



THE FIRST & THE BEST

# COMPREHENSIVE GUIDE TO SNOW REMOVAL EQUIPMENT

Korea's **First** and **Best** snowplow company

[www.desnow.co.kr](http://www.desnow.co.kr)

Korea  
Automatic  
**M**achinery



An aerial photograph of a winter scene. A snow-covered road with several cars is on the right side. To the left of the road is a snow-covered area with many bare trees. The text is overlaid on the left side of the image.

**Korea's First  
with the Best Technology**

**We Are a Guaranteed  
Full-Service Company  
with Reliability and Stability**

**KOREA AUTOMATIC  
MACHINERY**



**Korea Automatic Machinery** has pioneered in Korea to make the finest products



**Business agreement  
on the training for  
snowplow**

Signed business  
agreement on the  
training for efficient  
equipment use



**Local presence of  
mobility team**

Mobility team is  
stationed in the area  
when heavy snow is  
forecast



**Expansion of after-sales  
service personnel**

On-site production  
personnel is additionally  
assigned to the after-sales  
service mobility team in  
case of heavy snow



**Periodic inspection  
services provided**

Inspection tours  
carried out twice a year

# THE FIRST & THE BEST

Since its establishment in 1989, Korea Automatic Machinery has grown to be Korea's first and best company specialized in snowplow. Through our long-standing know-how and continued technological development, our excellence has been recognized; thus preparing for our new leap forward to grow into a global company.



2012  
2010

2009  
2005

2004  
2000

Proving its  
excellent-quality  
products

1998  
1989

Setting up and  
building foundation  
for business growth

1998.

1993.  
1991.  
1989.

# 2020 2018

**Taking a leap  
forward as a  
global company**

- 2020. Apr.** • CaCl<sub>2</sub> liquid plant applied with sprinkling solutionization hopper and quick solutionization method designated as Excellent Products by the Public Procurement Service
- 2019. Dec.** • Received a certificate of priority purchase for excellent inventions (CaCl<sub>2</sub> liquid plant applied)

# 2017 2015

**Proving its  
excellent  
technology**

- 2017. Nov.** • Performance certified by SMBA (snowplow with gripping force on the road surface)
- Sep.** • Automatic spreader designated as Excellent Product by the Public Procurement Service
- Apr.** • Received Minister's Prize from the Ministry of Science, ICT and Future Planning as a contributor for the promotion of science and technology, and selected as Small Giant Company by the Ministry of Employment and Labor (employment promotion)
- Mar.** • Performance certified by SMBA (automatic spreader equipped with waste heat recovery device and wireless communication controller)
- 2016. Dec.** • Acquired NET (New Excellent Technology) Certification (heating technology in deicing agent using the waste heat recovery device)
- Oct.** • Acquired CE Marking (automatic chloride spreader)
- Jun.** • Received commendation from the Public Procurement Service and selected as an Excellent Company (G-PASS)
- Mar.** • Selected as an IP-STAR Company
- 2015. Oct.** • Selected as a member of the P300 Project
- Jul.** • Auto spray system designated as Excellent Product by the Public Procurement Service

**Advancing with  
technology**

- 2014. May.** • Performance certified by SMBA (wide-width shovel blade snowplow)
- Apr.** • Performance certified by SMBA (auto spray controller)
- 2013. May.** • Performance certified by SMBA (CaCl<sub>2</sub> liquid plant applied with multi-line mixing technology)
- Mar.** • Acquired K-Mark Certification (for performance) and Q-Mark Certification (for quality)
- 2012. Aug.** • Successfully developed the new-concept CaCl<sub>2</sub> liquid plant
- Feb.** • Received an award from the Government Excellent Products Association
- 2011. May.** • Acquired CE Marking (snowplow)

**Stepping up  
as a promising  
company**

- 2009. Apr.** • Snowplow designated as Excellent Product by the Public Procurement Service
- 2008. Mar.** • Selected for the export-oriented company project and the technical innovation and development project by SMBA
- 2007. Jan.** • Performance certified by SMBA (automatic chloride spreader, snowplow, and CaCl<sub>2</sub> liquid plant)
- 2006. Jun.** • Designated as a Promising Export Firm by SMBA
- Jan.** • Certified as an Inno-Biz enterprise by SMBA
- 2005. Jun.** • Established Corporate R&D Center Accreditation and Management System with the Korea Industrial Technology Association (KOITA)
- Apr.** • Snowplow designated as Excellent Product by the Public Procurement Service

