

Subject: FW: Yuan, Discover a Micro Windmill for Your Cell Phone

From: David Bak, Group Editor [<mailto:do-not-reply@email.globalspec.com>]
Sent: Tuesday, March 25, 2014 8:08 AM
To: XXXXXXX
Subject: XXXXX, Discover a Micro Windmill for Your Cell Phone

[View Online](#)

Add to [Safe Senders](#) List

IHS GlobalSpec

SPECS & TECHS

Your Industrial Market Resource for Product

- News
- Technology
- Applications

[Home](#) | [Past Issues](#) | [Upcoming Events](#) | [On-Demand Events](#) | [Videos](#) | [Send to a Friend](#)

LYTSwitch™

LED Driver ICs


Excellent dimming | $\pm 5\%$ CC | PF > 0.95

Learn More [▶](#) www.powerint.com



Numatics Introduces Three ISO Cylinders

Numatics, Inc.

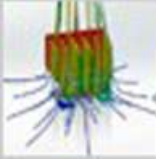


[Numatics](#), a leading manufacturer of pneumatics and motion control products, announces the 449, 450, and 453 Series products to the ISO Cylinder platform. Achieve the same stroke length as standard cylinders in a 50% smaller envelope with the 449 Compact and Short Stroke Series. The 450 Series is a robust tie rod design ideal for heavy-duty applications. The 453 Series is a profile tube design ideal for packaging and clean aesthetic requirements with a full range of options. These cylinders are available through the Numatics Express shipping program.

Visit Numatics.com/ISOCylinders

Design for Safety. Design for Durability.

Dassault Systemes SolidWorks Corp.



See how ECCO Group uses SolidWorks Simulation to cut production time, while increasing safety and performance.

[Watch the video.](#)

Five New Exciting Pneumatic Products Announced

Clippard Instrument Laboratory, Inc.



Clippard announces [new products](#) to their miniature pneumatics line. The GV series 2- and 3-way poppet valves offer flows to 67 scfm at 100 psig, and are offered in toggle, stem, and cartridge styles. The HV toggle and stem valves feature #10-32 ports, fast response, and proven reliability. New manifold mount multi-check valves, push quick flow controls, and a new family of proportional control valves are also now available.

[Request full-line catalog.](#)

Digital DLVR Series Low Cost Pressure Sensors
All Sensors Corp.



The [DLVR Series Pressure Sensors](#) offer a fully customizable turn-key solution for design engineers looking for a digital pressure solution. This series is intended for use with non-corrosive, non-ionic working fluids such as air, dry gases, and the like. A protective parylene coating is optionally available for moisture/harsh media protection.

Product highlights include either I2C or SPI interfaces with 14 bit internal resolution, 3.3 V or 5 V supply voltage options, and a 1% total error band. [Request a sample.](#)

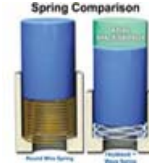
All-in-One, Place and Play Bluetooth Module
Panasonic



Introducing [Panasonic's](#) next generation, smartphone compatible, place and play Bluetooth module, the [PAN1322 Series](#). This module features an embedded microcontroller, Bluetooth 2.1 + EDR stack, serial port profile (SPP), AT command set API and antenna. This cost engineered solution is based on a single chip solution that integrates an ARM7TDMI processor with a Bluetooth controller. The BT 2.1 + EDR stack provides secure, reliable, high-speed data connections using Secure Simple Paring (SSP) eliminating manual password creation. Embedded serial port profile (SPP) frees application resources while the AT command set API creates a simple firmware interface using modem commands. [Read more...](#)

Save Up to 50% Axial Space

Rotor Clip Company, Inc.



[TRUWAVE™ wave springs](#) help to **save up to 50% of axial space** in applications when compared to conventional coil springs. The result is more compact applications in which unnecessary space and therefore excess material of neighboring components can be reduced to a minimum. The flat wire effectively reduces the solid height of the wave spring so that with the same amount of turns one can visibly reduce the work height without compromising the load or spring deflection.

[Download TRUWAVE™ wave spring brochure here.](#)

TECDOS — Drive Systems
RUD Chain, Inc.



[TECDOS®](#) offers complete system solutions for [drive and conveyor systems](#) from one source! The heavy-duty chain ensures an optimal fit, so that the chain runs smoothly with little wear. Used to drive ship's cranes and ship loading systems, and it has proven to be highly efficient in practice, even in highly corrosive marine environments.

