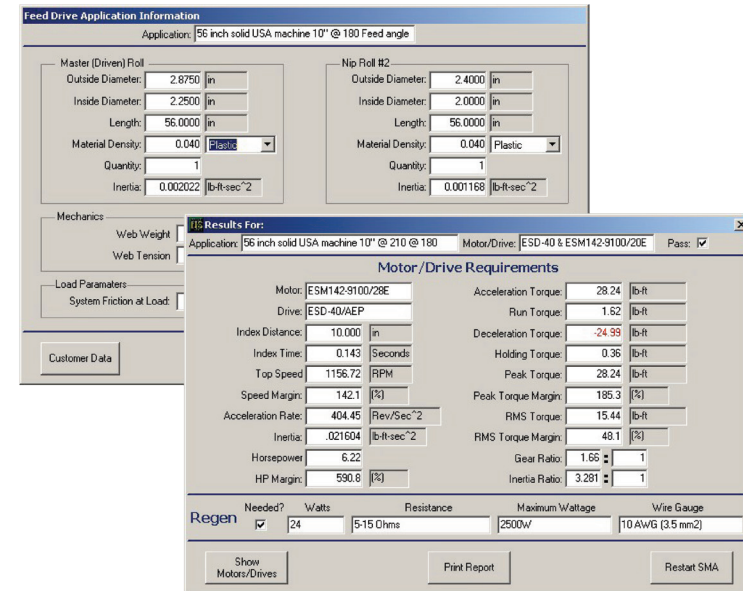


Servo Mechanical Analysis (SMA) software

Servo Motor Sizing

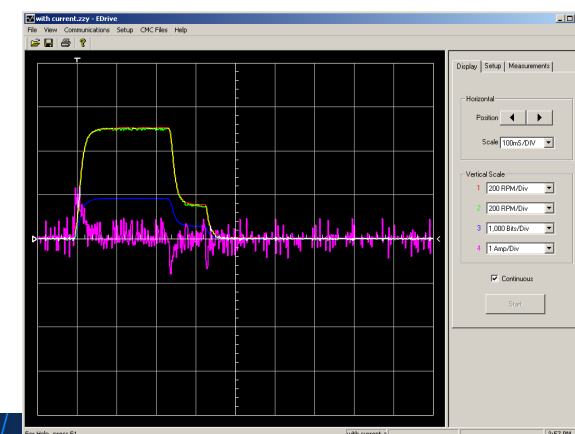
Servo motor selection starts with a complete description of the mechanical system. Menus for the basic types of systems are provided for analyzing ballscrew, conveyor, chain, and feedroll systems.



The resulting analysis shows all performance data for the motor and drive package selected from our database. Free pre-sales support is always available to assist you in the selection of the motor and drive.

Commissioning Support

Software tools are available for setup and tuning the ESD drive system. To assure the required motor response is achieved, eDrive for the Emerald ESD-Series system provides multiple scope functions that display real-time motor velocity and torque responses.

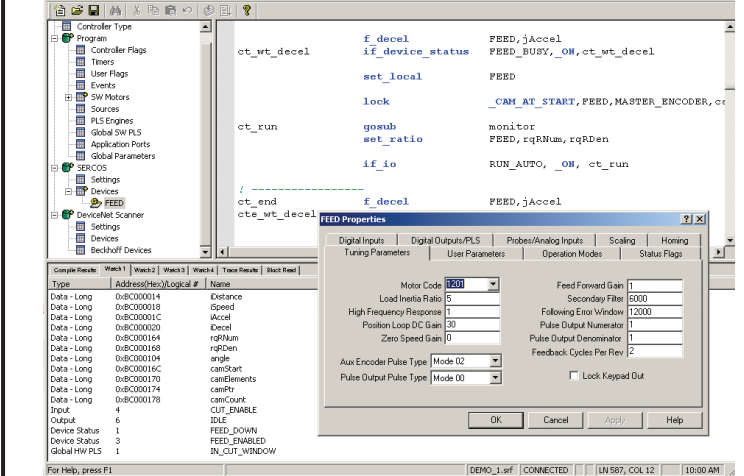


Once the motor and the drive are installed you can fine tune the motor's response by adjusting the servo loop parameters for maximum performance.

