

Orion Energy Systems wins Product of the Year Grand Award

Energy and productivity products lead the way at Manufacturing Summit awards event

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Plant Engineering readers put an emphasis on innovation, energy efficiency and productivity in selecting the 2008 Product of the Year award winners.

The Product of the Year awards were presented Monday, March 30 at the Riviera Theater at Charleston Place as part of the 2009 Plant Engineering Manufacturing Summit In Charleston, SC.

The dinner featured the presentation of the 2008 Grand Award to Orion Energy Systems of Manitowoc, WI. The Apollo Light Pipe is a sealed skylight system designed to capture and control light with reflective materials. The unit harvests sunlight, focusing the light through the dome and down to the facility floor. The Light Pipe received the single highest number of votes from Plant Engineering readers.

"The Apollo Light Pipe is engineered to provide maximum light output using the least expensive source available: the sun," said Orion vice president Tony Bartol of Orion who, as the primary engineer for the light pipe, accepted the award on Monday. "Through extensive research and development, we eliminated the historic problems associated with traditional day-lighting technology. The Apollo is manufactured using high-grade aluminum to prevent corrosion, is completely resistant to leaks and condensation, and installation cost is far less than any other day-lighting product on the market."

The product was recently the focus of [a speech by President Obama](#) at the White House, where the Apollo light pipe was featured.

"The Apollo was indicative of the kinds of products readers selected in 2008," said Plant Engineering editor Bob Vavra. "The events of 2008 made plant managers conscious of every dollar they spend. The 2008 Product of the Year winners provide great solutions for the plant floor in every area from automation to maintenance to electrical systems."

Winners of the 2009 Product of the Year awards include:

Electrical Power

Bronze:

Wireless three-phase kWh meter

The Class 2100 three-phase kWh meter is designed for facility energy monitoring applications and is the only three-phase wireless submeter with 15-minute interval data recording for near real-time electrical demand (kW) and consumption (kWh) monitoring and reporting. Optional wireless modules interface gas, water and third-party electric socket meters into the wireless automatic meter reading network using 915 MHz self-configuring/repairing mesh communications. The meter offers several wiring, voltage and current combinations, and meets ANSI C12.1/C12.16 accuracy standards.

E-MON LLC: www.emon.com

Silver:

Arc-resistant LV switchgear

WL arc resistant low voltage switchgear is designed to provide added protection over standard metal-enclosed switchgear. The switchgear is designed and performance tested to ANSI/IEEE C37.20.7 to provide protection from the hazards of internal arcing faults. Features include Type 2 arc resistance to protect personnel at the front, back and sides; reinforced enclosure; internal venting system with pressure dams and vents to channel the flow of arc gases away from personnel; and an insulated bus bar system.

Siemens Energy & Automation Inc.: www.sea.siemens.com

Gold:

Solar concentrator

The SopoNova 4 concentrated solar collector uses reflectors and optics that harness energy from the sun to create heat that passes through a turbine to produce electricity. The solar collector puts the efficiency of large parabolic trough technology into a small, lightweight package that can be installed in ground or on rooftops. The heat generated by the collector can be used to power turbines for electrical generation, or industrial process heating and solar cooling.

Sopogy: www.sopogy.com

Automation and Control

Bronze:

Compact machine vision system

In-Sight Micro is a complete vision system in a 30 x 30 x 60-mm package. EasyBuilder configuration software enables intuitive setup of difficult applications without programming or spreadsheets. The camera is designed to mount in very tight spaces on robots, production lines and machinery. The non-linear calibration tool allows mounting at angles of up to 45 degrees for hard-to-reach

applications. VisionView 700 operator interface panel automatically detects vision systems and displays tiled views of up to nine systems.

Cognex: www.cognex.com

Silver:

Cameras for inspection, machine vision

The NI 17XX Smart Camera family is designed with image acquisition, onboard processing and I/O capabilities directly on the cameras for embedded, automated machine vision and inspection applications. A smart camera returns inspection results instead of images, which would require external processing and analysis. Features include Sony CCD image sensors; embedded processors; built-in isolated I/O; dual Gigabit Ethernet ports with Modbus TCP support; RS-232 port; Vision Builder AI development software; and a direct drive lighting controller on some models.

