

SIMCRO™

SPECIALTY PACKAGING

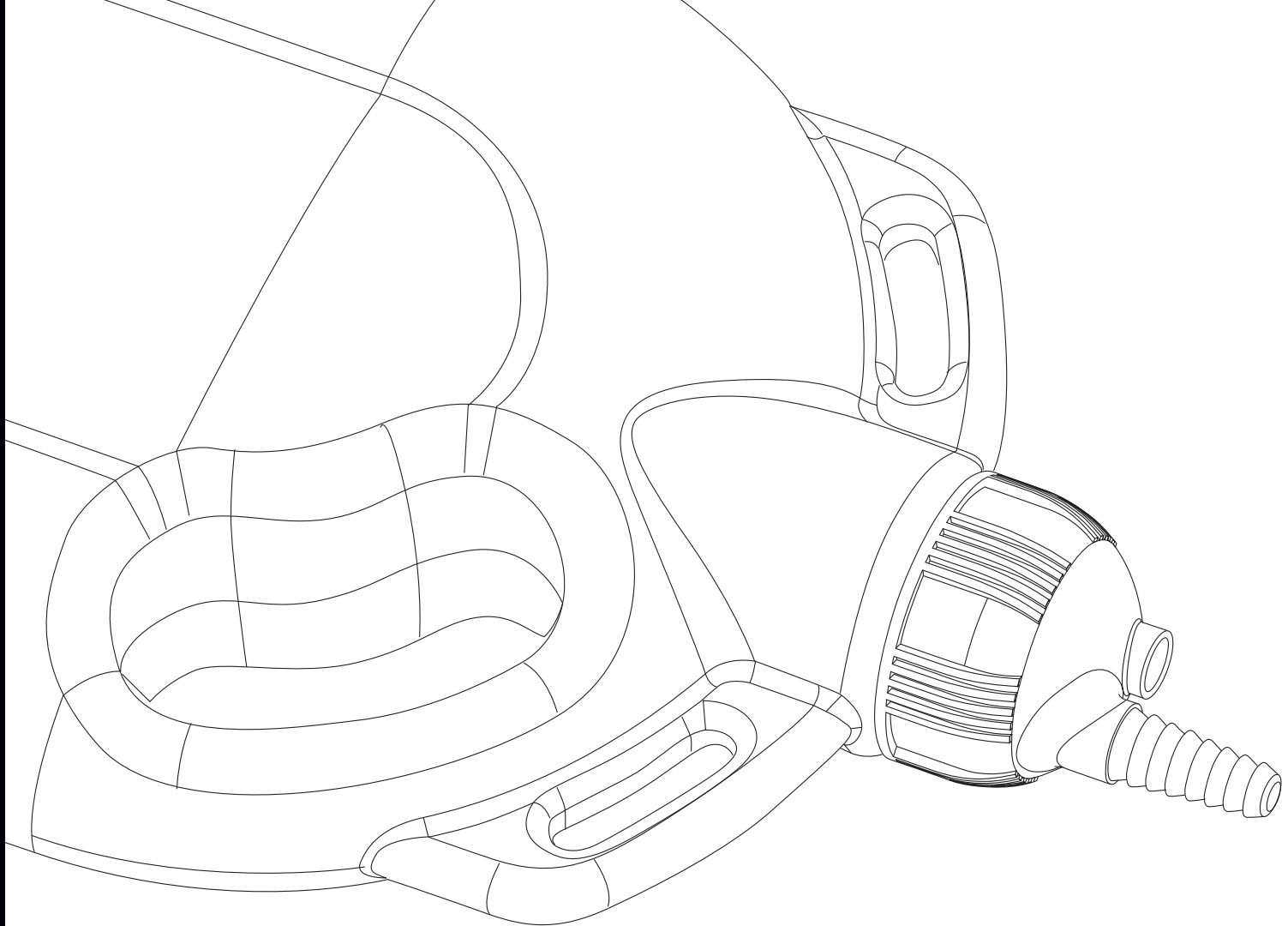
CUSTOM DESIGN



PARTNER.

INNOVATE.

DELIVER.