Application Development

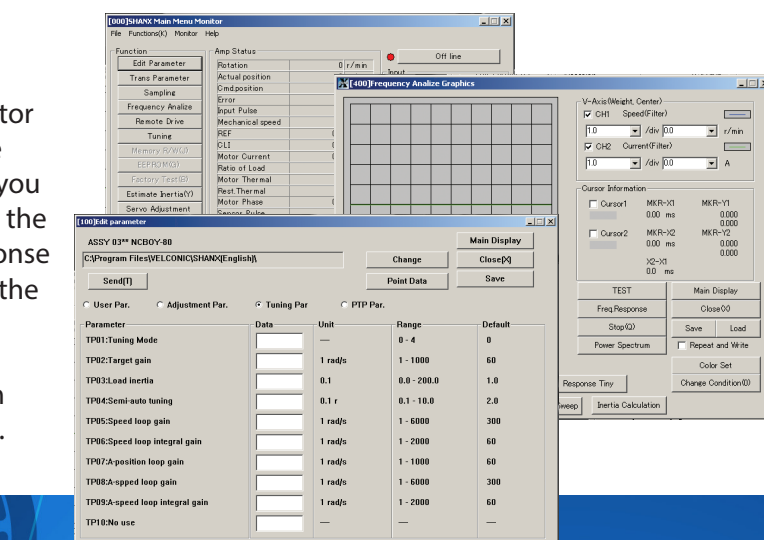
The Emerald Development Environment (EDE) provides project management utilizing a system component configuration window to manage all the drives, I/O devices and files used in an automation system.

The EDE program code editor is content sensitive and easy to use. The Emerald Motion Language (EML) is a straight forward language that uses a standard structure with mature functions tailored to the real-time aspects of motion control.



The EDE provides a debugging window for program development support. Watch data values, trace the program flow and view network device status in real-time.

Menus from the configuration window allow you to select and configure all the devices in your system for fast and easy setup.



Team IIS



Our objective is to bring state-of-the-art servo system products to practical use on the factory floor. Whether it is a complete turnkey system or servo components, IIS' commitment to quality products and personalized support is unsurpassed. Our business philosophy is pretty simple. We take responsibility for everything we sell. By doing that we make a long-term commitment to our customer's success.

Headquarters in Victor NY



To accommodate the steady growth we've enjoyed over the years, our facility has been expanded several times to its present 17,000 square foot capacity. This location houses all critical departments - Sales, Marketing, Applications Engineering, R&D, Production, Warehouse, Panel Shop, Quality Control and Customer Support. Having everything under one roof speeds communications and provides better service to our customers.

Sales Representatives

<p>Applied Motion Solutions, Inc</p> <p>Area: CT, ME, MA, NH, VT, RI George Fede (860)930-8066 Email: georgefede@amsmotion.com</p> <p>Dawn MacKerron (617)489-4709 Email: dawnmackerron@amsmotion.com</p>	<p>Jake Rudisill Associates</p> <p>Area: NC, SC, TN, GA, FL, VA, AL, MS Lantz Critel (704)910-9227 Email: Lantz.critel@JakeRudisill.com</p> <p>Sam Thomas (704)907-2179 Email: sam.thomas@jakerudisill.com</p> <p>Douglas Thackery (770)794-8111 Email: doug.thackery@JakeRudisill.com</p>	<p>Culpepper Solutions Group</p> <p>Area: Western PA, OH, WV, KY Larry Culpepper (804)312-5985 Email: larry@culpeppersolutions.com</p> <p>Ryne Culpepper (804)312-5985 Email: ryne@culpeppersolutions.com</p>																					
<p>Brundage Associates, Inc</p> <p>Area: NJ, Downstate NY, Eastern PA, DE, MD Bruce Kramer (610)393-9497 Email: BruceKramer@Brundage-Inc.com</p> <p>Thomas Miceli (973)521-0552 Email: TomMiceli@Brundage-Inc.com</p>	<p>Satek Engineered Components, Inc</p> <p>Area: WI, IL, IN Michael Gabel (312)813-0104 Email: mike@satek.com</p>	<p>Axiom GB Ltd</p> <p>Area: United Kingdom, Europe Matthew Nickson 011 44 1827 61212 Email: Matthew.Nickson@AxiomGB.com</p>																					
<p>New Age Industrial Sales</p> <p>Area: CO, UT, WY Edward Rhoden (970)573-6398 Email: e.rhoden@newageindustrialsales.com</p>	<p>Motors, Drives & Gears + Controls</p> <p>Area: TX, OK, AR, LA, NM Ray W. Zimbal Jr (817)307-1274 / (713)835-9753 Email: Sales@MDGCcontrols.com</p>	<p>IIS Headquarters, Victor, NY US States, Canada and Mexico</p> <table border="0"> <tr> <td>Alaska</td> <td>Iowa</td> <td>Nevada</td> </tr> <tr> <td>Arizona</td> <td>Kansas</td> <td>North Dakota</td> </tr> <tr> <td>California</td> <td>Michigan</td> <td>Oregon</td> </tr> <tr> <td>DC</td> <td>Minnesota</td> <td>Puerto Rico</td> </tr> <tr> <td>Guam</td> <td>Missouri</td> <td>South Dakota</td> </tr> <tr> <td>Hawaii</td> <td>Montana</td> <td>Virgin Islands</td> </tr> <tr> <td>Idaho</td> <td>Nebraska</td> <td>Washington</td> </tr> </table>	Alaska	Iowa	Nevada	Arizona	Kansas	North Dakota	California	Michigan	Oregon	DC	Minnesota	Puerto Rico	Guam	Missouri	South Dakota	Hawaii	Montana	Virgin Islands	Idaho	Nebraska	Washington
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Idaho	Nebraska	Washington																					