National Instruments Corp.: www.ni.com/smartcamera

Gold:

Wireless mobile HMI

The SIMATIC MP277 IWLAN is a wireless mobile panel HMI that allows access PLCs and wireless networks. The wireless HMI is designed specifically for the plant floor. The mobile panel has a 7.5-inch TFT touch display and 18 LED membrane keys for operator input. The unit can be enhanced with operator controls such as a key-operated switch, an illuminated push-button and a hand wheel. Its 6 MB of memory can be supplemented with a memory card for archiving recipe data.

Siemens Energy & Automation: www.siemens.com/panels

Motors Drives & Controls

Bronze:

Adjustable speed drive

Q9 series adjustable speed drives are designed with oversized transistors and heavy-duty dc bus capacitors. The electronic operator interface has an LCD display and simple keypad layout. Windows-based software aids programming and monitoring. The drive's HVAC features include a fire-speed circuit that forces the drive to run at a preset speed during a smoke purge, and a damper-permissive function that can be used to protect from over-pressuring ductwork. Other drive features include PID control, wire-break function and common communications protocols.

Toshiba International Corp.: www.toshiba.com/ind

Silver:

Servo drive with embedded software

The PositionServo is a servo drive with programming and configuration software embedded inside the drive. The software – MotionView OnBoard – allows the drive to run without having specific servo drive software loaded into a computer. The drive also has communication capabilities such as EtherNet/IP, DeviceNet and Profibus DP protocols. Advanced debugging tools allow users to save variable watch configurations as project files for later recall. Other features include memory chip, digital and analog I/O and instant drive setup.

Lenze-AC Tech: www.lenze-actech.com

Gold:

Motor management system

The TeSys T motor management system records motor history, statistics and time-stamped faults to give users a real-time view of their motor control. The system consists of a multifunction protection device – separate from the automation system – and an operator control unit for reading and modification of monitored parameters. The device supports up to five fieldbus types, and offers six motor control functions including overload, two-step and two-speed modes. It guards against motor malfunctions such as overload and current peak.

Schneider Electric: www.us.schneider-electric.com

Instrumentation

Silver:

2-wire Coriolis flowmeter

The Micro Motion 2200S two-wire Coriolis meter measures liquid flow with +/-0.10% accuracy and liquid density with +/-0.0005 g/cm³ accuracy in continuous process and mass balance applications. The meter has no moving parts and requires no maintenance. It can be used with a range of Micro Motion ELITE Coriolis sensor sizes and materials, and is suitable for integral or extended mount. The transmitter delivers multivariable and diagnostic information via HART. Front-end digital processing reduces signal noise.

Emerson Process Management, Micro Motion Div.: www.micromotion.com

Gold:

Sonar level measurement system

The ORCA sonar level measurement system is designed for improved sensing of difficult interface levels in clarifiers and thickeners. The transducer emits a high powered acoustic pulse, which is reflected from the interface density selected. The reflected signal is processed using software algorithms that eliminate lighter floating densities and stratified layers. Features include dual independent analog outputs, control room graphics of tanks and interfaces, wide frequency range, easy calibration, relay alarms and multiple communications protocols.

Hawk Measurement: www.hawkmeasure.com

Maintenance Tools and Equipment:

Bronze:

Thermal imagers

The Ti 25 and Ti10 are designed for use in harsh environments and incorporate IR Fusion technology that integrates infrared and visible-light images. IP54-rated to withstand water and dust, the imagers feature a widescreen, full-color LCD and optimized thermal sensitivity. Temperature measurement ranges from -20 to 350 C for the Ti25; -20 to 250 C for the Ti10. Users can record

voice comments with each image (with the Ti25 only). SmartView software is a standard feature.

Fluke Corp.: www.fluke.com

Silver:

Laser shaft alignment system

The mid-range Fixturlaser GO laser alignment system uses wired connections between the display unit and the laser sensors, and it has dedicated horizontal and vertical shaft alignment routines. Standard features include a large-size detector, line lasers to facilitate acquisition, and built-in inclinometers in both laser transmitter-decoders. The unit saves data locally and can connect to a computer for download via a USB connection. It's powered by C batteries.

