

Who are DSH Systems Ltd?

DSH Systems produce unique loading spouts to cover a wide range of applications. Due to international demand, the company is constantly researching and developing systems to enable the efficient transfer of a wider range of products. The top of the range PFC (programmable feed control) system automatically configures the hopper for variable product weights, while the basic system requires no utilities for operation.

After years of fine-tuning, their award winning Dust Suppression System works at peak efficiency. So it is no surprise that companies around the world are eager to reap the benefits of this internationally tested and superior system.

Extensive research proves the DSH System works well on many different dry, free-running, granular products. Academic interest from international universities and consultants continues to expand upon the research and science behind this revolutionary system.

How does the Dust Suppression System work?

The Dust Suppression System is installed under a feed point where it can be suspended above the target and kept at operating level.

A small degree of natural agitation as the hopper is filled helps exclude air from the material being transferred. At the point of loading, or transferral, the Dust Suppression System concentrates the discharge of dry goods as a tight solid column through free air into any target repository including trucks, rail cars, storage containers, bags or stockpiles. Loading can be continuous without plant interruption.

Previously, trucks taking on a load literally disappeared in the dust cloud. Uncomplicated to install and easy to operate, the DSH Dust Suppression System will reduce hazards and health risks, dust and wastage.

The Dust Suppression System is robust and easy to operate and maintain.

What will the Dust Suppression System do for me?

Savings and Benefits include:

• Standard loading system requires no power connection	✓ reducing energy and installation costs
• No internal moving parts	✓ cuts down maintenance costs
• Reduced product degradation	✓ increased returns
• Minimized dust	<ul style="list-style-type: none"> ✓ lessens the need for dust collections and disposal ✓ reduces cleaning costs ✓ improves Health and Safety benefits for you and your employees ✓ dust explosion risk mitigation ✓ means faster, cleaner loading of trucks and rail cars ✓ eases Regulatory Body concerns ✓ reduces neighbourhood pollution
• Improved loading	✓ better angle of repose increases storage capacity
• More product in the storage containers	✓ increased returns, less air entrapment enables increased loads
• Tight, contained loading column	✓ load direct into confined openings
• Flexible loading	✓ large, small containers including bags



Before implementing system



After installation of DSH System

Ship Loading

Residents in houses nearby this port were affected and complained about washing on the line being covered in dust, encouraging the Port Authority to implement the DSH System to reduce the impact on the health and wellbeing of the local populace.

What they're saying about us...

"The DSH Systems Ltd dust suppression hopper can achieve major reductions in fugitive dust emissions and also dust explosion hazards. It will be a very useful tool for many bulk handling engineers and technicians"

Associate Professor Peter Wypych
Centre for Bulk Solids and Particulate Technologies,
University of Wollongong, Australia



Inefficient

Efficient fertilizer loading with DSH

We bought our first DSH hopper in 2007 and now have four more installed. The DSH system has allowed us better control over our dust. The system requires no air, hydraulics or electricity. There is no waste dust stream to handle and our load out rate was not impacted at all. We had our first spout up and running in 30 minutes! I had my doubts when I first saw the before and after pictures, but the system really does work that well!"

Lisa Brickey, Mosaic Crop Nutrition, Savage, Minnesota, USA

"We have a DSH chute operating at Port Adelaide on straight Urea (commissioned in 2005) and I am very impressed with it. Didn't think anything would do that after thirty years in this business"

Robin Douglas, Project Manager, Incitec Pivot Limited, Adelaide PDC



Controlled urea loading

Before



After



45 foot drop! (14.5 metres)

“For 28 years I haven’t seen anything that can control grain dust from that height when hitting the ground. It is a huge improvement from what it was without them. Safety wise, guys wouldn’t go into the plant, we had to do something drastic really quickly. This has turned it around overnight for us. They are doing a fantastic job and we’re really enjoying it”

Garth Gillam, Goodman Fielder N.Z. Ltd

“Impact Fertiliser, the preferred supplier of nutrients to Tasmanian agriculture, installed a dust suppression system at the Devonport site four years ago. Since then we have purchased fourteen DSH hoppers at seven depots around Tasmania and Victoria. All site managers are more than pleased with their performance.”

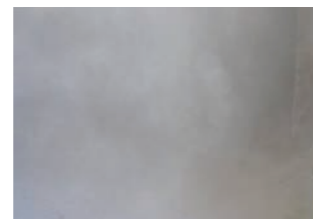
Clint Wighton, Territory & Depot Manager, Impact Fertilisers, Devonport, Tasmania, Australia

Each year, Impact Fertilisers loads 120,000 tonnes of single superphosphate for bulk shipment and around 200,000 tonnes for truck and container movements. This process generated localised dust resulting in **environmental complaints** from the wider community and OH&S issues. In order to meet the safety and environmental values of the business the problem had to be resolved whilst **continuing to operate** at commercially competitive load rates.

An **innovative solution** was found in the form of DSH Systems Ltd Dust Suppression Hoppers. Installation and use of these loading spouts at **12 locations** around Australia has resulted in significant reduction of fugitive dust emission. This has directly resulted in a **significant improvement to the working environment** and dropped environmental complaints due to dust from loading operations to **zero**.

All of this has been achieved with zero impact on the speed of the loading operation and in some instances resulted in an **increased loading rate**. The new system has been embraced by all parties and **now constitutes standard practice**. This project exemplifies sustainability by delivering **sound environmental and economic outcomes** through the introduction of innovative ideas.

Grant W. Allen, Technical Manager, Impact Fertilisers P/L, Australia



No visibility issue



DSH solution



Effective grain loading

DSH Systems Ltd have won the following awards for DSH Dust Suppression Systems:

- Dust Control Technology: Application or Practice Award
 - Australian Bulk Handling Awards, 2007
 - Innovative Technology Award
- Australian Bulk Handling Awards, 2006

Want to see the Dust Suppression Hopper in action?

Simply contact us to request your free copy of our DVD or CD-ROM or visit our website dshsystems.co.nz

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We care about your air!



Solving the world wide industrial material handling problem - dust fallout while transferring dry, granular goods



from this



to this!

The Dust Suppression System is a cost-saving and effective solution for the transferral of fertilizers, stock foods, wheat, sand, gravel and many other dry, granular goods.

A must-have for global bulk loading material handling industries.

We care about your air!