



Pulsation Systems

Setting the standard for durable
and consistent pulsation

Detacher-controlled pulsation systems

Electronically efficient diaphragm pulsators

The Stimopuls Apex M and Autopuls Apex M connect directly to the detacher control — operated by the Metatron 21 Premium and Select, Dematron 70, Dematron 60 and 60S, and DeMax 55 and 55S systems. No additional power supplies or control are required for a simplified installation.

Pulsator shutoff at unit removal — for longer service life.

Settings downloaded from DairyPlan C21 or Dairy-Setup software — changes are quick and accurate.

Flexible pulsation rates and ratios — adapts easily to different breeds and milking styles.

Electronic impulse solenoids — provides safe, low voltage and always-accurate pulses.

Quiet operation — means less noise in the parlor.

Bayonet base — simple 1/4 turn removal and attachment.

Filtered air optional — provides longer service life.



Stimopuls Apex M

Provides individual pre-milking stimulation as well as the best milking operator — animals are stimulated individually depending on milkability and stage of lactation. With electronic stimulation the milk yield per cow may be increased. Stimulation is achieved through intensive massaging effect of the liner.



Autopuls Apex M

Offers state-of-the-art pulsation with flexibility of rates and ratios. The Autopuls Apex M has all of the features mentioned to the left, but without stimulation capabilities.

Advantages of stimopuls pulsation

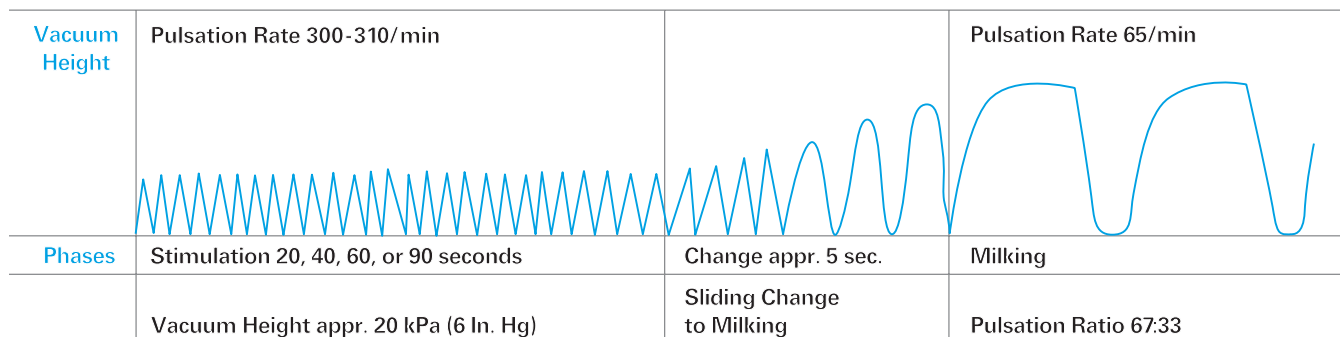
Better milk let-down, more effective milk-out —

30 to 60 seconds of stimulation prior to milking releases oxytocin, the milk let-down hormone. The maximum effect of oxytocin lasts only five minutes, so it's critical to begin milking immediately after stimulation. Premature attachment of a milking unit without proper stimulation slows the milking process and leaves milk in the udder at the end of milking. This milk is highest in butterfat content, so you may be missing the most valuable milk at the end of each milking.

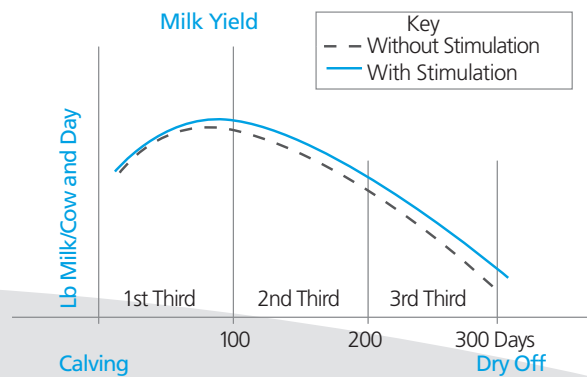
More efficient than manual stimulation —

as herd numbers grow and labor costs increase, it becomes increasingly difficult to provide 30 to 60 seconds of manual stimulation for each cow. You'll save time and effort with Stimopuls Apex M because you can put the milking unit on the cow immediately. What's more, electronic stimulation is consistent no matter who does the milking and the rate can be customized to each cow.

Stimulation Curve



Increased milk yields — pre-milk stimulation may increase average milk yields over the entire lactation cycle.



Master-controlled diaphragm pulsation systems

Durable and accurate pulsators to fit any milking system



Centralpuls Apex Z

Large capacity — operates up to 16 alternating pulsators.

Power up to four groups of pulsators — provides better vacuum stability.

Adjustable pulsation rate — flexibility for each parlor.

Programmable milk-to-rest ratio — optimize for fast, gentle milking.

Operation independent from detachers — use with any equipment.

Autopuls Apex Z Pulsator

Operated by the Centralpuls controller — up to 16 pulsators working in groups of four.

Quiet operation — less noise in the parlor.

Electronic impulse solenoids — safe, low voltage with always-accurate pulses.

Upgradeable — will wire directly to detachers from GEA (DemaTron, DeMax and Metatron) for independent operation and pulsator shut-off at unit removal.

