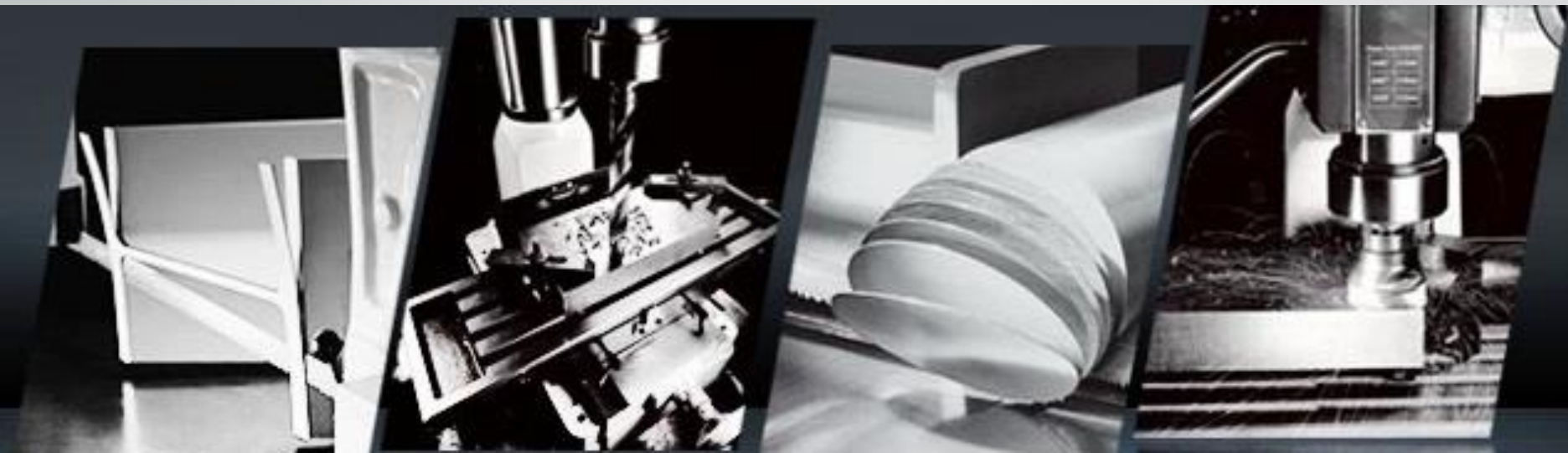




榮富工業股份有限公司

Rong Fu Industrial Co., Ltd.



背水一戰

Conduct A Desperate Fight
Success Is The Only Way

一個接班人的挑戰

A Challenge For The Successor

榮富公司 林奕杰 總經理
Jason Lin – General Manager
Rong Fu Industrial Co., Ltd.
2017/06/08

營業額 Turnover & 庫存週轉率 Inventory Turnover Rate



接班人面對的困境 Dilemma To Face

外在

EXTERNAL

- 客戶的訂單持續萎縮
Continuous Shrinking of Orders

內在

INNER

- 堆積如山的庫存沒有改善,仍然造成現場停工待料產生
Great Stock No Improvement. Causing Downtime and Material Expected.

法令

DECREE

- 工時縮短 Working Hours Shortened
- 加班費/基本工資增加
Overtime / basic salary increase



TPS緣起 Reason Of Begin

2015年09月30日



TPS一流流推動的困境

The Dilemma in Promoting One Unit Stream TPS





改善前產線截影 Before Improvement



榮富的改革之路

The Road To Reform

一台流

One Unit Stream

產線

Production Line

- 拍攝工序/工序檢討/工時量測
Shooting process / process review / working hours measurement
- 產線縮短 Shorten Production Line
- 工具最佳位置化 Tool in Best Position

物料 Material

- 高架倉平面化 Elevated warehouse Flattened
- 產線別/機種別儲位 Production line / machine type storage
- 台車半日供料 Half day Supply with trolley