- 2004. Sep.** • CaCl<sub>2</sub> liquid plant designated as Excellent Product by the Public Procurement Service
- 2003. Dec.** • Received Certificate of Endorsement (representing the highest standards of service and quality excellence) from Incheon Metropolitan City (chloride spreader, snowplow, and CaCl<sub>2</sub> liquid plant)
- Sep.** • Received Good Quality (GQ) Certification from SMBA (CaCl<sub>2</sub> liquid plant)
- May.** • Acquired ISO 9001:2000 certification [sand (CaCl<sub>2</sub>) spreader, snowplow, and CaCl<sub>2</sub> liquid plant]
- 2002. May.** • Acquired ISO 9002 certification (snowplow)
- 2001. Jun.** • Received Good Quality (GQ) Certification from SMBA [sand (CaCl<sub>2</sub>) spreader, automatic chloride spreader, and snowplow]
- May.** • Received Certificate of Promising Small and Medium Enterprise from Incheon Metropolitan City
- 2000. Dec.** • Acquired ISO 9002 certification [sand (CaCl<sub>2</sub>) spreader]

- Oct.** • Selected as a Venture Company by the Small and Medium Business Administration (SMBA) (new technology developing company)
- May.** • Sand spreader designated as Excellent Product by the Public Procurement Service
- Nov.** • Relocated the factory to Namdong Industrial Complex
- Jul.** • Developed sand (calcium chloride) spreader and snowplow for airport runways
- Feb.** • Company established / Proving its excellent-quality products



# AUTOMATIC SPREADER

The pre-wetted salt deicing spreader (salt &  $\text{CaCl}_2$  solution) is an advanced snow removal equipment that offers fast snow removal effect and reduces material cost at the same time.

\* You can choose between solid deicing agents and deicing solutions depending on road conditions and environment.

## FEATURES



### Equipped with deicing agent heating device ①

Uses salt and deicing agent (heating) to allow efficient snow removal



### Wired and wireless controller ②

Wireless connection between vehicle and equipment / LED button controller for night operation



### Emergency operation function ③

In the event of a controller failure the spreader is operated in emergency mode.



### Automatic fuel supply system

Provides excellent convenience as it allows the fuel to be supplied from the vehicle to the spreader



### GPS-based automatic spread system

Automatically regulates the amount of deicing agent depending on the vehicle speed



### Adjustable directions (left, middle, and right)

Spreads deicing agent to the right place without the need to change the driving lane



### Wide-width spread

This is used when snow removal is required on a wider lane (up to 16 m)





❶ Deicing agent heating device



❷ Wired and wireless controllers LED button for night operation



❸ Emergency operation mode

# AUTOMATIC SPREADER

## For 15 ton truck



Load Capacity	Solid deicing agents: 11 m <sup>3</sup> / CaCl <sub>2</sub> liquid solution: 3,000 ℓ
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Width Spread Width area	2-16 m
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Solid chloride & Calcium chloride solution spreader	Solid chloride spreader
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SPP-11, SPP-11A, SPPS-11A (stainless steel)	SP-11
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## For 8 ton truck



Load Capacity	Solid chloride: 6 m <sup>3</sup> / CaCl <sub>2</sub> liquid solution: 2,000 ℓ
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Width Spread Width area	2-16 m
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Solid chloride & Calcium chloride solution spreader	Solid chloride spreader
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SPP-6, SPP-6A, SPPS-6A (stainless steel)	SP-6
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## For 5 ton truck



Load Capacity	Solid deicing agents: 4.5 m <sup>3</sup> / CaCl <sub>2</sub> liquid solution: 1,400 ℓ
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Width Spread Width area	2-16 m
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Solid chloride & Calcium chloride solution spreader	Solid chloride spreader
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SPP-4.5, SPP-4.5A, SPPS-4.5A (stainless steel)	SP-4.5
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### For 2.5 ton truck



Load Capacity	Solid deicing agents: 2.5 m <sup>3</sup> / CaCl <sub>2</sub> liquid solution: 1,000 ℓ
Width Spread Width area	2-16 m
Solid chloride & Calcium chloride solution spreader	Solid chloride spreader
SPP-2.5, SPP-2.5A, SPPS-2.5A (stainless steel)	SP-2.5

### For 1 ton truck



\*The above model is a motor-operated spreader.

Load Capacity	Solid deicing agents: 1.5 m <sup>3</sup> / CaCl <sub>2</sub> liquid solution: 300 ℓ
Width Spread Width area	2-8 m
Solid chloride & Calcium chloride solution spreader	Solid chloride spreader
SPPE-1.5	SPE-1.5

### For SUV / 1 ton truck



\*The above model is a motor-operated spreader.