Filtered air optional — provides longer service life.

Stand-alone pulsator

An efficient way to customize pulsation

Autopuls Apex P

Stand alone system — can be used with any brand of equipment.

24-volt system — safe for cows and operators.

Electronic control resides within each pulsator — flexible system layout.

Adjustable pulsation rate and ratio — easily accommodates different breeds and installations.

Electronic impulse solenoids — always provides accurate pulses.

Filtered air optional — provides longer service life.

Each pulsator functions independently — better system vacuum stability.



Stand-alone pulsation systems

The industry standard for reliability

Operation independent from detachers — use with any milking unit or detacher.

The direct-acting pulsator is available in permanently mounted and portable configurations — for flexibility of barn design and service needs.

Harsh environment plunger kits available — provides longer service life.

Safe 24-volt operation — means less exposure to stray voltage. Fused connection cards meet current electrical standards.

Filtered air optional — provides longer service life.

Heavy-duty coils — low operating temperatures and robust electro-magnetic force provide long life and positive pulsator action.

Large porting — high air flow volume. More resistant to dirt.

Available in alternating and simultaneous versions — allowing for different milking styles.

Portable units have square bayonet-style nipple — less movement in stall cock, meaning less wear and better electrical connection.



Permanent mount direct acting with filtered air connection



Permanent mount direct acting



Portable direct acting

Direct-acting pulsation controllers

Standard or ProForm control for any installation style



ProForm control

Solid state control — no moving parts and consistent pulsation output. Provides long life and predictable cow milking, even on a 24-hour dairy.

Wide range of pulsation ratios — optimize milk and rest phases for fast and gentle milking.

Wide range of pulsation rates — optimize the rate of pulsations per minute.

Four-channel output — staggered electrical output divides by one-half the pulsated air admission into the vacuum system for improved vacuum stability.

Patented modulated voltage output — reduces energy costs through current reduction.

Two control synchronization — output voltage is synchronized on two pulsation controls for better vacuum stability.

Large capacity — operates 54 simultaneous or 32 alternating pulsators.

24-volt DC output — safer for cows and operators.



Standard pulsation control

Solid state control — no moving parts and consistent pulsation output for long life and predictable cow milking every day.

Wide range of pulsation ratios — optimize milk and rest phases for fast and gentle milking.

Wide range of pulsation rates — rate of pulsations per minute is synchronized with ratio to provide fast, gentle milking.

Heavy duty — handles 24 simultaneous or 12 alternating pulsators.

24-volt DC output — safer for cows and operators.

Vacuum-operated pulsator

The standard for vacuum pulsators

Vacupuls Constant Pulsator

Robust and reliable — pneumatic pulsator.

Hundreds of thousands sold globally — time-proven reliability.

Flexible — can be used in parlors, stall barns and on bucket milkers for cows, sheep, and goats.

Pneumatic — requires no electricity.

Constant — rates and ratios not affected by system vacuum levels.

Simple — easy to maintain and is an excellent spare pulsator to replace any Apex style pulsator in an emergency.

Filtered air optional — provides longer service life.



Vacupuls constant pulsator

Pulsation accessories

Ensuring an optimal milk harvest session

Pulsation hose

Original pulsation tubing from GEA is available in distinctive green with an orange stripe, clear with a green stripe, and black with a green stripe, and comes in various sizes. This tubing is also designed to be flexible and light, which ensures easy handling and provides positive, consistent air flow so the pulsation functions in the most difficult and challenging of applications. The pulsation tubing is also resistant to chemicals, sunlight and ozone, ensuring dependable operation during its recommended service life.

Options

Green hose clip — milk and pulsation hose clips are also available to help hold hoses together securely and to minimize any possible hose restriction.



Milk and pulsation hose clip



9/32" green, twin pulsation hose for the Apex Pulsator or Vacupuls



9/32" clear, twin pulsation hose for the Apex Pulsator or Vacupuls



3/8" black, twin pulsation hose for the Direct Acting Pulsator

System optimization

Maximizing your equipment to deliver better milking performance

System optimization ensures that your milking equipment (pulsation, vacuum, liners and accessories) is operating at peak performance for the best cow milking possible. Your GEA dealer provides this valuable expertise with their knowledge, top equipment, and the tools to evaluate your system to make sure everything is operating efficiently.

To keep your system in peak operating condition, it is important to always keep your pulsators and other milking equipment components on a scheduled maintenance program. In addition, by working with your GEA dealer you can be assured that your system is analyzed to its fullest, using our TriScan II monitoring device.

The TriScan II allows your dealer to evaluate the performance of your pulsation system, identifying any potential problems. Also, system vacuum and liner performance are analyzed to ensure proper cow milking, while improving milk yields and cow comfort.

With the complete pulsation equipment family from GEA, the knowledge of your local dealer, and our system analysis tools, you can count on GEA to deliver the best cow milking on your operation.

System optimization is the key to maximizing milking performance.







We live our values.

Excellence • Passion • Integrity • Responsibility • GEA-versity

GEA Group is a global engineering company with multi-billion euro sales and operations in more than 50 countries. Founded in 1881, the company is one of the largest providers of innovative equipment and process technology. GEA Group is listed in the STOXX® Europe 600 Index.

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