



“Helping you Automate your Warehouse Completely”

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Which Level is your Warehouse Automation?

LEVEL 1

Conventional Picking with
productivity and accuracy improvements
Only decision is automated

Warehouse Management System WMS
Labor Management System LMS

LEVEL 2

Mechanized Solution that automate
horizontal movement and reducing some
staffing *Goods are partially and physically
automated.*

Conveyor
Pick Modules

Which Level is your Warehouse Automation?

LEVEL 3

Semi-automated System that significantly improve storage utilization and minimize traveling time in operation *Goods are physically automated.*

ASRS Sortation
Conveyors with
Warehouse Control Software WCS

LEVEL 4

Fully- automated and high speed Solutions which installed in greenfield
Streamline Order Picking

ASRS + Conveyor + WCS + WMS + Sortation
+ Automated Case Picking + Palletizing

EST. PAYBACK PERIOD

LEVEL 1

Payback Period **6-12 months**

LEVEL 2

Payback Period **1-2 years**

LEVEL 3

Payback Period **3-4 years**

LEVEL 4

Payback Period **5-10 years**

EST. COST IN THB

LEVEL 1

Budget **10-30 MB**

LEVEL 2

Budget **30-50 MB**

LEVEL 3

Budget **50-500 MB**

LEVEL 4

Budget **more than 500 MB**

**Exclusive building and land expenses*

ESTIMATED COST AND PAYBACK PERIOD FOR DIFFERENT LEVELS OF AUTOMATION

TECHNOLOGIES

EST. COST IN THB

EST. PAYBACK PERIOD

LEVEL 1
Only decision is automated

Warehouse Management System WMS
Labor Management System LMS

10-30 MB

6-12 months

LEVEL 2
Goods are partially and physically automated.

Conveyor Pick Modules

30-50 MB

1-2 years

LEVEL 3
Goods are physically automated.

ASRS Sortation
Conveyors with Warehouse Control Software WCS

50-500 MB

3-4 years

LEVEL 4
Streamline Order Picking

ASRS + Conveyor + WCS + WMS + Sortation + Automated Case Picking + Palletizing

more than 500 MB

5-10 years

Automated Warehouse (ASRS) in Cold chain



Less Rack Space

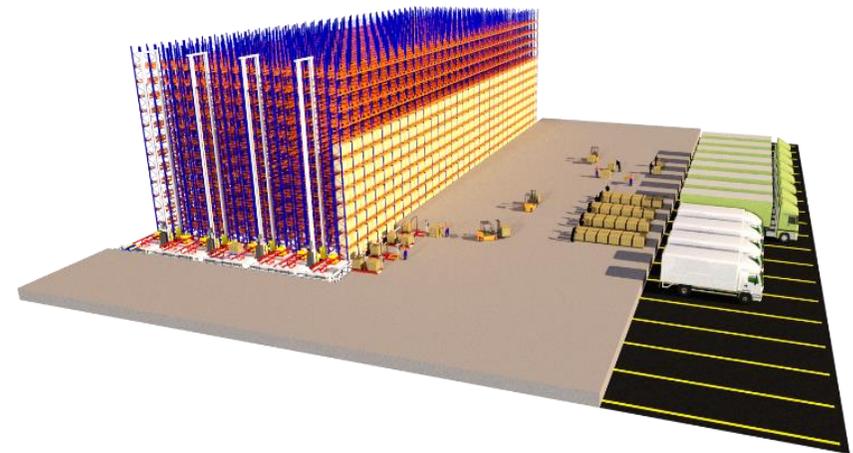
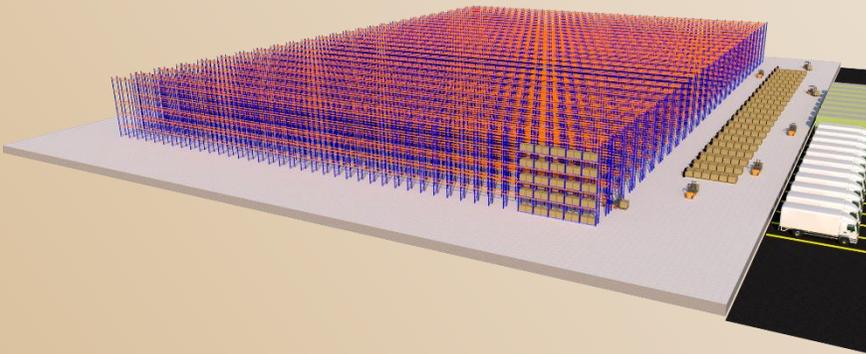
Conventional Warehouse

Building space (m.)

