

# BERTHOUD

SPRAYING SPECIALISTS SINCE 1895



GARANTIE  
GUARANTEE  
**5 ANS**  
YEARS



**SAV EN  
FRANCE**  
CUSTOMER SERVICE  
IN FRANCE

**10 ANS**  
YEARS

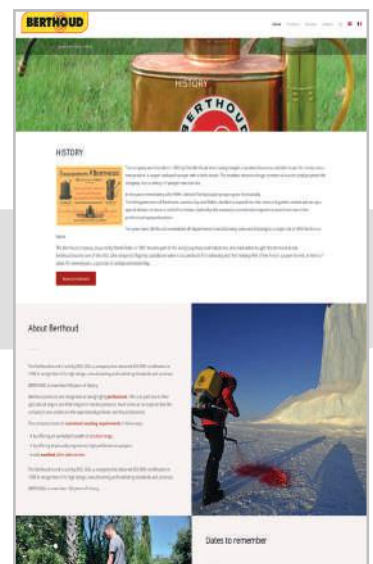
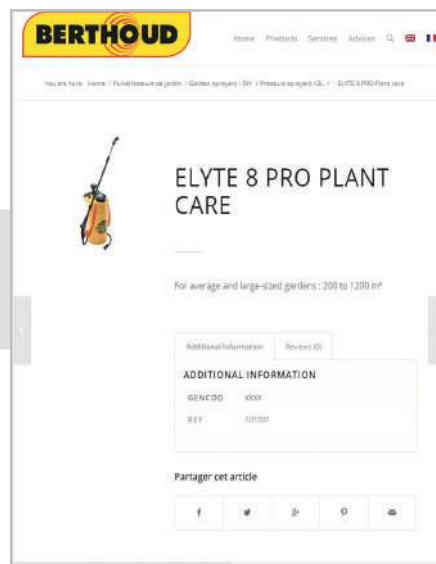
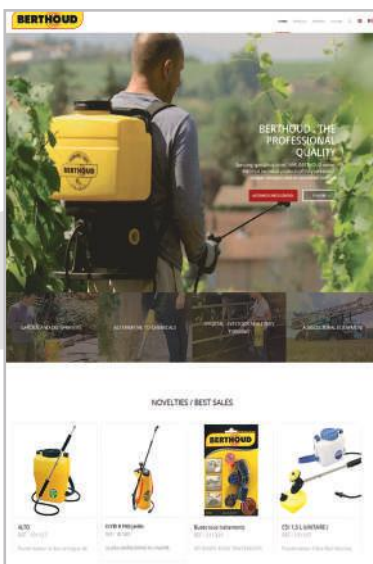
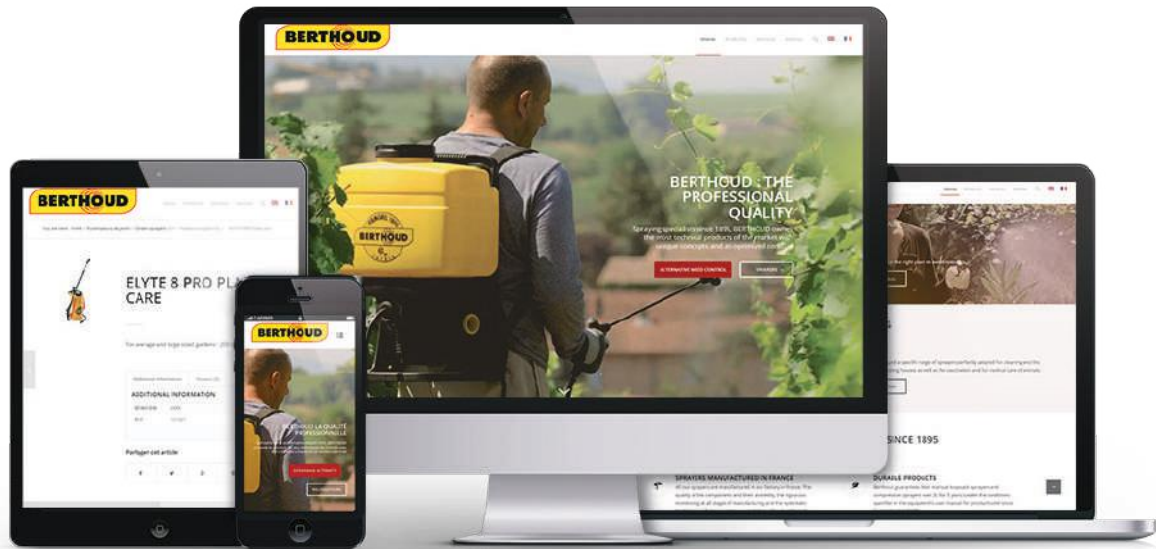
PIÈCES DÉTACHÉES  
DISPONIBLES  
SPARE PARTS  
AVAILABLE



PRODUCTS CATALOGUE  
**N°19**

[www.berthoud.fr/en/](http://www.berthoud.fr/en/)

# BERTHOUD WEBSITE



Visit a modern website, with an adaptive design, providing optimum readability, even on a tablet and telephone.

Find our detailed product sheets with technical and practical information and all of the product advantages.

Discover the group's history and advice from the pros so that you can take care of your garden like a professional.



# SUMMARY

## **BERTHOUD** p04

### **HANDHELD SPRAYERS**

- F1, F1 Plus, Spirovit p06

### **HANDHELD PRESSURE SPRAYERS**

- Elyte 2, Elyte 2 DIY p07

### **PRESSURE SPRAYERS**

- Floraly "Optima" p08
- Elyte "Pro" p11

### **TROMBONE SPRAYER**

- Seringa p15

## **KNAPSACK SPRAYER**

- Cosmos 18 Pro p14
- Vermorel 1800 / 2000 p16

### **ELECTRIC KNAPSACK SPRAYERS**

- Vermorel 3000 Electric p20

### **MAINTENANCE ACCESSORIES / SPARE PARTS**

For compression and backpack sprayers p22

## **LOCALIZED CLEANING AND DISINFECTION**

- Mam'spray p28
- Elyte 8 Stainless steel lance p28
- C5 / 1 L p29

## **PRODUCT INFORMATION**

- Sprayers p30
- Accessories p32

## SPRAYING SPECIALISTS SINCE 1895

**1895** : Company founded by Paul Berthoud who wanted to industrialize the production of copper knapsack

**1938** : The second generation Ferdinand and Jean Berthoud, his two sons, joined the company in turn.

**1956** : Arrival of the third generation with cousins Guy and Didier whose priority is to attack the home market with a specific range «Flori-Leisure».

**1969** : Centralization of all services (production, sales, despatch) in Villefranche-sur-Saône (France)

**1987** : The company is taken over by Patrick Ballu and joins EXEL Industries, world leader in spraying.

BERTHOUD becomes one of the strongest brands at HOZELOCK-EXEL holding for many years almost 40% of the French market (in value), an undisputed leader.

Berthoud products are recognised as being highly professional. This is in part due to their agricultural origins and their long term market presence. It will come as no surprise that the company's core clients are the experienced gardener and the professional.

The company meets its customers' exacting requirements in three ways:

- by offering an unrivalled breadth or product range
- by offering impeccably engineered, high-performance sprayers
- by offering excellent after-sales service



For more information visit our website :

**[www.berthoud.fr/en/](http://www.berthoud.fr/en/)**

# A NEW GRAPHIC CHARTER FOR BERTHOUD

Berthoud's graphic charter for packaging has been reviewed in order to provide products with better visibility and readability. In coherence with Berthoud's brand image, the new packaging highlights more technical information and the associated consumer advantages in order to enhance the differences with regards to the competition.



**Modernisation of the BERTHOUD charter, still oriented towards PREMIUM positioning**

**Communication on the strong points of the BERTHOUD brand:**

- 100% made in France
- Ultra-high performance Customer Service in France: 5-year warranty and spare parts availability for at least 10 years after marketing of a model stops
- Unique technical concepts on the sprayer market

**Clear segmentation of the range** according to use (Garden treatments, Weeding, Do-it-yourself) in order to assist the consumer in making his choice.



