



HUB

HiCook Utility Book

Product catalog edition III (2009-2010)



The interior fryer Debut-11



Hicook Utility Book



Nonsan factory, south Korea

Hakusan head factory, Japan

Mizushima factory, Japan

Shanghai factory, China



Interior fryer Debut-11

Do not hide your fryer back in the kitchen. Show your difference with its beautiful design and elegance while frying before the eyes of your customers. The new concept interior fryer Debut-11.

For the last decades, fryers have been hidden in an unnoticeable corner of kitchen. It wouldn't be a good idea to show those dull and no nice-looking devices to customers. With Debut-11, it totally turns different. Its smartness and beauty and the accompanying hygienic excellence fascinate all the customers at their first glance.

- Higher heat efficiency from electrical induction.
- Speed adjustable (1 min to 10 min).
- DPL(different position loading) available.
- Precise temperature control(+/- 1 deg.C).
- Products come out back in the inlet.
- Can be used for boiling vegetables, etc.
- Fully Japanese origin nickel-chrome stainless steel.



Debut-11

You can see Debut-11 working in many famous pork-cutlet and Japanese cuisine franchise restaurants.

Spec.	Overall dimension	Effective frying space	Frying time	Power	Oil volume
Model	L x W x H(mm)	Pitch x Section x Width(mm)	(min)	(200v 3상 kw)	L
DEBUT-11A	1415 x 722 x 1020	127 x 11 x 210	1~6	12.1	18

From fish fries to Kara-age and Tempura, Versatile compact Fryer DC



Residual burning system(patented in Japan)

Exhaust through the remained heat

The entire space of oil pan are heated



DC-20FS-N

- Special caterpillar conveyor in inlet ensuring no product sticking.
- Totally independent speed control in three conveyors.
- Patented residual burning system.
- Independent temp. controls in inlet and outlet.
- Touch panel microprocessor (up to 30 programs to be stored).
- Electric lifting (DC-G type).
- Hold down conveyor and main conveyor can be separated.
- Sediment remover as a standard option.
- Flat oil pan (no impurity remaining).
- Flame detector(no flame, no gas supply).
- Overheat protector(any excessive overheat, no gas supply).
- Anti oil-less combustion (no oil, no gas supply).

Universal Fryer A-FS

HI-COOK's long time lasting best seller for the last 30 years



A-41FS-N



Alpha coated apron

- ▶ **Alpha coating**
All the parts to be touched by oil are processed by Thorium-based plasma welding so that the original oil quality can be kept good longer. (Alpha ray coming out of Thorium disintegrates impurities of oil, therefore delaying oil deterioration).
- ▶ **Easier cleaning**
Hold down conveyor and sediment removing conveyor can be dismantled without tools. Oil pan is straight and flat that no impurities would remain.
- ▶ **Variety of functions**
It adopts the patented "residual burning system", flame detector, overheat protector, anti oil-less combustion system, etc.

- Special Alpha-coated apron transport conveyor.
- Hold down conveyor keeps products under oil.
- Sediment remover as a standard option.
- Juice collection pan as a standard option.
- Oil tank (option).

Powerful direct gas burner offers quicker coming up time, DBC fryer

- Japan patented Residual burning system.
- Caterpillar conveyor as a standard option (no product sticking).
- Centralized exhaust.
- Versatile for various kinds of products (except dusted products).
- Special reinforced stainless steel oil pan.
- Flame detector.
- Overheat protector.
- Anti oil-less combustion system.



DBC-53A + AFO3 Filter



Adding values to your products, HI-COOK Coating Line



- ➔ **PDM preduster**
Flour, fine powder, spices can be applied. Dual spreading can deal with irregularly-shaped products like chicken breast.
- ➔ **HBA batter coater**
HI-COOK's classic model for universal uses. Stable performance.
- ➔ **BRC dry crumb coater**
Dry crumb and semi-dry (up to 25 % of moisture) can be applied. Bucket transport doesn't make much friction over crumbs. Tool free dismantling.
- ➔ **HBSN shower coater**
It deals with high viscosity and seasoned batter liquid. Product lane alignment can be sustained during process. A special pump coats the product bottom without harming batter liquid.
- ➔ **BRG Cantilever Raw crumb coater**
It is the all-weather coating machine which can successfully deal with raw crumb (moisture 35% or more) as well as dry crumb, fine powders, spices, etc. Cantilever system offers easy belt release (up to 60C type).



