



www.cas.co.kr

CAS SMART SOLUTION

CAS designs the smart world based on sensor technology.

SMART **FACTORY**
SMART **LOGISTICS**
SMART **RETAIL**
SMART **FARM**
SMART **AIRPORT**
SMART **LABORATORY**

CAS

CAS designs the smart world based on sensor technology.

With the advent of the 4th Industrial Revolution, changes in each industry are being attempted to implement existing industrial sites as smart factories. Smartening the manufacturing process is key to accurate information collection of sensor data and history management using big data. Based on high-quality sensor technology, CAS improves productivity and quality in various industries. It supports the smartization of industrial facilities based on big data by collecting various kinds of data in real time.

**SMART LABORATORY SOLUTION**

1. Smart Laboratory Solution

24~25 page

**SMART FARM SOLUTION**

1. Smart Farm Solution

20~21 page

**SMART AIRPORT SOLUTION**

1. Smart Airport Solution

22~23 page


**SMART RETAIL SOLUTION**

1. Distribution store management system

16~17 page

2. SUPER SMART Self-Scan/Checkout Service

18~19 page

**SMART FACTORY SOLUTION**

1. Automatic combination metering system

4~5 page

2. Powder Packaging System

6~7 page

3. Liquid filling system

8~9 page

4. Gas tanks, hoppers and silo metering systems

10~11 page

**SMART LOGISTICS SOLUTION**

1. Smart Logistics Solution

12~13 page

2. Unmanned Weighing Truck Scale System

14~15 page

CONTENTS		
Smart Factory Solutions		
1. Gas tank, hopper and silo metering system	04	
2. Automatic combination metering system	06	
3. Powder Packaging System	08	
4. Liquid filling system	10	
Smart Logistics Solutions		
1. Logistics Management System	12	
2. Unmanned metering truck scale system	14	
Smart Retail Solutions		
1. Distribution store management	16	
2. Super Smart Self Scan/Checkout Service	18	
Smart Airport Solutions		
22		
Smart Research Solutions		
24		
Product lineup		
Manufacturing Line		26
Inspection line		28
Packaging/Marking Line		29
Logistics Line		31
Agricultural Line		33
Distribution Line		34
Airport / Sensors and Peripherals		35
Study Line		36
Electrostatic Solution		38
Software		
Smart Retail		39
Smart Factory/Logistics		40
Smart Farm		42
Solution Process / Organization Chart		43



SMART FACTORY SOLUTION

CAS tanks, hoppers and silo metering systems

An accurate metering system is required to measure the contents of industrial tanks, hoppers or silos. Multiple high-capacity load cells can be used with accurate metering indicators to construct an effective metering system. It also provides a safe metering management solution by applying explosion-proof products and metering modules with earthquake-resistant design depending on the environment of use.



Related Product Line up



1 Silo

Product Explanation: 26p



2 Software

Product Explanation: 40p



3 Explosion proof load cell

Product Explanation: 35p



Metering module

4 Explosion proof indicator

Product Explanation: 35p



SMART FACTORY SOLUTION

Automatic combination metering system

The CAS automatic combination metering system consists of measuring, counting, inspection, packaging, inspection, inspection, and labeling from the warehousing of raw materials to the shipment of products. By automating each process, we are responding to the shortage of manpower by reducing working hours. Furthermore, it also contributes to the safety and safety of the product by grasping the manufacturing history and distribution process of the product in real time.



Related Product Line up



1 Combination meter

Product Explanation: 26p



2 Three-sided packing machine

Product Explanation: 26p



3 Rotary packing machine

Product Explanation: 26p



4 Metal detector

Product Explanation: 28p



5 Auto Checker

Product Explanation: 28~29p



6 X-Ray

Product Explanation: 29p



7 Ionizer

Product Explanation: 38p



8 Self-contained machine

Product Explanation: 29p



9 Automatic sealer

Product Explanation: 29p



10 Automatic wrapping machine

Product Explanation: 30p



11 Forklift Scale

Product Explanation: 32p



12 Software

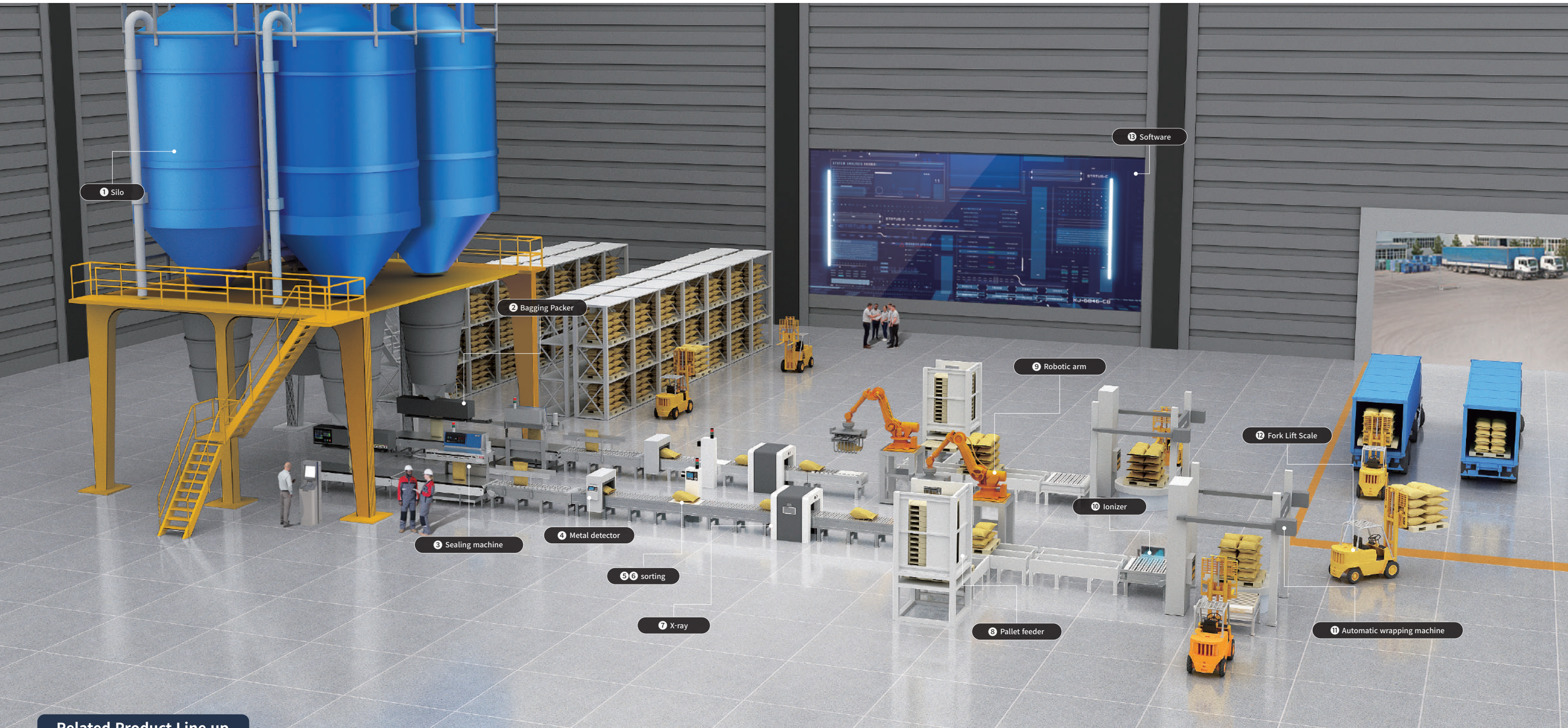
Product Explanation: 40p



SMART FACTORY SOLUTION

Powder packaging system

The CAS powder packaging system seals powdery materials such as flour, cement, fertilizer, feed, etc. in a prescribed packaging container. It is a system that loads and exports a set amount on the pallet after checking the quantity and inspecting foreign substances.



Related Product Line up



1 Silo

Product Explanation: 26p



2 Bagging Packer

Product Explanation: 27p



3 Sealing machine

Product Explanation: 28p



4 Metal detector

Product Explanation: 28p



5, 6 Auto Checker/Rejector

Product Explanation: 28~29p



7 X-ray

Product Explanation: 29p



8 Pallet feeder

Product Explanation: 30p



9 Robotic arm

Product Explanation: 30p



10 Ionizer

Product Explanation: 38p



11 Automatic wrapping machine

Product Explanation: 30p



12 Forklift Scale

Product Explanation: 32p



13 Software

Product Explanation: 40p



SMART FACTORY SOLUTION

Liquid filling system

The CAS liquid filling system holds liquid substances such as water, beverages, oil, chemicals, etc. in various containers. It is a system that checks the quantity after sealing, checks the leak test, loads the pallet with the specified amount, and sends it out.