VibrAlign Inc.: www.vibralign.com

Gold:

Torque gun

The FLIP pneumatic torque gun features vibration-free operation and provides continuous rotation. It's equipped with a folding stabilizer handle; one simple motion turns the handle into a reaction arm, providing stability when torqueing fasteners. Fasteners are pretorqued between 1,200 and 1,800 rpm. The unit has an ergonomic design with a low-noise level.

The Torque Gun Co.,LLC

www.thetorqueguncompany.com

Maintenance Products:

Bronze:

Composite pipe-reinforcing wrap

Syntho-Glass XT is a pre-impregnated, bi-directional fiberglass composite system that's designed for repair and reinforcement of internal and external corrosion damage in pipes. Conforming to ASME PCC-2, DOT and API570 standards, it has no VOCs and installs in wet or submerged environments. A water-activated urethane resin reduces composite prep time. Applications include process piping for chemicals, oil, gases, water and steam, high-pressure injection lines, girth welds on vessels and pipelines, and oil and gas risers, among others.

Neptune Research Inc.: www.neptuneresearch.com

Silver:

Shaft sealing system

The Water Miser bearing isolator uses water to create a positive purge for control of liquid products in paper stock, slurries and other applications. A non-contact seal, it avoids direct egress of particulate matter to ensure performance. The design uses a wall of water that functions as a barrier to retain product. The unit is engineered to accommodate shaft misalignment and deflection, using the water barrier directly on the shaft to facilitate axial movement without stress or strain on the product.

Inpro/Seal Co.: www.inpro-seal.com

Gold:

Rechargeable LED flashlights

Stinger LED and Stinger DS LED rechargeable flashlights feature C4 LED technology. Providing up to 18,000 candela peak beam intensity and 140 lumens measured system output, the flashlights are equipped with a proprietary, deep-dish, parabolic reflector for long-range and peripheral illumination. Both flashlights are constructed of 6000-series machined aircraft aluminum and have a non-slip, rubberized comfort grip with an anti-roll rubber ring. They're powered by nickel-cadmium sub C batteries that fully recharge in 10 hours.

Streamlight Inc.: www.streamlight.com

Maintenance Software:

Bronze:

Asset management software

FactoryTalk AssetCentre is a centralized tool for gathering, managing and securing data on automation assets such as control systems, drives and HMI devices. Users can track and manage changes through four key functionality areas: security, audit trail, archive and disaster recovery. It's designed to secure access to the control system, track user actions, manage asset configuration files, configure process instruments and provide backup and recovery of operating asset configurations.

Rockwell Automation: www.rockwellautomation.com

Silver:

Maintenance software

Proficy Maintenance Gateway uses real-time production data, events and information to drive maintenance. The system monitors data points, events, trends and conditions on the plant floor and maps maintenance-related asset information from enterprise asset management systems. Its Rules-Based Configuration Engine allows users to define business logic in an intuitive, drag-and-drop environment. Actions are executed through the EAM. System requirements include two CPUs, each with a 2.0 GHz processor, 3 GB of RAM and a 50-GB hard drive.

GE Fanuc Intelligent Platforms: www.gefanuc.com

Gold:

Remote condition monitoring system

WATCHMAN Remote is a hybrid system that consists of intelligent monitoring hardware, telecommunications, monitoring techniques and service personnel. The system includes Watchman SpriteMAX online monitoring hardware to provide vibration, oil and process data collection and transmission and system installation and commissioning. It also includes off-site, secure server system configuration and an engineering review of system configuration. The system dispatches engineers when faults are detected.

Azima DLI www.azimadli.com

Productivity/Training Software

Bronze:

Belt, chain drive training

The Belt and Chain Drives computer-based training and technical training course teaches industrial manufacturing workers about mechanical power transmission, and includes how to measure sheave wear and determine proper belt tension; dismantle and inspect a gear reducer; properly size both belt and chain drives; install a drive correctly; and explains engineering concepts, as well as best maintenance practices to achieve maximum operating time for various drive systems. Features include interactive animations, narration and pop-up definitions.

