

CHEMICAL ENGINEERING JUNE 2010 IN AUSTRALIA

NEWS

Produced by Engineers Media, Engineers Australia's publishing company, for the IChemE in Australia and the Chemical College of Engineers Australia. The statements made or opinions expressed in this newsletter do not necessarily reflect the views of Engineers Australia or the Institution of Chemical Engineers in Australia.

EDITOR: Dietrich Georg – dgeorg@engineersmedia.com.au

Influential chemical engineers



Robin Batterham

Paul Douglas

Mike Dureau

Peter Farrell

Peter Goode

James Graham



Peter Gray

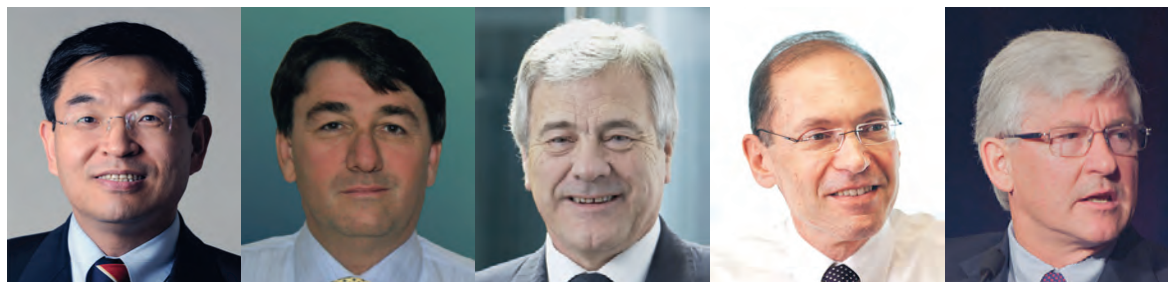
Paul Greenfield

Geoff Stevens

Marius Kloppers

Peter Lee

Andrew Liveris



Max Lu

John McGagh

Doug Rathbone

Julian Segal

Chris Roberts

Sixteen chemical engineers and one petroleum engineer are included in the 2010 list of Australia's 100 most influential engineers, published in the June issue of *Engineers Australia* magazine. The list was compiled by the magazine with assistance from an advisory panel consisting of five eminent retired engineers, who all had distinguished careers in various fields, and one well-known leadership consultant.

To be eligible for selection, candidates must have an engineering degree. Included are engineers who are based in Australia, independent of their nationality, as well as Australians who work and live overseas.

As the list intends to provide a snapshot of present influence, only current positions

are being considered, rather than historic achievements. This ensures that the list remains a dynamic reflection of influential engineers in each year.

The chemical and petroleum engineers included in this year's list are:

- Dr Robin Batterham, president of the Australian Academy of Technological Sciences and Engineering, Melbourne
- Paul Douglas, CEO of SKM, Melbourne
- Prof Michael Dureau, chairman of the Warren Centre for Advanced Engineering, Sydney
- Dr Peter Farrell, executive chairman of ResMed, San Diego, US
- Peter Goode, managing director of Transfield Services, Sydney

- James Graham, managing director of Gresham Partners, Sydney
- Prof Peter Gray, director of the Australian Institute for Bioengineering and Nanotechnology, Queensland

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- University, Brisbane
- Prof Paul Greenfield, vice-chancellor, University of Queensland, Brisbane
- Dr Marius Kloppers, chief executive of BHP Billiton, Melbourne
- Prof Peter Lee, vice-chancellor, Southern Cross University, Lismore
- Andrew Liveris, chairman and CEO of Dow Chemical Company, Michigan, US
- Prof Max Lu, deputy vice-chancellor research, University of Queensland, Brisbane
- John McGagh, global leader for innovation at Rio Tinto, Brisbane
- Doug Rathbone, CEO of Nufarm, Melbourne
- Dr Chris Roberts, CEO of Cochlear, Sydney
- Julian Segal, managing director of Caltex, Sydney
- Prof Geoff Stevens, pro-vice-chancellor and president of Academic Board, University of Melbourne

