

OAKTON Instruments Catalogue



OAKTON offers scientific instruments for research, industrial, and educational uses. These instruments are famous for their unique combination of innovative design and exceptional value, and represent "best buys" in their categories. This catalogue features pH, Conductivity, Dissolved Oxygen Measurement & Control products as well as Humidity, Weather & Temperature Measurement products, Specwell® Microscopes & more.

metex
corporation limited

CIRCLE READER SERVICE No. 1



Viissers Sales Product Catalogue

New catalogue featuring Metering Pumps, Metering Accessories, Magnetic Drive Gear Pumps, Centrifugal Pumps, Drum Pumps, Air Operated Diaphragm Pumps, Peristaltic Pumps, Progressive Cavity Pumps, Sanitary Lobe Pumps, Contractor Pumps, Mixers - Portables, Top-Entry, and Specialty, Pressure Washers, Process Controls, Hand Held Meters and Testers, Polyethylene Tanks, Filter and Filtration Products, from industry leading manufacturers. Also featured is a Chemical Resistance Chart and engineering Information.

JV VISSERS SALES CORP.

CIRCLE No. 2

Adjustable Pressure Switch



The 360 Series adjustable pressure switch is a compact design for low, mid and high-pressure applications. The housing and pressure port are made of 316 Stainless Steel.

The electrical enclosure is a welded, hermetically sealed, explosion proof assembly available as a single pole double throw (SPDT) or double pole double throw (DPDT) configuration. An internal, slotted pressure adjustment wheel is accessible through a tethered cover plate. Well suited for oil & gas, offshore platforms and safety panels as well as hazardous environments.



**United Electric
Controls**

CIRCLE
No. 3

Single and Multi-Deck Vibratory Screener



Kason VIBRO-SCREEN® separators with single or multiple decks yield up to five precise particle classifications from 5cm to 25 microns (500 mesh). Available

with a variety of anti-blinding devices, they handle dry, moist, lumpy, stringy and otherwise difficult-to-handle bulk material on a batch or continuous basis. Constructed of stainless steel to industrial, food, dairy or pharmaceutical standards, in diameters from 460mm to 2540mm (18" to 100"). Options available for rapid screen changes, in-place cleaning, and fast, thorough washdown.



**Separator Engineering
Limited**

READER SERVICE No. 4

Universal Panel Meter



Fuji Electric's new FD5000 is a highly modular 1/8 DIN panel meter with up to 18 different field-replaceable input boards. No need to stock a variety of panel me-

ters — simply install the appropriate input board for each process. The FD5000 accepts inputs from temperature probes, pressure transducers, load cells, strain gauges, potentiometers, pulse inputs, large voltage and current signals. This makes it ideal for demanding process applications such as Food, Textiles, and Automotive.

Features: Free Power Supply Voltage, RS-232 or RS-485 Function, Digital Zero Function, Hold Feature, Peak Hold Function, Comparison Output Function, Analog Output Function.



CIRCLE READER SERVICE No. 5

Certified Humidity Calibration



Industrial Technical Services has the ability to do in-house calibration and certification of Relative Humidity and Temperature Instruments. This is accom-

plished by using: Environmental chamber, which is capable of going from as low as 5% RH to 98% RH and from -30°F to 350° F. High accuracy 100 Ohm Platinum RTD for temperature measurement. Chilled mirror Dew Point Hygrometer for best accuracy. The advantage of the chamber and instrumentation used by Industrial Technical Services, is that instruments which require multi point calibration with values above and below ambient conditions can be accomplished to a high degree of accuracy. Test equipment used for calibration are certified and traceable to national standards.

INDUSTRIAL TECHNICAL SERVICES

CIRCLE READER SERVICE No. 6

ITW Vortec Cabinet Coolers



**Keep Electrical
Enclosures
Cool, Clean and
Protected.**

Today's small and compact, multi-function electronic controls, variable speed drives, servos and programmable logic controllers are extremely sensitive to heat and contamination. Smaller cabinet sizes make temperature control difficult and contribute to significant premature failures. ITW Vortec's Vortex Cooler Enclosure Coolers are the affordable, low maintenance, easy to install alternative for keeping enclosures cool and clean without Freon or other agents.



PELMAR Engineering Ltd.

CIRCLE READER SERVICE No. 7

MOD-MUX MODBUS Multiplexing I/O System



An innovative modular I/O system which provides a simple low cost solution for distributed I/O requirements. The MOD-MUX system consists of a stand-alone

Digital and Analog Input and Output modules which are connected together on a RS485 two wire multidrop network using the MODBUS protocol. Two baud rates are selectable, 9600 and 19200 baud. Typical response times are under 50ms. All modules plug into industry standard DIN rail mount 11 pin relay bases. **Call: 1 800-279-9912.**



CIRCLE READER SERVICE No. 8



"Kascade" Internal Recycle High Capacity Screener

"Kascade" Internal Recycle screening decks increase capacity 60 to 160 % over screeners of equivalent diameter. Required as new when floor space is limited, or as retrofits to undercut cost of new equipment. Each Kascade deck features a 360° annular gap at its periphery and contains a screen whose mesh equals that of the conventional screen below it. Excess material cascades over the periphery of the upper screen, onto the lower screen for final separation.

CIRCLE READER SERVICE No. 9

SEPARATOR ENGINEERING LTD.

85-2220 Midland Ave Scarborough ON M1P 3E6

Tel: (416) 292-8822 Fax: (416) 292-3882



Portable Batch Sifter



This lightweight Batch Sifter scalps oversize particles from small batches of bulk material being loaded into drums, blenders, other process equipment and storage vessels.

The units are offered in diameters of 450, 600 and 750mm (18, 24 and 30 in.), with a single unbalanced-weight gyratory motor of ample capacity for typical batch requirements. Constructed of stainless steel and finished to worldwide standards for industrial, food, dairy or pharmaceutical applications. Optional caster-mounted stands provide in-plant mobility.

SEPARATOR ENGINEERING LTD.

CIRCLE READER SERVICE No. 11

Bag Dump Screener



VIBROSCREEN® Circular Vibratory Bag Dump Screeners scalp bag scraps and other oversize materials from manually dumped bulk materials while protecting the operator and plant environment against dust contamination.

Ambient air and dust from dumping activities is drawn through cartridge filters that derive vacuum from a top-mounted exhaust fan. Dust accumulated on the filter's exterior surfaces is dislodged by pulse jet nozzles that release short blasts of air on a timed cycle. Constructed of stainless steel in 610, 760 and 1015mm (24", 30" and 40") diameters, to industrial, food, dairy or pharmaceutical standards.

SEPARATOR ENGINEERING LTD.

CIRCLE READER SERVICE No. 12

Self-Contained, Vibratory Fluid Bed Dryer System



At less than half the size and weight of rectangular fluid bed systems of equivalent capacity, this compact fluid bed dryer system consolidates a CENTRI-SIFTER® centrifugal agglomerator, circular fluid bed

processor (1220mm [48"] diameter shown), heater, blower, and cyclone separator on a shippable frame. With on-site connections to a power source, bag house, and material inlet/outlet, it is ready to run on a batch or continuous basis. Reductions in interior weld seams and surface area cut cleaning time by more than 50 percent.

SEPARATOR ENGINEERING LTD.

CIRCLE READER SERVICE No. 10

Quick-Clean Centrifugal Screener



The Quick-Clean CENTRI-SIFTER® centrifugal screener features a hinged end cover and three-bearing shaft that cantilevers for quick removal of internal components.

Two external roller bearings are located at the motor end of the shaft and on a hinged end cover for maximum support. When the end cover is hinged open, the shaft becomes a stable cantilever, allowing internal components to slide freely from the opened cover end. Ideal for food, dairy pharmaceutical and other contamination-sensitive materials, and applications involving frequent screen changes.

SEPARATOR ENGINEERING LTD.

CIRCLE READER SERVICE No. 13

MINCO

48 Haggert Ave N Brampton ON L6X 1Y3

Tel: (905) 457-6322 Fax: (905) 457-4716

Toll Free 1-800-794-5883



Thermofoil™ Heaters

Put the Heat Where You Need It

- Flexible etched foil heaters, up to 110 W/in²
- Precise, reliable heating with minimal space, mass & design overhead
- 200°C polyimide, 235°C rubber, 600° mica, 120°C transparent insulations provide efficient heat transfer
- Odd shapes, profiled or multiple elements
- Optional sensors & controllers

CIRCLE READER SERVICE No. 14



Fast Response RTD's

For Dynamic Temperature Tracking

- Unique low mass sensing element responds quickly
- 2 second time constant in flowing water
- Stainless steel cases for direct immersion
- Platinum, nickel, copper elements: 10 - 1000 ohm
- Straight, threaded and cut to length styles
- -269°C to 260°C (-452°F to 500°F) range
- Great for process lines, commercial appliances, etc.

CIRCLE READER SERVICE No. 15

MOD-TRONIC

INSTRUMENTS LIMITED



Temptran™ Transmitters

Accurate, Reliable, Economical

- RTD & thermocouple transmitters with 4-20 mA on 1-5 VDC output and 0.1% accuracy. Fixed or rangeable
- 600 V input/output isolation on selected models
- Rugged potted construction
- Low cost signal conditioning for OEM equipment
- Fits connection heads, utility boxes, or DIN rail
- Nonincendive, intrinsically safe

CIRCLE READER SERVICE No. 16

I want to receive/continue to receive a **FREE** subscription. ☐ YES ☐ NO

Signature _____ Volume 9 Issue 2/03

TEL: _____

FAX: _____

EMAIL: _____

Firms Main Business Is:

____ Pulp & Paper ____ Petroleum, Coal/Natural Gas ____ Rubber
 ____ Plastic Materials ____ Metal Processors ____ Food Processing
 ____ Beverage Mfg ____ Non-Metallic Minerals ____ Textiles
 ____ Pharmaceuticals ____ Detergents/Cleaning Compounds
 ____ Protective Coatings ____ Utilities ____ Consulting Engineer
 ____ Government ____ Other _____

Number Of Employees At This Location:

____ 1-4 ____ 5-9 ____ 10-19 ____ 20-49 ____ 50-99 ____ 100-249 ____ 250-499 ____ 500 +
 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40
 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60
 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80
 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100
 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115
 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130
 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145
 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160
 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175



Thermoplastic Magnetically Driven Sealless Centrifugal Pumps

Vanton Chem-Gard® CGM-ANSI magnetically driven end suction process pumps are sealless, single stage, volute type centrifugals which meet ANSI B73.1 process pump specifications and conform to Hydraulic Institute Standards. They are designed to reflect the latest clean air regulations, to be environmentally safe, and to provide for the leakproof transfer of corrosive, toxic, hazardous and volatile liquids. These sealless pumps are ideal for handling a broad range of corrosive and hazardous liquids used in chemical, pharmaceutical and other process industries, and for safeguarding the environment through leak-free transfer of aggressive fluids generated by industrial or municipal wastewater treatment. Since the rugged thermoplastic casings are additionally protected by structural metal armour, these pumps withstand the same nozzle loadings as metal pumps and their conformance to ANSI specifications permits direct replacement of conventional mechanically sealed centrifugal pumps.



VISSERS
SALES CORP.