# Complete compatibility of our entire BERTHOUD sprayer offering with the new natural products available on the French market in addition to phytosanitary products.

Since 1 January 2017, self-service sales of chemical pesticides to amateur gardeners has been prohibited in France. Biocontrol products or those with a low risk are not concerned by this measure. Since 1 January 2019, the sale of chemical pesticides is prohibited for private individuals.

All of our Berthoud sprayers are **adapted for spraying phytosanitary products** authorized for professionals and natural products for individuals, which are sometimes more aggressive chemically, thanks to the following measures set up:

- **Static and dynamic tests** conducted across all of the garden product brands (Natria, Neurdooff, Naturen, Clairland ...)
- Adaptation of our seals: **reinforced seals** in order to provide compatibility with the new natural products



## Precautions to be taken in order to guarantee optimum service life for your sprayer:

- **Rinse the device well after each use**
- **Grease the sprayer's seals twice a year (see instructions)**

## Quality products for reliable and efficient sprayers



### Sprayers manufactured in France

All our sprayers are manufactured in our factory in France. The quality of the components and their assembly, the rigorous monitoring at all stages of manufacturing and the systematic tracking are all measures to ensure high quality, durable and reliable products.



### Durable products

Berthoud guarantees their manual knapsack sprayers and compression sprayers over 2L for 5 years (under the conditions specified in the equipment's user manual for products sold since September 1st 2007 except mistblowers and pulvexel ranges).



### A priority : Quality

The company is certified ISO 9001 version 2015, a guarantee of quality procedures at each stage of the design, manufacture and distribution of our sprayers..



### A performing after sales service

All our products are repairable thanks to our After Sales Service which guarantees the availability of spare parts for at least 10 years after the end of the products commercialization.





## F1 / SPIROVIT



Handhelds are lightweight, small and primarily designed for the treatment of indoor and outdoor plants but come in just as handy for such household chores as :

- dampening the laundry prior to ironing
- window cleaning
- spraying pets with treatments
- localized weeding ...



### F1 - Gardening DIY

101135

#### For the house, the garden and for DIY

- Polyethylene reservoir with graduated gauge : capacity 1 L
- Watertight neck
- Swirl nozzle with adjustable and sealable jet
- Large base for good stability (even when empty)
- Sealable nozzle that can be locked ("child safe")
- Full-grip trigger



### TIP N°1

"Never spray in very hot weather."

"Avoid spraying between 10.00 AM and 6.00 PM. The best time for spraying is in the evening after 8.00 PM or early in the morning when the plants open and breathe."



### F1 PLUS

101210

#### With wide opening for the garden

- Polyethylene reservoir with graduated gauge capacity : 1 L
- Cylindrical shape with 'full opening' (screw top)
- XL' high-performance sprayer head
- Swirl nozzle with adjustable jet



### SPIROVIT

101088

#### For banks of plants, balconies, terraces and small gardens

- Large-capacity polyethylene reservoir with graduated gauge : 5 L
- Shoulder strap
- Length of hose : 1.5 m
- High-performance 'CANYON' sprayer head
- Airtight
- Nozzle with adjustable jet





# HANDHELD PRESSURE SPRAYERS



## ELYTE 2



### ELYTE 2 - Plant care

101750

#### Balconies, terraces and small gardens

- Translucide and graduated tank. Total capacity : 2L
- Ergonomic knob for an easy pressurizing
- Pump with metal rod
- Bloquable handle for a continuous spraying
- Anti-theft nozzle with brass insert
- Tank with large opening for easy filling and emptying
- Ribs at the bottom for an easy opening and closing

GARANTIE  
GUARANTEE  
**2 ANS**  
YEARS



### ELYTE 2 - DIY

101751

#### For the house and DIY

- Translucide and graduated tank. Total capacity : 2L
- Ergonomic knob for an easy pressurizing
- Pump with metal rod
- Bloquable handle for a continuous spraying
- Anti-theft nozzle
- Tank with large opening for easy filling and emptying
- Ribs at the bottom for an easy opening and closing
- Viton seals for use with aggressive products

GARANTIE  
GUARANTEE  
**2 ANS**  
YEARS



#### TIP N°2

"Small sprayers can be used for spot treatment of individual plants.

Using several sprayers avoids mixing products, in particular mixing weed killers with pesticides/ fungicides."

Article name	Reference	EAN code	Item weight (kg)	N°Units	Box		Palette		
					Dimensions W x D x H (mm)	Weight (kg)	Dimensions W x D x H (mm)	N° layers	N°Boxes / layer
F1 Gardening DIY	101135	3176241011352	0,12	28	800 x 400 x 250	4,34	1200 x 800 x 2150	8	3
F1 Plus	101210	3176241012106	0,22	12	710 x 320 x 330	3,10	1200 x 800 x 1800	5	4
Spirovit	101088	3176241010881	0,51	11	460 x 810 x 470	0,72	1200 x 800 x 2030	4	2
ELYTE 2	101750	3176241017507	0,60	6	295 x 400 x 320	4,00	1200 x 800 x 1700	8	6
ELYTE 2 DIY	101751	3176241017514	0,60	6	295 x 400 x 320	4,00	1200 x 800 x 1700	8	6



## FLORALY "OPTIMA"



### Sprayers that are easy to use for maintaining small and medium sized gardens

Based on Berthoud's extensive experience, the Floraly Optima range represents the best value for money in the market. This new range is characterised by innovations which bring numerous improvements in terms of ease of use, safety and comfort. The range is available in 3 formats : 3-litre, 5-litre and 8-litre, usable capacities, and also comes in a 'DIY' version with resistant seals.

The FLORALY Optima range, combined with the BERTHOUD range of accessories, allows all requirements to be met in both the field of «plant protection» and DIY.

Professional nozzle with integrated nut.

Practical to use and easy to change

Polypropylene pump handle and rod

High-resistance braided hose 8 x 12

Hose nozzle with swing-joint connection

Adjustable carrying strap  
Quick-fastening clips

External gauge graduated in litres and US gallon

Translucent tank in resistant injected polypropylene

Fixed pressure pump for user's safety and high mechanical resistance

Multi-purpose nozzle holder with adjustable jet and integrated swirl plate

Aluminium lance with storage clip

Measuring cap Easy and precise dosage (2, 3, 4, 5, 10, 20 and 40 ml)

Safety valve with maximum pressure level indicator (3 bars) and sprayer decompression

Large-diameter filling hole (80 mm)

Professional lance handle in ribbed polypropylene with high mechanical resistance  
Integrated filter





## FLORALY "OPTIMA"

Technical characteristics and advantages for the user

### FOR EASIER USE

	Characteristics	Advantages for the user
	Wide opening separate from the pump	Easier filling, mixing and emptying
	Shape of head without retention zone on emptying	Easy, quick and complete emptying
	Cap with integrat measurer (7 dosage possibilities: 2, 3, 4, 5, 10, 20 and 40 ml)	Easy and precise dosage
	Shoulder strap fastening with simple clips	Shoulder straps quick and easy to fasten
	Slide rail for easy storage of the lance	Easy to store lance Simplified storage
	New professional nozzle with integrated nut	Practical to use, easy to change

### FOR BETTER SAFETY

	Characteristics	Advantages for the user
	Fixed and off centre pump	User safety: no need to remove the pump for filling and emptying
	Safety valve with maximum pressure level indicator (< 3 bars) and sprayer decompression	No risk of excess pressure on pumping. Quick and easy decompression of the equipment
	Large diameter translucent reservoir with graduated gauge	Liquid level visible Excellent stability on the ground

### FOR EXCELLENT COMFORT

	Characteristics	Advantages for the user
	Hose outlet mounted on rotating connector	Easier handling of the hose/lance unit
	New wide pump handle	Ergonomic and robust pump handle
	Professional lance handle with two finger trigger and integrated filter	Ensures a natural position for the wrist and the hand