THE BEAUTY IS IN THE DETAILS

Simcro is a global leader in design, development, and sale of application devices and specialty packaging for the animal health industry. With over 80 years of heritage servicing the industry, Simcro supplies some of the largest pharmaceutical and animal health companies in the world, with most of those relationships stretching over 20 years.

We have a presence in animal health markets including ruminant, swine, and companion animal with dedicated, in-market account managers worldwide.

Simcro has a team of engineers with strong technical product knowledge to support product development, supply chain, quality control and assembly.

Simcro Partners, Innovates, and Delivers.

SIMCRO™

SPECIALTY PACKAGING

Simcro are renowned for delivering revolutionary primary and secondary packaging solutions which can be tailored to meet your brand requirements.



CASE STUDY: SIMCRO BOTTLE SLEEVE



DELIVERY SYSTEMS
ARE NOT SIMPLY AN
INJECTOR OR AN
APPLICATOR.

They are an integrated system from the product reservoir through to the point that the pharmaceutical product reaches the desired location.

Our design capability and experience enables Simcro to consider all aspects of the delivery system from primary and secondary packaging, to bottle protectors, fluid transfer components and the delivery device itself, ensuring the entire system will successfully deliver the product to the customers' expectations. Take our bottle protector as an example.

The Simcro bottle protector looks deceptively simple. In fact, a glass bottle within this sleeve can withstand a 1.2 m fall onto concrete, even at temperatures as low as -20°C (-4°F). During the development and validation stages, bottles were filled with water, loaded into the protectors then dropped at various angles onto a concrete test pad. Specialised high-speed video equipment was used to record the drop tests, so the behaviour of the protectors could later be analysed in slow-motion and the protector design optimised accordingly. Cold temperature testing was carried out in a walk-in freezer to simulate winter field conditions – conditions that impact the resilience of certain materials.

Having these test facilities and equipment at our fingertips and the expertise to run them, enabled us to compress the development time and ensure a higher performing product for the client.

Within this innovative design, Simcro have allowed for two bottles of the same volumetric size, yet quite different shapes, to be fully protected when fitted into the sleeve. This is achieved by securing the bottle with two sets of snap tabs, ensuring that the product, in either bottle, is held secure while allowing easy loading and reloading as the job demands.

Like many Simcro solutions, the bottle sleeve is simple and well-engineered.

PACKAGING RANGE

Simcro's packaging products include backpacks, hanging and upright bottles, transit and dispensing caps, draw-offs and bottle sleeves.

These products can be combined with our delivery devices to form a complete delivery solution.

In addition, our range can be customised to reflect client branding on request, contact your Simcro Account Manager for more details.

BACKPACKS



STANDARD

- Sizes: 1 L, 2.5 L, and 5 L
- Neck size: 38mm
- Pocket Available: 2.5L & 5L
- Tamper Evident: No



COLLAPSIBLE

- Sizes: 5 L
- Neck size: 38mm
- Tamper Evident: No



TAMPER PROOF

- Sizes: 1 L, 2.5 L, and 5 L
- Neck size: 38mm
- Pocket Available: 2.5L & 5L
- Tamper Evident: Yes



TEARDROP

- Sizes: 2.5L and 5L
- Neck size: 38mm
- Strap and Dip-Tube Pocket: 2.5L & 5L
- Tamper Evident: Yes

Fluorination sealing on backpacks and bottles is available, contact Simcro for more information.

BOTTLES



HANGING

- Sizes: 250 mL and 500 mL
- Neck size: 38mm
- Tamper Evident: Yes



UPRIGHT

- Sizes: 250 mL
- Neck size: 38mm
- Tamper Evident: Yes

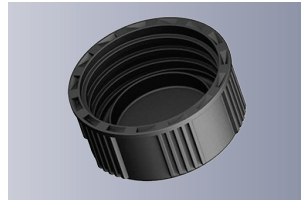


STANDARD UPRIGHT

- Sizes: 250 mL, 500 mL, and 1000 mL
- Neck size: 28mm
- Tamper Evident: 250mL only

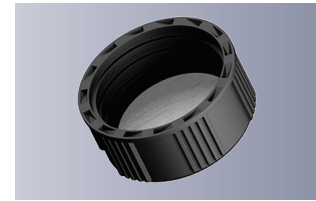
Fluorination sealing on backpacks and bottles is available, contact Simcro for more information.