If you would like to discuss the opportunity of becoming a Sales Representative for our organization, drive brand awareness, and develop business relationships with new and existing clients, please contact Mike Hupf, Sales Manager at (585)924-9181



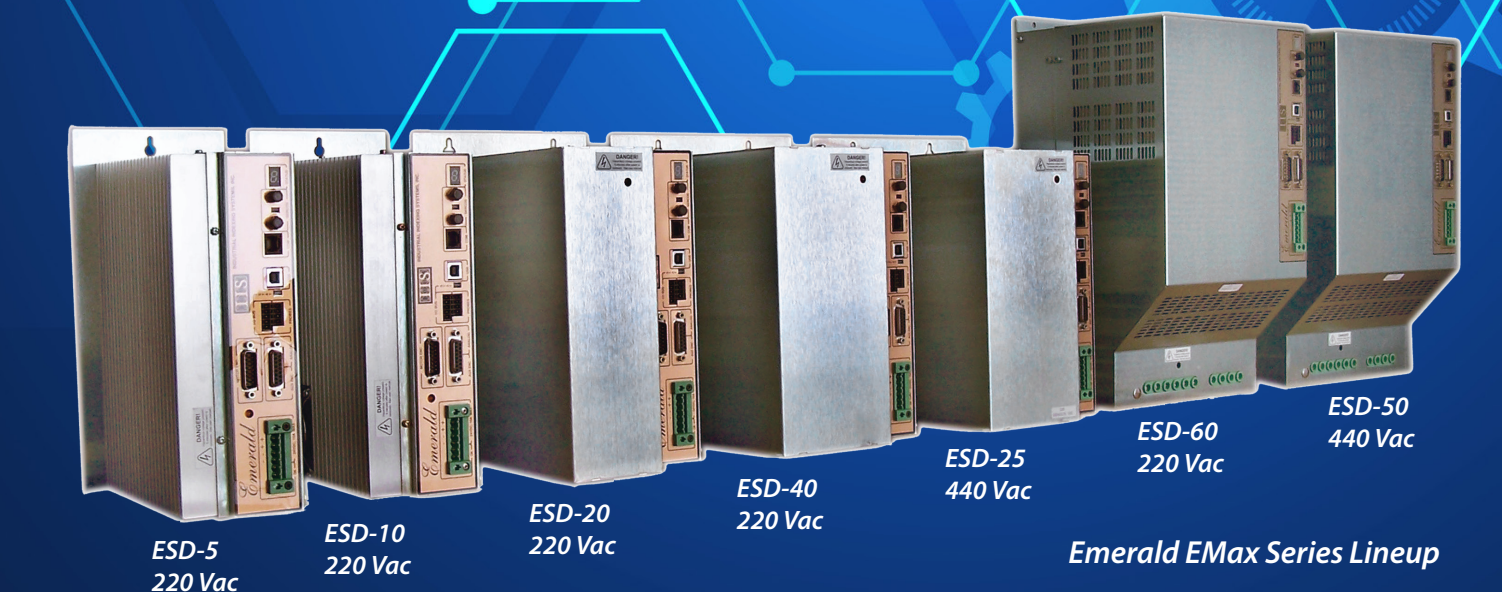
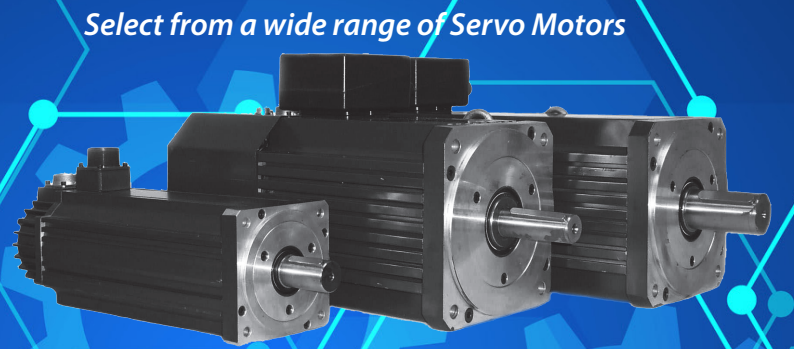
Ready to elevate the efficiency, consistency, and repeatability in your operations? Call us today at (585)924-9181 to discuss your application needs