OPL 提案 Proposal

one point lesson

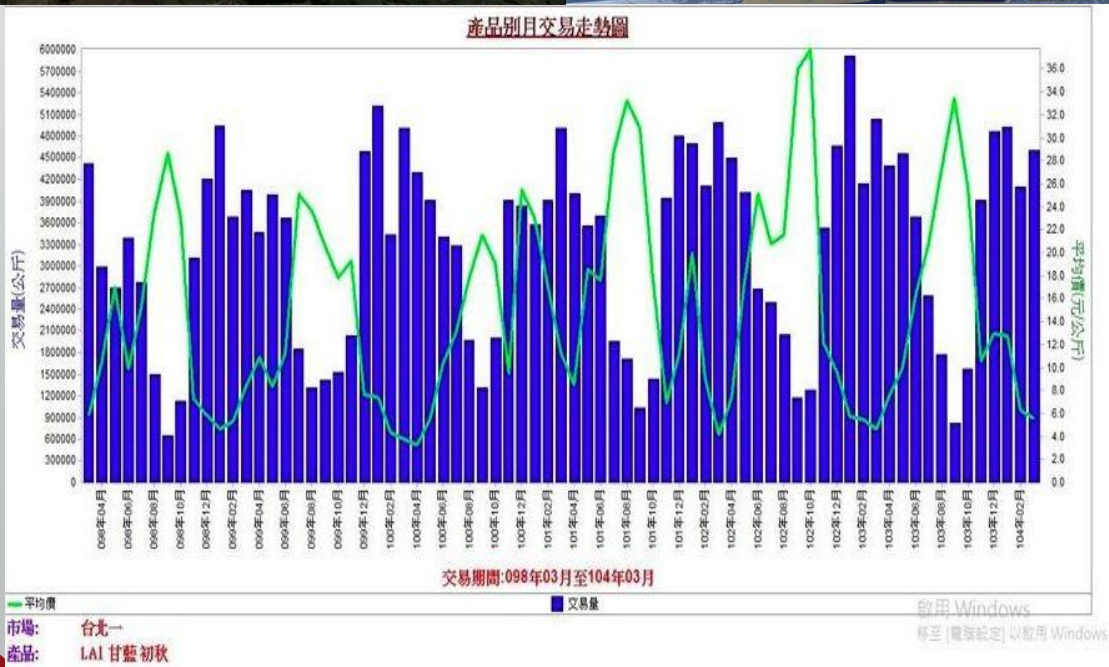
安全.品質.管理.設備.5S

Safety, Quality, Management,
Equipment, 5S.

- 螺桿存放優化 Lead Screw storage optimization
- 小鋸床旋轉台設計（單側生產）
Small Saw Swivel Plate Design (Worker on One Side)
- 木箱整合 Wooden box integration

認識及宣導TPS

Knowing and promote TPS



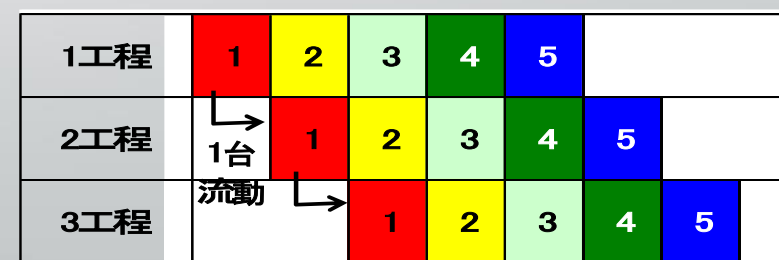
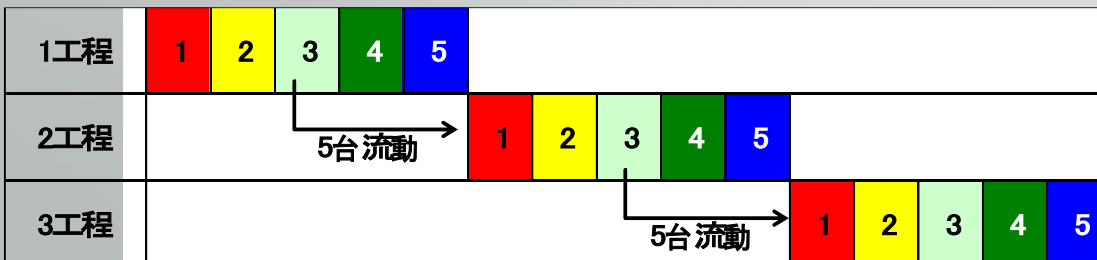
認識及宣導TPS