CIRCLE READER SERVICE No. 17

More Advertiser Products On www.process-controls.com!

PROCESS CONTROLS AND INSTRUMENTATION

www.process-controls.com

Published four times per year by
PANTHER MARKETING & DESIGN
 102 WELLINGTON ST E
 ALLISTON ON L9R 1G7

EDITOR/PUBLISHER
 Steve Cranstoun
 Tel: 705-435-9112
 Fax: 705-435-5277

SALES REPRESENTATIVE
 Lynda Cranstoun
 Tel: 705-435-9112
 Fax: 705-435-5277

All rights reserved. The contents of this publication may not be reproduced in whole or in part without the consent of the publisher.

PROCESS CONTROLS AND INSTRUMENTATION and/or PANTHER MARKETING & DESIGN assumes no responsibility for the validity of the items reported.

For More Information On
 Products In This Issue, See
 Circle The Appropriate Number
 On The Reply Card & Mail Card
 705 435-5277
 The Card To Us.

Canada Post Canadian Publications Mail Sales Product Agreement
 40014652

www.process-controls.com

Neptune Portable Mixers



Neptune Mixers have been designed, engineered and built to provide long life and trouble-free service in a wide variety of blending/mixing operations. These mixers are popularly used to:

1. Blend Liquids
2. Suspend or dissolve solids

3. Dispense immiscible liquids
4. Dispense small amounts of gases in liquids

Neptune portable mixers can be clamp- or base-mounted on beams, tank walls or other supports. Angle of entry may be adjusted to meet specific mixing requirements.

Neptune portable mixers find use in a variety of different industrial applications...wastewater treatment, water treatment and batch chemical preparation. These portables are also ideal for mixing paints, varnishes, polymers, textile sizes and countless other materials from 1 to over 25,000 CPS viscosity.

This brochure presents specifications, dimensions and dimensional drawings and other information to help you select the proper Neptune mixer for your application. Our portables are available at either 350 or 420 RPM (gear driven) or 1750 RPM (direct drive).

CIRCLE READER SERVICE No. 18

metex
corporation limited

Digital Pressure Gauge



The DPG-6700 from 3D Instruments, a 4 1/2" loop powered digital pressure gauge, incorporates outstanding pressure sensors from 0-50 to 0-10000 psig to provided accuracy of 0.25% of full scale. Special temperature

compensation circuitry maintains this accuracy fixed over a temperature range of 32° to 131°F! Wetted components are 316SS for compatibility with many aggressive process medias.

Powered by either a 10-32 VDC loop or AC/DC adapter, the DPG-6700 offers both a scaleable 4-20 mAdc signal output and dual electronic switches with adjustable setpoint and hysteresis. To provide for back-up power, a high energy 3.6v lithium cell coupled with low-power circuitry offer an incredible 4 year battery life! An auto shut-off feature allows adjustment from 0-720 minutes.

The DPG-6700 is housed in a robust ABS case outfitted with a unique field adjustable process connection fitting/flange arrangement. All functions including Power, Zero, Engr. Units, and Hi/Lo are selectable via Polyester keypad for reliable operation in poor weather conditions.

ALPHA

CIRCLE READER SERVICE No. 19

PLACE
STAMP
HERE

For Faster Service: Fax 705 435-5277

PROCESS CONTROLS AND INSTRUMENTATION

102 WELLINGTON ST E ALLISTON ON L9R 1G7



Dual Indoor Alarm Model AL 102-2, High Level & Vacuum Detection System

The Model AL 102-2 is an indoor alarm that must be mounted in a non-hazardous area. It accepts two switch contact inputs. The high level alarm input is from a float switch. The interstice vacuum detection input is from a vacuum switch VS9253. A green LED indicates that power is on. An audible alarm signal occurs when either external contact is closed. A red LED provides the visual alarm indication for each input contact. Each input contact has a corresponding toggle switch that is turned off to mute the buzzer. The red light remains on until the alarm condition is corrected. The toggle switch must be switched back on in order for the buzzer to sound the next alarm for that input.

provides the visual alarm indication for each input contact. Each input contact has a corresponding toggle switch that is turned off to mute the buzzer. The red light remains on until the alarm condition is corrected. The toggle switch must be switched back on in order for the buzzer to sound the next alarm for that input.

Ktech
Industrial Products Inc.

CIRCLE READER SERVICE No. 20



Sealless, Self-Priming Pumps

Flex-i-Liner® peristaltic type rotary pumps are engineered for dependable service, leakproof handling of acids, caustics, salts, abrasive slurries, solvents, chlorides, and other clear or viscous fluids, even those containing soft solids. These nonmetallic pumps operated in either direction, wet or dry, and in any position. their gentle pumping action minimizes foaming, prevents settling out of suspensions and permits safe handling of latex emulsions and other shear-sensitive liquids. Designed without stuffing boxes, glands, shaft seals or internal valves,

there is no danger of external leakage. Only two components are in contact with the fluid - the inner surface of the plastic pump body and the outer surface of the rugged replaceable elastomeric flexible liner. This easy to service construction keeps maintenance and downtime low.



VISSERS
SALES CORP.

CIRCLE READER SERVICE No. 21



Magnetic Drive Gear Pumps

Engineered to deliver peak performance in any application MicroPumps's magnetically driven gear pump design features pulseless delivery, promising a smooth continuous flow that can be easily varied by altering the speed of the pump. Also, with high system pressure versions available, Micropump pumps have the power to handle any fluid delivery need. Each high-precision manetic drive gear pump features and advanced, leak-free drive, ensuring reliable performance for any application. the pump is driven by a coupling action when an external drive magnet turns an

internal driven magnet sealed within a magnet cup. To ensure leak-free performance Micropump gear pumps us a static seal in place of a dynamic seal.



Mixed Liquid Analyzer

The NEW Aysix 2000 Mixed Liquid Analyzer with the latest state of the art technology helps your wastewater treatment process to operate at peak efficiency. The Model 2000 is a 2 channel analyzer designed for the continuous measurement of dissolved oxygen and/or suspended solids in mixed liquid aeration basins. It provides a high degree of flexibility and ease of use and

is designed to operate with any combination of Aysix sensors in a variety of applications and delivers significantly reduced maintenance requirements with unsurpassed reliability and accuracy. The DO sensor used with this analyzer is an optical fluorescence type sensor and requires no membrane or cartridges to maintain, no fluid to fill and no initial calibration. The SS sensor operates on the principle of single gap near infrared light absorption as a means of detecting the presence of suspended solids in real time.

Cancoppas
LIMITED

CIRCLE READER
SERVICE No. 23



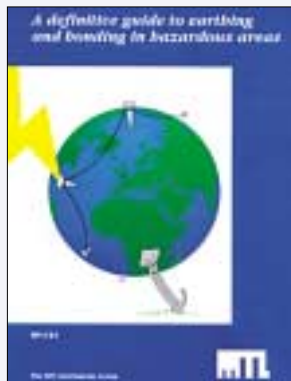
VISSERS
SALES CORP.

CIRCLE READER SERVICE No. 22



MTL CANADA SAFETY INSTRUMENTATION *BE INFORMED AND UNDERSTAND*

20 Regan Road Unit 17
Brampton ON L7A 1C3
Tel: 905-840-7850
Fax: 905-840-7852



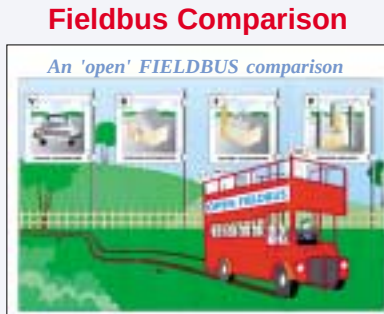
Earthing and Bonding

MTL presents a definitive document covering the practical requirements of grounding and bonding

of intrinsically safe systems.

Written by Chris Towle - Technology Director for MTL, this booklet covers the interaction of power bonding, IS, and lightning protection.

CIRCLE No. 24



Fieldbus Comparison

MTL presents a wallchart of use to engineers using any of the various communication protocols available to industry at this time. The chart offers quick cross reference of the protocols, giving details of the media, data rates, physical layer standard, typical applications, whether intrinsic safety accommodated, addresses etc.

CIRCLE No. 25



Intrinsic Safety Catalogue

From the leader in **Intrinsic Safety**, for engineers involved in hazardous areas. Covering new MTL products and providing the definitive quick cross reference for terminology, test authorities

and standards, also contains generic information on internationally accepted electrical protection techniques.

CIRCLE No. 26



Slimline Safety Barriers

A new range of advanced slimline shunt-diode safety barriers with features previously unavailable to users of certified intrinsic safety circuits, for interfacing with hazardous area instrumentation.

The MTL 7000 safety barriers have a width of half of conventional devices. Features an integral disconnect facility for isolating safe and hazardous area circuits.

CIRCLE No. 27



Process I/O for Process Control

MTL offers a booklet and a poster which explains the advantages of Process I/O and how it can be integrated into your process

environment. They also explain how Process I/O can save time and money and allow the potential of open fieldbuses to be used with a variety of field instruments. Includes reasons to implement Process I/O instead of traditional I/O technology.

CIRCLE No. 28



Barriers & Isolators

Discussion on the relative merits of galvanic isolators and shunt diode safety barriers. This booklet brings together illustrations which have accumulated over

a considerable time in response to various questions raised at MTL presentations. It attempts to make balanced arguments so that the reader can decide the most suitable technique for a particular application.

CIRCLE No. 29



Surge Protection

New **FREE** guide - Surge Protection For All Your Industrial Equipment from MTL discusses how to protect vulnerable high performance electronic

components from damage and disruption caused by current surges and transient voltages. Surge protection devices divert surges safely to ground and limit voltages to acceptable levels.

CIRCLE No. 30

Making Fieldbus Intrinsically Safe



MTL provides advanced information on MTL products designed and being tested on Fieldbus trial sites to those interested in Fieldbus. Information contains a generic overview of the requirements of

Intrinsic Safety Fieldbus as specified in the ISA standard, for those wishing to know more.

CIRCLE No. 31



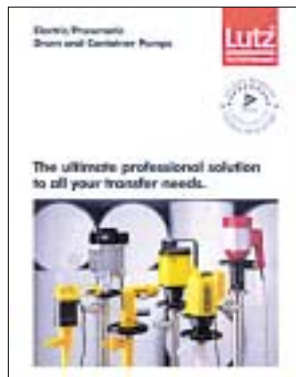
Explosion Protection

Cost Comparison of Method of Explosion Protection, discusses the relative merits of various forms of explosion protection

and compares notional costs for each as applied to two common control loops. The control loops analyzed are a switch status loop and a 4-20 mA transmitter loop.

CIRCLE No. 32

Drum and Container Pumps



The wide variety of fluids and container types/ dimensions necessitates an extensive range of different drum pump models. Depending on the requirement, they are available in a variety of materials, equipped with

motors adapted to the output requirement for differing voltages as well as pneumatically operated, with the required delivery rate and suitable sealing system. Added to this are pump tubes in varying lengths and a wide range of accessories permitting, for example, adaptation to problem containers or application conditions.

metex
corporation limited

**CIRCLE READER
SERVICE No. 33**

DGH DIN-100 Series Sensor To Computer Interface Modules



The DIN-100 Sensor to Computer Modules are a family of data acquisition modules that convert analog input signals to digital data and

transmit via RS-485 to a controller which may be a computer or other processor based equipment. The modules can measure temperature, pressure, voltage, current, digital input or digital output signals. The modules provide direct connection to a wide variety of sensors and perform all signal conditioning, scaling, linearization and conversion to either linearized ASCII data values or Modbus RTU data values.