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At-A-Glance

- ✓ Designed to control high speed production machinery
- ✓ Ideal for web control, synchronized cut-off, form-fill-seal, cut and seal, punching and forming applications
- ✓ For use in the manufacture of metal, plastic, paper, and film products
- ✓ Functions as a single axis programmable controller
- ✓ Select from a wide power range of servomotors
- ✓ Access and control up to 32 I/O points and two high-speed position traps
- ✓ Serial Communication Ports
- ✓ Inexpensive software tools for application development and system commissioning

EMax Servo Positioner/Drive and ESM Series Motors



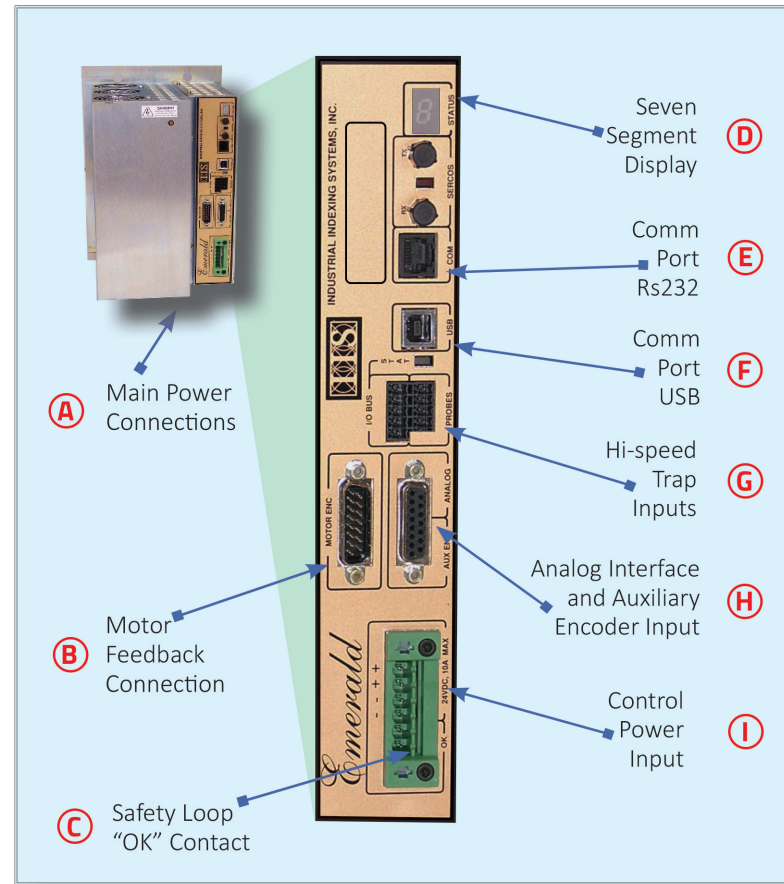
Call us today at (585) 924-9181 to discuss our product line in greater detail
 626 Fishers Run, Victor, NY. 14564 ~ info@iis-servo.com ~ www.iis-servo.com

EMax Servo Positioner/Drive

The EMax Servo Positioner/Drives and Motors use the latest servo technology to bring cost effective solutions to the automation market. The wide range of sizes and feature rich functions make the EMax Servo Positioner/ Drive the most versatile servo system in today's automation market. State of the art software minimizes hardware cost while maximizing features and performance.

