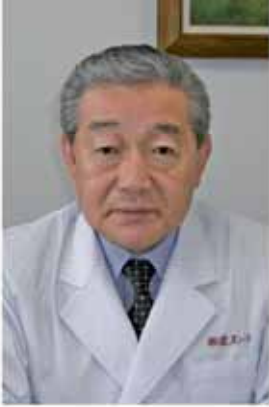


Catalog 2

CAS
Technology of **ABI**TM

 **ABI CO.,LTD.**
www.abi-net.co.jp



Mr. Kazushi Yamaguchi
Zao Meat Co., Ltd. Representative Director

I think it was very good to have quick freezer with CAS engine, and the reason why the world meat industries are paying attention to ABI's CAS is because they convinced the high quality and deliciousness. I bring Yamagata beef as a souvenir when domestic or overseas business trip because it is the easiest to make them understand the deliciousness of Yamagata beef.

When the customer opens the package and thaw the meat, the bright red color comes out clear. The beef souvenir surprises customers having an experienced eye.



The CAS engine has a reputation among domestic and foreign customers, because it brings fresh color like beautiful bright red color even when thawed, and becomes dark red when it reaches the consumer, and is very delicious. In the Japanese beef industry, there are many requests to install CAS and Harmonic Oscillating system.



Oumi beef,
Kanekichi Yamamoto foods Co.,Ltd.



Yonezawa beef,
Tokiwa Co.,Ltd.



Oki beef,
Furusato Ama Co.,Ltd.



Mr. Toshio Saitou, President

From the breeding stage, we experimentally used the facilities of ABI's good environment, and the pork became very delicious. Separately, we procured a quick freezer equipped with a CAS engine. After thawing the color of pork return to light gray, which means that it returns to the same color as raw meat.

It is one of the major factors that increase yield rate because the umami element in drip does not come out. It was very surprising that the meat returns to fine texture and very tender.



We joined ABI's CAS Association, we sell pork attaching the CAS mark.

Using the quick freezer with a CAS engine and producing 800 kg per hour, the electricity cost of the CAS engine is 16 yen per hour. The electricity cost for the quick freezer is 360 yen. We can turn off the power of ABI's equipment at the end of the operation, so it costs during only operating time. We have also adopted the large freezing stocker with Harmonic Oscillating system as the quality of meat does not deteriorate for one to two years for preservation.



**Mr. Hiroshi Imai, Chairman and Representative Director
Shizuo Farm, Kawanishino Oka**



I was searching for a way to provide good fresh mutton even in Tokyo, and I found ABI's CAS. What surprised me was that even when the mutton was thawed, it returned to a beautiful color, and the flavor and aroma returned.
















Because of the great difference in meat quality from conventional frozen meat, the story developed a famous chef wants to use this meat at the dinner for heads of state on APEC Japan 2010. It is now used in top hotels and restaurants. And we offer the meat with confidence.



Block of mutton
CAS does not bring change of fat. There is no change of meat quality created by uniqueness of freezing



CAS frozen Lamb is highly evaluated from Chefs because of very fresh. CAS frozen Lamb was cooked at the dinner party of “APEC 2010” and leaders of each country enjoyed the excellent tastes.

	Hu Jintao, President of China,		Barack Obama, President of the United States
	Dmitry Medvedev, Russian Prime Minister		Stephen Harper, Canadian Prime Minister
	Donald Tsang, the second Chief Executive of Hong Kong		Don Borier, Deputy Prime Minister of Papua New Guinea
	Begnino Aquino III, President of the Philippines		Felipe Calderón, President of Mexico
	Nguyen Minh Triet, Vietnam President		José García Belaúnde, Peru Foreign Minister
	Abhisit Vejjajiva ,Prime Minister of Thailand		Sebastián Piñera, President of Chile
	Muhyiddin Yassin, Deputy Prime Minister of Malaysia and Minister of Education		Julia Gillard, Prime Minister of Australia
	Lee Hsien Loong, Singapore Prime Minister		John Key, New Zealand Prime Minister
	Hatta Rajasa, Coordinating Minister for Economic Affairs of Indonesia		Lián Zhàn, Chairman, National Policy Foundation of Taiwan
	Hassanal Bolkiah, King of Brunei		Lee Myung-bak, President of South Korea

Only the surface is baked and cooked and can be eaten raw.
The lever is also fresh like the picture above.





Nguyen Quan,
Ex-Vietnamese
Ministry of Science
and Technology Minister

A signing ceremony was held between ABI CO., LTD. and the Ministry of Science Technology of Vietnam to solve the problems of demolition exports in Vietnam's agriculture, fisheries, dairy farming, livestock and processed foods. To export Vietnamese fruits to the world, we first worked on lychee. Lychee quickly changes its skin color and reduces its commercial value.