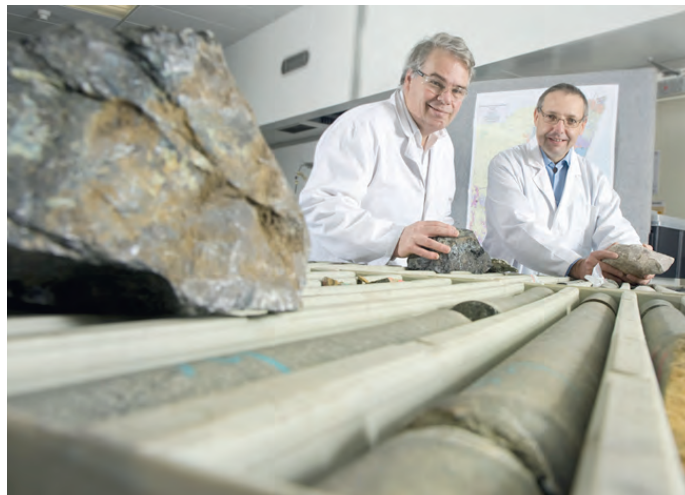
Pilot plant for CO₂ conversion

The NSW government has committed \$3 million to the development of a mineral carbonation pilot plant. The project is a joint venture between the University of Newcastle and GreenMag Group, a Canberra-based company which promotes the commercialisation of eco-friendly technology.

The University of Newcastle is providing a team of chemical engineers and geologists led by Professors Bogdan Dlugogorski and Eric Kennedy, from the Priority Research Centre for Energy. Dlugogorski and Kennedy are leaders in mineral carbonation development in Australia.

The mineral carbonation process fuses carbon dioxide with serpentinite – an abundant and easily-obtained rock – to create magnesium carbonate. If the technology can be applied on an industrial scale, a mineral carbonation plant could convert up to 20Mt/a of CO₂ into magnesium carbonate, which could be used in the production of bricks, pavers, cement and agricultural additives.

Dlugogorski and Kennedy stressed that the CO₂ balance for the process is positive, meaning that much more carbon dioxide



Professors Bogdan Dlugogorski (r) and Eric Kennedy with samples of serpentinite rock.

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IChemE
in Australia

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College contact: **Bill Chaffey**
11 National Circuit, Barton ACT 2600 phone 02 6270 6558
email chemicalcollege@engineersaustralia.org.au

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is removed from the air than is emitted during the conversion. "If we were to hypothetically sequester 1200kg of carbon dioxide, the process would emit 200kg. This would leave us with a net CO₂ reduction of 1000kg," they said, adding that there is still room for improvement.

"Ten years ago, the technology to sequester CO₂ in such a manner didn't exist, and the energy penalties were much more severe," Dlugogorski said. "With the \$3 million the government has awarded us, we are confident we will be able to further reduce it."

The pilot demonstration plant will be built at a decommissioned BHP experimental site recently purchased by the University of Newcastle. It is scheduled to provide sample carbonate material to interested product developers by 2012. If the pilot plant proves to be a success, an industrial demonstration scale plant will be due for completion by 2016, with an industrial full scale plant in the works for 2020.

Smart Futures Fellowship



Anton Middelberg

Professor Anton Middelberg has received a Smart Futures Premier's Fellowship from the Queensland government. Middelberg specialises in biomolecular engineering at the Australian Institute for Bioengineering and Nanotechnology at the University of Queensland.

He was awarded the A\$1.25 million fellowship to progress his research into rapid response vaccine nanotechnology.

"In contrast to studying basic immunology I will be drawing on chemical engineering, nanotechnology and biomolecular engineering to reshape the way vaccines are manufactured, and in particular to provide a technology which can rapidly respond to new infectious disease threats," he told the IChemE's *tce* magazine.