NMB mini Raw crumb coater



MB mini batter bread coater



SLB Oyster coater



DP drum powder

High-end heat exchanger fryer DNLC allows no temperature drop at inlet

- It can deal with energy consuming products like pre-fries and Tempura.
- Outstanding performance for the products requiring bigger heat exchange at inlet
- Built-in compact sized heat exchanger, space saving.
- Target spot temperature control available, sustaining product tastes.
- Max. temp. of heat exchanger 280 deg.C, affecting oil quality less.
- Various energy sources like high-pressure steam, gas, heat medium(thermal oil, etc)
- Centralized exhaust.



DLNC-60-54 + OMC



Teflon conveyor

Super class impingement steam oven IMPM(J)

With combination of impingement cooking method and steam injection technology, it oppresses water vaporization out of products to ensure good juicy tastes.



- Even and equalized cooking results between products. No transversely different cooking result.
- Easy control with fully touch panel operation.
- Two independently working powerful fans can give different grill effects on the top and the bottom of product (you can apply stronger grill effect over the top while giving less grill effect to the bottom of product)
- Temp., time, fan speeds, etc are digitally and independently controlled in the touch panel.
- One touch recall of each stored program.
- Various functions such as ignition-failure detector, flame detector, overheat protector, conveyor malfunction alarm, door open detector, etc.
- Swing doors offer full access to workers.
- Nozzles can be dismantled without tools.
- Fully genuine Japan-origin nickel-chrome stainless steel.



IMPM-50BS-N



Croquette and burger former HNS-300 ASX

- Newly designed crank system adopted.
- Noiseless production.
- Easier maintenance and cleaning.
- Weight can be adjusted even during process.
- Three choices (HNS-300ASX : 314 mm, HNS-120ASX : 244 mm, HNS-60J : 150mm)



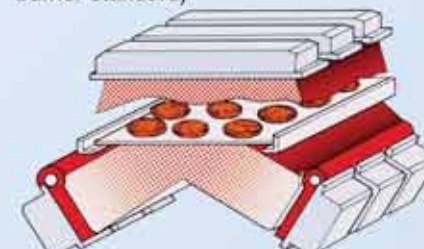
NS-300ASX



Powerful blaster burner grilling (Blast option)



Perfectly matching with fish grilling (infrared burner-standard)



Side fire system

Traditional grilling in modern mechanism BB roasting oven

Independent top and bottom burner systems

- The top burner comes with height adjustable system and the bottom burner with the side-fire system. You can easily set the height of the top burner to control the distance from the burners to the target.
- Conveyor speed is fully adjustable. You can choose various transportation methods such as tray transportation, net, griddle, etc.



BB-40-N

Adopting heated steam Hybrid Steamer VH

It perfectly sterilizes core of burgers and meatballs

- Fully electric lifting gives a full accessibility to maintenance and cleaning people.
- Water seal isolates inside and outside of the system to make clean environment.
- 120 deg.C as the max. temperature with high pressure steam heater (VH type)
- 4 independent steam control valves for PID regulation.
- Conveyor net automatic cleaning during operation.
- Guide protector for particles not to fall through down
- Teflon guide protecting stainless steel net.



Meatball is perfectly processed at the temp. 120 to 130 deg.C.



Complete isolation-water seal

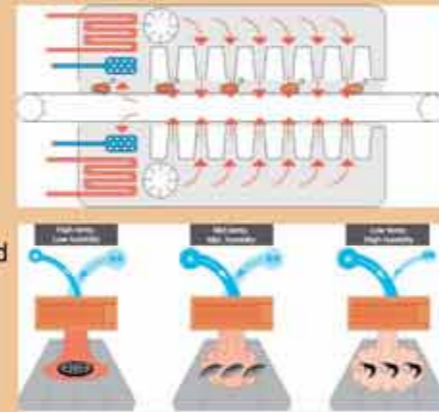


VH-600-60

Adopting high temp. super steam Diplo module oven

Reheating normal 100 deg. C steam up to 350 deg.C , it can realize ideal cooking results for drying,steaming, cooking, grilling, whatever.