R&D REPORT

Will Robot Cargo Ships Ply the Seas?



Watch Now ▶

Autonomous Maritime Transport, under consideration by the European Union, may be moving [closer to reality](#) due to onboard decision systems and shore-based control. A program named by the acronym [MUNIN](#) cites cost and efficiency benefits as well as fewer accidents caused by human error. Issues regarding international maritime law, however, need resolution.

More from [Commercial Transportation...](#)

Power Up with Micro Windmills



Watch Now ▶

University of Texas researchers have fabricated 1.8 mm wide micro-windmills that may one day power cell phones and other electronic devices. Origami layouts and semiconductor fabrication techniques allow 2D nickel alloy pieces to be self-assembled into [3D moveable structures](#). The flexible alloy avoids brittleness and can be fabricated in arrays using batch processes.

If you find this subject interesting, subscribe to the IHS GlobalSpec e-Newsletter, [Electronic Device Design...](#)

Variable Valve Timing Systems Deploy a Sustainable Manufacturing Technology
Metal Powder Industries Federation

When Failure is Not an Option

DuPont™ Krytox® Performance Lubricants

Pneumatic Integrated Valve and Actuator Control Reduces Costs

Norgren



The net-shape, high utilization rate of material and processing energy has made the manufacture of [VVT components](#) by [powder metallurgy](#) a success.

Improved fuel efficiency (5%-10%) and minimized emissions have resulted in its global acceptance



choice.

Discover the many [benefits of Krytox® lubricants](#) today!

[Applications for Krytox® lubricants](#) are generally of a critical nature. When durability, warranty, safety, loss of productivity, and down time are vital, [Krytox®](#) is the lubricant of



[IVAC](#) is a powerful, robust, and aesthetically pleasing [pneumatic integrated valve and actuator](#) that is easily retrofitted or

integrated within new systems. IVAC delivers significant advantages, including reduced installation time and reductions in energy usage and operating costs.

IVAC is an all-in-one system with a single electrical connection and air supply.

Tektronix MDO3000 Series 6-in-1 Oscilloscope ValueTronics International, Inc.



Today's integrated designs need an oscilloscope that is just as integrated — such as the [MDO3000 Mixed Domain Oscilloscope](#) (MDO) Series. It is the ultimate 6-in-1 integrated oscilloscope that includes an integrated spectrum analyzer, arbitrary function generator, logic analyzer, protocol analyzer, and digital voltmeter/counter.

PRODUCT WATCH

Ultra-flexible Silicone Rubber UL Hookup Wire Daburn Electronics & Cable



Daburn ultra-flexible silicone rubber wire has high temperature resistance and high flexibility due to high strand count conductors. This wire meets UL Style 3132, UL3135, or UL3212. [More info...](#)

Precision Linear Systems and Components from NB NB Corporation of America



NB Linear Systems are slide guides, ball splines, slide shaft, slide way, slide table, gonio way, actuators, cross-roller, stroke, and rotary bush products as well as many flanged products. [More info...](#)

Precision Pressure Sensor PMC Engineering LLC (formerly Process Measurement & Controls, Inc.)



The ATM.1st is used in rugged environments from -40 to +250° F. Ranges 0-1 through 0-15000 psi featuring hysteresis and repeatability of <0.01% and total accuracy of <0.05%. Ideal for OEMs. [More info...](#)

CST Webinar — Advances in EM Simulation for MW & RF CST — Computer Simulation Technology



CST STUDIO SUITE® is used for microwave, radio frequency, and optical applications. CST is presenting this Webinar to demonstrate the latest features in the 2014 release: April 1, 8:00/18:00 UTC. [More info...](#)

The Best Choice for Emergency Stop Buttons Euchner-U.S.A., Inc.