Knowing and promote TPS



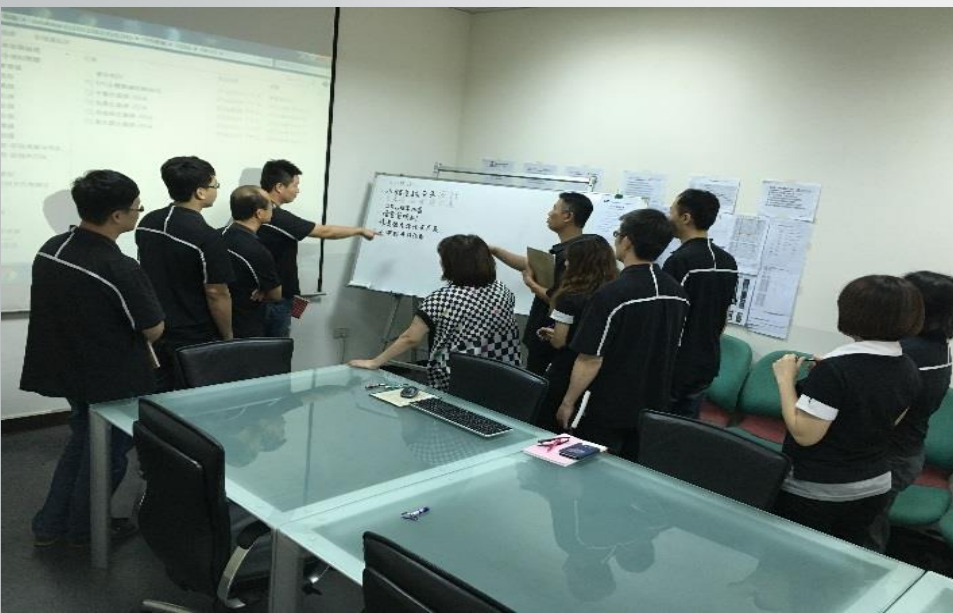
B組

A組



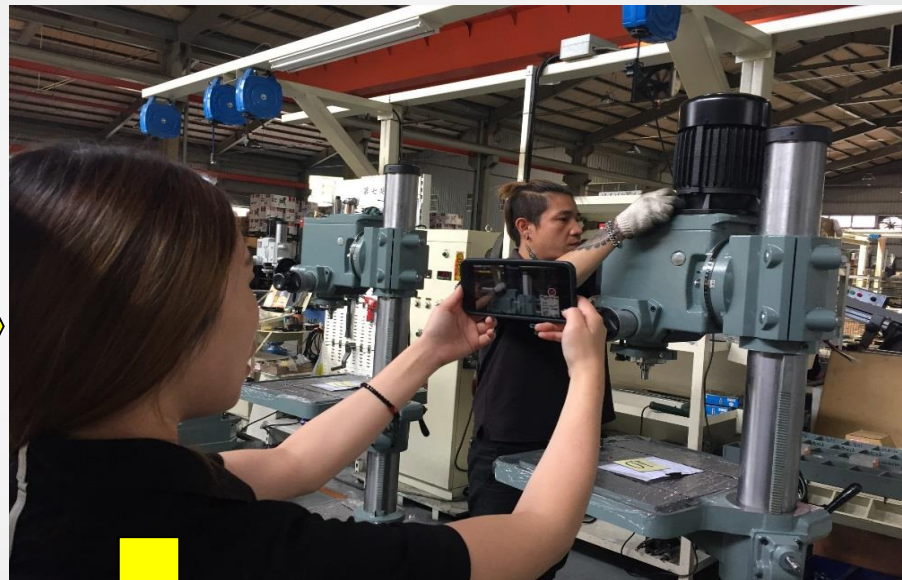
認識及宣導TPS

Knowing and promote TPS



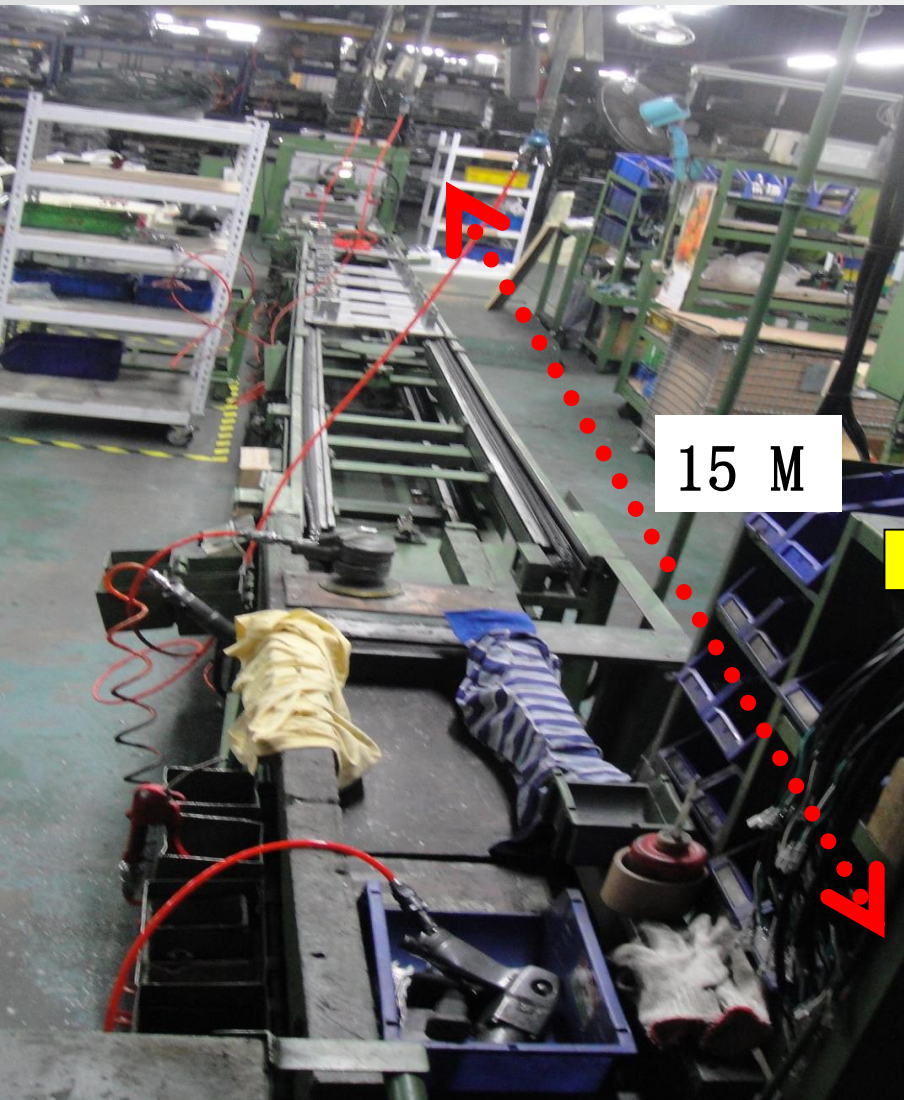
一台流產線改革之一：工序建立

One of the reforms of One Unit Stream Production Line :
Process establishment

