## Solve heatstroke and environmental issues this summer with revolutionary ultrafine mist!



**Significant Reduction** in Electricity Cost

up to

**Heatstroke Prevention** B 50 Environmental Solutions

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Semi-Indoor and Outdoor **Environments** Small & Large Scale

Por acco

**Suitable for** all industries Parks and Commercial Buildings

CONTRACTOR OF THE STATE OF THE

**Factories and Public Facilities** 

**Low Installation Cost** 

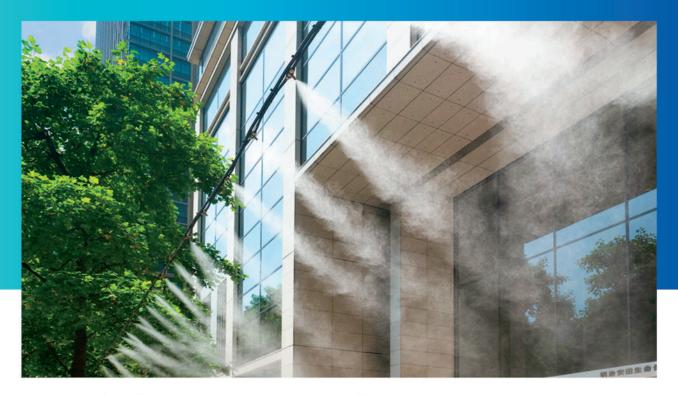
**Low Running Cost** 

**Affordable** and sustainable and Water only

Compressed Air







#### **Introducing COOL MIST Line®**

#### An innovative cooling solution for hot workspaces using only air and water

"Cool Mist Line®" is our original cooling system that cools workplaces using evaporative cooling with just compressed air and a small amount of water. The system has received positive feedback from companies struggling with intense hot weather and machinegenerated heat exhaust, as it offers significant reduction in electricity costs and low installation fees.



#### **Benefits of Cool Mist Line®**

Significant Savings in Running Costs!

-8°C with only Air and Water! Affordable
Installation Costs!

**Easy**Maintenance!

Ultra-fine Mist!

Perfect for
Humidification and
Static-suppression in Winter!

Utility Model and Trademark Registered.

# **85%** Power Savings

#### The Game-Changing Alternative to Spot Coolers

Compared to traditional spot coolers, the Cool Mist Line® offers astonishing energy savings. With an impressive 85% reduction in power consumption, you don't need to worry about electricity costs, even during long hours of use. It operates without a heat exhaust mechanism, and thereby requires less space and allows for installation in cramped and narrow areas.

Furthermore, it outperforms traditional spot coolers due to the naturally dispersing fine mist, providing enhanced cooling and broader coverage. This innovative mist technology creates a comfortable environment, even in places with a large number of people.



Potential to review and reduce your electric power capacity contract



Be sure to try the Cool Mist Line® as the new must-have alternative to spot coolers.



Conventional spot coolers require space for installation



Large heat exhaust systems

Significantly Reduce Electricity Costs

Cool Mist Line® addresses the challenges posed by conventional spot coolers, such as power consumption, space requirements for installation, and heat exhaust, all at once.

Easy to start small to experience the effects firsthand while retaining the flexibility to expand in the future.

<sup>\*</sup> Comparison between spot coolers (2 types, 1.7kW/month. Electricity approx 7,400 yen) and Cool Mist Line® (0.264kW/month. Electricity approx 900 yen) delivering equal cooling capacity.

<sup>\*</sup> Operation requires separate expenses for the air compressor (approx 400 yen/month) and water supply for misting (80L/month, approximately 20 yen).

<sup>\*</sup> The electricity cost is calculated at a rate of 27 yen per 1kW.





#### **Envisioning the Future with Cool Mist Line®**











Cool Mist Line® is not just an ordinary cooling device; it is an innovative solution to address societal challenges. Currently, we face numerous issues worldwide, such as climate change, environmental pollution, and health problems. To tackle these challenges, there is growing attention towards the United Nations' Sustainable Development Goals (SDGs).

With its environmentally friendly and energy-efficient design, Cool Mist Line® contributes to the SDGs from both ecological and economic perspectives. By significantly reducing power consumption and cutting CO<sub>2</sub> emissions, it can make a positive impact on climate change mitigation. Moreover, it provides a comfortable indoor environment, contributing to improved health and well-being.

Sustainable development has become a crucial theme in corporate activities, and through Cool Mist Line®, we aim to contribute to problem-solving and sustainable development for our customers, taking a significant step towards creating a better society.