Related Product Line up



1 Silo

Product Explanation: 26p



2 Liquid filling machine

Product Explanation: 27p



3 Capping machine

Product Explanation: 28p



4 Auto labeler

Product Explanation: 30p



5 Auto Checker

Product Explanation: 28~29p



6 Rejector

Product Explanation: 29p



7 Loading robot

Product Explanation: 30p



8 Self-contained machine

Product Explanation: 29p



9 Automatic sealer

Product Explanation: 29p



10 Marking machine

Product Explanation: 30p



11 Automatic wrapping machine

Product Explanation: 30p



12 Software

Product Explanation: 40p



SMART LOGISTICS SOLUTION

Logistics Management System

CAS Smart Logistics Solution uses various sensors and PCs to measure and measurement equipment (Weighing + Measuring + PC) and controls them. It is a comprehensive solution that efficiently operates logistics and inventory management in real time by linking various dedicated programs. From the time of receipt of the goods, by automating each process such as metering, counting, packaging, CAS Smart Logistics Solution uses various sensors and PCs to measure and measurement equipment (Weighing + Measuring + PC) and controls them. It is a comprehensive solution that efficiently operates logistics and inventory management in real time by linking various dedicated programs. From the time of receipt of the goods, by automating each process such as metering, counting, packaging, inspection, classification, and labeling, we reduce working hours and maximize efficiency.



Related Product Line up

											
1 Vision Inspection System	2 Volumetric system	3 Auto labeler	4 Unmanned Carrying Robot (AGV)	5 Rejector	6 Truck scale	7 Software	Pallet Scale	Forklift Scale	Printers	Platform Scale	Scanners
Product Explanation: 32p	Product Explanation: 31p	Product Explanation: 30p	Product Explanation: 32p	Product Explanation: 29p	Product Explanation: 32p	Product Explanation: 41p	Product Explanation: 32p	Product Explanation: 32p	Product Explanation: 30p	Product Explanation: 31p	Product Explanation: 35p



SMART LOGISTICS SOLUTION

Unmanned Weighing Truck Scale System

CAS unmanned measuring truck scale system is designed to provide input and output weight, waste disposal and recycling facilities for manufacturing plants and transportation companies and through the unmanned operation, it provides reliable measuring information and ERP system, user friendly high-performance solution.



Related Product Line up



1 Truck scale

Product Explanation: 32p



2 Digital Loadcell

Product Explanation: 35p



3 Indicator

Product Explanation: 35p



4 Vehicle number recognizer

Product Explanation: 32p



5 Unmanned measuring panel

Product Explanation: 32p



6 CCTV

Product Explanation: 32p



7 Software

Product Explanation: 41p



Junction Box



Remote-display



Traffic light



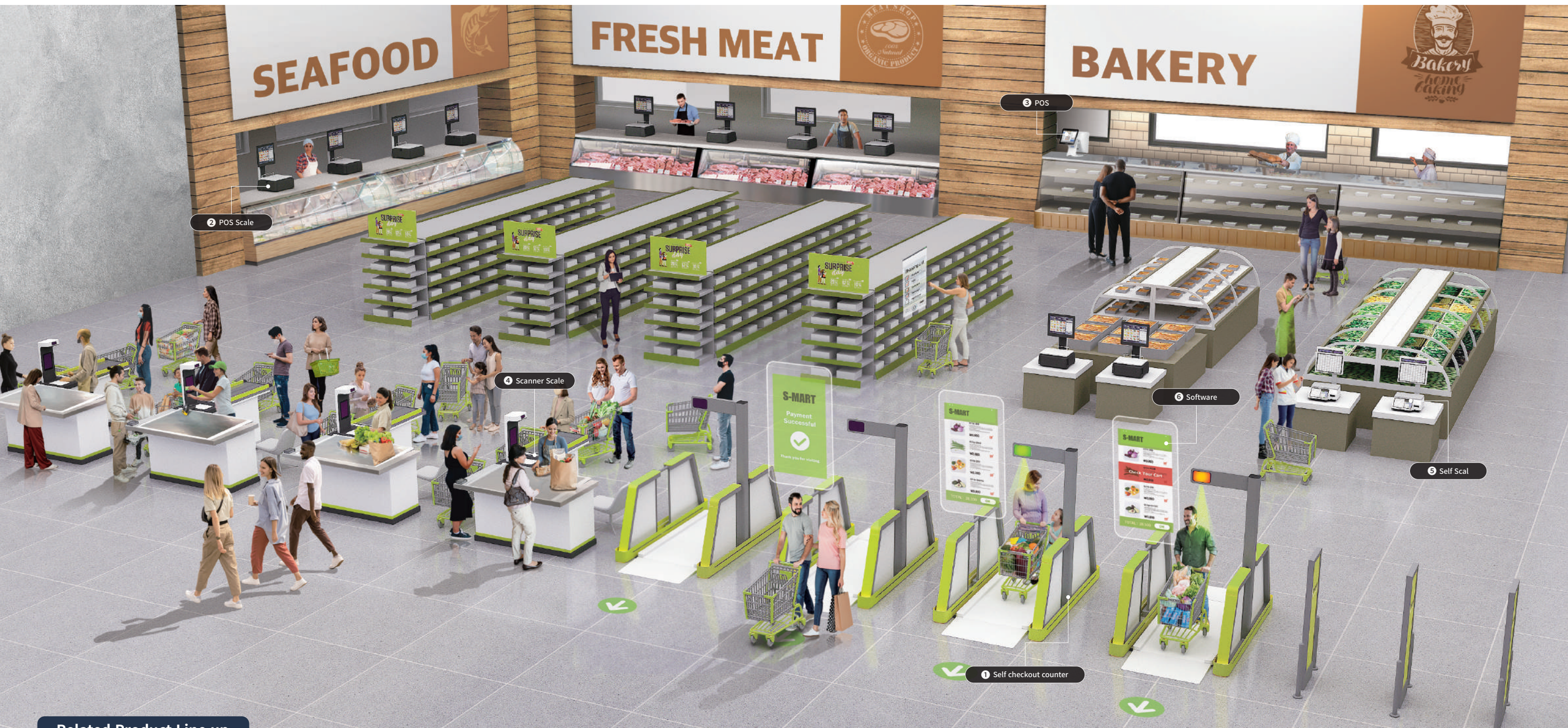
Drainage pump



SMART RETAIL SOLUTION

Distribution store management system

CAS distribution store management system is based on cart type self-scanner system with double check of shopping list through weight and camera and provide perfect payment without loss. Various types of marts, including the integrated system of the headquarters of large retail stores and the system of each store unit etc... Management systems can be customized and provide a vision for future distribution stores.



Related Product Line up

Product Explanation: 37p



1 Self checkout counter

Product Explanation: 34p



2 POS Scale

Product Explanation: 34p



3 POS

Product Explanation: 34p



4 Scanner Scale

Product Explanation: 34p



5 Self Scale

Product Explanation: 34p



6 Software

Product Explanation: 39p



Labeling Printing Scale

Product Explanation: 34p



Scanner

Product Explanation: 35p



Auto Wrap Packing Machine

Product Explanation: 28p



Barcode Printer

Product Explanation: 30p



Recycling Scale

Product Explanation: 35p



Consumable Paper

Product Explanation: 35p



SMART RETAIL SOLUTION

SUPER SMART Self Scan/Check out Service

CAS Super Smart Self Check out service allows you to enter and exit store through mobile app or scanner. This system enable to customer by offering free shopping space and simple payment system through self service. This system helps effective stock control and management through customer's data of consumption analytics data.



Smart Tray : Sending product information and management, Monitoring stock condition.



Item	Unit Price	Weight	Unit Price	Weight	Unit Price	Weight	Unit Price	Weight	Unit Price	Weight
1	8.54	kg	1.94	kg	3.53	kg	4.66	kg	6.48	kg
2	5.09	kg	3.08	kg	2.5	kg	15.38	kg	9.21	kg
3	SOLD OUT		3.97	kg	8.86	kg	4.48	kg	6.57	kg
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										

Related Product Line up



1 KIOSK (Buried Type)

Product Explanation: 34p



2 KIOSK (Stand Type)

Product Explanation: 34p



3 Electronic Price Indicator

Product Explanation: 35p



4 CCTV

Product Explanation: 32p



5 Smart Tray

Product Explanation: 32p



6 Software

Product Explanation: 39p



Self Scale

Product Explanation: 34p



Scanner

Product Explanation: 35p



Barcode Printe

Product Explanation: 30p



Refrigeration/Temperature Monitoring Sensor

Product Explanation: 35p



Auto Wrap Packing Machine

Product Explanation: 28p



Consumable Paper

Product Explanation: 28p



SMART FARM SOLUTION

Smart Farm Solution

CAS Smart Farm Solution helps to develop growth and environment by collecting crop data. This is also enable to manage crop data and farm environment at anytime and anywhere. Productivity can be increase by using badge weight sensor and cloud service.