Load Capacity	Solid deicing agents: 0.25 m <sup>3</sup>
Width Spread Width area	2-8 m
Characteristic	Lightweight

### Solution Spreader



Load Capacity	13,000 ℓ
Spread Width	at least 12 m
Spread volume	600 ℓ/min

# 1.5m<sup>3</sup> ELECTRIC SPREADER

Korea Automatic Machinery seeks to provide efficiency and convenience to the environment, and in management and operation. Our unique and new motor-operated and automatic chloride spreader will open up the future for the continuous development of snow removal equipment.

## CHANGES BROUGHT BY MOTOR-OPERATED EQUIPMENT



### Budget reduction

No refueling, filter and oil change needed



### Eco-friendly

No smoke, vibration, or noise



### Enhanced controller functions

Capable of controlling the spread width, amount, and direction in the driver's seat



### Simplified structure

Reduces failure rate by excluding hydraulic systems



### Lightweight

Reduces load on vehicles laden with deicing agents





## PROCESS



Spreader control system



Battery



Motor control



Motor

Decelerator



# SNOWPLOW

The snowplow intended for mounting on a vehicle has excellent snow removal capability at the time of heavy snowfall (of more than 3 cm), and its push-out operation is a pre-treatment work performed to maximize the effect before spreading the deicing agent.

## ❶ Vibration isolation link

- The link made of polyethylene (UHMW-PE) material improves shock absorption and restoring force thereby reducing driver's perceived impact force.
- Unlike steel links from other companies, it is highly resistant to corrosion



❶ Vibration isolation link

## ❷ Mounting device

- Made of a structure that is easily coupled and tightened with equipment



❷ Mounting device



## FEATURES



### Road gripping force controlling feature

Adjusts the pressure the that the snowplow applies to the road surface /  
Improves steering when operating snow removal vehicles / Protects equipment  
by minimizing load and vibration on snow removal vehicles and snowplows /  
Reduces wear rate of rubber shovel blade



### Overload prevention device

If the load persists for more than a certain period of time, it cuts off the  
electricity to prevent damage to the main device



### Self-load snow removal function

Can be buffered and height-adjusted by inter-working with the road surface  
► Reduced fatigue



### Maximum life / high performance

Inserted special reinforcing cloth into rubber shovel blade

# SNOWPLOW

## KPW47C



Vehicle	15t truck and above
WxH	4,700 x 1,130 mm
Weight	1,800 kg

## KPW32C



Mounting is optional.

Vehicle	8-16t truck, Special vehicles
WxH	3,200 x 1,500 mm
Weight	970 kg



### KPW24C



Vehicle	2.5-5t truck
WxH	2,400 x 650 mm
Weight	450 kg

### KPW21C



Vehicle	1t truck, SUV
WxH	2,100 x 620 mm
Weight	250 kg

### KPT24C



Vehicle	Front and rear of the tractor
WxH	2,400 x 650 mm
Weight	200 kg

### Snow Blower



Vehicle	Unimog
WxH	2,000 x 1,250 mm
Snow removal capacity	1,000 t/h

# CaCl<sub>2</sub> LIQUID PLANT

It is an eco-friendly equipment developed by our company for the first time in Korea. Even with its size that is significantly smaller compared to conventional equipment, this equipment can improve productivity in an innovative way and even melt solidified deicing agents.

## Solutionization of solidified deicing agent

Capable of solutionizing solidified deicing agents, and reduces wastes in deicing agents, enhances economic/environmental sustainability, and capable of self-cleaning of hoppers

## Prevents freezing of pipelines and storage tanks

Prevents freezing by injecting deicing agent into pipelines without the use of electrothermal wire

## Innovative productivity

Capable of producing 400 ℓ per minute

## Miniaturization

Can be installed in a confined space for space utilization/ Improves mobility, reducing costs and the time required for installation



### Storage tank

Tank capacity 10,000 - 40,000 ℓ  
Material FRP / STS  
A feed pump 3hp, 600 ℓ/min

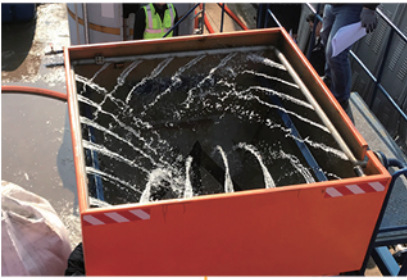
## Safe storage & stable supply

Equipped with storage tank level control

## Semi-permanent use

FRP is a monolithic tank constructed with filament winding technique. Manufactured in the molding process, its price is lower than STS tank and has higher durability and resistance to allow semi-permanent use of the tank.