CLOSURE CAPS



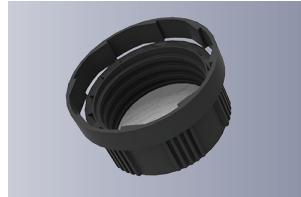
CONE

- Sizes: 28mm, 32mm, & 38mm.
- Tamper Evident: No



WADDED/INDUCTION

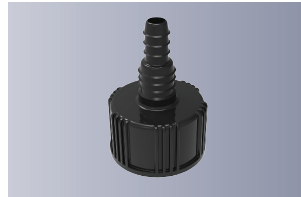
- Sizes: 38mm
- Tamper Evident: Yes and No



TAMPER EVIDENT

- Sizes: 38mm
- Tamper Evident: Yes

DISPENSING CAPS



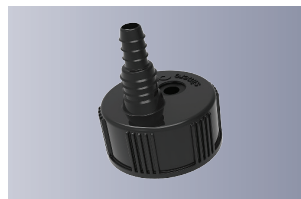
WADDED NON-VENTED DUAL SPIGOT

- Sizes: 28mm
- Orientation: Inverted Only



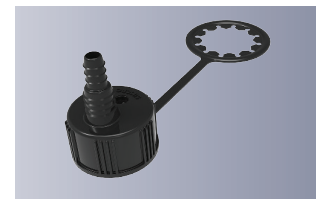
DOMESPIGOT

- Sizes: 38mm
- Orientation: 38mm Upright and Inverted



VENTED DUAL SPIGOT

- Sizes: 28mm, 32mm, 38mm and 46mm
- Orientation: 32mm & 38mm Upright and Inverted, 28mm 46mm Inverted Only



TETHERED VENTED DUAL SPIGOT

- Sizes: 32mm and 46mm
- Orientation: 32mm Upright and Inverted, 46mm Inverted Only

PACKAGING RANGE

ACCESSORIES



BACKPACK STRAP

- Size: 25 x 2500 mm



STANDARD BACKPACK BRACKET

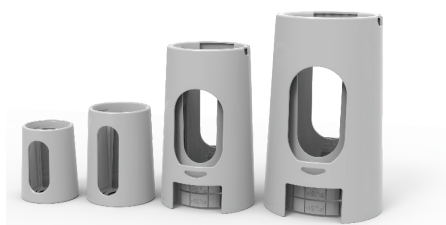
- Size: Fits all Standard backpacks



TAMPER PROOF BRACKET

- Size: Fits all Tamper Proof backpacks

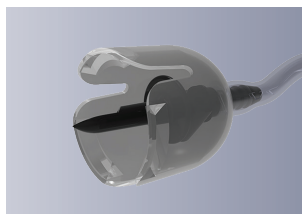
BOTTLE SLEEVES



BOTTLE SLEEVES

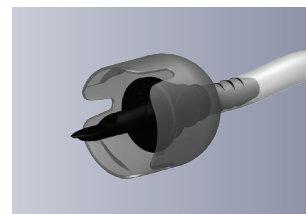
- Sizes: 50 mL, 100 mL, 250 mL, and 500 mL

VENTED DRAW-OFFS



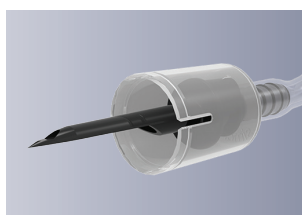
STANDARD

- Sizes: 20mm, 27-30mm, and 33mm
- Short skirt available in 33mm
- Compatible Tube Size: 4.7mm



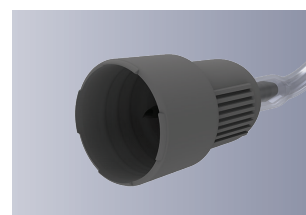
HIGH FLOW

- Sizes: 20mm, 27-30mm, and 33mm
- Short skirt available in 33mm
- Compatible Tube Size: 6.4mm