- Overheated steam(super steam) represents a perfectly clean heat source
- Benefited from IMPMs special nozzles, Diplo creates super-class high speed air blow to make impingement grill effect, thus making process time shorter
- Top and bottom of products are cooked independently
- Fully touch panel operation and memory programming
- Each module can perform different processes like steaming + cooking + Grilling, etc)

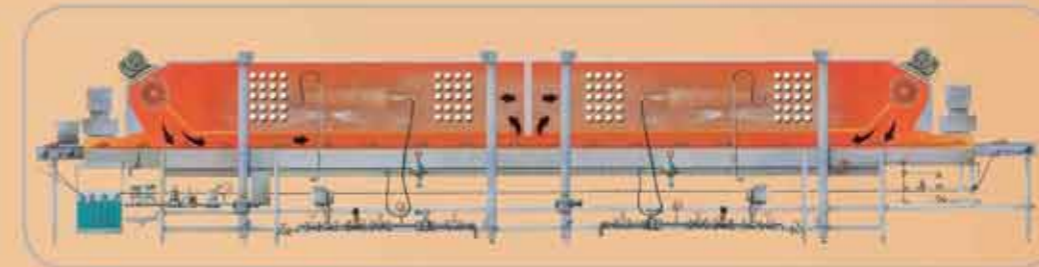


BSCE-300A-80(Steam+Oven+Grill)

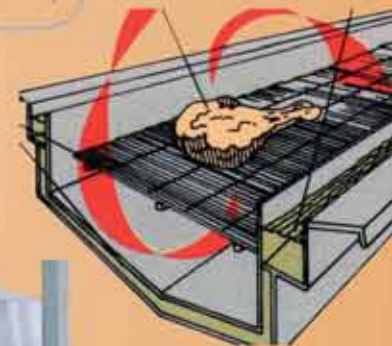
Hot air plus steam Multi Purpose Oven MPO

MPO represents the world best selling oven for the last 3 decades. Temp. , humidity, and time can be independently controlled to make out what operators wish to reach.

- Humidity is directly sensed for PID control
- Heating zone and cooking zone are completely isolated,each never affects each other
- Water seal isolates inside and outside of the system for better working environment
- Water jacket eliminates any carbonized drip in the bottom of the system inside
- Cooling water flows in the support guide for stainless net for less friction
- Automatic net washer (standard)
- CIP (option)



Powerful convection & isolation of heating and cooking zones



Water jacket + water seal



MPO-5064J

Oil determines taste The best oil filtration technology Komatsu

As a dedicated partner of HI-COOK, Komatsu has been leading the filtration technology in Japan for the last 50 years.



Komatsu filter performs better in combination with paper sediment filter



HYT mini oil filter
(perfectly matching with HICOOK's small fryers)



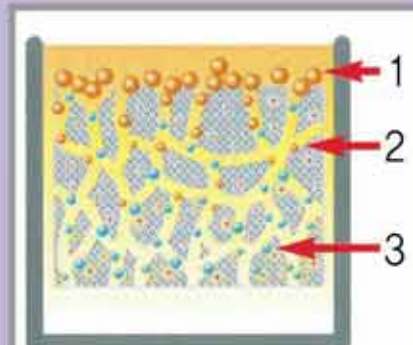
More than 15,000 units sold in the world,
Komatsu MG filter

KF filter

- Continuously filtering during operation
- Filco pad can filtrate down to 5 micron fine particles
- Makes color brighter, oils life longer
- Space saving design
- Vertical type filter cartridge makes replacement job easier



KF Continuous Filter



Filco Pad, triple filtration

1. Sieving : particle filtration
2. Entrapment : fine particle filtration
3. Adsorption : 5 micron filtration

Komatsu AVD Filter System

Example : Two 18L batch fryers have been tested and compared

- Right : without AVD filter
Left : with AVD filter
- Filter type Y-3
 - Filtering interval : once after the process
 - Filter pad : AVD kit

Komatsu, as the biggest oil filter manufacturer in Japan, has recently introduced AVD filter which significantly delays oil deterioration speed to get surprisingly positive responses from many of edible oil users. AVD filter represents a new concept of oil filtering targeting "zero-waste oil", bringing tangible economic benefits to you.



The test shows the following results



Left : AVD filter kit



Right : AVD filter not used

There used to be abt.250 liters of waste oil, but after adopting AVD filter, they do not discard any used oil.

STC Sediment removing cooling tank utilizing oil's molecule movement

Oil starts to deteriorate right after it touches oxygen. The deterioration accelerates by being in touch with heat and water. Oil's deterioration is chemically unavoidable in this sense. Avoiding this is technically impossible, but we can delay the deterioration speed in some aspects. Keeping used oil in a good manner influences the total lifetime of oil a lot.