Related Product Line up



1 2 Badge Manage System

Product Explanation: 33p



3 Software

Product Explanation: 42p



4 Agricultural Drone

Product Explanation: 33p



5 Truck Scale

Product Explanation: 32p



6 Animal Tray

Product Explanation: 33p



7 Crude Meter

Product Explanation: 33p



8 Bulk Bag Packing Scale

Product Explanation: 27p



9 Grain Grader

Product Explanation: 33p



10 Grain Packing Machine

Product Explanation: 27p



11 Auto Checker

Product Explanation: 28~29p



Portable Bench Scale

Product Explanation: 32p



Fruit Grader

Product Explanation: 33p



SMART AIRPORT SOLUTION

Smart Airport Solution

CAS Smart BTU measure weight and volume of baggage and offer various service and advertisement.
CAS is making smart airport together by using smart quarantine system to find fever symptomatic person in advance and offer information to quarantine authorities and airport.



Smart BTU Control Software

Face Recognition Fever System Control Software

Related Product Line up

Ultrasonic Type

Camera Type

1. Measuring Results

2. Checking Suitability

3. Choosing Airline

4. Entering Flight No.

5. Checking Consignment

6. Checking Baggage Regulation

1 2 Baggage Weight/Volcume Measuring System

Product Explanation: 35p

Immigration (out) KIOSK

Immigration (in) CCTV

Moving KIOSK

Customer Screen

Security Guard Screen

Tagging Boarding Pass

Control Screen for showing symptom

3 Face Recognition Fever Checking System

Product Explanation: 35p



SMART LABORATORY SOLUTION

Smart Developing Solution

CAS smart research solution can make perfect wireless measured data sending system with various type of laboratory equipment which has high technique and passing strict standard. This system offer optimized solution for controlling quality and mixing raw material such as laboratory, measuring electronic parts.



Related Product Line up



1 Analytical Balance

Product Explanation: 36p



2 Electronic Density Meter / Moisture Analyzer

Product Explanation: 36p



3 Rotary Evaporator

Product Explanation: 36p



4 Stir/Colloid/mixer

Product Explanation: 37p



5 Dilutor

Product Explanation: 37p



6 Spectrophotometer

Product Explanation: 37p



7 Water Bath/Drying Oven

Product Explanation: 37p



8 Autoclave

Product Explanation: 38p



9 Centrifugation Heater/Shaker

Product Explanation: 37p



10 IoT Medicine Showcase Purifier

Product Explanation: 38p



11 Labatory Equipment

Product Explanation: 38p



12 QC Manager

Product Explanation: 37p

DV-Works Software : Program for collecting measuring information connecting viscometer



Manufacturing Line


Silo

- Order-made
- CAS expert will provide solution meet environment and purpose.


Combination Meter
CP-SDS-10H

- Measurement of combinations by 10 columns of measurement
- Metric precision high speed type by way of method
- Easy to disassemble and combine for easy cleaning and inspection
- Suitable for multi-variety and auto/semi-automatic production lines


Combination Meter
CP-SDS-14H

- Combination metering by measuring units in columns 14 Metric precision high speed type by way of method
- Easy to disassemble and combine for easy cleaning and inspection
- Suitable for multi-variety and auto/semi-automatic production lines


Combination Meter
CP-SDS-20H

- Combination metering by 20 columns of metering units metric precision high speed type by way of method
- Easy to disassemble and combine for easy cleaning and inspection
- Suitable for multi-variety and auto/semi-automatic production lines

Manufacturing Line


Rotary Packing Machine
CP-6S-350

- The packaging machine consists of 6 sections. Envelope specifications 140 mm to 350 mm, auto bag insertion, Seal, opened envelope, fill the raw material, glue, It's made up of a discharge process.


Rotary Packing Machine
CP-8S-240

- There are 8 sections of the packaging machine, and the envelope specification 80 mm to 240 mm, automatic envelope insertion, Seal, open the envelope, fill the raw material, glue, It's made up of a discharge process.


Automatic Rotary Packing Machine
CP-8S-10V

- Vacuum Rotary automatic packing machine is an internal packing rotary It consists of 8 sections and 10 sections of vacuum rotary, envelope specification width 100 mm to 220 mm, length Configured to be suitable for 150mm to 300mm
- All the solids, powders, liquids that a vacuum needs designed for automatic vacuum packaging of products


Poultry Automatic Packer
DAK-PACK(CP-DP-N01)

- Production speed: 25-30 bpm (Difference in speed by variety depending on chicken size)
- Made in Korea
- Binding system: clipping device (aluminum or plastic clips)

Manufacturing Line


Three-sided Packing Machine
CP-SDP-320

- Easy to set with touchscreen
- Maximize machine precision and stability
- Automatic metering in conjunction with the automatic metering system a packing device


Three-sided Packing Machine
CP-HD-200

- a liquid compact three-sided packaging machine
- Touch Screen Mounted


Three-sided Packing Machine
CP-FB-300F

- A small three-sided packing machine


Three-sided Packing Machine
CP-HA-7000

- Multiple contents can be packed in one package
- Automatic envelope molding, automatic filling, automatic discharge

Manufacturing Line


Three-sided Packing Machine
CP-FA series

- A raised three-sided packing machine
- Photovoltaic for accurate sealing and cutting Using tracking technology and digital input


Three-sided Packing Machine
CP-FB series

- a top-down three-sided wrapper
- Photovoltaic for accurate sealing and cutting Using tracking technology and digital input


Bagging Packers
HFS-CPK

- Automatic Tone Bag Scale
- a rigid steel structure
- a quick and accurate measurement


Bagging Packers
CPK-1RS/2RS

- Automatic package meter
- 7.5" Color Touch Screen Controller

Manufacturing Line


Bagging Packer
CPK-WDT

- Table-type Multigrain Package Scale
- 7.5" Color Touch Screen Controller


Bagging Packers
CPK-WDT25

- Large Capacity Powder Fillers (Up to 25 kg)
- Sub-motor control method by weight setting


Bagging Packers
CPK-001TAS

- Large Capacity Powder Fillers (Up to 25 kg)
- Sub-motor control method by weight setting


Bagging Packers
CPK-1B/2B

- Multi-grain small packaging machine
- 7.5" Color Touch Screen Controller

Manufacturing Line


Filling Machine
CFM-05K

- Using a two-stage control valve for high speed fixation
- Nozzles are easy to remove and clean


Liquid Filling Machine
CFM-0300K

- Prevention of external contamination of drum by liquid receiver
- Using a two-stage control valve for high speed fixation


Liquid Filling Machine
CFM-030KMS-ST

- Move according to storage tank location
- Metricable Portable Type


Filling Machine
CFM-4 Drum

- Move according to storage tank location
- Metricable Portable Type

Manufacturing Line



Band Sealer
CMB-20

- Free up/down height adjustment
- Easy to control work speed
- With a Teflon belt, we can stick to various types of film safely
- Adhesion of foreign substances with a pressing roller device



Automatic Wrapping Machine
WM-NANO

- Maximum wrapping speed (15 packs/min)
- Simple film exchange and film cleanliness
- Large inlet (large product packaging available)
- Full color 7-inch display
- Easy attachment and detachment of meter stand and lift



Automatic Wrapping Machine
ELIXA 21

- Fast throughput of 21 packs/minute
- Maximize the workspace by pursuing compactness
- Auto-detect tray for maximum convenience
- Setting due to simplified lap setting section and Improved handling breakdown



Capping Machine

- For use environments such as wheel type, four-wheel type, screw type, etc
- Customizable response to optimized facilities

Inspection Line



Metal Detector
CMS-2000 series

- Checker + All-in-one metal detector available
- High-precision detectable
- Convenient input using function keys



Metal Detector
CMS-4971 series

- High sensitivity metal detector responsible for food safety
- Dustproof and waterproof IP65 grade
- Test for Deoxidizing Agent and Foreign Metals simultaneous inspection of detection is possible
- 7-inch touchscreen, inspection history



Metal Detector
CNI

- Aluminum Packing Product Scanner
- High-precision magnetic sensor, high-sensitivity detection



Auto Checker
CCK-600A/2000A

- dustproof waterproof weight checker
- 7-inch Touch Screen

Inspection Line



Auto Checker
CCK700 series

- 8 inch touchscreen and user-centric graphical interface
- Automate metering settings
- Various interfaces
- Use of hygienic stainless steel



Auto Checker
CCK5500 series

- Range of use by absolute value measurement method, arbitrary setting function
- Built-in data backup on power outage



Auto Checker
CCK5900 series

- a high-speed weight checker (Applies balance module)
- Convenient touchscreen (10 inch)



Auto Checker
CCK6401

- a high-speed weight checker (Applies balance module)
- 10 inch touch screen

Inspection Line



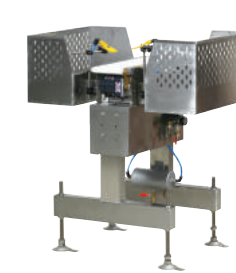
Auto Checker
CCK5500-M

- multistage weight sorting machine
- Classification by weight is required for marine products or products that are used to be used



X-Ray
AD-4991

- High sensitivity foreign matter inspection function
- 15-inch color touch screen



Rejector
Air Jet

- Using strong wind, on the conveyor, Select it.
- Suitable for very light product selection



Rejector
Slide Carrier

- Slide-shaped structure for direction of progress has changed and screen itself.