## FLORALY 5 OPTIMA

Plant care 101450

**For small gardens :**  
**< 300 m<sup>2</sup>**

- Total tank capacity : 5.2 L, usable capacity : 3 L
- Fixed and off-centre manual pressure pump with nitrile seals
- 3 bar safety value
- Wide opening on reservoir separate from the pump (diameter : 80 mm)
- Multi-compartment measuring cap : 7 dosage possibilities (2, 3, 4, 5, 10, 20 and 40 ml)
- Nozzle outlet mounted on a swing-joint connection
- Adjustable carrying strap with quick-fastening clip system
- Professional PROFILE-type lance handle
- Hose length : 1 m
- 40 cm aluminium lance
- Multi-purpose, adjustable nozzle holder with integrated swirl plate
- Delivered with professional swirl nozzle for conical jet

GARANTIE  
GUARANTEE

5 ANS

YEARS





## FLORALY 7 OPTIMA

Plant care 101451

**Medium-sized gardens :**  
**200 to 700 m<sup>2</sup>**

- Total tank capacity : 7.2 L, usable capacity : 5 L
- Fixed and off-centre manual pressure pump with nitrile seals
- 3 bar safety value
- Wide opening on reservoir separate from the pump (diameter : 80 mm)
- Multi-compartment measuring cap : 7 dosage possibilities (2, 3, 4, 5, 10, 20 and 40 ml)
- Nozzle outlet mounted on a swingjoint connection
- Adjustable carrying strap with quick-fastening clip system
- Professional PROFILE-type lance handle.
- Hose length : 1 m
- 40 cm aluminium lance
- Multi-purpose, adjustable nozzle holder with integrated swirl plate
- Delivered with professional swirl nozzle for conical jet

GARANTIE  
GUARANTEE

5 ANS

YEARS





## FLORALY 7 OPTIMA

DIY 101452

**For treatment of wood and framework, shutters, moss control of roofs and paths etc.**

- Total tank capacity : 7.2 L, usable capacity : 5 L
- Fixed and off centre manual pressure pump with seals that are resistant to hydrocarbon based solvents
- 3 bar safety value
- Wide opening on reservoir separate from the pump (diameter: 80mm)
- Multi-compartment measuring cap : 7dosage possibilities (2, 3, 4, 5, 10, 20 and 40ml)
- Nozzle outlet mounted on a swing-joint connection
- Adjustable carrying strap with quick-fastening clip system
- Professional PROFILE-type lance
- Handle with resistant seals
- Hose length: 1m
- 40 cm composite lance with flexible
- End socket
- Multi-purpose, adjustable nozzle holder with integrated swirl plate
- Delivered with professional flat fan nozzle

GARANTIE  
GUARANTEE

5 ANS

YEARS





## FLORALY 12 OPTIMA

Plant care 101453

**For large gardens :**  
**> 500 m<sup>2</sup>**

- Total tank capacity : 11.5L, usable capacity : 8 L
- Fixed and off-centre manual pressure pump with nitrile seals
- 3 bar safety value
- Wide opening on reservoir separate from the pump (diameter : 80 mm)
- Multi-compartment measuring cap : 7 dosage possibilities (2, 3, 4, 5, 10, 20 and 40 ml)
- Nozzle outlet mounted on a swingjoint connection
- Adjustable carrying strap with quick-fastening clip system
- Professional PROFILE-type lance handle
- Hose length : 1.35 m
- 60 cm aluminium lance
- Multi-purpose, adjustable nozzle holder with integrated swirl plate
- Delivered with professional swirl nozzle for conical jet

GARANTIE  
GUARANTEE

5 ANS

YEARS



Article name	Reference	EAN code	Item weight (kg)	N°units	Box		Pallet		
					Dimensions W x D x H (mm)	Weight (kg)	Dimensions W x D x H (mm)	N° layers	N° boxes / layer
F5 Optima	101450	3176241014506	1,44	1	200 x 195 x 430	1,64	1200 x 800 x 2300	4	24 (+9)
F7 Optima	101451	3176241014513	1,55	1	200 x 195 x 520	1,82	1200 x 800 x 2230	4	24
F7 Optima DIY	101452	3176241014520	1,58	1	200 x 195 x 520	1,85	1200 x 800 x 2230	4	24
F12 Optima	101453	3176241014537	2,08	1	200 x 195 x 685	2,43	1200 x 800 x 2205	3	24



## ELYTE PRO



### The most advanced compression sprayers on the market

Although the latest consumer studies classed the ELYTE N°1 range well ahead of all its competitors, the range is being developed further to become by far the most advanced on the market.

It is being improved in all aspects: ease of use, comfort and usable capacity. It is still available in two formats (6 L and 8 L). Gardeners and DIY fans will be happy to know that it comes in three versions: 'Plant care', 'weeding' and 'DIY'.

Adjustable cone nozzle.

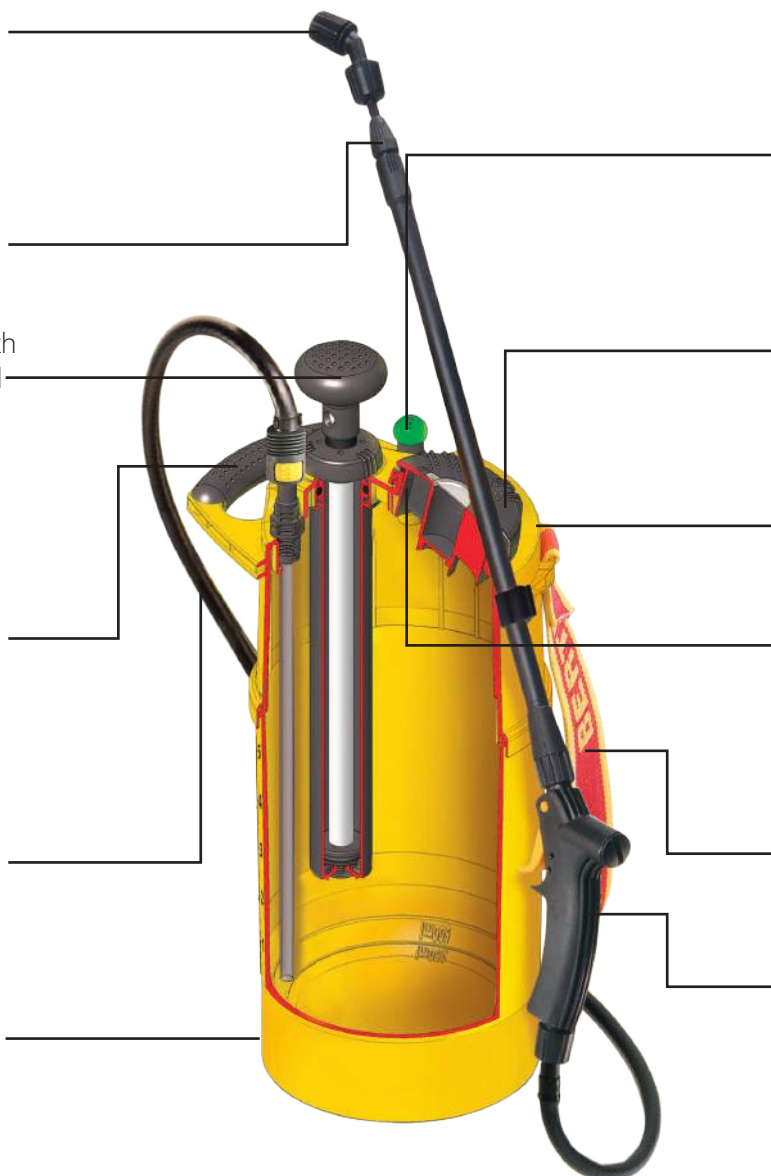
Composite telescopic lance (50/100cm) for best treatment with lance clip for easy storage.

Fixed pressure pump with aluminium rod, designed for unique effortless pumping comfort.

Large side handle makes it easy to grasp and carry.