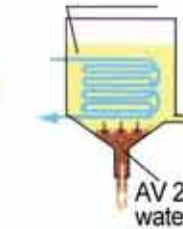
Cooling hot edible oil rapidly in a short time makes oil's molecules active and such impurities as water and particles which were inlaid between oil and molecules come out. STC tank is based on this scientific theory. It is not a simple oil storage tank, but can work as a semi-filtration device.



Example (Per 100g oil)



AV 1.0
water 0.05g

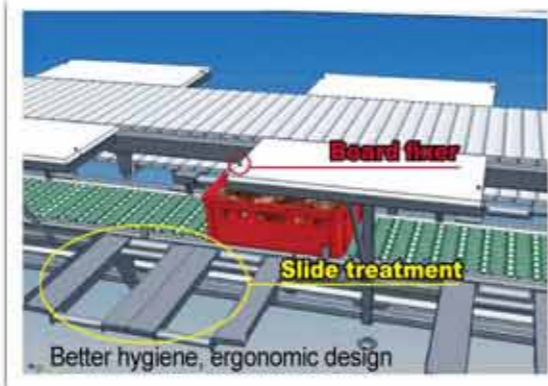


Trendsetting a global standard HI-COOK Cutmeat deboning line

With 20 years of experience inside/outside Asia, HI-COOK provides total solutions for cutmeat deboning line.

From a small-scale processing line up to several hundreds pigs/hr or tens of thousands of birds/hr lines, HI-COOK has diagnosed the customer's particular status and offered optimal solutions in accordance with each production scale. Various possible layouts are made in the beforehand mutual technical & commercial discussion.

- Manufactured in accordance with HACCP and USDA
- Tray destination system in computer control
- Better work efficiency, less labor intense
- Easy to dismantle for better cleaning and full access
- Caterpillar shape plastic belt as a standard option
- Easy to clean backside of belt



All the working platforms and their relevant hardware are well designed for local people's physical condition

like height and also for less contamination risk. Every corner of the hardware is elaborately designed and



manufactured in terms of a decent labor intensity so that the management can make sure of optimal labor productivity. Frames are processed slop-wise (slide treatment), that allows no water to remain and no invisible and inaccessible place for any kind of bacteria to survive.





New generation Generator installed N type smoke house **SteadyGen**

SteadyGen is equipped with the world first self responding density controller, that senses the density of smoke gas, calculates the gap between the set value and the present one, gives the signals to the smoke generator to adjust, and therefore making the system reach the target range.

- The world first smoke density detector interfaces with the microprocessor to perform the optimal smoke generation.
- Outstanding drying efficiency can make out a better yield
- Less woodchip consumption
- No excessive tar
- Less smoking time, better yield
- 99 programs can be stored and recalled in German microprocessor
- Carefully selected location of heat exchanger, energy saving
- Centralized utility installed in top-front.
- CIP
- 200 deg.C high temp. available (option)
- Inspection window

SteadyGen[®]

Self responding density controller



SteadyGen is equipped with the world first self responding density controller, that senses the density of smoke gas, calculates the gap between the set value and the present one, gives the signals to the smoke generator to adjust, and therefore making the system reach the target range. Thanks to the patented smoke density detector, smoke gas density is continually

being detected to eliminate any possible fire or unexpected explosion while the installation performs the densest smoking process within elaborately-controlled safety. It gives the signals to the micro-processor of the installation which will then be able to generate and deliver high quality (more C6H5OH) smoke gas.

Perfect drying

Drying is not a simple previous step to smoking process, but a decisively acting step to determine the quality of smoking color. When smoking process appears strange, it is generally recommendable to look for the first reason in its previous stage, drying process. As far as drying is incompletely done, optimum smoking result cannot be desired. **HI-COOK** smoke houses make use of its high speed air-circulation and its unique air & heat distribution know-how to perform even and rapid drying process throughout the whole chamber, promising the optimum smoking quality and less drying time.



High temperature roasting **BC oven**

HI-COOK offers BC oven for such products like Peking Duck which requires relatively high temperature, abt. 200 deg.C. (left picture)

HI-COOK's smoke house are also working for salmon smoking (right picture)



BC 4000 gas oven (200 deg.C)



Cold smoking (salmon)



Low end but fully functional **HI-COOK Steam chamber**

- Powerful fan circulation making less temp. difference
- Temperature recorder for better tracability
- Door interlock (in and out)
- Digital indicators
- Digital temp. control
- Digital operation hours
- Inspection windows



LUTETIA

VSD Massaging tumbler

Up-to-date European defrosting & marinating technology, Lutetia VSD Massagers

With pride from over 5,000 sets of massagers worldwide installed, Lutetia introduces an up-to-date "all-in-one" massager (defrosting + marinating + cooking).