Inspection Line



Rejector
Conveyor Drop

- Conveyor belt down or up
- Screen by moving in the direction.



Rejector
Belt Pusher

- The pusher runs the product from the conveyor Scrub out and sort out.



Rejector
Roller Pusher

- In the same drive as the belt pusher type Select on the roller conveyor.
- Suitable for screening overweight products



Rejector
Flipbar

- Push the flip bar in both directions then check it.

Packaging/Marking Line



Self-Contained Machine
CP-BTP-2000

- Small, molded, high-performance Case Erector
- 1~18 boxes/min



Automatic Sealer
CP-BTC-300

- Small, formability and high performance semi-automatic taping system
- by side belt drive method, it is possible to operate upper and down side Top and bottom work simultaneously



Automatic Sealer
CP-BT-300

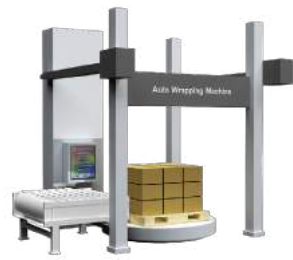
- Move according to storage tank location
- Metricable Portable Type



Automatic Sealer
CP-BTA-400

- Move according to storage tank location
- Metricable Portable Type

Packaging/Marking Line



Wrapping Machine

- Free up/down height adjustment
- Easy to control working speed
- Safe adhesion of various types of films with Teflon belt
- Compression roller device, even if there is a foreign substance



Palette Feeder

- Pallet Feeder
- Able to respond to customized equipment optimized for the environment of use



Robot Arm Box Loading Robot

- Logistics loading robot
- Able to provide customized response to facilities optimized for the usage environment



Robot Arm

- Logistics loading robot
- Able to provide customized response to facilities optimized for the usage environment

Packaging/Marking Line

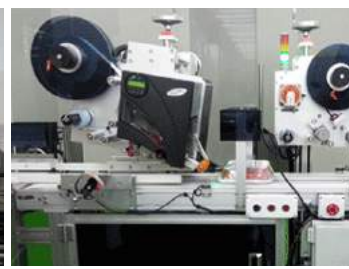


Auto Labeller CLA

- Auto labeler is a device that automatically attaches labels to product surfaces while printing labels with a printer.
- Because label printing and attachment are done uniformly, the accuracy is very high and the processing speed is maximized.
- Fast and stable printing / Non-contact temp method attachment / Modular configuration / Auto checker interlock (CCK-5900) / PC program interlock



ROLL ON Type



TEMP Type



Box Marker CMK

- marking machine
- Date, time and weight are printed on the box
- User-oriented simple product installation model

Packaging/Marking Line



Printer CL4NX

- Various types of media can be used face-in or face-out
- Able to print various label papers
- Provides useful informational video for operation - Easy maintenance



Printer BLP-401/HT300

- Easy-to-replace thermal transfer ribbon module
- Automatic detection of paper type
- Large Window Vision support
- Various options available
- Supports various media sensors
- Fast printing speed, excellent durability



Printer BP-1100 PLUS

- Compact design solves the problem of lack of space
- Auto cutting method capable of cutting one million (Partial Cut, Full Cut)
- Images and logos can be saved and printed
- Paper detection sensor operates when paper replacement is required



Printer BP-DT-4

- Connectable with various weighing systems
- Direct thermal barcode printer
- 4" print width / label design program support

Distribution Line



warehousing management system CLIS 200

- Management of weighing data and barcode reading information
- Product weighing, barcode data management
- Industrial PC, 15" touch monitor
- Equipped with a program dedicated to logistics entry/exit



warehousing management system CLIS 250

- Volume and weighing data, barcode reading information management
- 3D volume measurement using ultrasonic sensor
- Accurate weighing using high-precision scales
- All-in-one, scalable display



warehousing management system CLIS 500

- Volume and weighing data, barcode reading information management
- Atypical volume measurement using camera sensor
- Logistics system communication using various interfaces
- PC software support



warehousing management system CLIS 550

- Volume and weighing data, barcode reading information management
- Atypical volume measurement using upper mobile laser sensor
- Logistics system communication using various interfaces
- PC software support

Distribution Line



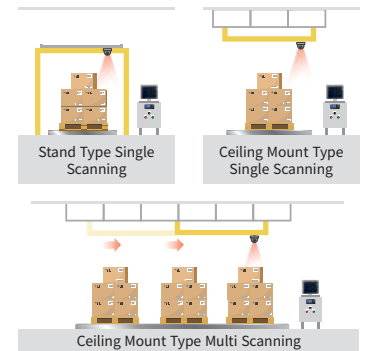
warehousing management system CLIS 700

- Automatic management of weighing data, barcode reading, and image information
- Conveyor driven method to build logistics automation system
- Stable structure and accurate product specifications can be checked with tunnel type
- Used in conjunction with Checker for stable weighing
- It is easy to check when a work problem occurs by displaying an external lamp and buzzer according to the measurement result.
- Easy management and data utilization by making the measurement result into a database



warehousing management system CLIS 750

- Fast and accurate cargo volume and weight measurement
- Weight unit can be changed and replaced with used value
- Implementation of actual measurement of cargo volume (Water Volume)
- Custom design possible for user environment with upper/lower separation structure
- Connecting platform scales, cameras, printers, etc. (optional)
- Simultaneous measurement of 2 cargos (optional)



Distribution Line



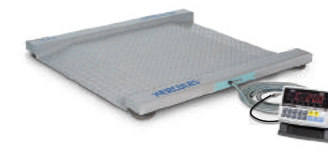
Platform Scale HPS

- Use of high-precision load cells that have obtained OIML and NTEP international certifications
- Anti-corrosion by advanced powder coating treatment
- Sturdy body and strong durability
- Load cells and cables designed to protect against external impact



Platform Scale HFS

- Use of high-precision load cells that have obtained OIML and NTEP international certifications
- Anti-corrosion by advanced powder coating treatment
- Sturdy body and strong durability
- Sophisticated and precise laser processing
- Protection designed load cell and cable



Platform Scale ROLL ON

- Integrated slope plate and metering part
- Use of high-precision load cells that have obtained OIML and NTEP international certifications
- Anti-corrosion by advanced powder coating treatment
- Sturdy body and strong durability
- Protection designed load cell and cable



Platform Scale UFS/BFS

- A roller is attached for the convenience of movement
- Use of high-precision load cells that have obtained OIML and NTEP international certifications
- Yellow Hammaton powder coating treatment
- Sturdy body and strong durability
- Protection designed load cell and cable

Distribution Line



Portable Bench Scale
PB

- Light and Portable
- Can use more than 300 hours at outside
- Can separate display and mainbody
- Stable Design
- hold function and automatically power off



Cart Scale
CPS PLUS

- Oil Pressure Lift/Automatically power off
- Show Battery condition with LED Lamp
- Bright and Clear LED Display
- Good Durability and Rambling (polyurethan wheels)



Unmanned Carrying Robot
AGV

- Automatically sort and moving robot
- Can optimized equipment in each environment



ForkLift Scale
CFS

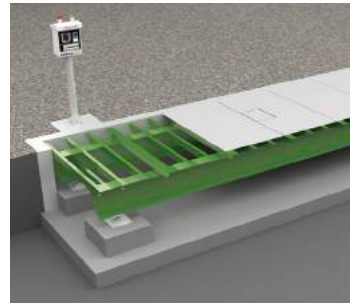
- Can attach scale without repair and remodel
- Electronic Level for increase precision

Distribution Line



Truck Scale
Deck Module

- RFID or Car number recognition, manless measuring system
- Apply stainless steel loadcell
- Apply explosion type of loadcell (option)
- Antil Slip Steel (option)



Truck Scale
H-Beam

- RFID or Car Number recognition
- Manless Measuring System
- Apply stainless steel load cell
- Apply explosion type load cell (option)
- Large Display
- Anti Sleep Steel (option)



Vehicle Number Recognizer

- High pix cell camera
- Best Car number recognition
- Recognition Ratio 99%
- Can use for security and control enter

Distribution Line



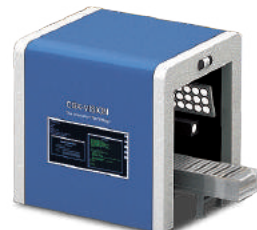
Unmanned Measuring Panel

- Various Type of Input (RFID, Remo-con, Bar-Code, NFC and etc)
- Announcement and Color Light for condition
- Auto Temperature Control



CCTV

- Shooting loaded cargo
- Save Captured video
- Output statement for captured image



Vision Inspection System

- Sort and Recognize for distribute barcode
- Can use optimized equipment with each using condition



Smart Tray

- Scale for auto physical sensor is installed in smart tray, and check stock and component condition. This information is sent to PC by wireless and solution is managed of manless stock management.

