



injecting new ideas

REXAM

Injecting new ideas

Extensive experience in complex devices.

Rexam has expanded its expertise to complex injection devices such as insulin pens, ready-to-fill plastic syringes and auto-injectors. Rexam has demonstrated its capacity to manage large scale industrial projects, using in-depth know-how in plastic injection and high-speed automated assembly.



Auto-injector designed for the army to fight nerve gas attacks

Implanters

Devices delivering implants with an integrated anti-needlestick safety feature.

Rexam combines the expertise in the conceptual development and manufacturing of disposable safety depot syringes.

Two patented concepts: a **safety depot syringe** with a telescopic plunger for minimized overall size and **an implanter** with automatic needle covering for soft implants. Rexam can develop your device based on these technologies.



Safety depot syringe with telescopic plunger



Implanter with automatic needle covering

Features

- for subcutaneous implants
- reduces the device overall size
- prevents accidental implant delivery

- for subcutaneous implants
- positions implants automatically
- allows deposit of soft and fragile implants

Key advantages

- patient friendly, designed for ergonomic and simple operational mode
- large inspection window allows for visibility of implant
- easy implants loading process
- prevents re-use



Safety systems for prefilled syringes



Passive safety devices for prefilled syringes that protect users from needle injury and contamination from blood born pathogens.

The new **EU Directive 2010/32/EU** mandates medical devices incorporating safety-engineered protection mechanisms to be provided to healthcare workers. All member states will have to implement it **by May 2013**.

Compliant with US and EU legislations on sharp injuries prevention



Safe'n'Sound staked and Luer lock before and after injection

Safe'n'Sound™ Key advantages

- one-hand automatic activation
- safety feature activation indicated by an audible click
- increased ergonomic comfort
- low activation force
- good visibility of the syringe tip
- robustness against shocks
- consistent dose delivery and minimized residual drug volume
- compatible with most existing bulk feeding packaging lines
- strong patent protection

Available versions

Product	Syringe	Needle length	Needle shield
Staked for 1ml long staked glass syringes with attached needle	BD, Gerresheimer, MGlas, Schott and Nuova Ompi (round and cut flange)	Up to 5/8 inch	Soft, rigid
Luer lock for 1ml long Luer lock glass syringes	BD Hypak™ with Luer-Lok™	Up to 1 inch	Rigid

Safe'n'Sound 1ml staked version received FDA 510(K) application approval

Safe'n'Sound concept can be adjusted to other syringe formats and customized



Safe'n'Sound staked with extended finger flanges for patients with dexterity impairment

Vials



Standard plastic vials

Reference	Size		Finish	Raw material	Weight (grams)	Overall height		Width		Over flow capacity	
	(cc/ml)	(oz)				(mm)	(inches)	(mm)	(inches)	(cc/ml)	(oz)
5359	15	0.5	20A-2710 Crimp	HDPE	4.70	55.4	2.18	27.8	1.09	24	0.8
5360	30	1	20A-2710 Crimp	HDPE	6.00	66.4	2.62	31.4	1.24	36	1.2
5361	60	2	20A-2710 Crimp	HDPE	9.00	82.7	3.26	37.2	1.47	65	2.2
5362	120	4.1	20-2710 Crimp	HDPE	15.00	102.9	4.05	47.4	1.87	135	4.6
5566	250	8.5	30 mm Crimp	HDPE	25.50	140.6	5.54	63.0	2.48	337	11.4
5153	3	0.1	13-2710 Crimp	PP	2.00	37.5	1.48	16.5	0.65	4	0.1
5998	3	0.1	13 mm Crimp	PP	2.40	37.7	1.49	16.6	0.65	4	0.1
5088	10	0.3	16.5 mm Crimp	PP	3.70	50.0	1.97	26.6	1.05	15	0.5
5087	20	0.7	16.5 mm Crimp	PP	5.50	42.2	1.66	32.9	1.30	29	1
5085	30	1	16.5 mm Crimp	PP	5.80	66.7	2.63	33.5	1.32	37	1.3

Multilayer plastic vials

Rexam proprietary technology combining two plastic materials for optimal barrier performance.



PA/COC vial manufactured by Rexam

Key advantages

- effective moisture and oxygen barrier
- clarity and UV barrier
- chemical and mechanical resistance
- compatibility with a wide range of sterilization processes
- bottle design customization

Specific vials

Crystal® vials, developed for Aseptic Technologies, are the first ready-to-fill closed vials.



Sterile vials manufactured in clean room class ISO 5 by Rexam

Key advantages

- aseptic filling : no terminal sterilization
- safer and easier filling process
- large range : from 1 ml to 50 ml
- COC material: ion free, hydrophobic
- unbreakable
- suitable for frozen products (-20°C, -80°C and in liquid nitrogen)
- very low leachables