Width 150 m.
Length 150 m.
Height 12 m.

Width 60 m.
Length 110 m.
Height 32 m.

ASRS



Ground Surface Area (SQM.) 22,500
Building Surface Area (SQM.) 52,200
Volume (CBM.) 270,000

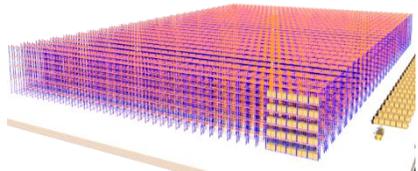
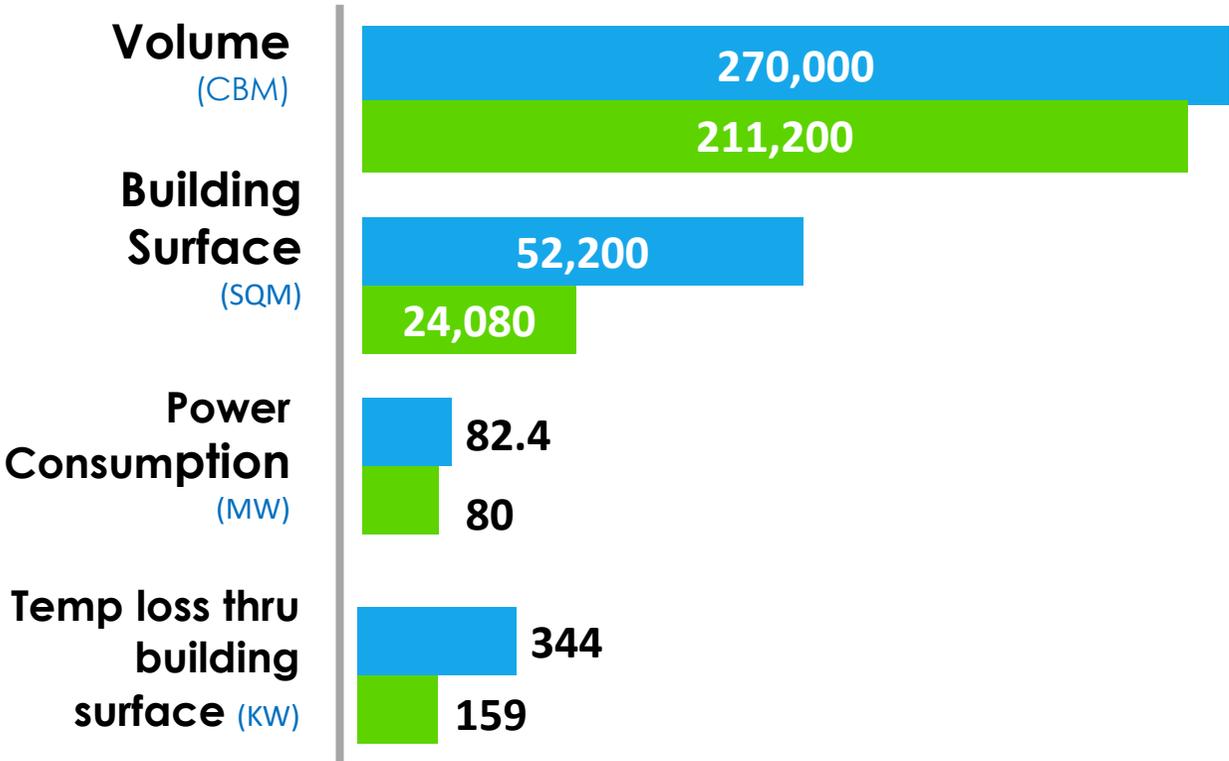
6,600 SQM.
24,080 SQM.
211,200 CBM.