While emergency stop push buttons are required by EN ISO 13850 to be a red mushroom-head button on a yellow background, Euchner goes above and beyond. [More info...](#)

Baker Biological Safety Cabinets Baker



Baker biological safety cabinets offer an adaptive ergonomic design, a unique airflow management system and proven containment technology, to improve comfort, increase productivity, and reduce the costs of ownership. [More info...](#)

New Polyurethane Generation Freudenberg-NOK Sealing Technologies



Freudenberg-NOK Sealing Technologies expands the boundaries of use with a new polyurethane generation to all standard and commercial polyurethanes. The new 94 AU 30000 polyurethane is much better. [More info...](#)

High Efficiency DC/DC Power Bricks Unipower, LLC



Unipower, LLC offers the industry's best combination of high efficiency and wide operating temperature range on our standard DC/DC power modules available in standard industry sizes. [More info...](#)

CAREERS & COMMENTARY

Online Technology Degrees for Working Adults

Excelsior College



Earn your technology degree from an accredited nonprofit leader in online education!

Excelsior College offers associate, bachelor's, and master's programs across several technological fields of study. [Learn more today!](#)

TECHNOLOGY TRENDS

HUD for 'Grunts' Begins Testing



Watch Now ▶

BAE engineers are field testing a lightweight [head-up display](#) for foot soldiers. The [Q-Warrior](#) helmet-mounted display is designed to aid in identifying friendly forces and coordinating small unit operations. The high-resolution color display presents symbols and video of waypoints and targets overlaid on a soldier's view of the field.

More from [Defense & Security Technology...](#)

A Wind Turbine of Great Stature



Watch Now ▶

Vesta's prototype [V164-8.0 MW wind turbine](#) recently generated its first power at the aptly named Danish National Test Centre for Large Wind Turbines. At a tip height of 220 m (721 ft), what's considered the world's most powerful wind turbine can provide electricity for [7,500 European households](#). The units are slated for production in 2015, primarily for offshore wind farms.

More from [Alternative & Renewable Energy...](#)

CHALLENGE OF THE MONTH

This Month's Challenge Sponsored by Adhesives.org



Finding the right adhesive or sealant technology to maximize performance and the suppliers and manufacturers to source them from is **easy** with these great online [tools](#).

Is Diet Soda Really Light?

A can of a diet refreshment (such as a Diet Coke) and a can of regular refreshment (such as a regular Coke) are placed inside a bucket of water. Both cans contain exactly the same volume of liquid and the cans are identical in size and shape. Which can will float higher relative to the other?

[Answer/Discuss](#)

TECH ARTICLE

Maintaining a Tight Grip

"Bolts are the crucial components that hold many critical products in our everyday life together. They need to be robust enough to withstand all types of weather conditions, extreme wear and tear, and, sometimes, being installed incorrectly. All too often, they must battle all of the above, meaning that sometimes the bolt can come loose or slacken." [Read this article in its entirety.](#)

This article is provided by [Nord-Lock, Inc.](#)

TECH TOOLS



Newsletter Subscriptions

Your source for technology news and industry information



Product Alerts

Receive e-mail updates on new products and suppliers



Questions & Discussion

CR4: Q&A and discussion for the engineering, scientific, and technical community



Engineering News

Engineering and scientific news from hundreds of sources

**Events**

NEW: Online, interactive conferences / trade shows featuring latest news and industry trends

[Call for Speakers](#) — submit your proposal

**Product Announcements**

New and featured products from manufacturers and suppliers

[Directory of Companies](#)
[Part Number Search](#)

[Technical Articles](#)
[Engineering & Scientific Links](#)

Follow IHS GlobalSpec On ...



[New Suppliers on GlobalSpec](#) | [New Products & Services on GlobalSpec](#)

[Feedback](#) | [Media Kit](#) | [Forward to a Friend](#)

March 25, 2014 - Volume 14 Issue 12A

© 2014 IHS. GlobalSpec, the GlobalSpec logo, SpecSearch, The Engineering Web, and The Engineering Search Engine are registered trademarks of IHS, 30 Tech Valley Drive, Suite 102, East Greenbush, NY 12061; 800.261.2052. All other products, company names, or other marks appearing in this e-newsletter are the trademarks and property of their respective owners.

To ensure prompt delivery, add do-not-reply@email.globalspec.com to your safe senders list. [Learn how.](#)

Please do not reply to this e-mail, as we are unable to respond from this address. If you would like to contact us, please send an email to: newslettercomments@globalspec.com.

To unsubscribe from this e-newsletter, [click here](#).

To unsubscribe from all IHS GlobalSpec e-mail communications, [click here](#).

To edit your user profile, [visit Your Profile](#).

If a friend forwarded this e-newsletter and you'd like to subscribe directly, [click here](#).