



DAIKIN COMPRESSOR INDUSTRIES LTD.

บริษัท ไดกิน คอมเพรสเซอร์ อินดัสทรีส์ จำกัด

“TRAINING”

and



“HAPPY LIVING”



at

DAIKIN COMPRESSOR IND. LTD.

Nao Shimoura (TUMSAT)

& Nuti (TUCK) Hutasingh (CU)





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Compressor

refrigerant gas



high pressure

high temperature



cool it down

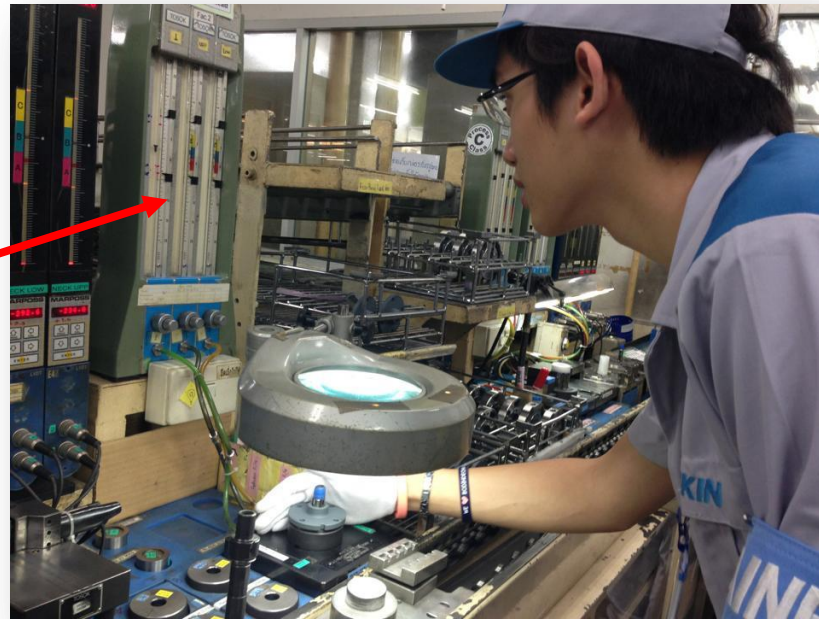
compressor

heat exchanger





Training in Position of Point check part



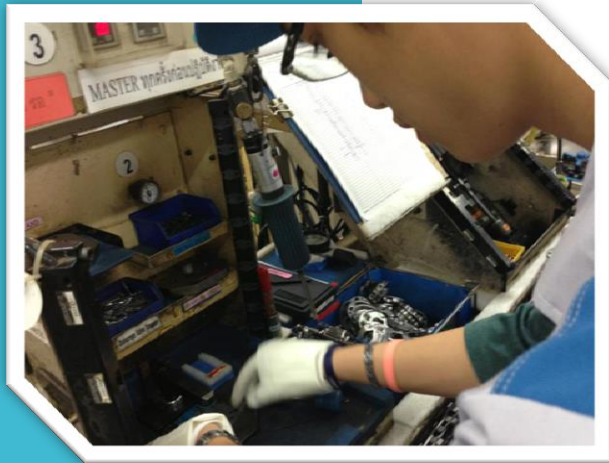
Measuring
machine
(Air Micrometer)

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Training in Mecha assembly line



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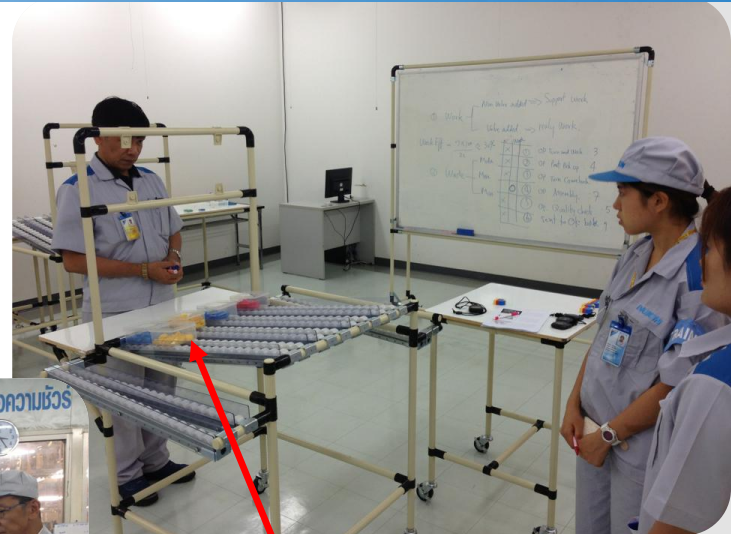
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Kaizen Lecture class