→ Defrosting (VSD)

- Low temp. (20 deg.C) defrosting under under-pressured vacuum environment does not give any damage to product surface.
- Dedicatedly selected VSD programs perform low-speed rotations of drum to distribute defrosting effects all over the products.
- Unparalleled higher yield (99% to 100%)

→ Marinating

- Patented special baffles would not give any physical impacts on product. (No skin separation from chicken meat)

→ Cooking

- After marinating, it can cook products right where they are
- Versatile in medium sized meat processing factories
- Liquid smoking can be also done (optionally with liquid smoker)

T-5



Over 5,000 sets of references worldwide



Auto load/unload



Frozen pork block meat



After defrosting



Frozen Chicken breast

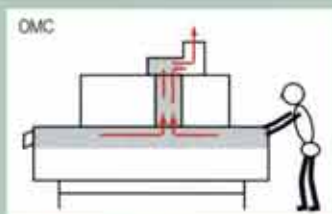
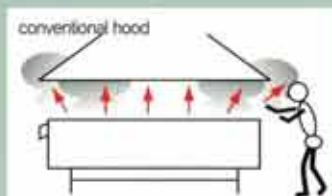


After defrosting

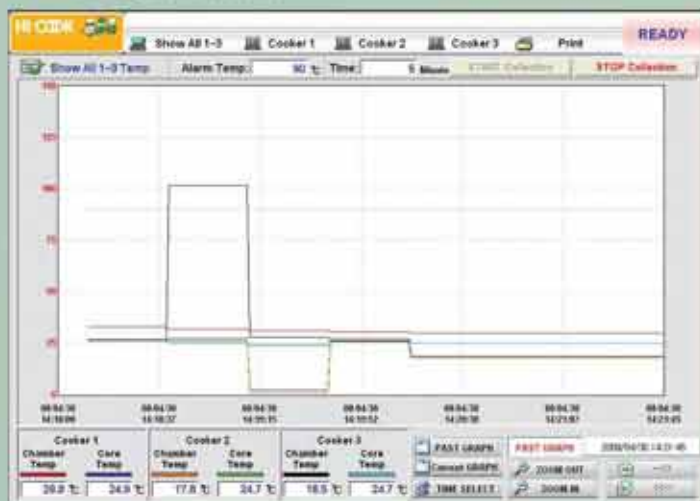


Cleaning the workshop, eliminating fire risk, Oil Mist Catcher OMC

HICOOK's oil mist catcher blocks oil mist under the water on its way to outside, preventing environment from getting worse and eliminating any risk of fire.



- OMC exhausts, cools and takes, a volume of oil mist coming from fryer
- No need to install hood on the top of fryer, leading to a better hygiene.
- The inside situation can be monitored visually thru two side transparent covers.



HI-COOK temp. & humidity monitoring system

Making use of lan network, it transmits each essential data such as temp., humidity, etc to remotely-located computers.

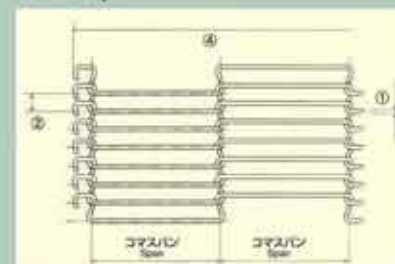
- Reinforced HACCP asks for product traceability
- 6 channels
- Data will be stored in text file, excel file, and graph file at the real time base sametime
- Alarm functions when any value deviates the set value.

HI-COOK is Good-1 Partner

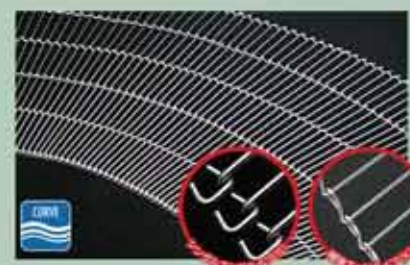
Specially heat-treated stainless steel net K's ultra reinforced nets



K's is the first manufacturer of flat flex net in Japan with over 50 years of history.