Hose/lance unit is easy to handle and can be detached thanks to the high-resistance braided hose and a tubing outlet mounted on a quick swivel connector.

Graduated translucent tank with a useful capacity of 6L.



Safety valve with a 3 bar tare in order to prevent excess pressure in pumping and allowing for easy decompression of the sprayer.

Large filling orifice for easy filling and mixing.

Tank without retention area for each and complete emptying.

Cap with incorporated measurer (2, 3, 4, 5, 10, 20 and 40ml) for easy and precise metering and a practical storage trapdoor for the nozzles.

Wide and length-adjustable strap that is comfortable to carry.

Professional lance handle of the ergonomic PROFILE type with built-in filter that makes for very comfortable use.



## ELYTE PRO

Technical characteristics and advantages for the user

### FOR EASIER USE

	Characteristics	Advantages for the user
	Specific ELYTE pump	Unbeatable operational ease and comfort
	Wide opening separate from the pump	Easier filling, mixing and emptying
	Multi-purpose side handle	Very useful for each operational phase (pressurization, use, emptying rinsing/ cleaning, storage)
	Shape of head without retention zone on emptying	Easy, quick and complete emptying
	Measuring cap ( 7 dosage possibilities : 2, 3, 4, 5, 10, 20 and 40 ml)	Easy and precise dosage
	Cap with storage trap for nozzles	Nozzles always to hand. No more risk of losing them
	Slide rail for easy storage of the lance	Easy storage of the lance. Simplified storage
	New professional nozzle with integrated nut	Practical to use, easy to change
	Quick release hose connection	Easier transport and storage
	Translucent reservoir	Visible liquid level
	Composite telescopic lance	For treatment as near as possible to the target area

### FOR BETTER SAFETY

	Characteristics	Advantages for the user
	Fixed, off centre pump	User safety : no more need to take it off for filling and emptying
	Metal pump rod	Excellent perceived quality and robustness
	New valve with maximum pressure level indicator (< 3 bars) and sprayer decompression	No risk of excess pressure on pumping. Quick and easy decompression of the equipment.
	Large diameter cylindrical reservoir with graduated gauge	Higher effective usable capacity : 6 litres (instead of 5 litres). Excellent stability on the ground

### FOR INCREASED COMFORT

	Characteristics	Advantages for the user
	Pommel-type pump handle	Comfortable to pump and aesthetic
	Quick release connector	Easier to handle the hose/pump unit
	Wide adjustable shoulder trap	Comfortable to carry
	Professional, ergonomic, PROFILE-type lance handle and integrated filter	Ensures a natural wrist and hand position



## ELYTE 8 PRO

Plant Care

101001

**For average and large sized gardens: 200 to 1200 m<sup>2</sup>**

- Total reservoir capacity : 8.5 L, usable capacity : 6 L
- 3 bar safety value
- Fixed and off-centre manual pressure pump
- Aluminium pump rod
- Wide opening on reservoir separate from pump (diameter : 80 mm)
- Measuring cap (7 dosage possibilities) and storage trap for nozzles
- Quick release connector for the hose
- Adjustable carrying strap
- Braided hose 8 x 12 length 1.35 m
- Professional PROFILE-type lance handle
- 0.5 / 1m strong and chemically resistant composite telescopic lance
- Multi-purpose, adjustable nozzle holder with integrated swirl plate
- Delivered with professional swirl nozzle with conical jet

GARANTIE  
GUARANTEE  
**5 ANS**  
YEARS



## ELYTE 14 PRO

Plant care

101004

**For large gardens :  
> 500 m<sup>2</sup>**

- Total reservoir capacity : 13.75 L, usable capacity : 8 L
- 3 bar safety value
- Fixed and off-centre manual pressure pump
- Aluminium pump rod
- Wide opening on reservoir separate from pump (diameter : 80 mm)
- Measuring cap (7 dosage possibilities) and storage trap for nozzles
- Quick release connector for hose
- Adjustable carrying strap
- Braided hose 8 x 12 mm length 1.35 m
- Professional PROFILE-type lance handle
- 0.5 / 1m strong and chemically resistant
- Composite telescopic lance
- Multi-purpose, adjustable nozzle holder with integrated swirl plate
- Delivered with professional swirl nozzle with conical jet

GARANTIE  
GUARANTEE  
**5 ANS**  
YEARS



## ELYTE 8 PRO

DIY

101003

**For treatment of wood and framework, shutters, moss control of roofs and paths etc...**

- Total reservoir capacity : 8.5 L, usable capacity : 6 L
- 3 bar safety value
- Fixed, off-centre manual pressure pump with UHR (Ultra-High Resistance) seals
- Brass pump rod
- Wide opening on reservoir separate from pump (diameter : 80 mm)
- Measuring cap (7 dosage possibilities) and storage trap for nozzles
- Quick release connector for hose
- Adjustable carrying strap
- Braided hose 8 x 12 mm length 1.35 m
- Professional PROFILE-type lance handle
- 60 cm strong and chemically resistant composite lance with flexible tip
- Multi-purpose, adjustable nozzle holder with integrated brush-type swirl plate
- Delivered with professional flat fan nozzle

GARANTIE  
GUARANTEE  
**5 ANS**  
YEARS



UTILISATION INTENSIVE  
HAUTE RESISTANCE  
INTENSIVE USE  
HIGH RESISTANCE

## ELYTE 14 PRO EXPORT

101014



Brass lance



Fixed connection

Article Name	Reference	EAN code	Item weight (kg)	N° units	Box		Pallet		
					Dimensions W x D x H (mm)	weight (kg)	Dimensions W x D x H (mm)	N° layers	N° boxes / layer
Elyte 8 Pro	101001	3176241010010	1,81	1	250 x 195 x 520	2,09	1200 x 800 x 2230	4	19
Elyte 8 Pro DIY	101003	3176241010034	1,84	1	250 x 195 x 520	2,12	1200 x 800 x 2230	4	19
Elyte 14 Pro	101004	3176241010041	2,31	1	250 x 195 x 685	2,66	1200 x 800 x 2205	3	19
Elyte 14 Pro Export	101014	3176241010140	2,26	1	245 x 195 x 750	2,68	1200 x 800 x 2520	3	19



## COSMOS 18 PRO



### Comfort and performance

A popular product for professional sprayers, the BERTHOUD brand has launched the new generation of COSMOS 18.

As the old COSMOS 18 PRO is already very reliable only the comfort angle has been redesigned to improve user working conditions.

### PERFORMANCE

- High performance pump up to 6 bars pressure
- Product mixer integrated into the pump to better blend the mixture

### EASE OF USE

- Large diameter filler opening
- Sloping tank base prevents residual liquid at the end of the treatment
- Translucent graduated tank
- Easy to assemble and maintain
- Large volume anti-splash filter for quick filling

### COMFORT



- Carrying handle for easy transport
- Lance holder for easy storage
- Equipment well adjusted for the back
- Reversible left/right pump lever
- Pump with less effort
- Natural position of the wrist and hand using the Profile handle



### TIP N°3

“Adjust the dose according to the severity of the disease. Take preventive action but keep an eye on the disease and how it spreads. You have to know when to leave it alone and when to act.”



