

We are pleased to present to you our latest "Focus On FILAMATIC" eNewsletter - Volume 1, Number 9



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## PMMI PackExpo International 2004 Preview

PMMI's [PackExpo International 2004](#), is coming up. This industry showcase for packaging machinery manufacturers is scheduled for November 7-11 at McCormick Place in Chicago. This year, the National Instrument/FILAMATIC® team will be at Booth #2325. Among the equipment that we intend to display will be a multi-function monobloc system, automatic and semi-automatic filling systems, and a variety of filling unit types, sizes, and accessories.

One of the stars of this year's show will be the FILAMATIC® Model [MNB-2000 Modular Compact Monobloc Systems](#). These highly refined systems provide a variety of servo-controlled packaging functions. These include liquid filling, fitment/plug insertion, stopper insertion (plug-style and/or lyophilization), screw capping, aluminum overcap crimping and more.



Single-index models achieve production rates of up to 55 containers per minute, while double-index systems are capable of operating at up to 100 containers per minute. The liquid metering systems available on the MNB-2000 accommodate a wide range of product

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## www.filamatic.com Website Update

Don't forget to check out National Instrument's (NIC) multimedia, interactive, [www.filamatic.com](#) website. Navigation tools, including pull-down menus and key word searching, allow visitors to readily access company and product line information organized by equipment/

machinery type and customer industry. The website is continually updated with new information regarding NIC's diversified line of FILAMATIC® packaging machinery.

The most recent additions to our website's content include:

- An updated webpage of [frequently asked questions \(FAQs\)](#) including all of the FAQs from the first eight editions of "FOCUS on FILAMATIC®"
- Additional specification information for our [mini-monobloc systems](#)
- Spanish language specification information for our [heavy-duty FILAMATIC® semi-automatic/bench-top filling systems](#)
- A press release reviewing FILAMATIC®'s "top of the line" [technical service](#) (see the related article below right)
- Specification information for our [FILAMATIC® Synchromat line](#) of automated filling systems (see the PMMI Preview article at right)

Coming attractions include:

- Additional Spanish-language content
- A webpage showing our Customer Care statement
- A webpage containing FILAMATIC® Testimonials
- Video of our molten products filling systems
- Information regarding FILAMATIC® integrated systems

The "[Press Releases](#)" and "[Newsletters](#)" webpages, accessed via the "About Us" menu found on our [homepage](#), are noteworthy. The former provides a listing of and access to all press releases, typically new product information, issued by NIC

viscosities and provide a fill volume range of 0.1ml to 500ml at filling accuracies to  $\pm 0.5\%$ . These monobloc systems may be equipped with [type DUS zero-particulate Filling Units](#) that are ideal for handling injectable liquids. All FILAMATIC® modular compact monoblocs are digitally controlled with menu-driven programs that electronically adjust operating parameters for quick and easy tool-less changeovers. Quality assurance options include vision systems to check for the presence and proper installation, or application, of fitments, plugs, stoppers, screw caps, or overcaps. Additional quality control options include screw cap application torque verification and reject collection devices that retain defective containers while allowing production to proceed uninterrupted.

Our [FILAMATIC® DIGIFIL® Automatic Filling Systems](#) will also be on display. They are designed to handle a wide variety of product/fluid types and viscosities in fill sizes ranging from less than 1ml to 5 gallons. A variety of standard frame sizes accommodate as many as twelve filling stations to provide production rates of up to 200+ containers/minute. DIGIFIL® systems are available with the following [liquid metering systems](#); Piston Pumps (stainless steel and/or ceramic construction), Lobe Pumps, Gear Pumps, Peristaltic Pumps, Flow Meters, and Time-Pressure Systems.



DIGIFIL® filling systems may be equipped with the unique [DOCKAFIL® trolley configuration](#). The DOCKAFIL® configuration positions the liquid metering systems on a portable, dockable trolley. This highly efficient configuration is designed to make changing product contact parts between production runs

quicker than ever before. All FILAMATIC® DIGIFIL® filling systems are digitally controlled with menu-driven programs that electronically adjust operating parameters for quick and easy tool-less changeovers.