Agricultural Line



Soil Moisture Sensor
ioCrops Soil

- ioCrop Soil measure soil moisture and temperature. This date can be checked in io Crops Cloud.



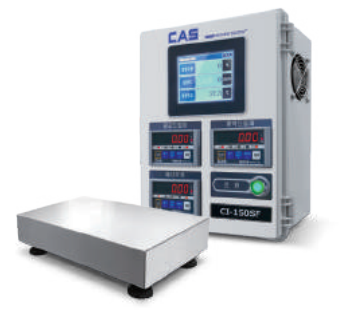
Humidity, Temperature Optical Sensor
ioCrops Clima

- ioCrops Clima can measure temperature, moisture, intensity of radiation for moment and accumulated. This data can be checked in ioCrops Cloud.



Scale for Badge
ioCrops Weight

- Integral type of raking riser and measurement
- Using high density and have international certificate (OIML, NTEP) load cell
- No collision by using good power coating
- Good durability and strong body
- Protected design for loadcell and cable



GreenHouse Monitoring System
CI-150SF

- CI-150SF is suitable for moisture sensitive vegetable or fruit such as paprika because this can be collected of growing environment well. All collected data can be sent to PC.

Agricultural Line



Agriculture Drone
CAS Agric drone 10/20

- Using DJII(N3 System) controller
- Can use various purpose by changing plate
- Auto spade fly, remember stopped place and come back fly
- 30 degree slope auto fly using ultrasonic



Animal Tray

- This is designed for checking animal weight exactly. This tray can be ordered customized to use everywhere.



Crude Meter
MFS

- Can adjust bar interval each condition
- Using high density and get international certificate (OIML, NTEP) load cell
- Checking supplied size of supplied and crude oil company
- Easy to install



Saccharimeter without destroy
PAL-HIKARI series

- PAL-HIKARI can measure sugar content without make damage of fruit.
- Can measure sugar content with only one touch
- light weight and compact size

Agricultural Line



Grain Grader
Color Sorter

- Using high density and have international certificate (OIML, NTEP) load cell
- No collision by using good coating
- Strong body and good durability
- Elaborated Laser work
- Protected designed loadcell and cable



Grain Moisture Measurer
CKM-20

- Measuring moisture in grain fast and exactly, so quality is guaranteed.
- Can measure various type of grain (rices and wheat)
- Compact size



Fruit Grader
FS-PLUS 250

- Compact size and easy to carry
- Large LCD for checking result
- Can check fruit more than 10 types
- Increase of work efficiency because of grade notice



Strawberry Grader
FS-PLUS 250S

- Compact size and easy to carry
- Large LCD for checking result
- Help to increase strawberry quality and commercial value
- Increase of work efficiency because of grade notice

Distribution Line



Self Ordering Machine
Super Smart_S3

- For large self order store
- Auto product recognition from camera
- Auto weight recognition by measuring weight
- Auto application payment



Self Checkout Counter
Super Smart_S1

- For small/medium unmanned stores
- Automatic product image recognition through camera
- Automatic recognition of product weight through weighing
- Automatic payment through the app without additional calculation



POS
APEXA-G

- High performance Intel Celeron J1900
- Quad Core Process
- Touch Display
- Multiple I/O internet interface
- Slim and compact design
- Nice design for small retail store



POS Scale
CL8000 SELF/ CL8000 POS

- Combination of POS and Scale
- High performance of main Board / display as PC
- Convenience for scale management
- True type font print
- Easy change for label

Distribution Line



POS Scale
CT81

- Combination of POS and scale
- Large 15" user display
- Multiple auto history management
- Multiple weight stock management



Scanner Sacle
PDS-II series

- Fixed laser barcode and scanner scale
- Component : Indicator, Scanner scale module
- Various scanner compatibility such as data logic, metro logic and etc



Label Printing Scale
CL7200 series

- Multi media scale for both color graphic
- Easy control touch screen
- Auto beef history management
- 7" high pixel customer color display
- 10.2" large customer display
- Remote firmware update



Label Printing Scale
CL5500N series

- Good network system
- High speed print (100mm per second)
- Easy label change by applying carset type
- Save more than 8,000 product information (PLU)
- Save 1,600 product information

Distribution Line



Label Printing Scale
CL5200N series

- Easy label change by using cartridge type
- Built in basic 45 types
- Easy label change by applying carset type
- Save more than 8,000 product information (PLU)
- Save 200 product information



Label Printing Scale
CL3000 series

- Indicate scrolling message
- Firmware update & interface
- PLU & program function key
- Firmware update through RS232C/USB memory
- Good compatibility with CL series



Label Printing Scale
CL5500 self

- Good network system
- High speed print (100mm per second)
- Easy print label change by applying carset type
- Save more than 8,000 product information (PLU)
- Save more than 200 product information



Label Printing Scale
CN1

- 7inch display resolution 800 x 480
- 72 PLU key and 36 function key
- Good touch keyboard through polydom
- Firmware update through ethernet
- Can send data through ethernet between PC and scale
- Strong die casting aluminum plat

Distribution Line



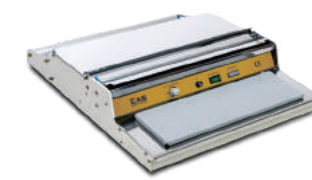
Electronic Price Indicator
ESL

- By applying ZigBee technology, which is capable of large-scale networks, it provides various services such as real-time change and management of product prices in distribution stores and information transmission for advertising promotion and sales.



Scanner
GBT4100

- Bluetooth wireless barcode scanner
- 'Green spot' function to inform whether or not it is recognized
- More than 50,000 scans per charge by adopting a lithium-ion battery



Manual Wrap Packer
CNW

- Rust-proof stainless steel exterior
- Double-covered aluminum sheet to prevent short circuit
- Guaranteed user safety



Recycle Scale
CRS PLUS

- Accurate waste resource discharge and measurement possible
- Efficient with accurate history management
- Waste treatment and resource circulation management possible
- Various containers (trolley, pallet, food container, etc.) can be marked and measured

Airport



Ultrasonic Type



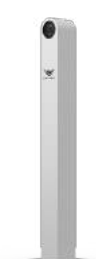
Camera Type



Departure Gate KIOSK



Moving KIOSK



Arrive Gate KIOSK

Baggage Weight/Gross Measuring System
Smart BTU

- Check baggage weight & size
- Check each airline regulation (hand carry & free consignment)
- 4 Language available
- Customized convenient design
- 43" UHD touch screen

Facial Recognition Fever Sensor System
Smart Quarantine System

- Passenger can check fever by themselves so it offer safe condition
- This system offer convenience and safety to security manager by checking fever fast and accurately to multiple people
- This system also show notice with checking temperature so it is perfect system to security

Sensor & Otehr Dvice



EXP/Digital Load Cell

- CAS has high technical skill in measuring and control so can offer high accurate load cell
- Output digital by external noise
- Protect from explosion (intrinsically safe, pressure, dust)
- Easy to install and cheap maintenance)
- Self Diagnosis



Explosion Proof Indicator

- Self diagnosis and self recovery system
- User friendly interface (4.3" Graphic TFT LCD apply)
- High speed of AD transfer (200time per second)
- Apply maximum 100 product information
- Remember weight when power is out



Indicator
CI-600A/D

- Accumulate data when hreshold value over signal is sensed, and send immediate notice everywhere and anytime so this system can be available of remote control



Temperature/Humidity Monitoring Sensor Monnit

- Accumulate data when hreshold value over signal is sensed, and send immediate notice everywhere and anytime so this system can be available of remote control

Research Line



Analytical Balance
CAU/CAT

- High accurate balance for weighing sample and enable to control weighing speed
- Easy to use in research center which need stable measuring by no affect swing or temperature



Moisture Analyzer
XC63

- Simple Key, Easy to use
- Large plate size (95)
- Halogen Stick type Lamp
- Back light LCD Display
- Compact Design



Moisture Analyzer
CD-V1/V2

- Easy and traditional water substitution
- Easy to use, Direct Indicate, Strong Aluminum Measuring Kit
- Strong and no swing of value Wind Shield
- Notice for weight over



Moisture Analyzer
CD-V3

- Easy to use, internal correct weight system, fast response
- Sensitive response and easy to use touch screen
- Auto correction for time setting
- Easy to use, direct indicate, strong aluminum measuring kit

Research Line



Digital Viscosimeter (low-end product) CL-L1

- Latest version of 16 bit micro processor
- Easy to use processor
- Indicate maximum measuring viscosity in rotating speed with spin
- Measuring mode for time setting
- Indicator : rotating speed, use spin number, viscosity number, Torque, Temperature