Studying KAIZEN
and finding MUDA



**“Lego” = components
of the compressor**



**Kaizen Presentation from
Fourman(worker) to the President**



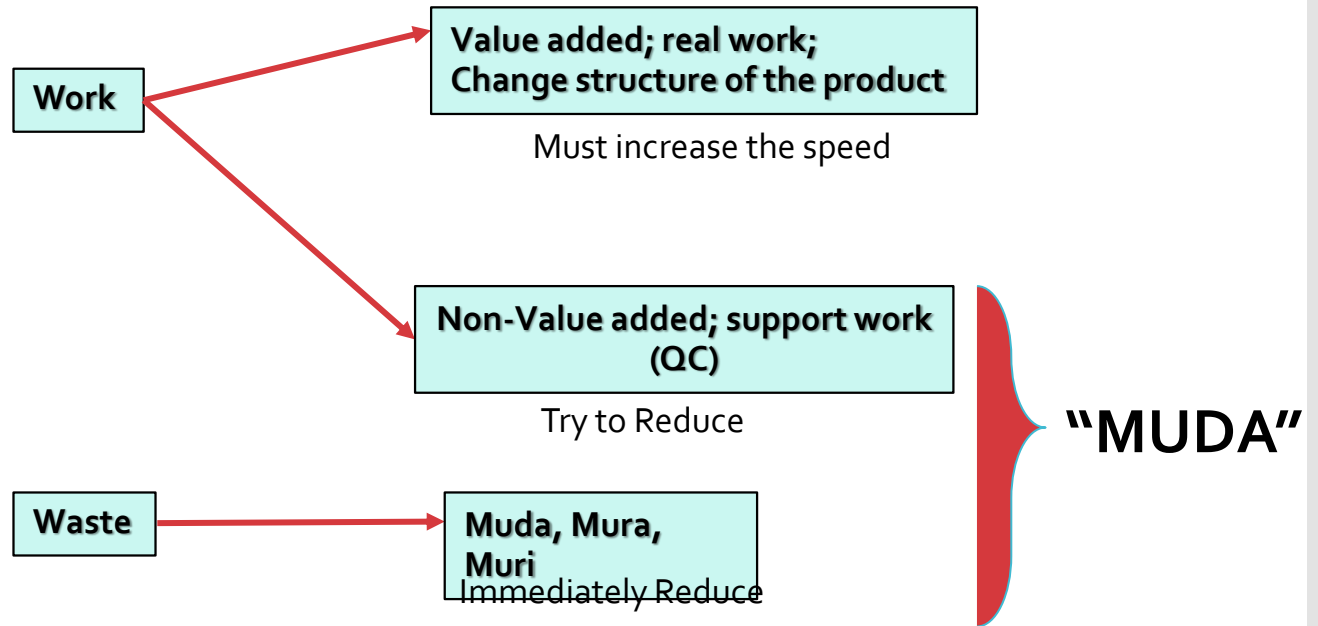
Introduction to Kaizen

“MUDA”

“Kaizen”