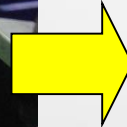


一台流產線改革之二：產線縮短

2nd of the reforms of One Unit Stream Production Line :
Shorten Production Line



15 M



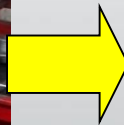
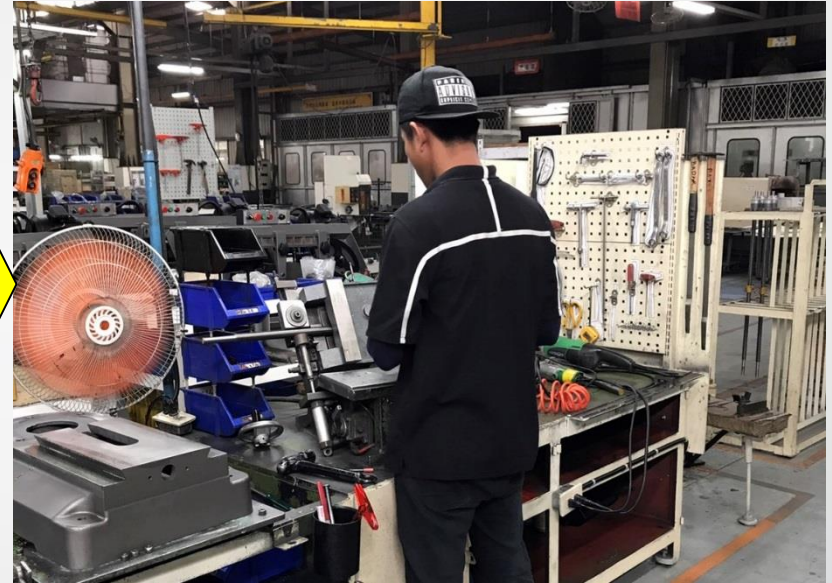
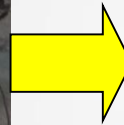
9 M