Digital Viscosimeter (normal type) CL-L2/R2/HA2/HB2

- 16bit micro processor core segment and motor
- High accurate within $\pm 1\%$ and stability, Reproducibility within $\pm 0.5\%$
- Rotating viscometer of staping motor separate high step
- 998 types of rotating speed with direct button design function (0.3-1.0 rpm)
- Real time monitoring of sample temperature



Digital Viscosimeter (high-end product) CL-L3

- Touch Screen, Easy to use, indicate much information
- ARM processor chip, fast date speed
- Housing design of strong capacitive
- Fast data analyze through USB
- Indicate viscosity changes in graph
- Alarm sound for over data



Painting, Coating Stormer KU-2

- High accurate of $\pm 1\%$, measuring repeat and stability of $\pm 0.5\%$
- Easy to change of KU, cP, gm
- Manual Lifting structure design
- 16bit micro processor core design with green digital LCD back light with good motor and stepping motor

Research Line



Various type of consecutive sensing viscosimeter DV2T

- 5.7" full color touch display
- Reinforce Security
- Comfortable Bubble Level
- Customized download by PG Flash Software
- Accurate : $\pm 1.0\%$ of range
- RTD Temperature probe is in



Paint, Coating, Adhesion, Ink viscosimeter KU-3

- Compatibility of ASTM D562
- New Magnetic Spindle Coupling
- Touch control and auto measuring interface
- New unify can adapter
- Easy and simple use
- Accurate : $\pm 1.0\%$ of range



Cone&Plate viscosimeter CAP1000+/2000+

- Direct input of keypad for sample change
- Easy to change/replace of cone spindle
- Easy and simple handle
- Design for repeat test
- 4-Line Display
- CAP1000+:unify speed / CAP2000+ variable speed



Test Accessory for high temperature Thermosel

- Standard AMETEX Brookfield Viscometer
- Enable to use DVNext Rheometer together
- Maximum $\pm 300^\circ\text{C}$ sample temperature control
- PC Control when use Rheocalct Software
- Temperature Ramping

Research Line



Homomixer (homogenizer) CHZ-100

- Dispersion and dissolution by ultra-high-speed stirring at 27,000 rpm It is processed in a short time and is ideal for uniform dispersion. Dispenser with interchangeable stirring blades
- Stop function in case of overload of electronic safety circuit Over-heat, Cuts off current when Over-Load or Over Current occurs
- Excellent homogenization effect



Digital Magnetic Eggbeate BTP-2000

- High chemical resistance, stable temperature uniformly Heated wire specially designed for implementation
- It implements sophisticated work with strong magnetism, Brushless motor with 'low start drive function' Implementation of smooth and stable operation by mounting
- Overheat, overload, overcurrent protection



Digital Overhead Eggbeate COS-100

- A belt-type gear system equipped with a powerful motor Smooth and powerful motion 2~4.5:1 Measure a wide range of viscosity samples via gear ratio
- Excellent durability and motor overheat protection device / dustproof structure
- Timer function
- High-resolution LCD display & intuitive operation icons



Bltex Mixer CVM-100

- All sample tubes of various shapes and sizes can be used ulti-function switch that can be installed by replacing the head
- "Continuous operation" or "Touch-on operation" Two operation modes can be operated and soft with a differentiated pop-up mechanism Implement "touch-on" controls

Research Line



Heidolf Bletex Mixer Hei-Mix

- Manual mode : Mixing with sample tray friction
- Consecutive mode : sample mix with consecutive vibration
- Mix solid content sample with 5mm vibration viscosity
- Maximum RPM is 2500 through sample mixing with strong and even vibration



Digital Dry Block Heater MC1

- High performance of MCU
- Large capacity apply : 1.5ml/2.0ml*48holes
- Good durability and usage with Molding Heater
- High accurate of temperature and durability by applying PPS Insulation



Table Top Centrifuge MCF8

- low-center structure design, vibration, minimum noise
- Protection of overheat & current for preventing motor faulty
- Arrive fast to 6,200 rpm fix speed, can test 8 tube 1.5ml/2.0ml
- Tube adapter for use with 0.5ml/0.2ml and a rotor for strip tube as standard



Digital Shaker MCH1

- High performance of MCU
- Large capacity platform : 350 x 350 mm
- Waterproofing
- Small noise and long durability through BLDC motor
- "Slow Start Function" which is stability
- Save and operate 6 programs with 10 steps

Research Line



Heidolf Rotary Evaporator Hei-VAP

- Increase more than 40% farming efficiency with XL size condensor
- Can keep monitoring by display
- Easy and fast control through expanding cable
- IP42 for panel side / IP67 for heating water tank
- Large capacity of heating chamber capacity 5L
- Using chemical resistant vacuum seal



Spectrophotometer OPTIZEN POP

- Each wavelength of the sample in the ultraviolet and visible light bands by measuring transmittance or absorbance, quantitative characteristics such as concentration and purity can be identified
- One touch cell holder cover
- Temperature sensor in measuring side
- 7" LCD color touch screen



QC Manager QC mannager hub

- Sending measured data by output port directly
- Communication module / Apply Lan port
- Bluetooth communication
- Battery pack style / Maximum 15 connection in one hub
- Apply various type of measuring machine



Electronic Dilutor Dilumat START/EXPERT EVO

- Fully automatic dispensing sample dilutor improves laboratory productivity to ensure accurate dilution and reduce the risk of contamination designed to reduce
- Increase speed of preparation
- Decrease danger of pollution
- Auto traceability including RFID tag

Research Line



Water Bath/Drying Oven TOGA® Puri Intelligent

- Unlike regular air purifiers, patented at home and abroad Apply a filter to create a specific space Collect harmful gases efficiently before spreading Remove to provide a safer experimental environment.



IoT Reagent Plant TOGA® Fridge Premium

- Application of internal circulation technology of refrigerated reagent cabinet Maintain uniform temperature distribution and fine-tune Reagents can be stored safely.
- Along with refrigeration circulation, the filters that have been patented at home and abroad Use it to remove harmful gases inside the reagent cabinet.



Animal testing (muscle measuring instrument) Rota-Road

- a muscle strength tester for rat behavior experiments
- 7-inch Touch Screen
- With a rotational speed of up to 50 rpm and Excel files, Data can be output
- Running mode Constant/Acc. Forward/Acc. Reverse



Animal Testing (Running Machine) Treadmill

- a rat-behavior experimental running machine
- 7-inch Touch Screen
- Running mode Constant/Acc. Forward/Acc. Reverse

Research Line



Natural Convention Drying Oven FC-PO Series

- Sample drying, sterilization, ultra-dried electronic components and Various applications such as heat resistance test
- Triple reinforced glass door insulation effect, easy monitoring
- Exhaust gas control vent hole
- forced circulation (FCPO : Fan Motor / Program Control) Digital thermostat



Digital Water Bath DWB Series

- Industrial, pharmaceutical, clinical and biomedical Suitable for use
- Convenience, corrosion resistance, heat resistance, and warmth High efficiency equipment
- Digital P.I.D Controller Precision Temperature Control



Auto Clave PAC Series

- Food badges, metal, glass experiment equipment, Sterilization of experimental wastes
- Advanced dual safeguards, high temperature and Protection from high pressure
- Silent sound when sterilization setting time is reached Automatic activation



Laboratory furniture Lab. Furniture

- Through 3D design, the virtual space in the laboratory Implement custom designs, ergonomic designs Of course, the safety of the researchers is the top priority It's designed to create and maintain a research environment It's specialized.

Static Solution



Ionizer - Electrostatic Sensor Electrostatic

- Electrostatic measuring instruments
- Connect to your PC for real-time monitoring
- Measurement data can be stored



Ionizer - Ion Bar ION BAR

- Easy to install in small spaces
- Use a dedicated bracket
- Optimal nozzle design reduces air consumption



Ionizer - Ion Blower ION BLOWER

- Ions generated by electrical corona methods a device that neutralizes static electricity on a charged body from
- Free modeling based on footprint, antistatic conditions
- Easy maintenance and cleaning structure



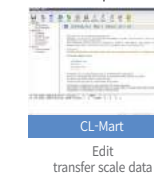
Ionizer - ion nozzle/gun ION GUN/NOZZLE

- Slim construction
- Easy installation
- Built-in high pressure module eliminates high pressure cables
- Easy cleaning structure

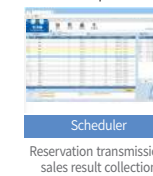


① Managing Scale Product (Client)

- Edit product sales scale by store
- Manual transfer management of hawk
- Receive sales results and manage settlement information



CL-Mart
Edit transfer scale data



Scheduler
Reservation transmission, sales result collection



communication module
Module for scale communication development

② Scale Product Management S/W (Server)

- Unit price management for large stores
- Batch change of sales price of local stores at headquarters
- Check delivery status and manage automatic retransmissions