ALPHA ALPHA CONTROLS
CIRCLE READER SERVICE No. 36

Digital Meters



Precision Digital's 2003 catalogue provides a quick overview of their complete product line as well as detailed specifications, drawings and ordering information and actual size product photographs. Featured in this catalogue are applications,

Large Display Process & Temperature Meters, Trident Digital Panel Meters, 1/8 DIN Digital Panel Meters, Loop-Powered Meters, Scanners & Annunciators.

**E & E
PROCESS
INSTRUMENTATION**

**CIRCLE READER
SERVICE No. 39**

KOBOLD Product Summary



KOBOLD's NEW 128-page Product Summary, featuring hundreds of KOBOLD's top quality, cost-effective flow, pressure, level, temperature, analysis, food & beverage, and time instruments. Provides application information

and product specifications for a variety of instrumentation needs including switches, sensors, meters, transmitters and much more -- all designed and manufactured to the highest standards of quality.

metex
corporation limited

**CIRCLE READER
SERVICE No. 34**

Pressure Transducers, Accelerometers, Digital Manometers and Displays

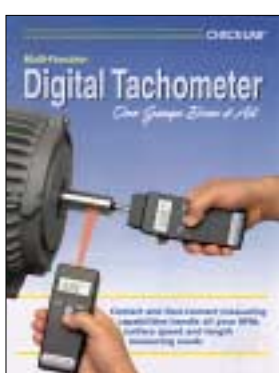


New short-form Product Selection Guide from Setra Systems featuring their line of Pressure Transducers, Accelerometers, Digital Manometers and Digital Displays. Pressure transducer models are shown for test & measurement,

vacuum, industrial, HVAC/R, ultra-high purity and sanitary applications featuring applications, type of measurement, ranges, accuracy, thermal effect and more.

ALPHA ALPHA CONTROLS
CIRCLE READER SERVICE No. 37

Multifunction Digital Tachometer



The CHECKLINE® CDT-2000 Combination Hand Held Digital Tachometer combines the best features of both contact and non-contact models to accurately measure RPM, surface speed and length. When using in non-contact mode, up to 14 inches away,

rotational speed (RPM) is measured using a visible light beam. In the contact mode, the speed is sensed by directly contacting the rotating device using one of the contact adapters supplied with the instrument.

**E & E
PROCESS
INSTRUMENTATION**

**CIRCLE READER
SERVICE No. 40**

Analyzers & Controllers



pH, ORP, Conductivity, Dissolved Oxygen, and Flow Analyzers and Controllers available from Metex Corporation are presented in this short form brochure.

Controllers have a user

friendly design with menu on the front panel with an easy to read large bright LED display. Controllers are quick and easy to calibrate and have a NEMA 4X enclosure.

metex
corporation limited

**CIRCLE READER
SERVICE No. 35**

Rotronic Roline L HVAC Humidity and Temperature Transmitter



The Roline L transmitters are designed for HVAC applications that require a low maintenance, stable humidity sensor at a moderate price. Using Rotronic's industry leading sensor technology along with state-of-the-art electronics, the

Roline L brings a level of reliability to the HVAC market. • Relative humidity and temperature measurement • 2-wire loop powered or 3-wire circuit • Well proven, durable humidity/temperature sensors

ALPHA ALPHA CONTROLS
CIRCLE READER SERVICE No. 38

Air Capture Hoods



ACCUBALANCE® Air Capture Hoods measure the air volume flowing through registers, diffusers and grilles. Weighing just seven and a half pounds the ACCUBALANCE is easy to carry, lift, and use. Simply hold the ACCUBALANCE up to a diffuser or grill

and read direct airflow of a supply or exhaust on the large digital display. Sampling function allows for easy averaging of multiple measuring points. A variety of hood sizes to choose from, allowing you to take readings from most diffusers, registers or grilles.

**E & E
PROCESS
INSTRUMENTATION**

**CIRCLE READER
SERVICE No. 41**

www.process-controls.com

Heavy-Duty Industrial Instruments



Since 1921, VDO automotive, nautical, aviation and industrial instruments have been unsurpassed for accuracy and reliability. This 32 page brochure describes the VDO line of tachometers, speedometers, pressure and temperature gauges to volt and ammeters, model numbers, product description, installation instructions and a cross reference guide.



FORSTER INSTRUMENTS

LIMITED

CIRCLE No. 42



Counters, Hour Meters and Tachometers

Redington's new 'Eagle' family of digital electronic counters, hourmeters and tachometers use innovative technology to provide unparalleled accuracy and reliability over a wide range of applications. Due to the many design options available, 'Eagle' represents the ultimate in practicality and flexibility. Can be specified in two ways; with terminal block or connector with wire leads. Installation is simple using the positive-locking mounting clip provided. An optional gasket provides reliable washdown protection.



FORSTER INSTRUMENTS

LIMITED

CIRCLE No. 43



Heavy Duty Instruments Aftermarket Catalogue

Dixon, Inc. manufactures speedometers and tachometers to fit most any truck, bus, agricultural, construction or marine application. This informative 20 page brochure provides in-depth information on installation and calibration, ordering information and applications for Dixon's line of heavy duty electronic instruments.



FORSTER INSTRUMENTS

LIMITED

CIRCLE No. 44

Continuous Level Indicator System



The CL-100 Level Indicator microprocessor based control uses input from up to 8 sensors to calculate and display material level on an easy to read LED bar graph. The system is easily calibrated using the keypad on the front panel. Two

different material levels are used to calibrate the system: one high point and one low point. The microprocessor does the rest. It automatically averages the outputs from the sensors and indicates the material level from 0-100%. High and low alarm set points are also adjustable from the keypad.

Thermo Ramsey

CIRCLE READER SERVICE No. 45

Parker polyflex™ Products



Quick Reference Guide provides overviews and brief specifications to help you select the right Parker polyflex™ products for your systems. Parker's Parflex Division offers an extensive selection of hose, tubing, fittings and accessory products for specific fluid handling applications industry wide. Some of the products featured are Oil Field Service Hose, High-Pressure Hydraulic Hose, High Pressure Testing Hose, and more.



INDUSTRIAL MECHANICAL

SPECIALTIES

CIRCLE No. 47

Flanged Immersion Heaters



Wattco Flanged Immersion Heaters are built for use in high pressure applications where the immersion heater is bolted on to a tank

wall (such as those used in large vessels). The highest quality copper, steel and incoloy are used to maintain the maximum desired heat.

Wattco Screw-Plug Immersion Heaters are individually designed to provide the exact wattage densities and operating temperatures. They are designed to be immersed in various liquids and gases. The sheathed materials to be used are generally determined by the application and densities needed.

WATTCO

CIRCLE No. 49



Flow/ No Flow Detectors

The Granuflow GTR 130 and DTR 131 non-contact flow sensors are ideal for monitoring solids flow in pipelines,

ducts, air-slides, and at transfer points of vibrating chutes, conveyor belts and bucket elevators. Some successful applications include the monitoring of roofing granules being applied to shingles, the flow of ingredients into extruders and mixers, and also the flow of additives into the production of wallboard. Thermo Ramsey has extensive experience in applying microwave technology in all kinds of applications in various industries.

Thermo Ramsey

CIRCLE READER SERVICE No. 46

Industrial Cleaning Products from Stoneage WaterJet Tools



New 2003 Catalogue features Waterjet Basics, Waterjet Safety, Fluid Facts - Formulas & Conversions. Products featured are for Surface Cleaning, Pipe Cleaning, Sewer Jetting, Tube Cleaning, Rigid Tube Cleaning, No-Entry Vessel

Cleaning, Boiler & Big Vessel Cleaning, Specialty Systems, Swivels, Rotary Couplings, Hose Reels, Nozzles Tips and Fittings.



INDUSTRIAL MECHANICAL

SPECIALTIES

CIRCLE No. 48

Tubular Heaters - Tubular Elements



Wattco Tubular Heaters are resistant to shock, vibration, corrosion and temperature up to 1000°F surface. They are manufactured with the highest quality materials to provide maximum heat possible (at the given temperature) as well as providing the longest possible operating life.

Wattco Tubular Elements come in different diameters, shapes, wattages, densities and lengths. The different ranges make the product adaptable to many industrial and commercial applications.

WATTCO

CIRCLE No. 50

Humidity Transmitters



Call us for all your humidity measuring needs. Our new transmitters feature 5 to 98%RH operating range and 1 or 2% calibrated accuracy trace-

able to NIST. Many styles are available from stock when you need immediate delivery. For more than 15 years Enercorp has been quietly manufacturing humidity sensors, transmitters, transducers and controllers. Our business keeps growing because one happy customer tells another and so on and so on. We thought that maybe now that we make thousands of humidity instruments each year we should let the word out. Maybe you would like to be our next happy customer. Hope to hear from you soon.

ENERCOP instruments Ltd
CIRCLE READER SERVICE No. 51

Aspirated Wet Dry Bulb System



Our Wet and Dry Bulb Psychrometers have been designed for mushroom and greenhouse applications. Wet and dry bulb hu-

midity measurements taken with this instrument are extremely accurate because we use matched pairs of sensors and provide forced ventilation across the wet bulb using a miniature fan. This psychrometer functions throughout the complete humidity range including the area between 90 and 100%RH where mushroom growers especially need precise control. The outside of the unit is white to reflect solar radiation and the sensors are mounted inside the instrument so that sunshine can not reach them. The inside of the water reservoir is black to prevent the growth of mildew.

ENERCOP instruments Ltd
CIRCLE READER SERVICE No. 52

AquaBoy Moisture Meter



Our AquaBoy Moisture Meter measures the moisture content of many solid materials quickly and accurately. The AquaBoy Moisture Meter provide a direct read-out of percent moisture in seconds. The extensive selection of probes available

suits the AquaBoy Moisture Meter to very many materials. AquaBoy Moisture Meter is designed for easy portability, fast operation with instantaneous indication and universal use. They are compact, handy units supplied with accessories, in a carrying case. AquaBoy Moisture Meter is housed in a robust case, shaped to protect the large dial and controls. Power is supplied to the AquaBoy Moisture Meter by a 9 V battery.

ENERCOP instruments Ltd
CIRCLE READER SERVICE No. 53

New Pressure Switch



Series 25 offers a self contained solution for direct control of AC loads up to 20 amps with adjustable pressure ranges

up to 475 psi. Adjustable set point and deadband feature is a real benefit for applications where a full function logic controller may not be available. Technicians can make on-the-fly corrections during development testing, start-up or maintenance. An easy to install solution for direct control of HVAC fans and blowers, as well as control of pumps, compressors, valves, and pilot lights. Compact design and low cost make it well suited for installation on OEM equipment.

