3
HP-4	KV488	2134	5000	41245	40000	13445	100000	●	
HP-5	KV488	1220	7000	35028	40000	43279	100000	●	
HP-6	KV488	3734	7000	34592	50000	46352	100000	●	
HP-7	KV212	5645	5000	44534	50000	48272	100000	●	HOTPRESS 10
HP-8	KV212	1384	6000	56254	50000	98763	100000	●	HOTPRESS 10
HP-9	KV212	1012	6000	48262	50000	142092	100000	●	HOTPRESS 10
HP-10	KV391	3432	6000	42642	50000	84750	100000	●	
HP-11	KV391	4847	6000	45895	50000	77289	100000	●	
HP-12	KV391	4563	6000	42748	50000	48473	100000	●	
HP-13	RT-50	7629	6000	23348	50000	59382	100000	●	
HP-14	RT-50	3937	6000	22348	50000	33404	100000	●	
HP-15	RT-50	5837	6000	53345	50000	98467	100000	●	
HP-16	GMI700	8276	6000	34227	50000	89372	100000	●	HOTPRESS 5
HP-17	GMI700	4726	6000	7346	50000	49374	100000	●	HOTPRESS 5
HP-18	GMI700	4726	6000	48274	50000	107364	100000	●	HOTPRESS 5
HP-19	KV127	5192	6000	2364	50000	47264	100000	●	
HP-20	KV127	100	6000	273	50000	87294	100000	●	
HP-21	KV127	3495	6000	48274	50000	82749	100000	●	

●

MOLD STANDBY

●

MOLD RUNNING IN MACHINE

- » Display only
- » Data from DB

***Note: Change Box(es) has to be changed to Die Change in every page.**

3) Status Warning Display

[illegible]

- » Display Only
- » Data from DB
- » E-mails to be sent out to 10 email IDs
- » Warning Display Details:
 - **Change Box Period:** When **Die Change Box Current Value** > **Die Change Box Setting**
 - **Clean Period:** When **Shot Counter Current** > **Shot Counter Setting**
 - **Hard Chrom Period:** When **Hard Chrom Current** > **Hard Chrom Setting**

4) Search

Model	Machine	Mold no	time
PU501	Hotpress 1	HP-1	01-Aug-18 20-Aug-18
PU502	Hotpress 2	HP-2	
PU505	Hotpress 3	HP-3	
RT608	Hotpress 4	HP-4	
RT906	Hotpress 5	HP-5	
K350	Hotpress 6	HP-6	
K300	Hotpress 7	HP-7	
All	Hotpress 8	HP-8	
	Hotpress 9	HP-9	
	Hotpress 10	HP-10	
	Hotpress 11	HP-11	
	Hotpress 12	HP-12	
	All	HP-13	
		HP-14	
		HP-15	
		HP-16	
		HP-17	
		HP-18	

Search

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» Please follow the above drop-down for every **SEARCH**.

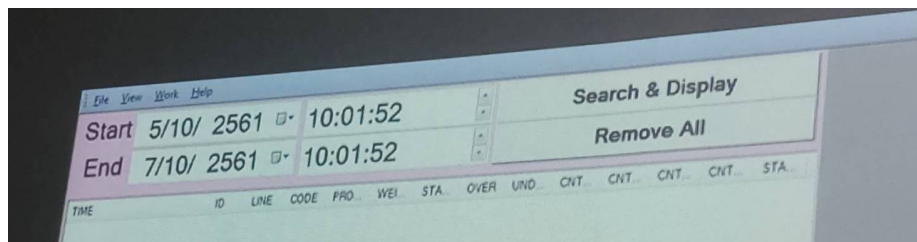
5) Status History Display

STATUS HISTORY DISPLAY EX : MODEL HP-21

MOLD HISTORY ITEM : HP-21						
DATE	SHOT COUNTER		HARD CHORM		CHANGE BOXES	
	HISTORY COUNT	STATUS	HISTORY COUNT	STATUS	HISTORY COUNT	STATUS
11-Jan-2016	3333	●	11245		3333	
22-Dec-2016	3455	●	14700		6788	
14-Apr-2017	6587	●	18155	●	13375	
3-Jan-2018	5468	●	5468		18843	
4-Jul-2018	7654	●	13122		26497	
4-Aug-2018	5000	●	18122		31497	
10-Sep-2018	4872	●	22994		36369	●
1-Nov-2018	4857	●	27851	●	4857	
4-Feb-2019	7256	●	7256		12113	
5-Mar-2019	4827	●	12083		16940	
29-May-2019	8764	●	20847		25704	
30-Jul-2019	5832	●	26679	●	31536	
21-Aug-2019	8765	●	8765		40301	●
5-Oct-2019	5826	●	14591		5826	
22-Dec-2019	5635	●	20226	●	11461	
2-Feb-2020	5687	●	5687		17148	
14-Mar-2020	7000	●	12687		24148	
3-Apr-2020	4759	●	17446		28907	
21-Jun-2020	6857	●	24303	●	35764	●
28-Aug-2020	5938	●	5938		5938	
15-Oct-2020	6984	●	12922		12922	

● WORK STATUS ON TIME

- » Display only
- » Search tab
 - Start Date & End date.