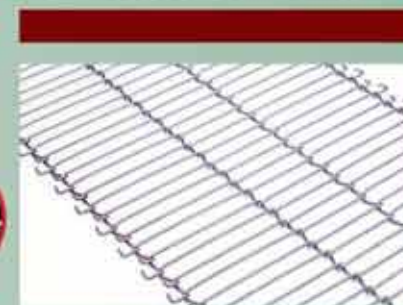


1.thickness(diameter) 2.pitch 3.span number 4.overall width 5.shape of edge)



Reinforced edge round net offers 3 times more durability.

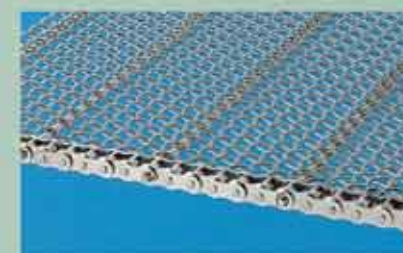
Straight & curve net can be used for any spiral system and also for multi-configuration conveyor like 'round+curve+round'.



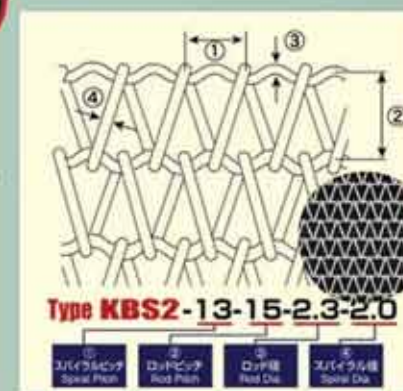
It creates no black dirt from steel friction during the process.



It is used for such product "big volume, small weight" (bread processing line, for an example)



Chain-driven net



KBS
1. Spiral Pitch 2. Rod Pitch
3. Rod Dia. 4. Spiral Dia.



It uses no chain, and no support bars, offering better hygiene. Mostly used for tunnel freezers and fryers.



Made of plastic materials, it has two basic widths, 100mm and 200mm. The target overall width is determined by any combination of these two widths, like 100+200 for 300 mm or 100+200+100+200. For 600mm.

Wider application

- We can see many products sticking to stainless net of the discharge conveyor in the freezer. KBP plastic net never allows it.
- Stainless steel net sometimes creates pin-hole, but KBP plastic net never allows it.
- Connecting stainless steel nets requires a hard effort, but flexible KBP plastic net never asks any hard job.

HI-COOK FCC non-casing sausage processing line



→ **FCC (Form-Cook-Chill) line offers the following benefits**

- Casing cost saving
- Labor cost saving
- Naturally looking (BBQ surface)
- Line versatility for other grill product
- Higher hygienic standard

→ **A full automation without any manual intervention**

- Filling : Generally, you can use your existing vacuum fillers (subject to our final confirmation).
- Extracting : Precise weight control by HICOOK's dedicated extracting nozzle system
- Hot air cooking : intensive grilling in 350 deg.C., keeping juicy taste inside sausages
- Core sterilizing : V shape steam tunnel offers stable core-sterilization.

→ **Various product shapes**

By exchanging nozzle set, it can product various kinds of products including Frankfurter type sausage and flat bar products.

→ **Impingement grill effect**

The hot air oven (IMPF) grills the surface of sausage in a very extensive manner from both top and bottom. These two air impingement can be controlled independently in their velocity and air volume by the centralized touch panel with 20 pre-stored programs. Steam injection, as one of the key factors in every cooking process, is available. Easy dismantle and easy cleaning without tools.

→ **No batch operation**

You can eliminate any unrewarding labor time which you should spend in the conventional smoke house process loading unloading smoke trolleys at the time of process start/end.

→ **Continuous cleaning during operation**

Either hot air oven or V steam tunnel has its own continuous net washer so that conveyor net is automatically and continuously cleaned during the entire process.

→ **Fully digital control**

Major equipment is equipped with digital controller, indicator, and temperature recorder in connection with computers in your desk. It offers you a complete traceability.

You had better compose your product portfolio including FCC product, which offers you lots of benefits in cost saving and hygienic issue. Contact your HICOOK agency now.



Fully digital control



Liquid smoking or batter coating



Continuous intensive cooler before packing process



MPO or IMPF can work as the forming cooker for more extensive heat exchange



ASAHI SOSETSU CO.,LTD.

HI-COOK companies

Asahi Engineering Co.,Ltd., Japan
Metatek Co.,Ltd.,Korea
Asahi Sosetsu Korea Co.,Ltd., Korea
Asahi Metatek Food Machinery Co.,Ltd.China
Hicook(Thailand) Co.,Ltd., Thailand

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