NIC's [Bench-Top/Semi-Automatic Filling Systems](#) will be represented by a FILAMATIC® Model DAB-5 system. A presentation showing a variety of different Filling Unit and nozzle types in a range of sizes will illustrate the flexibility of these systems.



This product line provides solutions to many of the requirements found in laboratory, research and development, and small batch production environments. The ability to mix and match among the various Filling Systems, Filling Units, and nozzles helps our customers run a greater number of products more efficiently. NIC's line of bench-top/semi-automatic filling systems accommodate a wide variety of product/fluid types and viscosities in fill sizes ranging from less than one milliliter to 1.1 liters per dispensing cycle

after October 2002. The latter allows a website visitor to access all previous editions of NIC's "FOCUS on FILAMATIC®" eNewsletter.

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## FILAMATIC® Quickie Survey

Which of the following liquid metering devices/systems do you prefer?

Piston Pump

Rotary Lobe Pump

Rotary Gear Pump

Peristaltic Pump

Flowmeter

Time-pressure System

Level Sensing / Filling System

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## FAQs

Q: What type of filling system would you recommend for accurately filling a semi-viscous product into 2 oz. and 4 oz. plastic containers at speeds of 60 containers per minute?

A: We recommend a six-station in-line filling system utilizing our volumetric filling units (piston pumps) to provide typical filling accuracies in the range of  $\pm\frac{1}{2}\%$  to  $\pm 1\%$ . All

at filling accuracies to  $\pm 0.5\%$ . The line features one-, two- and four-nozzle system configurations that provide, production rates of up to 30+ containers per minute depending upon the skill of the operator.

An example of how a FILAMATIC® semi-automatic filling system may be upgraded to an automatic filling system will also be on display in Booth #2325. In addition to providing for the automation of a semi-automatic filling system, our SYNCHROMAT Filling Systems incorporate an economical, "building block" design that allows the number of filling stations to be increased and optional modules to be added.



Additional innovative products, such as in-case filling/capping systems, will also be available for review on video. We invite you to stop by. Bring us your toughest filling application problem and see if our systems consultants can solve it. For over 50 years, National Instrument has been recognized as one of the world's premier manufacturers of integrated liquid filling, capping, and monobloc packaging systems serving the pharmaceutical, diagnostic, personal care/cosmetic, food, and chemical specialty industries. The tradition continues this year in Chicago

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## NATIONAL INSTRUMENT ANNOUNCES

### TOP OF THE LINE TECHNICAL SERVICE

National Instrument provides a full complement of technical and repair services for its FILAMATIC® Packaging Systems. Whether the need is for the re-engineering of a current filling or monobloc system to accommodate new products, containers, or closures; a trip to a customer site for the performance of preventative maintenance or system evaluation and/or repair; the conversion of a semi-automatic filler into an automatic system to increase its production capabilities; or factory repairs/adjustments to mature bench-top machinery, our equipment specialists are on the job. Extreme makeovers and upgrades to current systems are our noted specialty. Our top-notch technical staff provides the expertise and know-how to put additional life into our FILAMATIC® Packaging Systems. For additional information on how our technical staff can help you with your FILAMATIC equipment, [click here](#).

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## RFID - The Use of Radio Frequency to Uniquely Identify

metal product contact parts in each of the filling units are manufactured from 316 or 316L stainless steel materials. The number of filling stations required would be subject to change pending filling tests using your product(s) and container(s) at our facility.

**Q:** I need a system that will fill an aqueous product, insert a dropper tip, and apply a screw cap to a 1 ounce round plastic container at speeds of 50-55 containers per minute. What would your company recommend?

**A:** Our Model MNB-2000 Modular Monobloc System will perform the required functions at the required production rate. The monobloc system includes a servomotor operated turret indexing mechanism, servomotor operated pick and place mechanisms for inserting the dropper tips and pre-starting the caps, and a servomotor operated cap torquing station. The monobloc's turret maintains positive control of the container through all functions as compared to the typical indexing mechanism found in a conventional in-line system. The monobloc system also occupies a minimum amount of floor space (approximately 25 sq. ft.).

