



Star Cool Is Ready for New Challenges

At Star Cool we strive to obtain a close and personal relationship with our customers in order to let their challenges become our challenges. To remain the industry leader in innovation we will keep a strong focus on the shipping industry – and prepare ourselves for new challenges within the existing market.



*By Per Holm Knudsen,
Vice President, Star Cool*

It has been seen and done before.

When business thrives it seems easy to expand into new industries and harvest in new fields and markets. But at Star Cool we will do the opposite and keep a strong, determined focus on the shipping industry. In fact it has always been and will remain our only focus.

This focus is not kept out of a conservative look on things – but because of our innovative approach to business. Star Cool's products are made by shipping people for shipping people, giving us the right level of competencies and knowledge to dive into the specific challenges that lies within the shipping industry.

If we had a broader perspective this would not have been possible for us. Instead we can now lead the innovation process in the industry – both in product development and service.

Several years ago, we at Star Cool abandoned old conservative business models and turned our organisation towards new approaches and ideas. We have introduced new ways of building reefer machines, we have presented Star Cool Integrated to the market – and we have added new controllers, Automatic Ventilation and other features to our existing products. All products and features dedicated to the shipping industry.

Recently we have also successfully completed trials of our new CA-system that can control the atmosphere inside the container. This is a good example of how we want to assist niche groups within the industry.

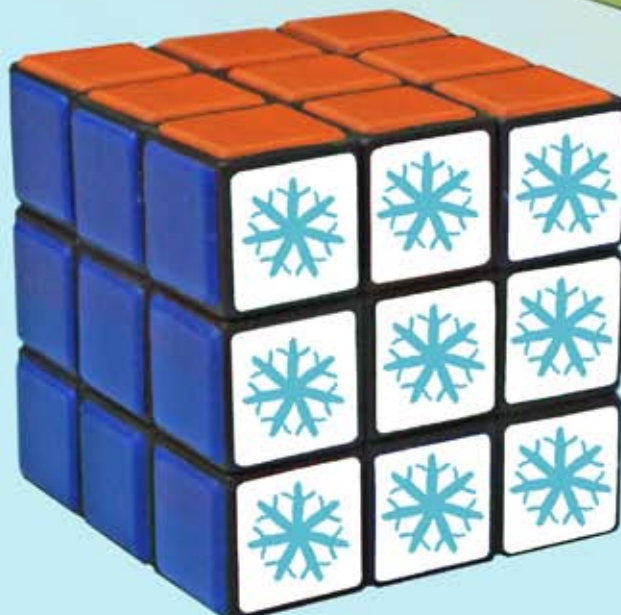
The Star Cool CA-system can control the levels of oxygen and carbon dioxide inside the container. This enables the CA-system to slow down the respiration process of the commodities and hereby prolonging the possible transit time. There is a vast market for transporting bananas in containers and with the use of Star Cool CA the list of potential costumers to the container lines is immense.

This said, it should be noted that transportation of all respiring commodities benefit from CA.



These are all examples of Star Cool's willingness to think out of the box and test new solutions. We could have chosen to stick to old systems and probably still make our way through coming years, but our call to action is to keep thinking out of the box in order to gain new strength and possibilities.

The next natural step is therefore to become even more close to our customers – and to deal



with their specific challenges. In this edition of Star Cool News you can learn about our cooperation with FESCO, Russia's largest private intermodal transportation group, on how to further develop the reefer to perform efficiently in cold climate.

In other words Star Cool wants to take on new challenges to refine and rebuilt our products to fulfil new ideas and demands with the industry. Therefore we are open for new ideas from customers and partners – and we invite them to come to us with ideas and challenges that seem impossible to solve and let us have a look at them in a close dialogue.

Star Cool in the Deep Freezer

Since 2008, FESCO has been testing the Star Cool reefer for its promises concerning lower energy consumption and efficiency at the extremely low Russian winter temperatures of minus 50 degrees centigrade or less, with good results.

When lieutenant commander Chirikov departed from Odessa heading for Vladivostok in 1880, in charge of the S/S "Moskwa", it marked the beginning of regular cargo and passenger voyages of Russian vessels from the European part of the country to its Far East.

Almost 130 years later, FESCO – formerly known as the Far Eastern State Shipping Company – continues this tradition as the country's largest private intermodal transportation group, providing a full range of logistical solutions through a combination of shipping, rail, trucking and port services offered to clients through a worldwide network of sales offices.

And FESCO has chosen Star Cool as one of its partners.

"We have been in dialogue with Star Cool since 2007 and started trials last spring. During the 3rd quarter, we added a few Star Cool Integrated in order to evaluate whether this interesting new de-

sign lives up to its promises without any operational disadvantages", explains Sergey A. Proskuriakov, Deputy General Director Logistic at Dalreftrans, the intermodal reefer operator within FESCO. Dalreftrans operates a fleet of around 2,000 reefer containers, including 40'HC containers purchased from MCI back in 2005.