## Capturing the attention of prominent media!

Cool Mist Line®: The preferred solution and here's why!



Cool Mist Line® has gained significant attention and garnered extensive media coverage due to its high effectiveness. It has been featured in various media outlets, including newspapers, television, and online articles, both domestically and internationally, receiving high praise for its effectiveness. It has also been adopted by numerous companies and government agencies, proving its efficacy. Our Cool Mist Line® boasts a multitude of successful cases and is a reliable product that can be implemented with confidence.







Featured in notable programs such as Good Morning (TV Asahi), Super J Channel (TV Asahi), Prime News Evening (Fuji TV), Information Live Miyane-ya (Nippon TV), Mezamashi TV (Fuji TV), Mezamashi TV Aqua (Fuji TV), and numerous other industry and trade media.

#### Proven track record with over 2,200 companies

Cool Mist Line®: Transforming cooling systems in factories, farms, roadside stations, and restaurants!

With over 2,200 companies and facilities embracing the Cool Mist Line®, its effectiveness has been well established. It boasts a proven track record of successful installations in various locations, including factories, farms, roadside stations, airports, highway service areas, restaurant kitchens, sports parks, and more. Our customers have consistently praised its high performance.

This product excels in delivering exceptional cooling capabilities while remaining energy-efficient and cost-effective. Safety is also covered, as it utilizes ordinary water, eliminating concerns about chemicals or hazardous substances. Additionally, it is user-friendly and easy to maintain, offering customers a highly appealing solution in terms of convenience and efficiency.

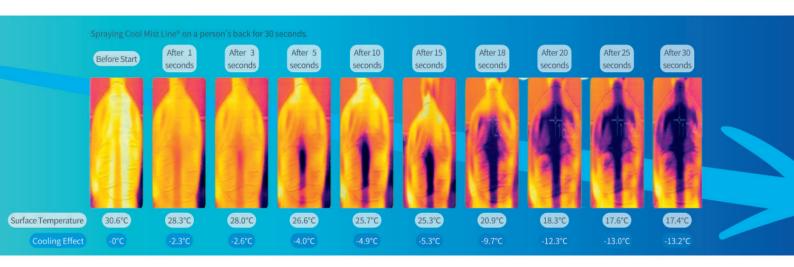


# BEATTHE SUMMER HEAT!

Cooling Effect: -8°C to -13°C!

#### Cool Mist Line®: The ultimate weapon against heatstroke!

For combating the heat during outdoor work or exercise under the scorching sun, Cool Mist Line® is highly recommended! Using thermal imaging to measure the misting effect for 30 seconds, an incredible temperature drop of -13°C was observed. A refreshing experience, akin to the delightful sensation of a cool breeze sweeping through.



## Address Heatstroke and Environmental Concerns with a Single Device!

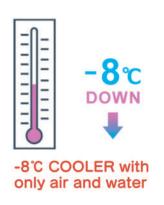
#### ECO & COOL

Heatstroke is a serious health risk that significantly increases during the summer season. Symptoms such as dizziness, nausea, fatigue, headache, cramps, and impaired consciousness may occur. In severe cases, heatstroke can cause organ damage in the brain, heart, kidneys, and may require emergency transport and medical treatment. Due to these potential risks, heatstroke prevention has become an extremely important issue.

Moreover, in today's world, there is a growing awareness of health concerns. The air we breathe contains various pollutants such as pollen and PM2.5, which can have negative impacts on our well-being. Particularly since the outbreak of the novel coronavirus, maintaining proper hygiene in offices and facilities with a high volume of people entering and exiting has become an important consideration.

To address these risks and challenges, we present the Cool Mist Line<sup>®</sup>. This innovative product utilizes only air and water for cooling, and is also being employed for disinfection and humidity control. We invite you to consider the Cool Mist Line<sup>®</sup> and leverage its capabilities to achieve an eco-friendly and healthy workplace environment.





## Case Studies









# Orientation independent versatile installation on walls and ceilings. Gate-type installation is as simple as setting it in place.

For factories, hospitals, restaurants, offices, and event venues!

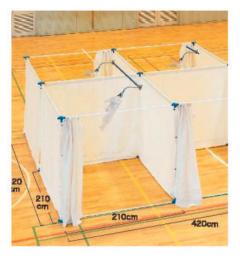
The Cool Mist Line® can be deployed in various locations, serving multiple purposes such as heatstroke prevention, disinfection, and disaster response. Its versatility allows it to cater to a wide range of need.