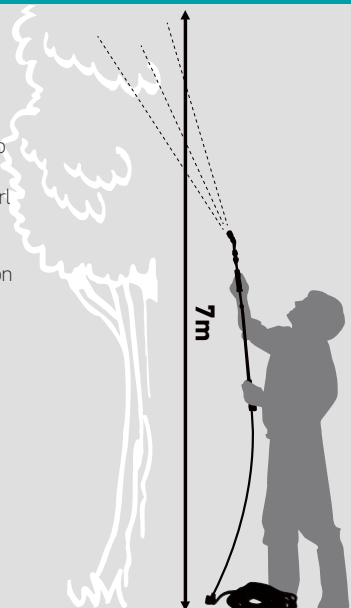



## SERINGA

101025

**For working at heights until 7m**


- Double action\* syringe sprayer operating in two directions
- 2 multi-purpose multi-directional nozzles (swirl and flat fan)
- 10 m hose
- High operating pressure (4-5 bars depending on the pumping rate)
- Can be connected to a sprayer hose to use the tank as a reservoir
- 60 cm lance extension to treat areas that are difficult to reach
- Viton® seal to withstand hydrocarbons and solvents
- Clip to prevent the hose coming out of the container
- Strainer to filter liquids to avoid clogging the nozzle



**GARANTIE**  
GUARANTEE  
**5 ANS**  
YEARS

**JOINTS**  
**VITON**  
**SEALS**

UTILISATION INTENSIVE  
HAUTE RESISTANCE  
INTENSIVE USE  
HIGH RESISTANCE







## COSMOS 18 PRO

102215

**Ideal for larger gardens, orchards, vineyards etc**

- 125 mm diameter filler opening
- Sloping tank base
- Carry handle
- Lance holder for easy storage
- More comfortable to use and the sprayer fits well on the back
- Translucent, graded 18 litre tank
- Manual pressure pump 6 bars
- Reversible left / right pump lever
- High performance hand pump with chemical resistant seals
- User friendly, heavy duty handle for precise spraying
- 60 cm aluminium lance
- Universal nozzle holder



**GARANTIE**  
GUARANTEE  
**5 ANS**  
YEARS



## COSMOS 18 PRO EXPORT

102216

**Composite lance + Repair kit**




**GARANTIE**  
GUARANTEE  
**5 ANS**  
YEARS

Article name	Reference	EAN code	Item weight (kg)	N° units	Box		Pallet		
					Dimensions W x D x H (mm)	Poids brut (kg)	Dimensions L x P x H (mm)	N° layers	Nb Boite / layer
Seringa	101025	3176241010256	0,95	1	165 x 60 x 610	1,23	1200 x 800 x 1950	9	16
Cosmos 18 Pro	102215	3176241022150	3,72	1	450 x 170 x 505	4,15	1200 x 800 x 2170	4	11
Cosmos 18 Pro Export	102216	3176241022167	3,70	1	400 x 170 x 505	4,13	1200 x 800 x 2170	4	14



## VERMOREL



### A unique concept

A renowned name amongst professionals thanks to 3 major assets

- Exceptional carrying comfort new **safety harness**
- **High performance** diaphragm and curvilinear piston pump
- **A level of features never seen** before (notably for the Vermorel 2000 Pro Comfort)

### PERFORMANCE

- Diaphragm pump for quick pressurization and low pumping frequency
- Viton seals for use with aggressive products
- Up to 5 bars pressure

### PRECISION

- Fine drops, adjustable nozzle holder
- Pressure regulator for treating at the right pressure (from 1 to 5 bars)
- 1m telescopic lance to treat closer to the target
- 3 nozzle kit to suit the treatment required

### EASY TO MAINTAIN

- Quick and easy to disassemble



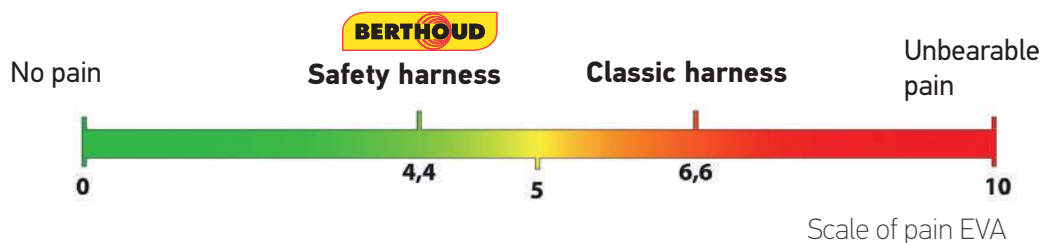
### TIP N°4

"Apply weed killer in autumn when the sap is returning to the roots. Treatment is more effective and you use less weed killer."

# NEW SAFETY HARNESS

ON THE VERMOREL 2000 MODELS

- 1 year of studies and tests to determine the impact of wearing the sprayer on the back, with the hospital center of Villefranche-sur-Saône (Rhône, France)
- Development of a new carrying system that protects the back, allowing a longer and improved working period.
- Reduce negative impacts on the spine and pelvis
- Significant reduction in arduousness caused by the sprayer



## Reinforced back support

- No direct contact with the tank for improved comfort



## Adjustable waist strap and reinforced back

- Sprayer weight distribution : 70% on the hips / 30% on the shoulders
- Ensures sprayer stability

## Adjustable straps with reinforced foam and tensioners

- Adjusts to the user's body shape
- Protects the user's shoulders



## Chest strap

- Sprayer weight distribution : 70% on the hips / 30% on the shoulders
- Ensures sprayer stability





## VERMOREL 1800

102084

### For large gardens, orchards, trees and shrubs etc...

- Reservoir: capacity : 16 L with visible liquid level
- Ergonomic back frame, which perfectly fits the shape of your back
- Adjustable double shoulder straps
- Reversible left/right pump lever with 2 positions : storage and in operation (inclined position)
- High-performance diaphragm pump with curved piston (ease of handling and low pumping rate)
- Professional 'PROFILE'-type lance handle (comfort and accuracy)
- 60 cm composite lance with high mechanical and chemical resistance
- Multi-purpose adjustable nozzle holder
- Delivered with swirl nozzle and 15/10 plate

GARANTIE  
GUARANTEE  
**5 ANS**  
YEARS



### TIP N°5

For optimum treatment :

- To avoid chemical waste do not overpray
- Target usage precisely
- Avoid hot weather



## VERMOREL 2000 PRO CONFORT

102022

**For large gardens, orchards, trees and shrubs etc...**

- Reservoir capacity : 16 L with visible liquid level
- Ergonomic back frame, which perfectly fits the shape of your back
- Reversible left/right pump lever, adjustable in all positions (for width and height – by notches of 10°)
- High-performance diaphragm pump with curved piston
- Pressure relief valve, adjustable from 0 to 5 bars
- Professional 'PROFILE'-type lance handle
- Composite telescopic lance, 60 cm / 100 cm, with high mechanical and chemical resistance
- Multi-purpose adjustable nozzle holder
- Delivered with the following equipment : 1 multipurpose, adjustable nozzle holder equipped with original swirl nozzle with 15/10 plate, a blue flat fan nozzle and a blue anvil nozzle



**TREATMENT AND WEED CONTROL EQUIPMENT**



Article Name	Reference	EAN code	Item weight (kg)	Box			Pallet		
				N° units	Dimensions W x D x H (mm)	weight (kg)	Dimensions W x D x H (mm)	N° layers	N° boxes /layer
Vermorel 1800	102084	3176241020842	5,10	1	390 x 285 x 615	5,67	1200 x 800 x 1995	3	8
Vermorel 2000 Pro Confort	102022	3176241020224	5,97	1	390 x 285 x 615	6,54	1200 x 800 x 1995	3	8



## VERMOREL 3000 ELECTRIC



**BERTHOUD's innovation : The new ELECTRIC VERMOREL 3000, the benchmark in the market for electric sprayers**



### CONFORT

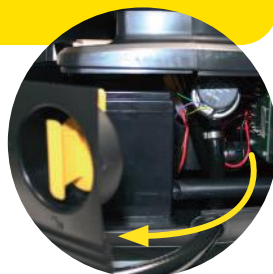
- Comfort harness for optimum comfort during prolonged use
- Optimised design for a lighter weight product with a reduction of more than 1.5 kg compared to ELECTRIC VERMOREL 2000 (ref 102042). 6.2kg with battery

### PERFORMANCES

- Lithium-ion battery for long lifespan
- 3 to 6 hours duration depending on the chosen pressure
- Twin diaphragm pump and Viton seals Max flow: 2.6L/min
- Compatible with the full range of Berthoud accessories (including spray bars)

### MAINTENANCE

- Easy access to battery / pump assembly



### PRECISION

- Choice of 3 pressure settings
- Electronic pressure control for precise and constant spray
- Battery charge level indicator
- Immediate stop/start spraying trigger control

Article name	Reference	EAN code	Item weight (kg)	Box			Pallet		
				N° units	Dimensions W x D x H (mm)	weight (kg)	Dimensions W x D x H (mm)	N° layers	N° boxes/layer
Vermorel 3000 Electric	102139	3176241021399	6,2	1	390 x 285 x 615	6,9	1200 x 800 x 1995	3	8
Vermorel 3000 Electric UK	102140	3176241021405	6,2	1	390 x 285 x 615	6,9	1200 x 800 x 1995	3	8
Vermorel 3000 Electric sur chariot	102141	3176241021412	9,3	1	390 x 285 x 615	10	1200 x 800 x 1995	3	8



# ELECTRIC SPRAYERS



Supplied with 3 nozzles (Cone 15/10°, fan-blue and mirror-brown)

Chemical resistant telescopic lance (60cm - 100cm)

Ergonomic back frame, which perfectly fits the shape of your back and is supplied with comfort harness for optimum comfort during prolonged use



High performance twin diaphragm electric pump. Viton seals for the application of aggressive chemicals

Professional ergonomic lance handle with built-in filter that makes for very comfortable use.