2

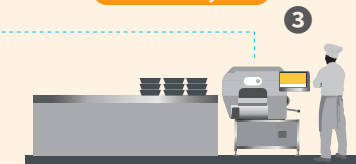


HQ manager

DB sever



Store backyard



3



Big mart

small & medium - size stores



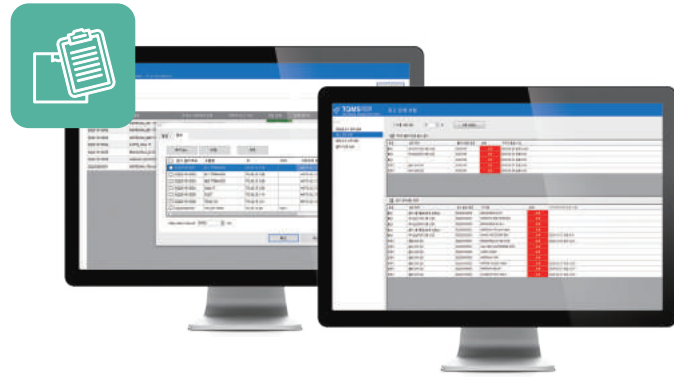
③ Program to protect beef from harm

- Imported beef distribution history management system (December 2010, government obligations enforced)
- Managing the history and sales history of imported beef
- Block sales when identifying beef for harm
- Sales history inquiry and Excel export support



④ Super Smart S/W

- Automatically recognize product images through the camera
- Automatic weight recognition of the product through weight measurement
- Automatic payment via the application without additional calculation



12 Data Collection S/W/W

1 CLIENT

- Receive data from the device
- Manage device status and configuration settings
- Forward received data to the management server

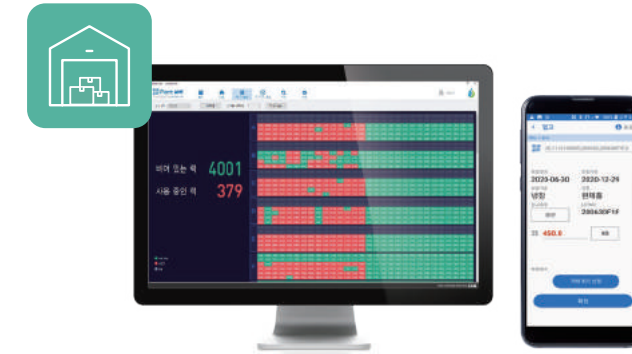
2 SERVER

- From the data collection client S/W
- Receive data
- Real-time monitoring of received server



3 Material Input Management S/W (Client)

- Receiving MES Interworking Work Instructions and Sending Measurement Results
- PLC Interlocking 10 Sub-Material Hopper Control
- Split metering, small scale PLTE communication interworking



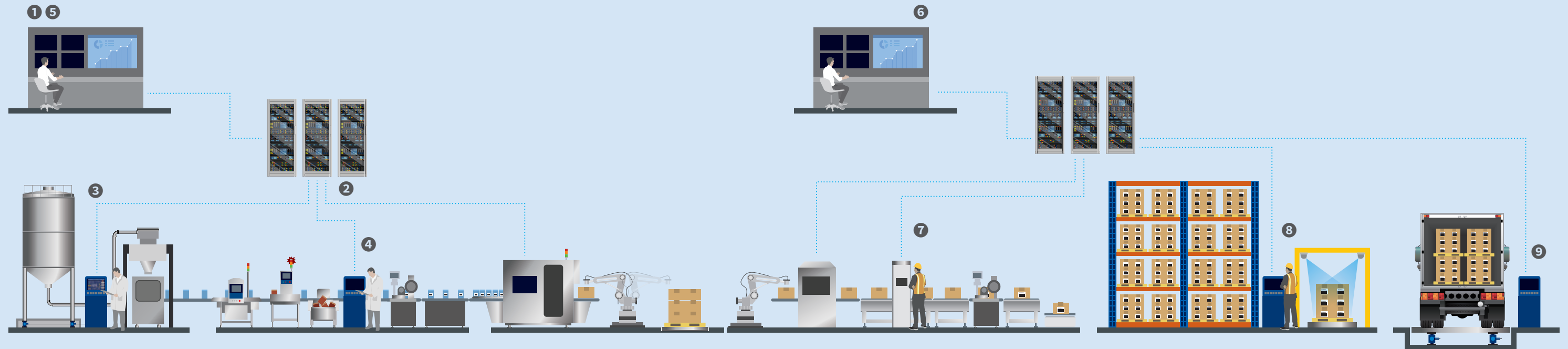
6 Warehouse Management S/W (Client)

- Create LOT barcodes to manage history during production
- Warehouse entry/exit management through PDAs
- Identify the inventory status of products and implement first-in-first-out



7 Receiving and forwarding management S/W

- Automation of provisional acceptance processing and simplification of business processes using PDAs and PADs for the first time raw materials are received
- Easily manage inventory and check inventory with PDAs, PADs, and PCs
- Systematize and simplify positioning and instruction processing systems



4 Quality Management S/W/W

- Real-time quality inspection of production products
- Real-time monitoring of inspection results
- Store real-time historical information for inspection data



5 Production History Management S/W (POP)

- Injection Weight LOT Management Program
- Support injection weight information DB management and Excel report output
- Barcode printer interlock, measurement information can be printed by QR code, DATAMATRIX, etc



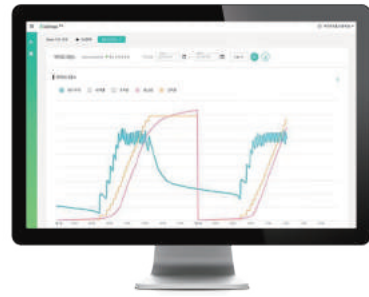
8 Up and down management S/W

- AUTOMATIC ISSUING SYSTEM FOR AUTOMATIC LABELING LINK
- Customer order list classification (1 case, 2 case, multiple case)
- Process order information retrieval when scanning product barcodes
- Courier-linked delivery additional information reception processing



9 Unmanned root S/W

- Unmanned cargo weighing and management system
- Enter basic information (customer information, RFID information, business information, commodity information, etc.)
- Issue registered RFID to vehicle driver



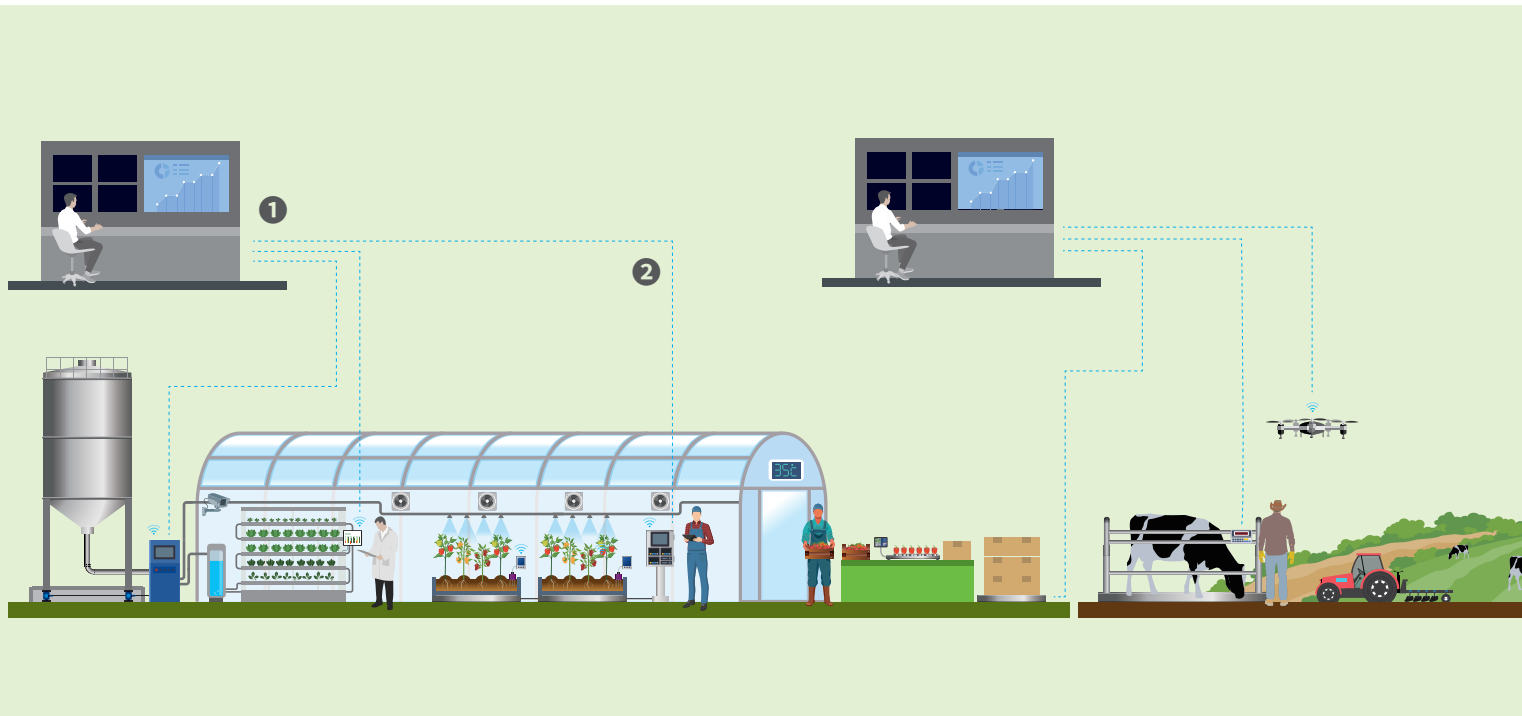
1 ioCropsCloud

- Store greenhouse data in the cloud and visualize it on the web Tools you can analyze
- Compatible with data from various sensors and environmental controllers as well as the ioCrops Sensor Series
- Implementation of reinforcement learning-based cultivation prescriptions based on data collected later