改善前 Before

改善中 Improving

一台流產線改革之三：工具最佳位置化

3rd of the reforms of One Unit Stream Production Line :
Tools In Best Position



一台流物料改革之一：高架倉平面化

One of the reforms of Material : Elevated warehouse Flattened



一台流物料改革之二：依產線及機種供料

2nd of the reforms of Material : Material Supplied by Production Line and Model



儲位依據站別存放

Storage is stored according to the work station

一台流物料改革之三：台車供料

3rd of the reforms of Material : Material Supplied with trolley

以蝴蝶籠的方式做發料

Supplied with Butterfly Cage



改善前 Before

以發料車的方式做發料

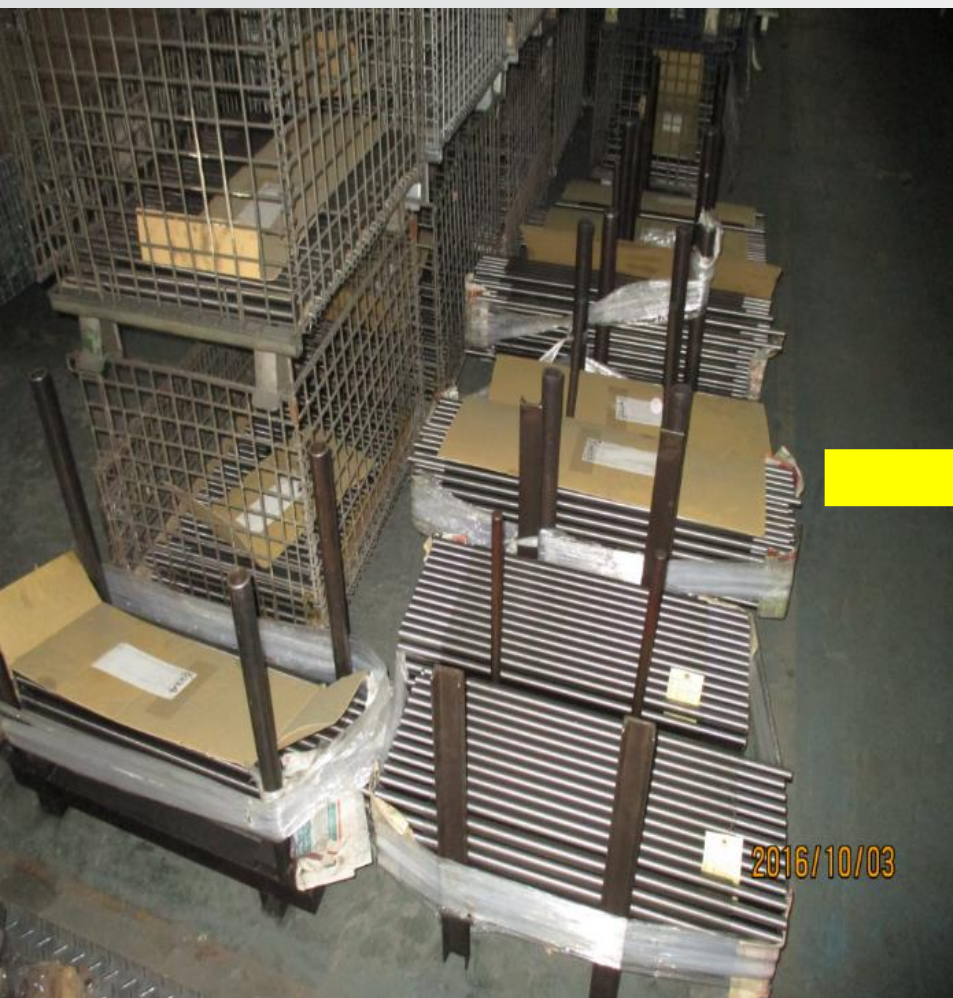
Supplied with Trolley



改善中 Improving

提案改善之一 螺桿存放優化

One of the Proposal Lead Screw Storage optimization



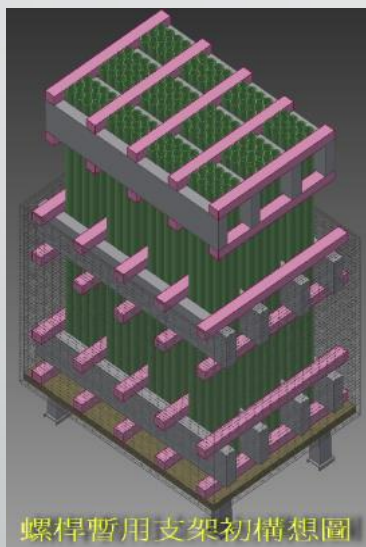
改善前 Before



改善中 Improving

提案改善之一 螺桿存放優化

One of the Proposal Lead Screw Storage optimization



螺桿暫用支架初構想圖

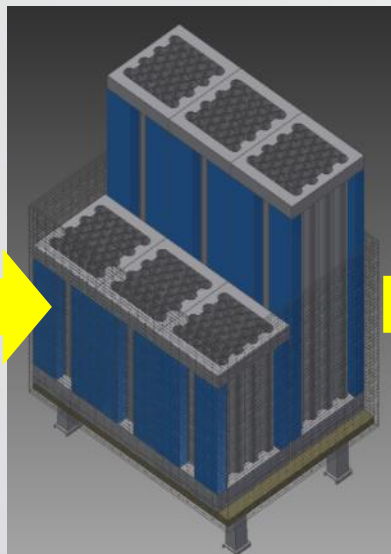
第1版:Version 1:

A.批量問題

A. Problem of too many quantity.

B.單一機種,量過多

B. Too many quantity for single model.



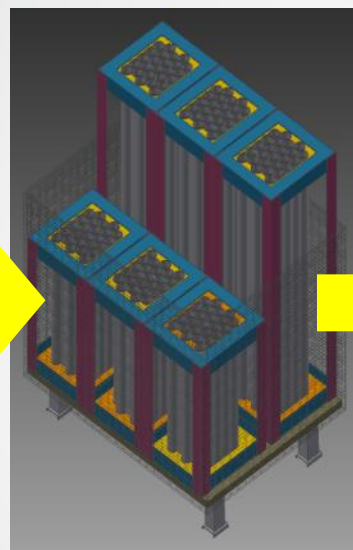
第2版: Version 2

A.人員拿取不易

A. Not easy to reach.

B.容器成本↑

B. Container Cost↑



第3版: Version 3.

A.角鐵框架

A. Angle Iron frame

B.蜂巢式堆疊

Honeycomb stacking



第4版: Version 4

A.棋盤式擺放

A. Chessboard way to place.

B.存放3個機種

B. Storing 3 models.

試用後已量產使用！

Already used in mass production after test!!

持續改善中！

Continue to Improve!!

提案改善之二 包裝木箱整合-改善前

2nd Proposal- Wooden Case Integration - Before



我們的產品以往都是依照各機種尺寸製作木箱的，
Wooden case used to be made according to each machine size.
就像這張照片一樣，木箱種類非常非常的多，
As the photo shown, too many different kinds of wooden cases.
不僅製作程序繁雜，材料種類與庫存量都很令人頭痛。
Not only production process complicated, but also create headache
on material kind, and stock volume control.



提案改善 包裝木箱整合-改善中

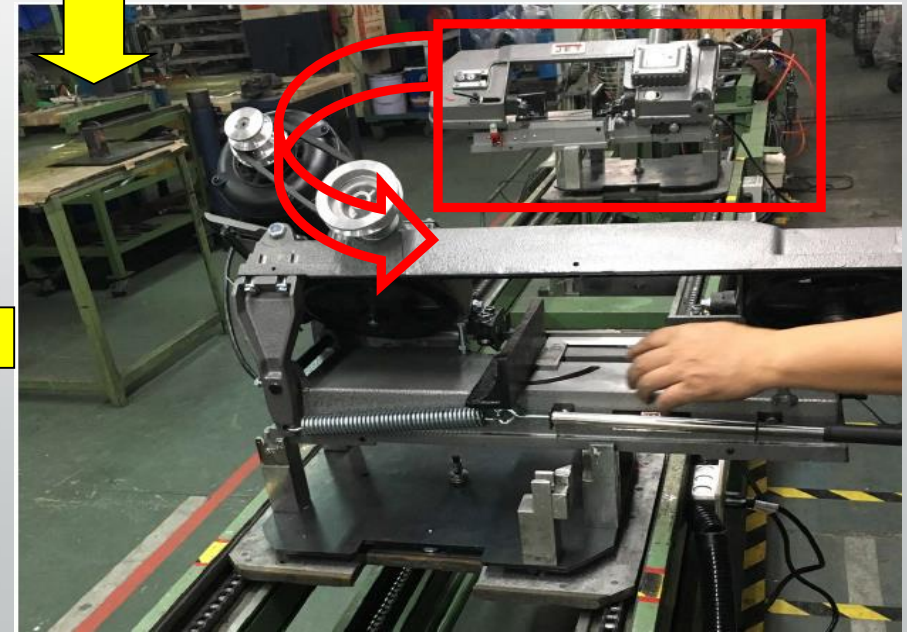
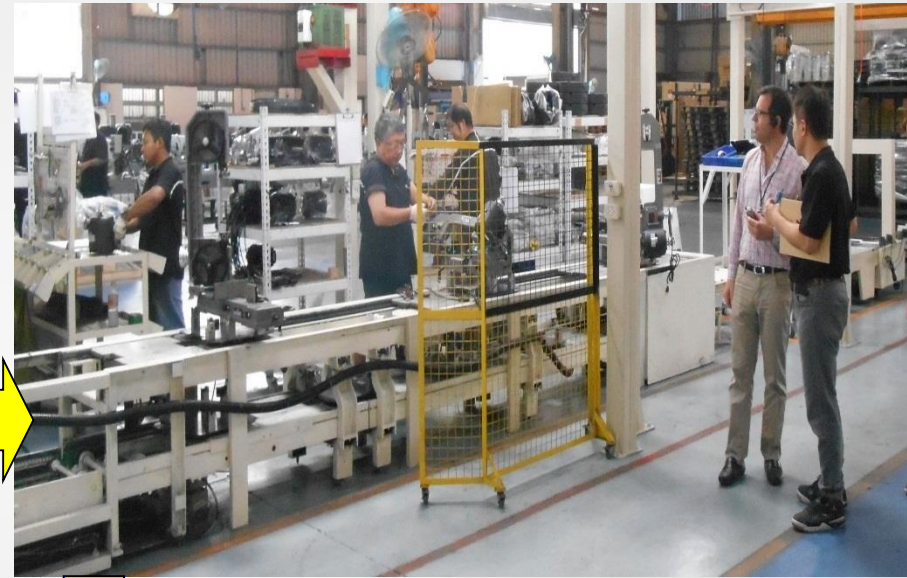
Proposal- Wooden Case Integration - Improving