New Standard Institute: www.newstandardinstitute.com

Silver;

CAD, PDF file sharing software

Acrobat 9 Pro Extended helps manufacturing professionals communicate using the PDF electronic document exchange format. Users can create and share PDF documents and forms, protect and control sensitive information and safeguard their work. Users can merge heterogeneous CAD formats into one assembly; measure and section on precise geometry; compare initial and revised designs and create exploded views, animations and balloons; distribute 3D designs containing PMI; and export CAD data to neutral file formats such as STEP, IGES or STL.

Adobe Systems Inc.: www.adobe.com/acrobat

Gold:

Electrical CAD software

The promis-e control system design software allows users to generate electrical schematics, single line drawings and panel layouts for industrial applications with the aid of automatic functions including ID assignment, cross-referencing, wire numbering and error checking. A parts database and report functions allow the software to automatically generate bills of material, interconnect lists,

cable plans and terminal strip layouts. The software runs on top of AutoCAD or MicroStation. A stand-alone version is also available.

Bentley Systems Inc.: www.bentley.com/en-us/products/promise

Environmental Safety & Health

Bronze:

Lock-out/Tag-out box

The Equipment Lock-out Box is designed to lock-out a variety of machine and energy sources. It comes with a lock and four lock-out tags with accompanying pull-straps. Applications include battery connectors, propane connectors, valves, electrical, cylinders and 12-volt starter batteries.

Liftow: www.liftow.com

Bronze:

Fire suppression system

The Vortex fire suppression system deploys a homogenous suspension of nitrogen and water to extinguish fires. The high-velocity, low-pressure mix leaves minimal residual water. The system is scalable for simplified system design and can be installed in either a sealed or open space. Capable of extinguishing small fires in large rooms and large, fuel-based fires, it is adaptable to applications from basic, single-zone coverage to broad networks of zones and varying hazards.

Victaulic: www.victaulic.com

Silver

Compact dust collectors, filters

PowerCore dust collectors and filters comprise a baghouse dust collection system that uses filter packs instead of bags. The dust collection system is 50 to 70% smaller than traditional baghouse systems, making them easier to maintain. The filter packs are easier to handle compared to traditional fabric filter bags; one 7-inch tall filter pack replaces six 8-foot long standard bags. The packs can be lifted out of the collector with one hand in minutes without the use of tools.

Donaldson Torit: www.Donaldson.com/ToritPowerCore

Gold:

Personal fall limiter

The TurboLite is a self-retracting personal fall limiter (lifeline) designed to protect those working at heights. The fall limiter is compact and lightweight – only 1.9 pounds; stops a fall within inches; and is a versatile cost-effective alternative to shock-absorbing lanyards. Other features include engineered webbing for greater abrasion resistance and long service life; and a high-strength, impact-resistant nylon housing for maximum durability. The fall limiter increases productivity by keeping workers on the job longer.

Miller Fall Protection: www.millerfallprotection.com

HVAC

Silver:

Fan

The Pivot fan has a compact, 6-foot diameter and is suitable for use in mezzanines, narrow aisles, around ceiling obstructions and in confined workspaces. Its mounting system features two pivot points, providing the unit with 73 different hanging configurations. Features include a proprietary airfoil and winglet design, a precision-molded hub, and a 1-hp motor. A touchpad controller provides digital rpm and speed readouts. Air displacement at maximum speed is 29,081 cfm.

Big Ass Fans

www.bigassfans.com

Gold:

Evaporative cooler

The KUBE low-profile evaporative cooler is 48 inches tall and employs the patented FreshWater slinger wheel technology, which distributes evaporative, atomized water across all air inlets to provide efficient cooling. The unit can provide from 3,000 to 30,000 cfm with variable-speed control. Heating is provided via an indirect heat exchanger, up to 400,000 BTUs per unit. All units feature network capability, and touchscreen controls allow up to 15 units to be controlled via PLC or computer.

Bessamaire

www.bessamaire.com

Construction, Building & Grounds

Bronze:

Rolling grille door

The Spiral RG high-speed roll door features an opening speed of up to 100 inches per second. It offers top-to-bottom, full-width window slats, dual electric photo eyes and a reversing edge in the bottom bar, providing visibility and safety at the threshold. It's engineered with no metal-to-metal contact for quiet operation, and it's suitable for use in clean rooms and other controlled-access production environments.