"We are using nanotechnology in an attempt to reduce the time to develop a new vaccine to a matter of weeks, which has obvious advantages for new strains of old diseases such as influenza, or entirely new viruses such as the Hendra virus," he said.

EEA SHORT COURSES 2010

Heat Exchanger Design and Operation

This two day course presents the fundamentals of heat exchanger thermal design and operation. Exchanger types, performance analysis methods, design trade-offs, mechanical design constraints, control methods and operating problems are discussed.

The concepts discussed in the course are illustrated by numerous case studies. This course provides a foundation for implementing thermally efficient exchanger designs in a wide variety of industries including the chemical process, refrigeration, petrochemical, power, and refrigeration.

Perth 05/08/2010 – 06/08/2010,

Brisbane 09/08/2010 – 10/08/2010

Gas Transmission and Distribution Piping Systems

This two day course is focused on transmission pipelines and is based on the ASME B31.8 Code, which is the most widely used code for the design, operation, maintenance, and repair of natural gas distribution and transmission pipelines. Detail is provided on the present-day piping code provisions, the principal intentions of the code, and how the Code should be used.

The emphasis of the course is on transmission pipelines and includes detailed case studies and practical exercise to consolidate learning.

Perth 16/08/2010 – 17/08/2010,

Brisbane 19/08/2010 – 20/08/2010

Process Piping Design and Maintenance

The lack of commentary, or historical explanation, regarding the B31.3 Code design requirements for process piping design and construction is an obstacle to the designer, manufacturer, fabricator, supplier, erector, examiner, inspector, and owner, to provide a safe and economical piping system.

This five day course, through the use of examples of actual piping installations, and personal experience of the instructors, demonstrates how designers have correctly and incorrectly applied the ASME B31.3 Code.

This course explains the intent of the Code with respect to design and why the Code is not a design handbook.

Perth 08/11/2010 – 12/11/2010,

Brisbane 15/11/2010 – 19/11/2010

For further information on these courses and to register go to www.eeaust.com.au



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ENGINEERS
AUSTRALIA

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Health monitoring advocated for biofuels

A technology to monitor the release of free chemical radicals from biofuels is being developed at the ARC Centre of Excellence for Free Radical Chemistry and Biotechnology at Queensland University of Technology's International Laboratory for Air Quality Health.

Recently, fuels containing more than 20% ethanol have been suggested to reduce greenhouse emissions and reliance on fossil fuels. However, a study at the centre led by Associate Professor Zoran Ristovski indicates these fuels may pose a health risk.

"We have found that diesel containing ethanol levels greater than 20% has high levels of free radicals and other reactive oxygen species which can be harmful to health", he said. Excessive exposure to free radicals in the air has been linked to a number of respiratory problems, such as asthma. Therefore these chemicals should be monitored in addition to the traditional testing of the mass of particles emitted by engines, he advocated.

The team made the discovery using a novel chemical called a profluorescent nitroxide probe.

The chemical fluoresces only when it encounters free radicals and the amount of fluorescence can be used to measure the levels of free radicals and other reactive oxygen species produced by ethanol fuelled engines.

The group plans to extend its studies to monitor free radical levels produced by other biofuels and is hoping that its technology will become part of the mandatory testing of biofuels before they are put to wider use in the community. The work was recently published in the international journal *Environmental Science and Technology*. Ristovski can be contacted at 07 3138 1129 or z.ristovski@qut.edu.au.

Algae biofuels plant to be constructed in Queensland

The Queensland government has announced it will contribute \$1.5 million to the development of a pilot plant which will produce bio-fuel from algae. The project is being proposed by the Solar Biofuels Consortium – a cluster of scientists, technicians and international enterprises devoted to the advancement of eco-friendly energy. Once completed, the pilot plant will house three algal bioreactors, which will determine the optimum growing conditions for algal biofuel. It will be built in Southeast Queensland.