(Please follow the above image for start date and end date. Please add Search & Display + Remove all)

- Data from DB
- Search by **Model**.
- » Report

6) Forecast Setting

Forecast setting will have the following fields.

Model	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Yaris	60,000	xx,xxx	xx,xxx	xx,xxx	xx,xxx	xx,xxx	xx,xxx	xx,xxx	xx,xxx	xx,xxx	xx,xxx	xx,xxx

- » Admin/User input the values manually.
- » Admin/user adds the model and subsequent values for each month.
 - In this example, admin adds **Yaris** for **Model** and **60,000** for the month of January
 - Yaris has 3 molds. Different models have different number of mold. [Mold details can be fetched from **Mold Settings**] (slide 13)
 - Formula for getting Forecast (for Forecast page) is:

Value for Month/Mold Number

So, for January;
 $60,000/3 = 20,000$

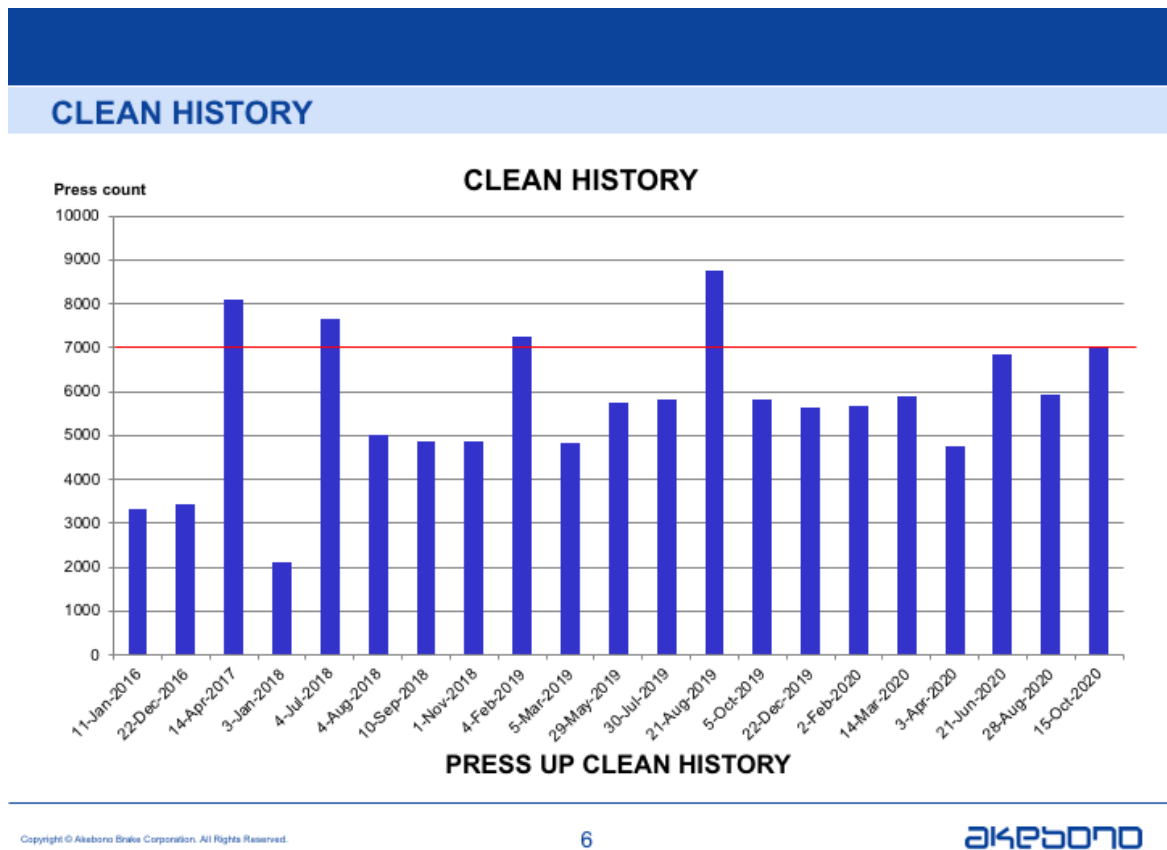
This value is added in the Forecast page for same month.

- » More models can be added but not more than 1,000 models.
- » 3 years planning.

