

Gen2 Mass/Blend[®]

Continuous Stream Digital Blending Systems



Gen2 Mass/Blend[®]

A QUANTUM LEAP FORWARD IN LIQUID BLENDING SYSTEM DESIGN

Oden Corporation, the technology pioneer in liquid filling, sets the world standards in volumetric and net weight liquid fillers and liquid filling systems.

Now the Oden heritage of high quality, advanced technology, and superior reliability is available to you in a continuous stream digital blending system.

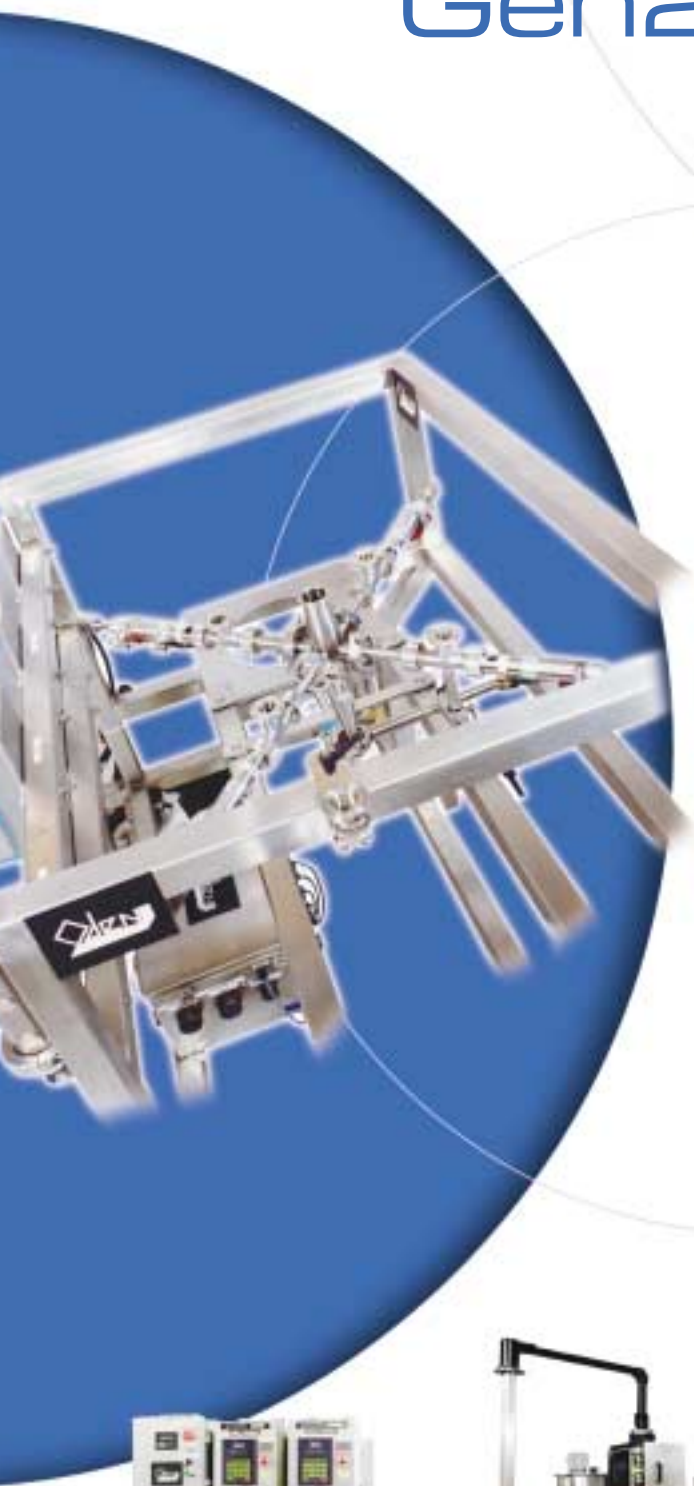
MASS/BLEND provides for pilot plant to production scale blending of liquid products and can be utilized in every segment of the liquid product markets.

The MASS/BLEND Continuous Stream Digital Blending System represents a quantum leap forward in blending system design, eliminating many of the problems associated with large liquid batch preparation and providing more compounding flexibility, faster product turnarounds, shorter practical run capabilities, and superior product quality.

BECAUSE IT'S ODEN

It's better by design

- Pre-engineered liquid stream "modules"
- No PID loops (proportioning-integrating-derivative feedback control loop)
- No start/stop problems or penalties
- Exceptionally low system volume
- Up to 0.15 to 0.25% accuracy, dependent upon liquid properties
- No filler starvation or startup problems
- Greater product consistency and reproducibility
- Reduced commitment of plant floor space
- Real time blending - no batch aging effects
- Faster changeover
- Yields superior product quality with complete validation and continuous verification



It's proven technology

Each liquid component flow channel consists of an Oden GEN4 PRO/FILL® high precision dosing unit and appropriately sized Coriolis mass meter. Together these define a NET/MASS® dosing channel.