The University of Queensland's biofuels team will be at the forefront of the research. The team is led by Associate Professor Ben Hankamer, from the Institute for Molecular Bioscience, who also codirects the larger Solar Biofuels Consortium. Working in tandem with German photobioreactor specialists, the UQ biofuels team aims to create an economically viable fuel which leaves a light ecological footprint.

Engineering services company KBR will provide a range of services for the plant's construction including the design of the pilot plant, project controls and other specialist inputs.

Construction of the pilot plant will commence next month, and it is expected to be operational within six months, according to KBR.

Initial research by the consortium suggests that algae have significant potential as a fuel source because they grow considerably faster than other land-based plants, can be grown on low quality soil, and can survive on low quality water.

In addition, some species of algae can produce hydrogen gas, dietary compounds and pharmaceutical ingredients.



ESD Simulation Training
Dynamic Simulation Training Specialists

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Mechanical Aspects of Centrifugal Gas Compressors	4th - 5th October	Perth
Control & Operation of Centrifugal Gas Compressors	6th - 8th October	Perth
	17th - 19th November	Melbourne
Practical Aspects of Process Control using the CCG System	11th - 12th October	Perth
Control Operation and Design of Reciprocating Gas Compressors	13th - 14th October	Perth
	15th - 16th November	Melbourne
Floating LNG - Production Storage Offloading and Re-Gasification	18th - 19th October	Perth
Well Management and Artificial Lift	21st - 22nd October	Perth
Design and Operation of FPSO's	25th - 27th October	Perth
Subsea Systems	28th - 29th October	Perth
Control and Operations of Industrial Gas Turbines	22nd - 23rd November	Perth

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26 - 29 September 2010 | Hilton Adelaide | www.chemeca2010.com

Host Organisations

These bodies represent over 100,000 engineers and chemists working across the world.



Over 530 abstracts have been submitted from 19 countries. Our influential speaking panel, is already making news across Australia and the Asia Pacific.

Register now to become part of this dynamic International event. www.chemeca10.com

Senator The Honourable Penny Wong, Australian Federal Minister for Climate Change, Energy Efficiency and Water will open Chemeca 2010 at 8:30am on Monday 27th September 2010.

Key facts:

- Six plenary and over twenty keynotes from around the world, across industry, government and academia will present their facts on the 'energy jigsaw', biotechnology and nanotechnology as well as the more traditional aspects of industrial chemistry and chemical and process engineering.
- Six top-rated journals will publish special issues special issues of top-rated journals associated with Chemeca 2010 that span the conference topics.
- Chemical Engineering Research and Design** (IChemE)
- Biochemical Engineering Journal** (Elsevier)
- Experimental Thermal and Fluid Sciences** (Elsevier)
- Energy & Fuels** (American Chemical Society)
- Biomicrofluidics** (American Institute of Physics)
- Powder Technology** (Elsevier)
- Advanced Powder Technology** (The Society of Powder Technology Japan; Elsevier)
- Safety Science** (Elsevier)

Prizes will be awarded for the best paper, poster and presentation.

2010 chemeca

Early Bird Registration Fees [before 31 July 2010]

Member	AUD895.00
Non Member	AUD1,030.00
Student* with Social Program	AUD650.00
Student* without Social Program	AUD500.00
Organisation	AUD1,250.00
Day Registration	AUD500.00

Register Now

www.chemeca2010.com

Conference Office: ICMS Pty Ltd
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IChemE has new president

Dr Desmond King, president of Chevron Technology Ventures, has taken over as the 69th president of IChemE. He succeeds Ian Shott in the post.

In his presidential address in London last month he examined the challenges and opportunities that face chemical engineers and scientists in the energy industry.

King told an audience of IChemE members and invited guests: “For those of us from the developed nations of the world, energy is easy to overlook precisely because it is so accessible. But without access to energy, society would quickly devolve back to the very basics of survival.