- [illegible]

- When Hard Chrom (C) value reaches the target “X” value, it resets the Hard Chrom value to “0”.
- When Die Change (D) value reaches the target “Y” value, it resets both Hard Chrom & Die Change values to “0”.
- When both Hard Chrom & Die Change values reset to “0”, the sum value counts 1. Sum value is the number of times the Hard Chrome and Die Change values reset together.
- Pricing:
 - We get the pricing from Mold Settings
 - Hard Chrom Price X Sum = Cost (Hard Chrom)
 - Die Change Price X Sum = Cost (Die Change)

8) Clean History



- » Data from DB
- » Search/Select by Date Range.
- » Trends to be shown and not bar graph

- » Requires 3 graphs.
 - Clean → Data can be fetched from **Shot Counter Current** in **Status Mold Display**
 - Hard Chrom → Data can be fetched from **Hard Chrom Current** in **Status Mold Display**
 - Die Change → Data can be fetched from **Die Change Current** in **Status Mold Display**

9) Production Data Logger

Production data logger

Date	Time	Item	Hot press M/C	Mold No.	Up/Down/Lower	Pcs.	Upper temp °C	Lower temp °C
18Aug18	15:50	PU305	5	HP-1	Up die	6	161.5	160.0
18Aug18	15:50	PU305	5	HP-2	Middle die	6	160.3	160.3
18Aug18	15:50	PU305	5	HP-3	Lower die	6	160.4	160.3
18Aug18	15:5	FU305	12	HP-55	Up die	4	160.2	159.4
18Aug18	15:52	FU305	12	HP-56	Middle die	4	160.1	160.0
18Aug18	16:10	KP135	9	HP-44	Up die	6	158.7	158.9
18Aug18	16:10	KP135	9	HP-45	Middle die	6	160.2	160.4
18Aug18	16:10	KP135	9	HP-47	Lower die	6	160.3	159.3