Rytec Corp.

www.rytecdoors.com

Silver

Barrier system

The Spanguard safety barrier can stop up to 200 pounds of force with minimal deflection. Designed

to separate and define work areas, the system features a 36-inch tall curtain that stands 48 inches off the floor when in use. The system is engineered for easy installation and relocation; one person can operate it. Posts are equipped with four anchors, facilitating use of two or more units per post. Curtains are available in 30- and 60-foot spans.

Rite-Hite Corp.

www.ritehite.com

Gold

Barrier curtains

TZ insulated curtain walls come in three versions to support temperature separations of 15, 25 and 40 F. Custom engineered to ensure fit around corners and obstructions, the curtain walls suspend from ceiling joists or the roof deck. They include flexible Hypalon Superflex bottom sweep seals that seal against the floor to minimize energy loss and maintain temperature consistency. Curtain panels attach with Velcro. Options include fire-retardant fabric, vision panels and stainless-steel hardware, among others.

Zoneworks Flexible Industrial Barriers

www.zoneworks.com

Gold

Magnetic rack protection

Ultra-RackProtector Plus is designed to protect warehouse racking from damage from forklifts, pallet jacks and other equipment. Featuring a maintenance-free polyethylene construction, the guarding is equipped with heavy-duty magnets to hold it in place; no hardware is required. The units come in safety yellow and feature black warning stripes to provide visibility. Stackable for additional protection, the guarding works with racking up to 4 inches wide. Each 53/8x31/4x151/2-inch unit weighs 11/2 pounds.

UltraTech International Inc.

www.facilityprotection.com

Compressed Air

Bronze:

Compressed air nozzle

The 11/4 NPT Super Air Nozzle delivers 9.4 pounds of blowing force when mounted 12 inches from its target. Compressed air is ejected through a series of holes in recessed grooves on the nozzle surface. The nozzle's aerodynamic design directs air to a single convergence point. Its zinc-aluminum alloy construction makes it suitable for industrial applications, and its 2-inch hex body facilitates installation with a standard wrench or socket. Applications include ejection of heavy parts, drying, and machinery and parts cleaning, among others.

Exair Corp.

www.exair.com

Silver:

Rotary-screw air compressors

The 7500 S-energy Series of lubricated rotary-screw air compressors features energy efficiency system heat recovery. Available in both constant- and variable-speed drive models, the 100-hp compressors offer capacities of 369 to 493 acfm and pressures ranging from 100 to 175 psig. Their air-end design includes a low-restriction air inlet valve, a low-pressure drop air-fluid separation system and a high-efficiency fan. The EES recovers the heat of compression and converts it to recirculating air for comfort.

Sullair Corp.

www.sullair.com

Gold:

Variable-speed air compressor

The Quantima variable-speed centrifugal air compressor features oil-free operation and magnetic bearings. The motor and direct-drive compression assembly incorporate the magnetic bearings to

provide control both axially and radially of the rotor shaft. Its patented Q-drive compression and motor assembly has just one moving part; it operates with the rotor spinning in a magnetic field at up to 60,000 rpm. Other features include a high-frequency inverter variable-speed drive, high-efficiency inlet air filtration, and an acoustic canopy for low noise levels.

Compair

www.compair.com

Fluid Handling

Bronze:

Sealing technology

Designed to help users comply with sanitary requirements for pharmaceuticals, vessel/mixer seal technology features a dry-running design and incorporates a double-cartridge seal. Suitable for sanitary CIP/SIP processes, it eliminates process contamination from mechanical seal-face wear. The technology can accommodate pressure up to 70 psig and temperatures up to 350 F. End play/axial float is 0.125 inches, and runout capability is up to 0.125 inches TIR.

A.W. Chesterton

www.chesterton.com

Bronze:

Containment pallet

The PIG poly spill pallet's molded-in sump catches leaks, drips and spills. Its 6,000-pound UDL capacity can support up to four loaded steel or poly drums, and with its low-profile 10-inch height, loading and unloading requires less effort. Two-way forklift entry facilitates movement, and the pallet's nestable design accommodates stacking for storage. The pallet has a low-density polyethylene construction that resists UV rays, rust, corrosion and most chemicals. Removable, textured grating enhances surface traction.