Translucent 18L tank with graduated gauge.

Tank with large filling orifice (125mm) and without retention area for fast filling and complete emptying.



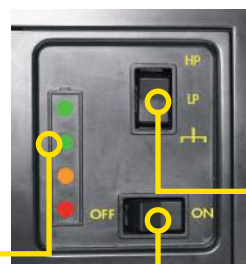
12V lithium-ion battery

Rapid battery charger with charge indicator (2.5 hours max)



Battery charge level indicator (4 LEDs)

- 75 to 100%
- 50 to 75%
- 25 to 50%
- 20 to 25%



3 Pressure selectors :

- High Pressure (3 bars)
- Low Pressure (1,5 bars)
- Rampe (1 bar, big flow)

Switch ON /OFF

Available with large wheeled cart for easy manoeuvrability and 5m hose



		Features			Battery life		
Type of spray	Nozzle	Pressure selector	Flow (L/min)	Pression (bar)	Litres	Nb of tankfuls per charge	Hours
	Cone 15/10°	HP	0,66	3	198	11	5
	Fan-blue	Spray-bar	0,69	1	250	14	6
		LP	0,83	1,5	207	11,5	5
	Mirror brown	Spray-bar	1,15	1	414	23	6
		LP	1,41	1,5	345	19	5






## Nozzle output table in litres/minute

NB: nozzle references are given in the spare parts catalogues



### ANVIL NOZZLES






Conical jets for applying insecticide or fungicide treatments

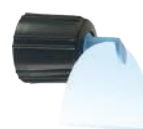
							
	282369	282370	282371	282372	282373	282374	282375
Pression	Ø 8/10e	Ø 10/10e	Ø 12/10e	Ø 15/10e	Ø 18/10e	Ø 20/10e	Ø 25/10e
1 bar	0,185	0,235	0,275	0,395	0,470	0,515	0,680
2 bars	0,250	0,300	0,385	0,535	0,660	0,720	0,980
3 bars	0,300	0,360	0,470	0,660	0,795	0,870	1,155



### FLAT FAN NOZZLES





Small width flat jets for localised weeding as well as specific treatments (wood treatment, roof moss control...)

					
	282488	282489	282461	282458	282462
Pression	ORANGE	VERT	JAUNE	BLEU	ROUGE
1 bar	0,250	0,360	0,560	0,840	1,120
2 bars	0,340	0,500	0,650	0,970	1,290
2,5 bars	0,380	0,560	0,720	1,080	1,440
3 bars	0,420	0,600	0,790	1,180	1,580
Angle	80°	80°	80°	80°	110°

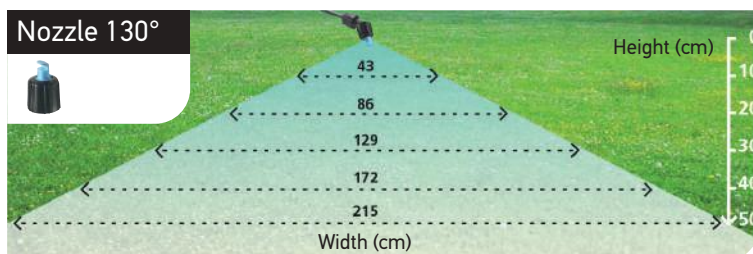
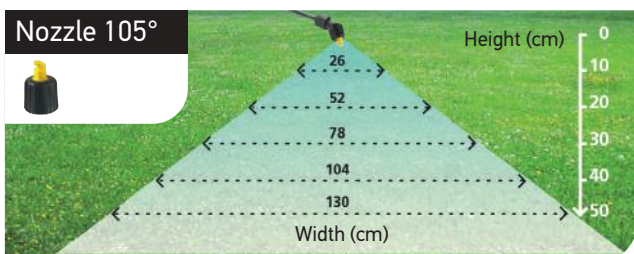
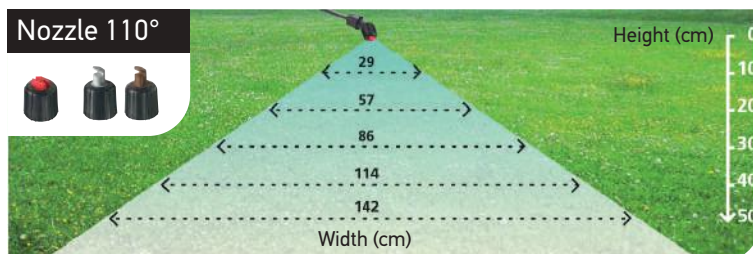
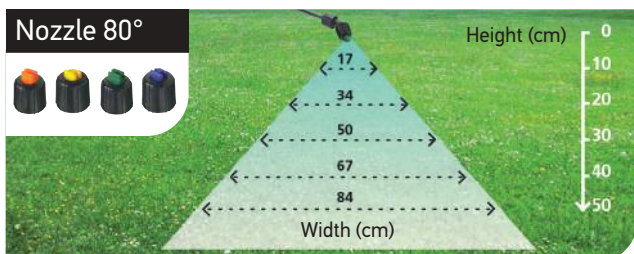


### HOLLOW CONE NOZZLES

Conical jets for applying insecticide or fungicide treatments




				
	282460	282457	282490	282491
Pression	JAUNE	MARRON	GRIS	BLEU
1 bar	0,460	1,150	1,390	2,310
1,5 bar	0,570	1,410	1,700	2,830
2 bars	0,650	1,630	1,960	3,270
2,5 bars	0,730	1,830	2,190	3,650
Angle	105°	110°	110°	135°

## Nozzle to target distance



## Calibration : formule

$$\frac{\text{Flow (L/min)} \times 10\,000}{\text{Swath (m)} \times \text{speed (m/min)}} = \text{Volume (L/ha)}$$

	Reference	Nozzle	Pressure (bar)	Swath (cm)	Flow L/min	Volume rate L/Ha
	282369	8/10°	2	20	0,245	204,17
	282370	10/10°	2	25	0,300	200,00
	282371	12/10°	2	35	0,385	183,33
	282372	15/10°	2	60	0,535	148,61
	282373	18/10°	2	80	0,660	137,50
	282374	20/10°	2	80	0,720	162,50
	282375	25/10°	2	80	0,980	204,17
	282488	80°	2	84	0,340	283,34
	282489	80°	2	84	0,500	99,21
	282461	80°	2	84	0,650	128,97
	282458	80°	2	84	0,970	192,46
	282462	110°	2	143	1,290	150,35
	282460	105°	2	130	0,650	73,08
	282457	110°	2	143	1,630	164,34
	282490	110°	2	143	1,700	198,14
	282491	130°	2	215	2,830	219,38

## Accessories : sprayer nozzles

### HOLLOW CONE NOZZLE KIT

200560

with 4 mist jets (10, 12, 15 and 18/10)



### HERBICIDE NOZZLE KIT

200601

with 3 flat fan and 2 anvil nozzles



### NOZZLE KIT FOR ALL TREATMENTS

211324

with 2 mist jet nozzles (8 and 15/10), 1 flat fan and 1 anvil nozzle





## BERTHOUD also has a complete range of accessories for better treatments, greater ease and safety

A range of accessories that meets the needs for versatility of professional consumers. The new packaging makes it possible to make your choice very clearly.

