



FilterTalk

FRESH NEWS AND INFORMATION FROM FILTERCORP INTERNATIONAL LTD • AUTUMN 2004



Helping squid see the light

If Steve O'Shea has his way, one day you'll be able to see giant squid in captivity in New Zealand. That will be no mean feat given that a female can grow over 13 metres and weigh 275 kg, (males are slightly shorter and lighter).

The problem is catching them as juveniles when they're about 5mm to 15mm in

length and providing them with an environment conducive to growth over the 18 months it takes to reach adulthood.

Dr O'Shea is Senior Research Fellow, Earth & Oceanic Sciences Research Institute, Auckland University of Technology. He's also a Discovery Channel Quest Scholar – the quest in this instance being to capture and breed giant squid.

Until now, he says, nets were trawled through the ocean and even panty hose were used in attempts to capture juvenile squid. But those that were caught died from a variety of causes including weather conditions and even the shape of their captivity environment.

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Light traps at night and in the morning.

Galvanising guru avoids a pickle!



Forty years ago Avon Industries' Dick Fisher started the business with a little galvanising bath whose fumes disappeared into thin air.

Over the years business grew and he gained a reputation for galvanising anything that people needed galvanising and doing it well.

Now he's known around the country as 'the galvanising guru.' The bath has become a 6.7m kettle housed in a new 20,000 sq ft building in a 120,000 sq ft manufacturing plant spread over 12 acres in Kamo, North of Whangarei.

Thanks to a state of the art Filtercorp bag house that collects all exhaust fumes from an enclosed hood, atmospheric emission from the galvanising process is virtually zero.

That's made workers happy, the Council and environmentalists happy, and last but certainly not the least, Dick Fisher himself happy.

The Filtercorp system uses micro-denier polypropylene filter socks housed in a fully insulated Pulse Jet dust collector with the hopper being heated via latest generation silicon encapsulated heat blankets. These blankets, with the aid of hot air from the process, keep the internals of the bag house nice and cosy on chilly winter nights to prevent premature bag failure. *(continued on page 3)*



Forres' Feedback

Recently I had the misfortune to spend two days in Auckland hospital having an unwanted (and unwelcome) kidney stone surgically removed. It was an amazing experience in that one would have thought that Auckland Hospital had been taken over by the United Nations. On arrival I was met by a doctor from South Africa, the orderly who wheeled me to x-ray was Samoan, the ward sister was Maori, the pre-op nurse was Korean, the anaesthetist was from the UK and the surgeon was from either India or Pakistan.

Although there were obvious language and cultural differences they all worked in harmony to heal a sick patient.

It strikes me that we as a nation could behave more like this to heal what ails us.

Rewards for fresh ideas

We're looking for other new uses for filtration that we can bring to the market. If you have ideas – especially if the product hasn't been invented or will help improve our service to you – send them to us before May 31, 2004. We'll put you in the draw for a case of very good wine. Remember - you've got until May 31st, 2004. Email us at: akld@filtercorp.co.nz

Penmanship!

Enjoy this issue of Filter Talk? Then email or fax us your feedback before May 31 and you're in the draw to win a brilliant Parker pen.

Last issue's pen winner was Bill Carswell, Firth Industries, Paki Paki. Appreciated your comments Bill.

NEWS FROM THE FILTERWORLD

Stellar Bags – remember we told you about our new range last issue? Well we've had some huge orders including one of 800 bags shipped to NZ Aluminium Smelter. If you've yet to discover Stellar 2, call us for a demonstration.

We've never admitted to being at sea, or even getting into deep water. So you may be surprised to learn that we supply filtration systems for mega-yachts at Auckland's America's Cup base. Most have onboard air conditioning systems – with filtration measured, made and installed by Filtercorp.

Colby Powder Systems Australia recently had eight high tech Filtercorp dust collectors made for the latest generation milk powder plant in Denmark. The installation required HEPA filters mounted on the exhausts. All the units were pre-wired and pressure tested before leaving the factory.



Our Auckland home is now as clean as our filters. We've recently had our factory externally repainted and refurbished so that it's now cleaner than clean, appropriate for our kind of business. If you're visiting Auckland, we're conveniently located at Beach Haven on Auckland's North Shore where we'll welcome you with a ... filtered ... coffee.





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Now Dr O'Shea has developed a new way to catch the tiny open sea molluscs – using a

modified Filtercorp 750mm diameter netting bag made from 300 micron nylon monomesh. It's fitted with a 10mm clear acrylic tube, 2 litre plastic soft drink bottle-necks that act as funnels, a mirror and a torch that acts as a light trap.

The bag was fully reinforced from top to bottom with 25mm polyester reinforcing tape, and the top of the bag was fitted with 80 stainless steel eyelets. It's hoped that the tiny torpedo shaped creatures will be attracted by the light, lured into the net and down into a 500-micron mesh catcher bucket at the bottom of the bag.