Through constant change, FESCO, which started out as a regional shipping company, has developed into the Russian champion of transportation and logistics, spearheading the integration of Russian transportation systems into the global landscape. One thing, however, has been left unchanged: the values and traditions of commitment to the highest quality standards. Just like 129 years ago, FESCO strives to constantly expand the range of services, reduce delivery time and optimize costs. This is one of the reasons why the company took an active interest in Star Cool already at an early point.

Operating in an increased risks area, FESCO understands its responsibility for the maintenance of environmental safety and preservation. Strictly observing the severest requirements of environmental legislation in various countries, the company aims to be at the forefront, setting new standards.

"An innovation which can protect the cargo while saving energy is a benefit for everyone. We wanted to test if Star Cool delivers on its promise of the lowest energy consumption, and our readings confirm this," says Mr Proskuriakov. Dalreftrans operates about 40 reefer block trains with 12 reefer rail cars (60ft long) per train.





The low energy consumption is directly converted into diesel savings for the power pack onboard.

Both parties wished to find out how the reefer machine, and particularly the display, would perform at the extremely low Russian winter temperatures of minus 50 degrees centigrade or less.

During a recent joint evaluation meeting between Dalreftrans and Star Cool, Mr. Maxim Prokopas, Head of Containers in the Operation Department, confirmed that not one single incident of malfunction had been reported on the Star Cool reefer machines since their inception into the trade.

"Because of our efficient operation, we have actually achieved 11 full loads with Star Cool reefer machines on the St.-Petersburg-Moscow-Vladivostok rail route in the past 11 months. We observed that the Star Cool display was still functioning well at minus 30 degrees centigrade, where other reefer machines had problems with 'flickering' displays, so Star Cool passed this test too, at least during the first winter," says Mr Prokopas.

"It is a great experience for Star Cool to be allowed to work with FESCO/Dalreftrans, because frequent loading/discharging combined with continued rail use puts different challenges and stresses on the reefer container and reefer machine", says Per Knudsen, VP of Star Cool.

"We intend to keep our current good track record on the Russian domestic routes, but of course errors can occur, and in order to ensure proper and fast action, Dalreftrans and Star Cool have established Dalreftrans in Moscow and Vladivostok as official Star Cool service points."



Star Cool also Performs in Cold Weather

Because of preheating the compressor prior to startup, Star Cool ensures that our reefer machines will work in cold weather or cold surroundings of down to minus 30 degrees centigrade.

In cold weather and/or cold surroundings, the Star Cool reefer machine has some unique features that keep it running without problems at extremely low temperatures of down to minus 30 degrees centigrade. Recent customer reviews even indicate that it might perform under conditions of down to minus 50 degrees centigrade.

One of the reasons for the efficiency in cold weather is the frequency converter used in the reefer. Because of the converter, the reefer machine can preheat the compressor and allow it to start up slowly instead of starting at full power right away.

This feature not only protects the reefer machinery with a more gentle startup procedure in cold weather, it also guarantees that it will start every time due to the preheating procedure.

In order to ensure sufficient lubrication in the compressor and controlled running of the refrigeration circuit at cold temperatures, the reefer has the following technical features:

- Compressor heat mode (preheating of the compressor prior to startup)
- Soft start of compressor (ensures careful startup of the compressor)
- Electronically controlled expansion valves (can be controlled regardless of temperature)

For more information on Star Cool's performance in cold weather, please contact Star Cool's technical staff.



CMC Joins Star Cool as Service Provider

Container Maintenance Corporation, the largest mechanics provider on the US east coast, is now also a Star Cool service provider – a move that goes hand in hand with Star Cool's added focus toward North America.

"Our goal is to give our customers the best service available – an all round service that suits whatever needs they might have. This also means that we want to represent all the biggest brands in the industry. Star Cool is a growing company and we want to grow with them."

Answers Billy Watson from Container Maintenance Corporation when asked why they have become a Star Cool service provider. CMC has been in business since 1971 and is the largest mechanics provider on the American East Coast with facilities in Staten Island, Baltimore, Norfolk, Wilmington, Charleston, Savannah, Jacksonville, New Orleans and Nashville.

CMC is one of many service providers who have joined Star Cool's list of certified providers this year. This rapid growth is evidence of the focus and priority directed by Star Cool management to achieve the commitment to its customers of true global service coverage.

As the customer base continues to diversify, Star Cool is working hard to close the geographic gaps that are presented by Star Cool's introduction into new trade routes.

The initial expansion has seen wide service coverage throughout Asia and South America. In keeping with the goals, Star Cool is now placing an added focus towards North and Central America, as well as Africa, while activity in Europe and the Middle East continues as interest in Star Cool intensifies.

CMC has just begun the necessary training to become a fully certified service provider for Star Cool. Billy Watson of CMC and Star Cool is looking forward to a long relationship.

"Being a Star Cool service provider is important to us. Therefore we are committed to treat the Star Cool customers as well as they are being treated by Star Cool themselves," says Billy Watson.



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