### TELESCOPIC LANCES GIANT COMPOSITE

Version 2,40m : **280326**

Version 3,60m : **282447**



All park and garden owners know that trees need to be treated at least twice a year (sometimes 3 times in the case of fruit trees): once in winter (winter treatment) then in the spring after flowering ("fruit worm").

Most mature trees are over 4/5 m high and standard spraying equipment is not adequate for treatment above that height.

Giant telescopic lances made of BERTHOUD composite materials can be extended to 2.4 m or 3.6m.

They are the perfect tools for these jobs. They are light, rigid and strong. They are also highly chemical resistant and mechanically tough. They can also be used for treating rooves (moss control), a requirement for all house

owners. **Send with hose, quick connect and PROFILE handle, 2.40 or 3.60 m long**



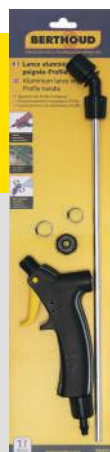
### PROFILE GRIP MULTIPURPOSE COMPOSITE SPRAYER LANCE

**280327**



### PROFILE GRIP UNIVERSAL SPRAYER LANCE

**280324**



### STOPREX GRIP UNIVERSAL SPRAYER LANCE

**211665**



## PROFILE HANDLE

280310

**Ergonomique** : angle poignée/ lance assurant une position naturelle du poignet

**Fiable** : système de fermeture par pointeau perpendiculaire au flux du liquide

**Maintenance facilitée** : démontage du ressort, des joints et pointeau par simple dévissage

**Compatible** : avec les lances filetage stoprex y compris les lances télescopiques composite "géantes" de 2,40 m et 3,60 m

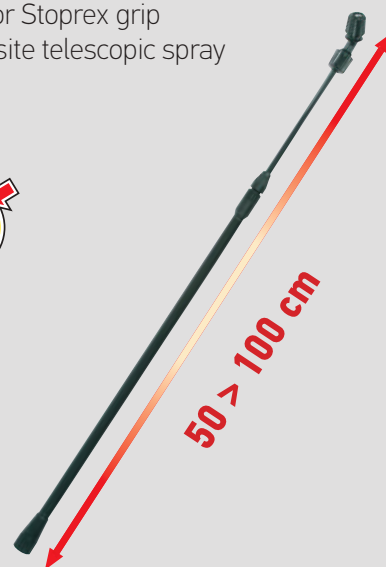
**Possibilité de monter des accessoires** : manomètre, régulateur de pression



## TELESCOPIC SPRAY LANCES

280362

Profile or Stoprex grip  
Composite telescopic spray lance



## STOPREX HANDLE

212370

Hand-operated for all  
sprayers  
Allows continuous spraying



## 60 CM LANCE EXTENSIONS

280363

280364

Profile or fuso grip-compatible 60  
cm composite lance extension

**Ref. 280363**



Profile or fuso grip-compatible 60 cm  
aluminium lance extension

**Ref. 280364**



## TIP N°6

" For insecticides and fungicides, vaporize in very fine droplets. When using contact products, also treat the backs of leaves and the stalks and branches.

For winter treatment, apply the product until it runs off and soaks into the bark, where parasites hibernate."

	SPRAY LANCE GRIP		LANCE TUBES	LANCE EXTENSIONS	
REFERENCES	PROFILE	STOPREX	280362	280363	280364
PROFILE	-	-	✓	✓	✓
STOPREX	-	-	✓	-	-
280362	✓	✓	-	✓	✓
280363	✓	-	✓	✓	-
280364	✓	-	✓	✓	-

✓ compatible

- not compatible

## NO-DRIP 1 BAR PRESSURE REGULATOR

283983

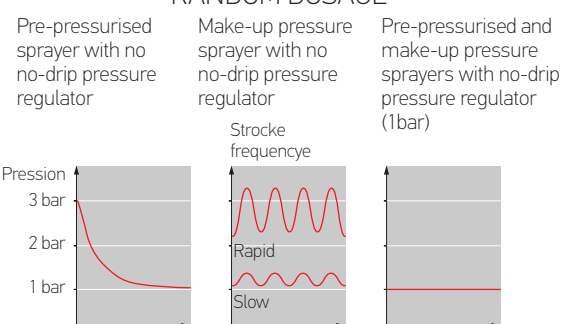


**Pressure regulators help you protect the environment (and save you money)**

- Our pressure regulators:
- Ensure you always have the right pressure of 1 bar at the nozzle tip
- Can save up to 50% on chemicals
- Ensure dosage stability
- Protect the environment by preventing overspraying
- Used with pre-pressurised sprayers, will extend acreage covered
- Used with pressure sprayers, will reduce the number of pump strokes required
- Can be used with all commercially available professional nozzle tips
- Integrated anti-drip system



### WORKING PRESSURE FLUCTUATIONS CAUSE RANDOM DOSAGE



## BOOMS

Booms convert a single-nozzle spray lance into a multi-nozzle lance to treat a large surface in one go.

**2 sprays** : sprays two rows in a single run

**3 sprays** : wide-boom herbicide treatment

**4 sprays** : very wide boom herbicide spraying



SPRAY BOOMS WITH  
2 SWIVELMOUNTED  
HERBICIDE NOZZLES

**Ref. 220516**



3-NOZZLE  
HERBICIDE BOOM

**Réf. 255044**



4-NOZZLE  
HERBICIDE BOOM

**Réf. 215071**

## HERBICIDE SPRAY SHIELD

455004

Large-model spray shield for safe, effective spot application of herbicides  
To be used with the flat fan nozzle



### TIP N°7

“For spot weed killing, use a shield and do not spray when it is windy.

This prevents splashing and stops the weed killer drifting onto other plants.”



## FLEXIBLE EXTENSION TUBE

211507

For reaching places that are difficult to access  
Ideal for applications such as DIY and gardening



## TIP N°8

“Never pour left-over treatment products down the public drains.

Unused chemicals must be sent to a specialist collection centre.

Tank dregs and rinsing water should be spread on a gravel driveway or directly on the soil.”

## SILICONE GREASE SYRINGUE

219374

At least once or twice a year, or more if the sprayer is used intensively, it is necessary to grease all the seals (10g)



## TIP N°9

“For optimum treatment, keep to the recommended dose and treat local areas. Applying excess product does not improve performance in any way.

The doses stated on the packaging have been tested for effectiveness and for minimum danger to the environment.”

## SPARE ACCESSORIES

### PUMP SEALS

282872

F5, F7 ET F12  
FLORALY OPTIMA  
DIY



### REPLACEMENT PARTS

218343

COSMOS  
ALL VERSIONS



### PUMP SEALS

219803

ELYTE  
ALL VERSIONS



### REPLACEMENT PARTS

212310

VERMOREL MANUEL  
ALL VERSIONS



# SMALL-SCALE CLEANING AND DISINFECTION

## A complete range of sprayers for 'Hygiene, Livestock and Dairy Farming'

With around 100,000 dairy cattle farmers, 15,000 pig farmers, other farmers of rabbits, goats and horses, France is said to be the "world's biggest farm". The need to vaccinate and treat the animals, together with the cleaning and disinfection requirements for the farm buildings constitute a huge potential market. For this reason, BERTHOUD has developed a specific range of sprayers that are perfectly adapted to these requirements.