Steve O'Shea says the concept has worked for other species – and experience suggests squid could end up in the bag. Given that their survival could be at stake, we hope they'll see the light.

Learn more about octopus and squid on www.TONMO.com (*The Octopus News Magazine Online*) and *Discovery Channel*: <http://dsc.discovery.com/convergence/quest/quest.html>

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It's taken a long time for all of this to become reality.

Six years back, Dick realised he needed to replace his old galvanising plant with something much bigger and state of the art to handle the volume of outside business as well as his own manufactured goods.

The RMA also required fume collection and filtration.

So he went to conferences in Berlin and Birmingham, toured plants in Europe and Asia, investigated technology, then came back and designed and built a new plant. And he talked about his ideas with Filtercorp.

The plant incorporates new pickling tanks – articles to be galvanised go through a pickling process to remove rust or other impurities.

And a new gas heated galvanising kettle keeps some 120 tonnes of molten zinc at a constant 450 degrees 24 hours a day. An enclosure over the kettle is linked to the Filtercorp bag house.

"If it's made of steel, we can galvanise it," says Dick, "anything from wrought iron and structural steel to Ute decks, trailers, and anchors and chains. Our plant mightn't be the worlds biggest. But it's certainly among the best!"

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A matter of timing

As you probably know, the second is the international unit of time. But how is a second itself defined? How we can be sure those measurements are consistent? And what's that got to do with Filtercorp?

Introducing caesium – a silvery white element of the alkali metal group that is used in photocells and atomic clocks and whose frequency of oscillation or radiation basically defines the duration of a second. That brings us to the New Zealand time standard – which relies on three caesium clocks installed in The Measurement Standards Laboratory at Industrial Research in Wellington.

Three clocks? If there were only one you would never know if the clock was wrong. If there were two and one clock was wrong, you couldn't tell which one it was. So three are essential.

The newest of these clocks has an accuracy of around 1 second in 300,000 years. The oldest

(Cs933) has been running continuously for over 30 years although the clocks do eventually run out of caesium.

Being atomic, the clocks need to be kept in an air-conditioned environment with the temperature controlled to 20°C. And because atmospheric filtration is important, Filtercorp supplies the filtration systems for the air conditioning.



Time machines.





Not a dust cloud in sight at Agriseed.

Seedier side of business

Overlooking the Waimakariri River about 27 km West of Christchurch near Darfield is one of the nicer places to work in the a country.

It's a 350-acre research farm and home to specialist seed growers NZ Agriseed. As opposed to high volume commercial seed producers, NZ Agriseed works in high value low volumes, breeding, producing and marketing clover, cereals and grass seed for local and international markets.

Seed Production Manager Paul Tebutt says until recently seed threshing and cleaning generated huge clouds of dust that necessitated the use of masks by workers – not particularly comfortable in the heat of summer.

Last year Filtercorp developed and installed a special dust extraction system in the company's seed cleaning plant. It worked so successfully a second dust collection system was installed this year when expansion of the threshing plant was undertaken. The system is outdoors and like a vacuum cleaner, sucks dust-filled air out of the building.

Nothing was over looked in this installation that incorporates a zinc sprayed fan and silencer to cope with the outdoor environment, explosion relief venting in case of a dust explosion, a 60 litre collection drum on the product discharge and a magnehelic gauge to monitor filter condition.

"It's so effective," Paul Tebutt says, "we can no longer even smell the fumes from diesel forklifts that operate in the building." And so what could have literally been a seedy working environment is today as clean and clear as a Canterbury sky in the spring... unsullied by dust.

FILTER PEOPLE

When he's not out fishing for business, our new sales rep **Shaan Hulena** is often out... fishing. The one here that didn't get away was caught when Shaan was 18. At the time it was and still is a junior spear fishing **world record** yellow fin tuna, weighing 30lbs, caught at White Island. It is 1 of only 6 yellow fin shot in NZ. Shaan has of course caught more and bigger fish since then – but they're too big to fit on this page. But you can ask him about them yourself – Shaan's territory is



Hawke's Bay, Bay of Plenty and half of Auckland. Since joining us in Feb 2000 as a general labourer, Shaan gained an impressive knowledge of the filtration business rapidly moving up the ranks to Dispatcher, then Customer Services, and now his new position.

Exciting stand at Emex reveals all!

If you're visiting the Emex show, rush to Hall 3, stand 333, where temperatures (and our wives) permitting, we're hoping to feature Filtercorp show girls wearing latest mono mesh creations in various micron sizes, and a new gown less evening strap created from a filter bag. Well that's what we're hoping. Visit, leave your card, and be in to win a magnum of champagne.

Thought for the Season

Enjoy the little things, for one day you may look back and realize they were the big things. — Robert Brault



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