LONG SPIKE

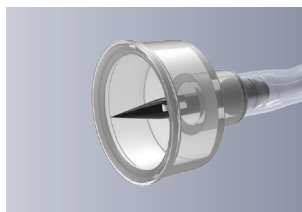
- Sizes: 20mm, 27-30mm, and 33mm
- Short skirt available in 33mm
- Compatible Tube Size: 6.4mm



SCREW-ON

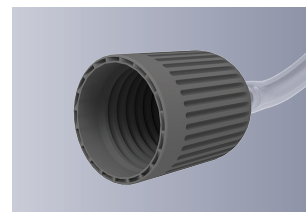
- Sizes: 27.5mm
- Compatible Tube Size: 4.7mm and 6.4mm

NON-VENTED DRAW-OFFS



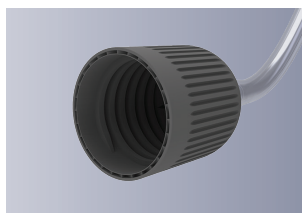
CLIP-ON

- Sizes: 20mm
- Compatible Tube Size: 4.7mm



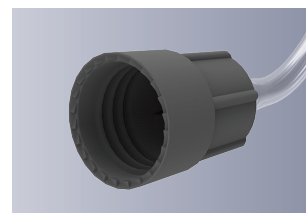
SCREW-ON 23

- Sizes: 23mm
- Compatible Tube Size: 4.7mm



SCREW-ON 29

- Sizes: 29mm
- Compatible Tube Size: 4.7mm and 6.4mm



SCREW-ON 24

- Sizes: 24mm
- Compatible Tube Size: 4.7mm

WORLD CLASS

PATENTED

TECHNOLOGY.

IN-HOUSE DESIGN CAPABILITIES



PHARMACEUTICAL DEVELOPMENT REQUIRES SIGNIFICANT INVESTMENT OVER LONG TIME FRAMES UNDER STRICT CONFIDENTIALITY.

Simcro has a significant record of partnering with the pharmaceutical industry globally, undertaking many highly confidential and market sensitive projects. We operate in a collaborative and professional manner with the complete confidence of our customers.

As a result of our stringent quality standards and innovative development approach, Simcro products enhance the value of the pharmaceutical and/or vaccines, that they deliver to production and companion animals.

Hallmarks of our products include dose accuracy, user safety, operational convenience and animal welfare.

In order to manage end-user and animal welfare, health and safety risks, during the design stage, our engineers consider end-user environments and their impact on product design. Applying risk management principles to the design process helps to eliminate hazards that may occur when manufacturing or when administering product to an animal.

All of our products are rigorously tested for operational convenience, safety and dose accuracy using both field-trials and our in-house laboratory facilities.

Integrity is at the core of what we do, we look to design and supply products that ensure our customers end product is delivered to end users in an uncompromised condition. We use features such as induction seals and tamper evident transit caps to ensure our customers achieve this.

Our specialty packaging can be tailored to meet our client's unique branding requirements.

CHALLENGING

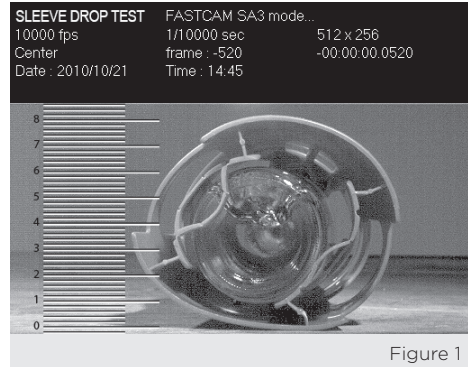
CURRENT

THINKING.

IN-HOUSE TESTING CAPABILITIES



WE CAN TEST ALL PACKAGING PRODUCTS TO ENSURE BOTH COMPATIBILITY AND FUNCTIONALITY WITH EACH CUSTOMERS FORMULATION.



We can also customise to suit each customers unique design and branding requirements. Some of the in-house testing we perform includes:

COMPATIBILITY TEST

We conduct product tests to ensure that our delivery system and our clients pharmaceutical are chemically compatible. Test pieces manufactured from a selection of polymer resins and materials are immersed in the specified drug at a temperature of 40°C for a minimum of 2 weeks, with visual, dimensional and tactile changes against controlled samples being recorded at regular intervals over the two week period.

