



FilterTalk

FRESH NEWS AND INFORMATION FROM FILTERCORP INTERNATIONAL LTD • AUTUMN 2006

Preventing a dust up!

As long as aggregates and dry cement have been tossed in a mixer, dust has been a problem for ready-mix concrete companies.

"Historically, we used a fine misting spray to damp down dust," says Rob Green, Group Manager of Palmerston North based Higgins Concrete. "But that resulted in cement contaminated waste water, increased water usage, residue damaging vehicle paintwork, and more frequent cleaning needed to keep its shiny green trucks looking good."

Established in Palmerston North in the 1950's and still family owned, the Higgins Group's main business is civil construction including earthworks, subdivisions, drain laying, pavement construction, spray sealing and asphalt paving.

Its companies are all involved in supplying materials and services to the construction industry. And that includes ready-mix and aggregates.

At its dry batching plants throughout the North Island, ingredients for each job are measured and conveyed by belt to loading ports. The dry mix is discharged into truck mounted bowls for mixing before delivery to the job.

"The dust problem arises as air in the bowls is displaced by the aggregate and cement mix, and the resulting fine dust swirls up into the atmosphere," Rob Green says.



Higgins recently added 4 of these large concrete trucks to add to their fleet of 35. They each hold 6.4 cubic metres of concrete compared to normal truck loads of about 5 cubic metres.

We are on stand 333 at Emex and Stand 34 at DIANZ. Drop by for a coffee and a chat!

"We are very conscious of the potential nuisance to our neighbours, the community and the environment, not to mention the health risk for our staff. Dust settles everywhere making working conditions unpleasant.

We all need to breathe fresh uncontaminated air."

At Higgins sites in Feilding, Wellington and Palmerston North, new and retro-fitted Filtercorp dust collection systems are eliminating the problem. Large Filtercorp dust extractors fit over the top of truck-mounted mixing bowls and the collected dust is discharged into a hopper. About 5 kg of dust is collected each day – maybe a shovel full – and later that's recycled back into the mix.

"It's not a cheap exercise," Rob admits, "but people have to come first. The

cost is more than offset by the benefits to the surrounding environment, the community and our workers."

Visit www.higgins.co.nz

• Filtercorp has now installed de-dusting systems for a number of concrete companies around New Zealand.



Keeping Winter outdoors

For many home owners winter brings a dank atmosphere and an unhealthy environment indoors.

Symptoms are typically window condensation, puddles on sills, damp curtains, mould in the bathroom, wardrobes and cupboards, and damp, cold air – especially where houses are inadequately heated and insulated.

The cure for some 40,000 home owners in recent years has been the locally developed DVS® home ventilation systems – that collectively utilise thousands of Filtercorp filter bags.

Filtercorp supplies a complete package of filters and cable ties packed in plastic DVS®-branded seam sealed



bags printed with instructions.

DVS® Director Mark Shepherd says Massey University tests over two winters proved the systems' effectiveness in reducing humidity, condensation, fungal spores and carbon dioxide levels in NZ homes. And the systems' reliability and durability have been

proven in a wide range of climates and living environments over 11 years of actual use.

For more information visit www.dvs.co.nz





Forres' Feedback

We live in a rapidly and ever changing world. In fact things happen so fast that the

average protest movement can not get organised before some other even bigger event is announced. This must surely be planned by people much smarter than me.

Take for example our 2 million dollar government guest living with the brothers in Mt Eden. No sooner did he arrive without a passport than we launched into the foreshore and seabed debacle followed by misplaced tennis balls and now the daddy of them all, a government minister who is more clever than a local council, a regional council, his own environmental ministry and even the most senior judge in the environmental court. Damn he must be good.

Where does this leave potential investors both local and offshore who might be planning a resort complex anywhere in New Zealand?

Up the creek without a paddle, that's where.

But fear not, life goes on at Filtercorp with the same friendly staff paying attention to your every need with top quality products and service second to none.

Forres

FILTERPEOPLE

Twenty years ago young **Blair McPheat** was all geared up to go to Auckland Polytechnic (now AUT) to study heating, ventilation and air conditioning.