MASS/BLEND continuous stream blending systems built using the patented servo pump-mass meter intermittent flow blending technique results in very high performance, based upon completely known, proven, and sound technologies - logically applied. In fact, thousands



of these flow channels - the Oden PRO/FILL and NET/MASS series - have been successfully installed over nearly twenty-five years. Mass/Blend systems have been installed over eight years by global Fortune 500 liquid products manufacturers in applications ranging from pilot scale to demanding 24/7 production level designs.

It's smart

- State-of-the-art PC/PLC based controls including graphic color touch-screen interface and a choice of software programs and statistical process control packages
- The system is inherently accurate, stable, self-monitoring, self-correcting and uses 'self-teach' technology
- The system automatically adapts to changes in takeaway flow rates without re-calibration or stream flow adjustment, with no loss in blending accuracy



It's flexible

- Operates with all types of liquids - low viscosity to high
- No forced changes in present batch formula streams
- 0 to 250 GPM continuous stream capability
- Make only what you need - no waste
- Shorter runs become practical
- Real time formulation of your liquid products allows tighter response to consumer demand
- Inherent and fast CIP
- Reduced component waste
- Capable of component stream blend ratios of better than 1000:1
- Maximum flexibility for "future FOG," including expansion capability

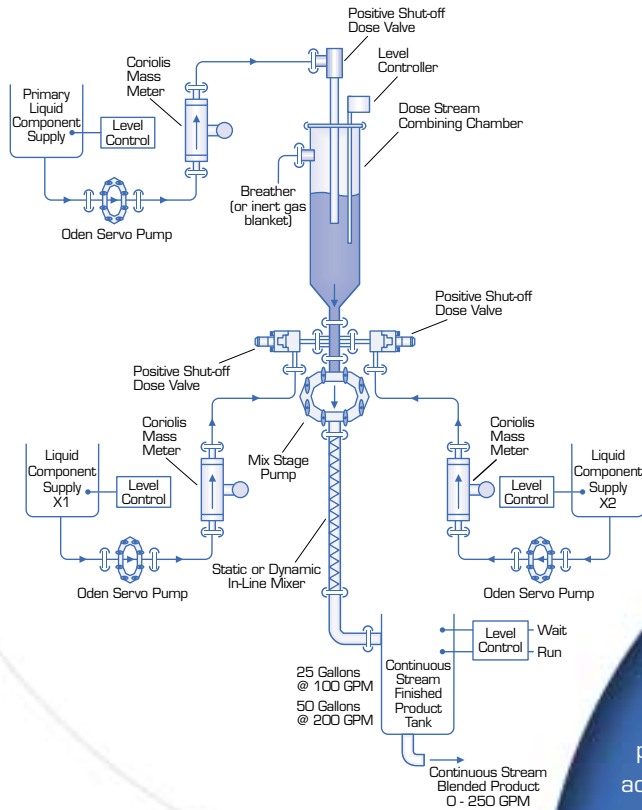
Oden gives you the power of affordable technology

Oden has the expert engineering capabilities to help solve your toughest liquid processing challenges with the MASS/BLEND Continuous Stream Digital Blending System. MASS/BLEND can be built to meet Class 1, Division 1, Group D explosion proof standards, heated liquids processing and other specialized application needs. We offer over two decades of industry-leading innovation in design and engineering solutions.

We also understand the importance of high quality machinery backed by high quality service. You can count on Oden for responsive service to meet your needs. We have an experienced in-house sales staff, representatives worldwide, and a fast response service department with global reach.

Put Oden technology to work for you

Contact us today for more information on the MASS/BLEND Continuous Stream Digital Blending System or any of Oden's full range of liquid filling systems. We are eager to demonstrate the advanced technology and commitment to integrity and service you can get only from Oden.



The system architecture for Oden's Gen2 MASS/BLEND Continuous Stream Digital Blending System is extremely simple, easy to program, low in system volume, and completely free of error induced by process variables. It can be stopped and started without penalty and all blended product can be utilized. It is a system that is inherently accurate rather than one requiring complex control schemes to "tame."



716-874-3000 • 800-658-3622
 716-874-1589 Fax
 199 Fire Tower Drive • Tonawanda, NY 14150
 sales@odencorp.com
 www.odencorp.com

Accuracy Capability

The accuracy Capability statement in this literature describes general machine capabilities and is not a guarantee. Oden will guarantee machine performance in writing, upon the positive conclusion of testing done with your products. Oden takes the risk out of buying a blending system. Call today to make arrangements for our free product testing service, 800.658.3622.

Performance Guarantee, Warranty and Leasing

Oden will guarantee machine performance in writing, upon the positive conclusion of testing done with your products and containers. Oden takes the risk out of buying a liquid filler or liquid blending system. One year warranty. Inquire about our extended warranty and training programs. Leasing proposals available.

Trademarks and Patents

Oden, PRO/FILL, GRAV/TRONIC, PRO/MATIC, AUTODEX, NET/MASS, SERVO/FILL and MASS/BLEND are registered trademarks of Oden Corporation. US Patent Nos. 5,797,436; 5,168,905; 4,917,348; 5,996,650, 5,878,796 and 6,186,193 apply. Foreign patents pending.

Oden Corporation maintains a constant program of product improvement which may affect design and/or specifications. We reserve the right to make these changes without prior notice or liability.