UE United Electric Controls
CIRCLE No. 54

Multi-Level Float Switches



These switches are top-mounted with between one and four set-points. A single point sensor may be used to provide a high or low level alarm contact. The sensor is de-

signed to work directly with our Model AL101 or Model AL201 alarms. A multi-point sensor may be used to operate a solenoid valve or operate a pump indirectly through a relay. The float switch is factory sealed and explosion-proof. It is approved for hazardous locations, Class 1, Division 1 Group B, C, D. Explosion-proof housings are options.

Ktech Industrial Products Inc.

CIRCLE No. 56

Ratometer/Totalizer/Batch Controller



The 3870 provides fast, accurate measurements even with very low pulse rate inputs (as low as one pulse per 100 seconds). All

pulse or frequency inputs are easily displayed as rate. Easy setup with no programming or calculations required. Setup entries include time base, scale, offset and K factor. It features a 6 digit totalizer mode that can be independently scaled and displayed. The totalizer mode can accumulate totals for events (i.e. gallons, revolutions, pounds, etc.) since power-up or last reset. Totalizer includes a selectable preset value and optional open collector output. A 16 point linearization is a standard feature. Equipped with a NEMA 4 front cover and an anodized aluminum case.

ale AUTOMATIC TIMING & CONTROLS
INDUSTRIAL PROCESS MEASUREMENT

CIRCLE READER SERVICE No. 58

UE 120 Series Switches



The United Electric 120 Series pressure, temperature and differential pressure switches have been redesigned for improved

performance with heightened safety standards. The widely used 120 series still offers you its classic features. The 120 Series now has an integral cover lock to provide tamper-resistance while meeting CENELEC standards, dual conduit openings, (available on certain pressure, differential types, and temperature types) providing mounting flexibility, and a redesigned cover with a handgrip for eased hand tightening.

UE United Electric Controls
CIRCLE No. 55

Pump controllers



Our Pump Controllers are designed to automatically operate a pump to control the level of a liquid in a tank. They are

used in conjunction with Ktech multi-level float switches. Use two contacts to start and stop the pump. A relay circuit switches power to the fractional horsepower pump motor or to the three-phase contact of a large pump motor. Similarly, the switch contacts can be used to operate solenoid valves. Use additional contacts to indicate an alarm condition. These alarms provide and audible alarm condition is corrected. Controllers are manufactured to customer requirements.

Ktech Industrial Products Inc.

CIRCLE No. 57

Universal Process Display



The 3820 Process Display offers many outstanding features. The high visibility 6-digit red LED features large 0.5" seven segment characters. User selectable digital scale and offset converts the input signal to any desired unit of measure. The 3820 is available in 4-20 mA (3820-27), 0-5VDC (3820-23), and 0-10VDC (3820-25). A rugged aluminum case and NEMA 4 front cover is standard. Used in process applications for level, pressure and flow.

ale AUTOMATIC TIMING & CONTROLS
INDUSTRIAL PROCESS MEASUREMENT

CIRCLE READER SERVICE No. 59



New Dynamic Biodegradable Descaler

Dynamic Descaler is a safe nontoxic, biodegradable chemical to be used on the waterside of heat transfer equipment. You do not have to heat Dynamic Descaler. It is safer for the employees to use than other acid products. Your equipment will be cleaned in only hours without disassembling any part of the equipment. Equipment can also be cleaned without any down time (cleaning on the run).

Cleans down to the original surface without pitting. Dynamic Descaler is safe on copper, copper-nickel, bronze, brass, iron and rubber. It will extend the usable life of your equipment, especially when used as a part of a regularly scheduled preventative maintenance program. Removing the scale build up allows your equipment to operate more efficiently with less down time.

Dynamic Descaler is used by Ford Motor Company, General Motors, Rubbermaid, Dow Chemical, USX, Dayton Tire, Baker Hugh, Kennametal, Allegheny Power Systems and many others in the U.S. and worldwide.

This is the head from a heat exchanger cleaned with Dynamic Descaler at the General Motors Facility in Arlington, Texas. Notice that after cleaning the metal surface shines and there is absolutely no scale remaining whatsoever.



Before



After

For Safe Effective Cleaning Of:

- Heat Exchangers • Liquid Ring Vacuum Pumps
- Air Compressors • Condensers
- Cooling Tower • Boilers
- Furnaces • Lime Slurry Systems

**CIRCLE READER
SERVICE No. 60**

This is a heat exchanger cleaned with Dynamic Descaler at the General Motors Facility in Arlington, Texas. Dynamic Descaler was circulated for only 30 minutes. Notice that after cleaning 100% of the white lime scale is removed.



Before



After

DYNAMIC DESCALER

A new safe technology type acidic cleaner and degreaser. Formulated to rapidly clean mineral scale from water passages in water cooled or heated equipment. Improves efficiency, lowers cost, conserves energy and extends the usable life of cleaned equipment.

Safe on steel, iron, brass, copper, plastic, rubber and other materials found in most water cooled, heated or operated equipment. Do not use concentrated on stainless steel or aluminum heat exchange surfaces.

Used cold by circulating through water passages in water heat exchangers, coolers, pumps, boilers, compressors, condensers, extruders, molds, cooling towers, furnaces, water piping systems and other water side heat exchange surfaces.

Fortified with powerful low foaming wetting and penetrating agents, safe degreasing solvents and superior corrosion inhibitors to prevent corrosion of the steel, brass or copper surfaces being cleaned. Does not contain toxic cresols or other tar oils that require SARA title III, Section 313 spill loss or disposal reporting.

Dissolves all types of:

- Water Scale, Lime, Rust, and Lithium Carbonate • Effective
- Biodegradeable • Pleasant Odour
- Safe • Economical • Used Cold



10520 Yonge St. Unit 35B Suite 220
Richmond Hill ON L4C 3C7
Tel: (416) 410-1313 Fax: (416) 410-1806
Toll Free Tel: 877 797-2777
Toll Free Fax: 877 797-7660



The Problem Solving Company

www.tech-sales.com sales@tech-sales.com
Vancouver Office

The Problem Solving Company

Tel: (604) 859-5393 Fax: (604) 859-6393



NEW PRODUCTS From Tech Sales Co.

High Efficiency Curtain Air Blow-Offs Reduce Air Consumption



NEX FLOW Technologies™ Air-Blade™ is the "new" air knife/air curtain style system for blow-off and cooling of parts, webs and other materials. The system uses

the Coanda effect to amplify air flow dramatically reducing air consumption. Unlike other systems of its kind, the Air-Blade™ is **LOW IN COST but HIGH IN QUALITY** with a full flow design, rugged build and several mounting options to allow easy installation and maintenance by the customer. NEX FLOW Technologies™ Air-Blade™ is made of anodized aluminum or stainless steel for food and higher temperature environments. Instant ON/OFF with no moving parts for maintenance free operation. Sizes from 3" to 36". After 36" units can be combined for longer lengths. Applications include blow-off of water, coolant, and the cooling of webs and parts.

CIRCLE READER SERVICE No. 61

Lowest Cost Air Amplifier In Stock



Lowest Cost Air Amplifiers In Stock! - Rugged Air Amplifiers utilize the Coanda effect to amplify air flow dramatically reducing air consumption in blow-off applications. The unit is

made of strong lightweight zinc alloy for strength and longer life in difficult environments. High air-flow amplification with lower compressed air consumption than ejectors and venturis. Instant On/Off with no moving parts for maintenance free operation. Applications include: blow-off of water, coolant, etc., and the conveying of light materials. Sizes from 3/4" to 8".

CIRCLE READER SERVICE No. 62

Air-Blade Ionizer Is Efficient and Eliminates Static And Dirt From Charged Surfaces



NEX FLOW Technologies™ Air-Blade™ Ionizer easily removes dirt and static charge from plastic parts, moving webs and other charged surfaces by utilizing the highly efficient Air-Blade™ and a static bar made by Haug. Unlike many similar systems, the Air-Blade™ Ionizer uses fully shielded cable with its quality static bar for long life. The power supply is "repairable" and comes with a full two year warranty. For difficult, highly charged surfaces where a standard static bar is not enough, a unique "super static bar" with three times the output to the standard unit is available. Unlike many other systems of its kind, the Air-Blade™ is **LOW IN COST but HIGH IN QUALITY**. Made of standard anodized

aluminum or stainless steel versions for high temperature and food grade applications. A special Haug static bar is available for wash-down applications. Material flow rate is controlled easily with a pressure regulator. Sizes are available from 3" to 36" or longer as applications demand.

CIRCLE READER SERVICE No. 63

Ring-Vac™ Offers Superior Design For Conveying Of Materials



The "new" NEX FLOW Technologies™ Ring-Vac™ is the ideal system for conveying of materials, small parts ...even for great distances. Convey paper, plas-

tic pellets, chips, waste and other items by connecting a hose to each end of the powerful Ring-Vac™. Unlike many other systems of its kind the NEX FLOW Technologies™ Ring-Vac™ is **LOW IN COST but HIGH IN QUALITY**. Standard anodized aluminum or stainless steel versions for high temperature and food grade applications are available from stock. The unit is strongly built compared to some other makes with a simplified mounting system for ease of installation by the customer. Material flow rate is controlled easily with a pressure regulator. Sizes available are 1", 1-1/4", 1-1/2" and 2" outside diameters.

CIRCLE READER SERVICE No. 64

New "Split" Ring-Blade™ Offers Efficient Blow-Off For Wire, Cable, Rope and Extruded Parts



The "new" NEX FLOW Technologies™ Ring-Blade™ is an ideal system for removing water, dust, and light oils from wire, cable, rope and many types of ex-

truded shapes. The system uses the Coanda effect to amplify air flow dramatically reducing air consumption. The unit can be "split" and opened to allow for easy insertion of a continuous extruded shape. Unlike other systems of its kind, the Ring-Blade™ is **LOW IN COST but HIGH IN QUALITY**. Standard anodized aluminum or stainless steel versions for high temperature and food grade applications are available from stock. Easy installation and maintenance by the customer. Sizes from 1" to 6" inside diameters.

CIRCLE READER SERVICE No. 65

Disposable Rotary Drum Filter For Clean, Cost-Saving Liquid-Solid Separation



The new rotary drum filter consists of a polycarbonate outer shell, housing a drum made from porous UHMW Polyethylene (15-45 micron sieve). A drum size of 3" diameter by 4.5" long gives a surface area of 42.4 in² and effective filtration area of approx. 14 in². Test results showed slurry-processing rates of 1 to 3 liters per minute and a batch processing capacity of 900 liters (240 gallons) if continuously operated for an 8-hour period. Actual production performance is a function of the subject material/liquid characteristics to be separated, drum media choices (this is variable) and all operating conditions.

The new disposable rotary drum filter was designed for applications in laboratory, pilot plant, or other small capacity production applications. In addition the sealed, "throw away" eliminates the need centrifugal/ batch filtration units have for costly manual cleaning operations requiring the unit to be opened to an outside "uncontrolled," possibly contaminating environment.

CIRCLE READER SERVICE No. 66

New Air and Gas Flowmeter



The Tech Sales Co. Fox Model 10A Thermal Mass Flowmeter measures in SCFM without the need for pressure and temperature compensation. It is FM and CSA approved for Class I, Division 1, Groups B, C, and D hazardous areas. The sensor is constructed of 316SS and is all-welded to ensure safe and reliable operation. All Fox Thermal Mass Flowmeters are microprocessor-based and CE approved. In-line and insertion models are available and the flowmeter's calibration is traceable to NIST standards.