項次	類別	機號	包裝方式(紙箱)
1	A	72N	底板+紙箱
2	A	72N	原木板條
3	A	72N	底板+紙箱腳加高
4	A	82N	底板+紙箱腳加高
5	A	82N	底板+紙箱
6	B	72N	底板+紙箱腳加高(101)
7	B	72	原木板條(101)
8	B	72N	原木板條腳加高
9	B	72G4	底板+紙箱
10	B	72G4	原木板條
11	C	72G4	底板+紙箱腳加高
12	C	92G	底板+紙箱
13	C	92G	原木板條腳加高
14	C	82N	原木板條
15	C	82N	底板
16	D	82S	原木板條
17	D	82S	原木板條腳加高
18	D	92G	原木板條(101)
19	D	92G	底板+紙箱腳加高
20	E	92G	底板+紙箱腳加高(104)
21	E	92G	原木板條腳加高(508)
22	E	92G	原木板條腳加高
23	F	92B	底板+紙箱腳加高
24	F	92B	底板+紙箱
25	F	92B	原木板條
26	F	814G	底板+紙箱腳加高(104)

提案改善之三 小鋸線轉盤改善

Proposal 3 – Small Saw Swivel Plate Improvement



TPS指揮中心：事務局

Command Center: Bureau of Affairs



一起讀書會 Study Together



高素質的員工團隊及全員參與的TPS才能打下良好的基礎進而開花、結果



人才培育 Personnel training



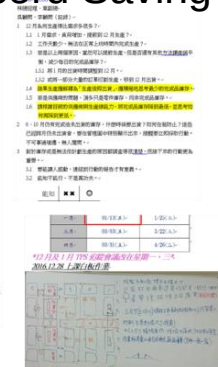
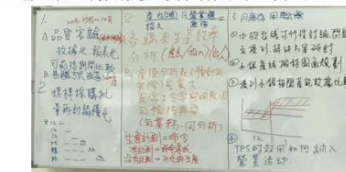
參訪事務及流程的規劃 Visit the business and Process Plan



大屋-記錄的保存 Big House – Record Saving



大屋是TPS小組，執行一台流及落實PDCA的情報室
每週二、四 TPS小組會利用時間，進行進度的追蹤及檢討
這也是大家集思廣益、腦力激盪，孕育出很多改善想法的基地
牆上張貼的資料，是大家共同努力的紀錄軌跡...