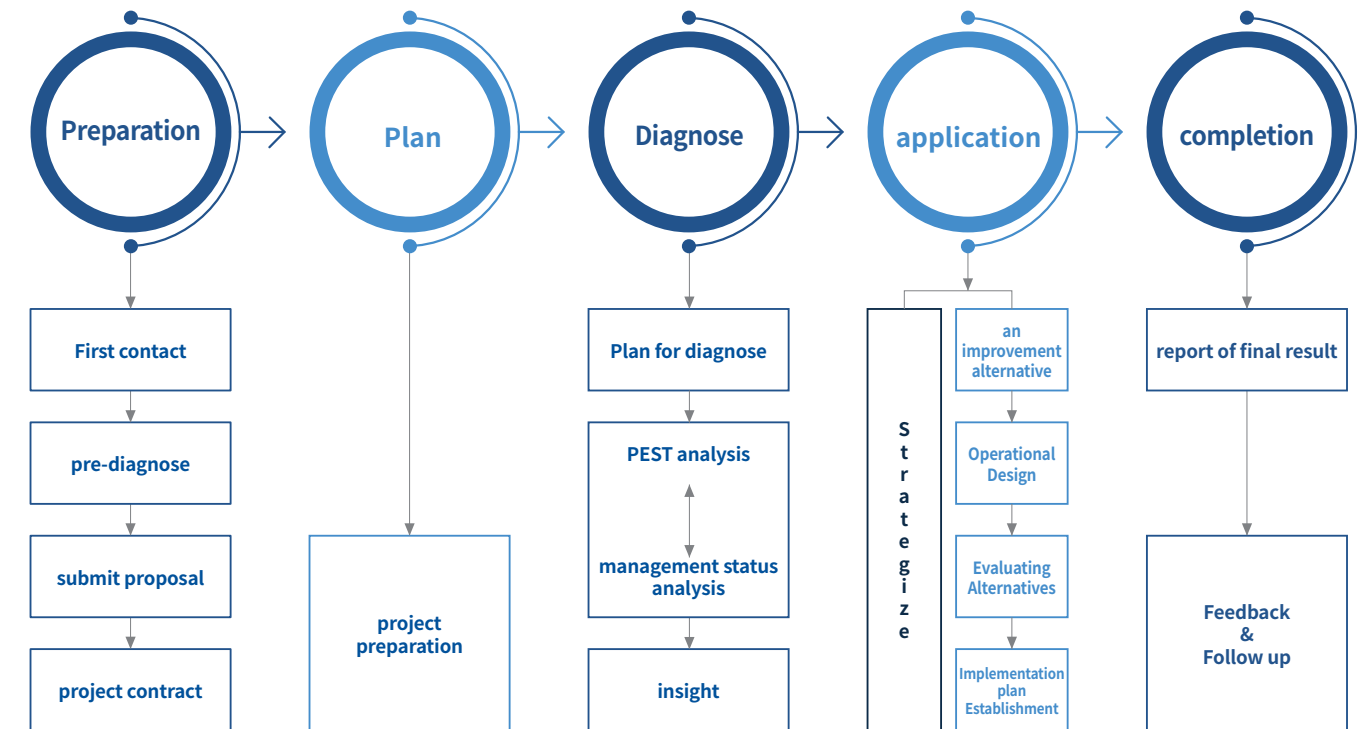


2 Greenhouse Control System S/W

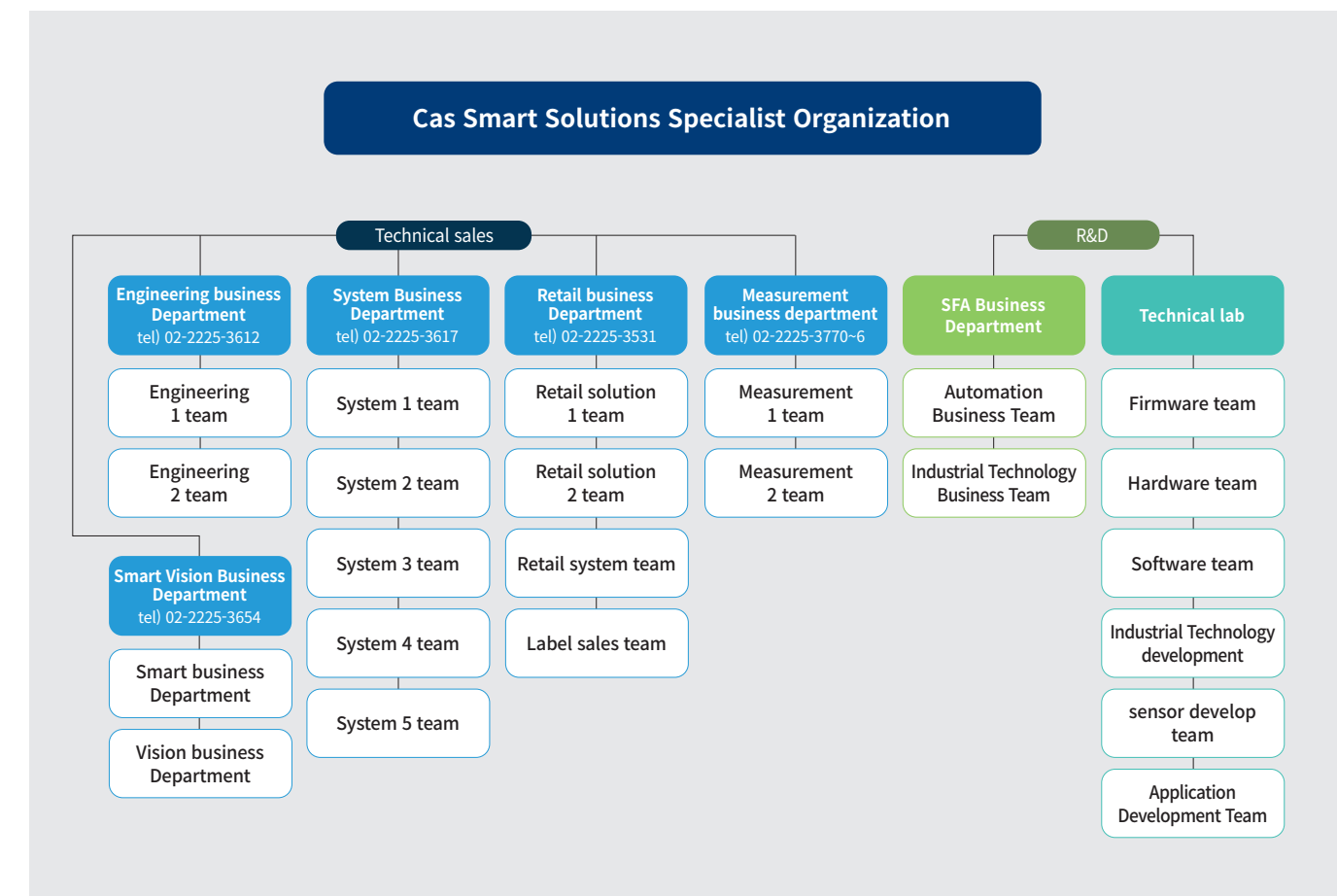
- When smart farms that incorporate ICT (information technology) are widely spread, they will be able to see the difference between labor, energy, and other inputs
- Optimal use can further enhance the competitiveness of our agriculture and lead to future growth industries
- Beyond simple labor savings, we are free from the time and space constraints of agricultural work Increased leisure time and improved quality of life, increasing the possibility of new human resources entering rural areas



CAS Smart Solution Deployment Procedure



CAS Smart Solution Organization Chart





CAS CORPORATION
CAS BLDG., 1315, YANGJAE-DAERO,
GANGDONG-GU, SEOUL, KOREA
TEL_ 82 2 2225 3500
FAX_ 82 2 475 4668

Specifications are subject to change without notice improvement.