“For billions of people around the world, affordable energy is the lifeblood that delivers nutrition, sanitation, health, education, transportation and every other critical element of life...energy is more than just a fuel. It is the catalyst that makes modern life possible.”

He suggested how chemical engineers could play an important

role in the growing renewables sector and discussed the significance of energy efficiency as global energy demands increase. “For energy efficiency and renewables to reach the scale required to make a difference it will require a lot of people to work together. And it all starts with entrepreneurs, scientists, and engineers – including chemical engineers – to come up with the great ideas and the technical breakthroughs.

“But those ideas and breakthroughs aren’t enough. Investors must provide capital to help take these ideas from the laboratory to the marketplace. Governments also have a role to play. They must develop sound public policy, encourage and enable basic research, and ensure a business environment in which the market determines winners and losers. Society needs to appreciate that it will take a lot of time and development for renewables to reach the scale to be a significant contributor to the energy mix.

“It will take industry to demonstrate emerging technologies and deploy them at scale. Delivering massive amounts of electrons and molecules to a global marketplace reliably and affordably will require organisations with experience, expertise, infrastructure, and capital. And that’s true regardless of their origin of the electrons – be they from natural gas, wind, or solar. Or of the molecules, be they from oil or biomass,” he said.

King also spoke about his vision for IChemE during his presidential term: “My goal as IChemE president for the coming year is to ensure that the Institution continues to inspire, promote and sustain the development of chemical, biochemical and process engineering, its practical applications and the profession, for the benefit of all members. There are a lot of challenges out there waiting for us.”

IChemE CEO David Brown said: “Des brings a wealth of experience to IChemE. He’s worked in and with academia, and has held a succession of senior industry positions all over the world – proof of the great career that a chemical engineering background can offer. Des is also dedicated to the profession, and committed to IChemE’s success.”

King, who holds a PhD in chemical engineering from Cambridge University, UK, and a bachelor’s degree from Imperial College, was a chemical engineering college professor for two years before joining Chevron in 1981.

He was chief executive officer of Caltex Australia, based in Sydney, for three years on secondment from Chevron before rejoining Chevron last year.



Des King

Loss Prevention Bulletin

Improving process safety by sharing experience



Loss prevention bulletin publishes case studies and technical articles which share the lessons learned from incidents in the chemical and process industries.

Subscribe to safety:

LPB is available in print and online for IChemE members and non-members. Purchase individual papers or upgrade to the full collection for online access to over 30 years of articles back to 1975.

Visit www.icheme.org/losspreventionbulletin for more information.

IChemE
Institution of Chemical Engineers

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Workshop and forum on education

The IChemE Education subject group, along with IChemE & B-HERT (Business/Higher Education Round Table), will host two events for members and guests in Melbourne on 12-13 July.

Research project workshop

This workshop is an opportunity to share best practice in developing research skills with colleagues from other universities and develop new ways of getting better results from students' research projects. The workshop is suitable for junior and senior academics.

The facilitator for the workshop will be Jeremy Leggoe, the director of the Cooperative Education for Enterprise Development Centre at the University of Western Australia. The Centre is the major source of joint industry/undergraduate projects at the university.

The main topics to be covered in the workshop will be project planning, experimental statistics and design training, presentation of results, managing supervisors and industry involvement in projects.

IChemE & B-HERT national forum for industry and education relationships

For this forum on 13 July there are three priority areas that emerged from the 2009 IChemE member forum in Perth, also held with B-HERT. They are academic/industry exchanges, student and graduate quality issues, and facilitating research projects across industry and university. The purpose of this forum is to develop

outlines and plans to enable universities and industry to implement initiatives in these areas.

The topics and guest speakers for this forum are:

- Industry perspectives and opportunities – Skender Bregu, executive officer at the Chemical and Biomolecular Engineering Foundation at the University of Sydney
- What is curriculum doing? ALTC update – Professor Ian Cameron, codirector of the Particles and System Design Centre at the University of Queensland, plus Prof Robin King
- Quality of graduates – Dr Sharon Winnocur, executive director of B-HERT
- Cooperative Education for Enterprise Development Scheme at the University of Western Australia – Jeremy Leggoe.