Using ABI's CAS engine, ABI stored lychee for seven years and examined the changes over time. Until two years there was no change in color of surface, but in the seventh year the color had clearly changed to black. However, the fresh of the lychee has not changed at all. A president of the lychee company in China was very surprised, and conducting a study session on how to use CAS in the future.



Signing ceremony for the research and development to export Vietnamese foods to the world using ABI's technology, with Le.Tat.Khuong, Secretary of Ministry of Science and Technology of Vietnam.



At the laboratories of Vietnam Ministry of Science and Technology. In the laboratory, one CAS engine, one harmonic freezer storage, and HIMURO Refrigerator, a refrigerated storage that can store vegetables raw for six months.



Lychee thawed six months later



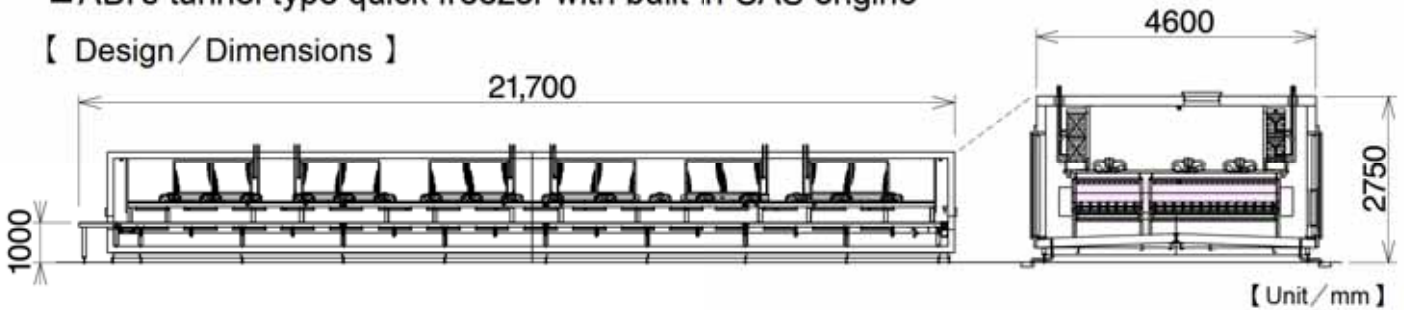
No discoloration after thawing,
and the texture remains the same as raw.

In order to export Mexican avocados and mangoes to the United States and the world, a Mexican sugar manufacturer installed ABI's CAS engine.



■ ABI's tunnel type quick freezer with built-in CAS engine

【 Design / Dimensions 】



Avocado frozen by CAS



Thawed mango after freezing

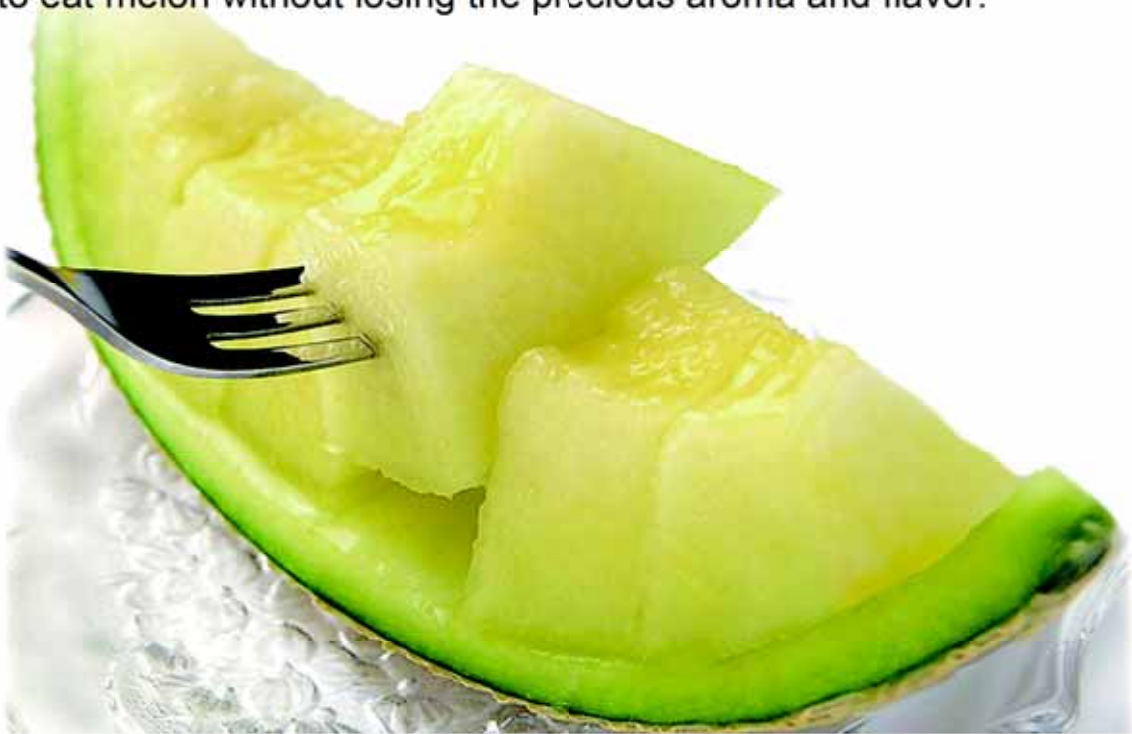
Amami Oshima Island, Kagoshima Pref.