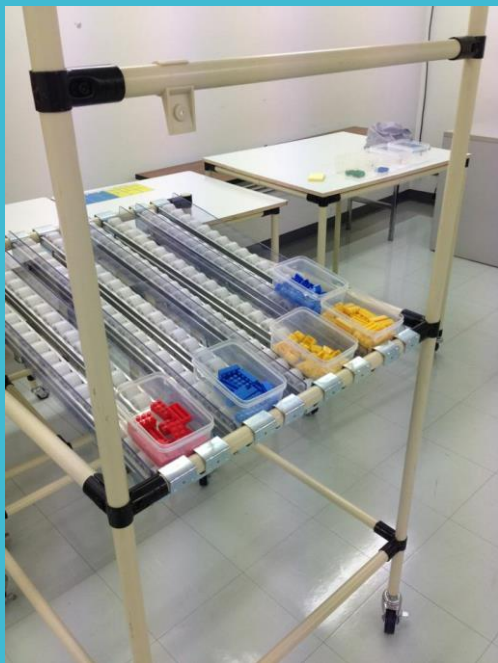


“Reduce Cost”

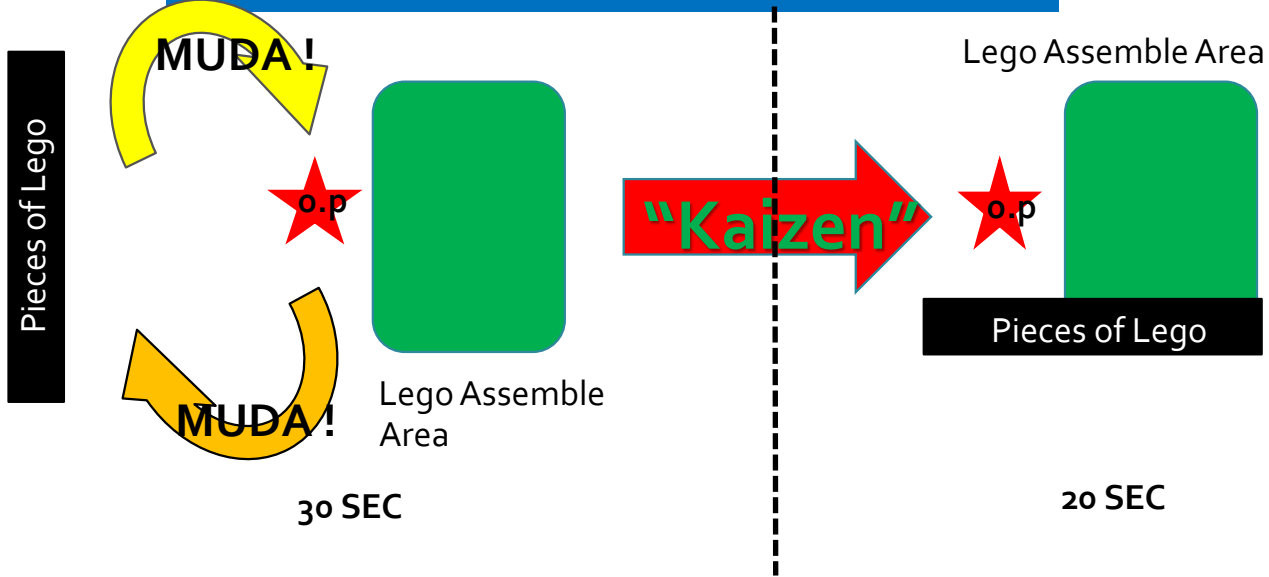




Introduction to Kaizen



Using Lego for studying Kaizen



Just reduce working time (30 to 20 sec) in only one process can increase capacity of production about 1000 unit/day/1 operation



MUDA Classification

- 1. Over production
- 2. Waiting
- 3. Transport
- 4. Movement
- 5. Defect/ Rework
- 6. Excess inventory
- ***** 7. Non-effective process waste

Muda = The action which use resources such as labor or time or Raw Mat. and not make any Good and services.



Example of Kaizen (Waiting)

If the customers require 380 units/day, Working time = 470 min,

Takt time = $(470 \times 60) / 380 = 73.6 \text{ sec/units}$

A=40
s

B=55 s

C=65 s

D=20
s

E=45 s

F=35 s

6 peoples (too much)

"Kaizen" : Reduce Labors

$$\text{Operator Demand} = \frac{(40+55+65+20+45+35)}{73.6} = 3.53 =$$

4 peoples (are enough)