CIRCLE READER SERVICE No. 67

See more of our products on www.tech-sales.com

NEW PRODUCTS From Tech Sales Co.

Stainless Steel Cabinet Coolers



Use them anywhere! Heavy-gauge stainless steel construction. Cabinet Coolers are heavy-duty industrial equipment. Cabinet Coolers all stainless steel-no aluminum or plated brass components. Corrosive environments and wash-down won't affect it. It'll never pit, corrode or contaminate your product. If you're an OEM, you'll find the fit and finish of our Cabinet Coolers a complement to your own equipment. Cabinet Coolers are available with or without an adjustable thermostatic control that's factory set for 90°F (32°C). Thermostatic systems reduce compressed air consumption and are ideal for varying heat loads. All include an air distribution kit to ensure even cooling in the control enclosure.

For the price of our competitors' aluminum coolers!

- Less expensive to operate
- No Freon Leaks
- No costly repair calls
- Minimal, if any, maintenance
- Provide longer life to expensive controls
- No production down time waiting for repairs
- Maintain NEMA 4, 4x, and 12 integrity
- All models constructed of Stainless Steel

FOR THE PRICE OF OUR COMPETITORS' ALUMINUM COOLERS!

- Less expensive to operate
- No Freon Leaks
- No costly repair calls
- Minimal, if any, maintenance
- Provide longer life to expensive controls
- No production down time waiting for repairs
- Maintain NEMA 4, 4x, and 12 integrity
- All models constructed of Stainless Steel

CIRCLE READER SERVICE No. 68

Carbicote® Strippable Coating



Water-based Strippable Coating that can be easily removed from many surfaces. Carbicote® is commonly

used as safe peel-off protection for spray booth walls, lights, and windows. **Carbicote® Bright White Water Base** protects spray booth walls with a reflective strippable coating. **Carbicote® Crystal Clear Water Base** protects spray booth lights and windows with a transparent strippable coating. Carbicote® is the EASY solution to Spray Booth Maintenance. **EASY to use.** Apply Carbicote® by spray, brush, or roller. It dries quickly, forming a removable barrier in minutes. Cleanup with soap and water, no solvent required! **EASY to strip.** Carbicote® has excellent cohesion. When pulled, it stretches and peels off in large sheets. It retains its flexibility, does not become brittle with age. Carbicote also has excellent adhesion. It adheres well to most surfaces including stainless steel. **EASY to store.** Carbicote® is nonflammable; store it in the painting area ready for use. No "flash fire" danger from open containers; no special paint locker needed.

CIRCLE READER SERVICE No. 69

Two Way Liquid Transfer and Liquid Spill Pick-Up



The two way liquid transfer and spill pick-up system both fills and/or empties a 55 gallon drum in less than 2 minutes.

Easily switches from vacuum mode, filling the container, to empty mode by turning dial on top of unit.

The smart way to clean up and

transfer liquids:

- Beats shop vacuums on reliability, performance and price
- Larger tank capacity than industrial shop vacuums
- Eliminates double handling of toxic material and emptying vac canister
- Eliminates need for "floor dry" absorbent
- No efficiency loss after each use like electric-powered shop vacuums
- Both made of stainless steel
- Both have automatic float valve to prevent overfilling
- Both easily pick up high viscosity liquids, chips & sludge
- Both safe in wet areas requiring no electricity

CIRCLE READER SERVICE No. 70

Filter/Ventilator Systems



For cooling with ambient air, ventilating, dustproofing and/or pressurizing electrical/electronic and other enclosures. Filter/Ventilator Systems use clean filtered ambient air to

forcefully blow away hot internal air. In most cases, this will maintain proper operating temperature for electronic/electric components. Purchase and operating costs are much less than chilled air equipment such as air conditioners or vortex tube cooling! Electra-Kool™ Filter/Ventilator Systems use a pleated paper main filter that traps dust particles that the human eye cannot see! Because a wrap-around pre-filter is also furnished, and the main filter has a huge surface area, the filters generally last a long time. They also can be cleaned for reuse. Forcefully ventilate, cool & dust-proof electric enclosures:

- reduce production downtime!
- stop manufacturing losses!
- shrink maintenance labor costs!
- improve reliability of controls!
- minimize replacement parts cost!

Use an Electra Kool Filter Ventilator System to ensure reliability in your controls!

CIRCLE READER SERVICE No. 71

Corona Treating Systems



Taking unique advantage of open air Corona discharge, directed to the surface requiring treatment, BottleDyne™ pretreating systems set new standards for Corona technology. It is now possible to inline Corona treatment on virtually any extrusion or injection blow molded container at line speeds of up to 7,000 parts per hour. Treatment is done delicately, quickly and efficiently, without damage to the surface being treated and without adverse effect on the molding, printing or labeling process.

CIRCLE READER SERVICE No. 72

Process Heating For Industry, Tubular Heaters For High Volume Applications & Coiled Heat Exchangers

The flexibility and versatility of electric heat allows it to be used in an infinite number of applications. This, combined with the fact that it is clean, efficient, and easy to control, makes it one of the best heat sources available to industry today. From a 13.5 Megawatt Air Heater for one of NASA's Mach 8 wind tunnels, to Circulation heaters for a variety of fluid heat transfer systems, to Duct heaters for forced air applications, to Flanged Immersion Heaters and Control Panels, Accu-therm and Tech Sales Co., can provide the kind of trouble free thermal systems the industry expects from a quality supplier. The versatility of the metal sheathed tubular heater allows it to be used in a multiplicity of appliance applications. From coffee makers to livestock waterers the flexibility of this product is infinite. Accu-therm has UL and CSA recognition for its products for both Immersion and Air Heating applications.

CIRCLE READER SERVICE No. 73



See more of our products on www.tech-sales.com

Oil Skimmers - Wayne Mini Skimmers



Model DBS

Mini-skimmers have been in use throughout the world since 1990. Thousands are used daily to remove unwanted floating "tramp" oils. They are small, run very quietly, and use a very dependable permanent magnet motor! Standard models for industrial users include oil pickup rate to 1 gallon/hour, loose or fixed tail pulley design, and a choice of polyurethane or stainless steel belts in four standard length sizes.

CIRCLE No. 74



Model MSB

Model MSB lifts 1 quart to 4 gallons per hour. It can be supplied with Polyurethane belts for coolants or Stainless steel belts for parts-washers. The MSB Skimmer has four standard belt lengths and special belt lengths to 100 feet. The world's smallest oil skimmer Model MSB mounts on vertical/horizontal surfaces and fits into tiny spaces. It has a dependable permanent magnet motor!

CIRCLE No. 75



Economy Oil Skimmer

Economy Oil Skimmer for Coolants answers the need for a high quality, dependable but low cost belt type skimmer! 115/1/60 high quality, quiet & dependable permanent magnet motor with stainless steel cover and a six foot three prong cordset. A 1" wide flat polyurethane belt has great adherence for floating oils. Two standard lengths - 8" or 12" from mounting bracket base to the lowest point.

CIRCLE No. 76



Model SSP

MAXI-Skimmers™ these units utilize stainless steel or polyurethane belts 2" to 4" wide reaching from 1 to 50 ft. down and can collect from 2 to 10 gph. Totally corrosion resistant materials of construction.

CIRCLE No. 77



Model VSSP/4

**Adjustable Lift Rate
Belt Type Oil Skimmers**

CIRCLE READER SERVICE No. 78

Select your lift rate with a twist of the dial. Speed up (or slow down) the job of removing floating oil to suit your application. Costs about the same as other 5 gph belt oil skimmers. This skimmer is also corrosion-free, being made mostly of stainless steel parts and polymers. The VSSP/4 uses one 4" wide belt which can reach from 1 foot to 50 ft. down. There is a choice of stainless steel or polyurethane belts.

Air Assisted Ionizers

Air assisted ionizers serve two primary functions. The first is to neutralize the electrostatic charges holding dust particles to material surface and to blow or carry dust particles away. The second is the use of air as a carrier to overcome distances too great for an ionizer without air assistance. Tech Sales Co. offers a wide variety of Haug air assisted ionizers.

CIRCLE READER SERVICE No. 79



The **Ion Air Blower** is ideal for ionizing larger and hard to reach areas. It is available in three different sizes.

CIRCLE No. 80



The **Delta Blower** fans out air in a delta configuration and is ideal for sheet fed applications.

CIRCLE No. 81



The **Wing Jet** offers effective ionization for small areas or objects.

CIRCLE No. 82



The **Needle Ionizer** effectively removes dust particles from bottles and other small containers.

CIRCLE No. 83

Ionizing Bars

Haug high-efficiency ionizing bars eliminate electrostatic charges on the surface of plastics, paper, textiles and many other non-conducting materials through a steady and efficient balance output of positive and negative ions. All ionizing bars are operator friendly and safe to touch and are equipped with coaxial shielded cables, eliminating the possibility of interference with process controls or other nearby electronic equipment. Haug's exclusive and patented X-2000 cable system permits fast and easy power supply connection to the ionizing bars.

CIRCLE READER SERVICE No. 58



The **RN Ionizing Bar** is a standard touch-safe ionizer for web-based applications. It is available in custom lengths from 6" to 15 feet. It is also available in a daisy-chain version.

CIRCLE No. 84



The **VS Ionizing Bar** is a high-output ionizer designed to eliminate very strong surface charges. It is effective at distances up to approximately 8" from the web. It is touch-safe and can also be daisy-chained.

CIRCLE No. 85



The **PS Ionizing Bar** is a compact yet powerful ionizing bar. With dimensions of only 0.5" x 0.5", it is perfect for applications where working space is restricted.

CIRCLE No. 86



The **CI-SL** is a passive pre-ionizer that does not require a power supply. As a pre-ionizer it reduces surface charges permitting an active ionizing bar to easily eliminate the remaining charges.

CIRCLE No. 87

See more of our products on www.tech-sales.com

Industrial Heating Solutions



All heaters are CSA approved, including heaters for Hazardous Locations. In addition to this approval CSA has tested and approved the line to UL standards. We are committed to manufacturing and supplying specialized Industrial Process Heaters and

Temperature Control Systems that are designed to meet the unique heating requirements of each customer. Our long life, rugged products are designed to give you years of trouble free operation.



**ASB HEATING
ELEMENTS LIMITED**

CIRCLE READER SERVICE No. 88

Circulation Heaters



Compact and efficient, Circulation Heaters may be used in

forced or natural circulation systems to heat flowing gasses or liquids. Pipe plug or Flanged immersion heater, vessel, insulation, terminal enclosure, mounting brackets and inlet and outlet connections are included. Installation is simple with only basic wiring and piping connections required.

Applications include: **Heat transfer oils** - Molding dies and platens, closed loop heat transfer systems for heat sensitive materials **Fuel Oil Heating** - Pre-heating for delivery to burners, pre-heating to pumping viscosity. **Water** - Dishwashing & rinsing, hot water storage tanks, process water



**ASB HEATING
ELEMENTS LIMITED**

CIRCLE READER SERVICE No. 89

Unit Heaters & Door Heaters - Heavy Industry - Paper Mills - Steel Plants



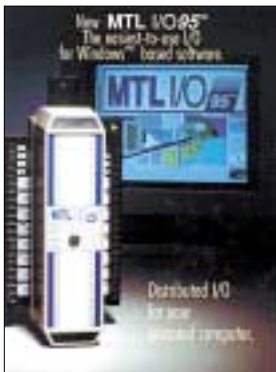
Our Unit Heaters are heavy duty industrial type constructed of Sch 40 steel pipe (or Sch 80 on request) with steel or aluminum fins. Fan guards are standard equipment.

