



4B Components Limited
729 Sabrina Drive
East Peoria, IL 61611
USA

CELEBRATING 120 Years
1888 1909 1971 1984 1991 2003 2005 2008
TECHNOLOGY • INNOVATION • QUALITY • VALUE



www.go4b.com

October 2008 sees the launch of the new 4B Components Ltd. website which has been redesigned and rebranded around our new corporate image.

The website has been re-launched with a vibrant new look, new content, and a clearer layout designed to be easy to use, making navigation simple and links more easily accessible.

We welcome any feedback that you may have as we are always striving to improve our products and services to meet our customer's needs and expectations. Just send us an email or give us a call with your suggestions.



4B Components Limited - Newsletter

ISSUE 18 ♦ FALL / WINTER 2008

➤➤ PRODUCT UPDATE: NTC Version **WATCH DOG elite**



The latest NTC Watchdog Elite monitoring system now incorporates continuous bearing temperature monitoring instead of fixed trip point monitoring. To achieve this, the system uses solid state NTC sensors instead of PTC sensors. This new feature allows the user to set a temperature trip point and to monitor actual bearing temperature in real time. Continuous temperature readings can be taken on any combination of up to 6 bearings or gearboxes.

As with our previous Watchdog Elite control units, you will also be able to monitor belt speed, belt and head pulley alignment, and plug condition on a single bucket elevator or belt conveyor. An LCD screen displays machine status (available in 4 different languages) and a super-bright LED display shows belt speed. It is easy to calibrate and setup using a simple front-panel touch button interface. The system includes alarm and shutdown contacts, RS485 output, and an optional PLC interface.

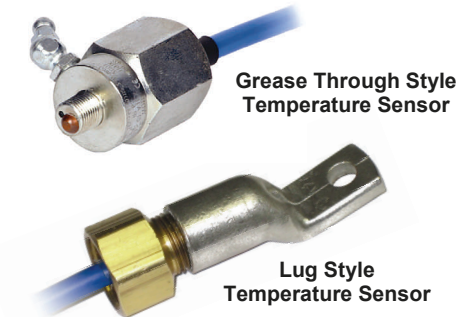
NEWS FLASH

Mark your calendars and join us in St. Louis for the 2009 GEAPS Exchange! The event will be held on February 28th through March 3rd at the America's Center Convention Complex. 4B will have two booths for the 2009 event. One booth will be featuring all of our material handling products, and the other will showcase our entire electronics line. Stop by and talk with one of our representatives regarding all of your material handling and electronic component needs. See you in St. Louis!

GEAPS Exchange 2009



NTC Type Bearing Temperature Sensors



These are two examples of the various sensor styles available for use with the Watchdog.

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EMPLOYEE PROFILE

Mike Nation



Electronics Technician

I began working for 4B Components just over a year ago. I have a 6 year background in the telecommunications industry and small electronics repair, an area with rapid advancement. I have always been interested in innovative technology that revolutionizes how we do business. That is why I felt privileged to be working with a company that is at the forefront of the industry and always looking ahead.

Originally from the Springfield, IL area I have moved throughout Illinois before settling in Peoria, IL. Last spring I proposed to my fiancé, Kim. We are in the process of planning for our wedding on September 26, 2009. When I say we I mean she, but I did get to taste the cakes.

CUSTOMER SPOTLIGHT

BASM

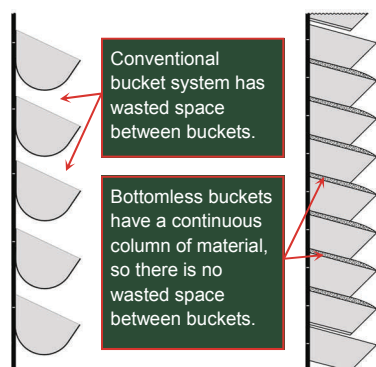


BASM Feed Equipment LTD of Calgary Alberta, Canada, is one of 4B's first territorial distributors in Western Canada. Wally Czank, owner of BASM, started his equipment sales company in 1982 and became associated with 4B in 1985. We have continued to be one of 4B's main Canadian regional distributors offering a wide range of material handling products including 4B's buckets, hardware, drop forged chain and electronic sensors, along with elevators, conveyors, size reduction equipment such as hammer-mills, power transmission, and associated parts. The long standing relationship between the two companies is one built on trust, loyalty, respect and mutual friendship. Wally states that: "The key to my company's success is one stemming from being able to offer high quality products supported by expert technical assistance, such as I get from 4B." Together we have worked on many mutual projects and have always held success with 4B product ingenuity, reliability and quality. I look forward to many more years of selling 4B products. For the western Canadian region, please call on BASM for your material handling requirements. Telephone number 403-276-9777.