DROP TEST

We use specialised high-speed video equipment to record drop tests, so the behaviour of the protectors can later be analysed in slow-motion and the protector design optimised accordingly. See Fig 1.

FUNCTIONALITY TESTING

All components are tested together to ensure optimum functionality. Functionality tests include but are not limited to; refill speed, durability/strength, chemical compatibility, dose accuracy, leak and vent tests, and static functionality.

SIMCRO INNOVATION PROCESS



Simcro's R&D team designs and develops highly customised delivery systems and packaging for the world's leading pharmaceutical companies.

Our industry leading innovation process has been responsible for world leading intellectual property and award winning products.



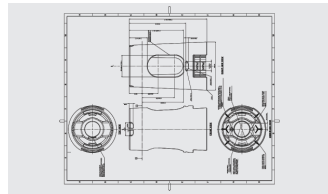
PRODUCT BRIEF

All of our products begin with a brief. It's Simcro's view that we should challenge the brief to extract the widest possible parameters for success.

We will always ensure that the completed brief addresses five fundamental criteria:

- > Animal Welfare.
- > Operator Safety.
- > Treatment Efficacy.
- > User Experience.
- > Commercial Viability.

Frequently our proposed solutions are so innovative we enter into manual confidentiality agreements with the client.

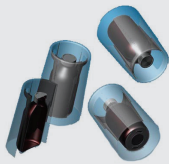


IDEATION

The first step in responding to the brief is to link the design brief to known technologies. From this technical base, we investigate more innovative possibilities, balancing them against the commercial requirements for the end product.

01

02

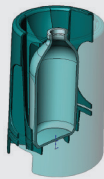


CONCEPT VISUALISATION

Simcro presents an innovation storyboard to it's clients, detailing inspirations and conclusions, before traversing a wide range of options that will fulfil the brief.

Our approach is to include thinking beyond the brief when we feel we can meet criteria in a different way.

03



CONCEPT FINALISATION

Our clients select their preferred concepts for further exploration.

Occasionally, the best solution will be a cross pollination of the variety of technologies Simcro has proposed. In this case, we present further concepts that marry the best attributes of our solutions.

04



CONCEPT DEVELOPMENT

Concept development is where blue-sky thinking meets commercial reality.

After establishing a commercialisation agreement, Simcro will begin creating a proof of principal prototype. These are machined from 3D CAD models and hand assembled to test ergonomic principles.

05

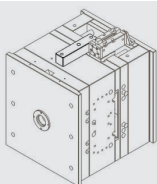


DESIGN DEVELOPMENT

This stage begins with an iterative design process that fully resolves the product against the client's requirements and the five key criteria listed in the Product Brief.

Each product is fully realised as a 3D CAD model that is manufacturing and assembly ready before being machined as a fully functioning prototype.

06



PRODUCT TOOLING

Tooling begins once the prototype has passed field-testing and is signed off by the client.

Simcro then designs, manufactures and commissions the tooling and assembly jigs for commercial production.

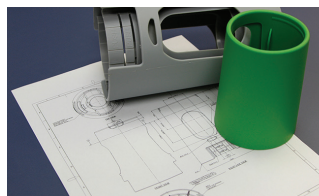
07



ALPHA TRIALS

This is the first manufacturing and assembly trial. It is the first time the final product has been produced under commercial conditions, and it is released again for final field assessment.

08



PRODUCT DOCUMENTATION

Once Alpha Trials are passed, Simcro documents all user and maintenance instructions to required international standards.

Internal assembly and quality specifications are established and jigs created to facilitate the assembly process.

09



COMMERCIAL PRODUCTION

The finished product enters production at Simcro's production facility, and is packaged and delivered to client specifications, worldwide.

10

www.simcro.com

PARTNER.

INNOVATE.

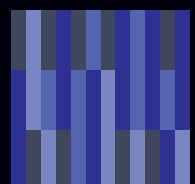
DELIVER.

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Simcro is ISO9001:2015 certified for the design manufacture and supply of delivery solutions for the veterinary, medical, agricultural and related industries.



SIMCRO™

A Datamars brand