All motors are heavy duty industrial type and permanently lubricated. The adjustable louvers and cabinets are fabricated from 14 gauge steel and finished in enamel.



**INDUSTRIAL MECHANICAL
SPECIALTIES CIRCLE No. 90**

Distributed I/O Catalog



The MTL Distributed I/O Catalog will provide an overview of the products and services that MTL can deliver to meet the demands of your I/O applications. The MTL Distributed I/O system provides an intelligent network between the

industrial automation computer and field mounted sensors and actuators. Designed to respond to your needs from the start, provides a truly complete PC based I/O solution.



**MTL CANADA SAFETY
INSTRUMENTATION**

CIRCLE READER SERVICE No. 91

Intrinsically Safe Isolators



MTL 2000/3000 Intrinsically Safe Isolators offer a proven alternative to shunt-diode barriers for the protection of instrumentation and associated wiring located in hazardous areas. Unlike general purpose instrument isolators, the

MTL 2000 & 3000 provide hazardous area protection by incorporating specially designed and approved transformers and opto-isolators to produce a galvanic barrier or interface against potentially incandescent fault current.



**MTL CANADA SAFETY
INSTRUMENTATION**

CIRCLE READER SERVICE No. 92

Phoenix II PID Controller



Simpson Electric's Phoenix II series consists of three models: the P20, P21 and P22. Available

in several sizes and configurations, this series is certain to provide a PID controller suited to your individual application. All Phoenix II controllers give precise process control using fuzzy logic and PID auto-tune. Both combined, eliminate overshoot and reach set points in the shortest possible time. Additional features are available for advanced process control. These features include: heater break detection, RS-485 communications, retransmitted analog output, remote set point, and excitation.

**INDUSTRIAL TECHNICAL SERVICES
CIRCLE READER SERVICE No. 95**

Industrial Pressure Measurement



For over 40 yrs., Dynisco has been solving some of the toughest pressure measurement problems in some of the worst environments - highly corrosive media, damaging cyclic pressures, severe shock and vibration.

Our transducers are an integral part of the industrial world, providing superior performance and dependable pressure data.

Our transducers are an integral part of the industrial world, providing superior performance and dependable pressure data.

Our Industrial Pressure Measurement Product Guide provides pressure measurement solutions that help you bring greater value to your customers.



**CIRCLE READER
SERVICE No. 93**

DIN Rail Indicating Controller



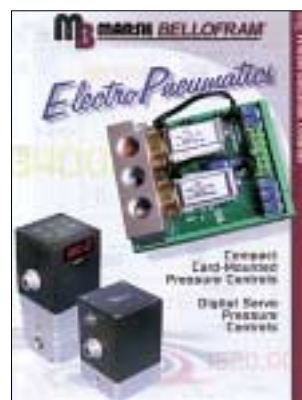
The new Shinko DCL-33A Series is a compact, expandable and highly effective built-in temperature controller which can be used as a controller or a transmitter.

- **Input:** Thermocouple, RTD, mA, mV
- **Input Sampling Period:** 0.25 seconds
- **Control Action:** Auto-tuning, PID, PI, PD, P, ON/OFF
- **Control Output:** Relay contact, non-contact voltage and DC Current



**CIRCLE READER
SERVICE No. 94**

Pressure Control Devices



Electro-pneumatic pressure control devices provide two levels of performance for manufacturing, production and research processes. This new brochure provides detailed information on Marsh Bellofram's line of

Compact Card-Mount, Analog Servo, Digital Servo Pressure Controls. Application notes, Digital Panel Displays, Remote Pressure Sensors and Accessories with descriptions and specifications.

**INDUSTRIAL TECHNICAL SERVICES
CIRCLE READER SERVICE No. 96**

Personal Air Conditioners - Worker Comfort in Extreme Temperatures



Personal Air Conditioners (PAC's) use filtered compressed air and vortex tube technology to keep workers comfortable in extremely hot or cold areas. With no moving parts,

the vortex tube forces a simple heat exchange to separate compressed air into hot and cold airstreams. The small vortex tube, worn on a supplied belt, is connected to our Diffuse-Air Vest which delivers continuous cooled or heated air through its perforated, inner lining. Temperature is easily adjusted to $\pm 60^{\circ}\text{F}$ above or below the inlet temperature.



PELMAR
Engineering Ltd.

CIRCLE
No. 97

Stainless Steel Pneumatic Actuators



Chemline offers a new line of competitively priced rack and pinion rotary actuators of solid 316 stainless steel. They feature body, end caps and shaft of solid stainless, and polyaramide (IXEF[®]) pistons.

Output shaft and base mounting dimensions are according to ISO-5211. Polyacetal rings and bearings provide for long cycling life. Three sizes are available in both double acting and spring return models, offering output torques up to 1,400 inch pounds at 80 psi air supply.



CIRCLE READER SERVICE No. 100

Butterfly Valves



Chemline TB Series Butterfly Valves are proven performers. Since the early 1970's, they have been installed in many tough Canadian fluid control applications. The large size range and selection of body, disc and

seat materials allows them into a wide range of possible applications. These butterfly valves are an economical choice for on/off, as well as throttling control, especially for larger pipe sizes. They provide quick opening in the hand lever model. Piping design and installation is simplified due to their compact dimensions.



CIRCLE READER SERVICE No. 101

Sub-Zero Spot Cooling from Compressed Air



Vortex Tubes are an effective, low cost solution to a wide variety of industrial spot and process cooling needs. With no moving parts, a vortex tube spins compressed air to separate the air

into cold and hot air streams. Vortex Tubes have a very wide range of application for spot cooling on machines, assembly lines and processes.

- Maintenance free - no moving parts
- Cycle repeatability within $\pm 1^{\circ}$
- Drops inlet temperature by up to 100°F
- Cools without electricity or refrigerants
- Exceptionally reliable, compact and lightweight



PELMAR
Engineering Ltd.

CIRCLE
No. 98

Oil / Water Separator



Filter Innovations' oil/water separator with its coalescence principle of operation offers the user a number of advantages: • Capable of removing oil droplets down to and below 20 micron • Solids

settling removal capabilities for wastewater flow with multiple contaminants • Compact design conserves valuable floor space • Low maintenance/operating costs • Oil/water separation systems are available in carbon steel, stainless steel and fiberglass materials of construction to meet the varied needs of customer applications. The Filter Innovations Inc., Oil/Water Separators are designed to handle a variety of flow rates.



FILTER INNOVATIONS INC.

CIRCLE READER SERVICE No. 102

Activated Carbon Filtration



Filter Innovations Inc., carries a large inventory of virgin and reactivated carbons for the filtration of vapour and liquid streams. Different types of carbon available: pelletized, granular, powdered and reactivated, made out of several different materials such as coal, coconut shell and wood. A complete

line of carbon absorption equipment is available including vessels, canisters and panels. Complete changeout services are also available.



FILTER INNOVATIONS INC.

CIRCLE READER SERVICE No. 104

Air Amplifiers for Vacuum, Blowoff, Cooling or Conveying



Air Amplifiers use a small amount of filtered compressed air to deliver a large airflow for a wide range of conveying, ventilation, drying and cooling applications. The high-flow, bladeless blowers

don't require machine guards and are especially useful for removing metal chips and scrap, ventilating fumes or smoke, and conveying small parts, pellets, powders and dust. Air amplifiers are more compact and less expensive than variable speed blowers and fans, provide instant on/off performance, and operate at low noise levels to meet OSHA requirements.



PELMAR
Engineering Ltd.

CIRCLE
No. 99

Automatic Self Indexing Filter



This automatic self indexing filter provides a highly efficient and reliable means of removing

solids from process liquid. The MYCO media filter is a non-pressurized system which is economical and easy to operate. It can handle occasional system upsets or overloads without blinding the filter media. The MYCO media filter is fully automatic requiring no operational intervention. Particle size removal is based on the media selected. The MYCO media filters can handle flows up to 700 GPM. Typical applications will include coolants, process water, cooling towers and oils.



FILTER INNOVATIONS INC.

CIRCLE READER SERVICE No. 103

Automatic Filters



The Amiad automatic self-cleaning electric filters, for high flow rates and a larger filtration area.

- For flow rates up to 1000 m³/hr.; 4400 US gpm per unit
- Filtration range: from 3500 to 10 micron
- Large filter area: 10,000 sq. cm.: 1550 sq inches
- Two cleaning methods: Brushes or Scanner
- Electronically monitored cleaning cycle with flexibility of control options
- Flushing according to pressure differential and/or according to time. Option for continuous flushing.

FILTER INNOVATIONS INC.

CIRCLE READER SERVICE No. 105

MOD-TRONIC INSTRUMENTS LIMITED

48 Haggert Ave N Brampton ON L6X 1Y3
Tel: (905) 457-6322 Fax: (905) 457-4716
Toll Free 1-800-794-5883

Love Controls Catalogue



Love Controls produces a broad range of instruments and sensors for temperature and process control. Instruments range from the simplest of single board controls to sophisticated micro-processor based products capable of computer communication. Temperature sensors include thermocouple, RTD, and thermistor assemblies and accessories. Organized into six separate product categories: Controls, Indicators, Sensors, Output Devices, Transmitters/Alarms, Data Communications and Recorders.

CIRCLE No. 106

Temperature Sensors & Transmitters



A new catalog from MINCO contains a wide variety of sensor styles to fit most applications.

MINCO's line of Temperature Sensor Assemblies, RTD and Thermocouple Probes, Accessories, Temperature Transmitters, Sanitary Sensors, Miniature Bearing Detectors, EMCS Thermometers, Thermal Ribbons, Ceramic Elements and Precision Reference Thermometers, and complete product specifications are featured.

CIRCLE No. 107

Thermofoil Heaters



Thermofoil heaters are thin, flexible heating elements consisting of an etched foil resistive element laminated between layers of flexible insulation. Since their introduction by MINCO, Thermofoil heaters have demonstrated significant advantages over conventional electronic heaters.

- **Precise Heating**
- **Faster Warmup and Longer Life**
- **Space and Weight Savings**
- **Custom Tailored For Better Fit**
- **Integral Temperature Sensors**

CIRCLE No. 108

Signal Conditioning



API Signal Conditioners and Alarms are designed with complexity on the inside and simplicity of use on the outside. Whether you prefer factory ranged models calibrated for your application or MinuteMan™ Field-Rangeable units, API's standard features make the installation and trouble shooting of your process effortless. Input/Output Loop Tracker™ LED's and functional Test Pushbutton verify your wiring connections. All API models are CSA approved and backed by a LIFETIME WARRANTY.

CIRCLE No. 109

Mercotac Rotating Electrical Connectors



Ideal for instrumentation, robotics, thermocouples, cable reels, strain gauges, packaging equipment, turntables, testing and control devices. Mercotac connectors can be used both horizontally and vertically.