Shibahiro Garden, Machida City, Tokyo

Outdoor heatstroke prevention installation of 10 Cool Mist Line® units



#### **Disaster Evacuation Centers**

Compact space-saving design and quick Installation make it ideal for heatstroke relief.



#### **Disinfection Gates**

A gentle and comfortable ultra-fine mist disinfectant spray envelope the entire body providing effective disinfection. No floor moisture. (Equipped with human motion sensor)

## **Customer Testimonials**

The Cool Mist Line® has been widely adopted in various industries. Let us introduce the achievements and feedback from our customers.



#### **Linen Supply Factory**

190 units

The Cool Mist Line® has been a game-changer for our linen supply factory. With 190 units installed, we achieved remarkable cost savings in both initial investment and running costs. Our workers now enjoy a cool and comfortable environment, and the easy adjustability of Cool Mist Line® sets it apart from traditional spot coolers. With no need for major facility changes, we removed all spot coolers, resulting in an impressive 20% reduction in electricity costs.



#### **Automobile Maintenance Garage**

165 units (40 maintenance workshops)

Our automobile maintenance workshop has experienced a significant improvement in working conditions since installing 165 Cool Mist Line® units across our 40 locations. Gone are the days of working in discomfort under the engine's heat. Each pit's Cool Mist Line® provides a comfortable working environment, allowing us to handle precision machinery without worrying about any water damage.



#### **Recycling Intermediate Processing Facility**

25 units

At our recycling intermediate processing facility, the Cool Mist Line® replaced our stand-type spot coolers, addressing concerns about heat exhaust and electricity consumption. This environmentally friendly and efficient solution has brought positive changes to our operations.



#### **Printing and Bookbinding**

20 units

We installed Cool Mist Line® units in a factory without a water supply. Using 5-liter bottles (per unit), we utilize it for cooling in summers and humidification and anti-static purposes throughout the year.



#### **Concrete Factory**

75 units

Thanks to the 75 Cool Mist Line® units installed along the 130-meter line, our concrete factory's harsh and hot working conditions have transformed. The consistent cooling breeze has made a world of difference, ensuring our team can work comfortably and efficiently.



#### **Air Mist Curtains**

6 units

We use the Cool Mist Line® air mist curtains at the entrance of our painting facility for cooling and dust supression. It has improved quality of our printing factory environment and a more comfortable environment have become the norm.

#### Featured in trade magazine Linen Plant Vol. 31

(2020 spring)

Coolers Removed and Power Contract Reduced!! Cool Mist in 3 factories, 190 units.

"Cool Mist Line®" by Touyoko Support Inc. (Headquarters: Machida City, Tokyo, President: Kazunori Yamada) has been widely adopted in various industries for its effective and cost-efficient cooling solutions. It provides a high cooling effect (-8°C or more) using only air and water, earning praise for its "non-wet mist." Over 6,000 units have been deployed to more than 500 linen and cleaning factories nationwide. Some factories have completely replaced their conventional spot coolers, which were once essential for dealing with the scorching heat, and now operate solely with Cool Mist Line®. Mogawa Corporation in Izu City, Shizuoka Prefecture (Representative Director, Kiyoshi Saikawa), as reported in Issue 16 (2016), requested a Cool Mist Line® demo unit for testing after reading our magazine's article. The positive results led them to install 130 units in three factories and later expanded to 60 additional units (totaling 190 units).

Cooler Removed, Mist for Each Individual Worker

Cool Mist Line® is Touyoko Support's original cooling device that cools workspaces using the evaporative cooling of only a small amount of water and the air from a compressor. The unique technology mixes air and water, resulting in the dispersal of an ultra-fine mist (15 microns) of water. As a result, neither workers nor items they work on become wet, and the mist, which is gentle for those who are sensitive to air conditioning, is well-received even by female staff. Makoto Ishii, Factory Manager of the main linen factory, says, "We installed it not only in the places where spot coolers were previously placed but also in all work areas, including the washing area. Not only the areas hit by the mist but also the surrounding spaces feel cooler, and the feedback from the field has been positive." Additionally, due to its easy expansion and low cost, they have expanded the number of units to 190, installing them in new areas with factory equipment and providing individual units for each person where previously two workers had to share.

