ACUSHOT™ NEEDLE FREE technology

Warren Toles & Jules Poiron, Innovators of the AcuShot A

AcuShot™ Inc. is committed to being a world leader in the design and manufacturing of next generation needle-free liquid injection technologies. AcuShot is striving to provide veterinarian and health care industries with revolutionary needle-free equipment choices that enable spot treatment of single patients and mass-vaccination of large populations in a cost effective, efficient and easy to use format.

FASTER • SAFER • BETTER •

Able to perform up to 1000 injections per battery charge, eliminating down-time and increasing efficiency.

The only needle-free injector in the world able to inject all classes and sizes of livestock and poultry in a single model.

Available accessories include hands free stand and remote injection hand piece.

Safer for livestock, with reduced chance of infection or disease transmission.

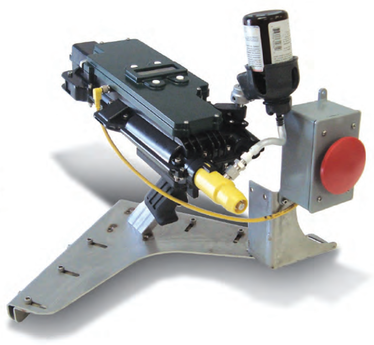
Eliminate the ongoing cost and disposal of hazardous needles.

Safer for users then needles.

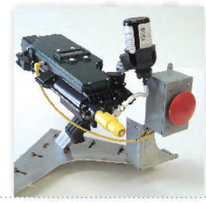
The AcuShot™ injector is a 100% stand alone and self contained unit.

The injector can administer any vaccine or medication intramuscularly, subcutaneously or intradermally / trans-dermally.

Does not require an external power source such as CO2 or compressed air, with no connection to heavy tanks, bottles, regulators or power cords.



ACUSHOT™ A



The AcuShot™ A on the hands free stand. Stand available as an accessory.

REVOLUTIONIZING NEEDLE FREE
technology

The AcuShot™ A is a battery operated, high workload, handheld, mass vaccination injector. It can be used on a hands-free stand for smaller livestock like new born piglets and poultry or can be used with a remote injection hand piece for easy use with larger livestock.

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Features include;

- Dual counter
  One that can be reset
  One that acts as an odometer
- The hands-free stand accessory can easily be mounted to most processing carts for hands-free operation
- The remote injection hand piece accessory mounts easily to the injector, facilitating injections in hard to reach places (sow crates, sow stalls, crowded weanling pens)
- Electronically controlled dosage .2 to 2.5cc (adjustable in .1cc increments)
- Standard 100ml bottle mounting
- Ability to draw from larger bottles through standard tubing

ELECTRONIC MONITORING
ensuring accuracy

If the injector is not operating properly, an audible beep will sound and a message will be displayed on the LCD screen, such as:

"Orifice plugged"
If the orifice is plugged

"Dry Firing"
If the vaccine supply runs out

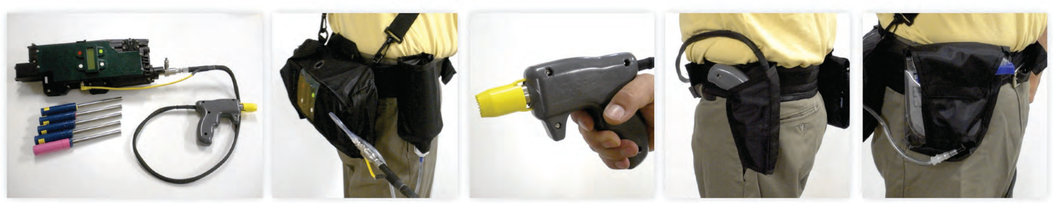
"Charge Battery"
If the battery needs to be recharged

"Check Cylinder"
If the recommended pressure is not reached

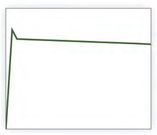
AcuShot™ needle-free injectors have onboard electronics which monitor key components and injection characteristics for each shot. If the data becomes inconsistent or an operating error is made, the injector will make an audible sound and will display the nature of the error on its LCD display. The AcuShot™ injector electronically monitors each injection, recording data from multiple points.

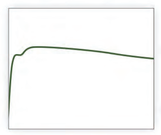
On-board electronics assist the operator in many ways;

- simplify priming the injector
- accurate dosage selection and delivery
- records "shot" data for several thousand injection cycles
- simple transfer of data to a PC using a USB interface and basic software
- suggest power cylinder selection

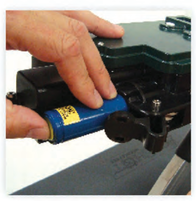


SUPERIOR POWER CYLINDER TECHNOLOGY
long lasting, consistent power





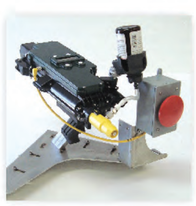
AcuShot™ needle-free injectors get their injection power from a proven, more consistent Power Cylinder technology. This Power Cylinder is compressed and locked into triggering position by our patented motorized mechanism. The motor is driven by the latest in Lithium Polymer rechargeable battery technology.



AcuShot's patented design insures that even when the battery begins to lose it's charge, injection quality is not affected at all. Successful injections are as easy as pulling the trigger.

AcuShot™ injectors are able to deliver over 500,000 injections before the Power Cylinder should be replaced.

Similar to today's cordless tools the battery is removable, rechargeable and installs in the unit. AcuShot batteries will typically provide power for 1000 injections, before needing to be recharged.



AcuShot Power Curves

- Very sharp initial pressure
- Consistent power delivery during injection cycle
- Force generated as power cylinder is compressed
- Triggering or releasing the Power Cylinder applies full force to the injection piston immediately
- Power delivered when needed most, at the beginning of the injection cycle to pierce the skin and muscle

CO2 power curves

- Gradual build-up of initial pressure
- Slow decay of power as CO2 needs to maintain pressure in piston chamber
- Pressure from CO2 container must travel through hoses and valves before it can pressurize piston chamber
- Mechanism must be 100% sealed to be efficient and affective
- Escaping gas can quickly freeze valves, fittings and skin

Hands-Free Operation

The hands-free stand is an accessory that can be secured to almost any processing cart on the market. The operator only needs to handle the animal by;

1 Placing the neck firmly on the injection tip

2 Using the piglets hind quarter, depresses the large red button trigger

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