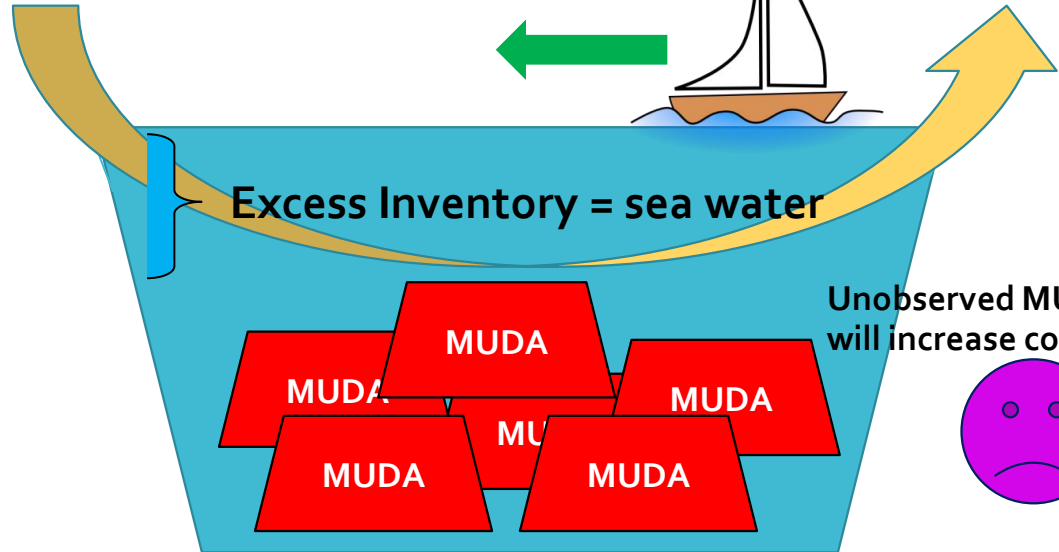




Example of Kaizen (Excess inventory)

Raw Materials

Product



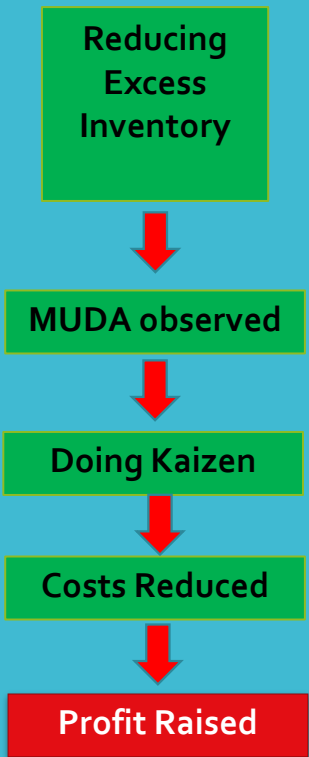
Excess Inventory = sea water

Unobserved MUDA will increase costs.