- Superior to conventional slip rings
- Sealed, ball bearing construction
- Increased reliability, no maintenance
- Extremely low electrical noise
- Less than 1 million resistance
- Durable, compact, low cost

CIRCLE No. 110

Non-Contact Temperature Sensors



The NEW edition of this Non-Contact Temperature Sensors Handbook features: Profit Enhancing Applications, a Quick Selection Guide to help you select the correct sensor for your application, IRT/c™ Model specifications and drawings, Snake Eye - high speed thermal switches, Microscanner D-Series Handheld IR Scanners (NIST traceable), IRT/c™ Accessories, Technical and Application Notes on using IRT/c's, plus, Specialty Controls & Data Acquisition for IRT/c's. A must read if you're looking for temperature sensors!

CIRCLE No. 111

2003 Dwyer Instruments Catalogue



A broad range of measuring and control instruments for flow, level, pressure and temperature applications. Product families include: Dwyer Instruments, Mercoid Division, W. E. Anderson Division, Love Controls Division, Proximity Division, all widely recognized brand name companies.

New 2003 catalogue presents complete product lines with product descriptions, specifications, reference charts, pressure conversion table and product applications.

CIRCLE No. 112

Digital Pressure Gauges, Switches



Digital pressure gauges, pressure switches and vacuum gauges designed to indicate, monitor and activate your process. This new "Falcon Series" features:

- 316SS media compatibility
- 3 1/2 digit displays
- Retransmitted outputs
- Bicolour status indicators
- Diagnostic test function
- Setpoint with relay outputs
- Test gauge accuracy (0.25%)
- Battery or external power
- Vibration and shock resistant

CIRCLE No. 113

Replacement Parts for Progressive Cavity Pumps



York Fluid Controls Limited now offers replacement parts to fit most manufacturers' progressing cavity pumps. Offering a full warranty, York Fluid Controls backs all pumps and parts to meet the published performance standards. Whether your fluid handling needs call for a complete pumping solution or replacement rotors and stators York Fluid Controls Limited has the solution.



**YORK FLUID
CONTROLS LIMITED**

CIRCLE READER SERVICE No. 114

Versatile Metering Pumps



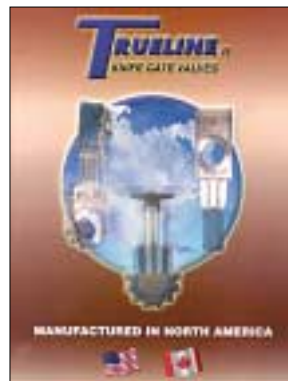
The 500 series easily handles corrosive chemicals and abrasive slurries associated with water and wastewater treatment. The pump-head accepts tubing in seven different sizes and six materials. Extremely versatile, the 500 series accommodates flow rates from .00016 to 70 gal/hr. and can withstand pressures up to 30 psi and easily interface with most SCADA systems. All Watson-Marlow Bredel 500 series pumps carry a full three year warranty and are designed for 24 hour operation.



**YORK FLUID
CONTROLS LIMITED**

CIRCLE READER SERVICE No. 115

Trueline Knife Gate Valves



All Trueline Knife Gate Valves are built and tested in accordance with MSS-SP81 & TAPPI T1S 405-8 specifications. All metal seated valves meet or exceed seat test requirements. Test data is available on request. Options available:

- Resilient seat for drip tight shut-off • Vee port for throttling service
- Control accessories such as positioners, limit switches, solenoids, etc. Catalogue shows specifications, features, engineering data, installation procedure and more.



**CIRCLE READER
SERVICE No. 120**

Custom Control Panels

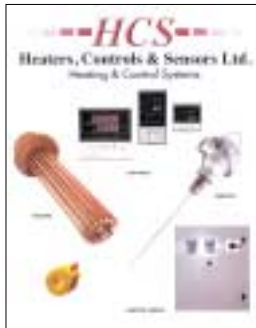


HCS manufactures custom control panels for a wide variety of applications. From panels that are needed to operate in 60°C environments, to laboratory controllers that are to maintain temperatures within $\pm 0.01^\circ\text{C}$. These custom panels could be made to withstand washdowns with corrosive chemicals with all components on the panel conforming to IP 65 and NEMA 4X. Integration of components for steam booster heaters or recirculation heaters with flow fail safe interlocks are also available.



CIRCLE READER SERVICE No. 116

Heating & Control Systems



HCS are Heating and Control Specialists, that design and engineer heating and process control systems for industrial applications. HCS offers a wide variety of industrial heaters for various applications. These electrical heaters; High Temperature

Radiant Panels, Explosion Proof Process Heaters, Process Immersion Heaters, Circulation and Band Heaters, Flexible Heaters, Tubular Heaters, Coil/Cable Heaters, Finned Air Heaters, High Temperature MI Strip Heaters, Radiant Ceramic Heaters are featured along with Temperature Controls, Timers, Motor Controls and more.



CIRCLE READER SERVICE No. 117

Three Piece High Cycle/Thermal Cycle Ball Valves



State of the art performance with a wide range of options. A high performance workhorse, this valve is a reliable package that handles the demands of high cycling and thermal cycling applications in high production environments. Ranging in size from 1/4" to 2

1/2", the valve is easily automated with pneumatic or electric actuators. A variety of body materials, seat materials and options means you will get exactly the right valve for your application.



**CIRCLE READER
SERVICE No. 121**

Toshiba Electromagnetic Flowmeter



The LF400 Series Electromagnetic Flowmeters from Toshiba combine superior noise immunity with high purity ceramic detection unit liners, allowing precise measurement in a wide range of applications.

- The divided multi-sampling system

provides reliable and accurate measurement

- Unique noise suppression technology reduces chemical noise
- High purity Alumina ceramic tube allows measurement of corrosive fluids, at elevated temperatures and in adverse conditions



CIRCLE READER SERVICE No. 118

Coriolis Mass Flowmeter



Only the Rheonik CFM from Cancoppas, with its unique, patented "OMEGA Tube Design" is up to the challenge!

- **Unbelievable Flow Capacity:** 1/4" - 12" sizes allow flow rates from 0.0022 to 50,000 lbs/min
- **Incredible Ratings:** Can easily handle

temperature ranges of -200°C to $+400^\circ\text{C}$ and pressures up to 25,000 psi.

- **Highest Corrosion Resistance:** Flow tubes available in Tantalum, Monel and Inconel
- **Unsurpassed Safety:** Patented torsion swinger design assures longest life and increased safety



CIRCLE READER SERVICE No. 119

Pressure Sensors

A complete line of Pressure Sensors and Diaphragm Seals isolate and protect instrumentation from the process line, providing accurate, repeatable pressure measurement of slurries and corrosive fluids. Series 40 and Series 42 Pressure Sensors are the industry standards for protecting instrumentation, and assuring accurate, dependable pressure measurement. Red Valve Pressure Sensors are used for such applications as sludge, raw sewage, grit, lime and carbon. A sensor with a transmitter may be used on positive displacement pumps to shut down the pump if pressure is lost. On filtration systems, a sensor can be used to detect when a filter needs replacement.



**CIRCLE READER
SERVICE No. 122**

PLACE
STAMP
HERE

PROCESS CONTROLS AND INSTRUMENTATION
102 WELLINGTON ST E
ALLISTON ON L9R 1G7



Pump-N-Mixer

The FLUX Pump-N-Mixer allows you to either pump, mix or pump and mix simultaneously.

The F426 eliminates the need for a separate drum mixer when the contents of the container must be thoroughly mixed before they can be pumped out. Both mixing and pumping can be performed with the same unit. The FLUX unique lever action design allows the user to perform several functions with the turn of a lever.

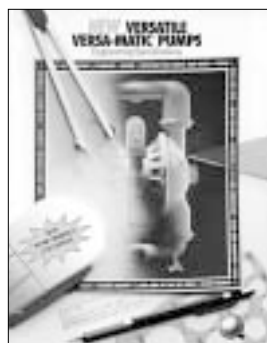
This unit is available in Stainless Steel and also Polypropylene, and can be used with any of the FLUX motors.

York Fluid Controls Limited handles the complete FLUX Pumps product line.



**YORK FLUID
CONTROLS LIMITED**

**CIRCLE READER
SERVICE No. 123**



Versatile Versa-Matic® Pumps

- Anti-Stalling • Non Icing • Lubrication Free

True to their name, ELIMA-MATIC® pumps virtually eliminate intermittent pump stalling caused by air valve system freeze-ups. By utilizing the patented ELIMA-MATIC® anti-stalling, non-icing, lubrication free valve system, this common air diaphragm pump problem is a thing of the past. This **Engineering Specifications Guide** presents the ELIMA-MATIC® Series of pumps featuring specifications, performance curves, dimensions for 1/2" through 3" models. Specialty, Food Processing and Sanitary Pumps are also

featured. Classic VERSA-MATIC® V-Series Pumps, Diaphragms, Pump Accessories, Materials of Construction, Temperature Limits and Compatibility as well as a Troubleshooting Guide are presented in this guide.



**YORK FLUID
CONTROLS LIMITED**

**CIRCLE READER
SERVICE No. 124**

www.process-controls.com



Sludge Level Detectors

The Aysix BinMinder 9300 processor provides multiple point level sensing in liquids (up to 4 sensors). Superior signal processing and control features provide maximum performance in Water and Wastewater Treatment applications.

- Non-contact interface level measurement
- Easy installation
- Outstanding temperature stability, accuracy and repeatability

and repeatability

- Sophisticated algorithms for range extraction, utilizing powerful 32 bit digital signal processing microprocessor
- Provides exceptional RFI/EMI and transient immunity on all communications and power
- Four 4-20 mA outputs and SPDT status relays
- RS-232 and RS-485 communications port for multiple unit installations



**CIRCLE READER
SERVICE No. 125**



Pump Rentals

Your guarantee of reliable pumps for sewage bypass and more, leak-proof dewatering containers, rapid install diversion and cofferdam systems, pre-bid and onsite consultation, delivered on time and on budget and backed by Team RMS 24/7 service commitment that you can trust.

- RENT the most reliable pumps with leak-proof hose for your next contract. Contractors retain control and profitability with Genuine Godwin pumps.
- BE READY for those emergency opportunities where only immediate access to over

2,500 pumps, backed by RMS 24/7 MOBILIZATION will make it happen.

- PURCHASE pumps, hose and piping to your specifications. Benefit by applying rental recapture towards your purchase.



**CIRCLE READER
SERVICE No. 126**

NAME: _____ TITLE: _____

COMPANY: _____ ADDRESS: _____

CITY: _____ PROV: _____ POSTAL CODE: _____ TEL: _____ FAX: _____

Main Business Is: _____ Pulp & Paper _____ Petroleum, Coal/Natural Gas _____ Rubber _____ Plastic Materials _____ Metal Processors _____ Food Processing _____ Beverage Mfg _____ Non-Metallic Minerals _____ Textiles _____ Pharmaceuticals _____ Detergents/Cleaning Compounds _____ Protective Coatings _____ Utilities _____ Consulting Engineer _____ Government _____ Other _____

Volume 9 Issue 2/03

I want to receive/continue to receive a **FREE** subscription.