**Q:** I require a packaging machine that will fill an aqueous product and apply a stopper and crimp seal to a 10ml glass vial at speeds of 20-25 containers per minute

**A:** The ideal machine for this application is one of our automatic Mini-Monobloc systems. The mini-monobloc system is equipped with a manually loaded infeed tray that transfers the empty vials into the system's turret indexing mechanism via a short section of conveyor. Once in the turret, the containers are carried through the filling, stopper inserting, and crimp sealing functions. The completed containers are then discharged onto a collection tray and removed from the system by an operator. This system is designed primarily for limited/small batch production requirements, and may be readily moved in and out of a filling suite if required.

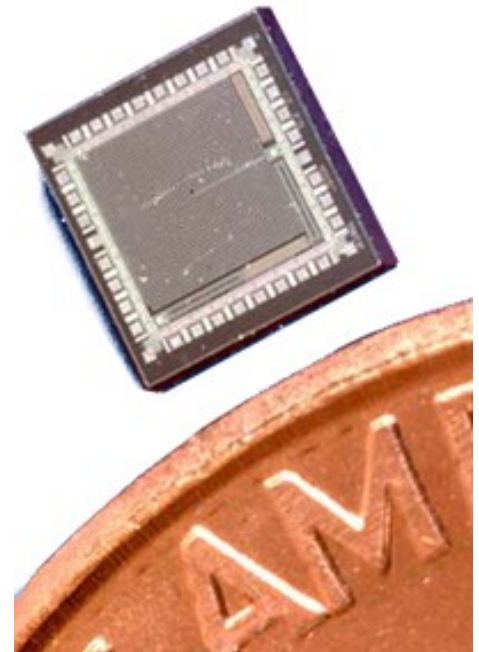
If you have a question, or questions, that

## an Object

The use of radio frequency (RF) to electronically code individual product containers, such as those containing prescription drugs, will improve consumer supply chain safety and increase the speed of recalls and returns. With multi-national corporations like Microsoft, Intel, Texas Instruments, Omron, IBM, and Motorola, and RFID sensor/reader developers such as ThingMagic, supplying the technology to customers such as Procter and Gamble, Wal-Mart, Abbott Laboratories, the US Department of Defense, and the People's Republic of China, it is clearly evident that the rush for RFID expertise best resembles a stampede. As the list of suppliers and customers grows, many are left wondering how this technology, and its application, will evolve in both the short and long term.

In response, a number of user groups have formed, in a variety of locations throughout the US, with the goal of charting a course through the next twelve months of RFID selection and implementation. These groups, whose members have realized the need for information about this emerging technology, are typically formed either according to industry type, geographic proximity, government agency, or professional association. Many expect that, in the short term, utilization of the technology will be determined along industry lines; that is, mandated by the controlling authorities of a specific industry. For example, decisions regarding the pharmaceutical/health care industry's use of RFID technology will be made by the FDA. However, this is not universally true. The US Department of Defense is making its own determinations with the help of IBM and, not surprisingly, Microsoft has formed its own group to study means for implementing the technology.

National Instrument recognizes that the use of this technology will soon extend to the packaging system solutions that we provide to the pharmaceutical, diagnostic, personal care/cosmetic, food, and chemical specialty industries. When required by a project's specification, we stand ready to equip our filling and closing systems to read from, and/or write to, RFID devices embedded in the packages, containers, or closures being processed by our machinery. We anticipate data such as fill volume, fill date, batch identification, and cap application torque being among that collected while tracking the production process from start to finish.



you would like to have addressed in the FAQ section of FOCUS on FILAMATIC®, please forward it/them via e-mail to [Mark Bennett](#). Your question(s), and the associated answer(s), will be included in the next edition of this eNewsletter.



We realize how critical it is for our customers to have access to this kind of information in order to improve the quality of life for all of us by, for example, preventing fake drugs from entering the pharmaceutical supply chain or making the recall of potentially harmful products more timely and efficient. As further evidence of this technology's potential, it is anticipated that RFID systems will one day provide real-time inventory levels in retail environments including pharmacies, as well as making

available prescription containers that alert us that it is time to take our medicine.

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Do you have any comments or suggestions regarding this eNewsletter or a specific feature of FOCUS on FILAMATIC? Please forward any comments or suggestions to [Mark Bennett](#), or call 1-800-526-1301 extension 219.

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