New Pig Corp.

www.newpig.com

Bronze:

Steam separator

The CS10 clean steam separator is constructed of 316L stainless steel and is fully traceable. Designed to exceed the steam dryness value of 0.95, it features a patent-pending body with a removable baffle plate to facilitate periodic de-roughing and inspection. It's available in sizes ranging from 1/2 to 2 inches, with sanitary clamp ASME BPE or DIN 32676 upon request.

Spirax Sarco

www.spiraxsarco.com

Silver:

Hydraulic hose sleeving system

The LifeGuard sleeving system is specifically designed to protect machine operators from the hazards of catastrophic hydraulic hose failure due to line-of-sight hose bursts and pinhole leaks. The sleeve features an inner layer of tightly woven nylon that elongates to absorb the energy of a burst or pinhole leak. Its outer nylon layer restrains the fluid, redirecting it to the clamped ends. Fluid exits via channel clamps at each end. The sleeving provides containment of 6,000-psi bursts and 3,000-psi pinhole leaks at 212 F for up to five minutes.

Gates Corp.

www.gates.com

Gold:

Push valves

Push-to-connect COPRO ULTRA 50 mini valves are removable and reusable. Suitable for use on copper, PEX, CPVC and stainless-steel tubing, the valves do not require glue, soldering, paste or wrenches for installation. Tamper-resistant, they feature a 1/4-inch turn design and can withstand up to 2,000 pounds of pulling force. Recommended for temperatures up to 220 F at 200 psi, applications include manufacturing, municipal and commercial heating, cooling, condensers, treated water and more.

Quick Fitting Inc.

www.quickfitting.com

Lighting

Silver

Luminaire

The McGraw-Edison Talon universally adaptable luminaire is UL-listed and CSA-certified for use in wet locations; and meets IP65 requirements. It has a one-piece, heavy-wall, die-cast aluminum construction and offers a choice of 14 high-efficiency optical reflector systems for either horizontal or vertical lamp orientations. The unit comes standard with ballast and related electrical componentry hard-mounted to the housing. Housing and arm are finished in a five-stage TGIC polyester powder-coat paint. Standard colors include black, bronze, gray, white, dark platinum and graphite metallic.

Cooper Lighting

www.cooperlighting.com

Gold:

Dock light

The LED Versa Light is designed for shock and vibration resistance and low energy consumption. Easily positioned with a stainless-steel flexible tube, the unit draws 0.36 A for its 43-W low-voltage LED bulb set. Fan-cooled, the unit has a welded-steel housing and a protective LED shield; pre-drilled holes help facilitate installation. Suitable for use in the food industry, the unit also includes a circuit breaker switch and a grounded plug.

DL Manufacturing

www.dlmanufacturing.com

Power Transmission:

Silver:

Roller bearing

The Sealmaster mounted spherical roller bearing has a double-row design for load capacity, misalignment and speed capabilities. It comes in two distinct locking systems: set-screw-lock, with bore sizes from 57/16 to 7 inches; and adapter lock, with bore sizes from 57/16 to 8 inches. The bearing's race-mounted seals accommodate +/-2-degree misalignment. Other features include a shaft-ready design and replaceable cartridge inserts. Felt or double-lip contact seal choices are also available.

Emerson Industrial Automation

www.emersonindustrialautomation.com

Gold:

Mounted roller bearing

Dodge large-bore ISAF pillow blocks feature integral, hydraulically assisted, adapter-mounted installation and removal systems. Factory assembled, sealed and lubricated, the blocks offer automatic clearance setting without feeler gauges. Full-shaft contact reduces fretting corrosion, and lockplates keep the locknuts tight. A built-in hydraulic piston tightens the bearing on the shaft to accommodate installation; it loosens the bearing for removal. Four-bolt blocks are available from 8 inches. A ductile iron housing is standard.