For single-axis applications the EMax Servo Positioner/Drive is a standalone full featured position controller and drive combo.

The EMax Servo Positioner/Drive is available in 7 sizes: 5, 10, 20, 40 and 60 amp @ 220 VAC and 25 and 50 amp @ 440 VAC. Emerald servo motors are available from 400W to 21 kW, 1500 to 3400 RPM rated speeds with low and medium rotor inertia versions.



Signal Interface Features For EMax Servo Positioner/Drive

SIGNAL INTERFACE DESCRIPTIONS	
A	"Quick Connect" Main Drive Power Connections
B	Motor Feedback Connector
C	Safety Loop "OK" Contact for external shut-down control
D	Seven Segment Display
E	Communication Port RS232
F	Communication Port USB for easy interfacing to laptop PC for drive diagnostic and setup procedures.
G	Hi-Speed Traps for storing encoder position relative to a sensor to provide web or product registration functions
H	Analog Interface and Auxiliary Encoder Input
I	Controller Power Input

Emerald Servo Motor Overview

Type	Frame Size	Shaft Dia.	Pilot Dia.	Power	Speed Rated	Torque Rated	Speed Max	Torque Max	Inertia	Matching Drive	Servo Motor
	mm	mm	mm	watts	rpm	Nm	rpm	Nm	kg-m ² x10 ⁻⁴	ESD-#	ESM#
C	60	14	50	400	3000	1.27	4000	3.8	0.40	5/AEP	60A
	85	14	30	400	2000	1.9	4000	5.7	2.44	5/AEP	85A-C
	85	16	30	600	2000	2.48	4000	9.0	3.34	5/AEP	85B-C
	85	16	50	750	2000	3.53	4000	10.6	4.20	5/AEP	85C-C
	85	16	50	1000	2000	4.8	4000	11.5	5.10	10/AEP	85D-C
A	125	19	70	750	2000	3.6	4000	10.8	6.66	5/AEP	125A(I)
	125	22	70	1000	2000	4.8	4000	14.4	10.10	5/AEP	125B(I)
	125	24	80	1500	2000	7.2	4000	21.6	14.40	10/AEP	125C(I)
	125	24	80	2200	2000	10.5	4000	31.5	20.35	20/AEP	125D(I)
	125	28	80	3000	2000	14.3	4000	42.9	27.25	20/AEP	125E(I)
	125	28	110	4000	2000	19	4000	48.7	35.90	20/AEP	125F(I)
	125	22	110	1000	1500	4.8	4000	14.4	10.10	5/AEP	125B(II)
	125	24	110	1500	1500	7.2	4000	21.6	14.40	5/AEP	125C(II)
	125	24	110	2200	1500	10.5	4000	31.5	20.35	10/AEP	125D(II)
	125	28	110	2300	1500	14.3	4000	42.9	27.25	10/AEP	125E(II)
	125	28	110	2600	1300	19	4000	48.7	35.90	10/AEP	125F(II)
	130	22	110	1800	3400	5.09	4000	11.2	6.00	10/AEP	130-1800/34E
	130	22	110	3700	3400	10.5	4000	28.6	11.60	20/AEP	130-3700/34E
	130	26	110	5700	3400	15.9	4000	47.7	17.20	40/AEP	130-5700/34E
	130	26	110	5700	2000	15.9	4000	45	17.20	20/AEP	130-5700H/34E
142	24	130	5100	2400	20.2	4000	62.6	23.7	20/AEP	142-5100/24E	
142	24	130	9100	2800	31	4000	109.2	32.4	40/AEP	142-9100/28E	
B	145	32	130	4000	2000	19	4000	48.7	66.48	20/AEP	145B(I)
	145	32	130	5600	2000	26.7	4000	80.1	91.15	40/AEP	145C(I)
A	180	32	114.3	7500	2000	35.8	3000	88	57	40/AEP	180-7500/20E
D	180	34.925	216.28	18300	2000	92	4500	278	160	50/CEP	180-18.3KW/20EF
	190	38	114.3	6000	1500	39	4000	97.5	102.7	25/CEP	190B(II)
	190	38	114.3	7500	1500	48	4000	144	139.8	25/CEP	190C(II)
	190	42	114.3	11000	1500	71.5	4000	188	177.4	50/CEP	190D(II)
	190	42	114.3	15000	1000	95	2000	200	214.5	60/AEP	190E(II)
	190	34.925	114.3	10300	2000	51.6	3000	144	84.7	40/AEP	190-10.3KW/20E
	190	32	180	13000	3000	41.8	3000	110	84.7	60/AEP	190-13KW/30E
190	34.925	114.3	15400	2000	62.1	3000	172.8	84.7	60/AEP	190-15.4KW/20E	
A	190	32	180	11900	3600	31.6	4000	135.6	48.8	50/CEP	190-11.8KW/36E
D	190	48	180	21400	2400	85.5	3000	298.3	122.2	50/CEP	190-21.5KW/24E
	210	41.275	216.28	9300	1200	86.7	4500	569	347	50/CEP	210-9.3KW/12E