## Capable of solutionizing solidified deicing agents

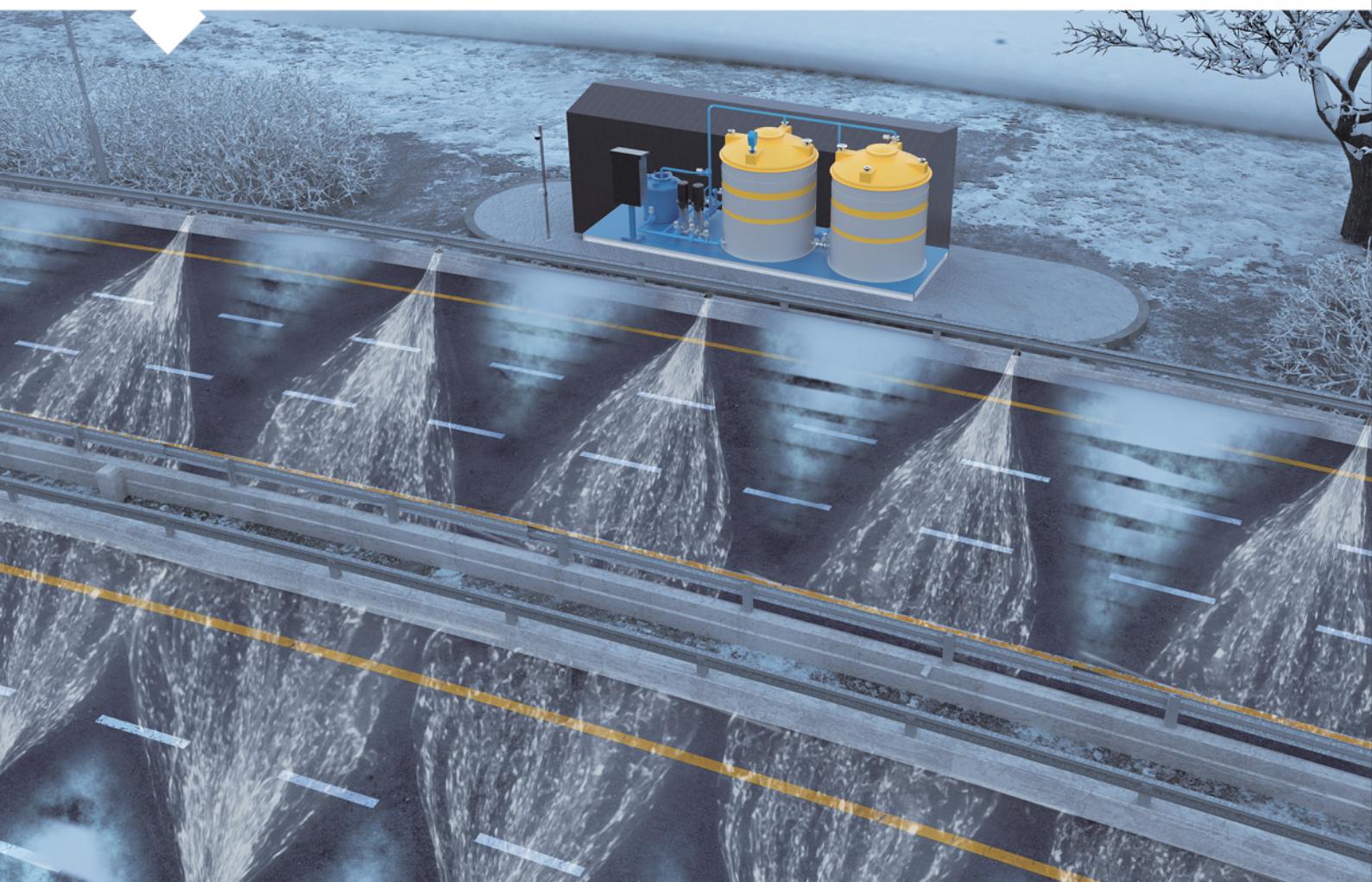
with the application of sprinkling solutionization hopper and crushing device



Model	Size (mm)	Weight (kg)	Product capacity (ℓ/min)	Water pipelines (A)	Power consumption (kW)
<b>SM400</b>	3,730(L) × 2,210(W) × 2,830(H)	approx. 3,000	400	40 (approx. 50 mm)	10

# AUTO SPRAY SYSTEM

The auto spray system used for early snow removal tasks is installed in areas vulnerable to snow-removal such as hills, overpasses, lamp sections, and tunnel entrances. It monitors the field in real time through CCTVs and regulates the control program remotely, enabling the snow removal work to be carried out in multiple sections by a single operator alone. As a result, it overcomes the limitations of equipment and improves initial responsiveness.



- ◀ PC Control System
- ▼ Mobile Application





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