Load Size : 1100W x 1300D x 1800H mm.

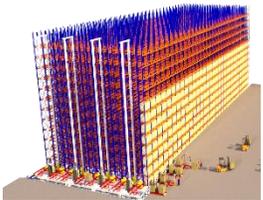
Storage Capacity : 10,000 Pallets (1000 kg/ Pallet)

FACT 1

Less Power Consumption



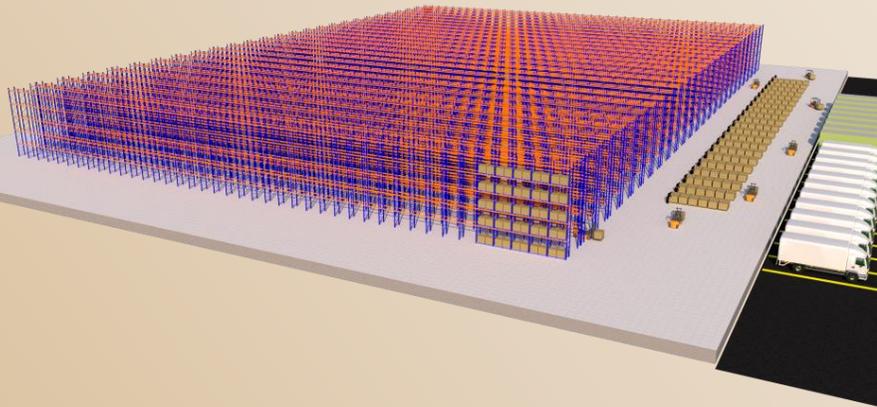
Conventional Warehouse



ASRS

FACT 2

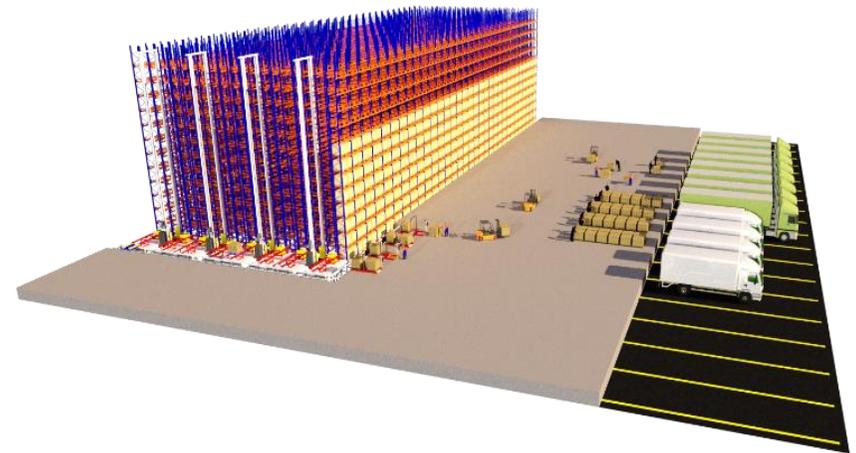
Conventional Warehouse



Longest Traveling Distance = **180 m.**

Shorter Intra- Logistic Distance

ASRS



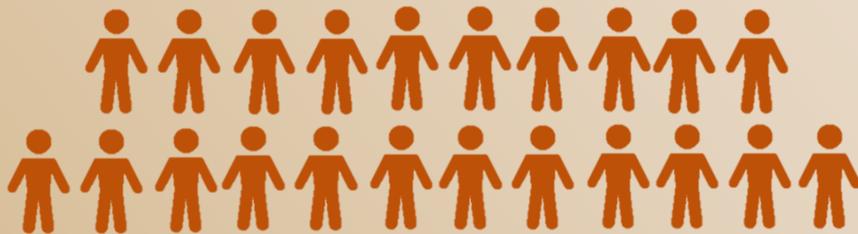
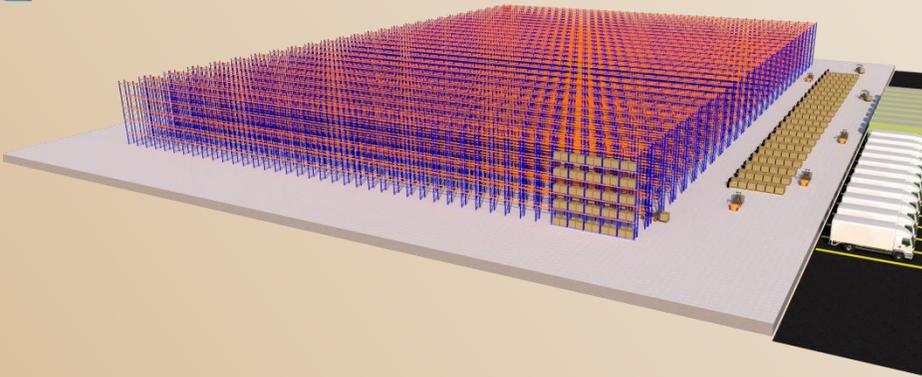
Longest Traveling Distance = **145 m.**

Electricity Bill per Pallet 0.75 B

- ✓ **Faster Operation**
- ✓ **Lower Electricity/Fuel Bill**

**FACT
3**

**Conventional
Warehouse**

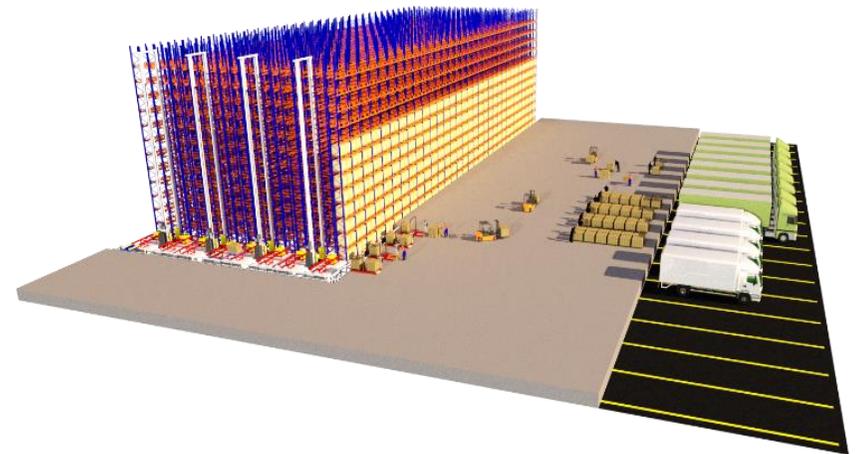


MANY manpower required compared to Ambient warehouse

Zero

Manpower in ASRS

ASRS



0

Manpower

**FACT
4**

Less Temperature variation leading to better quality control



Conventional

Shutter Door

W x H = 3 m. x 5.50 m



ASRS

Shutter Door

W x H = 1.60 m. x 2.20 m



**What
Automated
Warehouse
benefiting
you?**

Lower running Cost

Less Footprint Area

Less manpower

**Higher Inventory
Accuracy**

**Better Quality
Control**



People said



1. **COVID-19** and its Tsunami Impact to Logistics & Warehouses?



2. Rule of Thumb **20%
of Operating Cost can be saved
through **Robotics** and
Automation.**



**3. Automated Warehouse
doesn't kill the job position
BUT
it increases employees'
productivity without increasing
their headcount.**

4. People are saying

“You have to be a **big company** to afford Investment in Automation”, **is it true?**”

“Automation is **too expensive**. Its ROI is too far away. **Is it true?**”

“Automated Systems **aren't flexible** enough to accommodate my business variability. **Is it true?**”

“My current workplace needs **expensive training to operate the automation system**. **Is it true?**”



5. Tips of doing Automation successfully
Not necessary
to have **every product** in warehouse
to be accounted for the
automation system.

Automated Warehouse (ASRS) By Menam DC





THANK YOU

บริษัท แม่น้ำเมคคานิกา จำกัด

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