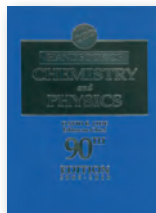
During the forum, King will facilitate three groups to outline key considerations in regard to three areas – exchanges, graduate quality and research projects across industry and university, such as timelines, obstacles, bottlenecks and funding. The outcome from this group work will be to have completed templates that IChemE & B-HERT can distribute on how to progress in each of the three areas.

Professor Paul Greenfield, vice-chancellor and president of the University of Queensland, will be the guest speaker at the networking dinner on 13 July.

For inquiries about these events email austmembers@icheme.org or phone 03 9642 4494.

EA BOOKS

CHEMICAL REFERENCE SPECIAL OFFERS

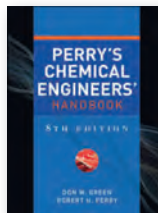


CRC Handbook of Chemistry and Physics, 90th Edition

Ed: David Lide

RRP ~~\$230~~ SPECIAL PRICE \$181.82 + GST = \$200
2009 9781420090840 2700pp Hardcover

For almost a century this handbook has been updated annually, except for a few wartime years, and has served generations of engineers and scientists. Its aim has always been to provide a broad coverage of all types of physical science data commonly encountered with as much depth as can be accommodated in a single volume. Annual updates make it possible to add new and improved data in a timely fashion.



Perry's Chemical Engineers' Handbook, 8th Edition

Don Green & Robert Perry

RRP ~~\$199.95~~ SPECIAL PRICE \$136.36 + GST = \$150
2007 9780071422949 2400pp Hardcover

First published in 1934, *Perry's Chemical Engineers' Handbook* has equipped generations of engineers and chemists with an expert source of chemical engineering information and data. Now updated to reflect the latest technology and processes of the new millennium, the eighth edition of this classic guide provides unsurpassed coverage of every aspect of chemical engineering – from fundamental principles to chemical processes and equipment to new computer applications.

STOCKTAKE SALE ENDS JUNE 30

Visit www.eabooks.com.au

Entries are now being accepted for

IChemE 2010 awards for innovation and excellence



Thursday 4 November 2010,
The Palace Hotel, Manchester, UK

Industry and team awards

The Sustainable Technology Award – Sponsored by ABB Global Consulting | The Water Management and Supply Award – Sponsored by ARUP | The Health and Safety Award | The Energy Award – Sponsored by the University of Manchester | The Food and Drink Processing Award – Sponsored by The School of Chemical Engineering at University of Birmingham | The Bioprocessing Award – Sponsored by CEL | The Education And Training Award – Sponsored by Cogent | The Core Chemical Engineering Award – Sponsored by Sellafield Ltd | The Engineering Project of the Year Award – Sponsored by EEMUA (Engineering Equipment and Materials Users' Association) | The Innovative Product of the Year Award – Sponsored by Stopford Projects | The Dhirubhai Ambani Award for Outstanding Chemical Engineering Innovation for the Resource-Poor People – Sponsored by Reliance Industries | The 2010 Award for Outstanding Achievement in Chemical and Process Engineering | The Innovator of the Year Award – Sponsored by NES Limited | The Young Engineer of the Year Award – Sponsored by GSK Limited

For sponsorship enquiries or to book your place, contact Nigel Stephens

Email: nigel.stephens@mainlinemedia.co.uk Tel: +44 (0)1536 747333

www.icheme.org/awards Email: awards@icheme.org

Entry deadline: 16 July 2010



event supporter:



Institution of Chemical Engineers

NEW PRODUCTS

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Mineral processing filter

FLSmidth has released a new disc filter for minerals processing, designated the E-Disc.