Currently, they are in use on an almost one-to-one basis, and all other cooling systems such as spot coolers have been removed. "Even without air conditioning in scorching summers, people feel the mist is refreshing. There are no longer any complaints about stiff shoulder or physical discomfort like when using spot coolers that cool only specific areas," says Manager Ishii. Installation is easy with just an air compressor and water, and the company handled all the installation in-house. The units are installed at an elevation of 220-230 cm above the back of the workers and approx. 80-120 cm away, securely fixed with large clips to existing piping and other structure. In the factory, they previously used some fans in conjunction, placing them on the side of the machines, which resulted in blowing hot air from the machine. However, this setup led to the mist and fan's airflow colliding when blowing from behind the worker, causing issues. As a solution, they moved the fans behind the mist to avoid such conflicts. Additionally, for worker who cannot reach the mist unit, they installed ON/OFF switches at a lower position within reach, such as beside the linen feeders.



## **Technical Information**

#### Piping diagram

- Main unit & 45cm flexible arm with a strong clip (with ON/OFF Valve)
- Dedicated water pressure regulator (1 unit can support up to 10 mist units)
- Installation requires an air compressor
- Installation labor, auxiliary materials, and consumption tax not included
- Simple installation process that customers can may install it themselves



#### Components



#### **1** Air Regulator

An air regulator with a filter removes particles up to 20 microns. One unit can serve up to 5 mist units.
Standard Size: Ø8mm



#### **2** Ball Valve

Allows you to stop multiple mist units simultaneously when connected. Standard Size: ø8mm



#### **3Polyurethane Tube**

A polyurethane tube to supply water and air. Standard Size: ø8mm



#### **4** One-Touch Branch Joint

Required for connecting the polyurethane tubes. Compatible with both air and water.
Standard Size: ø8mm x ø8mm x ø6mm



#### **5**One-Touch Straight Joint

Required for the end connection of multiple units. Compatible with both air and water. Standard Size: ø8mm x ø6mm



#### **6 Water Filter**

Removes impurities as small as 10μ. Standard Size: ø8mm



#### **7** Pressure Reduction Valve

A water pressure reduction valve tuned to 0.2 megapascals, optimized for cooling mist. One unit can support up to 10 mist units.

Nominal Diameter: 15



#### **®Piping Components**

Required for branching the piping.
Nominal Diameter: 15

#### **Placement location**

Height: 220cm to 230cm from the floor to the nozzle. Distance: A position 80cm to 150cm away from the worker.

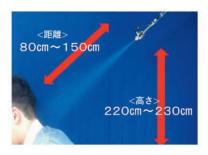
#### **Adjustments**

#### Water adjustment

The water emitted can be adjusted by turning the dial behind the nozzle.

#### Air adjustment

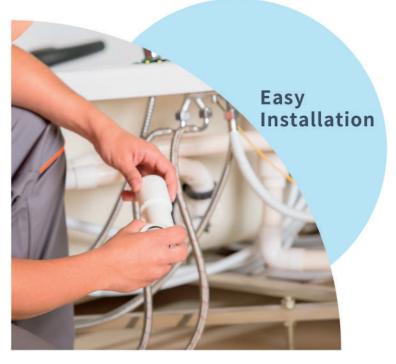
The mist can be adjusted by opening or closing the ON/OFF valve.





# Features

- Suitable for cooling in summer and humidification in winter, useful all year round
- · Products and workers remain completely dry!
- Low running costs
- Air usage: 28L/min per unit per day (8 hours) using approx 4L of water
- Water usage ranges from 7mL/min to 40mL/min
- Ultra-fine mist with an average particle size of 15μm
- One unit can cool an area equivalent to approximately 1.6 sqm
- Can be installed in minimal space (fits in the surrounding area)
- Eliminates the need for spot coolers with its powerful cooling capacity
- High precision, durability, and quality. Made in Japan.
- Suitable for spraying liquids without impurities (e.g., misting with water containing aromatic oils)



\*Installation requires an air compressor.

\*In addition to the unit price, installation labor and auxiliary material expenses will apply.





Energy-saving and Eco-friendly



\*For customers in the Kyushu region, we offer on-site demonstrations.

### FOR INQUIRIES REGARDING THE PURCHASE OF OUR PRODUCT, AUTHORIZED DEALER PLEASE CONTACT US AT:

**RONG-Tai FACTORY Inc.** 

TEL +81-96-321-6369 (from outside of Japan)

info@rongtaifactory.com

Business Hours: Weekdays 9:00 AM - 6:00 PM (JST) 2-43-68 Ikeda, Nishi-ku, Kumamoto City, Kumamoto 860-0082, Japan FOR MORE DETAILS SEARCH:

Cool Mist Line