Uken-village adopted CAS to bring Tankan (a kind of orange) to the world market. Now, 100% freshly squeezed seasonal juice has been sold explosively because it can revive to the taste at harvest when thawed. Product development has also progressed based on tankan, and the tankan itself also returns to the seasonal taste when thawed.



Melon

A producer of melons in Shizuoka Prefecture consulted with us that it is no longer the time to sell whole melon, and that they would like to sell cut-melons. Even a whole melon that costs 4,000 yen to 6,000 yen can be purchased for 400 yen per price, which has increased the willingness of consumers to purchase. It enable to eat melon without losing the precious aroma and flavor.



The squeezed melon is popular because it returns to the seasonal melon even if it is thawed after one or two years of storage.





Mr. Tsuneaki Onishi, President MINOKICHI FOODS

We are a Kyoto restaurant that has been around for 300 years. MINOKICHI FOODS has been developing traditional dishes for 300 years, In other hand, we have been developing "ready meals" to respond to the needs of today's consumers. We tried various machines to reproduce the chef's delicate kitchen knife handling and cooking method. The chef found CAS engine among them, and recommend to procure a quick freezer with CAS engine..



Electricity cost for CAS engine is 1.5 yen per hour,
electricity cost for quick freezer is 240 yen



“Steamed rice (scallop, beef, shrimp)” using CAS engine



Cuisine using CAS engine



Shokado lunch box using CAS engine

Mr. Ken Yamaguchi, Owner chef of French restaurants, Chiba Pref.

At French restaurants, the shortage of human resources has had a significant impact on cooking at French restaurant. I have been using ABI's CAS system for 20 years. Technology evolved rapidly, and whenever we request ABI for functions and results, technologies were developed responding to us. Now, using the CAS and Harmonic Oscillating system, it is possible to operate a French restaurant by thawing the prepared ingredients at each store. ABI's CAS and harmonic technology has evolved, and our cuisine can now be supplied to stores in the country as pure French cuisine.



Are you convinced that jelly cannot be frozen?