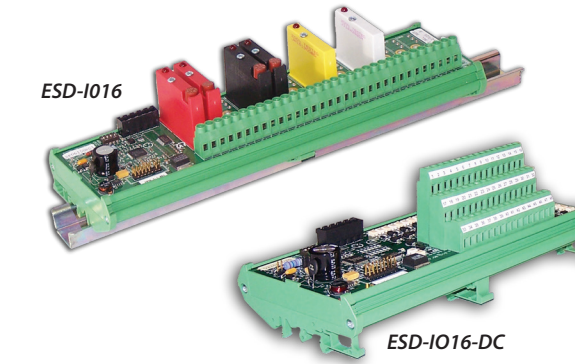
Metric to English conversion key: 8.85[y]Nm = in-lbs 0.03937[y]mm = inches

- Type A** Low inertia, high torque motors for quick response and frequent repetitive motion.
- Type B** Medium inertia motor for applications that require stable velocity and rigid shaft control.
- Type C** Compact motors with small weight and quick response.
- Type D** Heavy-duty motors with maximum torques of 298 Nm up to 3000 rpm.

NOTE: Additional motor sizes and styles are available but are not listed in the table above. Please call or e-mail us if you have other requirements like wash-down, explosion-proof, and stainless servo motors. Servo rated gearboxes are available for any servomotor we offer.



Emerald Technology System Accessories



Digital Input and Output Expansion Racks
To add to the number of I/O points on the EMax Servo Positioner/Drives two I/O rack assemblies are available. Each drive can connect to two I/O racks for 32 positions per drive.

The ESD-IO16-DC is a 16 position, 10 to 32 volt DC interface that is software configurable. No modules need to be installed and each position can be an output or an input.

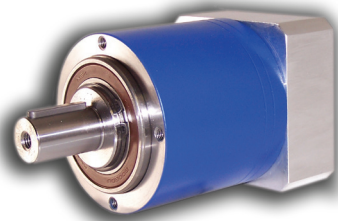
The ESD-IO16 rack is a hardware configurable, 16 position unit that accepts standard modules for AC/DC, high and low voltage, input or output interfacing.



Power and Communications
The IPS-24 is a 24 volt dc power supply for I/O and controllers are available in various capacities. Standard communications cables with 9-pin PC adapters used for all controllers, amplifiers, and drives for programming and configuration are always in stock.



Servo-rated Gearboxes
Our pre-sales support team will help specify servo-rated gearboxes for light duty or heavy duty applications that will match the servo motor for the best system performance, guaranteed.



Master Encoders - THA-2-4096
Encoders, cables and breakout assemblies are available for the Master Encoder interface port on the Emerald Automation Controller. The THA-2-4096 encoder with cable and the INT-810 terminal breakout are shown. Various encoder line counts are in stock.

Servo Motors
Our servo motors are for complex environments such as food production, medical applications, oil refining, explosive liquid, dust and vapor atmospheres, and submersible assemblies. Agency standards: UL, cUL, ATEX, IECEx and FDA (rated and certified).