"We need you to help us out for three months first as a sales rep," father Forres told him. So much for three months!

Twenty years on Blair is National Sales Manager and a Director of the company.

He dotes on his wife Jan and sons Adam (6) and Max (3). And he's really into water sports – racing yachts and scuba diving when he can. He became Filtercorp Sales Manager about 7 years ago and Director a year or so later.

"I guess what kept me here is the people," Blair says. "We have a great time, no agro like you see in some companies. I guess that's borne out by the number of people we've had here for 10 years – a lot for a small company – and a few others who've made it to 20 over the years."

Filtercorp itself has been in business for over 29 years.



SIXTY YEARS EXPERIENCE BETWEEN THEM!

(left to right:) Blair McPheat, Vannin Kay (20 years) machinist, Irene Crawford (10 years) head machinist and Joyce Murray (10 years) General Administration Manager, received watches for their long service.

A-maize-ing dust solution

Grain and seeds have played a major role in the growth of PGG Wrightson since its founders imported English ryegrass into New Zealand in the 1800's to develop a seeds business.

With operations in Australia and New Zealand, PGG Wrightson is one of the country's largest agribusinesses. And that's quite evident when you visit its grain drying and storage facility in Walton, a dot on the map north of Matamata in the Waikato.

The plant processes up to 350 tonnes of "wet grain" a day delivered from around the North Island. Around 300 tonnes pass through driers over 24 hours – the volume depending on the "wetness" of the grain.

"Grain contains moisture and it needs to be dried, whether it's for stock feed or human consumption," explains site manager Adrian Young. "Fourteen percent is the norm but it can be as high as 30% coming in from the growers."

This plant processes mostly maize for human consumption. On arrival at the site, it is sampled to ensure it meets specification, tipped off trucks into a dump hopper, conveyed to a wet silo, screened, and dried before being transported on to food

processors and manufacturers in other centres.

Dumping and conveying this volume of grain generates dust; up to 150 kg an hour, Adrian informs us.

"Filtercorp had the name for state of the art systems to deal with it," he says. And so newly commissioned Filtercorp bag houses now extract and collect the dust. The system incorporates two pulse jet dust collectors coupled with Stellar pleated bags. As a truck dumps its load, the grain falls through a Burnley Baffle system and dust is extracted via a downdraft into a half tonne bag.

It's still early days but the expectation after investigations and trials was that the Filtercorp system would be faster and quieter than previous alternatives – attributes that Adrian emphasises are environmental benefits.

What happens to the extracted dust? That's collected by a local farmer and used for stock feed. So the process involves recycling too.



Clear-Flex takes powder

One of Filtercorp's biggest Clear-Flex connectors is hard at work on one of the biggest powder driers in the world at Fonterra's D5 plant at Te Rapa.

The dryer helps convert whole and skim milk to powder with an 8000 mm circumference connector linking the dryer to a well mix bed.

David Robertson, Process Manager, Milk Powder & Manufactured Milk Supply, says the process begins with the arrival of big tankers whose contents are pumped to raw milk silos.

Fifty percent of the water content of the milk is then evaporated, increasing solids to almost condensed milk consistency. And that's sprayed at 240 bar pressure – which gives really fine droplets – into the drying chamber.

The powder swirls through the Clear-Flex connector to the well mix bed at the bottom of the chamber, before secondary drying, and transition to packing hoppers.

The system processes around 4 million litres every 24 hours.



Clear-Flex is used as its stretch ability and construction withstand the dryer's vibration – whereas alternatives tended to wear out quickly.

** Filtercorp supplies numerous filtration and ventilation products and services to the Fonterra Te Rapa site.*

NEWS FROM THE FILTERWORLD

TOURISTS are assured of a clean as well as warm welcome in an increasing number of international hotels in New Zealand – thanks to Filtercorp filtration inside their air conditioning systems.

FILTERCORP NOW SUPPLIES **GAS TURBINE (GT)** air intake filtration to the NZ power industry.