Vegetable jelly
salpicon using CAS

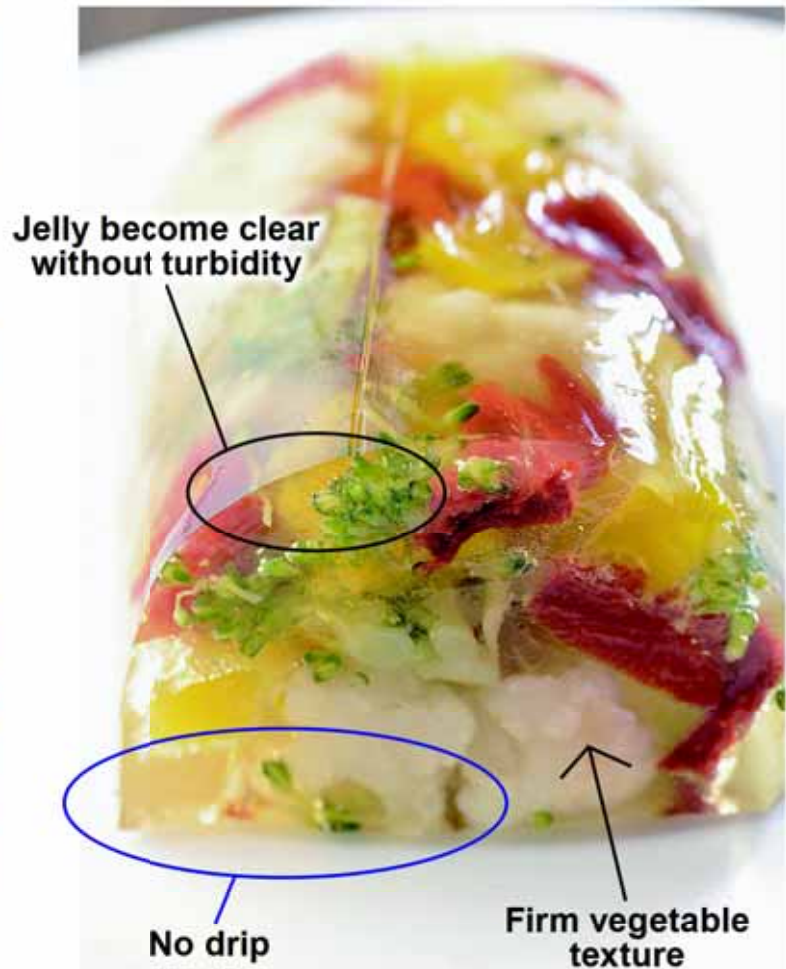


Pyramid of lobster
and scallop using CAS

The effect of CAS on jelly

Only the necessary amount can be used by thawing, so there is no waste.

CAS can create easy cost management so that it easily generate profit.

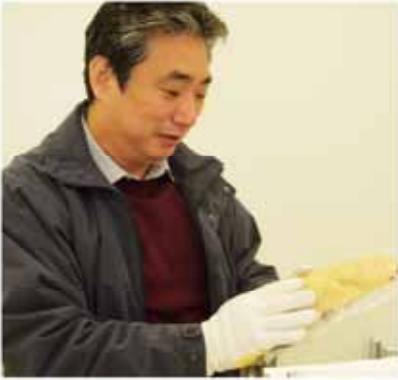


Salmon Lanterne using CAS

Benefits of freezing by CAS

Freeze without destroying cells
Defrost to freshly made state

- ① No drip
- ② Maintains taste, flavor and aroma as it is
- ③ No freezing burns
- ④ No deterioration over time during distribution
- ⑤ Easy handling compared to chilled



**Mr. Buntoku Odawara, President
Northern Express Co., Ltd.**

Twenty years ago, ABI CAS machines were installed in Brittany, France. By using CAS, ingredients that were only available in France can be given the CAS mark and delivered in fresh to world-famous hotels and major Japanese restaurants.





Some of the CAS frozen foodstuffs in the Brittany, France



Ryushoutei Nishimura, Asakusa

Nishimura, a Japanese confectionery shop in Asakusa, was founded 165 years ago, at the end of the Edo period. "Nishimura" was drawn in UKIYO E of Hiroshige Andou on Bunsei 12. "Nishimura" continues to work stubbornly on traditional Japanese sweets from Asakusa, and has gained huge support from customers nationwide.



Sales to outside customer of a department store told me that a customer in a rural area whose legs got weaken had a request to somehow eat Japanese sweets of Nishimura, Asakusa again.

We challenged to freeze and ship the sweets that could only be eaten in the same day, thaw them at the customer's home to be eaten. The customers enjoyed the traditional taste without going to the store. I received a letter saying the sweets was soft and the candy was the same as just made.



The delicate taste of Western confectionery stems from blending and fusion of ingredients Ingredient CAS freezing technology takes full advantage of this.



Mr. Charles Ceva,
Academie Francaise member
M.O.F. member

In France, double freezing in a shock freezer prohibited by law from July 1, 1992. Similar to HACCP, this was because controls were required to suppress food degradation and protect the taste of food.

With so many restrictions, traditional French pastries and French cuisine methods no longer match the times. Selling products while understanding that traditional shock freezer freezing method cause the product to degrade is the responsibility of the manufacturer. The manufacturer must think of new preservation methods that do not cause the ingredients to degrade.

persons involved with cuisine around the world must work together with a strong belief and ideals so that we can freeze and preserve delicious foods in a delicious state and market these to many people. Naturally, the section of the food processing machines is important.

When I visited Japan in 1997, I saw the ABI CAS freezer at a university research laboratory. I was impressed at the marked improvement in capability and performance. ABI excels because is they listen to our opinions as patisserie, continue to make challenges, and create new technology. I am sure they will continue looking forward and will show further progress to us.

I am confident that ABI's abilities will continue to spread throughout the world of cuisine, and will make sure accomplishments.

A handwritten signature in black ink that reads 'Charles Ceva'.



CAS freezing does not deteriorate quality of fresh cream.



An integrated model of Quick freezer with CAS engine & Freezing food stocker with Harmonic Oscillating function



1-12-1, Otakanomori higashi, Nagareyama-city, Chiba, 270-0138, JAPAN
TEL : +81-4-7137-9132 / FAX : +81-4-7156-8662
e-mail : abi@abi-net.co.jp