HAVE YOU EVER GONE BOTTOMLESS?

"Keep your pants on!" We are just talking about elevator legs.

What's in your legs? Do you really know what your elevator legs can achieve in capacity? There are several unique bucket systems available to increase elevator leg capacities, but none quite as versatile as the GB Spidex "Bottomless" bucket system. The system is designed to mount or "nest" on very close spacing with a series of buckets without bottoms followed by a bucket with a bottom. Material is lifted in a continuous column and the carrying space normally wasted between conventional buckets is fully utilized to achieve much greater capacity.



Whether your leg is handling grain, feed, meals, fertilizer, or industrial materials such as free flowing cement, 4B can design a "Bottomless" bucket system to deliver the capacity you require. Strength, durability, and versatility are synonymous with this bucket. When installed in new legs or retro-fitted to increase capacity of an existing elevator leg, "Bottomless" is the maximum capacity steel elevator bucket.

A bucket with a complete bottom will be mounted within every five to eight buckets "without" a bottom, dependent upon the material being elevated and the capacity required.

4B offers a complete bucket elevator design service, and all you have to do is complete one of our elevator leg questionnaires, then fax or email it back to 4B. Our engineering staff will provide you with a comprehensive review and quote for what your elevator leg can achieve in capacity. "So, what are you waiting for? Go ahead, go bottomless. I dare you!"

~ Rick Fifer - V.P.



GB Bottomless Bucket System



ROGER'S REVIEW

Achieving Maximum Capacity



**Roger Bruère
Technical Sales Engineer**

There is a demand for increasing the capacity of new and old elevators particularly for handling grain. Factors that influence the capacity of an elevator are: bucket type, shape and discharge characteristics, optimum speed in relation to pulley size, shape of head and boot, material characteristics such as size, shape and density, angle of repose, coefficient of friction and terminal velocity.

The most common cause for loss of capacity in an elevator is a problem with bucket discharge. This problem can be caused by the incorrect belt speed in relation to the pulley diameter, the wrong bucket type or the wrong head shape. Below is a table showing the three types of discharge and their common characteristics.

Discharge Type	Initial Discharge	Speed	Typical Material Handled	Bucket Style
Centrifugal	@ 10 O'clock	Medium to High	Feed & Grain	CC-S, Starco, J Type Steel, GB Spidex Bottomless Buckets
Centri-gravity	@ 12 O'clock	Low to Medium	Cement, Wood Chips, Steel Shot	Starco Jumbo, Super Starco Steel Buckets
Gravity	@ 2 O'clock	Low	Pellets, Fragile Materials	AA, MF-Continuous Buckets



4B Test Elevator showing initial centrifugal discharge (10 o'clock) with Starco buckets handling dry corn.

Along with bucket discharge, there are other factors to consider that can also affect your elevator's capacity. For a more in-depth overview of how to achieve your elevators full potential, please visit our website to see the entire whitepaper "Achieving Maximum Capacity" (www.go4b.com/usa/technical-papers.asp).

4B can help you trace the faults in underachieving elevators. Complete our online elevator questionnaire (www.go4b.com/usa/free-design.aspx) and we will promptly provide you with a solution. This service is 100% free of charge, so take advantage of it!

SPARKY'S SHOCKERS

RTD Temperature Detectors



**Brian Knapp
Electronics Engineer**

RTD's (resistance temperature detectors) are a common type of sensor used for detecting the temperature of bearings, motors, gear boxes, and processes. They are accurate, easy to use, and simple to understand. However, many people using and specifying RTD's do not realize that 2-wire RTD's can be used in place of 4-wire RTD's with very little difference in accuracy. Normally a 2-wire RTD will lose accuracy due to the resistance in the cable, which can be thousands of feet long. The 4-wire RTD uses the additional 2 wires to compensate for the wire resistance. However, by "pulling" 4 wires to a 2-wire RTD you can achieve the same thing.