### MAM'SPRAY TRIGGER

101048

#### Teat hygiene

- 'XL' type sprayer head in polypropylene
- 'Hand' trigger
- Polycarbonate nozzle for spraying upwards (60° angle)
- Translucent injected polypropylene cylindrical reservoir and fully-opening top
- Total capacity: 500 ml



### ELYTE 8 STAINLESS STEEL LANCE

102106

#### Application of chlorinated disinfectants (bleach, certain acids)

- Translucent yellow injected polypropylene reservoir with graduated gauge, effective capacity: 5 L
- Stainless steel pump rod and valve with EPDM seals
- Flexible reinforced hose
- Professional PROFILE lance handle with EPDM seals and stainless steel needle valve
- Stainless steel lance tube, length 60 cm
- Stainless steel nozzle with adjustable jet
- Equipped with a hollow cone nozzle and a blue flat fan nozzle



UTILISATION PRODUITS  
CHLORES, ALCALINS  
USE ALKALINE,  
CHLORINATED PRODUCTS



Carrying and holding handle



Fixed and off-centre pressurizing pump. Stainless steel rod



Large upper hole for easy filling and emptying

Article name	Reference	EAN code	Item dimensions W x D x H (mm)	Box dimensions W x D x H (mm)	Quantity	Item weight (kg)
Gachette Mam'Spray	101048	3414431010489	120 x 120 x 220	597 x 395 x 280	16	0,152
ELYTE 8 Lance inox HYGIENE	102106	3176241021061	230 x 177 x 650	249 x 199 x 690	1	2,170



**C5 / 1L**

101104

## Vaccination, insecticide treatment for livestock and dairy farms and grain silos

- "Low volume" application technique
- Constant and homogenous atomization
- Electric sprayer head
- Powered by 5 x 1.5 V R 20 type batteries
- Rotation speed of disc off-load : 6,000 rpm
- Autonomy : around 8 hours
- High-density polyethylene reservoir 1L
- Knapsack 5L reservoir resistant to chemical products (UV absorber)
- Different outputs possible due to interchangeable nozzles
- Large diameter fling hole with filter
- Sealed screw cap with air valve
- Accessories supplied: 4 nozzles and 1 graduated dosage cup

















Model	Cup	Réservoir 5L	Nozles		
			Green	Red	Black
Ref 101104 C5 1L + reservoir 5L		X	X	X	X

Characteristics		C5			
Number of batteries 5		batteries 1,5 volt			
Autonomy		around 8 hours			
Reservoir capacity		1 litre			
Nozzles		Output/hectare at a speed of 3.6 km/h for a width of		Output ml/min	Droplet sizes (µm)
Coulours	Reference	0,80 m (minimum)	4,80 m (maximum)		
Red	300233	20,8L/Ha	3,4L/Ha	100	115
Green	300234	31,2L/Ha	5,2L/Ha	150	130
Black	300235	41,6 L/Ha	6,9 L/Ha	200	145













Article name	Reference	EAN code	Item dimensions W x D x H (mm)	Box dimensions W x D x H (mm)	Quantity	Item weight (kg)
C5/1L + reservoir 5L	101104	3176241011048	-	1125 x 300 x 360	6	1,90


















# PRODUCT INFORMATION

	PRODUCT FAMILY	ARTICLE NAME	CODE	EAN CODE	BARCODE	PCB
SPRAYERS						
	HANDHELD SPRAYERS	F1 GARDENING DIY	101135	3176241011352		28
		F1 PLUS	101210	3176241012106		12
		SPIROVIT	101088	3176241010881		4
	PRESSURE SPRAYERS	ELYTE 2	101750	3176241017507		6
		ELYTE 2 DIY	101751	3176241017514		6
		FLORALY 5	101450	3176241014506		4
		FLORALY 7	101451	3176241014513		4

# PRODUCT INFORMATION



















	PRODUCT FAMILY	ARTICLE NAME	CODE	EAN CODE	BARCODE	PCB
	PRESSURE SPRAYERS	FLORALY 7 DIY	101452	3176241014520		4
		FLORALY 12	101453	3176241014537		4
		ELYTE 8 PRO	101001	3176241010010		4
		ELYTE 8 PRO DIY	101003	3176241010034		2
		ELYTE 14 PRO	101004	3176241010041		2
	TROMBONE SPRAYERS	SERINGA	101025	3176241010256		4
	KNAPSACK SPRAYERS	COSMOS 18 PRO	102215	3176241022150		2
		COSMOS 18 PRO EXPORT	102216	3176241022167		1
		VERMOREL 1800	102084	3176241020842		1
		VERMOREL 2000 PRO CONFORT	102022	3176241020224		1
	ELECTRIC SPRAYERS	VERMOREL 3000 ELECTRIC	102139	3176241021399		1
		VERMOREL 3000 ELECTRIC ON CART	102141	3176241021412		1

# INFORMATIONS PRODUITS

	PRODUCT FAMILY	ARTICLE NAME	CODE	EAN CODE	BARCODE	PCB
ACCESSORIES						
	NOZZLES	HOLLOW CONE NOZZLES KIT	200560	3176242005602		5
		HERBICIDE NOZZLE KIT	200601	3176242006012		5
		"REX VARIABLE" NOZZLE	210627	3176242106279		5
		NOZZLE KIT FOR ALLTREATMENTS	211324	3176242113246		5
	LANCES	PROFILE GRIP MULTIPURPOSE COMPOSITE SPRAYER LANCE	280327	3176242803277		5
		PROFILE GRIP UNIVERSAL SPRAYER LANCE	280324	3176242803246		5
		STOPREX GRIP UNIVERSAL SPRAYER LANCE	211665	3176242116650		5
	GRIPS	PROFILE SPRAY LANCE GRIP	280310	3176242803109		5
		STOPREX SPRAY LANCEGRIP	212370	3176242123702		5
	EXTENSIONS	60 CM ALUMINIUM LANCE EXTENSIONS	280364	3176242803642		5
		60 CM COMPOSITE LANCE EXTENSIONS	280363	3176242803635		5



# PRODUCT INFORMATION

	TELESCOPIC SPRAYLANCES	TELESCOPIC SPRAY LANCES 0,5-1M	280362	3176242803628		5
		TELESCOPIC LANCES 2,40M	280326	3176242803260		5
		TELESCOPIC LANCES 3,60M	282447	3176242824470		5
	BOOMS	SPRAY BOOM WITH 2 SWIVELMOUNTED NOZZLES	220516	3176242205163		5
		3-NOZZLE HERBICIDE BOOM	255044	3176242550447		5
		4-NOZZLE HERBICIDE BOOM	215071	3176242150715		5
	EQUIPMENT	PRESSURE REGULATOR 1 BAR	283983	3176242839832		5
		HERBICIDE SPRAY SHI	455004	3176244550049		5
		FLEXIBLE EXTENSION TUBE	211507	3176242115073		5
	MAINTENANCE	SILICONE GREASE SYRINGUE	219374	3176242193743		5
		PUMP SEALS FLORALY OPTIMA BRICOLAGE	282872	3176242828720		5
		PUMP SEALS ELYTE	219803	3176242198038		5
		PUMP SEALS COSMOS	218343	3176242183430		5
		PUMP SEALS VERMOREL	212310	3176242123108		5

## NOTES

[illegible]

## NOTES

This image shows a full page of white paper with horizontal dotted lines. The lines are evenly spaced and run across the width of the page, providing a guide for handwriting or typing. There are no margins, text, or other markings on the page.





SPRAYING SPECIALISTS SINCE 1895



#### Export Department

Tel. +33 (0)4 74 62 48 23



HOZELOCK-EXEL - 891 route des Frênes - ZI Nord Arnas - BP 30424 - 69653 Villefranche Cedex  
Corporation with capital of 2 600 0000 euros - SIRET 77965877200024 - APE 2830 Z - RC Villefranche B - Intra-Community VAT number : FR 02 779 658 772

Tel. Switchboard +33 (0)4 74 62 48 48 | Fax. +33 (0)4 74 62 37 51 | Email : [hozelock-exel@hozelock-exel.com](mailto:hozelock-exel@hozelock-exel.com)

[www.berthoud.fr/en/](http://www.berthoud.fr/en/)