☐ YES ☐ NO

Signature: _____

Email: _____

Number Of Employees At This Location:

____ 1-4 ____ 5-9 ____ 10-19 ____ 20-49 ____ 50-99 ____ 100-249 ____ 250-499 ____ 500 +

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39
40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58
59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77
78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96
97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112
113 114 115 116 117 118 119 120 121 122 123 124 125 126 127
128 129 130 131 132 133 134 135 136 137 138 139 140 141 142
143 144 145 146 147 148 149 150 151 152 153 154 155 156 157
158 159 160 161 162 163 164 165 166 167 168 169 170 171 172



**CIRCLE READER
SERVICE No. 127**

Fuzzy Logic Controls

Heaters Controls and Sensors' Fuzypro Fuzzy Logic Controls have everything under control in this new brochure featuring Ramp Soak Profiling Controls, Limits, Process Controllers, Hot Runner Systems, High Accuracy Laboratory Controls, Percentage Controllers and Data Acquisition Systems.

Heaters Controls and Sensors also carry out repairs and calibration for all makes of process and temperature controls.

--HCS--

Call: 519 686-6095

www.hcs77.com

Even More Product Information On www.process-controls.com



1/32 DIN Size Controller

Shinko North America is pleased to introduce the most compact, panel mount digital indicating controller available today.

- **Display:** Red LED, 4-digits Size 8mm x 4mm
- **Input:** Thermocouple, RTD, mA, mV
- **Control Action:** Auto-tuning, PID, PD, ON/OFF

Control Output: Relay contact, Non-contact voltage and DC current

• **Accuracy:**

Thermocouple: Within $\pm 0.3\%$ of full scale ± 1 digit, or $\pm 2^\circ\text{C}$ (4°F), whichever is greater.

RTD: Withing $\pm 2\%$ of full scale ± 1 digit or $\pm 1^\circ\text{C}$ (2°F) whichever is greater

- **Safety Approvals:** UL, cUL, and CE approvals



**CIRCLE READER
SERVICE No. 128**



Type 100 Flow Sensors

The Type 100 Flow Sensor is the core item in the FLS Paddle Wheel line of sensors. A square wave output frequency is generated, proportional to the rate of rotor rotation and flow velocity (approximately 42 Hz/m/sec.). This pulse output is normally fed to a panel mount instrument which counts the pulses for local flow/total flow indication or conversion to an analog (4-20 mA) transmitter signal. The pulse output can be fed directly to a computer for simple flow indication.

Features: • The output signal may be transmitted up to 100 meters without the need for conditioning. • Electronics are entirely encapsulated with epoxy resin. • Large flow velocity range - 0.5 to 33 ft/sec. • Accurate low flow measurement down

to 0.5 ft/sec.



**CIRCLE READER
SERVICE No. 130**



Loss-In-Weight Feeders

The accurate feeding of dry bulk material is often critical to maintaining product quality. A feeder that weighs accurately and reliably can reduce material waste, improve blend consistency and increase profits. Thermo Ramsey's Loss-In-Weight continuous or batch feeding systems measure the mass flow rate and total mass of various bulk materials. We incorporate the Standard, Low Capacity and Sanitary versions of our volumetric feeders into a complete gravimetric

feeding system, thus providing higher accuracies of $\pm 0.25\%$ to 1% and a more reliable process control versus regular volumetric feeding systems.

Thermo Ramsey

**CIRCLE READER
SERVICE No. 129**

Dickson Monitoring Solutions



Dickson Temperature Humidity Data Loggers, Paperless Recorders, Temperature and Humidity Recorders, Non Contact Infrared Indicators are shown in this catalogue.

A Data Logger Quick Selection Guide, information on How To Select A Data Logger, Common Data Logger Questions, Product Descriptions, Recorder Selection Guide, Recorder Specifications, Recorder Accessories, information on How To Select The Appropriate Infrared Thermometer, Product Descriptions, Specifications and Ordering Information is presented.



CIRCLE READER SERVICE No. 131

Electromagnetic Flow Meters



Badger Meter's advanced electromagnetic designs deliver up to 0.25% accuracy. The "straight spool" design virtually eliminates pressure loss. Since there are no moving parts in the flow stream, maintenance is kept to a minimum. A large variety

of size configurations are available from 1/24" to 54" (DN1.2 - DN1400.) Connections range from flanged to wafer to 3A approved sanitary fittings. Applications can be found in various industries, including food and beverage, pharmaceutical, chemical, pulp and paper, and mining.

TOLL FREE: 1-800-661-8823

MUIS CONTROLS

CIRCLE READER SERVICE No. 132

Sight Flow Indicators



OPW Engineered Systems has been manufacturing **Sight Flow Indicators** for over 60 years. Experience has led to many innovations in design and manufacturing, making VISI-FLO the most thoroughly engineered Sight Flow Indicator on the market. VISI-FLO's are available in two series: the Standard 1400 Series, and the 1500 High Pressure High Temperature Series. All VISI-FLO's carry full ANSI Service Ratings to ensure maximum reliability in even the harshest operating conditions.

TOLL FREE: 1-800-661-8823

MUIS CONTROLS

CIRCLE READER SERVICE No. 133

Mass Flow Controllers



Mass Flow Controllers are designed to indicate flow-rates and control set flow-rates of gases. Flowrates of Mass Flow Controllers are

unaffected by temperature and pressure variations within stated limitations. LCD readouts are supplied with direct reading readouts. Zero and span adjustments are conveniently accessible from the outside of transmitters. Eighteen conveniently overlapping flow ranges from 10 sml/min to 100sL/min (in terms of Nitrogen flow) are offered.

TOLL FREE: 1-800-661-8823

MUIS CONTROLS

CIRCLE READER SERVICE No. 134

Temperature Measuring Instruments

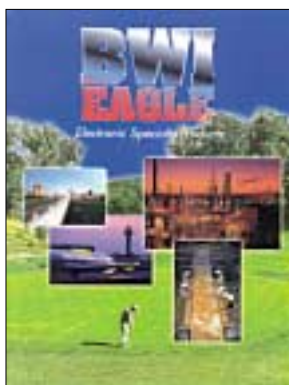


Thermo-Electra presents a new catalogue featuring a complete range of temperature measurement instrumentation, from temperature sensors, to cable and connector systems, including instrumentation. High Velocity, Pressure Industrial & Custom Built Sensors, Temperature Transmitters, Transmitters and Alarm Units, Probes, Thermocouple Wire and Cables, Thermocouple Extension Wire Cable, Instrumentation Cable, Connector Systems, Portable Thermometers are shown.



CIRCLE READER SERVICE No. 135

Wireless Remote Controls



Operate dangerous or hard-to-reach apparatus from safe, convenient locations using radio frequency remote controls systems. These cost effective systems are the solution whenever running cables is impractical, impossible, or too costly;

and they interface with practically any electrical apparatus. All BWI Eagle remote control systems are FCC approved. Catalogue also presents Critical Speed Switches and Monitors, Fail Safe Sensors, and Conveyor Dust Suppression Systems.



CIRCLE READER SERVICE No. 136

1/16 DIN Temperature Controller



Model 1048 is a microprocessor based self tuning PID Temperature Controller housed in a 1/16 DIN case. It incorporates a dual LED display. Set point

(green LED's 7mm high) and actual process value (red LED's 10mm high). The main output (SP1) can be relay 10A or 0-12 Vdc SSR trigger. A second output which is a 3A relay, which may be used as a 6 recipe alarm contact or an independent second set point (SP2). All parameters are accessed via the front key pad which is sealed to IP65/NEMA 4. Supply voltage is 85-265Vac or 24Vac/dc.



CIRCLE READER SERVICE No. 137

Self-Dumping Dewatering Hoopers



Slash maintenance, labour and contract costs. Stop shipping water with solids. Comply with environmental

regulations. Works like a giant coffee filter. Leak-proof container with stainless mesh liner supports a disposable filter, covering all inside surfaces. (1) Pump or dump sludge, slurries and wastes into patented Phase Separator(s), liquid drains, dewatered solids are retained in filter. (2) Dispose of or recycle solids. (3) Return clean and ready for reuse. Upgrade centrifuges, belt and filter presses and flimsy containers. A permanent cost-effective solution.



CIRCLE No. 138



New Pitbull Tough Sump Pumps

NO rotating parts, bearings, shaft, impeller, diaphragms, floats, seals or electricity. Upgrade vertical centrifugal and diaphragm pumps. NO NPSH requirement—just enough

fill head to submerge the pump. Pitbull patented pneumatic displacement sump and transfer pumps are proven to reliably handle abrasive chunks, fines, hot corrosives, pipe-size trash, and condensate—with NO inherent limitation between solids passing, standby to maximum flow, and varying discharge heads.



CIRCLE No. 139

New Hydraulic Submersible Pump Handles 5" Solids



The Godwin Heidra HS150V hydraulic submersible pump weighs only 165 lbs. and passes through a 24" manhole. With a fully recessed vortex impeller, it is able to pass 5" solids. It comes with a diesel hydraulic power unit and all necessary hose. Godwin-Dri-Prime cast iron and 316 stainless centrifugals to 16" x 16" can self-prime to 28 feet and run dry continuously.



CIRCLE No. 140

Thermocouples & RTD's



Call us for custom thermocouples and RTD temperature sensors made to your specifications in days or even hours at great prices.

Many styles are available from stock when you need even faster turn-around.

For more than 20 years Enercorp has been quietly manufacturing thermocouples, RTD's and thermistor assemblies to our customer's specifications. Our business keeps growing because one happy customer tells another and so on and so on.

We thought that maybe now that we make tens of thousands of temperature assemblies each year we should let the word out. Maybe you would like to be our next happy customer. Hope to hear from you soon.

CIRCLE No. 141

Oil Seal Sensors

This sensor used to measure the temperature of bearings in a pressurized oil bath. It is another example of the custom designs we produce to solve individual customer needs. Call us today if you need a custom temperature sensor to your specifications.

You will be happy with the quality, delivery and price.

CIRCLE No. 142



Euro-design

We developed this design for a green-house supplier that wanted to measure soil temperatures. It is moisture proof, light weight and costs less than a similar probe with a conventional head.

Ask us for our design suggestions if you have an application that needs a fresh approach.

CIRCLE No. 143



Local Display Option

When retro-fitting existing installations to computer control it is sometimes desirable to re-use the thermowell of an existing dial or glass indicator leaving the operator unhappy because he has no local indicator. Our DIS-2000 indicator with 2 sensors in the probe solves the problem.

CIRCLE No. 144



Smoke House Sensors

Sensors used in smoke houses need to be super durable to withstand repeated insertions into meat, the high humidity and clean down cycles.

Enercorp's all teflon and 316 s/s design is up to the job. If we can make a probe to stand up to this environment ask us for a probe for your tough job.

CIRCLE No. 145



Standard Designs

We do the straight forward stuff too. So if you are shopping for a better price or delivery on a conventional sensor please try us. You may be pleasantly surprised.

Whether you need one piece or hundreds we can fill your requirements quickly and economically. Ask us about thermocouple wire and RTD elements too.

CIRCLE No. 146



ENERCOP

www.enercorp.com

sales@enercorp.com

tel: 1 (800) ENERCORP

fax: 1 (877) ENERCORP

instruments ltd