To ensure it maintains high standards throughout its New Zealand plants, **Fonterra** commissions Filtercorp's Service team to undertake condition monitoring reports every 8-12 weeks to pass onto its customers. Filtercorp also carries out full retrofits of ventilation intakes, from simple replacing of holding frame clips right through to full plenum or holding bank replacement.

THE UNIVERSITY OF AUCKLAND has renewed Filtercorp's contract to supply filtration products for ventilation systems for some years ahead. It involves servicing hundreds of buildings and supplying thousands of pocket filter bags each month.

MEET THE DELIGHTFUL CHILDREN OF **LEIGH SCHOOL** in North Auckland who now have a little Filtercorp in their classroom. They received our old computers when we recently upgraded our systems. And as you can see, they were most appreciative.

7TH LONGEST WORD IN THE ENGLISH LANGUAGE:

Pneumonoultramicroscopicsilicovolcacoconiosis (Lung disease caused by breathing in fine dust).

Shortest immunisation treatment: Filtercorp Filtration.

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Warkworth

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20th February 2006-02-25

Dear Mr. McPheat

Room 1 says a big thank you for the computers. We appreciate them.

Room 1 uses them a lot for publishing our work and sometimes playing games and going on the internet.

I think the computers are flash. They are really easy to work on.

Thanks again for your very kind donation. We love our new computers.

Yours sincerely



Jessica Leonard
On behalf of the students in Room 1 at Leigh School



• Upgrading your computer systems? Donate your used equipment to a school. Given tight budgets and costs of equipping classrooms, you'll be surprised how appreciated your gift will be. And you'll be helping young minds.



Sterilisation solutions

For some time quarantine and MAF waste from the upper North Island including Auckland International Airport, and the Ports of Auckland and Tauranga has been incinerated.

But that's changing this autumn thanks to a new steam sterilisation facility being developed by the MediChem Waste Services Group on the airport's incinerator site.

At what will be the country's largest steam sterilisation plant, waste will be processed and used as landfill, or where viable, recycled.

Incorporated into the process is a Filtercorp ventilation system that will virtually keep the building in a light vacuum state to prevent odours from escaping into the atmosphere.

Manager of the new facility, Don Jordan, says the sterilisation system is much more environmentally friendly than the existing high temperature incinerator and will fully comply with the National Environmental Standards for air emissions. The incinerator will be demolished once the new system is operational and has proved itself.

One for the road

Here's another Filtercorp solution to the problem of dust generated during road construction and resealing – this time for Hiway Stabilizers New Zealand Limited. You may have seen their trucks, tankers and spreaders at work on the giant motorway project near Puhoi north of Auckland and other major projects around the country.

The dust is not only churned up by vehicles travelling too fast through the works but also from lime and dry cement distributed by spreaders to stabilise the road surfaces.

The lime and dry cement is stored at the company's silos in Silverdale. Conveyor systems fill Hiway tankers whose loads are transported to spreaders on various jobs.

Plant Manager Bryce Henry says Hiway previously contracted hire tankers for the job, and then decided to design

its own with Filtercorp Sonic Silo Vent (SSV) dust collectors built into filter boxes over trailer wheels.

The system effectively keeps the dust in the boxes for later disposal and reduces potential hazards to the surrounding environment and those working in it.



Grit no longer hits the fans

Mighty River Power's Southdown 24 hour co-generation plant in Penrose, Auckland, supplies to the national grid, and steam produced by exhaust processes is used for paper and cardboard recycling by Carter Holt Harvey. Inlets to the power generating gas turbines are now protected by spun-bonded Filtercorp polyester filters to collect impurities in the atmosphere – 125 of them in each turbine.

"Gas turbines are aero derivative," explains Plant Manager Tony Dennehy. "Like aircraft engines, their blade edges can be damaged or eroded by foreign particles. Previous filters expanded when damp, and caught dirt particles then blocked up. But Filtercorp came up with high quality alternatives that don't expand with moisture. And of course they filter out any impurities."

MIGHTY RIVER POWER



www.filtercorp.co.nz

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Thought for the Season

"My boss just gave me more responsibility. From now on, I'm responsible for everything that goes wrong."

– overheard in a customer's office.