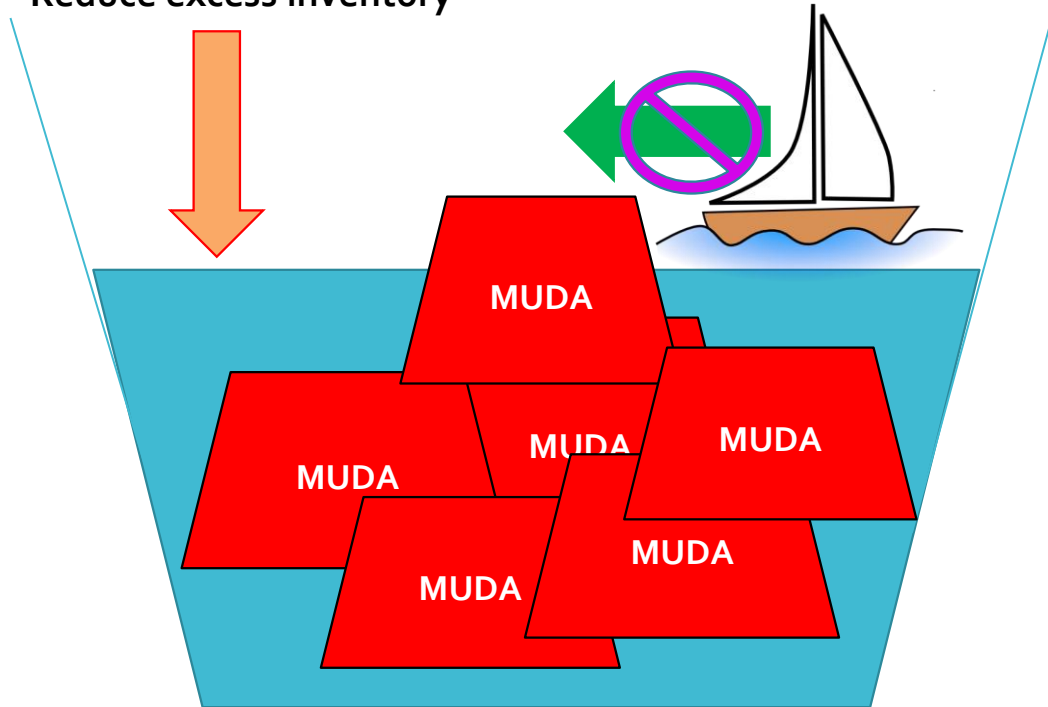


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Reduce excess inventory





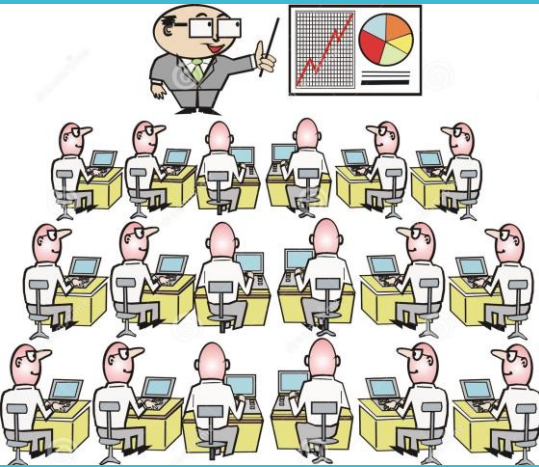
SKILLS that we have learnt from Daikin

1. Engineering skill such as hammering, assembling etc.
2. Observing skill : Finding MUDA from the line processes
3. How to do KAIZEN from the MUDA that we have found
4. Measuring skill : Practice how to measure the components with new measuring tools.