Baldor

www.baldor.com

Material Handling Systems

Bronze:

Reach truck

The 8-series AC reach lift truck designed for distribution centers, retail operations, refrigerated warehouses and third party logistics applications is available in 3,500 and 4,500 pound lifting capacities. The reach trucks feature an AC-powered drive system, AC power hydraulic system and an electric disc brake. The reach truck contains no motor commutator, brushes or springs and the 11 ¼ inch diameter steering wheel provides increased user operability. The reach truck is available with three masts, which provides height offerings up to 366 inches.

Toyota Material Handling, USA, Inc.

www.toyotaforklift.com

Bronze:

Electric hoist

The NER/ER three-phase electric hoist features smart brake technology and dual speed via under-the-cover variable frequency drive. Available in 2-step and 3-step infinitely variable control, the UL listed hoists have a capacity range from 1/8 to 20 ton. The hoists feature 5 or 6 pocket load sheaves, count hour meters, which record lowering starts and hoist and low-headroom upper and lower limit switches.

Harrington Hoists

www.harringtonhoists.com

Silver:

Transforming cart

The Trans4mer cart is a four-wheel steering cart that transforms into a hand-operated pushcart by tipping the tow bar down. The cart returns to push cart mode by lifting the tow bar upwards. When the bar is up, the lead casters become rigid and the rear caster will swivel and when the tow bar is down, all the wheels will turn when being towed or tugged.

Topper Industrial

www.topperindustrial.com

Silver:

Vacuum pumps

The HeliFlow industrial series positive displacement blowers and vacuum pumps use helical, tri-lobe rotors to lower pulsations to protect downstream instrumentation while incorporating reduced noise levels by 4 to 7 decibels. The blower withstands overhung loads with a limit of 13,500 inch per pounds. The pumps deliver pressure to 15 psig, vacuum to 16 inch Hg and airflow to 3200 cubic feet per minute.

Gardner Denver, Inc.

www.gardnerdenverproducts.com

Gold:

Metal recovery system

The FinesSort metals recovery system uses magnetic components to recover ferrous and non-ferrous metals from the fines waste stream in scrap yards. The system recovers metals less than 1-inch diameter and features the most powerful magnetic circuits. Available in 24, 48 and 60 inch machines, the machine is built from heavy gauge steel and assembled on a steel framework.

Eriez

www.eriez.com

Manual Material Handling:

Bronze:

Jib crane

The Pivot Pro is a light-duty articulating jib crane designed for capacities up to 150 pounds. The crane features a sealed tube design that eliminates the need for festooning, reducing festoon pile-up and the likelihood of kinked hoses. Its articulating knuckle design offers safe operation by limiting the whip of the boom. Designed for use with many OEM tube lifters, applications include palletizing, pharmaceutical packaging, food and beverage, automotive and glass and ceramics handling.

Gorbel Inc.: www.gorbel.com

Silver:

Portable lift

The LiftPod is a personal and portable lift platform designed to provide the stability of a work platform and the portability of a ladder. The lift features an enclosed platform, a work tray for tools and materials and a 14-foot working height. The lift's wheels allow one person to move it between sites. Assembled in less than 30 seconds, the lift weighs 50 pounds and provides the user with a 360-degree range of motion.

JLG Industries Inc.: www.jlg.com

Gold:

Forklift level indicator

The Accu-Tilt fork-tilt level indicator shows the operator the level of the forks at all times. It also indicates to the operator the correct angle to travel with a load and can help the operator park the lift truck. The system installs on most counterbalanced lift trucks; installation does not require tools and requires less than one minute. Though mounting on the left side of the truck is preferred, it can be mounted on either side to accommodate hydraulic hoses or other obstructions.

Liftow: www.liftow.com

Grand Award:

Light pipe

The Apollo light pipe is a sealed skylight system comprising a dome, a pipe and a diffuser. Designed to capture and control light with reflective materials, the unit harvests sunlight, focusing the light through the dome and down to the facility floor. Internal and external seals keep warm, moist air from entering the tubular unit and condensing in the Acrylite FF dome, and a seamless, one-piece aluminum flashing construction is non-corrosive and rust-resistant. The large-diameter aperture is made of highly polished material to provide 98% total reflectivity.

Orion Energy Systems Inc.

www.oriones.com