The introduction of the eductor feed agitation system has resulted in a more compact design with no moving parts, seals or stuffing boxes. The paddle agitator drive has been eliminated and the system has been designed for more effective mixing.

Additionally, the design of the new E-Disc allows for a similar velocity gradient as the traditional paddle agitator and, for easy replacement, each eductor orifice can be independently removed via the groove coupling to the feed header.

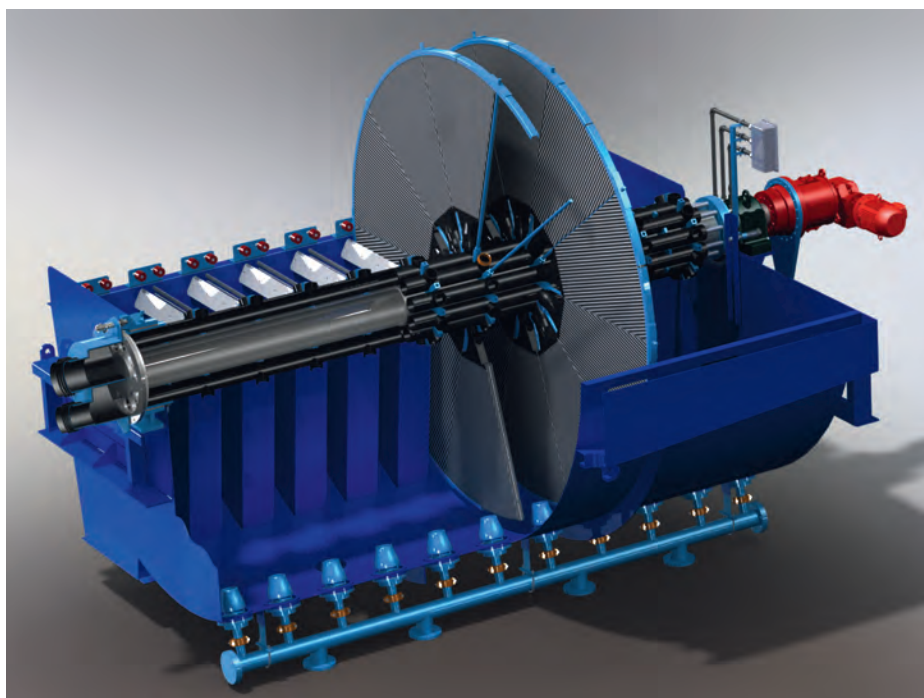
The unit can be customised to accommodate different feed flow rate conditions by altering the feed eductor orifice dimensions and the design of the process feed piping. If wide fluctuations of the feed rate are expected, a recirculation loop from the vat to the feed tank can be incorporated into the design.

Incorporating a helical planetary shaft mount drive system as standard, robust traditional worm drives and a chain drive system are offered as options.

A new through-valve design allows utilisation of the shaft mount drive system for filters requiring dual filtrate valves. A new air-sweep feature – from Dorr-Oliver vacuum drum filters – has been introduced in the new design for applications not requiring a second filtrate valve but where minimal cake moisture is desired. This feature allows the remaining liquid accumulated in the filtrate pipes to be evacuated by introducing atmospheric air into the vacuum dry cycle before the snap blow operation.

Guide wheels on either side of the discs prevent clashes between the disc sectors and the scraper blades, and work in combination with a vacuum tract in the valve bridge plate to help ensure the filter media is retraced against the sector body after the snap-blow operation and prior to passing by the deflector plates.

HDPE filtrate pipes are used for maximum abrasion resistance and ease



The E-Disc filter for minerals processing incorporates a helical planetary shaft mount drive system.

of replacement.

Traditional configurations of vat in-floor and on-floor designs, along with associated options to mount the snap-air tankon the filter vat or separate from the

filter, are available with the new E-Disc design.