- » Data from DB
- » Follow the format

10) Temperature & Pressure

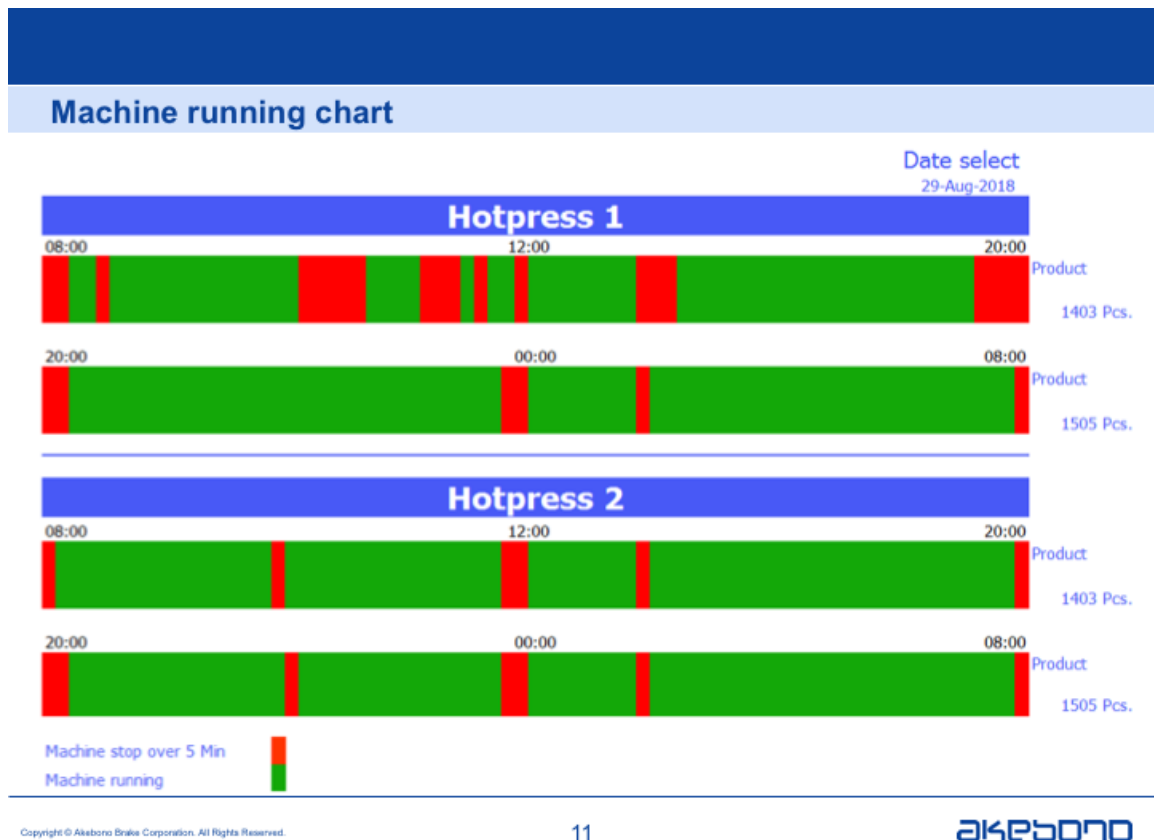
Temp and pressure

Hotpress : 1									
Time	Item	Upper		Middle		Lower		Pressure	
		Upper upper temp °C	Upper lower temp °C	Middle upper temp °C	Middle lower temp °C	Lower upper temp °C	Lower lower temp °C		
08/08/2018 15:30:01	PC303	160.2	159.9	160.2	160.2	160.1	160.2	15.7	
08/08/2018 15:30:02	PC303	160.3	160.3	160.2	160.2	160.2	160.2	17.4	
08/08/2018 15:30:03	PC303	160.0	159.4	160.2	160.2	160.2	160.2	15.7	
08/08/2018 15:30:04	PC303	159.8	159.4	160.2	160.5	160.2	160.1	17.4	
08/08/2018 15:30:05	PC303	159.6	159.9	159.7	160.1	160.2	160.2	15.7	
08/08/2018 15:30:06	PC303	159.5	159.5	160.2	160.2	160.2	160.2	17.4	
08/08/2018 15:30:07	PC303	159.9	159.6	160.2	160.2	160.2	159.8	15.7	
08/08/2018 15:30:08	PC303	159.4	159.8	160.2	160.2	160.2	159.9	17.4	
08/08/2018 15:30:09	PC303	160.3	160.0	160.2	160.2	160.2	159.6	15.7	
08/08/2018 15:30:10	PC303	160.1	160.3	160.2	160.2	160.2	160.1	17.4	
08/08/2018 15:30:11	PC303	159.9	160.2	160.2	160.2	160.2	159.9	15.7	
08/08/2018 15:30:12	PC303	159.6	160.2	160.2	160.2	160.2	159.8	17.4	
08/08/2018 15:30:13	PC303	159.9	160.2	160.2	160.2	160.2	159.7	15.7	
08/08/2018 15:30:14	PC303	160.2	160.2	160.2	160.2	160.2	159.7	17.4	
08/08/2018 15:30:15	PC303	160.2	160.2	160.2	160.2	160.2	159.6	15.7	
08/08/2018 15:30:16	PC303	160.2	160.2	160.2	160.2	160.2	159.6	17.4	

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- » Data from DB
- » Follow the format
- » Add search bar
 - Search by Machine

11) Machine Running Chart



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- » Red Color → Machine Stop
- » Green Color → Machine Running
- » Data from DB
 - There are two shifts:

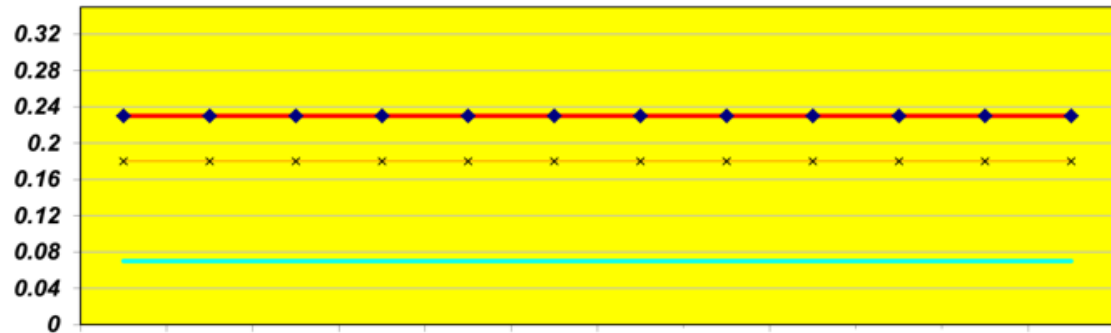
8:00 AM to 8:00 PM
8:00 PM to 8:00 AM

 → 2 Shifts
- » Follow the format
- » Add search bar
 - Search by Date Range
 - Search by Machine

12) Machine Control Mold

Maintenance Control Mold			
Mold Name : Hot Press	Mold No. :	Model :	Characteristic : ตรวจวัดค่าความลึก(mm.)

◆ มีผลกระทบต่อกุณภาพ
 × เปลี่ยนแม่พิมพ์ใหม่
 — ฝา Hard Chrome



บดคผลผลิต												
มีผลกระทบต่อกุณภาพ	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23
เปลี่ยนแม่พิมพ์ใหม่	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18
ฝา Hard Chrome	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
Block A												
Block B												
Block C												
Block D												
Block E												
Block F												
Inspector By												
Checked By												

- » Data from DB
- » Monitor only
- » Follow the format

- » Every field has to be field manually.
- » Column B: Quotation Number
 - Click to open a folder/file path. Import the file and save the file to the server.
- » Column Q: Number PO
 - Click to open a folder/file path. Import the file and save the file to the server.
- » Column V: Data Inspection (Scan)