事務局 Bureau of Affairs



5S管理板 Management Board



品保課

小鋸

修造&小鋸&裝一組&品保



外包-薛老闆

外包-黃老闆

外包-鍾老闆

外包-廖老闆

5S Excellent Team

5S 優秀團隊獎

☆許堯明課長帶領的儲運團隊



許崇賓組長.黃振文.張翰林.陳文煒.胡光華.
林芷寧.賴素琴.鄭芳宜.劉慶容.林宇軒

古有華山論劍，今有榮富六俠



TPS效應：現場人員的回饋

TPS Effect: Field Staff Feedback

- 在榮富工作超過30年的現場大嬸
Lady working over 30 years in RF production field.
- 來自異鄉的外籍員工
Foreign employees from friendly countries.
- 新生代的倉管員
Cenozoic warehouse manager

Leader的親力親為

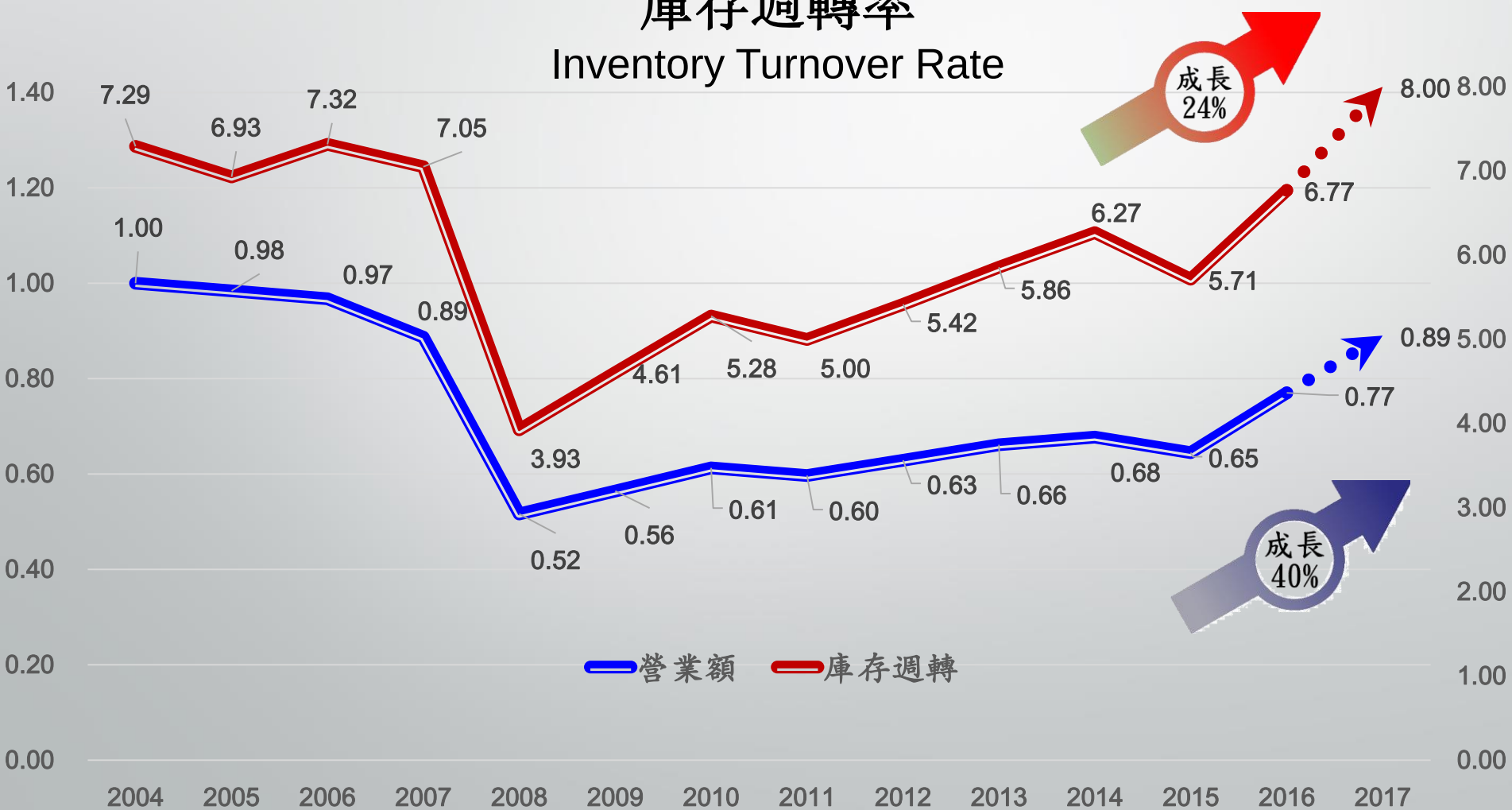
Leader Is Always There



TPS果實：有感的KPI

Taste Of Fruitful KPI

營業額 Turnover & 庫存週轉率 Inventory Turnover Rate



榮富願景

Rong Fu Vision

在TPS的基礎下建立幸福企業

Based On TPS, Establish Happy Business