The device is suitable for paste backfill applications.

www.flsmidth.com

Acoustic pulses measure levels of products

Hawk Measurement has introduced the Sultan 34 Dual transducer for level, flow, positioning and collision protection applications.

The device is a non-contact acoustic wave transmitter designed to measure the level of liquids, slurries and solids with the versatility of measuring two different applications at once. The unit emits high-powered acoustic wave pulses from two transducers, which are then reflected from the surface of the material(s) being measured.

The reflected signals are processed using specially developed software to enhance the correct signal and reject false or spurious echoes.

The transmission of high-powered

acoustic waves ensures minimal losses to the environment where the sensors are located. Advanced receiver circuitry is designed to identify and monitor low-level return signals when noise levels are high. The measured signals are compensated for temperature.

The unit is compatible with a wide range of communications such as DeviceNet, GosHawk, HART, Profibus DP and Profibus PA, Modbus and Foundation Fieldbus.

It can be used in a number of applications including, water, wastewater, mining, power stations, food, cement, plastics, grain, chemicals, paper, irrigation, and quarries.

www.hawk.com.au

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NEW PRODUCTS

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Sharing data

Agilent Technologies has introduced the OpenLAB software portfolio, designed to help laboratories collect, share, review and archive scientific data.

The product consists of three integrated systems: OpenLAB Chromatography Data System (CDS), OpenLAB Electronic Lab Notebook (ELN), and OpenLAB Enterprise Content Manager (ECM).

OpenLAB CDS is based on the ChemStation and EZChrom Elite instrument systems. Instruments from many vendors can connect to a network of any size and can be controlled locally or remotely from any computer. OpenLAB CDS also integrates with OpenLAB ECM Intelligent Reporter.

OpenLAB ELN lets scientists capture and manage the details from each day's experiments and collaborate with cross-discipline teams, while protecting intel-

lectual property. The program is suitable for analytical work in fields such as hydrocarbon processing, environmental analysis, pharmaceutical food safety and forensics.

OpenLAB ECM is a secure, central repository enabling customers to capture, manage, share, archive and re-use any data in most file formats. Its web-based user interface is easy to learn, and the retrieval function can extract metadata from analytical and Microsoft Office files.

www.agilent.com

Detecting multiple gases

BOC has released a new range of portable gas detection instruments in Australia & New Zealand. The Linde G-TECTA range includes instruments that are used to monitor single or multiple gases.

G-TECTA multi-gas portable gas detectors can monitor carbon dioxide, oxygen, ozone, hydrogen sulphide and methane, and alert the user both visually and aurally when the monitored gas is detected. The products are ergonomically designed with an upward facing display.

The devices can be connected to a PC or a docking station so that settings can be managed and data downloaded.

One of the units, the G-TECTA 4G, can detect oxygen, carbon dioxide, hydrogen sulphide and methane. Its 95dB alarm makes it suitable for industrial environments. A backlight operates automatically when the alarm is triggered.

www.boc.com.au



The G-TECTA 4G can detect oxygen, carbon dioxide, hydrogen sulphide and methane.



The pumps in the SLP Series have been designed without magnets and mechanical seals.

Sliding vane pumps do not need seals

Mouvex has launched its SLP Series seal-less sliding vane pumps.

The first model available in the new range is the SLP25i. It has a maximum flow rate of 25m³/h, provides differential pressures up to 1200kPa, and can operate in temperatures up to 100°C.

The pump's double stainless-steel bellows eliminate the need for magnets, mechanical seals and packing. The bellows covers an eccentric shaft that drives the bellows in a circular motion during operation. This mo-

tion rotates the pump shaft and rotor via an integrated crank system.

The pumps are easy to maintain with no special tools required for routine maintenance. The vanes are also easily replaced with the pump in place.

The SLP pumps are ATEX-certified and can dry-run for up to 10 minutes. All body parts are made of 316 stainless steel, with FEP-coated FKM O-rings and TVP (PEEK) vanes.

www.mouvex.com