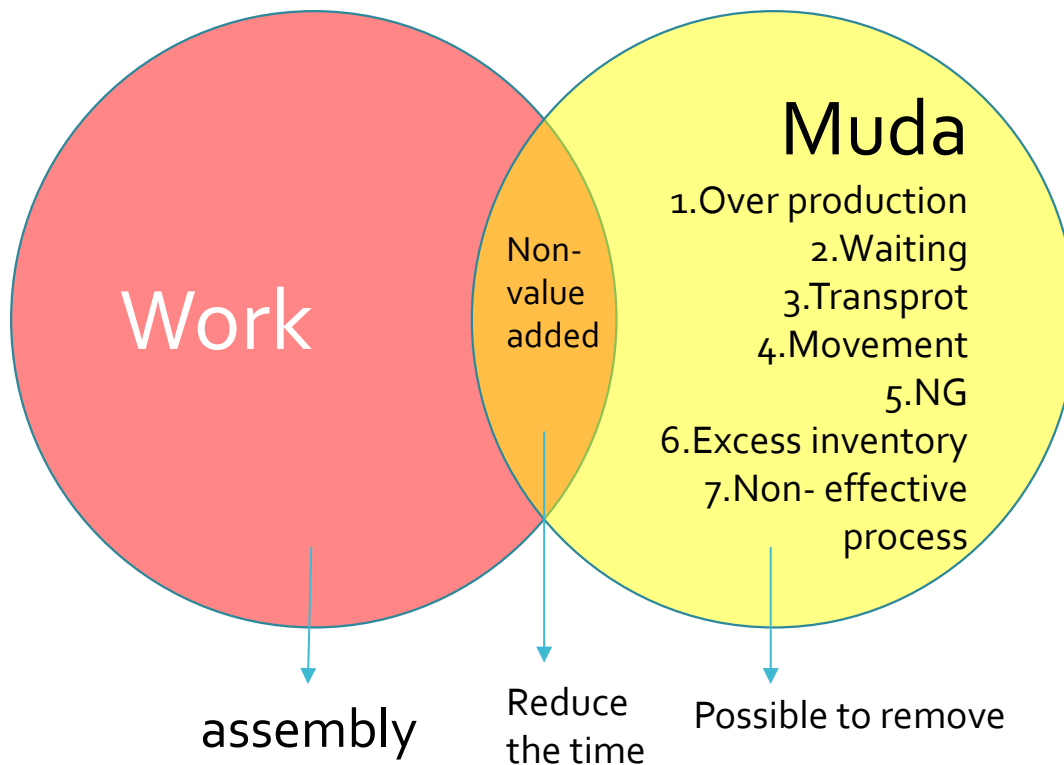
DEVELOPMENTS in thinking



1. Times is the most important thing in Industry. Such as working quickly and punctuality.
2. Studying in University, Training in Industry and real working in Industry are totally different.
3. Safety for the worker is must be strict in the Industry because it can decrease the costs.
4. Studying : Mistakes = experiences (resolvable)
Working : Mistakes = loss profits, regress



7 Muda



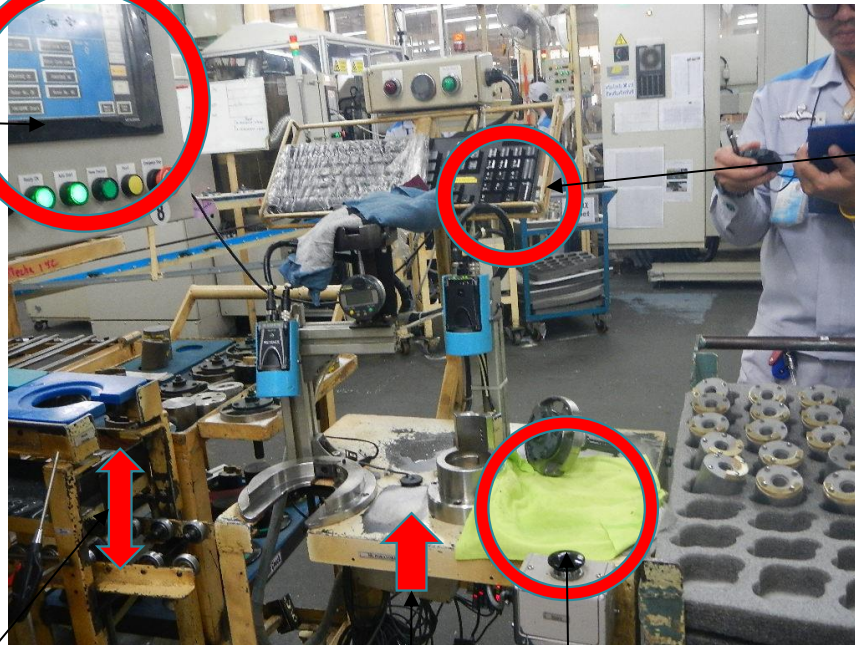
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Find MUDA

turn to look at
the monitor



Too high

The gap of
the height

Too low

Wiping the oil towel
position



Conclusion

19 muda

All this process isn't work.
It was easy to find Muda ,
but Kaizen was difficult.





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Before/ After

Before; just plain work
Just producing

Image of
working in
the factory



Before/ After

After ;accurately and quickly

necessary to think about the effective of
the work

→ dangerous

waste

Different thoughts and custom make
difficulty

Image of
working in
the factory



Work in factory

Difference between work and school

Work

Get money from working

- Working for money “individual life”
- Working for customer “social life”
- Need responsibility for own work.
- Every worker show their company.
- Your work may make someone injured
- Communication for good factory and knowing the actual situation



Studying in University

Pay money for studying

- Time to study is for myself.
- I can study individually.
- Unnecessary to study not for the credits.
- Possible to try it again



Improvement
change my
opinion

Studying for myself enrich my future skill.

The skill may help the company where I will work in the future.

It may make the social life better.

Thank you!!!

